

APPENDIX 1 TO ANNEX H

RESOURCE DEFINITIONS – 120 RESOURCES

The following documents are provided by the US Department of Homeland Security as guidance for classifying and defining resources. The pages are from the *FEMA National Mutual Aid and Resource Management Initiative*. *NOTE: Due to space concerns, they are only included on the electronic copy of the plan.

Typed Resource Definitions

Animal Health Resources



FEMA 508-1

May 2005



Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces the Animal health resource definition section in <i>Resource Definitions</i> , dated September 2004
Changes	Document is reformatted. Content is unchanged.

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RESOURCE: Animal Protection: Large Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	6 member team consisting of: 1 team leader 5 team members				
Personnel	Team Deployment Duration	7 days on rotation. Minimum of three teams should be deployed for 24-hour rescue, one team per 8-hour shift				
Vehicle	Occupants	3 vehicles: 2 persons per vehicle				
Equipment	Each vehicle should be equipped with, but not limited to, basic animal capture equipment	Small and large live traps (1 each) 2 catch poles Leashes (slip leads and clip) Stretcher ID bands Collars and ID tags Cages, carriers, and cardboard cat transports (at least 1 per animal) Appropriately graded NFPA or Cordage Institute Ropes Industrial Lighting Systems and Batteries: (Flashlights to Floodlighting) Barricade tape Maps of areas to be serviced Team communication device (for each team vehicle) (two-				

RESOURCE: Animal Protection: Large Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		way handheld radios with 3-mile transmitting radius) Home base communication device (for each vehicle) (two-way radios capable of transmitting the required distance) Cell phone with extra batteries/remote chargers Human First Aid kit Emergency Euthanasia Options (Gunshot/Chemical/Physical) Animal Rescue Request forms Animal Impoundment forms Radio/Activities Log form Pens, pencils, permanent markers, paper Clipboards Plastic garbage bags (for bodies)				
Equipment	Personal Protection	Appropriate Nomex and wildfire survival gear (must be NFPA approved) High-visibility vest Gloves (bite/welding gloves and work gloves) Properly fitted boots (applicable to situation) Properly fitted PFD with rescue hookup Properly fitted helmet				



RESOURCE: Animal Protection: Large Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		(climbing and/or hard hat) Properly fitted goggles Wetsuit or Drysuit Appropriately graded NFPA or Cordage Institute ropes Flashlight with extra batteries Dust mask/respirator Rain gear Hat for sun protection Water/snacks Good Protective Gloves (appropriate types for water and heavy debris) Good Protective Boots (fire response requires all leather) Quiet clothing materials and attachments: Avoid Velcro Personal Basic Livestock Kit, including halter, lead shank, 20-foot rescue rope Appropriate Nomex protective gear and shelters Materials for head covers, pressure mats/cushions, ear plugs Emergency Euthanasia Option (gunshot/chemical) Other items from the HSUS's equipment list that may be applicable to the situation at hand				



RESOURCE: Animal Protection: Large Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team member training requirements	Swift Water Rescue Basic Course HSUS/ARC Animal First Aid Course Certified Knot and Mechanical Advantage Training Wildland Fire Training S130 and S190 Emergency Euthanasia Training/Certification FEMA/EMI Independent Study Course: IS-195 Basic Incident Command FEMA/EMI Independent Study Course: IS-10 Animals in Disaster – Module A, Awareness and Preparedness FEMA/EMI Independent Study Course: IS-11 Animals in Disaster – Module B, Community Planning Technical Animal Rescue Training (Code 3 Associates or other approved training source) 5 years of professional animal care/control/capture experience FEMA Livestock in Disasters Correspondence CODE III Big Useful Livestock Lessons (BULL)				

RESOURCE: Animal Protection: Large Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		Equine Cruelty or Rescue Short Course Proper Tailoring and Trailer Extraction Training				
Personnel	Team leader Training	Should have additional training and/or experience in supervision/management level animal care/control/capture				
Equipment	Personal Maintenance Equipment	Personal Toiletries Seasonal Clothing Rx medications Sunscreen Other items from the HSUS's suggested list				
COMMENTS:	This six-member team should be capable of completing an average of one rescue every 30 minutes in a suburban setting and one rescue every hour in rural settings. These times would be semi-dependent on uncontrollable factors such as terrain, weather, road conditions, and distance between rescue sites. Number of teams ordered will be based on number of rescues anticipated. Team members should not show up for a disaster wearing camouflage gear. Camouflage gear not only complicates matters if the person needs to be found, but blends in with other response personnel, such as the National Guard. Suggested clothing: Carhart bib overalls. They are indestructible and will protect from bites, scratches, scrapes, and abrasions.					

RESOURCE: Animal Protection: Large Animal Sheltering Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	22-person response team to set up and run a small animal shelter, consisting of: 1 supervisor 3 team leaders 18 members for 3 shifts 1 veterinarian/veterinarian technician	5-person response team to advise and support local efforts to set up a small animal shelter with the goal for the locals to operate the shelter consisting of: 1 supervisor: organize and plan 1 shelter manager: oversee shelter set up 3 team members 1 admin/finance team member, tracking animals coming in and logging out 1 shelter operations member reporting to shelter manager 1 logistics team: get equipment and supplies for shelter member All team members work with and train local resources Shelter manager will assign tasks to local shelter workers	2-person advisory team to support local efforts to set up a small animal shelter		
Personnel	Minimum deployment	7 days	5 days	5 days		
Equipment		Same as Type II plus: Equine and livestock handling equipment (ropes, halters, leads) Basic veterinary and medical supply kit, refer to American Red Cross/HSUS list	Radio/walkie-talkie system; Cell phones; Pagers; Laptops; Base station; Fresh batteries; Administration/management kit with forms; Documents; Plans; SOPs; Manuals; Office supplies Basic large animal handling	Basic communication (cell phones) equipment; Laptop; Forms; SOPs		

RESOURCE: Animal Protection: Large Animal Sheltering Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		Portable pens and corrals for livestock	equipment and supplies (ropes, halters, leads)			
Vehicle		1 1-ton, 4x4 pickup with goose neck and other hitches 1 box trailer (10,000 lbs GVW) 1 SUV for personnel Plus other four-wheel-drive vehicles	2 large vehicles with four-wheel-drive for supplies	1 vehicle for transport		
Personnel	Training and Experience	FEMA EMI/IS classes in Emergency Preparedness; Basic ICS; Animals in Disaster; Module A & B; Livestock in Disasters First Aid/CPR course for large animals (taught by veterinarians, equestrian centers, American Red Cross, HSUS) Full-day emergency animal shelter course Minimum of 2 years of large animal handling and operations experience Crisis animal behavior training as a separate course or as a part of other training course	Same as Type I	Same as Type II		
Personnel	Lead Time to Deploy	Minimum 72 hours	Minimum 24 hours	Maximum 24 hours		
COMMENTS:		"Large animal" refers to horses and livestock. Local volunteers can support all types for shelter teams. No sheltering for exotic animals.				

RESOURCE: Animal Protection: Large Animal Transport Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	5-person, consisting of: 1 team leader 4 members 1 veterinarian on call				
Personnel	Deployment	Can be deployed for a minimum of 5 days				
Equipment		Radio/walkie-talkie system cell phones; Pagers; Laptops; Base station; Fresh batteries; Administration/management kit with forms; Documents; Plans; SOPs; Manuals; Office supplies				
Vehicle		2 1-ton 4x4 pickups with 10,000 lbs GVW towing capacity 1 SUV 2 livestock trailers				
Personnel	Training	FEMA EMI/IS classes in Emergency Preparedness; Basic ICS; Animals in Disaster; Module A & B; Livestock in Disasters				
COMMENTS:						

RESOURCE: Animal Protection: Small Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	6-member team consisting of: 1 team leader 5 team members				
Personnel	Deployment Duration	7 days on rotation; A minimum of 3 teams should be deployed for 24-hour rescue, 1 team per 8-hour shift				
Vehicle		3 vehicles – 2 persons per vehicle				
Equipment	Each vehicle should be equipped with basic animal capture equipment, including, but not limited to:	Small and large live traps (1 each) 2 catch poles Leashes (slip leads and clip) Stretcher ID bands Collars and ID tags Cages, carriers, and cardboard cat transports (at least 1 per animal) Appropriately graded NFPA or Cordage Institute ropes Industrial Lighting Systems and Batteries: (Flashlights to Floodlighting) Barricade tape Maps of areas to be serviced Team communication device (for each team vehicle) (two-way handheld radios with 3-mile transmitting radius) Home base communication				



RESOURCE: Animal Protection: Small Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		device (for each vehicle) (two-way radios capable of transmitting the required distance) Cell phone with extra batteries/remote chargers Human First Aid kit Emergency Euthanasia Options (gunshot/chemical/ physical) Animal Rescue Request forms Animal Impoundment forms Radio/Activities Log form Pens, pencils, permanent markers, paper Clipboards Plastic garbage bags (for bodies)				
Personnel	Personal Protection	Appropriate Nomex and wildfire survival gear (must be NFPA approved) High-visibility vest Gloves (bite/welding gloves and work gloves) Properly fitted boots (applicable to situation) Properly fitted PFD with rescue hookup Properly fitted helmet (climbing and/or hard hat) Properly fitted goggles				



RESOURCE: Animal Protection: Small Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		Wetsuit or drysuit Appropriately graded NFPA or Cordage Institute ropes Flashlight with extra batteries Dust mask/respirator Rain gear Hat for sun protection Water/snacks Other items from the HSUS's equipment list that may be applicable to the situation at hand				
Personnel	Team member training requirements:	Swift Water Rescue Basic Course HSUS/ARC Animal First Aid Course Certified Knot and Mechanical Advantage Training Wildland Fire Training S130 and S190 Emergency Euthanasia Training /Certification FEMA/EMI Independent Study Course: IS-195 Basic Incident Command FEMA/EMI Independent Study Course: IS-10 Animals in Disaster – Module A, Awareness and Preparedness FEMA/EMI Independent Study Course: IS-11 Animals				

RESOURCE: Animal Protection: Small Animal Rescue Strike Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		in Disaster – Module B, Community Planning Technical Animal Rescue Training (Code 3 Associates or other approved training source) 5 years of professional animal care/control/capture experience				
Personnel	Team leader additional training and/or experience:	Supervision/ management level animal care/ control/ capture				
Personnel	Personal Maintenance Equipment	Personal Toiletries Seasonal Clothing Rx medications Sunscreen Other items from the HSUS's suggested list				
COMMENTS:		This six-member team should be capable of completing an average of one rescue every 30 minutes in a suburban setting and one rescue every hour in rural settings. These times would be semi-dependent on uncontrollable factors such as terrain, weather, road conditions, and distance between rescue sites. Number of teams ordered will be based on number of rescues anticipated. Team members should not show up for a disaster wearing camouflage gear. Camouflage gear not only complicates matters if the person needs to be found, but blends in with other response personnel, such as the National Guard. Suggested clothing: Carhart bib overalls. They are indestructible and will protect from bites, scratches, scrapes, and abrasions.				

RESOURCE: Animal Protection: Small Animal Sheltering Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	22-person response team to set up and run a small animal shelter, consisting of: 1 supervisor 3 team leaders 18 members for 3 shifts 1 veterinarian/veterinarian technician	5-person response team to advise and support local efforts to set up a small animal shelter with the goal for the locals to operate the shelter, consisting of: 1 supervisor: organize and plan 1 shelter manager: oversee shelter set up 3 team members 1 admin/finance team member, tracking animals coming in and logging out 1 shelter operations member reporting to shelter manager 1 logistics team, get equipment and supplies for shelter member All team members work with and train local resources Shelter manager will assign tasks to local shelter workers	2-person advisory team to support local efforts to set up a small animal shelter		
Personnel	Minimum deployment	7 days	5 days	5 days		
Personnel	Lead Time to Deploy	Minimum 48 hours	Minimum 24 hours	Maximum 24 hours		

RESOURCE: Animal Protection: Small Animal Sheltering Team						
CATEGORY: Animals and Agriculture Issues				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment		Same as Type II plus: Basic veterinary and medical supply kit, refer to American Red Cross/HSUS list (Crates and food will need to be supplied through local area procurement)	Radio/walkie-talkie system; Cell phones; Pagers; Laptops; Base station; Fresh batteries; Administration/management kit with forms; Documents; Plans; SOPs; Manuals; Office supplies Basic handling equipment and supplies (gloves, control poles)	Basic communication (cell phones) equipment; Laptop; Forms; SOPs		
Vehicle		1 four-wheel-drive pickup truck for supplies Plus other four-wheel-drive vehicles	2 large vehicles with four-wheel-drive for supplies	1 vehicle for transport		
Personnel	Training and Experience	FEMA EMI/IS classes in Emergency Preparedness; Basic ICS; Animals in Disaster; Module A & B Pet First Aid/CPR course (American Red Cross/HSUS) Full-day emergency animal shelter course Minimum of 2 years of animal handling or sheltering experience Crisis animal behavior training as a separate course or as a part of other training course	Same as Type I	Same as Type II		
COMMENTS:		"Small animal" refers to dogs, cats, rabbits, hamsters, gerbils, guinea pigs, birds, fish, and reptiles. Local volunteers can support all three types for shelter teams (non-animal handling tasks, cleaning, and food prep). No sheltering for exotic animals.				

RESOURCE: Animal Protection: Small Animal Transport Team						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	5-person response team consisting of: 1 team leader 4 members				
Personnel	Minimum deployment	5 days				
Equipment		Radio/walkie-talkie system; Cell phones; Pagers; Laptops; Base station; Fresh batteries; Administration/management kit with forms; Documents; Plans; SOPs; Manuals; Office supplies				
Vehicle		1 4x4 pickup 1 SUV				
Personnel	Training	FEMA EMI/IS classes in Emergency Preparedness; Basic ICS; Animals in Disaster; Module A & B; Livestock in Disasters				
COMMENTS:						

RESOURCE: Incident Management Team Animal Protection						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People Per Response	Federal deployment of 20-50 persons (see Veterinary Medical Assistance Team under Health and Medical Resources discipline) 1 Incident Commander, 1 Liaison to Unified Command, 1 PIO, 1 Safety Officer, 1 Veterinarian (deployed or on call); Operations Section (includes large and small animal rescue, transportation, shelter, and veterinary teams); Planning Section (includes resources, situation, check-in, and check out); Logistics Section (includes facilities, ground support, equipment, communications, and personnel); Finance/Admin Section (includes procurement and timekeeping)	State deployment of 10-100 persons for assessment and surveillance	Local deployment of 10-30 persons for assessment, surveillance, action within 2 to 4 hours		
Personnel	Lead Time to Deploy	Deploy within 12 to 24 hours	Up to 100 persons deploy within 4 to 12 hours	10-200 persons for disaster response within 24 hours		
Personnel	Sustained Operations	Self-sufficient for up to 3 days and can be deployed for up to 14 days or more.	Deployed for up to 7 days	Deployed for up to 5 days		
Personnel	Incident Commander Training	Should complete ICS 100-, 200-, and 300-level course work.				



RESOURCE: Incident Management Team Animal Protection						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Volunteers Training	FEMA EMI/IS classes in Emergency Preparedness; Basic ICS; Animals in Disaster; Module A & B; Livestock in Disasters				
Equipment		Radio/walkie-talkie system; Cell phones; Pagers; Laptops; Base station; Fresh batteries; Admin/management kit with forms; Documents; Plans; SOPs; Manuals; Office supplies				
Vehicle		Four-wheel-drive vehicle (SUV)				
COMMENTS:		When deployed, an Animal Protection Incident Management Team will assess the emergency situation and determine the number of operational strike teams that will be required for rescuing, transporting, and sheltering of animals. Type I Incident Management Team would be activated in a federally declared disaster and/or for incidents of national significance.				



FEMA

U.S. Department of Homeland Security
Federal Emergency Management Agency

Typed Resource Definitions

Emergency Medical Services Resources



FEMA 508-3

May 2005



Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces the Emergency Medical Services resource definition section in <i>Resource Definitions</i> , dated September 2004
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RESOURCE: Air Ambulance (Fixed-Wing)						
CATEGORY: Health & Medical (ESF #8)			KIND:	Aircraft		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Care provided	Critical Care and Advanced Life Support	Critical Care and Advanced Life Support	Advanced Life Support	Basic Life Support	
Personnel	Minimum Staff	Same as Type II	Same as Type III	3 pilot 2 paramedics or 1 paramedic and 1 nurse or physician	2 pilot 1 paramedic	
Team	Transport	2 or more litter patients	1 litter patient	2 or more litter patients	1 litter patient	
Aircraft	Fixed-wing capabilities	Same as Type II	Same as Type III, plus IFR	Same as Type IV	Night operations	
Equipment		Same as Type II	Ability to deploy a medical team MICU equipment (i.e.; ventilators and infusion pumps, medications, blood)	Same as Type IV	ALS ambulance equipment	
COMMENTS:	<p>Emergency medical services team with equipment, supplies, and aircraft for patient transport and emergency medical care outside of a hospital, providing service from airport to airport.</p> <ul style="list-style-type: none"> Fixed-Wing service in a disaster is primarily for moving injured or sick people located in the disaster area to medical facilities located outside the disaster area. Fixed-Wing service providers may also be utilized to import personnel and or equipment/supplies into the area of need. Fixed-Wing services require the use of an airport of sufficient length and access to a sufficient quantity of proper fuel type for the type of aircraft requested. Backup supplies and some equipment may be required depending upon number of patients and type of event. Each team/unit can work a maximum of 12-hour shifts, depending upon individual policies and procedures. Aircraft maintenance requirements may occur during deployment. Aviation maintenance must be planned. Hangar facilities should be planned for all extended operations. Communication equipment may be programmable for interoperability but must be verified. Plan for augmenting existing communication equipment to allow Fixed-Wing aircraft to communicate with command center. Coordination with ground ambulance service required. Ground safety assurance and traffic control are important support requirements for injury and crash prevention. This support may be significant depending upon the size and location of the incident. 					

RESOURCE: Air Ambulance (Rotary-Wing)						
CATEGORY: Health & Medical (ESF #8)			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Care provided	Advanced Life Support	Advanced Life Support	Advanced Life Support	Advanced Life Support	
Personnel	Minimum staff	Same as Type II	Same as Type III	3 pilot 2 paramedics or 1 paramedic and 1 nurse or physician	2 pilot 1 paramedic	
Team	Transport	Same as Type II	2 or more litter patients	Same as Type IV	1 litter patient	
Aircraft	Rotary-wing with these capabilities	Same as Type II, plus Full SAR including hoist capabilities	Night operations IFR	Same as Type IV	Night operations VFR	
Equipment		ALS ambulance equipment	Same as Type III	Ability to deploy a medical team; MICU equipment (i.e., ventilators & infusion pumps, medications, blood)	ALS ambulance equipment	
COMMENTS:	<p>Emergency medical services team with equipment, supplies, and aircraft for patient transport & emergency out-of-hospital medical care.</p> <ul style="list-style-type: none"> Each team/unit can work a maximum of 12-hour shifts, depending upon individual policies & procedures. Aircraft maintenance requirements may occur during deployment. Aviation maintenance must be planned. Hangar facilities should be planned for all extended operations. Fuel tankers or other supply points must be identified. Backup supplies and some equipment may be required depending upon number of patients and type of event. Communication equipment may be programmable for interoperability but must be verified. Provide communication frequencies of ground incident command. Plan for augmenting existing communication equipment. Landing zones (space, clearance, and weight restrictions) must be considered. The typical civilian air ambulance requires an LZ of 150' x 150'. Ground safety assurance and traffic control are important support requirements for injury and crash prevention. This support may be significant depending upon the size of the incident and the location of the incident. 					

RESOURCE: Ambulances (Ground)						
CATEGORY: Health & Medical (ESF #8)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Care provided	Advanced Life Support	Advanced Life Support	Basic Life Support	Basic Life Support operations	Non-transporting emergency medical response
Personnel	Minimum staff	2 paramedic and EMT	2 paramedic and EMT	2 EMT and first responder	2 I EMT and first responder	1
Vehicle	Transport	2-litter patients	2-litter patients	2 litter patients	2 litter patients	
Personnel	Training and equipment	Same as Type III	Non-HazMat response	Meets or exceeds standards as addressed by EPA, OSHA and NFPA 471,472,473 and 29 CFR 1910, 120 ETA 3-11 to work in HazMat Level B and specific threat conditions All immunized in accordance with CDC core adult immunizations and specific threat as appropriate		BLS or ALS equipment/supplies
COMMENTS:	<p>Emergency medical services team with equipment, supplies, and vehicle for patient transport (Type I-IV) and out-of-hospital emergency medical care.</p> <ul style="list-style-type: none"> Each team unit can work 12-hour shifts. Backup supply and some equipment required according to number of patients and type of event. Communication equipment may be programmable for interoperability but must be verified. Plan for augmenting existing communication equipment. Environmental considerations related to temperature control in patient care compartment and pharmaceutical storage may be necessary for locations with excessive ranges in temperature. Security of vehicle support required for periods of standby without crew in attendance. Fuel supply and maintenance support must be available. Decontamination supplies and support required for responses to incidents with potential threat to responding services or transport of infectious patients. 					

RESOURCE: Ambulance Strike Team						
CATEGORY: Health and Medical (ESF #8)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Scope of Practice	Advanced Life Support	Advanced Life Support	Basic Life Support	Basic Life Support	
Personnel	Minimum number	2 staff (paramedic and EMT) transport per ambulance	2 staff (paramedic and EMT) per ambulance	2 staff (EMT and driver) per ambulance	2 personnel (1 EMT and 1 driver) per ambulance	
Personnel	See Note 1	Same as Type III	Non-HazMat response	Meets or exceeds standards as addressed by EPA, OSHA, and NFP 471, 472, 473, and 29 CFR 1910, 120 ETA 3-11 to work in HazMat Level B and specific threat conditions All immunized in accordance with CDC core adult immunizations and specific threat as appropriate		
Equipment	See Note 2	5 Type I Ambulances; Capable of transporting minimum of 10 litter patients total (2 per ambulance)	5 Type II Ambulances; Minimum capability of 10 litter patients	5 Type III Ambulances; Minimum capability of 10 litter patients	5 Type IV Ambulances; Minimum of 10 litter patients	
Personnel	Training See Note 3 See Note 4	ICS 300 HazMat FRO Course WMD Awareness Course 3 years of EMS experience				
Supply	Go-Pack See Note 5	X	X	X	X	

RESOURCE:		Ambulance Strike Team				
CATEGORY:	Health and Medical (ESF #8)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	<p>An Ambulance Strike Team is a group of five ambulances of the same type with common communications and a leader. It provides an operational grouping of ambulances complete with supervisory element for organization command and control. The strike teams may be all ALS or all BLS.</p> <p>Support elements needed include fuel, security, resupply of medical supplies, and support for a minimum of 11 personnel (if 2 crew per ambulance) or 16 (if 3 crew per ambulance). Temperature control support may be required for medical supplies in some environments. Vehicle maintenance support required.</p> <p>Note 1: Can be deployed to cover 12-hour periods or 24-hour ops depending on number of ambulances needed at one time. Should be self-sufficient for 72 hours.</p> <p>Note 2: Emergency Medical Services team with equipment, supplies, and vehicle for patient transport (Type I-IV) and out-of-hospital emergency medical care.</p> <p>Note 3: Required training, ICS 100 and 200, Basic MCI Field Operations (8 hours).</p> <p>Note 4: Strike Team Leader – Ambulance Course (8 hours), 1 year leadership experience in a related field.</p> <p>Note 5: Equipment and supplies to meet minimum scope of practice (ALS or BLS). Equipment and supplies to meet minimum requirements of State agency that provides regulation.</p>					

RESOURCE: Ambulance Task Force						
CATEGORY: Health and Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Supervisor/ Leader See Note 1	1				
Vehicle	Ambulances See Note 2	Any combination of different types of ambulances assembled for an EMS mission, with common communications & a leader.				
Personnel	Training	ICS 100 and 200 Basic MCI Field Operations (8 hours) Task Force Leader-Ambulance Course (8 hours) One year Leadership experience in a related field				
COMMENTS:		Any combination of ambulances, within span of control, with common communications and a leader. This resource typing is used to distinguish between a Task Force of Ambulances and an Emergency Medical Task Force (any combination of resources). Note 1: Must have own vehicle with communications capabilities - both enroute and at scene - to all other units under the leader's supervision. Note 2: Emergency Medical Services team with equipment, supplies, and vehicle for patient transport (Type I-IV) and out-of-hospital emergency medical care.				

RESOURCE: Emergency Medical Task Force						
CATEGORY: Health and Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Supervisor	1 Minimum qualifications: Ambulance Strike Team/Medical Task Force Leader				
Equipment	Resources	Any combination of resources assembled for a medical mission, with common communications and a leader				
COMMENTS:		Emergency Medical Task Force: Any combination (within span of control) of resources (e.g., Ambulances, Rescues, Engines, Squads) assembled for a medical mission, with common communications and a leader (supervisor). Self-sufficient for 12-hour operational periods, although may be deployed longer, depending on need. Support elements needed include fuel, security, resupply of medical supplies, and support for a minimum of 11 personnel (depending on staffing of individual units). Temperature control support may be required for medical supplies in some environments. Vehicle maintenance support required.				

Typed Resource Definitions

Fire and Hazardous Materials Resources



FEMA 508-4

July 2005

Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces <i>Typed Resource Definitions, Fire and Hazardous Materials Resources</i> , dated May 2005
Changes	Resource table added for Fire Truck - Aerial (Ladder or Platform). Table categories changed as required to comply with NIMS category list.

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RESOURCE: Area Command Team, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Area Commander (ACDR)	Yes				
Personnel	Asst. Area Commander Planning (ACPC)	Yes				
Personnel	Asst. Area Commander Logistics (ACLC)	Yes				
Personnel	Area Command Aviation Coordinator (ACAC)	Yes				
COMMENTS:	<p>Area Command Team</p> <p>To become eligible for participating on a National Area Command Team, any person filling a team position as the Area Commander, Assistant Area Commander Planning, Assistant Area Commander Logistics, or Area Command Aviation Coordinator must complete the Area Command (S-620) training course.</p> <p>Type I Positions:</p> <p>Area Commander: Prerequisite experience includes satisfactory performance as an Assistant Area Commander Planning or Logistics; satisfactory position performance as an Area Commander on a wildland fire incident. Required Training: Area Command (S-620).</p> <p>Assistant Area Commander Planning: Prerequisite experience include satisfactory performance as an Incident Commander or General Staff on a National Type I Incident Management Team. Required Training: Area Command (S-620).</p> <p>Assistant Area Commander Logistics: Prerequisite experience include satisfactory performance as an Incident Commander or General Staff on a National Type I Incident Management Team. Required Training: Area Command (S-620).</p> <p>Area Command Aviation Coordinator: Prerequisite experience include satisfactory performance as an Air Operations Branch Director on a National Type I Incident Management Team. Required Training: Air Operations Branch Director.</p> <p>Source: National Wildfire Coordination Group (NWCG) Publication, National Interagency Incident Management System, Wildland and Prescribed Fire Qualifications System Guide, January 2000 (PMS 310-1, NFES 1414).</p>					



RESOURCE: Brush Patrol, Firefighting (Type VI Engine)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump					15 GPM
Equipment	Hose					1 inch; 150 feet
Equipment	Tank					75 Gallons
Personnel	Number					1
COMMENTS:	Brush Patrols apply to all vehicles equipped as described.					



RESOURCE: Crew Transport (Firefighting Crew)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Passengers	30	20	10		
COMMENTS:	Vehicles may be buses, vans, and special crew carrying vehicles (CCV), and may be equipped to carry firefighting tools.					



RESOURCE: Engine, Fire (Pumper)						
CATEGORY: Firefighting (ESF #4)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump Capacity	1,000 GPM	500 GPM	120 GPM	70 GPM	50 GPM
Equipment	Tank Capacity	400 Gal.	400 Gal.	500 Gal.	750 Gal.	500 Gal.
Equipment	Hose, 2.5 inch	1,200 ft.	1,000 ft.			
Equipment	Hose, 1.5 inch	400 ft.	500 ft.	1,000 ft.	300 ft.	300 ft.
Equipment	Hose, 1 inch	200 ft.	300 ft.	800 ft.	300 ft.	300 ft.
Personnel	Personnel	4	3	3	2	2
COMMENTS:	The engine typing needs to be taken out to Type VII. Compromise between FIREScope and NWCG is to use NWCG Standards for Engines and Crews. NWCG has seven engine types.					

RESOURCE: Fire Boat						
CATEGORY: Firefighting (ESF #4)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump Capacity GPM	5,000	1,000	250		
COMMENTS:		Fire Boats vary in length, draft, and related firefighting equipment.				



RESOURCE: Fire Truck - Aerial (Ladder or Platform)						
CATEGORY: Firefighting, Hazardous Materials Response			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number	4	Same as Type I			
Equipment	Aerial	75 ft	50 ft			
	Elevated Stream	500 GPM	Same as Type I			
	Ground Ladders	115 ft	Same as Type I			
COMMENTS	Note: Designate "L" for Ladder, or "P" for Platform.					



RESOURCE: Foam Tender, Firefighting						
CATEGORY: Firefighting (ESF #4); Hazardous Materials Response (ESF #10)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Class B Foam	500 gallons	250 gallons			
COMMENTS:	Specify percent of concentrate (1%, 3%, etc.).					



RESOURCE: Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker)						
CATEGORY: Transportation (ESF #1); Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Supply	Fuel	1,000 gal	100 gal			
COMMENTS:		These vehicles vary widely. May be Gasoline, Diesel, Jet Fuel, AvGas, or combinations. Specify: Gas, Diesel, AvGas, etc.				

RESOURCE: Hand Crew						
CATEGORY: Firefighting (ESF #4)			KIND: Other - Crew			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Fireline Capability	Initial attack/can be broken up into squads, fireline construction, complex firing operations (backfire)	Initial attack/can be broken up into squads, fireline construction, firing to include burnout	Initial attack, fireline construction, firing to include burnout	Fireline construction, fireline improvement, mop-up and rehab	
Personnel	Crew Size	18-20	18-20	18-20	18-20	
Personnel	Leadership Qualifications	Permanent Supervision Superintendent: TFLD, ICT4 Asst Supt: STCR, ICT4, 3 Squad Bosses: CRWB(T), ICT5	CRWB and 3 ICT5	CRWB and 3 FFT1	CRWB and 3 FFT1	
Personnel	Experience	80% 1 season or more	60% 1 season or more	40% 1 season or more	20% 1 season or more	
Personnel	Full-Time Organized Crew	Yes	No	No	No	
COMMENTS:		Crews need to be listed as Type I, Type II with Initial Attack Capability, Type II, Type III.				

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Field Testing	Same as Type II plus: Known or Suspect Weapons of Mass Destruction Chemical/Biological Substances [WMD Chem/Bio]	Same as Type III plus: Unknown Chemicals	Known Chemicals The presumptive testing and identification of chemical substances using a variety of sources to be able to identify associated chemical and physical properties. Sources may include printed and electronic reference resources, safety data sheets, field testing kits, specific chemical testing kits, chemical testing strips, data derived from detection devices, and air-monitoring sources		
Team	Air Monitoring	Same as Type II plus: (WMD Chem/Bio Aerosol Vapor and Gas) Advanced detection and monitoring includes WMD Chem/Bio detection Instruments	Same as Type III plus: The use of advanced detection equipment to detect the presence of known or unknown gases or vapors. Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and may directly identify by name a specific flammable or toxic vapor	(Basic Confined Space Monitoring; Specific Known Gas Monitoring) The use of devices to detect the presence of known gases or vapors. The basics begin with ability to provide standard confined space readings (oxygen deficiency percentage, flammable atmosphere Lower Explosive Limit [LEL], carbon monoxide, and hydrogen sulfide)		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Sampling: Capturing Labeling Evidence Collection	Same as Type II plus: (WMD Chem/Bio) Special resources may be required for air sample collection	Same as Type III plus: (Unknown Industrial Chemicals) Known and unknown industrial chemicals standard evidence collection protocols. Ability to sample liquid and solids	(Known Industrial Chemicals) Known industrial chemicals standard evidence collection protocols required for each include capturing and collection, containerizing and proper labeling, and preparation for transportation and distribution, including standard environmental sampling procedures for lab analysis. Consistent with established chain of custody protocols		
	Radiation Monitoring/ Detection	Same as Type II plus: Identify and establish the exclusion zones after contamination spread (this does include identification of some, but not all, radionuclides). Ability to conduct environmental and personnel survey. Ensure all members of survey teams are equipped with accumulative self-reading instruments (dosimeters)	Same as Type III plus: (Alpha Detection) Basic criteria include detection and survey capabilities for alpha, beta, and gamma	(Beta Detection; Gamma Detection) The ability to accurately interpret readings from the radiation-detection devices and conduct geographical survey search of suspected radiological source or contamination spread. Basic criteria include detection and survey capabilities for beta and gamma		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Protective Clothing: Ensembles	Same as Type II plus: (Weapons of Mass Destruction (WMD) Vapor-Protective CPC; WMD Liquid Splash-Protective CPC) Levels of CPC vapor protection are: Vapor-Protective, Flash Fire Protective option for Vapor-Protective, and Chemical/Biological-Protective option for Vapor-Protective, all of which must be compliant with National Fire Protection Association (NFPA) Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies" current edition.	Same as Type III plus: (Vapor-Protective CPC; Flash Fire Vapor-Protective CPC) Levels of CPC vapor protection are: Vapor-Protective, and Flash Fire Protective option for Vapor-Protective both of which must be compliant with NFPA Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies," current edition.	(Liquid Splash-Protective CPC) Chemical Protective Clothing (CPC), which includes complete ensembles (suit, boots, gloves) and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed. Level of CPC liquid protection is: Liquid Splash-Protective, which must be compliant with NFPA Standard # 1992, "Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies," current edition		
Equipment	Technical Reference	Same as Type II plus: (WMD Chem/Bio)	Same as Type III plus: (Plume Air Modeling; Map Overlays) At a minimum, technical references will have the ability to outsource additional capabilities and have one source for air-modeling capability	(Printed and Electronic) Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
				devices and chemical testing procedures		
Equipment	Special Capabilities	Same as Type II plus: (Digital Imaging Documentation Capability)	Same as Type III plus: (Heat Sensing Capability; Light Amplification Capability)	(Gloves and Other Specialized Equipment Based on Local Risk Assessment) Additional resources that augment the capabilities of the team		
Equipment	Intervention	Same as Type II plus: (WMD Chem/Bio Agent Confinement) Advanced capabilities should include ability to intervene and confine incidents involving WMD Chem/Bio substances	Same as Type III plus: (Liquid Leak Intervention; Neutralization; Plugging; Patching; Vapor Leak Intervention) Chemical means such as neutralization and encapsulation of known and unknown chemicals. Mechanical means include specially designed kits for controlling leaks in rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems	(Diking; Damming; Absorption) Employment of mechanical means of intervention and control such as plugging, patching, off-loading, and tank stabilization Environmental means such as absorption, dams, dikes, and booms		
Equipment	Decontamination	Same as Type II plus: (WMD Chem/Bio) Capable of providing decontamination for known and unknown contaminants and WMD Chem/Bio.	Same as Type III plus: (Unknown Contaminants) Capable of providing decontamination for known and unknown contaminants.	(Known Contaminants Based on Local Risk Assessment) Must be self-sufficient to provide decontamination for members of their team. Capable of providing decontamination for known contaminants.		



RESOURCE: HazMat Entry Team						
CATEGORY:	Hazardous Materials Response (ESF #10)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Communications	Same as Type II plus: (Secure Communications)	Same as Type III plus: (Wireless Data)	(In-Suit; Wireless Voice) Personnel utilizing CPC shall be able to communicate appropriately and safely with one another and their team leaders		
Personnel	Staffing	5 Personnel	5 Personnel	5 Personnel		
Personnel	Training	Same as Type II	Same as Type III	All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA Standard # 471, "Recommended Practice for Responding to Hazardous Materials Incidents," NFPA Standard # 472, "Standard for Professional Competence of Responders to Hazardous Materials Incidents," and NFPA Standard # 473, "Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents," as is appropriate for the specific team type		
Personnel	Sustainability	Same as Type II	Same as Type III	Capability to Perform Three (3) Entries in a 24-hour Period		
COMMENTS:						



RESOURCE: Helicopters, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Seats, Including Pilot	16	10	5	3	
Equipment	Card Weight Capacity	5,000 lbs	2,500 lbs	1,200 lbs	600 lbs	
Vehicle	Gallons	700	300	100	75	
Supply	Example	Bell 214	Bell 205	Bell 206	Bell 47	
COMMENTS:	Firefighting Helicopters may be equipped with rescue, medical, or other equipment.					

RESOURCE: Helitanker (firefighting helicopter)						
CATEGORY: Firefighting (ESF #4)				KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Fixed Tank					
Equipment	1100 gal/min					
COMMENTS:		Helitankers are large capacity helicopters (e.g., Sikorsky model) certified by the Air Tanker Board.				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Incident Commander (ICT1-5)	Yes	Yes	Yes	Yes	Yes
Personnel	Safety Officer (SOF1-3)	Yes	Yes	Yes		
Personnel	Information Officer (IOF1-3)	Yes	Yes	Yes		
Personnel	Operations Section Chief (OSC1-2)	2 ea.	2 ea.			
Personnel	Division/Group Supervisor	4 ea.				
Personnel	Air Operations Branch Director (AOBD)	Yes				
Personnel	Air Support Group Supervisor (ASG)	Yes				
Personnel	Air Tactical Group Supervisor (ATG)	Yes				
Personnel	Planning Section Chief (PSC 1-2)	Yes	Yes			
Personnel	Situation Unit Leader (SITL)	Yes				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Resource Unit Leader (RESL)	2 ea.				
Personnel	Fire Behavior Analyst (FBAN)	Yes				
Personnel	Logistics Section Chief (LSC 1-2)	Yes	Yes			
Personnel	Communications Unit Leader (COML)	Yes				
Personnel	Supply Unit Leader (SPUL)	Yes				
Personnel	Facilities Unit Leader (FACL)	Yes				
Personnel	Ground Support Unit Leader (GSUL)	Yes				
Personnel	Finance/Admin Section Chief (FSC 1-2)	Yes	Yes			
Personnel	Time Unit Leader (TIME)	Yes				
Personnel	Comp/Claims Unit Leader (COMP)	Yes				
Personnel	Procurement Unit Leader (PROC)	Yes				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY:	Firefighting (ESF #4)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	<p>Type I Incident Management Team</p> <p>To become eligible for participating on a National Type I team, any person filling a team position as the Incident Commander, Safety Officer, Information Officer, or general staff must complete the Advanced Incident Management (S-520) training course.</p> <p>Type II Incident Management Team</p> <p>To become eligible for participation on a Type II team, any person filling a team position as the Incident Commander, Safety Officer, Information Officer, or general staff must complete the Command and General Staff (S-420) training course.</p> <p>Type I Positions</p> <p>Incident Commander Type I: Prerequisite experience includes satisfactory performance as an Incident Commander Type II; satisfactory position performance as an Incident Commander Type I on a wildland fire incident. Required Training: Advanced Incident Management (S-520).</p> <p>Type II Positions</p> <p>Incident Commander Type II: Prerequisite experience includes satisfactory performance as an Incident Commander Type III; satisfactory performance as an Operations Section Chief Type II; satisfactory position performance as an Incident Commander Type II on a wildland fire incident. Required Training: Command and General Staff (S-420). Additional Training: Advanced ICS (I-400), Incident Commander (S-400), Advanced Management Concepts (S-481).</p> <p>Type III Positions</p> <p>Incident Commander Type III: Prerequisite experience includes satisfactory performance as an Incident Commander Type IV; satisfactory performance as a Task Force Leader; satisfactory position performance as an Incident Commander Type III on a wildland fire incident. Required Training: Introduction to Wildland Fire Behavior Calculations (S-390). Additional Training: Incident Commander Extended Attack (S-300).</p> <p>Type IV Positions</p> <p>Incident Commander Type IV: Prerequisite experience includes satisfactory performance as a Single Resource Boss (Crew, Dozer, Engine, Tractor/Plow); satisfactory position performance as an Incident Commander Type IV on a wildland fire incident. Required Training: Fire Operations in the Urban Interface (S-215). Additional Training: Initial Attack Incident Commander (S-200), and Ignition Operations (S-234).</p> <p>Type V Positions</p> <p>Incident Commander Type V: Prerequisite experience includes satisfactory performance as an Advanced Firefighter/Squad Boss; satisfactory position performance as an Incident Commander Type V on a wildland fire incident. Required Training: Look Up, Look Down, Look Around (S-133). Additional Training: Intermediate Wildland Fire Behavior (S-290).</p> <p>Source: National Wildfire Coordination Group (NWCG) Publication, National Interagency Incident Management System, Wildland and Prescribed Fire Qualifications System Guide, January 2000 (PMS 310-1, NFES 1414).</p>					



RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY: Firefighting (ESF #4), Resource Management (ESF #7)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel		<p>6-member team consisting of a team leader, 4 members and 1 trainee position (used as needed)</p> <p>Personnel from the incident agency or alternate buying team members may be added, as needed, to supplement the primary team</p>				
Personnel	Training (Recommended)	<ul style="list-style-type: none"> • I-200, Basic Incident Command System (12 classroom hours) • S-260, Incident Command Business Management (self-study) • D-110, Dispatch Recorder (16 classroom hours) • J-252, Ordering Manager • J-253, Receiving and Distribution • National Interagency Buying Team Guide (self-study) or Workshop • On-the-Job Training • Purchased Card and Convenience Check training • Procurement Unit Leader Training (S-360 Unit Leader) 				

RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY: Firefighting (ESF #4), Resource Management (ESF #7)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Buying Team Kit	<ul style="list-style-type: none"> Reference Material (see comments) Internet/Intranet Web site References (see comments) Supplies (see comments) Forms (see comments) Sample of Log Sheets (see comments) 				
COMMENTS: The Buying Team works through the local administrative staff to support procurement activities. Therefore, Buying Teams should be sensitive to and strive to operate within local policies and procedures. The members of the Buying Teams follow: <ul style="list-style-type: none"> The Buying Team Leader (BUYL) (1) The Assistant or Deputy Buying Team Leader (BUYL-D) (1) Buying Team Members (BUYM) (4) General Roles of the Buying Team include the following: <ul style="list-style-type: none"> Support incident procurement through the administrative staff. Transition with the incident agency upon arrival. This includes obtaining status of all resource orders completed and outstanding to date, as well as initiating procedures for the handling of new orders by the Buying Team. Fill resource orders for services, supplies, and equipment from established sources (NFES Caches, GSA) and the open market and, for those which are not filled, by the dispatch community or the administrative unit's procurement activity. Reviews resource orders for completeness. Check on estimated times of departure and estimated times of arrival for pending resource orders. Obtain approval from the administrative staff or the IBA before purchasing any sensitive or questionable property. Provide the incident base (Finance Section Chief, Procurement Unit Leader, Logistics Section Chief, and Ground Support Unit Leader) an updated equipment log. Establish and maintain good working relationships and lines of communication. Update the incident service and supply plan with new sources and other information. Buying Team Kit: Each Buying Team should have a kit containing the following items to take along when dispatched to an incident: Reference Materials						

RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY:	Firefighting (ESF #4), Resource Management (ESF #7)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<ul style="list-style-type: none">Interagency Incident Business Management Handbook, NWCG Handbook 2, NFES 1139National Interagency Mobilization Guide, NFES 2091 (NFES 2092 for half-size)Activity Calendar (Optional Form 67 or similar)NWCG National Fire Equipment System Catalog, Part I, Fire Supplies & Equipment (NFES 0362, Part I & Part II when using order #0362)NWCG National Fire Equipment System Catalog, Part II, Publications (NFES 3362)					
	Internet/Intranet Web site References					
	<ul style="list-style-type: none">NWCG Internet homepage: http://www.nwcg.govForest Service Fire & Aviation Internet homepage: http://www.fs.fed.us/fire/Forest Service Acquisition Management Intranet homepage: http://fsweb.wo.fs.fed.us/agm/BLM Intranet: http://webst.nifc.blm.gov/Sascher/blmintranet/Index.htmNIFC and related governmental agency links (BLM, BIA, FWS, NPS, NWS): http://www.nifc.gov					
	Supplies					
	<ul style="list-style-type: none">Battery powered or solar powered handheld calculatorSpare batteriesHighlightersStapler and staple removerOther supplies as needed(Optional) First Aid kit and a bloodborne pathogens barrier kit					
	Forms, See exhibits to the National Interagency Buying Team Guide and the Interagency Incident Business Management Handbook for sample forms.					
	Sample of Log Sheets					
	<ul style="list-style-type: none">Resource Order Log (Leader and Deputy Only)Purchase Card Log SheetsConvenience Check Log Sheets					
	Source: National Wildfire Coordinating Group (NWCG) Publication, National Interagency Buying Team Guide, December 1999 (PMS 315).					



RESOURCE: Mobile Communications Unit (Law/Fire)						
CATEGORY: Communications			KIND: Vehicle			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Console/ Workstation	2	2			
Equipment	Frequency Cap.	Multi Range	Multi Range			
Equipment	Power Source	Internal	Internal			
Equipment	Telephone System	6 Trunk/16 Extensions				
Personnel	Personnel	2	2			
COMMENTS:	Multi Range: 150-174 MHz, 450-470 MHz, 800 MHz (Simplex or Repeated), Single Range: 150-174 MHz only					

RESOURCE: Portable Pump						
CATEGORY: Firefighting			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pumping Capacity (GPM)	500	250	50		
COMMENTS:		These are normally trailer mounted units.				



RESOURCE: Strike Team, Engine (Fire)						
CATEGORY: Firefighting (ESF #4); Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Engine, Fire	5	5	5	5	(See Engine for details)
Personnel	STL	1	1	1	1	Strike Team Task Force Leader
Personnel	Engine	4	3	3	3	Staffing on each Engine
Personnel	Total	21	16	16	16	
COMMENTS:		Strike Team defined as like number of resources, with common communications, and a leader. Engine Strike Team Typing is based on individual Engine Typing.				

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
Equipment	Chemical Release					Chemical Response Trailers; Level A, B, and C PPE suits
Equipment	Air, Liquids, and Solids					<ul style="list-style-type: none"> • Flame and Photo Ionization Detectors • Fluorometers • Particulate Meters • Soil and Sludge Sample Kits • pH meters • Decontamination Equipment • Portable Weather stations • Drum lifters • EMT kits • Chlorine kits
Equipment	Small Boats					<ul style="list-style-type: none"> • 32-foot and 24-foot Munsons • 15-foot Inflatable boats • 18-foot John boats
Equipment	Lighting/ Pumping Equipment					<ul style="list-style-type: none"> • Ready Pump Loads • High-capacity, hydraulically driven, centrifugal submersible pumps capable of transferring oil and

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
						chemicals or dewatering <ul style="list-style-type: none"> • Nonsubmersible diaphragm and peristaltic pumps capable of transferring oil and chemicals (medium/small capacity) • Hydraulic prime movers and support equipment
Equipment	Communications Equipment					Communications support equipment ranges from handheld radios to portable satellite communications repeater systems
Equipment	Oil Discharges					<ul style="list-style-type: none"> • Vessel of Opportunity Skimming System (VOSS) • Inflatable (45-inch) boom (6,000 feet) • Temporary Storage Devices
Equipment	Damage Control and Support					<ul style="list-style-type: none"> • Oil/water interface meter • Plugging and patching equipment • Generators (3.0 KW to 10 KW)
Equipment	Special Monitoring Equipment					<ul style="list-style-type: none"> • Radiological detection capabilities • Dispersant operations

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
Equipment	Photographic Equipment					<ul style="list-style-type: none"> • 35 mm and digital cameras • Video cameras and players
Equipment	Vehicle Command Post					<ul style="list-style-type: none"> • Tractor/trailer units • Mobile Incident Command Posts • All-terrain vehicles
COMMENTS: <p>Note 1: NSF Specialized Response Equipment</p> <p>There are only three National Strike Force teams in the Nation. All three National Strike Force teams have the same level of capability, which exceeds the standards set in the Mutual Aid definition of a Type I Hazardous Materials Entry Team. However, because of their deployment capabilities and versatility, they are simply classified as "Other." The U.S. Coast Guard National Strike Force (NSF) was created in 1973 as a Coast Guard special force under the National Contingency Plan (NCP/see 40 CFR 300.145) to respond to oil and hazardous chemical incidents. The National Strike Force is comprised of three 40-member Strike Teams and the National Strike Force Coordination Center (NSFCC), which manages, supports, and set standards for the three teams. The three teams are: the Atlantic Strike Team in Fort Dix, NJ; the Gulf Strike Team in Mobile, AL; and the Pacific Strike Team in Novato, CA.</p> <p>The NSF is recognized worldwide as an expert in preparedness and response to mitigate the effects of oil discharges and hazardous substance releases. Its mandate is to assist and support USCG and EPA Federal On-Scene Coordinators (FOSCs) with their response and preparedness activities to protect the public health and welfare and the environment. Although its three primary missions are pollution response, training, and planning, the NSFCC also houses a Public Information Assist Team (PIAT), which is capable of providing public affairs support as well as crisis communication and Joint Information Center (JIC) expertise to FOSCs during a response.</p> <p>NSF Qualification Program:</p> <p>The NSF Qualification Program includes four levels. Although these levels are unique to the NSF, our personnel meet training and skill requirements similar to those established in 29 CFR 1910.120 (g) (6).</p> <ul style="list-style-type: none"> • Response Member (RM): Is trained in more than 50 areas of oil and HazMat response operations and attains an awareness level of all NSF Equipment. This allows the RM to perform a number of vital functions in a pollution response, primarily assisting the RT. • Response Technician (RT): Is a significant level beyond the RM and is the position reached by most Strike Team members. An RT is qualified to operate all NSF equipment. An RT has also attended pollution response specialist courses and obtained significant field experience on oil and HazMat incidents. • Response Supervisor (RS): Is a level beyond RT and supervises the technical aspects of NSF response operations at oil or HazMat incidents. This includes the preparation, deployment, and operation of all NSF equipment. The RS helps a response in many areas, including directing operations, response planning, resolving site safety issues, and solving technical problems. 						



RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
See Note 1						
	<ul style="list-style-type: none">Response Officer (RO): Is a senior leadership position filled by a commissioned or warrant officer. An RO manages all aspects of any size NSF response, including response planning, mobilization, and operations. An RO receives significant resident and unit training, and field experience. An RO can fill key positions in a spill management team, direct operations, liaise with senior officials, resolve safety issues, recommend alternative countermeasures, explain policies, and solve crisis management problems.					



RESOURCE: Water Tender, Firefighting (Tanker)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	2,000 gallon	2,000 gallon	1,000 gallon	1,000 gallon	2,000 gallon	
Equipment	300 GPM	300 GPM	120 GPM	50 GPM	300 GPM	
COMMENTS:						

Typed Resource Definitions

Fire and Hazardous Materials Resources



FEMA 508-4

July 2005

Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces <i>Typed Resource Definitions, Fire and Hazardous Materials Resources</i> , dated May 2005
Changes	Resource table added for Fire Truck - Aerial (Ladder or Platform). Table categories changed as required to comply with NIMS category list.

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RESOURCE: Area Command Team, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Area Commander (ACDR)	Yes				
Personnel	Asst. Area Commander Planning (ACPC)	Yes				
Personnel	Asst. Area Commander Logistics (ACLC)	Yes				
Personnel	Area Command Aviation Coordinator (ACAC)	Yes				
COMMENTS:	Area Command Team					
	<p>To become eligible for participating on a National Area Command Team, any person filling a team position as the Area Commander, Assistant Area Commander Planning, Assistant Area Commander Logistics, or Area Command Aviation Coordinator must complete the Area Command (S-620) training course.</p> <p>Type I Positions:</p> <p>Area Commander: Prerequisite experience includes satisfactory performance as an Assistant Area Commander Planning or Logistics; satisfactory position performance as an Area Commander on a wildland fire incident. Required Training: Area Command (S-620).</p> <p>Assistant Area Commander Planning: Prerequisite experience include satisfactory performance as an Incident Commander or General Staff on a National Type I Incident Management Team. Required Training: Area Command (S-620).</p> <p>Assistant Area Commander Logistics: Prerequisite experience include satisfactory performance as an Incident Commander or General Staff on a National Type I Incident Management Team. Required Training: Area Command (S-620).</p> <p>Area Command Aviation Coordinator: Prerequisite experience include satisfactory performance as an Air Operations Branch Director on a National Type I Incident Management Team. Required Training: Air Operations Branch Director.</p> <p>Source: National Wildfire Coordination Group (NWCG) Publication, National Interagency Incident Management System, Wildland and Prescribed Fire Qualifications System Guide, January 2000 (PMS 310-1, NFES 1414).</p>					



RESOURCE: Brush Patrol, Firefighting (Type VI Engine)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump					15 GPM
Equipment	Hose					1 inch; 150 feet
Equipment	Tank					75 Gallons
Personnel	Number					1
COMMENTS:	Brush Patrols apply to all vehicles equipped as described.					



RESOURCE: Crew Transport (Firefighting Crew)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Passengers	30	20	10		
COMMENTS:	Vehicles may be buses, vans, and special crew carrying vehicles (CCV), and may be equipped to carry firefighting tools.					



RESOURCE: Engine, Fire (Pumper)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump Capacity	1,000 GPM	500 GPM	120 GPM	70 GPM	50 GPM
Equipment	Tank Capacity	400 Gal.	400 Gal.	500 Gal.	750 Gal.	500 Gal.
Equipment	Hose, 2.5 inch	1,200 ft.	1,000 ft.			
Equipment	Hose, 1.5 inch	400 ft.	500 ft.	1,000 ft.	300 ft.	300 ft.
Equipment	Hose, 1 inch	200 ft.	300 ft.	800 ft.	300 ft.	300 ft.
Personnel	Personnel	4	3	3	2	2
COMMENTS:	The engine typing needs to be taken out to Type VII. Compromise between FIREScope and NWCG is to use NWCG Standards for Engines and Crews. NWCG has seven engine types.					

RESOURCE: Fire Boat						
CATEGORY: Firefighting (ESF #4)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pump Capacity GPM	5,000	1,000	250		
COMMENTS:	Fire Boats vary in length, draft, and related firefighting equipment.					



RESOURCE: Fire Truck - Aerial (Ladder or Platform)						
CATEGORY: Firefighting, Hazardous Materials Response			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number	4	Same as Type I			
Equipment	Aerial	75 ft	50 ft			
	Elevated Stream	500 GPM	Same as Type I			
	Ground Ladders	115 ft	Same as Type I			
COMMENTS	Note: Designate "L" for Ladder, or "P" for Platform.					



RESOURCE:		Foam Tender, Firefighting				
CATEGORY:	Firefighting (ESF #4); Hazardous Materials Response (ESF #10)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Class B Foam	500 gallons	250 gallons			
COMMENTS:	Specify percent of concentrate (1%, 3%, etc.).					



RESOURCE: Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker)						
CATEGORY: Transportation (ESF #1); Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Supply	Fuel	1,000 gal	100 gal			
COMMENTS:		These vehicles vary widely. May be Gasoline, Diesel, Jet Fuel, AvGas, or combinations. Specify: Gas, Diesel, AvGas, etc.				

RESOURCE: Hand Crew						
CATEGORY: Firefighting (ESF #4)			KIND: Other - Crew			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Fireline Capability	Initial attack/can be broken up into squads, fireline construction, complex firing operations (backfire)	Initial attack/can be broken up into squads, fireline construction, firing to include burnout	Initial attack, fireline construction, firing to include burnout	Fireline construction, fireline improvement, mop-up and rehab	
Personnel	Crew Size	18-20	18-20	18-20	18-20	
Personnel	Leadership Qualifications	Permanent Supervision Superintendent: TFLD, ICT4 Asst Supt: STCR, ICT4, 3 Squad Bosses: CRWB(T), ICT5	CRWB and 3 ICT5	CRWB and 3 FFT1	CRWB and 3 FFT1	
Personnel	Experience	80% 1 season or more	60% 1 season or more	40% 1 season or more	20% 1 season or more	
Personnel	Full-Time Organized Crew	Yes	No	No	No	
COMMENTS:		Crews need to be listed as Type I, Type II with Initial Attack Capability, Type II, Type III.				

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Field Testing	Same as Type II plus: Known or Suspect Weapons of Mass Destruction Chemical/Biological Substances [WMD Chem/Bio]	Same as Type III plus: Unknown Chemicals	Known Chemicals The presumptive testing and identification of chemical substances using a variety of sources to be able to identify associated chemical and physical properties. Sources may include printed and electronic reference resources, safety data sheets, field testing kits, specific chemical testing kits, chemical testing strips, data derived from detection devices, and air-monitoring sources		
Team	Air Monitoring	Same as Type II plus: (WMD Chem/Bio Aerosol Vapor and Gas) Advanced detection and monitoring includes WMD Chem/Bio detection Instruments	Same as Type III plus: The use of advanced detection equipment to detect the presence of known or unknown gases or vapors. Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and may directly identify by name a specific flammable or toxic vapor	(Basic Confined Space Monitoring; Specific Known Gas Monitoring) The use of devices to detect the presence of known gases or vapors. The basics begin with ability to provide standard confined space readings (oxygen deficiency percentage, flammable atmosphere Lower Explosive Limit [LEL], carbon monoxide, and hydrogen sulfide)		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Sampling: Capturing Labeling Evidence Collection	Same as Type II plus: (WMD Chem/Bio) Special resources may be required for air sample collection	Same as Type III plus: (Unknown Industrial Chemicals) Known and unknown industrial chemicals standard evidence collection protocols. Ability to sample liquid and solids	(Known Industrial Chemicals) Known industrial chemicals standard evidence collection protocols required for each include capturing and collection, containerizing and proper labeling, and preparation for transportation and distribution, including standard environmental sampling procedures for lab analysis. Consistent with established chain of custody protocols		
	Radiation Monitoring/ Detection	Same as Type II plus: Identify and establish the exclusion zones after contamination spread (this does include identification of some, but not all, radionuclides). Ability to conduct environmental and personnel survey. Ensure all members of survey teams are equipped with accumulative self-reading instruments (dosimeters)	Same as Type III plus: (Alpha Detection) Basic criteria include detection and survey capabilities for alpha, beta, and gamma	(Beta Detection; Gamma Detection) The ability to accurately interpret readings from the radiation-detection devices and conduct geographical survey search of suspected radiological source or contamination spread. Basic criteria include detection and survey capabilities for beta and gamma		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Protective Clothing: Ensembles	Same as Type II plus: (Weapons of Mass Destruction (WMD) Vapor-Protective CPC; WMD Liquid Splash-Protective CPC) Levels of CPC vapor protection are: Vapor-Protective, Flash Fire Protective option for Vapor-Protective, and Chemical/Biological-Protective option for Vapor-Protective, all of which must be compliant with National Fire Protection Association (NFPA) Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies" current edition.	Same as Type III plus: (Vapor-Protective CPC; Flash Fire Vapor-Protective CPC) Levels of CPC vapor protection are: Vapor-Protective, and Flash Fire Protective option for Vapor-Protective both of which must be compliant with NFPA Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies," current edition.	(Liquid Splash-Protective CPC) Chemical Protective Clothing (CPC), which includes complete ensembles (suit, boots, gloves) and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed. Level of CPC liquid protection is: Liquid Splash-Protective, which must be compliant with NFPA Standard # 1992, "Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies," current edition		
Equipment	Technical Reference	Same as Type II plus: (WMD Chem/Bio)	Same as Type III plus: (Plume Air Modeling; Map Overlays) At a minimum, technical references will have the ability to outsource additional capabilities and have one source for air-modeling capability	(Printed and Electronic) Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic		

RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
				devices and chemical testing procedures		
Equipment	Special Capabilities	Same as Type II plus: (Digital Imaging Documentation Capability)	Same as Type III plus: (Heat Sensing Capability; Light Amplification Capability)	(Gloves and Other Specialized Equipment Based on Local Risk Assessment) Additional resources that augment the capabilities of the team		
Equipment	Intervention	Same as Type II plus: (WMD Chem/Bio Agent Confinement) Advanced capabilities should include ability to intervene and confine incidents involving WMD Chem/Bio substances	Same as Type III plus: (Liquid Leak Intervention; Neutralization; Plugging; Patching; Vapor Leak Intervention) Chemical means such as neutralization and encapsulation of known and unknown chemicals. Mechanical means include specially designed kits for controlling leaks in rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems	(Diking; Damming; Absorption) Employment of mechanical means of intervention and control such as plugging, patching, off-loading, and tank stabilization Environmental means such as absorption, dams, dikes, and booms		
Equipment	Decontamination	Same as Type II plus: (WMD Chem/Bio) Capable of providing decontamination for known and unknown contaminants and WMD Chem/Bio.	Same as Type III plus: (Unknown Contaminants) Capable of providing decontamination for known and unknown contaminants.	(Known Contaminants Based on Local Risk Assessment) Must be self-sufficient to provide decontamination for members of their team. Capable of providing decontamination for known contaminants.		



RESOURCE: HazMat Entry Team						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Communications	Same as Type II plus: (Secure Communications)	Same as Type III plus: (Wireless Data)	(In-Suit; Wireless Voice) Personnel utilizing CPC shall be able to communicate appropriately and safely with one another and their team leaders		
Personnel	Staffing	5 Personnel	5 Personnel	5 Personnel		
Personnel	Training	Same as Type II	Same as Type III	All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA Standard # 471, "Recommended Practice for Responding to Hazardous Materials Incidents," NFPA Standard # 472, "Standard for Professional Competence of Responders to Hazardous Materials Incidents," and NFPA Standard # 473, "Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents," as is appropriate for the specific team type		
Personnel	Sustainability	Same as Type II	Same as Type III	Capability to Perform Three (3) Entries in a 24-hour Period		
COMMENTS:						



RESOURCE: Helicopters, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Seats, Including Pilot	16	10	5	3	
Equipment	Card Weight Capacity	5,000 lbs	2,500 lbs	1,200 lbs	600 lbs	
Vehicle	Gallons	700	300	100	75	
Supply	Example	Bell 214	Bell 205	Bell 206	Bell 47	
COMMENTS:	Firefighting Helicopters may be equipped with rescue, medical, or other equipment.					

RESOURCE: Helitanker (firefighting helicopter)						
CATEGORY: Firefighting (ESF #4)				KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Fixed Tank					
Equipment	1100 gal/min					
COMMENTS:		Helitankers are large capacity helicopters (e.g., Sikorsky model) certified by the Air Tanker Board.				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY: Firefighting (ESF #4)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Incident Commander (ICT1-5)	Yes	Yes	Yes	Yes	Yes
Personnel	Safety Officer (SOF1-3)	Yes	Yes	Yes		
Personnel	Information Officer (IOF1-3)	Yes	Yes	Yes		
Personnel	Operations Section Chief (OSC1-2)	2 ea.	2 ea.			
Personnel	Division/Group Supervisor	4 ea.				
Personnel	Air Operations Branch Director (AOBD)	Yes				
Personnel	Air Support Group Supervisor (ASG)	Yes				
Personnel	Air Tactical Group Supervisor (ATG)	Yes				
Personnel	Planning Section Chief (PSC 1-2)	Yes	Yes			
Personnel	Situation Unit Leader (SITL)	Yes				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY: Firefighting (ESF #4)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Resource Unit Leader (RESL)	2 ea.				
Personnel	Fire Behavior Analyst (FBAN)	Yes				
Personnel	Logistics Section Chief (LSC 1-2)	Yes	Yes			
Personnel	Communications Unit Leader (COML)	Yes				
Personnel	Supply Unit Leader (SPUL)	Yes				
Personnel	Facilities Unit Leader (FACL)	Yes				
Personnel	Ground Support Unit Leader (GSUL)	Yes				
Personnel	Finance/Admin Section Chief (FSC 1-2)	Yes	Yes			
Personnel	Time Unit Leader (TIME)	Yes				
Personnel	Comp/Claims Unit Leader (COMP)	Yes				
Personnel	Procurement Unit Leader (PROC)	Yes				



RESOURCE: Incident Management Team, Firefighting						
CATEGORY:	Firefighting (ESF #4)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	<p>Type I Incident Management Team</p> <p>To become eligible for participating on a National Type I team, any person filling a team position as the Incident Commander, Safety Officer, Information Officer, or general staff must complete the Advanced Incident Management (S-520) training course.</p> <p>Type II Incident Management Team</p> <p>To become eligible for participation on a Type II team, any person filling a team position as the Incident Commander, Safety Officer, Information Officer, or general staff must complete the Command and General Staff (S-420) training course.</p> <p>Type I Positions</p> <p>Incident Commander Type I: Prerequisite experience includes satisfactory performance as an Incident Commander Type II; satisfactory position performance as an Incident Commander Type I on a wildland fire incident. Required Training: Advanced Incident Management (S-520).</p> <p>Type II Positions</p> <p>Incident Commander Type II: Prerequisite experience includes satisfactory performance as an Incident Commander Type III; satisfactory performance as an Operations Section Chief Type II; satisfactory position performance as an Incident Commander Type II on a wildland fire incident. Required Training: Command and General Staff (S-420). Additional Training: Advanced ICS (I-400), Incident Commander (S-400), Advanced Management Concepts (S-481).</p> <p>Type III Positions</p> <p>Incident Commander Type III: Prerequisite experience includes satisfactory performance as an Incident Commander Type IV; satisfactory performance as a Task Force Leader; satisfactory position performance as an Incident Commander Type III on a wildland fire incident. Required Training: Introduction to Wildland Fire Behavior Calculations (S-390). Additional Training: Incident Commander Extended Attack (S-300).</p> <p>Type IV Positions</p> <p>Incident Commander Type IV: Prerequisite experience includes satisfactory performance as a Single Resource Boss (Crew, Dozer, Engine, Tractor/Plow); satisfactory position performance as an Incident Commander Type IV on a wildland fire incident. Required Training: Fire Operations in the Urban Interface (S-215). Additional Training: Initial Attack Incident Commander (S-200), and Ignition Operations (S-234).</p> <p>Type V Positions</p> <p>Incident Commander Type V: Prerequisite experience includes satisfactory performance as an Advanced Firefighter/Squad Boss; satisfactory position performance as an Incident Commander Type V on a wildland fire incident. Required Training: Look Up, Look Down, Look Around (S-133). Additional Training: Intermediate Wildland Fire Behavior (S-290).</p> <p>Source: National Wildfire Coordination Group (NWCG) Publication, National Interagency Incident Management System, Wildland and Prescribed Fire Qualifications System Guide, January 2000 (PMS 310-1, NFES 1414).</p>					



RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY: Firefighting (ESF #4), Resource Management (ESF #7)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel		<p>6-member team consisting of a team leader, 4 members and 1 trainee position (used as needed)</p> <p>Personnel from the incident agency or alternate buying team members may be added, as needed, to supplement the primary team</p>				
Personnel	Training (Recommended)	<ul style="list-style-type: none"> • I-200, Basic Incident Command System (12 classroom hours) • S-260, Incident Command Business Management (self-study) • D-110, Dispatch Recorder (16 classroom hours) • J-252, Ordering Manager • J-253, Receiving and Distribution • National Interagency Buying Team Guide (self-study) or Workshop • On-the-Job Training • Purchased Card and Convenience Check training • Procurement Unit Leader Training (S-360 Unit Leader) 				

RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY: Firefighting (ESF #4), Resource Management (ESF #7)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Buying Team Kit	<ul style="list-style-type: none"> Reference Material (see comments) Internet/Intranet Web site References (see comments) Supplies (see comments) Forms (see comments) Sample of Log Sheets (see comments) 				
COMMENTS: The Buying Team works through the local administrative staff to support procurement activities. Therefore, Buying Teams should be sensitive to and strive to operate within local policies and procedures. The members of the Buying Teams follow: <ul style="list-style-type: none"> The Buying Team Leader (BUYL) (1) The Assistant or Deputy Buying Team Leader (BUYL-D) (1) Buying Team Members (BUYM) (4) General Roles of the Buying Team include the following: <ul style="list-style-type: none"> Support incident procurement through the administrative staff. Transition with the incident agency upon arrival. This includes obtaining status of all resource orders completed and outstanding to date, as well as initiating procedures for the handling of new orders by the Buying Team. Fill resource orders for services, supplies, and equipment from established sources (NFES Caches, GSA) and the open market and, for those which are not filled, by the dispatch community or the administrative unit's procurement activity. Reviews resource orders for completeness. Check on estimated times of departure and estimated times of arrival for pending resource orders. Obtain approval from the administrative staff or the IBA before purchasing any sensitive or questionable property. Provide the incident base (Finance Section Chief, Procurement Unit Leader, Logistics Section Chief, and Ground Support Unit Leader) an updated equipment log. Establish and maintain good working relationships and lines of communication. Update the incident service and supply plan with new sources and other information. Buying Team Kit: Each Buying Team should have a kit containing the following items to take along when dispatched to an incident: Reference Materials						

RESOURCE: Interagency Buying Team, Firefighting						
CATEGORY:	Firefighting (ESF #4), Resource Management (ESF #7)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<ul style="list-style-type: none"> Interagency Incident Business Management Handbook, NWCG Handbook 2, NFES 1139 National Interagency Mobilization Guide, NFES 2091 (NFES 2092 for half-size) Activity Calendar (Optional Form 67 or similar) NWCG National Fire Equipment System Catalog, Part I, Fire Supplies & Equipment (NFES 0362, Part I & Part II when using order #0362) NWCG National Fire Equipment System Catalog, Part II, Publications (NFES 3362) <p>Internet/Intranet Web site References</p> <ul style="list-style-type: none"> NWCG Internet homepage: http://www.nwcg.gov Forest Service Fire & Aviation Internet homepage: http://www.fs.fed.us/fire/ Forest Service Acquisition Management Intranet homepage: http://fswweb.wo.fs.fed.us/aqm/ BLM Intranet: http://webst.nifc.blm.gov/Sascher/blmintranet/Index.htm NIFC and related governmental agency links (BLM, BIA, FWS, NPS, NWS): http://www.nifc.gov <p>Supplies</p> <ul style="list-style-type: none"> Battery powered or solar powered handheld calculator Spare batteries Highlighters Stapler and staple remover Other supplies as needed (Optional) First Aid kit and a bloodborne pathogens barrier kit <p>Forms, See exhibits to the National Interagency Buying Team Guide and the Interagency Incident Business Management Handbook for sample forms.</p> <p>Sample of Log Sheets</p> <ul style="list-style-type: none"> Resource Order Log (Leader and Deputy Only) Purchase Card Log Sheets Convenience Check Log Sheets <p>Source: National Wildfire Coordinating Group (NWCG) Publication, National Interagency Buying Team Guide, December 1999 (PMS 315).</p>					



RESOURCE: Mobile Communications Unit (Law/Fire)						
CATEGORY: Communications			KIND: Vehicle			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Console/ Workstation	2	2			
Equipment	Frequency Cap.	Multi Range	Multi Range			
Equipment	Power Source	Internal	Internal			
Equipment	Telephone System	6 Trunk/16 Extensions				
Personnel	Personnel	2	2			
COMMENTS:	Multi Range: 150-174 MHz, 450-470 MHz, 800 MHz (Simplex or Repeated), Single Range: 150-174 MHz only					



RESOURCE: Portable Pump						
CATEGORY: Firefighting			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Pumping Capacity (GPM)	500	250	50		
COMMENTS:	These are normally trailer mounted units.					



RESOURCE: Strike Team, Engine (Fire)						
CATEGORY: Firefighting (ESF #4); Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Engine, Fire	5	5	5	5	(See Engine for details)
Personnel	STL	1	1	1	1	Strike Team Task Force Leader
Personnel	Engine	4	3	3	3	Staffing on each Engine
Personnel	Total	21	16	16	16	
COMMENTS:		Strike Team defined as like number of resources, with common communications, and a leader. Engine Strike Team Typing is based on individual Engine Typing.				

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
Equipment	Chemical Release					Chemical Response Trailers; Level A, B, and C PPE suits
Equipment	Air, Liquids, and Solids					<ul style="list-style-type: none"> • Flame and Photo Ionization Detectors • Fluorometers • Particulate Meters • Soil and Sludge Sample Kits • pH meters • Decontamination Equipment • Portable Weather stations • Drum lifters • EMT kits • Chlorine kits
Equipment	Small Boats					<ul style="list-style-type: none"> • 32-foot and 24-foot Munsons • 15-foot Inflatable boats • 18-foot John boats
Equipment	Lighting/ Pumping Equipment					<ul style="list-style-type: none"> • Ready Pump Loads • High-capacity, hydraulically driven, centrifugal submersible pumps capable of transferring oil and

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
						chemicals or dewatering <ul style="list-style-type: none"> • Nonsubmersible diaphragm and peristaltic pumps capable of transferring oil and chemicals (medium/small capacity) • Hydraulic prime movers and support equipment
Equipment	Communications Equipment					Communications support equipment ranges from handheld radios to portable satellite communications repeater systems
Equipment	Oil Discharges					<ul style="list-style-type: none"> • Vessel of Opportunity Skimming System (VOSS) • Inflatable (45-inch) boom (6,000 feet) • Temporary Storage Devices
Equipment	Damage Control and Support					<ul style="list-style-type: none"> • Oil/water interface meter • Plugging and patching equipment • Generators (3.0 KW to 10 KW)
Equipment	Special Monitoring Equipment					<ul style="list-style-type: none"> • Radiological detection capabilities • Dispersant operations

RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT See Note 1	METRIC					
Equipment	Photographic Equipment					<ul style="list-style-type: none"> • 35 mm and digital cameras • Video cameras and players
Equipment	Vehicle Command Post					<ul style="list-style-type: none"> • Tractor/trailer units • Mobile Incident Command Posts • All-terrain vehicles
COMMENTS: <p>Note 1: NSF Specialized Response Equipment</p> <p>There are only three National Strike Force teams in the Nation. All three National Strike Force teams have the same level of capability, which exceeds the standards set in the Mutual Aid definition of a Type I Hazardous Materials Entry Team. However, because of their deployment capabilities and versatility, they are simply classified as "Other." The U.S. Coast Guard National Strike Force (NSF) was created in 1973 as a Coast Guard special force under the National Contingency Plan (NCP/see 40 CFR 300.145) to respond to oil and hazardous chemical incidents. The National Strike Force is comprised of three 40-member Strike Teams and the National Strike Force Coordination Center (NSFCC), which manages, supports, and sets standards for the three teams. The three teams are: the Atlantic Strike Team in Fort Dix, NJ; the Gulf Strike Team in Mobile, AL; and the Pacific Strike Team in Novato, CA.</p> <p>The NSF is recognized worldwide as an expert in preparedness and response to mitigate the effects of oil discharges and hazardous substance releases. Its mandate is to assist and support USCG and EPA Federal On-Scene Coordinators (FOSCs) with their response and preparedness activities to protect the public health and welfare and the environment. Although its three primary missions are pollution response, training, and planning, the NSFCC also houses a Public Information Assist Team (PIAT), which is capable of providing public affairs support as well as crisis communication and Joint Information Center (JIC) expertise to FOSCs during a response.</p> <p>NSF Qualification Program:</p> <p>The NSF Qualification Program includes four levels. Although these levels are unique to the NSF, our personnel meet training and skill requirements similar to those established in 29 CFR 1910.120 (g) (6).</p> <ul style="list-style-type: none"> • Response Member (RM): Is trained in more than 50 areas of oil and HazMat response operations and attains an awareness level of all NSF Equipment. This allows the RM to perform a number of vital functions in a pollution response, primarily assisting the RT. • Response Technician (RT): Is a significant level beyond the RM and is the position reached by most Strike Team members. An RT is qualified to operate all NSF equipment. An RT has also attended pollution response specialist courses and obtained significant field experience on oil and HazMat incidents. • Response Supervisor (RS): Is a level beyond RT and supervises the technical aspects of NSF response operations at oil or HazMat incidents. This includes the preparation, deployment, and operation of all NSF equipment. The RS helps a response in many areas, including directing operations, response planning, resolving site safety issues, and solving technical problems. 						



RESOURCE: U.S. Coast Guard National Strike Force						
CATEGORY: Hazardous Materials Response (ESF #10)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
See Note 1						
	<ul style="list-style-type: none">Response Officer (RO): Is a senior leadership position filled by a commissioned or warrant officer. An RO manages all aspects of any size NSF response, including response planning, mobilization, and operations. An RO receives significant resident and unit training, and field experience. An RO can fill key positions in a spill management team, direct operations, liaise with senior officials, resolve safety issues, recommend alternative countermeasures, explain policies, and solve crisis management problems.					



RESOURCE: Water Tender, Firefighting (Tanker)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	2,000 gallon	2,000 gallon	1,000 gallon	1,000 gallon	2,000 gallon	
Equipment	300 GPM	300 GPM	120 GPM	50 GPM	300 GPM	
COMMENTS:						

Typed Resource Definitions

Incident Management Resources



FEMA 508-2

July 2005



Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .

Supersedure	This document replaces <i>Emergency Management Resources</i> , dated May 2005
Changes	EMAC Advance Team table deleted pending complete rewrite. Document Title renamed. Table categories changed to comply with NIMS category list.

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RESOURCE: Airborne Communications Relay Team (Fixed-Wing)						
CATEGORY: Resource Management			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	See Note 1 See Note 2	Instrument-rated (IFR) pilot/co-pilot	Non-instrument rated pilot/co-pilot	Instrument rated (IFR) pilot/co-pilot	Non-instrument rated (VFR) pilot/co-pilot	
Equipment	See Note 3	Same as Type IV	Same as Type IV	Capable of operations up to 10,000'	Capable of operations up to 10,000' MSL Carries (provided) airborne repeater (or cross-band repeater) for hands-off communications relay	
Aircraft	Fixed-Wing See Note 4	Same as Type III	No-overcast and clear-above flight conditions	Flight possible through and in overcast conditions	Flight possible through overcast and clear-above conditions	
COMMENTS:	<p>Team provides airborne communications relay using fixed-wing platforms to support Federal, State, and local emergency needs. Relays are primarily conducted through aircrews, but can also be accomplished through electronic repeaters carried aboard CAP aircraft. Varying levels of specialized management support and command/control capabilities are included in team structures. Notes: Airborne repeaters and crossband repeaters must be provided by the requesting agency, but team will install.</p> <p>Source: Washington State Civil Air Patrol</p> <p>Note 1: Crew members capable of at least 8 hours of flying per day and 14-hour duty day. Number of certified pilots, equipment operators, and technicians needed to maintain communications platform depending on size and capability of aircraft.</p> <p>Note 2: Trained communicator on board to "in-person" relay communications ("traffic") from sender to receiver on miscellaneous frequencies or channels, including FCC and NTIA controlled frequencies.</p> <p>Note 3: Airborne platform for (voice, data, images) communications relay and airborne repeater traffic. Enables VHF/UHF communications where ground-to-ground contact is impossible.</p> <p>Note 4: Fixed-Wing single-engine or twin-engine aircraft (i.e., Cessna C182, C182RG, C206, TU206). Requires access to fuel supply and fueling points, and routine maintenance facilities and supplies for extended deployments.</p>					

RESOURCE: Airborne Communications Relay (Fixed-Wing) (CAP)						
CATEGORY:	Resource Management			KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicle	Fixed-Wing Aircraft	Same as Type II	IFR-Capable Fixed-Wing CAP Aircraft	Fixed-Wing CAP Aircraft	Fixed-Wing Aircraft (member owned)	
Vehicle	Capacity	Same as Type II	Same as Type III	Same as Type IV	2-4 passengers with cargo not to exceed design specification of aircraft	
Equipment	Flight Suit	Same as Type II	Same as Type III	Same as Type IV	Appropriate level of PPE	
Equipment	Communications	Same as Type III plus Airborne Repeater capable of patching across multiple operating radio bands	Same as Type III plus Airborne Repeater supporting Federal frequency assignments	Same as Type IV plus: VHF Radios	Standard FAA FM Radio	
Personnel	Training & Ratings	Same as Type II	Pilot – Private Pilot (instrument) or higher certificate and complete unit certification program	Same as Type IV plus: Instrument rating desired, but not required	Pilot – Private Pilot or higher certificate and complete unit certification program	
Personnel	Crew Availability	Same as Type II	Same as Type III	Same as Type IV	Aircrew(s) available for short duration operations (1 week or less)	
Personnel	Management Support - Coordination Capabilities	Same as Type II	Incident staff capable of managing air operations branch	Incident staff capable of supporting independent flight release	Unit-level flight release	
COMMENTS:	<p>Aircrews can work a maximum of 12-hour shifts, depending on individual unit policies and procedures. Crew availability does not require continuous availability of specific personnel, only that crews are available to those specifications.</p> <p>Aircraft will be maintained in accordance with Federal Aviation Administration Regulations.</p> <p>Aircraft will be expected to operate out of established airfield with paved runways.</p> <p>Aircrews will indicate fueling and runway requirements for the aircraft provided.</p>					

RESOURCE: Airborne Transport Team (Fixed-Wing)						
CATEGORY: Transportation (ESF #1)			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Crew members See Note 1	Instrument-rated (IFR) pilot/co-pilot	Non-instrument rated pilot/co-pilot (1 pilot required only)	Instrument-rated (IFR) pilot/co-pilot (pilot and co-pilot required)	Non-instrument rated pilot/co-pilot (1 pilot required only)	
Personnel	Number of passengers	Maximum 2 additional	Maximum 3	Maximum 1	Maximum 2	
Aircraft	Fixed-Wing See Note 2 See Note 3	Airborne transport capable of operations up to 10,000' MSL Flight possible through and in overcast conditions (instrument meteorological conditions)	Airborne transport capable of operations up to 10,000' MSL Visual meteorological conditions only	Airborne transport capable of operations up to 10,000' MSL Flight possible through and in overcast conditions (instrument meteorological conditions)	Visual meteorological conditions only	
Aircraft	Cargo	Carries up to 350 lbs.	Carries up to 500 lbs.	Carries up to 200 lbs.	Carries up to 350 lbs.	
COMMENTS: Team provides limited airborne transportation and emergency airlift to support Federal, State, and local agency needs using light fixed-wing platforms owned by CAP. Varying levels of specialized management support and command/control capabilities are included in team structures. <i>Source: Washington State Civil Air Patrol</i> Note 1: Crew members capable of at least 8 hours of flying per day and 14-hour duty day. Number of certified pilots, equipment operators, and technicians needed depends on size and capability of aircraft. Note 2: Fixed-Wing single-engine or twin-engine aircraft capable of 120 knots (130 mph) at cruise (i.e., Cessna C182, C182RG, C206, TU206). Capable of point-to-point transport into short airfields; Capable of eye-in-the-sky coordination of tactical teams on the ground and photo/imaging; GPS guided. Note 3: Requires access to fuel supply and fueling points, and routine maintenance facilities and supplies for extended deployments.						

RESOURCE: Communications Support Team (CAP)						
CATEGORY:	Resource Management			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Manning	4 radio operators 1 unit leader 1 dedicated technician	3 radio operators 1 unit leader 1 technician on call	2 radio operators 1 unit leader	1 radio operator 1 unit leader	
Equipment	Communications	Mobile FAA FM Radio Mobile and Portable VHF/FM Radios, capable of AES/DES encryption Portable VHF/FM repeater, capable of AES/DES encryption Mobile and Portable UHF/FM Radios, capable of AES/DES encryption Portable UHF/FM repeater, capable of AES/DES encryption Satellite Phone ALE Capable HF Radio HF E-mail Link	Mobile FAA FM Radio Mobile and Portable VHF/FM Radios, capable of DES encryption Portable VHF/FM repeater Mobile and Portable UHF/FM Radios, capable of DES encryption Cell Phone ALE Capable HF Radio	Same as Type IV plus HF Radio	Mobile FAA FM Radio Mobile and Portable VHF/FM Radios Cell Phone	
Team	Availability and Duration	Same as Type II	Extended operations (greater than 1 week)	Same as Type IV	Short duration operations (1 week or less)	
Management Support	Coordination Capabilities	Same as Type II	Same as Type III	Incident staff capable of managing the communications unit	Team management only	
COMMENTS:	Availability does not require continuous availability of specific personnel, only that teams are available to those specifications. Personnel may be rotated in and out of specific team positions. Type IV teams are expected to serve as independent relay points. Type III teams are expected to support local level incident operations. Type II teams are expected to support regional incident operations with multiple agencies. Type I teams are expected to support national incident operations with multiple agencies.					

RESOURCE: Critical Incident Stress Management Team						
CATEGORY: Health and Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of Team Coordinators	1-2	1	1		
Personnel	Team Coordinator Experience and Comprehension	Experience as supervisor of CISM Team in large-scale disaster situations in home and other States. Has extensive experience in CISM team administration and knowledge of ICISF standards.	Experience as supervisor of CISM Team in medium- to large-scale disaster situations in home State. Has extensive experience in CISM team administration and knowledge of ICISF standards.	Experience as supervisor of CISM Team in small-scale disaster situations in home State. Has experience in CISM team administration and knowledge of ICISF standards.		
Personnel	Team Coordinator Training	Completed certification from the ICISF. Participated in training approved by the ICISF	Completed certification from the ICISF. Participated in training approved by the ICISF	Participated in training approved by the ICISF		
Personnel	Number of team members See Note 1	10-15	2-4	1		
Personnel	Team member experience and comprehension	Experience as part of CISM Team in large-scale disaster situations in home and other States. Has extensive experience in CISM administration and knowledge of ICISF standards.	Experience as part of CISM Team in medium- to large-scale disaster situations in home State. Has extensive experience in CISM administration and knowledge of ICISF standards.	Experience as part of CISM Team in small-scale disaster situations in home State.		
Personnel	Team member training	Completed certification from the ICISF. Participated in training approved by the ICISF	Completed certification from the ICISF. Participated in training approved by the ICISF	Participated in training approved by the ICISF		

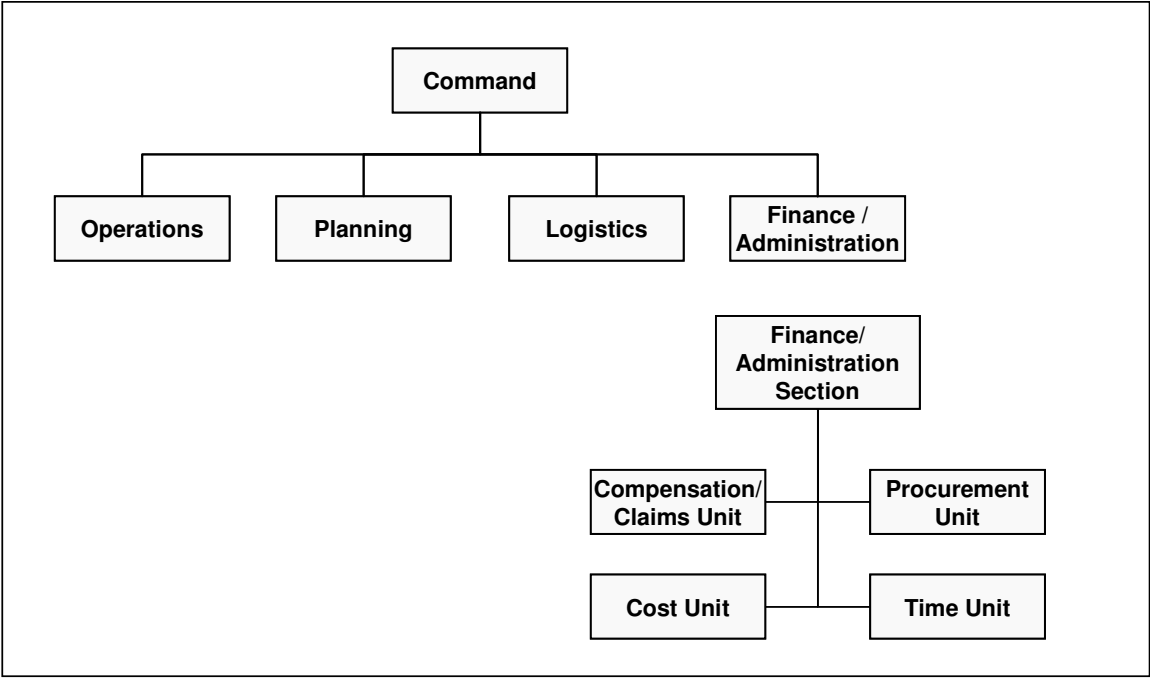
RESOURCE: Critical Incident Stress Management Team						
CATEGORY: Health and Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment		Laptop with wireless Internet capabilities Satellite/cell phone	Laptop with Internet capabilities Cell phone			
COMMENTS:	<p>Note 1: Number of team members based on size of incident and effects on emergency responders; experience, training, and comprehension</p> <p>Team is responsible for the prevention and mitigation of disabling stress among emergency responders in accordance with the standards of the International Critical Incident Stress Foundation (ICISF).</p> <p>Team composition, management, membership and governance varies, but can include psychologists, psychiatrists, social workers, and licensed professional counselors.</p> <p>Source: <i>International Critical Incident Stress Foundation</i></p>					

RESOURCE: Donations Coordinator						
CATEGORY: Volunteers and Donations (ESF #15), Mass Care (ESF #6)				KIND:	Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Experience and Comprehension See Note 1	Experience in supervisory role in Donation Coordination in three or more federally declared disaster situations in different States. Has extensive experience in working with NVOAD agencies and MOUs. Has organized and supervised Donation Management in a non-federally declared disaster. Has complete working knowledge of IA & PA and VAL functions under FEMA/State agreement. Understands function of long-term recovery committees	Experience in supervisory role in Donation Coordination in a federally declared disaster. Has worked with a State VOAD on organizing donation management on non-federally declared disaster. Aware of IA and VAL functions under FEMA/State Agreement	Experience in working with a federally declared disaster donation coordination effort. Active in VOAD meetings.	Has attended State VOAD meetings	
Personnel	Training	Has TTT-Training and has trained donations management and volunteer coordination.	Has had training in donations management and volunteer coordination.	Has had training in donations management and volunteer coordination	Has had training in donations management and volunteer coordination.	
Equipment		Laptop with wireless Internet capabilities; Satellite or cell phone Standardized donations management program and form templates for personalizing to disaster	Laptop with wireless Internet capabilities; Satellite or cell phone Standardized donations management program and forms	Equipment provided by requesting State	Equipment provided by requesting State	

RESOURCE: Donations Coordinator						
CATEGORY:	Volunteers and Donations (ESF #15), Mass Care (ESF #6)			KIND:	Personnel	
MINIMUM CAPABILITIES:						
COMPONENT	METRIC	TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMMENTS:	<p>Note: 1 Number based on size and scope of event and public reaction to event.</p> <p>Possesses an operational knowledge of all aspects of donations coordination, including management of solicited and unsolicited funds, goods, and services from concerned citizens and private organizations following a catastrophic disaster situation. Interfaces with the other State and local government agencies, the FEMA Donations Coordinator, Non-Governmental Organizations (NGOs), and Volunteer Organizations Active in Disaster (VOAD), such as the American Red Cross, The Salvation Army, and religious organizations as appropriate for the emergency situation. Capable of the physical establishment and operation of the Donations Coordination Center (DCC), which may be part of the Emergency Operations Center (EOC) or other designated location, including facility, data management, and internal operations. Capable of managing donations phone banks, distribution centers, warehousing, and supply systems; and records offers of donated funds, goods, and volunteer services.</p> <p>The Donations Coordination/Management Team Leader determines number of donations coordinators per incident.</p> <p>Note: Donations Coordinator is a subsection of a Donations Management Team. Has working knowledge of the Individual Assistance and Public Assistance functions under FEMA/State agreement. Has working knowledge of establishing long-term recovery committees on local levels following events.</p>					

RESOURCE: Donations Management Personnel/Team						
CATEGORY: Volunteers and Donations (ESF #15)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team Leader Expertise, Training, and Experience	X (See Comments section)				
Personnel	Donations Specialist Training and Experience	X (See Comments section)	X (See Comments section) May be referred to as Donations Strike Team			
COMMENTS:		<p>A donations management team consists of one or two persons trained and experienced in all aspects of donations management. The team will be deployed to a disaster-affected jurisdiction after impact to assist in the organization and operations of local or state donations management in support of the affected jurisdiction.</p> <p>Each Person: Possesses an overall knowledge of all aspects of donations management at all levels. Capable of assisting the jurisdiction (if required) in the establishment of a multiagency warehouse, integration of donated goods and services into the overall disaster supply system, and recommends the establishment of local distribution centers, as necessary.</p> <p>Team Leader: Experienced in actual donations operations. Capable of providing advice on Voluntary Agency/Donations Coordination Team (DCT) coordination. Assists the NGOs, State, and local government in the coordination of joint activities to support donations management operations.</p> <p>Donations Specialist: Possesses an overall knowledge of all aspects of donations management at all levels. Capable of assisting in the physical establishment of the Donations Coordination Center (DCC) and the Phone Bank (if required). This includes facility, data management, and internal operations. Capable of assisting the NGOs, State, and local government in the coordination of joint activities to support donations management operations.</p>				

RESOURCE: EOC Finance/Administration Section Chief/Coordinator						
CATEGORY: Resource Management			KIND: Personnel			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Experience, Training, and Comprehension	Supervisory role in Finance/Admin in 3 or more federally declared disaster situations in different States. Has organized and supervised subunits of Section in a federally and/or non-federally declared disaster. Has extensive experience and training in IC system	Supervisory role in Finance/Admin in a federally declared disaster situation in home and/or other State. Has organized and supervised subunits of Section in a non-federally declared disaster in home State. Has experience and training in IC system	Training and/or experience in Finance/Admin for non-federally declared disaster situations in home State. Has training in IC system		
Equipment		Laptop with wireless Internet capabilities; Satellite/cell phone; Standardized forms commonly used in the execution of this function	Laptop with Internet capabilities; Satellite/cell phone; Standardized forms commonly used in the execution of this function	Equipment provided by requesting State: Laptop, comm., and standardized forms commonly used in the execution of this function		
COMMENTS:		<p>Individual at the EOC responsible for tracking incident costs and reimbursement accounting, and coordinating/administering support for EOC personnel during disaster operations. This function is part of the standardized ICS structure per the National Incident Management System. If situation warrants, chief/coordinator oversees subunits of this function to include Compensation/Claims, Procurement, Cost, and Time. (See Figure 1.) When there is a specific need for financial reimbursement (individual and agency or department), and/or administrative services to support incident management activities, a Finance/Administration Section is established. Under the ICS, not all agencies will require such assistance. In large, complex scenarios involving significant funding originating from multiple sources, the Finance/Administrative Section is an essential part of the ICS. In addition to monitoring multiple sources of funds, the Section Chief must track and report to the IC the financial "burn rate" as the incident progresses. This allows the IC to forecast the need for additional funds before operations are affected negatively. This is particularly important if significant operational assets are under contract from the private sector. The Section Chief may also need to monitor cost expenditures to ensure statutory rules that apply are met. Close coordination with the Planning Section and Logistics Section is also essential so that operational records can be reconciled with financial documents. Note that, in some cases, only one specific function may be required (e.g., cost analysis), which a technical specialist in the Planning Section could provide. The Finance/Administration Section Chief will determine, given current and anticipated future requirements, the need for establishing specific subordinate units. In some of the functional areas (e.g., procurement), an actual unit need not be established if it would consist of only one person. In such a case, a procurement technical specialist would be assigned in the Planning Section instead. Because of the specialized nature of finance functions, the Section Chief should come from the agency that has the greatest requirement for this support. The Section Chief may have a deputy.</p> <p><i>Source: National Incident Management System, March 2004</i></p>				

RESOURCE: EOC Finance/Administration Section Chief/Coordinator						
CATEGORY: Resource Management			KIND: Personnel			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC	 <p>Figure 1: Organization Under ICS</p>				

RESOURCE: EOC Management Support Team						
CATEGORY: Resource Management			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Information Officer	Yes	Yes	Yes	Yes	
Personnel	Liaison Officer	Yes	Yes	Yes	Yes	
Personnel	Safety Officer	Yes	Yes			
Personnel	Incident Commander See Note 1	Optional	Optional	Optional		
Personnel	Administrative Aide	Yes				
COMMENTS:	Provides support to an Incident Commander. Typically comprised of an Information Officer, Liaison Officer, Safety Officer, and Administrative Aide, although some functions may be optional.					
	Note 1: An Incident Commander is an optional member of the team, since it is assumed that an Incident Command/lead has already been established under which these support functions will operate. Refer also to "Incident Management Team."					
	Information Officer: The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command and multijurisdictional incidents. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.					
	Liaison Officer: Incidents that are multijurisdictional, or have several agencies involved, may require the establishment of the Liaison Officer position on the Command Staff. Only one Liaison Officer will be assigned for each incident, including incidents operating under Unified Command and multijurisdictional incidents. The Liaison Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The Liaison Officer is the contact for the personnel assigned to the incident by assisting or cooperating agencies. These are personnel other than those on direct tactical assignments or those involved in a Unified Command.					
	Safety Officer: The Safety Officer's function is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only one Safety Officer will be assigned for each incident. The Safety Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities such as air operations, hazardous materials, etc.					
	Administrative Aide: The Administrative Aide's function is to provide administrative/secretarial support to the EOC Management Support Team. Responsibilities include keeping official minutes of team meetings, receiving phone calls to the EOC, making meeting arrangements, and other duties as needed.					
	Source: FIREScope, California Department of Emergency Services, 2001; Phoenix Fireground, City of Phoenix Fire Department, 2002					

RESOURCE: EOC Operations Section Chief						
CATEGORY: Resource Management			KIND: Personnel			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Experience, Training, and Comprehension	Supervisory role in Operations Section in 3 or more federally declared disaster situations in different States. Has organized and supervised subunits of Section in a federally and/or non-federally declared disaster. Has extensive experience and training in IC system	Supervisory role in Operations Section in a federally declared disaster situation in home and/or other State. Has organized and supervised subunits of Section in a non-federally declared disaster in home State. Has experience and training in IC system	Training and/or experience in Operations for non-federally declared disaster situations in home State. Has training in IC system		
Equipment		Laptop with wireless Internet capabilities; Satellite/cell phone; Standardized forms commonly used in the execution of this function	Laptop with Internet capabilities; Satellite/cell phone; Standardized forms commonly used in the execution of this function	Equipment provided by requesting State: Laptop, comm., and standardized forms commonly used in the execution of this function		
COMMENTS:	<p>Individual at the EOC responsible for managing tactical operations at the incident site directed toward reducing the immediate hazard, saving lives and property, establishing situation control, and restoring normal conditions; responsible for the delivery and coordination of disaster assistance programs and services, including emergency assistance, human services assistance, and infrastructure assistance; and oversight of subunits of Operations Section, including Branches, Division/Groups and Resources as warranted. (See Figure 2.) The Operations Section Chief directly manages all incident tactical activities and implements the IAP. The Operations Section Chief may have one or more deputies (preferably from other agencies in multijurisdictional incidents). Deputies will be qualified to a similar level as the Operations Section Chief. An Operations Section Chief should be designated for each operational period and will have direct involvement in the preparation of the IAP for the period of responsibility.</p> <p>Source: <i>National Incident Management System, March 2004</i></p>					

RESOURCE:		EOC Operations Section Chief				
CATEGORY:	Resource Management			KIND:	Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		<div><div>Command</div><div><div>Operations</div><div>Planning</div><div>Logistics</div><div>Finance / Administration</div></div><div><div>Operations Section</div><div>Branch</div><div>Division or Group</div><div>Resource</div></div></div>				

Figure 2: Operations Section Under ICS

RESOURCE: EOC Planning Section Chief						
CATEGORY: Resource Management				KIND:	Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Experience, Training, and Comprehension	Supervisory role in Planning Section in 3 or more federally declared disaster situations in different States. Has organized and supervised subunits of Section in a federally and/or non-federally declared disaster. Has extensive experience and training in IC system	Supervisory role in Planning Section in a federally declared disaster situation in home and/or other State. Has organized and supervised subunits of Section in a non-federally declared disaster in home State. Has experience and training in IC system	Training and/or experience in Planning for non-federally declared disaster situations in home State. Has training in IC system		
Equipment		Laptop with wireless Internet capabilities Satellite/cell phone Standardized forms commonly used in the execution of this function	Laptop with Internet capabilities Satellite/cell phone Standardized forms commonly used in the execution of this function	Equipment provided by requesting State: Laptop, communications, and standardized forms commonly used in the execution of this function		
COMMENTS:		<p>Individual at the EOC who oversees all incident-related data gathering and analysis regarding incident operations and assigned resources, develops alternatives for tactical operations, conducts planning meetings, and prepares the IAP for each operational period. (See Figure 3.) The Planning Section is responsible for collecting, evaluating, and disseminating tactical information pertaining to the incident. This section maintains information and intelligence on the current and forecasted situation, as well as the status of resources assigned to the incident. The Planning Section prepares and documents IAPs and incident maps and gathers and disseminates information and intelligence critical to the incident. The Planning Section has four primary units (Resources, Situation, Demobilization, and Documentation) and may include a number of technical specialists to assist in evaluating the situation and forecasting requirements for additional personnel and equipment.</p> <p><i>Source: National Incident Management System, March 2004</i></p>				

RESOURCE: EOC Planning Section Chief						
CATEGORY: Resource Management				KIND: Personnel		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<div><div>Command</div><div><div>Operations</div><div>Planning</div><div>Logistics</div><div>Finance / Administration</div></div><div><div>Planning Section</div><div><div>Resources Unit</div><div>Situation Unit</div><div>Demobilization Unit</div><div>Documentation Unit</div><div>Technical Specialists</div></div></div></div>					

Figure 3: Planning Section Under ICS

RESOURCE: Evacuation Coordination Team						
CATEGORY: Transportation (ESF #1)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number based on size and scope of evacuation activities	1 Evacuation Coordination Team leader 2 emergency management specialists 2 information technology specialists 2 transportation specialists	Same as Type III, plus: 1 emergency management specialist	1 Evacuation Coordination Team leader 1 information technology specialist 1 transportation specialist		
Equipment	Scalable based on number of specialists needed	7 laptop computers with wireless/satellite Internet access See Note 1 See Note 2	4 laptop computers with wireless/satellite Internet access See Note 1 See Note 2	Equipment provided by requesting State		
COMMENTS:		<p>Provides support in State and local emergency response efforts by compiling, analyzing, and disseminating traffic-related information that can be used to facilitate the rapid, efficient, and safe evacuation of threatened populations. Primarily operates in the State or local EOC as an extension of ESF #1 – Transportation. The mission of the Evacuation Coordination Team is to provide for the protection of life or property by removing endangered persons and property from potential or actual disaster areas to areas of less danger through the successful execution of evacuation procedures.</p> <p>Note 1: HURREVAC pre-loaded with requesting community clearance times in EVACDATA folder in HURREVAC.</p> <p>Note 2: Access to ETIS (obtain appropriate State password upon arrival from the local EOC); 2 satellite/cell phones.</p> <p>See also Evacuation Liaison Team</p>				

RESOURCE: Evacuation Liaison Team (ELT)						
CATEGORY: Transportation (ESF #1)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Emergency Management Specialist	X See Note 1				
Personnel	Information Technology Specialist	X See Note 1				
Personnel	Department of Transportation Specialist	X See Note 1				
Equipment	Deployment Equipment	Two laptop computers with preloaded Internet access programs; See Note 2 Two telephones (landline or cellular)				
COMMENTS:	<p>Provides support in State and local emergency response efforts by compiling, analyzing, and disseminating traffic-related information that can be used to facilitate the rapid, efficient, and safe evacuation of threatened populations. Primarily operates in the State or local EOC as an extension of ESF #1—Transportation.</p> <p>Variations may exist according to level of experience among team members.</p> <p>Note 1: Training, Certification (where available), and Experience; Scalable based on number of specialists needed</p> <p>Note 2: HURREVAC loaded (with requesting community clearance times in EVACDATA folder in HURREVAC); Internet browser (Explorer preferred); access to ETIS (obtain appropriate state password upon arrival from the local EOC).</p> <p><i>Source: ELT draft profile, submitted by State of Florida, Division of Emergency Management, April 2003</i></p>					

RESOURCE: Incident Management Team						
CATEGORY: Resource Management				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Incident Commander	Yes	Yes	Yes	Yes	
Personnel	Operations Section Chief	Yes	Yes	Yes	Yes	
Personnel	Planning Section Chief	Yes	Yes			
Personnel	Logistics Section Chief	Yes	Yes	Yes		
Personnel	Finance/Admin Section Chief	Yes	Yes	Yes	Yes	
Personnel	Specialized Functions (i.e., HazMat, Insurance, etc.)	Yes	Optional	Optional	Optional	
COMMENTS:	<p>A command team comprised of the Incident Commander, appropriate command and general staff personnel assigned to an incident. (Source: FIREScope)</p> <p>Components and Capabilities: Variations may also be based on level and type of disaster experience. (i.e., local event experience vs. national event experience).</p> <p>The Incident Commander's responsibility is the overall management of the incident (to which they are assigned). On most incidents, the command activity is carried out by a single Incident Commander. The Incident Commander is selected by qualifications and experience. The Incident Commander may have a deputy, who may be from the same agency, or from an assisting agency. Deputies may also be used at section and branch levels of the ICS organization. Deputies must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. Depending on the extent of the Incident Management team needed, this area of management may also have under its purview an Information Officer, Liaison Officer, Agency Representative(s), and Safety Officer.</p> <p>The Operations Section Chief, a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. The Operations Chief activates and supervises organization elements in accordance with the Incident Action Plan and directs its execution. The Operations Chief also directs the preparation of unit operational plans; requests or releases resources; makes expedient changes to the Incident Action Plan as necessary; and reports such to the Incident Commander. Depending on the extent of the Incident Management team needed, this area of management may also have under its purview a Branch Director, Division/Group Supervisor, Strike Team/Task Force Leader, Single Resource Coordinator, and Staging Area Manager.</p> <p>The Planning Section Chief is responsible for the collection, evaluation, dissemination, and use of information about the development of the incident and status of resources. Information is needed to: (1) understand the current situation, (2) predict probable course of incident events, and (3) prepare alternative strategies and control operations for the incident. This section serves as the Incident Commander's "clearing house" for information. The Section Chief's goal is to plan ahead of current events and to identify the need</p>					



RESOURCE: Incident Management Team						
CATEGORY:	Resource Management			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	for resources before they are needed. Depending on the extent of the Incident Management team needed, this area of management may also have under its purview a Resources Unit Leader, Situation Unit Leader, Documentation Unit Leader, Demobilization Unit Leader, and Technical Specialists.					
	The Logistics Section Chief is responsible for providing facilities, services, and material in support of the incident, and is accountable for all personnel working in the hazard zone of the incident. The Section Chief participates in development and implementation of the Incident Action Plan and activates and supervises the Branches and Units within the Logistics Section. Depending on the extent of the Incident Management team needed, this area of management may also have under its purview a Service Branch Director, Support Branch Director, Facilities Unit Leader, and Ground Support Unit Leader.					
	The Finance/Administration Section Chief is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration section. Depending on the extent of the Incident Management team needed, this area of management may also have under its purview a Time Unit Leader, Procurement Unit Leader, Compensation/Claims Unit Leader, and Cost Unit Leader.					
	Source: FIRESCOPE, California Department of Emergency Services, 2001					

RESOURCE: Individual Assistance Disaster Assessment Team						
CATEGORY: Resource Management			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	See Note 1	1 IA Disaster Assessment Team leader 1 Disaster Recovery Center leader and team based on determination of number(s) of DRCs 1 Voluntary Agency Liaison 1 Donations Management leader				
Equipment		Laptop with wireless Internet capabilities Satellite or cell phone Standardized donations management, unmet needs, resource booklet Various programs and form templates for personalizing to disaster				
COMMENTS:		<p>Note 1: Number based on size and scope of disaster and estimated assistance needs; knowledge.</p> <p>Team responsible for providing expert assessments of the disaster situation pertaining to claims for individual assistance and other programs. Disaster Recovery Center leader and team leader must have knowledge of all State programs and how they work with their Federal counterparts, must have worked as DRC State representative in one Federal disaster. Team members must have good knowledge of all State programs.</p> <p>All members must possess the ability to work with the public and understand disaster clients' dynamics in helping them achieve adequate service delivery.</p> <p>This team is not part of the Incident Command System, but rather is a specialty team that may be called on during times of need.</p>				

RESOURCE: Individual Assistance Disaster Assessment Team Leader						
CATEGORY: Resource Management			KIND: Personnel			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	See Note 1	Completed mission as administrative lead on 2 federally declared disasters as IA Team leader. Extensive knowledge of all programs (see comments for specifics) as well as assisted writing SAP- completed 10 years in EM in Human Services position	Completed mission as administrative lead on federally declared disasters as IA Team leader. Good knowledge on all programs (see comments for specifics), completed 5 years in EM in Human Services position	Completed mission as IA lead team member on federally declared disasters. Working knowledge on all programs (see comments for specifics), completed 3 years in EM in Human Services position	Completed mission as any member of an IA team on federally declared disasters. Attended classes on all programs (see comments for specifics)	
Equipment		Laptop with wireless Internet capabilities	Equipment provided by requesting State	Equipment provided by requesting State		
COMMENTS:		Individual responsible for leading the individual assistance disaster assessment team. (See Individual Assistance Disaster Assessment Team) Possesses an administrative knowledge of IA areas: Complete understanding of the State's other needs; assistance-State administrative plan, good working knowledge of NEMIS program. Administrative knowledge of the immediate/regular Crisis Counseling program, Manufactured Housing program, IA Housing program. Programmatic/administrative knowledge of SBA disaster loans, IRS disaster program, USDA food stamps/commodities disaster program, legal aid, Farm Services, Administration on Aging Services. Ability to work with personnel issues, as well as work closely with the public information department. This team is not part of the Incident Command System, but rather is a specialty team that may be called on during times of need. Note 1: Completed Following Trainings: FEMA IA, Vol. Management, Donation Management				

RESOURCE: Mobile Communications Center (Also referred to as "Mobile EOC")						
CATEGORY: Communication (ESF #2)			KIND: Vehicle			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicle	Chassis	48'-53' custom trailer, bus chassis, conventional cab/van chassis, or diesel motorhome chassis with or without slide-out room	35'-40' motorhome chassis with or without slide-out room	25'-35' Gas or diesel motorhome chassis, or custom trailer (trailer does require additional tow vehicle)	Converted SUV or Travel Trailer, or 25'-40' custom built trailer (trailer does require additional tow vehicle)	
Equipment	Interior	6-10 workstations, with private meeting area for Command personnel	4-6 workstations, with private meeting area for Command personnel	2-4 workstations	1 to 2 workstations	
Equipment	Radio Frequency Transceivers	RF Communications with adjoining agencies, State agencies through mutual aid transceiver and any other frequencies	RF Communications with adjoining agencies, State agencies through mutual aid transceiver and any other frequencies	RF Communications with adjoining agencies, State agencies through mutual aid transceiver	RF Communications within jurisdiction and with adjoining agencies	
Equipment	Internet Access Speed High-Speed Fax Speed	High bandwidth capabilities via satellite such as INMARSAT or V-Sat	High bandwidth capabilities via satellite such as INMARSAT or V-Sat; Faxing through cell or satellite system (4,800 bps)	Cellular system; Faxing through cell or satellite system (4,800 bps)	Via cellular system (portable)	
Equipment	Type of system See Note 1	PBX office-style telephone system & Cellular PBX System (ML500 or similar)	PBX office-style telephone system & Cellular PBX System (ML500 or similar)	PBX office-style telephone system	Through individual cell phones only	
Equipment	On-Scene Video Monitoring	Through camera/video system	Through camera/video system			
Equipment	Computer-Assisted Dispatch	Yes	Yes	Yes		

RESOURCE: Mobile Communications Center (Also referred to as “Mobile EOC”)						
CATEGORY: Communication (ESF #2)			KIND: Vehicle			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Computer/Server Capabilities	Same as Type III	Same as Type III	Hardwired and wireless LAN. Workstations should have Ethernet connection and 120 vac protected receptacle. All computer based software packages pre-installed	Basic computer systems only (power source must be provided from outside vehicle)	
Personnel	Function	Same as Type II except: Driver/Operator with CDL certification	Same as Type III plus: IT Support Communications Support	Same as Type IV	Driver/Operator	
Personnel	Deployment Capabilities	See Note 2	See Note 2	See Note 2	See Note 2	
COMMENTS: Radio Frequency Transceivers—Every agency has their assigned RF equipment in use. These frequencies should be distributed throughout the unit along with the most used adjoining agency transceivers. A central Communications rack should be built near the Communications Officer position. This rack should contain less used adjoining agency radios and programmable radios, giving the unit the ability to communicate with as many agencies as possible. Type I & II units should have an Interoperability Module installed in addition to the central rack. This module will allow for different frequency transceivers to communicate commonly. Satellite Systems—NMARSAT system can be utilized for telecommunications and DOD secure data transfer. For a MCC the unit should be roof mounted and auto-tracking. Useful for video-teleconferencing, high quality voice transmission, faxing, and dial-up Internet access. V-Sat systems use roof-mounted auto-deploy, auto-tracking dishes, and allow large downloads of bandwidth. This bandwidth can be managed to provide Internet access, voice communications, and video transfer for sending live on-scene video back to an EOC or other location. The FCC continues to approve new technology for this system. Iridium, Global Star, or other Sat-phones are ideal for in-the-field communications. Microwave Units—Some States and jurisdictions have microwave-capable facilities and equipment installed for quality video transfer. Server Computers—A rack-mounted Server should be installed in Type I, II, and III units. This Server can be designed to mimic many of the operations and software in use at the EOC. A hard-wired LAN and a wireless LAN should also be installed to enable all workstations access to the Server. Telephone System—An office-style PBX system should be installed in Type I, II, and III units. This system can be integrated with landlines, cell lines, and satellite telephones. Each workstation should have a telephone unit as well as units on-hand for exterior operations. Cellular PBX System (ML500 or similar)—This unit is used for multiple cell lines (suggest 5). It is tied into the main PBX for distribution throughout unit. The unit has auto-detect sensors that check for landline first and then switch to cell if landline is not available. Camera and Video Systems—The unit should have an installed mast (no taller than 30’ without exterior supports) and camera system with monitors in both the conference and communications area. The video system controls the multiple inputs and distributes them to the monitors. The system should support the mast and camera, display Server Computer programs, helicopter downlink, DSS, and have the capability to receive signals from additional units by plugging into exterior console.						



RESOURCE: Mobile Communications Center (Also referred to as “Mobile EOC”)						
CATEGORY:	Communication (ESF #2)				KIND:	Vehicle
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	Video Teleconferencing N/A Note 1: Voice Communi-cations through Landlines, Cell Lines, and Satellite. Note 2: All types should be capable of: <ul style="list-style-type: none">• Operating in environment with little to no basic services, including no electrical service, no phone lines, and no cell towers• Providing own power generation and fuel supply to operate a minimum of 3-4 days without refueling• Sustaining long term deployment as well as short-term responses• Facilitating communications between multiple agencies (Federal, State, county, and municipal agencies)• Operating as forward EOC• Minimal set up time• Serving basic personnel needs such as a bathroom, mini-refrigerator, microwave, and coffee maker where space is available Source: North American Catastrophe Service, Inc., 2003.					

RESOURCE: Mobile Feeding Kitchen (Mobile Field Kitchen)							
CATEGORY:		Food & Water (ESF #11)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER	
COMPONENT	METRIC						
Personnel	Number of people unit is capable of feeding	Feeds up to 1,000 twice daily	Feeds up to 650 twice daily	Feeds up to 300 twice daily	Feeds up to 100 twice daily		
Equipment	1 Mobile Kitchen Trailer (MKT-I)	45-53' trailer	36-42' trailer	20-30' trailer	16-18' trailer (concession type)		
Vehicle	See Note 1	Yes	Yes	Yes	Yes		
Personnel	Number of Kitchen Support Personnel	4, including kitchen supervisor	3, including kitchen supervisor	2	2		
COMMENTS:	The Mobile Feeding Kitchen (Mobile Field Kitchen or Rapid Deployment Kitchen) is a containerized kitchen that can be positioned forward in fulfillment of ESF #11. The units are used to support feeding operations at emergency incidents. It should be capable of providing hot meals twice daily to 650 to 1,000 individuals, either those providing the emergency response or those displaced by the disaster.						
	Note 1: 2 1/2-Ton or 5-Ton Truck and Driver for Transport (1 Truck + Driver).						
	The system should be equipped to provide storage, refrigeration, sanitation, and other essentials for all types of meal preparation. The units may be fitted with convection and conventional ovens, steam and tilt skillets, and modern burner units.						
	The kitchens may come with a support trailer that carries tables, chairs, additional implements, tents or dining hall facilities as requested. The kitchen should provide a minimum of 360 square feet of food preparation and serving areas protected from natural elements of the environment.						
	All food preparation equipment, the electrical supply, the environmental control system, and all related controls should be included. Setup and tear down should be accomplished in approximately 45 minutes.						

RESOURCE: Public Assistance Coordinator						
CATEGORY: Information & Planning (ESF #5)			KIND: Personnel			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Training See Note 1	Public Assistance Coordinator (PAC) Basic Training, on-the-job training and CE Attending Scoping Meetings and FEMA State PA meetings	Trainee Public Assistance Coordinator (PAC) Basic Required Training, CE and on-the-job training for an average of 2 disasters. Assisted a PAC on the average 2 disasters Attend applicant briefings and kick-off meetings	Project Officer (PO) Basic Training CE, and on-the-job training Prepare PWs Attend applicant briefings and kick-off meetings	Trainee Project Officer (PO) Basic Required Training and on-the-job training for an average of 2 disasters. Assisted a PO on the average 2 disasters Attend applicant briefings and kick-off meetings	
Equipment		Same as Type II	Same as Type III	Same as Type IV	Laptop/wireless Internet capabilities Satellite/or cell phone GPS General Office Supplies Standard Forms All-weather equipment and clothing	
COMMENTS:		<p>The Public Assistance Coordinator (PAC) is a subsection of the Public Assistance Team (PAT). The PAC is assigned to work with a Public Assistance (PA) applicant from declaration to funding approval. Posses an in-depth working knowledge of disaster relief laws, regulations, and Public Assistance programs and recovery roles of government and the private sector. Must have working knowledge of Project Worksheets preparation and validation, environmental and flood plain regulations, insurance requirements, Preliminary Damage Assessment, and 406 Mitigation. Capable of representing FEMA and officiating at public meetings and managing Project Officers and support staff. Working knowledge of NEMIS. Leadership, management, communication, organizational, interpersonal, and cognitive skills are required.</p> <p>The PAC performs functions of public assistance involving seven categories of eligible work as well as working with public officials on several areas of responsibility. This team is not part of the Incident Command System, but rather is a specialty team that may be called on during times of need.</p> <p>Note 1: Basic Required Training:</p> <ul style="list-style-type: none"> Recovery Operation I and II; Debris Management and Technology Security Continuing Education (CE) as example Environmental and Historical Preservation 406 Hazard Mitigation; 				



RESOURCE: Public Assistance Coordinator						
CATEGORY:	Information & Planning (ESF #5)			KIND:	Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<ul style="list-style-type: none">PA Cost Estimating FormatOn-the-Job Training					

RESOURCE: Rapid Needs Assessment Team						
CATEGORY: Resource Management			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Management Element	Team Leader FEMA Representative				
Personnel	Assessment Element	HazMat Specialist Medical Specialist Mass Care Specialist Infrastructure Specialist Fire/US&R				
Personnel	Support Element	Telecomm Specialist Logistics Specialist Operations Specialist				
Equipment	Deployment Equipment	Personal Kit Resupply Kit Team Life Support Kit Team Admin. Kit Vehicle Kit Communications Support Kit Fly-Away Kit				
COMMENTS:		<p>Number Determined by Size of Event.</p> <p>Determined by Number of Personnel Deployed with Team</p> <p>There is only one type of RNA Team. Variations may exist and/or specialists may be added according to the type and scale of disaster.</p> <p>Provides a rapid assessment capability immediately following a major disaster or emergency. The RNA Team will collect and provide information to determine requirements for critical resources needed to support emergency response activities. The Team is responsible for assessing both overall impact of a disaster event, and determining State and/or Federal immediate response requirements.</p> <ul style="list-style-type: none"> • Management Element–supervises and coordinates the assessment process and team logistical support. • State Team Leader–maintains overall responsibility for RNA Team operations, knowledgeable of local assets, geographic information, information management systems, State 				

RESOURCE: Rapid Needs Assessment Team						
CATEGORY:	Resource Management			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<p>response plans and procedures, State assets, response philosophies, etc.</p> <ul style="list-style-type: none">• FEMA Representative Assessment Element—members of the assessment element are cross-trained in more than one ESF, enabling them to assess immediate needs and requirements in more than one functional area.• HazMat Specialist (representing ESF #10)—assesses the affected sites and facilities and their potential for public exposure, identifies unsafe areas and types of hazards, contamination threats, and local hazardous materials mutual aid response capability.• Medical Specialist (representing ESF #8)—assesses the health/medical infrastructure including hospital and primary care systems, pharmacy systems, special population needs, environmental health, sanitation issues, emergency medical services, and patient evacuation needs and capabilities.• Mass Care Specialist (representing ESF #6, 11)—assesses the status of needs for mass feeding and emergency mass shelters, bulk distribution of relief supplies, emergency first aid needs, potential secondary disaster effects, and State and local governmental volunteer capability.• Infrastructure Specialist (representing ESF #3)—assesses the status of transportation.• Fire/Urban Search & Rescue (representing ESF #4, 9)—assesses the status of fire and search and rescue services including capabilities and limitations of any existing mutual aid agreements. Also identifies immediate needs for fire and/or search and rescue services.• Support Element (QRS)—provides documentation, logistics, and communications support for the Management and Assessment elements.• Telecommunications Specialists—installs, operates, and maintains the communications support package and provides technical support to the team during deployment.• Logistics Specialist—provides logistical support and services for the team during all phases of team activity.• Operations Specialist—collects assessment data from the Assessment Element, compiles data into report formats, and transmits reports to required individuals and organizations. <p>Source: FEMA Rapid Needs Assessment Team Operations Manual, April 2001</p>					

RESOURCE: Shelter Management Team						
CATEGORY: Mass Care (ESF #6)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Shelter Supervisor	X	X	X		
Personnel	Medical Services Manager	X				
Equipment	Operations Manager (water, sanitation, power, structural)	X	X			
Vehicle	Food Services Manager	X				
Supply	Exposure Control Monitor (depends on type of event)	Optional	Optional	Optional		
COMMENTS:		<p>Number Determined by Size of Shelter Operations</p> <p>The Shelter Management Team provides the managerial and operation support for a shelter used to house, feed, counsel, provide first aid, and related social services and welfare activities required to assist the victims of an emergency. Responsibilities of the team may include all or some of the following: operating the shelter; establishing security; ensuring the availability of adequate care, food, sanitation, and first aid; selecting and training personnel to perform operational tasks; monitoring contamination; performing decontamination; establishing exposure control and monitoring; monitoring overpressure and filtration systems; performing post-event reconnaissance; and directing egress.</p>				

RESOURCE: Volunteer Agency Liaison						
CATEGORY: Volunteers & Donations				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Experience, Training, Knowledge	<p>Has TTT-Training and has trained donations management and volunteer coordination.</p> <p>Has extensive experience in working with NVOAD agencies and MOUs.</p> <p>Experience in supervisory role as a VAL in 3 or more federally declared disaster situations in different States.</p> <p>Has complete working knowledge of IA & PA and VAL functions under FEMA/State agreement</p> <p>Broad understanding and great flexibility in possible models of LTRC that could be used.</p>	<p>Has had training in donations management and volunteer coordination.</p> <p>Has worked with a State VOAD on organizing donation management on non-federally declared disaster.</p> <p>Experience in supervisory role as a VAL in a federally declared disaster.</p> <p>Aware of IA and VAL functions under FEMA/State Agreement</p>	<p>Has had training in donations management and volunteer coordination</p> <p>Active in VOAD meetings.</p> <p>Experience in working with a VAL in a federally declared disaster.</p>	<p>Has had training in donations management and volunteer coordination.</p> <p>Has attended State VOAD meetings</p>	
COMMENTS:	<p>Serves as the central point between government entities and volunteer organizations in the coordination of information and activities of VOADs (Volunteer Organizations Active in Disasters) responding in times of disaster, including those services in execution of ESF # 6 – Mass Care and ESF #15 – Volunteers and Donations. Coordinates responding voluntary agency donations efforts, including handling, storage, and disbursement of donated goods and emergent volunteers who offer assistance in a disaster response. Establishes and maintains systems for emergency need, special needs, and unmet needs referrals from FEMA/State sources to and among the voluntary agencies. Closely coordinates voluntary agency activities with community relations, donations management, PIO/JIC, and other VOLAG agencies. Assist with framework and assignment of agencies to establishing the long-term recovery committees (LTRC). Working with State VOAD's leadership, establish frequent coordination meetings with VOAD agencies during the response phase of the disaster and continued scheduling of meetings to transition to the LTRC.</p>					

Typed Resource Definitions

Law Enforcement and Security Resources



FEMA 508-6

July 2007

Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces <i>FEMA 508-6, Law Enforcement and Security Resources</i> , dated July 2005.
Changes	The SWAT/Tactical Team resource definition table is extensively revised.

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Resources

RESOURCE: Bomb Squad/Explosives Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel		Same as Type II	2 or more Bomb Response Teams	1 Bomb Response Team		
Equipment	Blast Protective Clothing	Same as Type II	Same as Type III	Full Coverage Bomb Suit(s)		
Equipment	X-Ray	Same as Type II	Same as Type III	Portable X-Ray Device Capability		
Equipment	Render-safe Procedures (RSP) Equipment	Same as Type II	Employ explosive tools to conduct specific or general disruption Demolition Kit Bomb Technician Hand Tools	Employ tools to conduct general disruption Demolition Kit Bomb Technician Hand Tools		
Equipment	CBRN Protective Clothing	Same as Type II	PPE (including both modified level B and level C) for Chem/Bio with associated explosives See Note 1	No PPE for Chem/Bio		
Equipment	Remote Operated Vehicle	Robotic Vehicle capable of handling VBEIDs	Robotic Vehicle capable of handling non-vehicle IEDs	No robotic capability		
Equipment	Tools	Same as Type II	Explosives/WMD Reference Library Diagnostic equipment Rigging equipment	Explosives/WMD Reference Library		
Equipment	Monitoring/ Detection	CBRN Monitors to detect and identify	CBRN Monitors to detect	None		

RESOURCE: Bomb Squad/Explosives Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Explosive Transport	Same as Type II	Explosive Transport Vessel	No Explosive Transport Vessel		
Equipment	Communication	Radio, cellular telephone and data transmission capability	Radio and cellular telephone capability	Radio communication capability		
Vehicles		Same as Type II	Same as Type III	Bomb Response Vehicle(s)		
Personnel	Training	Same as Type II	Same as Type III	Hazardous Devices school (including WMD and Hazardous Materials Training) graduate Recertification every 3 years		
COMMENTS:	Type I is a NBSCAB accredited bomb squad capable of handling multiple or simultaneous incidents. Teams must have render safe capabilities including a remote (robotic) vehicle capable of handling a vehicle borne IED. Team trained and equipped to work in a CBRN environment.					
	Type II is a NBSCAB accredited bomb squad capable of handling multiple incidents. Teams must have render safe capabilities including a remote (robotic) vehicle which may not be capable of handling vehicle borne IED. Teams trained and equipped to work in a CBRN environment.					
	Type III is a NBSCAB accredited bomb squad, capable of handling a single incident. Teams must have basic IED render safe capabilities without a remote (robotic) vehicle. Teams may be trained, but not equipped to work in a CBRN environment.					
	Note 1: There is no technology at this time that provides both level A PPE, and blast and fragmentation protection.					
	Definitions					
	Bomb Response Team	A sub-unit within a bomb squad, consisting of at least two certified bomb technicians and a full set of equipment meeting minimum standards for bomb squad operations.				
	Bomb Squad	A bomb response organization, consisting of at least one bomb team (see the definition of a "bomb team"), accredited by the FBI Hazardous Devices School to standards set by the National Bomb Squad Commanders Advisory Board.				
	CBRN	Chemical, Biological, Radiological, Nuclear				
	Diagnostic Equipment	Equipment used to characterize specific components and device type by function (ex. fiber optics camera)				
	General Disruption Tools	Explosive tools such as Mineral Water Bottle Disruptors (MWB) or Hydra-Jet designed to disrupt devices without requiring specific diagnostic information.				



Resource: Bomb Squad/Explosives Team						
Category:	Law Enforcement/Security				Kind:	Team
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Other
Component	Metric					
	IED	Improvised Explosive Device				
	Level A PPE	Totally encapsulated chemical resistant vapor suit with Self Contained Breathing Apparatus (SCBA)				
	Level B PPE	Non-encapsulated or encapsulated chemical resistant suit with SCBA				
	Level C PPE	Non-encapsulated chemical resistant suit with Air Purifying Respirator (APR)				
	PPE	Personal Protective Equipment				
	Specific Disruption Tools	Explosive tools designed to disrupt or disable based on specific diagnostic information with a specific expected resultant outcome.				
	VBIED	Vehicle-Borne Improvised Explosive Device				
	WMD	Weapon(s) of Mass Destruction				

RESOURCE: Law Enforcement Aviation-Helicopters-Patrol & Surveillance						
CATEGORY: Law Enforcement/Security			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Aircraft	Helicopters	4 or more seats incl. Pilot 12K ft or < ceiling Certified aircraft Jet turbine	Same as Type I except Military Surplus	Same as Type II except 2 or more seats incl. Pilot Certificated aircraft or Military Surplus but would meet Certified Turbine, or reciprocating engine	Same as Type II except 2 or more seats incl. Pilot Certificated aircraft or Military Surplus but would meet Certified Turbine, or reciprocating engine Fixed or inflatable flotation device	
Aircraft	Capabilities	VFR	Same as type I	Same as type I	Same as type I	
Equipment	Radios	Programmable/encryption radios (aviation (2) & law enforcement (3 or <))	VHF/UHF capabilities; Police radios	Same as Type II	Same as Type II	
Equipment	Navigation Equipment	GPS Night Vision Goggles				
Equipment	Visual Aids	FLIR	Same as type I	Same as type I	Same as type I	
Equipment		Binoculars	Binoculars	Binoculars	Binoculars	
Equipment		Microwave Downlink Video Capability	Recommended: Microwave Downlink Video Capability			
Equipment	PPE	Helmet; Nomex Flight Suits; Gloves; Full Leather Boots (mandatory for flight crew, optional for other passengers)	Same as type I	Same as type I	Same as type I	

RESOURCE: Law Enforcement Aviation-Helicopters-Patrol & Surveillance						
CATEGORY: Law Enforcement/Security				KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Pilot requirements	Commercial or higher, rotary/helicopter, pilot license w/Class I Medical, pre-TFO experience, full-time assignment to unit	Same as Type I except Class II Medical	Same as Type II	Same as Type II	
Personnel	TFO requirements	Complete unit level training program, Min. 2 yrs in patrol, Superior field tactics skills, full-time assignment to unit Maint. Staff—Full-time assignment, A&P/IA license	Same as Type I Maint. Staff—Same as Type I except not required to be I/A	Same as Type II except Maint. Staff may be part-time or contracted		
Personnel	Pilot Training	Currency training every 6 months with all emergency procedures as well as meeting all FAA license requirements	Same as type I	Same as Type II	Same as type II, plus sea plane license	
Personnel	TFO Training	<u>TFO</u> —Unit-level training & Law Enforcement AOT Maint. Staff—Maintain I/A license w/ yearly classes	<u>TFO</u> —Unit-level training & Law Enforcement AOT	Same as Type II	Same as Type II	

RESOURCE:		Law Enforcement Aviation-Helicopters–Patrol & Surveillance				
CATEGORY:	Law Enforcement/Security			KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Comments:	Type I—Day/night patrol helicopters, infrared and visible light, searchlight, jet turbine powered, GPS, microwave or similar downlink, tracking devices					
	Type II—Same as Type I except military surplus					
	Type III—Same as Type II except: jet turbine or reciprocating engines					
	Type IV—Water landing/surveillance/patrol capabilities					
	Definitions					
	A&P	Airframe and Powerplant mechanic				
	FAA	Federal Aviation Administration				
	FLIR	Forward Looking Infrared				
	GPS	Global Positioning System				
	IA	Inspection Authorization				
	IFR/VFR	Instrument Flight Rules/Visual Flight Rules				
	PA	Public Address (speaker)				
PPE	Personnel Protective Equipment consists of clothing and equipment that provides protection to an individual in a hazardous environment. Chapter 9 of the IHOG details appropriate equipment requirements for various aerial missions and ground helicopter operations.					
VHF/UHF	Very High Frequency/Ultra High Frequency					
TFO	Tactical Flight Officer					



RESOURCE: Law Enforcement Observation Aircraft (Fixed-Wing)						
CATEGORY: Law Enforcement/Security			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Aircraft	Fixed-Wing Aircraft	Observation Aircraft	Observation Aircraft–Low and Slow			
Aircraft	Capacity	2-4 passenger with cargo not to exceed design specifications of aircraft	Same as Type I			
Equipment	Flight Suit	Appropriate level of PPE	Same as Type I			
Equipment	Video/ Electronic	Microwave Downlink Video; FLIR				
Equipment	Radios	VHF Radios; Police Frequency Radios	Same as Type I			
Personnel	Pilot requirements	Commercial or higher, ASEL, pilot license w/Class I or II Medical, full-time assignment to unit	Same as Type I			
Personnel	TFO requirements	Complete unit level training program, law enforcement trained	Same as Type I			
Personnel	Pilot Training	Commercial Pilots Certification or higher (instrument rated), updated every 6 mos. with Emergency Procedures as well as meet all FAA license requirements; Current Medical Flight Review (FAA)	Same as Type I			
Personnel	TFO Training	Unit-level training & Law Enforcement AOT	Same as Type I			



RESOURCE: Law Enforcement Observation Aircraft (Fixed-Wing)						
CATEGORY:		Law Enforcement/Security			KIND:	Aircraft
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	Type I-Fixed-Wing Aircraft with advanced observation capabilities for extended operations and nighttime use. Capable of sending video images to ground location (downlinking). Low and slow observation ability. General law enforcement type of fixed-wing.					
	Type II-Fixed-Wing Aircraft with observation capabilities for extended operations, low and slow observation ability. General law enforcement type or fixed-wing.					
	Definitions					
	AOT	Advanced Officer Training				
	FAA	Federal Aviation Administration				
	TFO	Tactical Flight Officer				
VHF	Very High Frequency					



RESOURCE: Mobile Field Force Law Enforcement (Crowd Control Teams)						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Protective Clothing	Same as type II	Same as type III	Protective Clothing; Soft Body Armor (helmet and face shield, gloves, shin guards) Fire-resistant clothing recommended		
Equipment	Communi- cation	Same as type II	Same as type III	Team Radio Communication Equipment (portable radios, extra batteries, battery charger, cellular phones)		
Equipment	Respiratory Protection	Same as type II	Same as type III	NIOSH-approved protective mask		
Equipment	Safety Equipment	Same as type II	Same as type III	Safety glasses; Ear protection (recommended); Fire extinguisher		
Equipment		Same as type II	Same as type III	Foul Weather Gear; Hand-Held Shields		
Equipment		Same as type II	Same as type III	Personal Hydration System		
Equipment	Chemical Protective Clothing	Same as type II	Level C PPE suits for entire team			
Equipment	Counter-Sniper Equipment	Provided by SWAT team	(2) Shoulder fired weapons			
Equipment	Surveillance Equipment	Same as type II	Same as type III	Video equipment capabilities		



RESOURCE: Mobile Field Force Law Enforcement (Crowd Control Teams)						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Individual Weapons	Same as type II	Same as type III	Department authorized handguns Duty gear and equipment		
Equipment	Impact Weapons	Same as type II	Same as type III	Riot Control Batons or approved impact weapon		
Equipment	Misc. Equipment	Same as type II	Same as type III	Bullhorns; Flex Cuffs; Mass arrest kits		
Equipment	Delivery Systems	Same as type II	Same as type III	Chemical Agents and Delivery Systems; Less lethal munitions and delivery systems		
Personnel		1 OIC 1 Deputy OIC 4 Supervisors 2 Counter Snipers 8 Grenadiers 38 Officers 4 Prison Transportation Officers 1 Field Booking Team Recommended	1 OIC 1 Deputy OIC 4 Supervisors 2 Counter Snipers 8 Grenadiers 38 Officers 4 Prison Transportation Officers	1 OIC 2 Supervisors 1 Counter Sniper 4 Grenadiers 19 Officers 2 Prison Transportation Officers		
Vehicles		Same as type II	2 Prisoner Transportation Vans 14 Patrol Vehicles	1 Prisoner Transportation Van 7 Patrol Vehicles		
Personnel	Training	Same as type II	Same as type III	No known national standard Law enforcement officer with certified advanced training		

RESOURCE:		Mobile Field Force Law Enforcement (Crowd Control Teams)				
CATEGORY:	Law Enforcement/Security			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	Type I – A predesignated team consisting of a Type I or a Type II tactical team (platoon) including four 12-person squads and an OIC and a Deputy OIC. Each squad includes a supervisor. The team is capable of managing large-scale operations including managing crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include CBRN environments. The team engages in routine training to maintain advanced skill level.					
	Type II – A predesignated team consisting of four 12-person squads and an OIC and a Deputy OIC. Each squad includes a supervisor. The team is capable of managing large crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include CBRN environments. The team engages in routine training to maintain advanced skill level.					
	Type III – A nondesignated team consisting of two 12-person squads and an OIC. Each squad includes a supervisor. The team is capable of managing large crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace.					
	Definitions					
	OIC	Officer in Charge				
	NIOSH	National Institute of Occupational Safety and Health				
	CBRN	Chemical, Biological, Radiological, Nuclear				
	Level C PPE	Personal Protection Equipment consisting of a non-encapsulated chemical resistant suit with APR				
	SWAT	Special Weapons Assault Team				
	Platoon	Consists of (4) 12-person squads with an OIC (minimum rank of lieutenant) and Deputy OIC (minimum rank of sergeant), each with a driver. Total minimum personnel is 52, with a minimum total of 14 vehicles				
Squad	An organized element of a platoon consisting of 11 officers and a supervisor (sergeant). 12 total personnel in a minimum of 3 patrol vehicles					
Field Booking Team	A team of personnel specially trained to respond to field incidents and set up a booking site to facilitate the booking process and transportation of those arrested. The size of the team depends on the nature of the incident					
Mass Arrest Kit	Kit containing field booking forms, Polaroid or digital camera, flex cuffs, plastic bags for prisoner property, computers, cutting tool for flex cuffs, fingerprint equipment					

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Air Compressor	Recommended ability to refill air bottles onsite				
Equipment	Scuba	1 for each diver, including: full face mask, regulator, 1 additional air bottle, wetsuit, fins, and light	Same as Type I, plus at least 1 additional air bottle per diver	Same as Type I, plus at least 1 additional air bottle per diver	Same as Type I, plus at least 1 additional air bottle per diver	
Equipment	Deep Water Scuba	Each diver will be equipped with backup air source and regulator			Each diver will be equipped with backup air source and regulator	
Equipment	Surface Supply System	Capable of sustaining divers for deep water dives (more than 60') or dives of extended lengths of time, including 2, 300' umbilical hoses to support primary and backup divers, and 1 positively pressured full face mask with communications system for each diver; Underwater video monitoring/recording capabilities			Capable of sustaining divers for deep water dives (more than 60') or dives of extended lengths of time, including 2, 300' umbilical hoses to support primary and backup divers, 1 positively pressured full face mask with communications system for each diver; Underwater video monitoring/recording capabilities	
Equipment	Remote Operating Vehicle (ROV)	Available only for a Type I Team				
Equipment	Towable Motorized Vessel	Capable of transporting the entire team and its equipment	Same as Type I	Same as Type I	Same as Type I	

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Electronic Communications Systems	Each diver equipped with underwater communications system	Recommended same as Type I	Recommended same as Type I	Same as Type I	
Equipment	Portable Sonar	Aides in locating objects from surface, allowing diver to be directed by support team				
Equipment	Drysuits/Wetsuits	Drysuits: Vulcanized-Rubber, 1 for each diver, necessary to have available for potential biological or HazMat diving	Same as Type I	Wetsuit, recommend drysuit	Same as Type I	
Equipment	Lift/Salvage	Bags with minimum lift capacity of 6,000 lbs. and rigging equipment	Bags with minimum lift capacity of 4,000 lbs. and rigging equipment (recommended)			
Equipment	Evidence Collection/Search Tools	Including: body recovery bags (fine nylon mesh), underwater metal detectors, sealing plastic containers, 200' of search lines and marker buoys	Same as Type I	Sealing plastic containers	Same as Type III, plus explosives handling equipment	
Personnel	Divers	Minimum 6, at least 4 for deep water diving (capability and training to dive a minimum of 100', low visibility overhead and cold-water environments)	Minimum 4	Minimum 3	2+ specially trained in explosives and underwater demolition	
	Dive Team Leader	1 per 4 divers	Same as Type I	Same as Type I (if available)	Recommended	
	Rescue Diver	1 rescue diver trained in First Aid/CPR and hyperbaric recognition	1 rescue diver trained in First Aid/ CPR and hyperbaric recognition (recommended)	1 rescue diver trained in First Aid/CPR and hyperbaric recognition (recommended)	1 rescue diver trained in First Aid/CPR and hyperbaric recognition (recommended)	

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicles		Support vehicle for transportation of personnel/equipment	Same as Type I	Same as Type I	Same as Type I	
Training		Minimum Physical Fitness Qualification with recurrent annual certification**; Scuba Certification; Public Safety Certification** – 100 hours minimum, including the use of full face masks and lift bags, surface supplied air systems, diving in polluted environments, use of lift bags for salvage operations, evidence recovery and preservation, low visibility, and overhead environment; (Recommended: aircraft deployment and tactical) operations; Certification of 6 training dives per year, including 1 training dive to maximum depth	Scuba Certification; Public Safety Certification** – 60 hours minimum, including the use of full face masks and lift bags; Certification of 6 training dives per year	Scuba Certification; Public Safety Certification** – 60 hours minimum, including the use of full face masks and lift bags; Certification of 6 training dives per year	Same as Type I, plus explosives training	
COMMENTS:		<p>All teams are described for law enforcement purposes. Many of these teams will be trained and prepared for search and rescue as well. All divers and dive operations will be compliant with current NFPA. 1670 and 1006 guidelines.</p> <p>** A national training standard needs to be developed.</p> <p>Description of Type</p> <p>Type I – A team of divers and a support team with necessary diving experience as well as law enforcement experience. Teams should be able to respond with all outlined equipment to handle evidence recovery and deep water diving. Team should be self-contained for 24 hours. A dive team leader with experience and training in risk/benefit analysis should be assigned to each dive team. Capable of conducting rescue dives.</p> <p>Type II – A team capable of responding with all outlined equipment to handle evidence recovery.</p> <p>Type III – A team with Scuba certification and Public Safety Diving Certification.</p>				



RESOURCE: Public Safety Dive Team												
CATEGORY:		Law Enforcement/Security			KIND:	Team						
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER						
COMPONENT	METRIC											
	<p>Type IV – A team of divers and support team with necessary diving experience as well as explosive/underwater demolition experience. Teams should be able to respond with all outlined equipment to handle evidence recovery and deep water diving. Team should be self-contained for 24 hours. A dive team leader with experience and training in risk/benefit analysis should be assigned to each dive team.</p> <p>Definitions of Acronyms</p> <table border="1"><tbody><tr><td>NFPA</td><td>National Fire Protection Agency</td></tr><tr><td>Scuba</td><td>Self-Contained Underwater Breathing Apparatus</td></tr><tr><td>Sonar</td><td>Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team</td></tr></tbody></table>						NFPA	National Fire Protection Agency	Scuba	Self-Contained Underwater Breathing Apparatus	Sonar	Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team
NFPA	National Fire Protection Agency											
Scuba	Self-Contained Underwater Breathing Apparatus											
Sonar	Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team											

RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Tactical Unit See Note 1 and Note 7	Type I Teams and Elements	Type II Teams and Elements	Type III Teams and Elements	None	
Team	Tactical Team See Note 2 and Note 7	One Type I tactical element One other Type I or Type II tactical element	One Type II tactical element One other Type II or III tactical element	Multiple Type III elements	None	
Team	Tactical Element See Note 3 and Note 7	Same as Type II except for Multiple special tactics capabilities	5 Personnel Vehicle One or more special tactics capabilities	2 - 5 Personnel Vehicle Basic entry capability	None	
Equipment	Ammunition	Same as Type II	Same as Type III	Ammunition for all weapons	None	
Equipment	Distraction Devices	Same as Type II	Same as Type III	Distraction devices	None	
Equipment	Optics and Target Illumination	Same as Type II	Same as Type III	Night vision goggles Weapons optics IR Illuminators Lighted Weapons System	None	
Equipment	Ballistic Protection	Same as Type II	Same as Type III	Multiple Hand-Held Ballistic shields and blankets (handgun and rifle rated)	None	
Equipment	Respiratory Protection	Same as Type II	Self contained respiratory protection suitable for SWAT operations See note 6	None	None	



RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Chemical Protective Clothing	Same as Type II	Level B and C PPE suitable for SWAT operations	Level C PPE suitable for SWAT operations	None	
Equipment	Insertion Equipment	Same as Type II plus: FAST ROPE	Same as Type III	Rappel Portable ladders	None	
Equipment	Negotiation Equipment	Same as Type II plus: Remote/mobile capabilities	Same as Type III	Transmitting equipment that includes wireless and hard-line	Mutual aid for pre-planned events.	
Special Tactical Capability	Breaching	Same as Type II plus: Explosives breaching charges	Same as Type III plus: Exothermic breaching equipment	Mechanical and shotgun breaching equipment	Mutual aid for pre-planned events.	
Special Tactical Capability	Observer / Marksman Capability	Same as Type II plus: IR optics	Same as Type III plus: Night operations capability	Long range, optically-equipped weapons.	Mutual aid for pre-planned events.	
Special Tactical Capability	Robotic Equipment	Same as Type II	Robot System with operator, communications, delivery capabilities and tactical weapons platform options	Employment of available bomb squad robotic assets	Mutual aid for pre-planned events	
Special Tactical Capability	Surveillance Equipment	Same as Type II plus: fiber optics	Same as Type III plus: video	Listening equipment	Mutual aid for pre-planned events	
Special Tactical Capability	Bomb Technician Support	Embedded Type I bomb team See Note 4	Embedded or mutual aid Type II bomb team See Note 4	Embedded or mutual aid Type III bomb team See Note 4	Type I, II or III bomb team available for post-incident hazard removal	
Special Tactical Capability	Special Munitions Equipment	Same as Type II	Same as Type III	Chemical agents and Less Lethal weapons with delivery systems.	Mutual aid for pre-planned events	

RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
<u>Special Tactical Capability</u>	<u>Negotiation</u>	<u>Same as Type II</u>	<u>Same as Type III</u>	<u>Negotiator</u>	<u>Mutual aid for pre-planned events</u>	
<u>Special Tactical Capability</u>	<u>Maritime Boarding</u> <u>See Note 9</u>	<u>Underway boarding via air insertion and watercraft</u>	<u>Underway boarding via air or watercraft</u>	<u>Pier-side boarding via air and ladder climb</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Tactical Medic</u> <u>See Note 5</u>	<u>Paramedics with advanced life support capabilities/ equipment</u>	<u>Same as Type III</u>	<u>EMTs (Recommend Paramedics)</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Insertion</u>	<u>Air mobile capabilities including FAST ROPE and rappel</u>	<u>Air mobile capabilities including FAST ROPE and rappel</u> <u>See Note 8</u>	<u>Rappel from structures only</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Specialty Vehicles</u>	<u>Command Post Vehicle, APC, ATV, Boats, Armored Response Vehicle</u> <u>See Note 9</u>	<u>None</u>	<u>None</u>	<u>None</u>	
COMMENTS: <p><u>Note 1: The Tactical Unit within a department is comprised of multiple officers, teams or elements and led by a commander and/or supervisor.</u></p> <p><u>Note 2: The Tactical Team is an operational entity comprised of multiple tactical elements, special capabilities and officers assembled for a mission. Tactical teams may be as a result of mutual aid in order to provide a regional capability.</u></p> <p><u>Note 3: The Tactical Element is two or more tactical operators with an assigned mission or function within a team. NIMS tactical team elements are generally 5 tactical operators unless otherwise specified. Tactical Element Equipment includes:</u></p> <p style="padding-left: 40px;"><u>Protective Clothing:</u> <u>Tactical Body Armor (helmet, eye and ear protection, fire resistant gloves & hood) suitable for SWAT operations</u></p> <p style="padding-left: 40px;"><u>Weapons:</u> <u>Handguns and shoulder fired weapon suitable for SWAT operations</u></p> <p style="padding-left: 40px;"><u>Respiratory Protection:</u> <u>Protective mask with spare filters suitable for SWAT operations</u></p> <p style="padding-left: 40px;"><u>Breaching Equipment:</u> <u>Mechanical Breaching Equipment</u></p> <p><u>Note 4: Bomb Team as defined in NIMS, qualified within their department to support tactical operations</u></p>						



RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<p><u>Note 5: Training includes Tactical Emergency Medic Support (TEMS).</u></p> <p><u>Note 6: Minimum amount of breathing apparatuses to outfit an entry team (see SCBA below)</u></p> <p><u>Note 7: Tactical Unit, Teams and Elements as defined in NIMS must be qualified within their department in the stated special tactics capabilities and equipment used to conduct tactical operations in high risk situation.</u></p> <p><u>Note 8: FAST ROPE may only apply to metropolitan/urban areas or jurisdictions with available air mobility.</u></p> <p><u>Note 9: May only apply to areas with critical waterway or coastal areas.</u></p> <p><u>Definitions:</u></p> <p><u>APC Armored Personnel Carrier</u></p> <p><u>APR Air Purifying Respirator</u></p> <p><u>ATV All Terrain Vehicle</u></p> <p><u>EMT Emergency Medical Technician</u></p> <p><u>Level B PPE Non-encapsulated or encapsulated chemical resistant suit with SCBA</u></p> <p><u>Level C PPE Non-encapsulated chemical resistant suit with APR</u></p> <p><u>PPE Personal Protective Equipment</u></p> <p><u>SCBA Self Contained Breathing Apparatus (may include re-breathers and or other hybrid type SCBAs suitable for SWAT operations)</u></p> <p><u>Special Tactics Capabilities Tactical Units, teams or elements with an assigned specialty mission such as observer / marksman, breaching, bomb technician support, hostage negotiations. Special Tactics Capabilities can exist within an element, team or unit based on the specific skills and qualifications of operators. Special Capabilities can also be gained by mutual aid from other jurisdictions or agencies with the capability to provide assistance in reasonable time.</u></p> <p><u>SWAT Special Weapons and Tactics</u></p> <p><u>Tactical Officer Sworn officers qualified within their department to conduct tactical operations in high risk situations.</u></p>					

Typed Resource Definitions

Health and Medical Resources



FEMA 508-5

May 2005



Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces the Health and Medical resource definition section in <i>Resource Definitions</i> , dated September 2004
Changes	Document is reformatted. Content is unchanged.

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RESOURCE: Disaster Medical Assistance Team (DMAT)—Basic						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Patient-care Capabilities	Same as Type II	Triage and treat up to 250 patients per day for up to 3 days without resupply	Augment or supplement Type I or II team within this team's local area	Personnel may be used to supplement other teams	
Team Readiness	Roster Fulfillment, Equipment Loading	Upon alert, full 35-person roster within 4 hrs. After activation, deployment ready within 6 hrs	Upon alert, full roster within 6 hrs. After activation, deployment ready within 12 hrs	Upon alert, 75% rostered within 12 hrs. After activation, deployment ready within 24 hrs	Does not meet minimal deployable team requirements	
Demonstrated Readiness	Readiness Testing and Deployment History	Same as Type II plus: History of prior full deployment to austere environment	100% rating on NDMS readiness test in past 12 mos	75% or greater rating on NDMS readiness test in past 12 mos	Less than Type III	
Personnel See Note 2	Membership Level	105 or more deployable team personnel on NDMS roster 12 or more physicians; 3 or more of each of PA or NP, RN, RPh, and paramedic	90 or more deployable team personnel on NDMS roster 9 or more physicians; 3 or more of each of PA or NP, RN, RPh, and paramedic	50 or more deployable team personnel on NDMS roster 6 or more physicians; 2 or more of each of PA or NP, RN, RPh, and paramedic	Less than Type III	
Equipment and Supplies	Logistics Status	Same as Type II	Full DMAT equipment cache properly managed, stored and inventoried per NDMS requirements	Full or partial DMAT equipment cache properly managed, stored, and inventoried per NDMS requirements	Less than partial cache	
Vehicle	Transportation Status	Same as Type II	Pre-arrangement for obtaining primary and alternate use vehicles	Incomplete transportation arrangements	None	
Didactic Training	Basic (Core) and Advanced Training Modules	90% completion of NDMS basic core training plus 50% of advanced training modules (By 08/05)	80% completion of NDMS basic core training plus 25% of advanced training modules (By 08/05)	50% completion of NDMS basic core training plus 25% of advanced training modules (By 08/05)	Less than Type III	

RESOURCE: Disaster Medical Assistance Team (DMAT)—Basic						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Training experience	Field Exercises (FEXs)	Same as Type II	Participate in at least 2 NDMS approved FEXs, one observed	Participate in at least 1 NDMS approved FEX	N/A	
COMMENTS:		<p>Definition: A DMAT is a volunteer group of medical and nonmedical individuals, usually from the same State or region of a State, who have formed a response team under the guidance of the National Disaster Medical System, or under similar State or local auspices.</p> <p>Note 1: Type I = fully operational; Type II = operational ; Type III = augmentation/local team; Type IV = developmental.</p> <p>Note 2: Standard DMAT deploys with 35 personnel for all missions. Personnel include a mix of physicians, nurses (RN), nurse practitioners (NP), physicians' assistants (PA), pharmacists (RPh), emergency medical technicians (EMT), other allied health professionals, and support staff.</p>				

RESOURCE: Disaster Medical Assistance Team (DMAT)—Burn Specialty						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment Readiness; Staffing; Equipment Status; Training Status; Patient Treatment Capacity	Deploy to site within 24 hrs. of notification with all necessary staff and equipment; Function for 72 hrs. in austere locations without resupply	Deploy to site within 24 hrs. of notification with all necessary staff; Function in existing fixed facility using facility's equipment and supplies (Note 2)	Personnel roster only; May be less than full complement		
Equipment	Logistics Status	Full complement	Limited to specialized items for burns	None		
COMMENTS:	<p>A Burn Specialty DMAT is a volunteer group of medical and nonmedical individuals, usually from the same state or region of a state, that have formed a response team under the guidance of the National Disaster Medical System (or state or local auspices), and whose personnel have specific training/skills in the management of burn trauma patients.</p> <p>Note 1: Variable number of personnel; includes medical providers with specialty training/skills in management of burn patients. Usually includes a mix of physicians, nurses, nurse practitioners, physician's assistants, pharmacists, emergency medical technicians, other allied health professionals and support staff. Deployment rosters are usually constituted on an ad hoc basis, depending on situational need.</p> <p>Note 2: Current NDMS burn teams are Type II; they are not fully equipped teams, but rather they usually co-deploy, providing specialized equipment, supplies and skills on those missions that involve burn casualties.</p>					

RESOURCE: Disaster Medical Assistance Team (DMAT)—Crush Injury Specialty						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment Readiness; Staffing; Equipment Status; Training Status; Patient Treatment Capacity	Deploy to site within 24 hrs. of notification with all necessary staff and equipment; Function for 72 hrs. in austere locations without resupply	Deploy to site within 24 hrs. of notification with all necessary staff; Function in existing facility using facility's equipment and supplies See Note 2	Personnel roster only; May be less than full complement		
Equipment	Logistics status	Full complement	Limited or none	None		
COMMENTS:		<p>A Crush Injury Specialty DMAT is a volunteer group of medical and nonmedical individuals, usually from the same State or region of a State, who have formed a response team under the guidance of the National Disaster Medical System (or State or local auspices), and whose personnel have specific training/skills in the management of crush injury patients.</p> <p>Note 1: Variable number of personnel; includes medical providers with specialty training/skills in management of crush injuries. Usually includes a mix of physicians, nurses, nurse practitioners, physician's assistants, pharmacists, emergency medical technicians, other allied health professionals and support staff. Deployment rosters are usually constituted on an ad hoc basis, depending on situational need.</p> <p>Note 2: Current NDMS crush injury teams are Type II.</p>				

RESOURCE: Disaster Medical Assistance Team (DMAT)—Mental Health Specialty						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment readiness; Staffing; Patient Treatment Capacity	Deploy to site within 24 hrs. of notification with all necessary staff and equipment Function for 72 hrs. in austere locations without resupply	Deploy to site within 24 hrs. of notification with all necessary staff Function in existing facility using facility's equipment and supplies See Note 2	Personnel roster only May be less than full complement		
Equipment	Logistics Status	Full complement	Limited or none	None		
COMMENTS:	<p>A Mental Health Specialty DMAT is a volunteer group of medical and nonmedical individuals, usually from the same State or region of a State, who have formed a response team under the guidance of the National Disaster Medical System (or State or local auspices), and whose personnel have specific training/skills in the management of psychiatric patients.</p> <p>Note 1: Variable number of deploying personnel; includes medical providers with specialty training/skills in treating psychiatric patients. Usually includes a mix of physicians, nurses, nurse practitioners, physician's assistants, pharmacists, emergency medical technicians, other allied health professionals and support staff. Deployment rosters are usually constituted on an ad hoc basis, depending on situational need.</p> <p>Note 2: Current NDMS mental health teams are Type II.</p>					

RESOURCE: Disaster Medical Assistance Team (DMAT)—Pediatric Specialty						
CATEGORY: Health & Medical (ESF #8)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment Readiness; Staffing; Patient Treatment Capacity	Deploy to site within 24 hrs. of notification with all necessary staff and equipment Function for 72 hrs. in austere locations without resupply	Deploy to site within 24 hrs. of notification with all necessary staff Function in existing facility using facility's equipment and supplies See Note 2	Personnel roster only May be less than full complement		
Equipment	Logistics status	Full complement	Limited to pediatric items or none	None		
COMMENTS:	<p>A Pediatric Specialty DMAT is a volunteer group of medical and nonmedical individuals, usually from the same State or region of a State, who have formed a response team under the guidance of the National Disaster Medical System (or State or local auspices), and whose personnel have specific training/skills in the management of pediatric patients.</p> <p>Note 1: Variable number of deploying personnel; includes medical providers with specialty training/skills in pediatrics and use of pediatric equipment. Usually includes a mix of physicians, nurses, nurse practitioners, physician's assistants, pharmacists, emergency medical technicians, other allied health professionals and support staff. Deployment rosters are usually constituted on an ad hoc basis, depending on situational need.</p> <p>Note 2: Current NDMS pediatric teams are Type II; they do not deploy as a fully functioning team but generally codeploy and augment another team.</p>					

RESOURCE: Disaster Mortuary Operational Response Team (DMORT)						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Standard Team See Note 1	Deployment Readiness, Patient Treatment Capacity	Deploy to site within 24 hrs. of notification Provide on-site victim identification and morgue operations Provide family assistance services See Note 2				
WMD Team	Deployment Readiness, Patient Treatment Capacity	DMORT - WMD is the same as above except adds additional capability to deal with residually contaminated chemical, biological, or radiological dead				
Personnel	DMORT functions	Add-on Deployable Portable Morgue Unit (DPMU) when no local morgue facilities available Fully equipped to support either standard DMORT or DMORT-WMD. See Note 3				
COMMENTS:	<p>A Disaster Mortuary Operational Response Team is a volunteer group of medical and forensic personnel, usually from the same geographic region, who have formed a response team under the guidance of the National Disaster Medical System (or State or local auspices), and whose personnel have specific training/skills in victim identification, mortuary services, and forensic pathology and anthropology methods.</p> <p>Note 1: Standard DMORT has 31 personnel plus basic load of equipment. Usually includes a mix of medical examiners, coroners, pathologists, forensic anthropologists, medical records technicians, fingerprint technicians, forensic odontologists, dental assistants, radiologists, funeral directors, mental health professionals, and support personnel.</p> <p>Note 2: DMORTs are mission tailored on an ad hoc basis, and usually deploy only with personnel and equipment specifically required for current mission.</p> <p>Note 3: There are currently two Portable Morgue Units within NDMS.</p>					

RESOURCE: International Medical Surgical Response Team (IMSuRT)						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment Readiness; Staffing; Patient Treatment Capacity	Able to begin deployment to OCONUS location within 3 hrs. of notification Staff 2 OR suites providing emergency surgery, treatment, and stabilization Usually deploys with all necessary equipment See Note 2	Some mix of capabilities less than Type I			
Equipment	Logistics	Fully equipped to provide free-standing surgical capability, etc. See Note 2	Limited to none			
COMMENTS:		<p>Definition: An International Medical/Surgical Response Team is a volunteer group of medical and nonmedical individuals, usually from the same State or region of a State, that have formed a response team under the guidance of the National Disaster Medical System and the State Department, and whose personnel and equipment give it deployable medical and surgical treatment capability, worldwide.</p> <p>Note 1: IMSuRT is equipped and trained to provide surgical care outside CONUS. Full team consists of roughly 26 personnel. This is the only NDMS medical team with surgical OR capability. Currently a single IMSuRT exists at level 1, being a successor to the previous IST specialty DMAT. Two additional teams are being formed.</p> <p>Note 2: IMSuRT does not usually function in an austere environment without additional support.</p>				

RESOURCE: NDMS Management Support Team (MST)						
CATEGORY: Health & Medical (ESF #8)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel See Note 1	Deployment Staffing Treatment Capacity	Deploy to site within 24 hrs. of notification Provide Federal supervision, coordination, and support at site of any NDMS team deployment, to include ambulatory care (sick call) for federal personnel See Note 2	Deploy to site within 24 hrs. of notification with limited staff and communications equipment, but no tentage See Note 2			
Equipment	Logistics	Full complement	Communication and administration only			
COMMENTS: An MST is a command and control team that provides support and liaison functions for other NDMS teams in the field. Note 1: Supervisory, Logistics, Communications, and Other Support Personnel. MSTs are normally staffed by a mix of Federal employees from NDMS headquarters, the PHS-2 team, or the CCRF. Although rostered, MSTs do not exist except when actually deployed in support of a mission. An MST (perhaps as small as one or two individuals) always accompanies an NDMS unit on a deployment. Note 2: MSTs are mission-tailored on an ad hoc basis, and usually deploy only with personnel and equipment specifically required for current support mission.						

RESOURCE: Veterinary Medical Assistance Team (VMAT)						
CATEGORY: Animals and Agriculture Issues			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team See Note 1	Deployment Staffing Treatment Capacity	Deploy to site within 24 hrs. of notification Provide animal care, treatment, and shelter Food and water testing Basic epidemiologic capabilities See Note 2	Some mix of capabilities less than Type I			
Equipment	Logistics Status	Full complement	Limited or none			
COMMENTS:		<p>Veterinary Medical Assistance Teams (VMATs) are volunteer teams of veterinarians, technicians, and support personnel, usually from the same region, who have organized a response team under the guidance of the American Veterinary Medical Association and the NDMS, and whose personnel have specific training in responding to animal casualties and/or animal disease outbreaks during a disaster.</p> <p>Note 1: 60 personnel plus equipment. Usually includes a mix of veterinarians, veterinary technicians, support personnel, microbiologists, epidemiologists, and veterinary pathologists.</p> <p>Note 2: VMATs are usually mission tailored on an ad hoc basis, and usually deploy only with personnel and equipment specifically required for the current mission. All VMATs within NDMS are considered Type 1. Epidemiologic capabilities are limited.</p>				

Typed Resource Definitions

Law Enforcement and Security Resources



FEMA 508-6

July 2007

Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces <i>FEMA 508-6, Law Enforcement and Security Resources</i> , dated July 2005.
Changes	The SWAT/Tactical Team resource definition table is extensively revised.

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Resources

RESOURCE: Bomb Squad/Explosives Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel		Same as Type II	2 or more Bomb Response Teams	1 Bomb Response Team		
Equipment	Blast Protective Clothing	Same as Type II	Same as Type III	Full Coverage Bomb Suit(s)		
Equipment	X-Ray	Same as Type II	Same as Type III	Portable X-Ray Device Capability		
Equipment	Render-safe Procedures (RSP) Equipment	Same as Type II	Employ explosive tools to conduct specific or general disruption Demolition Kit Bomb Technician Hand Tools	Employ tools to conduct general disruption Demolition Kit Bomb Technician Hand Tools		
Equipment	CBRN Protective Clothing	Same as Type II	PPE (including both modified level B and level C) for Chem/Bio with associated explosives See Note 1	No PPE for Chem/Bio		
Equipment	Remote Operated Vehicle	Robotic Vehicle capable of handling VBEIDs	Robotic Vehicle capable of handling non-vehicle IEDs	No robotic capability		
Equipment	Tools	Same as Type II	Explosives/WMD Reference Library Diagnostic equipment Rigging equipment	Explosives/WMD Reference Library		
Equipment	Monitoring/ Detection	CBRN Monitors to detect and identify	CBRN Monitors to detect	None		

RESOURCE: Bomb Squad/Explosives Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Explosive Transport	Same as Type II	Explosive Transport Vessel	No Explosive Transport Vessel		
Equipment	Communication	Radio, cellular telephone and data transmission capability	Radio and cellular telephone capability	Radio communication capability		
Vehicles		Same as Type II	Same as Type III	Bomb Response Vehicle(s)		
Personnel	Training	Same as Type II	Same as Type III	Hazardous Devices school (including WMD and Hazardous Materials Training) graduate Recertification every 3 years		
COMMENTS:	Type I is a NBSCAB accredited bomb squad capable of handling multiple or simultaneous incidents. Teams must have render safe capabilities including a remote (robotic) vehicle capable of handling a vehicle borne IED. Team trained and equipped to work in a CBRN environment.					
	Type II is a NBSCAB accredited bomb squad capable of handling multiple incidents. Teams must have render safe capabilities including a remote (robotic) vehicle which may not be capable of handling vehicle borne IED. Teams trained and equipped to work in a CBRN environment.					
	Type III is a NBSCAB accredited bomb squad, capable of handling a single incident. Teams must have basic IED render safe capabilities without a remote (robotic) vehicle. Teams may be trained, but not equipped to work in a CBRN environment.					
	Note 1: There is no technology at this time that provides both level A PPE, and blast and fragmentation protection.					
	Definitions					
	Bomb Response Team	A sub-unit within a bomb squad, consisting of at least two certified bomb technicians and a full set of equipment meeting minimum standards for bomb squad operations.				
	Bomb Squad	A bomb response organization, consisting of at least one bomb team (see the definition of a "bomb team"), accredited by the FBI Hazardous Devices School to standards set by the National Bomb Squad Commanders Advisory Board.				
	CBRN	Chemical, Biological, Radiological, Nuclear				
	Diagnostic Equipment	Equipment used to characterize specific components and device type by function (ex. fiber optics camera)				
	General Disruption Tools	Explosive tools such as Mineral Water Bottle Disruptors (MWB) or Hydra-Jet designed to disrupt devices without requiring specific diagnostic information.				



Resource: Bomb Squad/Explosives Team							
Category:	Law Enforcement/Security				Kind:	Team	
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Other	
Component	Metric						
	IED	Improvised Explosive Device					
	Level A PPE	Totally encapsulated chemical resistant vapor suit with Self Contained Breathing Apparatus (SCBA)					
	Level B PPE	Non-encapsulated or encapsulated chemical resistant suit with SCBA					
	Level C PPE	Non-encapsulated chemical resistant suit with Air Purifying Respirator (APR)					
	PPE	Personal Protective Equipment					
	Specific Disruption Tools	Explosive tools designed to disrupt or disable based on specific diagnostic information with a specific expected resultant outcome.					
	VBIED	Vehicle-Borne Improvised Explosive Device					
	WMD	Weapon(s) of Mass Destruction					

RESOURCE: Law Enforcement Aviation-Helicopters-Patrol & Surveillance						
CATEGORY: Law Enforcement/Security				KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Aircraft	Helicopters	4 or more seats incl. Pilot 12K ft or < ceiling Certified aircraft Jet turbine	Same as Type I except Military Surplus	Same as Type II except 2 or more seats incl. Pilot Certificated aircraft or Military Surplus but would meet Certified Turbine, or reciprocating engine	Same as Type II except 2 or more seats incl. Pilot Certificated aircraft or Military Surplus but would meet Certified Turbine, or reciprocating engine Fixed or inflatable flotation device	
Aircraft	Capabilities	VFR	Same as type I	Same as type I	Same as type I	
Equipment	Radios	Programmable/encryption radios (aviation (2) & law enforcement (3 or <))	VHF/UHF capabilities; Police radios	Same as Type II	Same as Type II	
Equipment	Navigation Equipment	GPS Night Vision Goggles				
Equipment	Visual Aids	FLIR	Same as type I	Same as type I	Same as type I	
Equipment		Binoculars	Binoculars	Binoculars	Binoculars	
Equipment		Microwave Downlink Video Capability	Recommended: Microwave Downlink Video Capability			
Equipment	PPE	Helmet; Nomex Flight Suits; Gloves; Full Leather Boots (mandatory for flight crew, optional for other passengers)	Same as type I	Same as type I	Same as type I	

RESOURCE: Law Enforcement Aviation-Helicopters-Patrol & Surveillance						
CATEGORY: Law Enforcement/Security				KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Pilot requirements	Commercial or higher, rotary/helicopter, pilot license w/Class I Medical, pre-TFO experience, full-time assignment to unit	Same as Type I except Class II Medical	Same as Type II	Same as Type II	
Personnel	TFO requirements	Complete unit level training program, Min. 2 yrs in patrol, Superior field tactics skills, full-time assignment to unit Maint. Staff—Full-time assignment, A&P/IA license	Same as Type I Maint. Staff—Same as Type I except not required to be I/A	Same as Type II except Maint. Staff may be part-time or contracted		
Personnel	Pilot Training	Currency training every 6 months with all emergency procedures as well as meeting all FAA license requirements	Same as type I	Same as Type II	Same as type II, plus sea plane license	
Personnel	TFO Training	<u>TFO</u> —Unit-level training & Law Enforcement AOT Maint. Staff—Maintain I/A license w/ yearly classes	<u>TFO</u> —Unit-level training & Law Enforcement AOT	Same as Type II	Same as Type II	

RESOURCE:		Law Enforcement Aviation-Helicopters–Patrol & Surveillance				
CATEGORY:	Law Enforcement/Security			KIND:	Aircraft	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Comments:	Type I—Day/night patrol helicopters, infrared and visible light, searchlight, jet turbine powered, GPS, microwave or similar downlink, tracking devices					
	Type II—Same as Type I except military surplus					
	Type III—Same as Type II except: jet turbine or reciprocating engines					
	Type IV—Water landing/surveillance/patrol capabilities					
	Definitions					
	A&P	Airframe and Powerplant mechanic				
	FAA	Federal Aviation Administration				
	FLIR	Forward Looking Infrared				
	GPS	Global Positioning System				
	IA	Inspection Authorization				
	IFR/VFR	Instrument Flight Rules/Visual Flight Rules				
	PA	Public Address (speaker)				
PPE	Personnel Protective Equipment consists of clothing and equipment that provides protection to an individual in a hazardous environment. Chapter 9 of the IHOG details appropriate equipment requirements for various aerial missions and ground helicopter operations.					
VHF/UHF	Very High Frequency/Ultra High Frequency					
TFO	Tactical Flight Officer					



RESOURCE: Law Enforcement Observation Aircraft (Fixed-Wing)						
CATEGORY: Law Enforcement/Security			KIND: Aircraft			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Aircraft	Fixed-Wing Aircraft	Observation Aircraft	Observation Aircraft–Low and Slow			
Aircraft	Capacity	2-4 passenger with cargo not to exceed design specifications of aircraft	Same as Type I			
Equipment	Flight Suit	Appropriate level of PPE	Same as Type I			
Equipment	Video/ Electronic	Microwave Downlink Video; FLIR				
Equipment	Radios	VHF Radios; Police Frequency Radios	Same as Type I			
Personnel	Pilot requirements	Commercial or higher, ASEL, pilot license w/Class I or II Medical, full-time assignment to unit	Same as Type I			
Personnel	TFO requirements	Complete unit level training program, law enforcement trained	Same as Type I			
Personnel	Pilot Training	Commercial Pilots Certification or higher (instrument rated), updated every 6 mos. with Emergency Procedures as well as meet all FAA license requirements; Current Medical Flight Review (FAA)	Same as Type I			
Personnel	TFO Training	Unit-level training & Law Enforcement AOT	Same as Type I			



RESOURCE: Law Enforcement Observation Aircraft (Fixed-Wing)						
CATEGORY:		Law Enforcement/Security			KIND:	Aircraft
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	Type I-Fixed-Wing Aircraft with advanced observation capabilities for extended operations and nighttime use. Capable of sending video images to ground location (downlinking). Low and slow observation ability. General law enforcement type of fixed-wing.					
	Type II-Fixed-Wing Aircraft with observation capabilities for extended operations, low and slow observation ability. General law enforcement type or fixed-wing.					
	Definitions					
	AOT	Advanced Officer Training				
	FAA	Federal Aviation Administration				
	TFO	Tactical Flight Officer				
	VHF	Very High Frequency				



RESOURCE: Mobile Field Force Law Enforcement (Crowd Control Teams)						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Protective Clothing	Same as type II	Same as type III	Protective Clothing; Soft Body Armor (helmet and face shield, gloves, shin guards) Fire-resistant clothing recommended		
Equipment	Communi- cation	Same as type II	Same as type III	Team Radio Communication Equipment (portable radios, extra batteries, battery charger, cellular phones)		
Equipment	Respiratory Protection	Same as type II	Same as type III	NIOSH-approved protective mask		
Equipment	Safety Equipment	Same as type II	Same as type III	Safety glasses; Ear protection (recommended); Fire extinguisher		
Equipment		Same as type II	Same as type III	Foul Weather Gear; Hand-Held Shields		
Equipment		Same as type II	Same as type III	Personal Hydration System		
Equipment	Chemical Protective Clothing	Same as type II	Level C PPE suits for entire team			
Equipment	Counter-Sniper Equipment	Provided by SWAT team	(2) Shoulder fired weapons			
Equipment	Surveillance Equipment	Same as type II	Same as type III	Video equipment capabilities		



RESOURCE: Mobile Field Force Law Enforcement (Crowd Control Teams)						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Individual Weapons	Same as type II	Same as type III	Department authorized handguns Duty gear and equipment		
Equipment	Impact Weapons	Same as type II	Same as type III	Riot Control Batons or approved impact weapon		
Equipment	Misc. Equipment	Same as type II	Same as type III	Bullhorns; Flex Cuffs; Mass arrest kits		
Equipment	Delivery Systems	Same as type II	Same as type III	Chemical Agents and Delivery Systems; Less lethal munitions and delivery systems		
Personnel		1 OIC 1 Deputy OIC 4 Supervisors 2 Counter Snipers 8 Grenadiers 38 Officers 4 Prison Transportation Officers 1 Field Booking Team Recommended	1 OIC 1 Deputy OIC 4 Supervisors 2 Counter Snipers 8 Grenadiers 38 Officers 4 Prison Transportation Officers	1 OIC 2 Supervisors 1 Counter Sniper 4 Grenadiers 19 Officers 2 Prison Transportation Officers		
Vehicles		Same as type II	2 Prisoner Transportation Vans 14 Patrol Vehicles	1 Prisoner Transportation Van 7 Patrol Vehicles		
Personnel	Training	Same as type II	Same as type III	No known national standard Law enforcement officer with certified advanced training		

RESOURCE:		Mobile Field Force Law Enforcement (Crowd Control Teams)				
CATEGORY:	Law Enforcement/Security			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	Type I – A predesignated team consisting of a Type I or a Type II tactical team (platoon) including four 12-person squads and an OIC and a Deputy OIC. Each squad includes a supervisor. The team is capable of managing large-scale operations including managing crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include CBRN environments. The team engages in routine training to maintain advanced skill level.					
	Type II – A predesignated team consisting of four 12-person squads and an OIC and a Deputy OIC. Each squad includes a supervisor. The team is capable of managing large crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include CBRN environments. The team engages in routine training to maintain advanced skill level.					
	Type III – A nondesignated team consisting of two 12-person squads and an OIC. Each squad includes a supervisor. The team is capable of managing large crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace.					
	Definitions					
	OIC	Officer in Charge				
	NIOSH	National Institute of Occupational Safety and Health				
	CBRN	Chemical, Biological, Radiological, Nuclear				
	Level C PPE	Personal Protection Equipment consisting of a non-encapsulated chemical resistant suit with APR				
	SWAT	Special Weapons Assault Team				
	Platoon	Consists of (4) 12-person squads with an OIC (minimum rank of lieutenant) and Deputy OIC (minimum rank of sergeant), each with a driver. Total minimum personnel is 52, with a minimum total of 14 vehicles				
Squad	An organized element of a platoon consisting of 11 officers and a supervisor (sergeant). 12 total personnel in a minimum of 3 patrol vehicles					
Field Booking Team	A team of personnel specially trained to respond to field incidents and set up a booking site to facilitate the booking process and transportation of those arrested. The size of the team depends on the nature of the incident					
Mass Arrest Kit	Kit containing field booking forms, Polaroid or digital camera, flex cuffs, plastic bags for prisoner property, computers, cutting tool for flex cuffs, fingerprint equipment					

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Air Compressor	Recommended ability to refill air bottles onsite				
Equipment	Scuba	1 for each diver, including: full face mask, regulator, 1 additional air bottle, wetsuit, fins, and light	Same as Type I, plus at least 1 additional air bottle per diver	Same as Type I, plus at least 1 additional air bottle per diver	Same as Type I, plus at least 1 additional air bottle per diver	
Equipment	Deep Water Scuba	Each diver will be equipped with backup air source and regulator			Each diver will be equipped with backup air source and regulator	
Equipment	Surface Supply System	Capable of sustaining divers for deep water dives (more than 60') or dives of extended lengths of time, including 2, 300' umbilical hoses to support primary and backup divers, and 1 positively pressured full face mask with communications system for each diver; Underwater video monitoring/recording capabilities			Capable of sustaining divers for deep water dives (more than 60') or dives of extended lengths of time, including 2, 300' umbilical hoses to support primary and backup divers, 1 positively pressured full face mask with communications system for each diver; Underwater video monitoring/recording capabilities	
Equipment	Remote Operating Vehicle (ROV)	Available only for a Type I Team				
Equipment	Towable Motorized Vessel	Capable of transporting the entire team and its equipment	Same as Type I	Same as Type I	Same as Type I	

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Electronic Communications Systems	Each diver equipped with underwater communications system	Recommended same as Type I	Recommended same as Type I	Same as Type I	
Equipment	Portable Sonar	Aides in locating objects from surface, allowing diver to be directed by support team				
Equipment	Drysuits/Wetsuits	Drysuits: Vulcanized-Rubber, 1 for each diver, necessary to have available for potential biological or HazMat diving	Same as Type I	Wetsuit, recommend drysuit	Same as Type I	
Equipment	Lift/Salvage	Bags with minimum lift capacity of 6,000 lbs. and rigging equipment	Bags with minimum lift capacity of 4,000 lbs. and rigging equipment (recommended)			
Equipment	Evidence Collection/Search Tools	Including: body recovery bags (fine nylon mesh), underwater metal detectors, sealing plastic containers, 200' of search lines and marker buoys	Same as Type I	Sealing plastic containers	Same as Type III, plus explosives handling equipment	
Personnel	Divers	Minimum 6, at least 4 for deep water diving (capability and training to dive a minimum of 100', low visibility overhead and cold-water environments)	Minimum 4	Minimum 3	2+ specially trained in explosives and underwater demolition	
	Dive Team Leader	1 per 4 divers	Same as Type I	Same as Type I (if available)	Recommended	
	Rescue Diver	1 rescue diver trained in First Aid/CPR and hyperbaric recognition	1 rescue diver trained in First Aid/ CPR and hyperbaric recognition (recommended)	1 rescue diver trained in First Aid/CPR and hyperbaric recognition (recommended)	1 rescue diver trained in First Aid/CPR and hyperbaric recognition (recommended)	

RESOURCE: Public Safety Dive Team						
CATEGORY: Law Enforcement/Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicles		Support vehicle for transportation of personnel/equipment	Same as Type I	Same as Type I	Same as Type I	
Training		Minimum Physical Fitness Qualification with recurrent annual certification**; Scuba Certification; Public Safety Certification** – 100 hours minimum, including the use of full face masks and lift bags, surface supplied air systems, diving in polluted environments, use of lift bags for salvage operations, evidence recovery and preservation, low visibility, and overhead environment; (Recommended: aircraft deployment and tactical) operations; Certification of 6 training dives per year, including 1 training dive to maximum depth	Scuba Certification; Public Safety Certification** – 60 hours minimum, including the use of full face masks and lift bags; Certification of 6 training dives per year	Scuba Certification; Public Safety Certification** – 60 hours minimum, including the use of full face masks and lift bags; Certification of 6 training dives per year	Same as Type I, plus explosives training	
COMMENTS:		<p>All teams are described for law enforcement purposes. Many of these teams will be trained and prepared for search and rescue as well. All divers and dive operations will be compliant with current NFPA. 1670 and 1006 guidelines.</p> <p>** A national training standard needs to be developed.</p> <p>Description of Type</p> <p>Type I – A team of divers and a support team with necessary diving experience as well as law enforcement experience. Teams should be able to respond with all outlined equipment to handle evidence recovery and deep water diving. Team should be self-contained for 24 hours. A dive team leader with experience and training in risk/benefit analysis should be assigned to each dive team. Capable of conducting rescue dives.</p> <p>Type II – A team capable of responding with all outlined equipment to handle evidence recovery.</p> <p>Type III – A team with Scuba certification and Public Safety Diving Certification.</p>				



RESOURCE: Public Safety Dive Team												
CATEGORY:		Law Enforcement/Security			KIND:	Team						
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER						
COMPONENT	METRIC											
	<p>Type IV – A team of divers and support team with necessary diving experience as well as explosive/underwater demolition experience. Teams should be able to respond with all outlined equipment to handle evidence recovery and deep water diving. Team should be self-contained for 24 hours. A dive team leader with experience and training in risk/benefit analysis should be assigned to each dive team.</p> <p>Definitions of Acronyms</p> <table border="1"><tr><td>NFPA</td><td>National Fire Protection Agency</td></tr><tr><td>Scuba</td><td>Self-Contained Underwater Breathing Apparatus</td></tr><tr><td>Sonar</td><td>Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team</td></tr></table>						NFPA	National Fire Protection Agency	Scuba	Self-Contained Underwater Breathing Apparatus	Sonar	Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team
NFPA	National Fire Protection Agency											
Scuba	Self-Contained Underwater Breathing Apparatus											
Sonar	Sound Navigation and Ranging – uses sound to identify objects, allowing divers to be directed by surface support team											

RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Tactical Unit See Note 1 and Note 7	Type I Teams and Elements	Type II Teams and Elements	Type III Teams and Elements	None	
Team	Tactical Team See Note 2 and Note 7	One Type I tactical element One other Type I or Type II tactical element	One Type II tactical element One other Type II or III tactical element	Multiple Type III elements	None	
Team	Tactical Element See Note 3 and Note 7	Same as Type II except for Multiple special tactics capabilities	5 Personnel Vehicle One or more special tactics capabilities	2 - 5 Personnel Vehicle Basic entry capability	None	
Equipment	Ammunition	Same as Type II	Same as Type III	Ammunition for all weapons	None	
Equipment	Distraction Devices	Same as Type II	Same as Type III	Distraction devices	None	
Equipment	Optics and Target Illumination	Same as Type II	Same as Type III	Night vision goggles Weapons optics IR Illuminators Lighted Weapons System	None	
Equipment	Ballistic Protection	Same as Type II	Same as Type III	Multiple Hand-Held Ballistic shields and blankets (handgun and rifle rated)	None	
Equipment	Respiratory Protection	Same as Type II	Self contained respiratory protection suitable for SWAT operations See note 6	None	None	



RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
<u>Equipment</u>	<u>Chemical Protective Clothing</u>	<u>Same as Type II</u>	<u>Level B and C PPE suitable for SWAT operations</u>	<u>Level C PPE suitable for SWAT operations</u>	<u>None</u>	
<u>Equipment</u>	<u>Insertion Equipment</u>	<u>Same as Type II plus: FAST ROPE</u>	<u>Same as Type III</u>	<u>Rappel Portable ladders</u>	<u>None</u>	
<u>Equipment</u>	<u>Negotiation Equipment</u>	<u>Same as Type II plus: Remote/mobile capabilities</u>	<u>Same as Type III</u>	<u>Transmitting equipment that includes wireless and hard-line</u>	<u>Mutual aid for pre-planned events.</u>	
<u>Special Tactical Capability</u>	<u>Breaching</u>	<u>Same as Type II plus: Explosives breaching charges</u>	<u>Same as Type III plus: Exothermic breaching equipment</u>	<u>Mechanical and shotgun breaching equipment</u>	<u>Mutual aid for pre-planned events.</u>	
<u>Special Tactical Capability</u>	<u>Observer / Marksman Capability</u>	<u>Same as Type II plus: IR optics</u>	<u>Same as Type III plus: Night operations capability</u>	<u>Long range, optically-equipped weapons.</u>	<u>Mutual aid for pre-planned events.</u>	
<u>Special Tactical Capability</u>	<u>Robotic Equipment</u>	<u>Same as Type II</u>	<u>Robot System with operator, communications, delivery capabilities and tactical weapons platform options</u>	<u>Employment of available bomb squad robotic assets</u>	<u>Mutual aid for pre-planned events</u>	
<u>Special Tactical Capability</u>	<u>Surveillance Equipment</u>	<u>Same as Type II plus: fiber optics</u>	<u>Same as Type III plus: video</u>	<u>Listening equipment</u>	<u>Mutual aid for pre-planned events</u>	
<u>Special Tactical Capability</u>	<u>Bomb Technician Support</u>	<u>Embedded Type I bomb team</u> <u>See Note 4</u>	<u>Embedded or mutual aid Type II bomb team</u> <u>See Note 4</u>	<u>Embedded or mutual aid Type III bomb team</u> <u>See Note 4</u>	<u>Type I, II or III bomb team available for post-incident hazard removal</u>	
<u>Special Tactical Capability</u>	<u>Special Munitions Equipment</u>	<u>Same as Type II</u>	<u>Same as Type III</u>	<u>Chemical agents and Less Lethal weapons with delivery systems.</u>	<u>Mutual aid for pre-planned events</u>	

RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
<u>Special Tactical Capability</u>	<u>Negotiation</u>	<u>Same as Type II</u>	<u>Same as Type III</u>	<u>Negotiator</u>	<u>Mutual aid for pre-planned events</u>	
<u>Special Tactical Capability</u>	<u>Maritime Boarding</u> <u>See Note 9</u>	<u>Underway boarding via air insertion and watercraft</u>	<u>Underway boarding via air or watercraft</u>	<u>Pier-side boarding via air and ladder climb</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Tactical Medic</u> <u>See Note 5</u>	<u>Paramedics with advanced life support capabilities/ equipment</u>	<u>Same as Type III</u>	<u>EMTs (Recommend Paramedics)</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Insertion</u>	<u>Air mobile capabilities including FAST ROPE and rappel</u>	<u>Air mobile capabilities including FAST ROPE and rappel</u> <u>See Note 8</u>	<u>Rappel from structures only</u>	<u>None</u>	
<u>Special Tactical Capability</u>	<u>Specialty Vehicles</u>	<u>Command Post Vehicle, APC, ATV, Boats, Armored Response Vehicle</u> <u>See Note 9</u>	<u>None</u>	<u>None</u>	<u>None</u>	
COMMENTS:		<p><u>Note 1: The Tactical Unit within a department is comprised of multiple officers, teams or elements and led by a commander and/or supervisor.</u></p> <p><u>Note 2: The Tactical Team is an operational entity comprised of multiple tactical elements, special capabilities and officers assembled for a mission. Tactical teams may be as a result of mutual aid in order to provide a regional capability.</u></p> <p><u>Note 3: The Tactical Element is two or more tactical operators with an assigned mission or function within a team. NIMS tactical team elements are generally 5 tactical operators unless otherwise specified. Tactical Element Equipment includes:</u></p> <p><u>Protective Clothing: Tactical Body Armor (helmet, eye and ear protection, fire resistant gloves & hood) suitable for SWAT operations</u></p> <p><u>Weapons: Handguns and shoulder fired weapon suitable for SWAT operations</u></p> <p><u>Respiratory Protection: Protective mask with spare filters suitable for SWAT operations</u></p> <p><u>Breaching Equipment: Mechanical Breaching Equipment</u></p> <p><u>Note 4: Bomb Team as defined in NIMS, qualified within their department to support tactical operations</u></p>				



RESOURCE: SWAT/Tactical Teams						
CATEGORY: Law Enforcement and Security				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	<p><u>Note 5: Training includes Tactical Emergency Medic Support (TEMS).</u></p> <p><u>Note 6: Minimum amount of breathing apparatuses to outfit an entry team (see SCBA below)</u></p> <p><u>Note 7: Tactical Unit, Teams and Elements as defined in NIMS must be qualified within their department in the stated special tactics capabilities and equipment used to conduct tactical operations in high risk situation.</u></p> <p><u>Note 8: FAST ROPE may only apply to metropolitan/urban areas or jurisdictions with available air mobility.</u></p> <p><u>Note 9: May only apply to areas with critical waterway or coastal areas.</u></p> <p><u>Definitions:</u></p> <p><u>APC Armored Personnel Carrier</u></p> <p><u>APR Air Purifying Respirator</u></p> <p><u>ATV All Terrain Vehicle</u></p> <p><u>EMT Emergency Medical Technician</u></p> <p><u>Level B PPE Non-encapsulated or encapsulated chemical resistant suit with SCBA</u></p> <p><u>Level C PPE Non-encapsulated chemical resistant suit with APR</u></p> <p><u>PPE Personal Protective Equipment</u></p> <p><u>SCBA Self Contained Breathing Apparatus (may include re-breathers and or other hybrid type SCBAs suitable for SWAT operations)</u></p> <p><u>Special Tactics Capabilities Tactical Units, teams or elements with an assigned specialty mission such as observer / marksman, breaching, bomb technician support, hostage negotiations. Special Tactics Capabilities can exist within an element, team or unit based on the specific skills and qualifications of operators. Special Capabilities can also be gained by mutual aid from other jurisdictions or agencies with the capability to provide assistance in reasonable time.</u></p> <p><u>SWAT Special Weapons and Tactics</u></p> <p><u>Tactical Officer Sworn officers qualified within their department to conduct tactical operations in high risk situations.</u></p>					

Typed Resource Definitions

Public Works Resources



FEMA 508-7

May 2005



Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .
Supersedure	This document replaces the Public Works resource definition section in <i>Resource Definitions</i> , dated September 2004
Changes	Document is reformatted. Content is unchanged.





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RESOURCE: Air Conditioner/Heater						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Ton	90 Ton Air conditioner/heater 90 Ton Air Cooled Direct Expansion portable A/C unit w/ heat	60 Ton Air conditioner/heater 60 Ton Air Cooled Direct Expansion portable A/C unit w/ heat	25 Ton Air conditioner/heater 25 Ton Air Cooled Direct Expansion portable A/C unit w/ heat	10 Ton Air conditioner / heater Caterpillar/York 10 Ton Air Cooled Direct Expansion portable A/C unit w/ heat	
Equipment	Cubic feet per minute (cfm) of air delivered	26,000 cfm	17,000 cfm	9,400 cfm	4,000 cfm	
Equipment	Weight	19,900 lbs	16,500 lbs	4,140 lbs	1,500 lbs	
Equipment	Transport	Can be trailer mounted (flat bed semi) dimensions: 20' Long x 8' Wide x 9'.5" Tall	Can be trailer mounted (flat bed semi) dimensions: 20' Long x 8' Wide x 8'.5" Tall.	Can be trailer mounted (flat bed tow behind) dimensions: 12' Long x 7'.6" Wide x 5' Tall	Can be trailer mounted (flat bed tow behind) dimensions: 11' Long x 6'.5" Wide x 5' Tall	
Equipment	Power requirements, Cooling only	260 Amps at 460 volts, 3 phase, 60 hz	160 Amps at 460 volts, 3 phase, 60 hz	60 Amps at 460 volts, 3 phase, 60 hz	24 Amps at 460 volts, 3 phase, 60 hz	
Equipment	Power requirements, Heat only	(250 kW) 368 Amps at 460 volts, 3 phase, 60 hz	(125 kW) 200 Amps at 460 volts, 3 phase, 60 hz	(72 kW) 100 Amps at 460 volts, 3 phase, 60 hz	(54 kW) 71 Amps at 460 volts, 3 phase, 60 hz	
Equipment	Flex duct connections	(8) 20" air supply (4)/ return (4)	(8) 20" air supply (4)/ return (4)	(4-6) 20" air supply (2)/ return (2-4)	(3) 20" air supply (1)/ return (2)	
Equipment	Potential application examples	Airports, Universities, Malls, Moisture removal from wet buildings & materials (weather / temperature permitting)	Airports, Retail stores, Schools, Moisture removal from wet buildings & materials (weather / temperature permitting)	Tents, Small retail stores, Libraries, Moisture removal from wet buildings & materials (weather / temperature permitting)	Tents, Computer rooms, Small office (2,000 sq. ft.), Moisture removal from wet buildings & materials (weather / temperature permitting)	

RESOURCE: Air Conditioner/Heater						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Set up and connect	Setup time varies depending on duct installation, fabricating, wiring, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source.	Setup time varies depending on duct installation, fabricating, wiring, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source.	Setup time varies depending on duct installation, fabricating, wiring, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source.	Setup time varies depending on duct installation, fabricating, wiring, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source.	
Equipment	Example					
COMMENTS:						

RESOURCE: Air Curtain Burners (Fire Box-Above Ground, Refractory Walled)							
CATEGORY:		Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	TYPE VI
COMPONENT	METRIC						
Equipment	Tons/Hr	Weight: 50,000 lbs Avg. Thru-put: 6-10 tons/hr	Weight: 46,000 lbs Avg. Thru-put: 5-8 tons/hr	Weight: 33,500 lbs Avg. Thru-put: 3-6 tons/hr	Weight: 30,000 lbs Avg. Thru-put: 2-5 tons/hr	Weight: 26,000 lbs Avg. Thru-put: 1-4 tons/hr	Weight: 21,300 lbs Avg. Thru-put: ½-2 tons/hr
Equipment	Dimensions	Overall L×W×H: 37'4"×11'10"×9'7" Firebox: 27'2"×8'5"×8'1"	Overall L×W×H: 31'4"×11'10"×9'7" Firebox: 21'2"×8'5"×8'1"	Overall L×W×H: 30'2"×8'6"×8'6" Firebox: 19'8"×6'2"×7'1"	Overall L×W×H: 27'×8'6"×8'6" Firebox: 16'5"×6'2"×7'1"	Overall L×W×H: 27'×7'5"×7'8" Firebox: 16'×5'×6'	Overall L×W×H: 21'6"×7'5"×7'8" Firebox: 11'×5'×6'
Equipment	Engine	Perkins 1004.42	Perkins 1004.42	Perkins 404C	Perkins 404C	Perkins 404C	Perkins 404C
Equipment	Fuel	Diesel, ≈ 3 gal/hr	Diesel, ≈ 3 gal/hr	Diesel, ≈ 2.5 gal/hr	Diesel, ≈ 2.5 gal/hr	Diesel, ≈ 2.5 gal/hr	Diesel, ≈ 2.5 gal/hr
Equipment	Transport	Unit is shipped completely assembled; transportable by drop-deck trailer	Unit is shipped completely assembled; transportable by drop-deck trailer	Unit is shipped completely assembled transportable by flatbed or tilt bed tag trailer	Unit is shipped completely assembled transportable by flatbed or tilt bed tag trailer	Unit is shipped completely assembled transportable by flatbed or tilt bed tag trailer	Unit is shipped completely assembled transportable by flatbed or tilt bed tag trailer
Equipment	Application	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Small Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Small Animal Carcass Disposal (needs wood waste to support carcass combustion)
Equipment		On GSA Schedule	On GSA Schedule	On GSA Schedule	On GSA Schedule	On GSA Schedule	On GSA Schedule
Equipment	Example	S-327	S-321	S-220	S-217	S-116	S-111
Equipment	Example	 S-300 Series (Type I & II)		 S-200 Series (Type II & III)		 S-100 Series (Type IV & V)	
COMMENTS:							

RESOURCE: Air Curtain Burners (Trench Burner, In-Ground)							
CATEGORY:	Public Works and Engineering (ESF #3)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER	
COMPONENT	METRIC						
Equipment	Overall dimensions L×W×H	28'×8'1"×6'10"	28'×8'1"×6'10"	018'9"×8'2"×8'7"			
Equipment	Pit or Trench dimensions	40'×10'×12"	20'×10'×10"	35'×12'×12"			
Equipment	Weight	6,900 lbs Tongue: 1,400 lbs	4,900 lbs Tongue: 890 lbs	7,000 lbs Tongue: 1,200 lbs			
Equipment	Avg. Thru-put	5-8 tons/h	1-4 tons/hr	4-7 tons/hr			
Equipment	Engine	Kubota V3300E	Perkins 404C	Perkins 1004.42			
Equipment	Fuel	Diesel, ≈ 3 gal/hr	Diesel, ≈ 2.5 gal/hr	Diesel, ≈ 3 gal/h			
Equipment	Trailer	Unit is dual-axle trailer-mounted; 2 5/8" ball hitch or pintle hitch; electric brakes	Unit is dual-axle trailer-mounted; 2 5/8" ball hitch or pintle hitch; electric brakes	Unit is dual-axle trailer-mounted; 2 5/8" ball hitch or pintle hitch; electric brakes			
Equipment	Application	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)	Wood Waste Reduction & Animal Carcass Disposal (needs wood waste to support carcass combustion)			
Equipment		On GSA Schedule	On GSA Schedule				
Equipment	Example	T-400	T-200	T-350			
Equipment	Example	 T-400 & T200 (Type I & II)		 T-350 (Type III)			
COMMENTS:							

RESOURCE:		All Terrain Cranes				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment; Personnel; Vehicle	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Tons	210-175 Crane type with boom reach of 170 feet. With jib reaches to approx. 280 feet. Self-propelled/driven over the road. Operator furnished. Setup time minimal. Jib and counter-weight are transported by two tractor-trailers	50-120 Crane type with boom reach of 150 feet. With jib reaches to approx. 250 feet. Self-propelled/driven over the road. Operator furnished. Setup time minimal. Jib and counter-weight are transported by two tractor-trailers	110-90 Crane type with boom reach of 192 feet. With jib add approx. 30 feet. Self-propelled/driven over the road. Operator furnished. Setup time minimal. Jib and counter-weight are transported by two tractor-trailers	22.5 Crane type with boom reach of 90 feet. With jib add approx. 30 feet. Self-propelled/driven over the road. Operator furnished. Setup time minimal	
COMMENTS:		Check with your local/State transportation and law enforcement organizations to determine mobilization requirements. 				






Resource:		Backhoe Loader				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Gross Power	kw/hp	82/110	66/88	66/88	58/77	
Operating Weight (max)	lbs	19,630	15,772	15,772	15,257	
Dig Depth Standard Stick	ft/in	14'5"	14'5"	14'5"	14'5"	
Extended Stick	ft/in	18'1"	18'1"	18'1"	18'1"	
Loading Height	ft/in	11'10"	11'10"	11'10"	11'10"	
Loading Reach	ft/in	5'8"	5'8"	5'8"	5'8"	
Bucket Capacity	yd ³	1.25	1.25	1.25	1.25	
Dump Height (max angle)	ft/in	8'4"	8'4"	8'1"	8'4"	
Dump Reach (max angle)	ft/in	2'9"	2'9"	2'10"	2'9"	
Lift Capacity (full height)	lbs	6,385	6,385	(w/QC) 6,970	5,292	
Bucket Breakout Force	lbs	10,131	10,131	10,564	8,524	
Fuel Capacity	gal	34	34	34	34	
Vehicle	Example					
		420D IT with Quick Coupler				



Resource:		Backhoe Loader				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		446B – Cat 3114T Diesel	420D – Cat 3054T Diesel	– Cat 3054T Diesel	416D – Cat 3054B Diesel	
COMMENTS	<p>Caterpillar is used as an example only.</p> <p>420 IT tools include the following:</p> <p>Backhoe Work Tools: Buckets – Standard, Heavy Duty, Heavy Duty Rock, High Capacity, Coral, Ditch Cleaning; Hydraulic Hammer; Vibratory Plate Compactor; Ripper.</p> <p>Loader Work Tools: Buckets – General Purpose, Multipurpose, Side Dump, Light Material, Penetration; Loader Forks; Material Handling Arm; Angle Blade; Broom; Rake; Asphalt Cutter; Bale Spear</p>					


Resource:		Chillers & Air Handlers (500 Ton to 50 Ton)				
CATEGORY:	Chillers & Air Handlers (500 Ton to 50 Ton)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER (TYPE V)
COMPONENT	METRIC					
Equipment	Ton	<p>500/450 Ton Chiller Caterpillar/York 450/500 Ton Air Cooled Chiller; Built-in pump delivering 330-1600 gpm (gallons per minute); Will operate in series or parallel operation w/multiple units;</p> <p>8" flanged water fittings on exterior; Weight: 50,000 lbs; Trailer mounted (semitractor) dimensions: 40' Long x 8'.5" Wide x 13'.5" Tall; Power requirements: 800-980 Amps at 460 volts, 3 phase, 60 hz; Temporary quick connect chilled water hose available with unit for tie in to chilled water system; Potential application examples: Single or multiple units for Computer centers, High-rise buildings, Heavy manufacturing, Airports, Universities.</p> <p>Setup time varies depending on hose installation, water filling, fabricating, etc...4+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source</p>	<p>300 Ton Chiller Caterpillar/York 300 Ton Air Cooled Chiller; Built-in pump(s) delivering 250-800 gpm;</p> <p>6" flanged water fittings on exterior; Weight: 33,000 lbs; Trailer mounted (semitractor) dimensions: 30' Long x 8' Wide x 13'.5" Tall; Power requirements: 600-700 Amps at 460 volts, 3 phase, 60 hz; Temporary quick connect chilled water hose available with unit for tie in to chilled water system; Potential application examples: Single or multiple units for Office buildings, Multi-story buildings, Schools, Temporary structures, Retail stores.</p> <p>Setup time varies depending on hose installation, water filling, fabricating, etc...3+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source</p>	<p>150 Ton Chiller Caterpillar/York 150 Ton Air Cooled Chiller; Built-in pumps delivering 250-700 gpm;</p> <p>6" flanged water fittings on exterior; Weight: 31,000 lbs; Trailer mounted (semitractor) dimensions: 20/30' Long x 8' Wide x 12'.5" Tall; Power requirements: 329-400 Amps at 460 volts, 3 phase, 60 hz; Temporary quick connect chilled water hose available with unit for tie in to chilled water system; Potential application examples: Single or multiple units for Medium office buildings, Libraries, Hotels/motels, Condominiums, Retail stores.</p> <p>Setup time varies depending on hose installation, water filling, fabricating, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source</p>	<p>50 Ton Chiller Caterpillar/York 50 Ton Air Cooled Chiller; Built-in pump delivering 75-200 gpm;</p> <p>4" quick connect water fittings on exterior; Weight: 5,500 lbs.; Skid mounted w/ forklift pockets (8,000 lb. lift recommended) dimensions: 12' Long x 7'.5" Wide x 8'.5" Tall; Power requirements: 125 Amps at 460 volts, 3 phase, 60 hz; Temporary quick connect chilled water hose available with unit for tie in to chilled water system. Potential application examples: Single or multiple units for Small office buildings, Tent/shelter cooling, Small-medium retail stores.</p> <p>Setup time varies depending on hose installation, water filling, fabricating, etc...2+ hours; 4/0 Cam-Lock type quick connect cable used for power termination to source</p>	<p>Custom Rental Air Handling Units: 50, 75, & 100 Tons</p> <p>For delivering cold air with use of any chiller, 5,000-30,000 cfm depending on unit;</p> <p>20" diameter flex duct inlets/outlets for air distribution supply/return; 4/0 Cam-Lock type quick connect cable used for power termination to source; Call for power requirements and sizing; Potential application examples: Single or multiple units for buildings w/out HVAC systems, Tent/shelter cooling, etc</p> <p>Setup time varies on application 1-2 hours each</p>




Resource:		Chillers & Air Handlers (500 Ton to 50 Ton)				
CATEGORY:	Chillers & Air Handlers (500 Ton to 50 Ton)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER (TYPE V)
COMPONENT	METRIC					
Equipment	Example	 500/450 Ton	 300 Ton	 150 Ton	 50 Ton	 Custom Rental Air Handling Unit
COMMENTS	<p>Caterpillar equipment used for typing. Equipment not available at all locations, but CAT dealer network can acquire equipment from one another and ship.</p> <p>Need fresh water source for filling chilled water system. Temporary chilled water hose & 4/0 power cable available for chillers.</p> <p>Set up & monitoring available. Low Temp Chillers and Cooling Towers available.</p> <p>Air handlers require use of chillers or chilled water supply to operate.</p>					

RESOURCE:		Concrete Cutter/Multi-Processor for Hydraulic Excavator				
CATEGORY:	Public Works and Engineering			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Jaw Opening	Inches	50.4	38.4	32	26	
Jaw Depth	Inches	43.3	35	31	26	
Force at Tooth Tip	Short Ton	168	140	107	79	
Force Primary Blade Center	Short Ton	494	460	337	247	
Weight of Jaw	Pounds	4,850	7,935	5,730	3,970	
Weight With housing	Pounds	12,785	20.5	18	16	
Cutter Length	Inches	23.6	110.2	95	87	
Length	Inches	137.8	208	157	112	
Force At Cutting Tip	Short Ton	247	2,865	2,205	1,430	
Max Op Pres Hyd. Cylinder	Pressure Per Square Inch	5,075	5,075	5,075	5,075	
Maximum Oil flow Cylinder	Gallons Per Minute	106	79	53	40	
Maximum Oil flow Cylinder	Cycle - Seconds	7.5	6.5	6	5	
Maximum Operating Pressure Rotator	Pressure Per Square Inch	2,030	2,030	2,030	2,030	
Maximum Oil Flow Rotator	Gallons per minute	22	11	11	11	



RESOURCE:		Concrete Cutter/Multi-Processor for Hydraulic Excavator				
CATEGORY:	Public Works and Engineering			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
For Use on Models		375, 375 L Hydraulic Excavators	345B L Series II Hydraulic Excavators	322C L, 325C L Hydraulic Excavators	321 B LCR, 322C L Hydraulic Excavators	
COMMENTS:	Multiprocessors do the work of many types of demolition tools by use of interchangeable jaw sets. Changing jaws allows a single unit to crush, pulverize, and perform a variety of specialized cutting tasks, such as cutting steel rebar and tanks. Check with Cat dealer/owner to match Multiprocessor model attachment to Hydraulic Excavator.					
						

RESOURCE: Crawler Cranes						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Tons	200 (Manitowoc 777) with a boom reach of 300 feet	100 (Manitowoc 222) with a boom reach of 300 feet	80 (Manitowoc 111) with a boom reach of 300 feet		
Equipment	Mobilize & demobilize	Requires nine (9) tractor-trailers to mobilize & demobilize.	Requires four (4) tractor-trailers to mobilize & demobilize.	Requires four (4) tractor-trailers to mobilize & demobilize.		
Equipment	Setup time	Six (6) hours.	Four (4) hours.	Two (2) hours.		
Personnel		Operator with one (1) oiler/rigger.	Operator with one (1) oiler/rigger.	Operator with one (1) oiler/rigger.		
COMMENTS:	Check with your local/State transportation and law enforcement organization to determine mobilization requirements. 					

RESOURCE: Debris Management Monitoring Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team; Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Services	Annual Contracts; Per Unit; Hourly; Lump Sum	<p>General Manager (GM)</p> <p>GM responsibility would include overall coordination with all levels of government and other ESFs; Knowledge of the Federal Response Plan and Federal response and recovery procedures related to debris management; Site monitoring of health and safety requirement in meeting local, State, or Federal standards during any and all parts of the recovery process whether from manmade or natural occurrences; Appropriate standards for the debris processing and disposal to successfully complete the recovery process of an event; Ability to manage and oversee owner's current debris removal operations plan; Highest trained in debris monitoring management and recovery operations; Highest experience level in meeting Federal record keeping requirements and processing procedures; Highest knowledge in managing multiple service levels of manmade and or natural</p>	<p>Project Manager (PM)</p> <p>PM responsibility would include overall management of all taskings under the project to include removal, reduction and disposal/salvage operations. Monitors changes in the scope of original assignment, cost estimates, coordinating the procurement process, scheduling, tracking of funds, and reporting all elements of work progress; Knowledge of the Federal Response Plan and Federal response and recovery procedures related to debris management; Monitors and assures that health and safety procedures and requirements meet local, State, or Federal standards during any and all parts of the recovery process whether from manmade or natural occurrences; Monitors the compliance of debris processing and disposal to successfully complete the recovery process of an event; Ability to manage and oversee owner's current debris removal operations plan; Highest trained in debris</p>			

RESOURCE: Debris Management Monitoring Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team; Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		disasters; Financial capabilities to manage progressive monitoring processes; Required and necessary liability coverage for all aspects of operation; Highest ability to manage work programs and personnel safely, with the highest regard to safety and applicable regulations protecting employees of the company and community; Highest capabilities to recruit support staffing within acceptable timeframe	project management and recovery operations; Highest experience level in meeting Federal record keeping requirements and processing procedures; Highest ability to manage work programs and personnel safely, with the highest regard to safety and applicable regulations protecting employees of the company and community			
Equipment		Ability to supply, support, and maintain an inventory of varying equipment specialties in assisting the handling of all aspects of monitoring for health and safety of personnel involved with recovery operations	Ability to support and maintain an inventory of varying equipment specialties in assisting the handling of all aspects of monitoring the health and safety of personnel involved with recovery operations			
Personnel		The highest trained and experienced in the field of debris management procedures; Very good communication skills and the ability to effectively brief high level officials; Highest capability to train and manage assisting resources; Highest ability to comply with all local, State, Federal authority, and OSHA regulations to which services	Trained and experienced in the field of debris management procedures; Very good communication skills; Highest capability to manage assisting resources; General understanding of equipment leasing contracts, various type of equipment, and unit price contracts. Highest ability to comply with all local, State, Federal authority, and OSHA			



RESOURCE: Debris Management Monitoring Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team; Personnel	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		are being applied; No use restriction as it relates to assignment; Fully mobilized and fully equipped; Permanently assigned to completion of task on rotation, 30/3	regulations to which services are being applied; No use restriction as it relates to assignment; Fully mobilized and fully equipped; Have an engineering background with a background in site development and proven skills in the field of construction; Permanently assigned to completion of task on rotation, 30/3			
COMMENTS:						

RESOURCE: Debris Management Site Reduction Team						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	Storage Area Capabilities	Ability to establish lined temporary storage areas for ash, household hazardous waste, fuels, and other materials that can contaminate soils, runoff, or ground water				
	Control Capabilities	Ability to establish traffic control, dust control, erosion control, fire protection, on-site roadway maintenance, and safety measures				
	Debris Reduction	Ability to burn debris through air curtain incineration; Use of tub grinders to reduce disaster debris waste, and other source reduction applications to be site/disaster-specific				
	Sorting and Stockpiling	Ability to sort and stack debris at the site				
	Disposal	Ability to dispose nonburnable debris and ash residue				
	Clearance	Ability to clear site of all debris				
	Equipment	Ability to supply, support, and maintain an inventory of varying equipment specialties to facilitate and coordinate the removal, collection, and disposal of debris				

RESOURCE: Debris Management Site Reduction Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Training and experience	<p>Trained and experienced in the field of debris management procedures; Understanding of equipment leasing contracts, various types of equipment, and unit price contracts; Ability to comply with Federal, State, and local authority, and OSHA regulations to which services are being applied; Ability to be fully mobilized and equipped; Engineering background with a background in site development and proven skills in construction; Knowledge of soil and water sampling and other environmental impacts; Knowledge and ability to ensure environmental justice protocols are upheld; Knowledge and expertise to perform varying debris reduction separation techniques, including, at minimum, 4 categories: woody vegetative debris, construction or building rubble, hazardous materials, and recyclable materials (e.g., aluminum, cast iron, steel, or household white goods or appliances); Appropriate education and training in managing inspection stations located at such debris reduction sites, recycling locations, or temporary debris</p>				



RESOURCE: Debris Management Site Reduction Team						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		staging reduction sites				
COMMENTS:	Debris Management Site Reduction Teams should possess the experience and financial capabilities to support equipment, disaster debris waste reduction capabilities, and personnel, and to maintain operations for an indefinite period of time. As only one type, the makeup of the Debris Management Site Reduction Team will be dependent on the site and impact specifics of the disaster.					



RESOURCE: Debris Management Team						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Services	Annual Contracts; Per Unit; Hourly; Lump Sum	<p>Long & Short Term</p> <p>Management of national and international situations and events for manmade and natural occurrences that would produce debris requiring the resources to successfully complete the recovery process of debris management</p> <p>Maintains a current and active debris removal operations plan</p> <p>Highest training in debris management and recovery operations</p> <p>Highest experience level in meeting Federal record keeping requirements and processing procedures</p> <p>Highest knowledge in managing multiple service levels of manmade and/or natural disasters</p> <p>Financial capabilities to manage progressive recovery processes</p> <p>Has required and necessary liability coverage for all aspects of operation</p> <p>Highest ability to manage work programs and its personnel safely and with the</p>	<p>Same as Type I except:</p> <p>Mobilization timeframe: 24 hours—25% 48 hours—50% 72 hours—75% 96 hours—100%</p> <p>Debris removal will commence following the first 24-36 hours</p>	<p>Same as Type II except:</p> <p>Management of multiple community resources through its management teams</p> <p>Mobilization timeframe: 36 hours—25% 48 hours—50% 72 hours—75% 96 hours—100%</p>		

RESOURCE: Debris Management Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		<p>highest regard to safety and applicable regulations protecting employees of the company and community</p> <p>Highest capabilities to recruit support staffing within acceptable timeframe</p> <p>Mobilization timeframe:</p> <p>24 hours—25%</p> <p>48 hours—75%</p> <p>72 hours—100%</p> <p>Debris removal will commence following the first 24 hours</p>				
Equipment		<p>Ability to supply, support, and maintain an inventory of varying equipment specialties in handling all aspects of disaster recovery</p>	Same as Type I	<p>Utilization of all available community support equipment</p> <p>Ability to supply, support, and maintain additional inventory of varying equipment specialties in handling all aspects of disaster recovery</p>		
Personnel	Training and Experience	<p>The highest trained and experienced in the field of debris management and recovery</p> <p>Sufficient quantity of personnel to support all required services</p> <p>Highest capability to train assisting resources</p> <p>Highest ability to comply with OSHA regulations to which services are being applied</p>	Same as Type I	Same as Type II except:		



RESOURCE:		Debris Management Team				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		No use restriction as it relates to assignment Fully mobilized and fully equipped Permanently assigned to completion of task				
COMMENTS:						

RESOURCE: Disaster Assessment Team						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team Personnel		Institutional Services Manager	Assessment Director	Assessment Team Leader		
Team	Description	<p>Responsible for seeing that the building is safe, damage to the building is evaluated, and measures are formulated and implemented to remedy or correct problems</p> <p>Upon notification of a problem, establishes that no threat exists to personnel safety, secures the affected area and/or building, and alerts Assessment Director</p> <p>Establishes priorities for facility repairs, and follows the progress of repairs once begun</p>	<p>Organizes and manages the process by which damage is evaluated</p> <p>Responsible for notifying and instructing Assessment Team Leaders, and enlisting the assistance of in-house or outside experts/resource people as required</p> <p>Evaluates findings and recommendations, and contacts the Recovery Director with recovery recommendations</p>	<p>Selects and assembles the team members and directs their operations</p> <p>Instructs the team on what to do and how to do it, including methods of inspection and sampling, assessing damaged material, and documenting the process</p> <p>Monitors the damage investigation, reporting recommendations to the Assessment Director</p>		
Personnel	Training or Requirements	<p>Must be multidisciplinary and familiar with health personnel, engineering specialists, logisticians, environmental experts, and communications specialists</p> <p>Must also be able to record observations and decisions made by the team, photograph and record disaster site damage, and investigate where damage exists</p> <p>Able to analyze the significance of affected infrastructure, estimate the</p>	Same as Type I	Same as Type II		



RESOURCE: Disaster Assessment Team						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		extent of damages, and establish initial priorities for recovery				
Team	Crew Availability	Incident Specific and Site Specific	Same as Type I	Same as Type II		
COMMENTS:	There is only one type of Disaster Assessment Team because it is a specialty and based on level of devastation; however, the team possesses different personnel types/roles. The team members should be equipped with their own laptops, cell phones, and vehicles, and should be able to stay based on severity of incident (i.e., "Site-Specific" and "Incident-Specific"). Team size, expertise, and functional requirements will be determined at the disaster location.					

RESOURCE: Disaster Recovery Team						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel		Recovery Director	Recovery Secretary	Conservator	Recovery Team Leader	
Personnel	Description	<p>Organizes and manages the recovery process</p> <p>Sets priorities based on information received from the Assessment Director, and assigns recovery teams, reports on progress, actions taken, problems encountered, and future risks</p> <p>In many cases, the Assessment Director and Recovery Director may be the same person</p>	<p>Keeps a record of all purchases and orders placed, assists in coordinating requests for materials, information, and provides other assistance</p> <p>This position will require immediate access to a telephone</p>	<p>Works with the Recovery Director to advise on recovery priorities concerning collections and materials, and recommends appropriate techniques and procedures</p> <p>Assists in choosing and locating supplies, equipment, and services necessary for recovery</p> <p>In many cases, the Conservator and Recovery Director may be the same person</p>	<p>Appoints team members, instructs the team on what they will be doing and how they will do it</p> <p>Monitors the recovery process, and updates the Recovery Director</p>	
Personnel	Training or Requirements	<p>Must be multidisciplinary and familiar with health personnel, engineering specialists, logisticians, environmental experts, and communications specialists</p> <p>Must also be able to record observations and decisions made by the team, photograph and record disaster site damage, and investigate where damage exists</p> <p>Able to analyze the significance of affected infrastructure, estimate the extent of damages, and establish initial priorities for recovery</p>	Same as Type I	Same as Type I	Same as Type I	



RESOURCE: Disaster Recovery Team						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Crew Availability	Incident Specific and Site Specific	Same as Type I	Same as Type I	Same as Type I	
COMMENTS:	There is only one type of Disaster Recovery Team because it is a specialty and based on level of devastation; however, the team possesses different personnel types/roles. The team members should be equipped with their own laptops, cell phones, and vehicles, and should be able to stay based on severity of incident (i.e., "Site-Specific" and "Incident-Specific"). Team size, expertise, and functional requirements will be determined at the disaster location.					




RESOURCE: Dump Trailer (one type/example only)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Example		DYNAHAULER/DT Dump Trailer				
Length	ft	24-40				
Side Height	ft	54-72				
Overall Height Variable (max)	ft/in	13'6"				
Gate Height	ft	54-72				
Tire to End of Floor	in	4				
King Pin to Front of Trailer	in	18+				
Center of Hinge Pin to End of Floor	in	6				
Side Panels	in	3/16				
Side Panels PSI (min yield)	lbs	175,000				
Bulkhead	in	3/16				
Bulkhead PSI (min yield)	lbs	175,000				
Dog Box	in	3/16				
Dog Box PSI (min yield)	lbs	175,000				
Floor	in	5/16				



RESOURCE: Dump Trailer (one type/example only)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Floor PSI (min yield)	lbs	175,000				
Top Rail	in x in	4 x 4				
Vertical Side Posts	in	on 24 centers				
Rear Posts	in x in	4 x 4				
Understructure I-Beam Crossmembers	lbs/ft on in	7.7 on 12 centers				
Understructure Longitudinals	in x in x in	6 x 6 x 3/8				
Tailgate	in	1/4				
Tailgate PSI (min yield)	lbs	175,000				
Dana' D22	lbs/in round	25,000/5				
Brakes (with ABS 4S2M)	in x in	16 x 7				
Frame Depth	in	16				
Frame Wide Flange Beam	lbs/ft	31				
Suspension	lbs	60,000				
Landing Gear	in	7/8				
King Pin Plate	in	3/8				
Wheels		24.5 x 8.25				
Tires		11R24.5, 14 ply				




RESOURCE:		Dump Trailer (one type/example only)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	<p>There will be one type of dump trailer. It will have generally the same configuration but will be capable of hauling more or fewer materials because of varying length and depth. DYNAHAULER/DT dump trailer is used only as an example.</p> 					




RESOURCE: Dump Truck-Off Road						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Example		(Caterpillar Off-Highway) 769D Caterpillar 3408E engine	(Caterpillar Quarry) 771D Caterpillar 3408E engine			
Gross Power	kw/hp	386/518	386/518			
Flywheel Power	kw/hp	363/487	363/487			
Net Power	kw/hp	363/486	363/487			
Maximum Torque	N/m/1,618 lb ft	2,194	2m186			
Gross Machine Weight	kg/lbs	71,400/157,000	75,700/166,500			
Operating (Empty) Weight	kg/lbs	11,100/24,471.28				
Chassis Weight	kg/lbs		23,000/50,600			
Body Weight	kg/lbs		10,350/23,000			
SAE Capacity	m3/yd3	17/22.24 to 24.2/31.7	27.5/36			
Payload Capacity	tonnes/tons	36.4/40 to 36.58/40	41/45			
Transmission (Forward 1 to 6)	kph/mph	12.6/7.8 to 77.7/48.3	12.6/7.8 to 57.3/35.6			
Transmission (Reverse)	kph/mph	16.6/10.3	16.6/10.3			
Fuel Tank	L/gal	530/140	530/140			
Cooling System	L/gal	113.5/30	113.5/30			

RESOURCE: Dump Truck-Off Road						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Crankcase	L/gal	45/12	45/12			
Differentials and Final Drives	L/gal	83/22	83/22			
Steering Tank	L/gal	34/9	34/9			
Steering System with Tank	L/gal	56/15	56/15			
Brake Hoist with Tank	L/gal	277/73	277/73			
Torque Converter and Transmission with Sump	L/gal	72/19	72/19			
Inside Body Length	mm/in	5,275/207.68	5,275/207.68			
Overall Length	mm/in	8,039/316.5	8,039/316.5			
Wheelcase	mm/in	3,713/146.18	3,713/146.18			
Ground Clearance	mm/in	627/24.68	627/24.68			
Loading Height (Empty)	mm/in	3,143/123.74	3,143/123.74			
Operating Width	mm/in	5,069/199.57	5,069/199.57			
Centerline Front Tire Width	mm/in	3,102/122.13	3,102/122.13			
Front Canopy Height	mm/in	3,952/155.59	3,952/155.59			



RESOURCE: Dump Truck-Off Road						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Tires		Standard: 18.00-R33 (E4)	Standard: 18.00-R33 (E4)			
COMMENTS:	Caterpillar was used only for example purposes.					
						

RESOURCE: Dump Truck-On Road						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment		Triple Axle	Tandem Axle	Single Axle		
Equipment		DOT Class 8; GVW rating 80,000 Capacities 16-20 yards of aggregate material and demolition debris Diesel powered with choice of Manual or Automatic Transmission; Air Brakes Limited off-road service; Medium to long haul; Wide turning radius CDL license required	DOT Class 8; GVW rating 60,000 Capacities 10-14 yards of aggregate material and demolition debris Diesel powered with choice of Manual or Automatic Transmission; Air Brakes Limited off-road service; Medium to long haul; Wide turning radius CDL license required	DOT Class 7; GVW rating 32,000 Capacities 5-8 yards of aggregate material and demolition debris Diesel or gas powered with choice of Manual or Automatic Transmission; Air or Hydraulic Brakes Limited off-road service; Short to medium haul; Short turning radius CDL license required		
COMMENTS:						

RESOURCE: Electrical Power Restoration Team (Example)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team Composition	5 overhead (2 person) crews with material handlers 1 overhead (2 person) crew 2 designers 1 team leader 1 safety specialist Fleet services support				
Equipment		Digger derrick/pole trailer Auxiliary bucket (material handler or 36' bucket)				
COMMENTS:		Electrical Power Restoration Teams coordinate and support resources of energy producers to quickly restore electrical power to afflicted areas. Members should possess the experience and financial capabilities to support equipment and personnel, and to maintain operations for an indefinite period of time. Teams are "Site-Specific" and dependent on personnel and equipment deployment. The above type is only one example of said resource.				

RESOURCE: Engineering Services						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Services	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Damage Assessment Capability	Ability to determine the safety of buildings for occupancy purposes per the Applied Technology Council ATC-20 criteria; Ability to evaluate buildings using the ATC-20 Rapid Evaluation Safety Assessment Form; Ability to evaluate buildings using the ATC-20 Detailed Evaluation Safety Assessment Form; Ability to support the need for an owner-provided Engineering Evaluation; Ability to evaluate safety of transportation structures per Federal Highway Administration Damage Assessment procedures and forms; Ability to evaluate damage for Stafford Act cost recovery purposes				
Personnel	Support	Ability to support USAR teams, debris management, HazMat evaluation, traffic management, utility restoration, and water and wastewater quality evaluations				









RESOURCE: Engineering Services						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Services	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Training	Knowledge of the ATC-20 criteria, Stafford Act cost recovery procedures, and Federal Highway Damage Assessment procedures; Extensive backgrounds in chemical, civil, electrical, and mechanical engineering, as appropriate	Training			
COMMENTS:		Engineering services encompass small firms to large national firms, and private to government-managed offices. Personnel must be certified and capable of handling assigned tasks, proven successes, and licensed, must have worked with public sector, and must be familiar with the Stafford Act, the Federal Highway Administration, and other Federal, State, Territorial, Tribal, and local agencies (and familiar with their requirements) for recording purposes. Engineering Services is one type based on the need to create the necessary engineering services based on "Incident-Specifics." The makeup of the engineering services will be based on the discipline specialization of the disaster.				







RESOURCE: Flat Bed Trailer Truck (one type/example only)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment		Example Only				
Trailer Length	ft	18				
Bed	in	96				
Slope	ft	2				
Axles	lbs	6,000				
GVWR		12,000				
Ramp with Adjustable Height Pintle	in	60				
Ground Clearance	in	56				
Weight	tons	6 to 25				
Transport	tons	25 to 100				
Air Operated Breaks	in x in	16.5 x 7				
Wide Spread	in	122				
Marker Lights Per Side		5				
Stop, Tail, and Turn Lights Per Side/Rear		3				









RESOURCE: Flat Bed Trailer Truck (one type/example only)						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	There is one type because of the generality of the flat bed trailer; however, the capacity and hauling function of the trailer will vary with differing length and configurations. The above is only an example.					
						


RESOURCE: Generators						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER (TYPE V)
COMPONENT	METRIC					
Equipment	KW	2000 kW Generator; Sound attenuated; Trailer mounted (semi tractor); Up to 3015 Amps@ 480 Volts, 3 Phase, 60 Hz; Dry weight 89,000 lbs	1500 kW Generator, Sound attenuated; Trailer mounted (semi tractor); Up to 2260 Amps@ 480 Volts, 3 Phase, 60 Hz; Dry weight 59,000 lbs	600 kW Generator; Sound attenuated; Trailer mounted (semi tractor); Up to 2080 Amps@ 208 Volts, 3 Phase, 60 Hz / up to 902 Amps@ 480 Volts 3 Phase, 60 Hz; Dry weight 37,000 lbs	400 kW Generator; Sound attenuated; Trailer mounted (pull behind); Multi-voltage distribution panel; Up to 1390 Amps @ 208 Volts, 3 Phase, 60 Hz/up to 602 Amps@ 480 Volts 3 Phase, 60 Hz; Dry weight 16,800 lbs	125 kW Generator; Sound attenuated; Trailer mounted (pull behind); Multi-voltage distribution panel; Up to 433 Amps@ 208 Volts, 3 Phase, 60 Hz / up to 188 Amps @ 480 Volts 3 Phase, 60 Hz; Dry weight 10,610 lbs
Equipment	Fuel tank capacity	1250 Gallons	1250 Gallons	660 Gallons	470 Gallons	223 Gallons
Equipment	Dimensions	40' Long x 8' Wide x 13'.5" Tall	40' Long x 8' Wide x 13'.5" Tall	40' Long x 8' Wide x 13'.5" Tall	23' Long x 8'.5" Wide x 11' Tall	18'.5" Long x 6'.5" Wide x 9' Tall
Equipment	Potential application example	Single or multiple units for: Power plants, heavy industrial facility, high-rise buildings	Single or multiple units for: Universities, hospitals, medium to large manufacturing facility	Retail stores, HVAC system power, multi-story/buildings, light manufacturing, apartment buildings	Large office building, public schools, libraries, and communication equipment.	Small office building, emergency mobile trailers & operations, restaurants.
Equipment	Setup time	Cables from generator to main power feed estimated at 5+ hours	Cables from generator to main power feed estimated at 5+ hours	Cables from generator to main power feed estimated at 3+ hours	Cables from generator to main power feed estimated at 2+ hours	Cables from generator to main power feed estimated at 1 hour
Equipment	Example	 XQ2000	 XQ1500	 XQ600	 XQ400 <small>Arrangement shown with optional trailer with pinle hitch.</small>	 XQ125 <small>Arrangement shown with optional trailer with pinle hitch.</small>
COMMENTS:		2500-gallon external fuel tanks available. Fuel consumption is estimated at 7% of the kW usage. Example: Fuel consumption on a 100 kW Generator operating at full load is approximately 7 gallons per hour). Technicians are available for hookup and monitoring of equipment. 4/0 Quick connect (Cam-Lock) cable is available for tie-in to power feed, rated at 400 Amps each cable. Fuel supply, and/or fuel vendors available. Power distribution equipment available. Transformers & Load Banks are available.				

RESOURCE: Hydraulic Excavator (Large Mass Excavation 13 cy to 3 cy buckets)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Cubic Yard	Net HP (800); Operating Weight-Std. (399000 lb); Bucket Capacity-HDR (13.7 yd ³); Max. Digging Depth (27.6 ft); Max. Reach at Ground Level (48.9 ft); Max. Dump Height (29.8 ft); Max. Drawbar Pull (196000); Fuel Tank (987 gal); Overall Width (21.7 ft); Height To Top Of Cab (21.4 ft); Track Length-Std. (23.8 ft) Mining Machine	Net HP (513); Operating Weight-Std. (183940 lb); Operating Weight-Long (L) Undercarriage (189770 lb); Bucket Capacities-HDR (2.5 yd ³) - General Purpose GP (5.5 yd ³); Max. Drawbar Pull (132810); Fuel Tank (328 gal); Max. Digging Depth (38.7 ft); Max. Reach at Ground Level (56.11 ft); Max. Dump Height (37.11 ft); Minimum Loading Height (11.1 ft); Overall Width (12.7 ft); Height To Top Of Cab (12 ft); Track Length-Std. (19.2 ft)	In respective order of size; Net HP (428-404); Operating Weight-Std. (173100 lb-149000 lb); Operating Weight-Long (L) Undercarriage (179800 lb-150200 lb); Bucket Capacities-HDR (2.5 yd ³ -1.6 yd ³) - General Purpose GP (5 yd ³); Max. Drawbar Pull (126300 -103820); Fuel Tank (261gal-211 gal); Max. Digging Depth (37.7ft-31 ft); Max. Reach at Ground Level (52ft-46 ft); Max. Dump Height (33.11ft-30 ft); Overall Width (13.6ft--11.6ft); Height To Top Of Cab (12.2ft-11.1ft); Track Length-Std. (20.10 ft-19.3ft)		
Equipment	Example	 5130B ME	 385B-L	 375-L	 365B-L Series II	
COMMENTS:		To better match bucket needs to material conditions, contact dealer and or owner. The reference to "L" means Long Undercarriage. Mobilization may require more than one truck-trailer.				

RESOURCE: Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Model	345B L Series II	330C -- 325C L See Note 1	322C L -- 320C L See Note 1 See Note 2	321B L -- 320C L Utility Models See Note 1 See Note 2	
Equipment	Net HP	321	247 -- 188	168 -- 138	168-138	
Equipment	Operating Weight-Long Undercarriage	111180 lb for UHD -- 97940lb	77400 lb -- 63100 lb	53600 lb -- 46300 lb	50927 lb-50700 lb	
Equipment	Bucket Capacity (yd ³)	HDR (3) GP (4)	HDR (2.12 -- 1.75) GP (3 -- 2.5)	HDR (2.12 -- 1) GP (3 -- 1.75)	Bucket capacities and other handling performances will be similar to 320 C L	
Equipment	Max. Drawbar Pull (lb)	74380	66094 -- 54853	50132 -- 44040)	44063 -- 4040	
Equipment	Fuel Tank (gal)	190	163 -- 132	132 -- 106	66 -	
Equipment	Reach and dimensions	Max. Digging Depth (23.7 ft) Max. Reach at Ground Level (37.2 ft) Max. Loading Height (22.6 ft) Overall Width (11.5 ft) Height To Top Of Cab (15.1 ft) Track Length-Std. (17.7 ft)	Max. Digging Depth (24.3 ft - 23.3 ft) Max. Reach at Ground Level (35.10 ft -- 34.6 ft) Max. Loading Height (23.7 ft- 23.4 ft) Minimum Loading Height (8.11 ft-8 ft) Overall Width (11.3 ft-11.1 ft) Height To Top Of Cab (11 ft - 10.11 ft) Track Length -- Std. (16.6 ft - 15.3 ft)	Max. Digging Depth (22 ft -- 22 ft) Max. Reach at Ground Level (32.10 ft -- 32.4 ft) Max. Loading Height (22.1ft - 21.4 ft) Overall Width (11.6ft -- 9.6 ft) Height To Top Of Cab (10.9 - 9.11ft) Track Length-Std. (15.3 ft -- 13.4ft)		






RESOURCE: Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Example	 345B L Series II UHD  345B L Series II	 330C -- 325C L	 322C -- 320C L	 321B -- 320C L Utility	
Comments:		<p>To better match bucket needs to material conditions, contact dealer and or owner. The reference to "L" means Long Undercarriage. Mobilization may require more than one truck w/trailer. Boom type will change reach, digging depth, and handling performances.</p> <p>Note 1: In respective order of size</p> <p>Note 2: 320C L has two versions for difference applications. Utility model has smaller radius.</p>				

RESOURCE: Hydraulic Truck Cranes						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Tons	75-70	65-60	40-35		
Equipment	Size	Crane type with boom reach of 190-170 feet; With jib add approx. 30 feet Self-propelled/driven over the road; Counter weight transported by tractor-trailer No other special transport permit required	Crane type with boom reach of 160-150 feet; With jib add approx. 30 feet Self-propelled/driven over the road No special transport permit required	Crane type with boom reach of 140 feet; With jib add approx. 30 feet Self-propelled/driven over the road No special transport permit required		
Equipment	Setup time	Minimal	Minimal and ready for use	Minimal and ready for use		
Personnel	Operator	Furnished	Furnished	Furnished		
COMMENTS:	Check with your local/State transportation and law enforcement organizations to determine mobilization requirements. 					



RESOURCE: Lattice Truck Cranes						
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment; Personnel; Vehicle	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Tons	220 Manitowoc Reach of 430 feet; Requires 7 tractor-trailers to mobilize & demobilize; Setup time 6 hours				
Equipment		Operator with one (1) oiler/rigger				
COMMENTS:	Check with your local/State transportation and law enforcement organizations to determine mobilization requirements. 					




RESOURCE: Track Dozer						
CATEGORY: Public Works and Engineering (ESF #3)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Example	D10R – Cat 3412E Turbo Charged Diesel	D6N – Cat 3126B Diesel	D3G – Cat 3046 Diesel		D10R WHA (Waste Handling) – Cat 3412E Turbo Charged Diesel
Gross Power	RPM	1,900	2,100	2,400		1,900
Gross Power	kw/hp	457/613	127/170	57/77		457/613
Operating Weight	lbs	144,191	34,209	16,193		144,986
Blade Capacity	yd ³	24.2	5.6	1.88		63.9
Digging Depth	in	26.5	20.5	21.8		26.5
Height	ft/in	6'11"	4'1"	3'8"		10'5"
Ground Clearance	ft/in	4'11"	3'2.7"			4'10"
Total Tilt	ft/in	3'3"	2'2.2"	1'2.5"		3'6.3"
Width Over End Bits	ft/in	15'11"	10'6"	8'9"		17'3"
Blade Lift Height	in			27.1		
Digging Depth	in			21.8		
Multishanks Arrangements		1-3	3			1 to 3
Ground Clearance Under Tip	in	35	19.9	16.2		35"
Machine Ground Clearance	in			14.7		
Max Penetration	in		14.2			3'1"

RESOURCE: Track Dozer						
CATEGORY: Public Works and Engineering (ESF #3)				KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Max Reach at Ground Line	in		29.1	29.1"		
Width	ft/in	9'7"	7'2.7"	8'9"		9'7"
Winch-Drum Capacity	ft	226	371	371		226
Fuel Capacity	gal	293	79	43.6		293
Max Line Pull Bare Drum	lbs			40,000		
Full Drum	lbs			25,000		
Equipment	Example	 D10R	 D6N	 D3G		 D10R WH
COMMENTS:		Caterpillar is used as an example only. The major difference for D10R WHA (Waste Handling) – Cat 3412E Turbo Charged Diesel is that it contains a larger blade and protection guards to prevent landfill type debris from tangling its drives.				
		 General Example				


RESOURCE:		Tractor Trailer (Example Only)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Example		TE70FG-2 Folding Gooseneck Trailer	TE18AH (D9AH) General Duty Hydraulic Tail Trailer (with Fifth-Wheel Hookup)			
Capacity	lbs	70,000	18,000			
Overall Length	ft/in	40'-53'	34'11"			
Main Deck Length (Double Drop)	ft	17-28	8			
Hydraulic Deck Plate	in		18			
Arch Hitch Length	ft/in		7'9"			
Arch Hitch Height	in		32-40			
Main Deck Length (Single Drop)	ft	20-32				
Upper Deck Length	ft	8				
Rear Deck Length	ft/in	7'-10'				
Slope	degrees	60				
Width	ft/in	8'6"	8'			
Swing Clearance	in	84				
King Pin Setting	in	16				

RESOURCE:		Tractor Trailer (Example Only)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Deck Height (Unloaded Single Drop)	in	39.5				
Deck Height (Loaded)	in		36			
Ground Clearance (Single Drop)	in	19.5				
Platform	in	1.375	1.375			
Axles (2)	lbs	25,000	9,000			
Brakes (Air)	in x in	16.5 x 7	12.25 x 3.375			
Wheels (Disc-Pilot Mounted)		8.25 x 22.5				
Wheels (8-Hole)			6.75 x 16.5			
Tires (Low Profile)		255/70R x 22.5				
Tires (10-Ply)			8.75 x 16.5			
Suspension		Spring-type	18,000 lbs			
Jack (Crank Style with Pin Drop Base)	lbs		12,000			
Equipment	Example	 TE70FG-2	 TE18AH (D9AH)			
COMMENTS	Rail-EZE Trailers are used only as an example.					

RESOURCE:		Tub Grinder				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Output Capability	cy/hr	> 400	300-400	100-300	Up to 100	
Tub Size (opening)	ft/in	14'-15'	12'-13'	8'4"-11'	Up to 8'4"	
Towing Arrangement (i.e., Tow-Behind and Fifth-Wheel Trailer Hookup)		Fifth-wheel	Fifth-wheel	Fifth-wheel	Pintle hitch	
Horsepower	hp	>1000	630-1000	200-575	Up to 200	
Example		Morbark 1500	Morbark 1300/1200XL	Morbark 1100/1000	Morbark 950	
COMMENTS	Morbark is used as an example only.					
						

RESOURCE:		Tug Boat				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Vessel Personnel	Tug Boat Captain	Inland River Pilot	Docking Pilot		
Personnel	Description	Term used on the inland waterways to describe a vessel operator who holds a Master license	Term used on the inland waterways that equates to "Mate" in the coastal sector A pilot is the second operator onboard an inland towing vessel The pilot has similar navigation duties and credentials to the Captain/Master, although the Captain/Master has the ultimate authority onboard the vessel	A docking pilot is an individual with specific expertise in maneuvering large, deep sea vessels in confined spaces (e.g., alongside a pier) The docking pilot boards the ship, takes the conn, and brings the vessel into port Most docking pilots are licensed by the Coast Guard (except in Maryland and New Jersey, where they are licensed by the State) and are employed by tug companies		
Personnel	Training or Requirements	Requires a tug boat captain's licensure issued by the U.S. Coast Guard Increasingly, 2-month schools are available for captain licensure	Requires licensure issued by the U.S. Coast Guard	Requires special licensure issued by the U.S. Coast Guard or New Jersey/ Maryland		
Personnel	Crew Availability	Generally live on the boat during working times, as schedule depends on the tug boat companies (e.g., 4 days on, 4 days off)	Required by law and on an on-call basis	Specialty position on an on-call basis		
COMMENTS		Tug boats are typed as one resource as modifications and enhancements are based on boat-to-boat, location, and working task specialty bases. Tug boats and operators are subject to licensure and jurisdiction of the U.S. Coast Guard, and are required by law to make use of river pilots on inland waterways. The docking pilot specialist is becoming more used in current times. Horsepower will be the first determining factor in tug boat requisitioning, as tractor tugs are the preferred equipment type. Equipment is usually				







RESOURCE:		Tug Boat				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	requisitioned from a U.S. Coast Guard or harbor-master matrix based on the closest and largest available tug boat. The matrix will assign the tug type, size, and how many units may be available to assist in the emergency situation.					
						

RESOURCE:		Water Purification Team (USACE Emergency Water Teams)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team Personnel	ESF Action Officer (AO)	Mission Manager	Mission Specialist	Logistics Manager	Contract Specialist
Personnel	Description	<p>Coordinates the mission requirements on all levels with FEMA, State, local, and other ESF elements to determine scope of mission</p> <p>Is the USACE liaison with FEMA, DFO, and ERRO, and provides tasking to the ERRO/District</p> <p>Works with Mission Manager to ensure actions are accomplished</p>	<p>Serves as the Project Manager for mission execution and is responsible for team coordination and timely procurement and delivery of water to all staging areas and distribution sites</p> <p>Prepares scopes of work, cost estimates, schedule and tracking of water deliveries, and upward reporting</p>	<p>Works with the ERRO and assists the Mission Manager, while serving as the MM backup (same relative duties)</p>	<p>Works at the staging operations area and provides support for the MM</p> <p>Responsible for receiving, inventory management, and distribution of emergency water in coordination with the MM</p> <p>Ensures the quality control and accounting necessary for upward reporting and contractor payments</p> <p>Provides status reports of deliveries and inventories</p>	<p>Works for the Chief of the Contracting Division of the supported District and ERRO, and contract support to the MM</p> <p>Responsible for all contracting for the procurement, transportation, storage, security, testing, and distribution of water during emergency operations</p> <p>Provides copies of all ACI Contract actions and delivery orders</p>
Personnel	Training or Requirements	<p>Must have full knowledge of the Federal Response Plan, FEMA operations, PL 84-99 authorities, and operational dynamics of a DFO</p>	<p>Must be familiar with the procurement process and able to communicate mission requirements to contracting, resource management, emergency management, and other impacted districts</p> <p>Trained and fully knowledgeable of the current ACI Water Contract, and familiar with the ENLink Interactive and the preparation of SITREPS, CEFMS, and the PR&C process (requires an alternate to be designated)</p>	Same as Type II	<p>Must possess special training for receiving and accountability process</p> <p>Must be able to effectively work with emergency managers to solicit support for Logistics PRT (requires an alternate person be designated)</p>	<p>Must be able to act as liaison between Water PRT and the Contracting Division of supported District, while scoping contract requirements for mission execution and procurement</p> <p>Must be fully knowledgeable of the current ACI Water Contract, delivery orders, preparing sealed bids, negotiate actions, simplified acquisition procedures, and must be proficient in the Standard Procurement System, Procurement Desktop Defense, and CEFMS</p>

RESOURCE:		Water Purification Team (USACE Emergency Water Teams)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Supplies	Crew Availability	Deployed for 30-day rotations, with a 3- to 5-day transition period between consecutive missions Average missions last 2-3 weeks	Same as Type I	Same as Type I except: Nightshift availability if required	Same as Type I except: multiple deployments required (nightshift availability if required)	Same as Type I
Supplies	Water Sources	ACI Water Contract	Commercial Water Sources	Reverse Osmosis Water Purification Units (ROWPUs)		
Supplies	Description	A service and supply contract which can be used to provide bottled and bulk water: Area of Coverage: Continental U.S. (CONUS) and Outside Continental U.S. (OCONUS) Time Requirement: Within 24 hours Bottle Size: 12 ounce to 1.5 liter Conversion Factor: 1 gallon = 3.79 liters Price: 0.38/liter for CONUS Bulk Water: Scope and cost to be negotiated based on water source and transportation method	Commercial water sources can be located by contacting the International Bottled Water Association	Able to purify 3,000 gallons of potable water an hour Detachments are typically equipped with a 2-million-gallon storage capability to pump this water approximately 20 miles		
Water Distribution	Recommendation	1 gallon/person per day See Note 1				






RESOURCE:		Water Purification Team (USACE Emergency Water Teams)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS	<p>USACE – Emergency Water Team Staffing is designed to provide the minimum number of personnel to effectively manage and support the execution of the water mission in concert with the responding Emergency Response and Recovery Office command and control structure. The team configuration is designed to staff the three operational functions required to execute a major Federal Response Plan mission: Emergency Support Function #3 (Public Works and Engineering) element at the Disaster Field Office, Emergency Response and Recovery Office, and the Staging Operations area(s). The preferred method of providing water to disaster victims is by bottled water because the containers are usually stronger and easier to carry, and reduce opportunity for disease transmission as the water is consumed in a shorter period of time.</p> <p>Note 1: (Note: emergency water is for drinking purposes only, and initial distributions should be based on 1 gallon/ person per day and limited to no more than 2 days supply per visit to ensure all residents have minimum amount for survival)</p>					





RESOURCE:		Water Truck (example only)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Example	Tandem Axle				
Equipment		DOT Class 8; GVW rating 60,000; Capacity 4,000 gallons of potable water; Gas or diesel powered with choice of Manual or Automatic Transmission; Air Brakes; Limited off-road service; Medium to long haul; Wide turning radius; CDL license required				
COMMENTS						
						
						
						





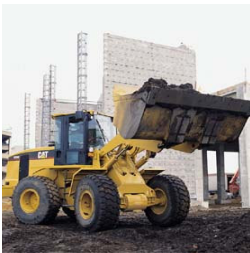





RESOURCE:		Wheel Dozer				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Example	854G – Cat 3508B EUI Diesel All-Wheel-Drive	824G – Cat 3406C Turbo Charged Diesel All-Wheel-Drive			
Gross Power	RPM		2,100			
Gross Power	kw/hp	656/880	254/340			
Weight	lbs	212,230	58,697			
Blade Height	ft/in	6'11"	4'10"			
Width	ft/in	21'8"				
Moldboard Length	ft/in		13'9"			
Maximum Depth of Cut	ft/in	1'4"	1'5"			
Maximum Lift Above Ground	ft/in	3'6"	3'6"			
Maximum Clearance Under Skid Plate	ft/in	5'6"	3'2"			
Total Tilt	ft/in	3'10"	3'11"			
Width Over End Bits	ft/in	20'7"	14'9"			
Fuel Capacity	gal	413	166			








RESOURCE:		Wheel Dozer				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Example	 854G	 824G			
COMMENTS	Caterpillar is used as an example only.					
						


RESOURCE:		Wheel Loaders (Large 41 cy to 8 cy)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Model	994D	992G	990 Series II	988G	
Equipment	Bucket Capacity m ³ (yd ³)	Range 15 - 31 (19.5 - 41)	Max. 12.3 (16)	Range 8.4 - 9.2 (11 - 12)	Range 6.3 - 7 (8.2 - 9.2)	
Equipment	Power, weight, payload	Gross Power 1027 kW (1375 hp) Operating Weight 191200 kg (421600 lb) Rated Payload-Standard 34.5 tonnes (38 tons)	Gross Power 656 kw (880 hp) Operating Weight 93779 kg (206783 lb); Dump Clearance 4636 mm (19 ft)	Gross Power 503 kW (675 hp) Operating Weight 77141 kg (170067 lb) Rated Payload-Standard 15 tonnes (16.5 tons)	Gross Power 388 kW (520 hp) Operating Weight 50183 kg (110634 lb) Rated Payload-Standard 11.4 tonnes (12.5 tons)	
Equipment	Reach and dimensions	Reach at Max. Lift/Dump-Std 2263 mm (7.4 ft); Clearance at Max. Lift/Dump-Std 5592 mm (18.4 ft); Bucket pivot at Max. Lift-Std 8157 mm (26.8 ft); Overall Height Bucket Raised-Std 100996 mm (36.1 ft); Overall Length-Std 16809 mm (55.1 ft); Width Over Tires 5499 mm (18 ft)		Static Tipping Load, Full Turn 38243 kg (84311 lb); Reach at Max. Lift/Dump-Std 1799 mm (5.9 ft); Clearance at Max. Lift/Dump-Std 4135 mm (13.7 ft); Overall Length-Std 12839 mm (42.1 ft); Width Over Tires 4071 mm (13.3 ft)	Static Tipping Load, Full Turn 26960 kg (59436 lb); Reach at Max. Lift/Dump-Std 2113 mm (6.9 ft); Clearance at Max. Lift/Dump-Std 3971 mm (13 ft); Overall Length-Std slightly less than 990 Series	
Equipment	Fuel Tank (gal)	1226	413	284	176.5	
Equipment	Example	 994D	 992G	 990 Series	 988G	
COMMENTS:		Caterpillar products used in typing. To better match bucket needs to material conditions, contact dealer and or owner.				

RESOURCE:		Wheel Loaders (Medium 7 cy to 3 cy)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Bucket Capacity	Range 3.8-5.7m ³ (7.5 - 5 yd ³)	Bucket Capacity Range 3.5 - 4.25 m ³ (4.5 - 5.5 yd ³)	Bucket Capacity Range 2.7 - 3.8 m ³ (5 - 3.5 yd ³)	Bucket Capacity Range 2.8 - 2.5 m ³ (3.65 - 2.9 yd ³)	
Equipment	Fuel capacity	Fuel Tank (124-100 gal)	Fuel Tank (100 gal)	Fuel Tank (75 gal)	Fuel Tank (67 gal)	
Equipment	Example	980G, 972G In respective order: Max. Flywheel Power 238 kW-213 kW (319 hp-285 hp) Operating Weight 30207 kg-25490 kg (66576 lb-56180 lb) Static Tipping Load 18032 kg (39743 lb) Breakout Force 210 kN (47277 lb)	966G Series II Max. Flywheel Power 194 kW (260 hp) Operating Weight 22870 kg (50400 lb)	962G Series II, IT62G, 950G Series II In respective order: Max. Flywheel Power 157-146 kW (210-196 hp) Operating Weight 18547-17780 kg (40889-39198 lb) Static Tipping Load 11966-10619 kg (26380-23411 lb) Breakout Force 154-125 kN (34666-28210 lb)	938G, IT38G In respective order: Max. Flywheel Power 128 kW (172 hp) Operating Weight 13062-13030 kg (28731-28714 lb) Static Tipping Load 9241-7621 kg (20373-16800 lb) Breakout Force 109-124 kN (25096-28020lb)	
		 980G	 966G	 962G 	 938G	

RESOURCE:		Wheel Loaders (Medium 7 cy to 3 cy)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		 972G		IT62G  950G	 IT38G	
COMMENTS	Caterpillar products used in typing. To better match bucket needs to material conditions, contact dealer and or owner. IT models offer multiple attachments.					

RESOURCE:		Wheel Loaders (Small 7 cy to 2 cy)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Cubic Yards	928G, IT28G In respective order; Bucket Capacity Range 2-5.35 m ³ (2.5-7 yd ³) Max. Flywheel Power 107 kW (144 hp) Operating Weight 11836 kg-12134 kg (26094 lb-26751 lb) Fuel Tank (59 gal)	924G, 924Gz In respective order; Bucket Capacity Range 1.7-5 m ³ (2.2-6.5 yd ³) Max. Flywheel Power 98 kW (132 hp) Operating Weight 10328 kg-9844 kg (22769 lb-21702 lb) Fuel Tank (59-51 gal)	IT14G, 914G In respective order; Bucket Capacity Range 1.4 m ³ (1.8 yd ³) Max. Gross Power 73 kW (98 hp) Operating Weight 7906 kg-7243 kg (17393 lb-15935 lb) Fuel Tank (59-51 gal) Breakout Force (17270-14007 lb); Static Tipping Load (10094-11737 lb); Dump Clearance 9.58-8.75 feet		
Equipment	Example	 928G	 924G 	 IT14G 		



RESOURCE:		Wheel Loaders (Small 7 cy to 2 cy)				
CATEGORY:	Public Works and Engineering (ESF #3)			KIND:	Equipment	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		 IT28G	924Gz	914G		
COMMENTS		Caterpillar products used in typing. To better match bucket needs to material conditions, contact dealer and or owner. IT models offer multiple attachments.				

Typed Resource Definitions

Search and Rescue Resources



FEMA 508-8

November 2005

Background	The National Mutual Aid and Resource Management Initiative supports the National Incident Management System (NIMS) by establishing a comprehensive, integrated national mutual aid and resource management system that provides the basis to type, order, and track all (Federal, State, and local) response assets.
Resource Typing	For ease of ordering and tracking, response assets need to be categorized via resource typing. Resource typing is the categorization and description of resources that are commonly exchanged in disasters via mutual aid, by capacity and/or capability. Through resource typing, disciplines examine resources and identify the capabilities of a resource's components (i.e., personnel, equipment, training). During a disaster, an emergency manager knows what capability a resource needs to have to respond efficiently and effectively. Resource typing definitions will help define resource capabilities for ease of ordering and mobilization during a disaster. As a result of the resource typing process, a resource's capability is readily defined and an emergency manager is able to effectively and efficiently request and receive resources through mutual aid during times of disaster.
Web Site	For more information, you can also refer to the National Mutual Aid and Resource Management Web site located at: http://www.fema.gov/nims/mutual_aid.shtm .

Supersedure	This document replaces <i>Search and Rescue Resources</i> , dated May 2005
Changes	Changed the name of the Swiftwater/Flood Search and Dive Rescue Team to Swiftwater/Flood Search and Rescue Team. Also added a reference source to the <i>Comments</i> section.

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RESOURCE: Air Search Team (Fixed-Wing)						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicle	Fixed-Wing Aircraft	Same as Type II	IFR Capable Fixed-Wing Observation Aircraft	Same as Type IV	Fixed-Wing Observation Aircraft	
Vehicle	Capacity	4-8 passengers with cargo not to exceed design specification of aircraft	Same as Type III	Same as Type IV	2-4 passenger with cargo not to exceed design specification of aircraft	
Equipment	Flight Suit	Same as Type II	Same as Type III	Same as Type IV	Appropriate level of PPE	
Equipment	Communications	Same as Type II except: Satellite Phone	Same as Type III	Same as Type IV except: VHF Radios	Standard FAA FM Radio	
Equipment	Video/Electronic	Same as Type III except: Capable of Airborne Video Transmission	Same as Type III except: Capable of flying back video or still imagery	Electronic Direction Finding Capable	None	
Aircrews	Training & Ratings	Pilot – Commercial (instrument) or higher certificate and complete unit certification program Observer – Complete unit certification program	Pilot – Private Pilot (instrument) or higher certificate and complete unit certification program Observer – Complete unit certification program	Same as Type IV	Pilot – Private Pilot or higher certificate and complete unit certification program Observer – Complete unit certification program	
Aircrews	Crew Availability	Aircrew(s) available for extended operations	Aircrew(s) available for 8 to 14 days of operations	Aircrew(s) available for 3 to 7 days of operations	Aircrew(s) available for at least 2 days of operations	
Management Support	Overhead Incident Management	Full incident command staff capable of managing all phases of air search operations	Incident staff capable of managing air operations branch	Incident staff capable of supporting independent flight release	Unit level flight release; No search management capabilities	
COMMENTS:	Aircrews can work a maximum of 12-hour shifts, depending on individual unit policies and procedures. Aircraft will be maintained in accordance with Federal Aviation Administration Regulations. Aircraft will be expected to operate out of established airfield with paved runways. Aircrews will indicate fueling and runway requirements for the aircraft provided. Crew availability does not require continuous availability of specific personnel, only that crews are available to those specifications.					

RESOURCE: Airborne Reconnaissance (Fixed-Wing)						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Vehicle	Fixed-Wing Aircraft	Same as Type II	IFR Capable Fixed-Wing Observation Aircraft	Same as Type IV	Fixed-Wing Observation Aircraft	
Vehicle	Capacity	4-8 passengers with cargo not to exceed design specification of aircraft	Same as Type III	Same as Type IV	2-4 passengers with cargo not to exceed design specification of aircraft	
Equipment	Flight Suit	Same as Type II	Same as Type III	Same as Type IV	Appropriate level of PPE	
Equipment	Communications	Same as Type II except: Satellite Phone	Same as Type III	Same as Type IV except: VHF Radios	Standard FAA FM Radio	
Equipment	Video/Electronic	Capable of flying back video or still imagery Capable of High Resolution Airborne Video Transmission Desired: FLIR or other infrared capabilities Desired: Capable of supporting Hyperspectral Imaging Requests	Same as Type III except: Capable of Low resolution Airborne Video Transmission Desired: FLIR or other infrared capabilities	Capable of flying back video or still imagery	None	
Personnel	Training & Ratings	Pilot – Commercial (instrument) or higher certificate and complete unit certification program Observer – Complete unit certification program	Pilot – Private Pilot (instrument) or higher certificate and complete unit certification program Observer – Complete unit certification program	Same as Type IV	Pilot – Private Pilot or higher certificate and complete unit certification program Observer – Complete unit certification program	
Personnel	Crew Availability	Aircrew(s) available for extended operations	Aircrew(s) available for 8 to 14 days of operations	Aircrew(s) available for 3 to 7 days of operations	Aircrew(s) available for at least 2 days of operations	
Management Support	Overhead Incident Management	Full Incident Command staff capable of managing all phases of air search operations	Incident staff capable of managing air operations branch	Incident staff capable of supporting independent flight release	Unit level flight release; no incident management capabilities	



RESOURCE: Airborne Reconnaissance (Fixed-Wing)						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
COMMENTS:	Aircrews can work a maximum of 12-hour shifts, depending on individual unit policies and procedures. Aircraft will be maintained in accordance with Federal Aviation Administration Regulations. Aircraft will be expected to operate out of established airfield with paved runways. Aircrews will indicate fueling and runway requirements for the aircraft provided. Crew availability does not require continuous availability of specific personnel, only that crews are available to those specifications.					



RESOURCE: Canine Search and Rescue Team – Avalanche Snow Air Scent						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Dog Team	1 Dog 1 Handler 1 Support Person	Same as Type I			
Equipment	Search Capabilities	Capable of self-sustaining and searching for 24 hours in extreme weather and terrain conditions through avalanche debris fields	Capable of self-sustaining and searching for 24 hours in snow-covered environments in extreme weather conditions and moderate terrain			
Personnel	Equipment	Personal snow travel equipment and gear to self-sustain for 24 hours Equipped to include cross-country skis or snow shoes, poles, probe poles, snow shovel, and avalanche beacon	Same as Type I			
Personnel	Training	Training, including avalanche safety and winter survival, including building snow cave, First Aid for both human and dog, personal/ dog safety, and radio communications	Same as Type I			
COMMENTS:	Note: Many of these resources are capable of searching in a disaster environment, such as a wilderness team in outlying areas of a tornado zone, etc. It is critical that canine management personnel, knowledgeable in multiuse of canine resources, are available to Incident Command. This will not necessarily be reflected in this document.					

RESOURCE: Canine Search and Rescue Team – Disaster Response						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Dog Team	1 Dog 1 Handler 1 Support Person				
Personnel	Search Capabilities	A disaster search canine that has successfully completed the DHS/FEMA Disaster Search Canine Readiness Evaluation for both Type II and Capable of national and international responses	A disaster search canine that has successfully completed the DHS/FEMA Disaster Search Canine Readiness Evaluation for Type II only; Capable of national and international responses	A disaster search canine that has successfully completed Disaster Search Canine Readiness Evaluation through an organized disaster task force – non-FEMA; Capable of national and international responses	A search canine with minimal exposure to disaster search; Capable of local/regional response only; No task force participation	
Team	Knowledge and Equipment	All requirements as set forth by DHS/FEMA National US&R Response System	All requirements as set forth by DHS/FEMA National US&R Response System	All requirements as set forth by organized task force for availability for national/international response	Agility; Obedience; First Aid-Human/Dog; HazMat; Disaster; Environment Exposure minimal; Initial responder readiness through local agency	
COMMENTS:	Please note that many of these resources are capable of searching in a disaster environment, such as a wilderness team in outlying areas of a tornado zone, etc. It is critical that canine management personnel, knowledgeable in multiuse of canine resources, are available to Incident Command. This will not necessarily be reflected in this document.					

RESOURCE: Canine Search and Rescue Team – Land Cadaver Air Scent						
CATEGORY: Search & Rescue, Other			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Dog Team	1 Dog 1 Handler 1 Support Person	Same as Type I	Same as Type I	Same as Type I	Same as Type I
Team	Search Capabilities	Capable of locating less than 15 grams of human remains during disaster ops; Capable of self-sustaining for 24 hours	Capable of locating deceased persons (greater than 15 grams) in disaster ops; Capable of self-sustaining for 24 hours	Capable of locating less than 15 grams of human remains buried, hanging, ground level, or in vehicles, nondisaster	Capable of locating less than 15 grams of human remains buried, hanging, ground level, nondisaster	Capable of locating deceased persons (greater than 15 grams) buried, hanging, ground level, nondisaster
Team	Knowledge and Equipment	Same as Type II	Same as Type III plus: Disaster ops training and capabilities	Same as Type IV	Training and equipment for biohazard environment, including OSHA guidelines, scene preservation, documentation, collection, chain of custody, and scene security First Aid for both human and dog, personal/ dog safety, and radio communications	Same as Type IV
COMMENTS:						

RESOURCE: Canine Search and Rescue Team – Water Air Scent						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Dog Team	1 Dog 1 Handler 1 Support Person				
Team	Search Capabilities	Capable of working swiftwater/stillwater environments; Trained and equipped to perform search ops on foot and from any type of watercraft	Capable of working stillwater environments; Trained and equipped to perform search ops on foot and from any type of watercraft	Capable of working swiftwater and stillwater ops from shore only	Capable of working swiftwater ops from shore only	Type V capable of working stillwater ops from shore only Type VI capable of working salt-water and very large fresh water environments from both boat and shore Type VII capable of working salt-water and very large fresh water environments from shore only
Team	Knowledge and Equipment	Water Helmet; Class V Water Vest; Throw Rope Swiftwater lifesaving skills; Knowledge of water rescue and boat operations; First Aid for both human and dog; Personal/dog safety Radio communications	Water Helmet; Class III-V Water Vest; Throw Rope Stillwater lifesaving skills; Knowledge of water rescue operations in stillwater environment; First Aid for both human and dog; Personal/dog safety Radio communications equipment	Same as Type I	Same as Type I	Type V same as Type II Type VI, VII same as Type I
COMMENTS:	Note: Many of these resources are capable of searching in a disaster environment, such as a wilderness team in outlying areas of a tornado zone, etc. It is critical that canine management personnel, knowledgeable in multiuse of canine resources, are available to Incident Command. This will not necessarily be reflected in this document.					

RESOURCE: Canine Search and Rescue Team – Wilderness Air Scent						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Single Resource	Search Capabilities	Capable of search and self-sustaining for 72 hours in all weather and low angle wilderness terrain or larger areas of 60+ acres	Capable of searching and self-sustaining for 48 hours in all weather and low angle wilderness terrain or larger areas of 60+ acres	Capable of searching high probability local wilderness terrain for short durations (24 hours or less) or small areas 40-60 acres	Capable of searching high probability local wilderness terrain for short durations (12 hours or less) or small areas 40-60 acres	Human discriminating (scent source necessary)
Single Resource	Search Capabilities	Capable of searching and self-sustaining for 72 hours in all weather and low angle wilderness terrain or larger areas of 120+ acres	Capable of searching and self-sustaining for 48 hours in all weather and low angle wilderness terrain or larger areas of 120+ acres	Capable of searching high probability local wilderness terrain for short durations (24 hours or less) or small areas of 60-120 acres	Capable of searching high probability local wilderness terrain for short durations (12 hours or less) or small areas of 40-60 acres	Non-discriminating (locate all human indication in area)
COMMENTS:	<p>There are significant differences in the training required for urban versus wilderness environments, both in air scent/area and trailing/tracking. Because of the vast differences, often a resource highly skilled in one environment may not function as well in the other environment because of a lack of continuous training in the environment. Teams may be cross-trained in both environments, depending on the team training criteria.</p> <p>Note: Many of these resources are capable of searching in a disaster environment, such as a wilderness team in outlying areas of a tornado zone, etc. It is critical that canine management personnel, knowledgeable in multiuse of canine resources, are available to Incident Command. This will not necessarily be reflected in this document.</p>					

RESOURCE: Canine Search and Rescue Team – Wilderness Tracking/Trailing						
CATEGORY: Law Enforcement/Security, Search & Rescue (ESF #9)			KIND:	Team		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Dog Team	Same as Type IV	Same as Type IV	Same as Type IV	1 Dog 1 Handler 1 Support Person	Same as Type IV
Team	Search Capabilities	Capable of trailing in wilderness terrain Aged 24+ hours; 1 mile or longer; Heavy contamination	Capable of trailing in wilderness terrain Aged 4-12 hours; 1 mile or longer; Heavy contamination	Capable of trailing in wilderness terrain Aged 1.5-4 hours; .5-1 mile; Heavy contamination	Capable of trailing in wilderness terrain Aged 0-1.5 hours; .25-.5 mile; Heavy contamination	Discriminating (scent source must be available)
Personnel	Equipment	Personally equipped for 24 hours for dog/handler First Aid for both human and dog Radio communications	Same as Type I	Same as Type I	Same as Type I	N/A
Personnel	Knowledge	Wilderness survival skills Capable of establishing and maintaining direction of travel First Aid for both human and dog Personal/ dog safety Skill in collection of scent articles	Same as Type I	Same as Type I	Same as Type I	N/A
COMMENTS:	<p>As these dogs use scent articles, they are commonly referred to as trailing dogs. However, occasionally, a unit may refer to such dogs as tracking dogs. They do have the capability of human discrimination between sources with the aid of a provided scent source. Care should be taken to determine if a tracking dog requires the use of an article or not.</p> <p>Note: Many of these resources are capable of searching in a disaster environment, such as a wilderness team in outlying areas of a tornado zone, etc. It is critical that canine management personnel, knowledgeable in multiuse of canine resources, are available to Incident Command. This will not necessarily be reflected in this document.</p>					

RESOURCE: Cave Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Personnel	Same as Type III	Same as Type III	Same as Type IV plus Medical specialist	Field team leader Field team members	
Personnel	Cave Training	Same as Type II, plus: Proficiency in cave and surface search; Proficiency in high- and low-angle technical rescues and evacuations from dry, wet, and multidrop caves	Same as Type III, plus: Proficiency in vertical environments greater than 100 feet in depth; Ability to safely traverse multidrop caves; Ability to rapidly ascend a rope next to a litter during a litter raise	Same as Type IV, plus: Ability to carry additional rescue-related equipment to and through the cave	Basic understanding of the cave environment, including regional differences in ambient cave temperature, normal hazards such as risk of flooding, hypothermia, and potential changes in cave environment because of seasonal variations and outside weather; Proficiency in crawling, climbing and moving over uneven surfaces and breakdown areas covered in mud, sand, or water; Familiarity with chimneying, bridging, and other basic climbing techniques used in moving through caves; Ability to move comfortably and efficiently in small spaces; Ability to rappel and ascend 66' of static line using standard single rope techniques; Proficiency in changing over from ascent to rappel and rappel to ascent; Ability to carry personal	

RESOURCE: Cave Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
					equipment to and through the cave; Ability to identify fragile cave environments and take measures to protect them; Ability to maintain primary light sources	
Personnel	Navigation Training	Same as Type II	Same as Type III, plus: Proficiency in back-country navigation and route finding with a map and compass, use of GPS and UTM coordinate system	Same as Type IV, plus: Knowledge of common symbols present on cave maps; Proficiency in reading cave maps; Ability to use topographic maps to locate caves	Familiar with cave maps and topographic maps	
Personnel	Basic Training	Same as Type II, plus: Ability to plan, organize, and direct cave rescue and search missions using ICS; Experience with ICS Unified Command	Same as Type III, plus: Ability to direct activities according to ICS; Technical proficiency in single person rope rescue techniques; Proficiency in crack and crevice rescue; Proficiency in creating load distributing and artificial anchors in-cave	Same as Type IV, plus: Capable of operating within ICS; Proficiency in edge tending for the vertical environment; Proficiency in preparing and rigging basket and flexible litters for haul and lower operations; Proficiency in patient packaging for extrication; Familiarity with the basic techniques for crack and crevice rescue; Ability to improvise patient packaging	Familiarity with basic cave search techniques; Familiarity with the NIIMS ICS of incident management; Proficiency in establishing simple anchors and fixing lines for personal rappels and ascents; Awareness of the psychological and physical patient considerations in rescue extrications of long duration; Proficiency in basic in-cave litter movement techniques; Ability to assist in patient packaging for extrication; Specialized training required	

RESOURCE: Cave Search and Rescue Team						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
					to safely and appropriately use communication and technical rescue equipment	
Personnel	Technical Training	<p>Same as Type II, plus:</p> <p>Proficiency in the use, placement, and analysis of mechanical anchors and anchor systems;</p> <p>Proficiency in use of highlines and guiding lines;</p> <p>Proficiency in the organization and direction of technical cave rescue searches and rescues;</p> <p>For regions/caves with swiftwater:</p> <p>Proficiency in working in and around moving water underground;</p> <p>Swiftwater/flatwater technician</p> <p>For regions/caves with bad air:</p> <p>Proficiency in the use of a 3-gas monitor (oxygen, hydrogen sulfide and carbon monoxide) and ability to understand its output</p>	<p>Same as Type III, plus:</p> <p>Understanding of the mechanical forces involved in technical rescue systems;</p> <p>Proficiency in the selection and setup of rescue anchor systems;</p> <p>Proficiency at estimating component and system load ratios and assessing safety factors;</p> <p>Ability to rig and operate simple and compound 4:1, 6:1, and 9:1 mechanical advantage systems;</p> <p>Proficiency in rigging and use of counterbalance systems;</p> <p>Proficiency in technical litter evacuations and transport including litter raises and lowers on breakdown, in free-fall and other vertical environments, in narrow or waterfall situations, and in multidrop caves</p>	<p>Same as Type IV, plus:</p> <p>Proficiency in tying common knots and knowledge of their applications and strength efficiencies;</p> <p>Proficiency in establishing simple anchors for haul and lower systems;</p> <p>Ability to establish 2:1 and 3:1 haul systems, fixed brake lowering systems, and belay systems;</p> <p>Familiarity with basic search techniques and nomenclature;</p> <p>Ability to maintain scene integrity in case of crime;</p> <p>Proficiency in establishing and operating in-cave wired communications systems;</p> <p>Ability to operate a handheld radio;</p> <p>Proficiency in choosing appropriate in-cave litter movement techniques</p>	<p>Ability to serve as a member of a haul or lower team and familiarity of appropriate commands;</p> <p>Ability to serve as a member of an evacuation team;</p> <p>Other skills or abilities as identified by the team's operations leader</p>	
Personnel	Survival Training	Same as Type III	Same as Type III	Same as Type IV, plus: Experience in wet and vertical caves	Operational proficiency in the cave environment for the region	

RESOURCE: Cave Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Medical Specialist Training	National Standard EMT-B, with BTLS or PHTLS	National Standard EMT-B, or advanced wilderness first responder; BTLS	Same as Type IV	Basic First Aid/CPR	
Team	Sustained Operations	48 hours or more	36 hours	24 hours	24 hours	
Team	Search and Rescue Capabilities	Same as Type II with experience complex rescue environments as appropriate for region of activity	Same as Type III with experience in wet and vertical caves and crack/crevice situations	Same as Type IV	Trained cave rescue and cave search personnel with experience in relatively dry caves with moderate vertical situations	
Equipment	Team Supplies and Materials	Same as Type III, plus: Ability to support more than 2 patients at 2 separate incidents; Sufficient rope and hardware to support complex rigging, multiple drops, highline, etc. In regions/caves with swiftwater: Appropriate floatation equipment for patient(s) and other necessary swiftwater-specific rigging equipment In regions/caves with bad air: 3-gas monitors	Same as Type III, plus: Ability to respond to two in-cave patients simultaneously	Same as Type IV	Harnesses, Helmets; Basic hardware (including: 7/16 or .5" static kernmantle rope, webbing, pulleys, carabiners, lowering devices, etc.) Field telephones and wire Radio communications on a common frequency Patient packaging materials Litters appropriate for situation Entrance control materials; Edge protection	
Equipment	Personal Supplies and materials	Same as Type II, plus: Food for 48 hours In regions/caves with swiftwater: Appropriate swiftwater gear, PFD, personal throwbags,	Same as Type III, plus: Food for 36 hours	Same as Type IV, plus: Wetsuit where appropriate	Personal protective equipment including: Footwear, underwear, and outerwear suited to the particular cave environment Sewn seat harness; Personal	



RESOURCE: Cave Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		and waterproof light sources			descending and ascending equipment with 2 points of attachment above the waist Helmet (with 3- or 4-point chinstrap suspension system); Gloves with leather palms 3 independent sources of light, each capable of exiting the cave; 2 of which must be helmet-mountable Batteries (carbide if appropriate) Quantity of water appropriate for the conditions Food for 24 hours Knife/multitool Personal first aid kit Waterproof pen/pencil and paper Appropriate pack to carry personal gear; food for 24 hours	
Equipment	Medical Supplies and Materials	Same as Type IV	Same as Type IV	Same as Type IV	As appropriate for level of training, as applied in wilderness/cave environment and meeting local protocols and requirements	
COMMENTS:						



RESOURCE: Collapse Search and Rescue Teams						
CATEGORY: Search & Rescue			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
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	
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 or 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	Conduct High Angle Rope Rescue (including highline	Conduct High Angle Rope Rescue (not including	Conduct Low Angle Rope Rescue		



RESOURCE: Collapse Search and Rescue Teams						
CATEGORY: Search & Rescue			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	Rescue Capabilities	systems), Confined Space Rescue (permit required), and extraction of entrapped victims for Mass Transportation Rescue	highline systems), Confined Space Rescue, and Trench and Excavation Rescue			
Team	Certifications	Confined Space Permit				
Equipment	Technical Search Resources	Same as Type II plus: Audible and optical search equipment to conduct technical search Visual inspection devices Listening devices (seismic and acoustic) Handheld radios	Same as Type III	Same as Type IV plus: Demolition hammers Rotary hammers Hydraulic concrete breakers Hydraulic vehicle rescue system Hammer drill Nail gun Cutting torch Hoisting slings and shackles Rope equipment (kernmantel and lifeline rope, ascenders/ descenders, pulleys, tripod hauling system, carabineers)	Shoring assortment Rebar cutters Reciprocating saws Chain saw Assorted hand tools Generator Lights Extensions cords Air blower Fire extinguishers	
Equipment	Breathing Apparatus	Same as Type II plus: Self-contained (SCBA) Respiratory protection	Same as Type III	Air bags		
Equipment	Medical Materials and Supplies	Same as Type IV	Same as Type IV	Same as Type IV	Medical aid equipment Backboards Stokes stretcher	
Equipment	HazMat Materials and Supplies	Same as Type II	HazMat monitoring equipment Sampling detection kit 4-gas meters Rad monitoring	4-gas meter		



RESOURCE:		Collapse Search and Rescue Teams				
CATEGORY:	Search & Rescue			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC		Decontamination equipment 4-gas meter			
COMMENTS:		A State, local, or private technical rescue team that responds to locate, rescue, and recover individuals trapped in a fallen structure or buried in structural collapse.				

RESOURCE: Mine and Tunnel Search and Rescue Team						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Capability	Inactive or Abandoned Mines or Tunnels	Active mines or tunnels under construction			
Team	Personnel	Same as Type II	8 members (at least 5 qualified on breathing apparatus)			
Personnel	Training	Same as Type II plus: Understanding forces involved in technical rope systems Proficiency in the selection and set up of rescue anchors Ability to construct and operate simple and compound mechanical advantage systems, belay systems and lowering systems Proficiency in technical litter evacuations in a vertical environment	20 hour MSHA initial training on use of breathing apparatus Refresher training sessions underground with breathing apparatus at least every 6 months Use and care of auxiliary mine rescue equipment Mine searching and mapping Mine ventilation procedures and equipment Mine firefighting Any advanced mine rescue training and procedures, as described by MSHA Basic First Aid/CPR			
Equipment	Breathing apparatus	Same as Type II	6 4-hour self-contained oxygen breathing apparatus and a Any necessary equipment for testing such breathing apparatus before putting it into service 1 extra, fully charged, oxygen			



RESOURCE: Mine and Tunnel Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
			bottle 6 spare coolant canisters compatible with the breathing apparatus 1 oxygen pump or cascading system with portable supply of pressurized oxygen to compatible with the breathing apparatus			
Equipment	Lamps	Same as Type II	10 permissible cap lamps and charging rack			
Equipment	Gas Detectors	Same as Type II	2 gas detectors capable of reading oxygen levels, and any flammable or poisonous gases encountered or anticipated at the rescue location			
Equipment	Communications	Same as Type II	1 portable mine rescue communications system at least 1,000 feet in length			
Equipment	Repair	Same as Type II	Necessary spare parts and tools for repairing the breathing apparatus or communications system			
Equipment	Rigging	Sufficient rope and hardware to support complex rigging				
Equipment	Personal	Same as Type II plus: Full body harness	Head protection compatible with cap lamps Gloves Flame protective outerwear Footwear appropriate to the			



RESOURCE:		Mine and Tunnel Search and Rescue Team				
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
			environment			
Transportation	Resources	Same as Type II	Transportation for all personnel and equipment to mine site			
COMMENTS:						

RESOURCE: Mountain Search and Rescue Team						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Personnel	Same as Type II	Same as Type III	Same as Type IV	Field team leader Field team members Medical specialist	
Personnel	Navigation Training	Same as Type II	Same as Type III	Same as Type IV plus: Proficiency in back country navigation including: The ability to triangulate a position, ascertain a UTM, utilize GPS, and follow a route to a new location using a topographical map and compass	Navigation (map and compass)	
Personnel	Survival Training	Same as Type II	Operational and technical proficiency in personal survival in mountainous terrain and snow and ice environments	Technical proficiency in personal survival in mountainous terrain and snow and ice environments	Technical proficiency in personal survival in mountainous terrain	
Personnel	Technical Training	Same as Type II plus: Proficient at estimating the mechanical forces involved in technical rescue systems and estimating factors of safety; Proficiency in the use, placement and analysis of mechanical anchors and anchor systems; Proficiency in the use of highlines; Proficiency in the use of slings, etriers, Prusik hitches and mechanical ascenders; Proficiency in the organization and direction of	Same as Type III plus: Understanding of the mechanical forces involved in technical rescue systems; Proficiency in the selection and setup of rescue anchor systems; Proficiency in technical litter evacuation and transport; Litter descents (on steep, vertical, and overhanging rock, on scree and snow, and traversing); Lowering of a subject without a litter; Raising a subject or litter; Knowledge of	Proficiency in bagging, coiling, throwing and storing static and dynamic ropes; Proficiency in tying common knots, and knowledge of their applications and strength efficiencies; Proficiency in search techniques including in hasty and line search techniques, directing line searches, and probe lines		

RESOURCE: Mountain Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		technical litter evacuation	procedures involved with helicopter transport			
Personnel	Alpine Training	Proficiency in winter camping in any area, including above timberline; Proficiency in snow and ice climbing; Proficiency in avalanche search and rescue, including recognition of avalanche hazards, avalanche search and rescue organization and leadership, scuff searches, use of SAR dogs; Proficiency in high and low-angle, technical snow and ice rescues and evacuations	Ability to recognize avalanche hazards and to perform avalanche search and rescue including probe lines and avalanche Avalanche awareness training	Understanding of the fundamentals of mountain weather Avalanche awareness training	Basic understanding of mountain weather Ability to walk in mountainous terrain Ability to backpack personal equipment plus one rope at least four miles with an elevation gain of at least 2000 feet Avalanche awareness training	
Personnel	Basic Training	Same as Type II plus: Technical proficiency in one-person rescue and self-rescue techniques Proficiency in mantracking Ability to integrate into and operate using ICS Ability to plan, organize and direct search and rescue missions	Same as Type III plus: Ability to operate using ICS	Same as Type IV	Proficiency in search techniques Awareness of mantracking and maintaining site integrity Understanding of the ICS	
Personnel	Medical Specialist Training	National standard EMT curriculum; ACLS, BTLS	National standard EMT-B curriculum or advanced wilderness first responder; BTLS	Same as Type IV	National standard first responder or wilderness first responder curriculum; BTLS	
Team	Sustained Operations	60 hours	48 hours	24 hours	12 hours	



RESOURCE: Mountain Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Rescue Capabilities	Same as Type II plus: Highly trained rescue personnel with multipitch, high-angle experience on vertical rock, ice, and steep snow	Same as Type III plus: Single pitch, high-angle rock rescue	Backcountry, low-angle scree evacuation	Trained rescue personnel with experience in non-technical backcountry evacuation/carryouts	
Team	Search Capabilities	Capable of searching during the day or night Capable of searching any terrain, including severe rock Competent IC and section chief	Capable of searching steep, timbered terrain, excluding severe rock, day or night Competent search team leaders/technicians	Self-sustaining for 48 hours in all weather/terrain, except severe winter/rock	Capable of searching moderate terrain May be outdoorsmen with basic training	
Equipment	Rescue Supplies and Materials	Same as Type II plus: 8-10 ropes of various lengths (200-400 ft)	Same as Type III plus: 6-8 ropes of various lengths and a full complement of rescue/climbing gear	Same as Type IV plus: 4-6 ropes of various lengths	Harnesses; Helmets; Basic hardware; Rope; Radio communications on a common frequency	
Equipment	Search Supplies and Materials	Equipped to be self-sustaining for 60 hours in all environments; Radio communications on common frequency	Equipped to be self-sustaining for 48 hours in all environments; Radio communications on common frequency	Equipped to be self-sustaining for 24 hours in all weather/terrain, except severe winter/rock	Equipped to be self-sustaining for 12 hours in all weather/terrain, except severe winter/rock	
Equipment	Personal Supplies and Materials	Same as Type II plus: Food for 60 hours	Same as Type III plus: Water container of two-liter capacity and/or quantity of water appropriate for the conditions Food for 48 hours Second light source	Same as Type IV	Appropriate clothes and footwear for both fair and foul weather; Water container of 1-liter capacity and/or quantity of water appropriate for the conditions; Day pack; Five large, heavy-duty plastic trash bags; Food for 24 hours; Headlamp or flashlight; Lighter, matches and candle, or equivalent waterproof fire source; Knife; Compass;	



RESOURCE: Mountain Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)				KIND: Team		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
					Personal First Aid Kit; Waterproof pen/pencil and paper; Whistle; Two pairs plastic or vinyl examination gloves	
Equipment	Medical Supplies and Materials	Same as Type II	Same as Type III	Same as Type IV	As appropriate for level of training, as applied in wilderness environment and meeting local protocols and requirements	
COMMENTS:		Search for and rescue people in trouble either above the timberline or in high-angle areas below the timberline, which can include glacier, crevasse, backcountry and alpine search and rescue, and educate the population in safe activities so they will be able to avoid the dangers that result in the need for rescue.				
		Definitions				
		GPS	Global Positioning System			
		Navigation	The practice of charting a course for a group of people (team) using basic tools such as a map and compass.			

RESOURCE: Radio Direction Finding Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team members	Team leader and team members to support at least 2 operational field units (at least 1 team member must be a medical specialist – EMT or higher) Management staff following ICS model	Team leader and team members to support at least 2 operational field units Management staff following ICS model	Team leader Team member(s)		
Personnel	Crew Availability	Same as Type II	Available for more than 1 full day of operations	Available for at least 1 full day of operations		
Personnel	Training	Must be able to operate the team's equipment Team is expected to be able to triangulate a distress beacon to its source Team members must be experienced in coordinating with other search teams and aircrews Team members must have training for operations in remote locations for extended periods One member of each team must have advanced medical training to the EMT level	Must be able to operate the team's equipment Team is expected to be able to triangulate a distress beacon to its source Team members must be experienced in coordinating with other search teams Team members must have training for operations in limited remote locations for extended periods	Must be able to operate the team's equipment Team is expected to be able to triangulate a distress beacon to its source in moderate terrain Team members are not expected to operate in remote field locations for extended periods		
Vehicle	Transportation	4x4 vehicles that can transport each team throughout the search area	Vehicles that can transport each team throughout the search area 4x4s are not required, but recommended	1 vehicle that can transport the team throughout the search area 4x4s are not required, but recommended		



RESOURCE: Radio Direction Finding Team						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Equipment	Clothing	Same as Type II	Same as Type III	Appropriate level of PPE for working environment		
Equipment	Communications	Same as Type II	VHF Radios Cell Phone	Cell Phone		
Equipment	Electronic	Same as Type II	At least one Handheld Portable Electronic Direction Finder per team	At least one Handheld Portable Electronic Direction Finder		
Equipment	Rescue	Equipment to support remote extrication and field transport of aircraft crash survivors	None required	None required		
Personnel	Overhead Incident Management	Same as Type II	Incident staff capable of managing electronic direction-finding operations	Unit level mission release No search management capabilities		
COMMENTS	<p>Team members will usually only work a maximum of 12-hour shifts, depending on individual unit policies and procedures.</p> <p>Crew availability does not require continuous availability of specific personnel, only that crews are available to those specifications.</p> <p>Medical support and technical rescue equipment is expected to be provided by local EMS for Type II and III teams.</p>					



RESOURCE: Swiftwater/Flood Search and Rescue Team						
CATEGORY: Search and Rescue			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Team Composition	14 member team 2 managers 2 squad leaders 10 personnel	6 member team 1 squad leader 5 personnel	4 member team 1 squad leader 3 personnel	3 member team 1 squad leader 2 personnel	
Personnel	Minimum number Technical Animal Rescue	2	1	1		
Personnel	Minimum number ALS Certified	2				
Personnel	Minimum number Helicopter/ Aquatic Rescue Operations	4	2			
Personnel	Minimum number Powered Boat Operators	4	2			
Personnel	Minimum number SCUBA Trained Support Personnel with Equipment	4	2	2		



RESOURCE: Swiftwater/Flood Search and Rescue Team						
CATEGORY:	Search and Rescue			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number and level EMTs	14 EMT - B 2 EMT - P	Same as Type III	Same as Type IV	1 EMT - B	
Team	Sustained operations	Same as Type II	24-hour operations	Same as Type IV	18-hour operations	
Team	Capabilities	Manage search operations Power vessel operations Helicopter rescue operational Animal rescue HazMat ALS Communications Logistics	Manage search operations Power vessel operations Helicopter rescue operational Animal rescue HazMat BLS	Assist in search operations Nonpowered water craft Animal rescue HazMat BLS	Low-risk operations Land-based HazMat BLS	
Team	Specialty S&R Capabilities	Same as Type II	Same as Type III plus: Technical rope systems	In-water contact rescue Dive rescue		
Team	Training	Same as Type II except: Divers to have 80 hours of formal public safety diver training	Same as Type III plus: Helicopter operations Awareness Technical rope rescue	Same as Type IV plus: Divers to have 60 hours of formal public safety diver training	Class 3 paddle skills Contact and self-rescue skills HazMat ICS Swiftwater rescue technician	
Team	Certifications	ALS Advanced First Aid & CPR	Same as Type IV	Same as Type IV	BLS Advanced First Aid & CPR	
Equipment	Transportation Resources	Equipment trailer; Personnel support vehicle				
Equipment	Communication	Same as Type II	Same as Type III plus: Aircraft radio	Same as Type IV plus: Headset	Batteries Portable radios	



RESOURCE: Swiftwater/Flood Search and Rescue Team						
CATEGORY: Search and Rescue				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
					Cell phone	
Equipment	Medical	ALS medical kit Blankets Spineboard Litter	Same as Type III plus: Spineboard	Same as Type IV plus: Litter	BLS medical kit Blankets	
Equipment	Personal	Same as Type II	Same as Type III: plus: Life vests HEED except: PFD Type V	Same as Type IV plus: Fins Lamps	Flares; Markers; Bags; Flashlight; Gloves; Helmets; Light sticks; PFD Type III/IV; Knives; Shoes; Whistles	
Equipment	SCUBA	Same as Type III	Same as Type III	SCUBA cylinder Buoyancy compensator Weight belt 2 cutting tools Chest harness & snap shackle Full face mask U/W communication Dry suit Search line Spare SCUBA cylinder		
Vehicle	Rescue Boat	2 - Fueled	1 - Fueled	1 - Non-powered 4 person		
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. For a complete listing of recommended training, skills, and equipment, please reference the FIREScope Swiftwater/Flood Search and Rescue definition at: http://www.firescope.org/ics-usar/ICS-SF-SAR-020-1.pdf .				



RESOURCE: US&R Incident Support Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People per Response	30-60 depending on the needs of the incident	22			
Personnel	Training	Same as Type II	Qualified National US&R Response System			
Personnel	Areas of Specialization	Provide staffing to fill all necessary ICS functions to the assigned incident Provide technical assistance in the acquisition and utilization of ESF #9 resources through advice, Incident command assistance, Incident response planning, Management and coordination of US&R task forces Obtaining ESF #9 logistical support	Provide staffing for 14 ICS functions activated to provide technical assistance in the acquisition and utilization of ESF #9 resources through advice, Incident command assistance, Incident response planning, Management and coordination of US&R task forces Obtaining ESF #9 logistical support			
Personnel	Sustained Operations	24-hour operations for a minimum of 14 days before requiring personnel rotations and can provide administrative and living support if necessary	Type II is an advanced element of Type I Will require supplemental IST staff to perform 24-hour operations rotations			
Personnel	Organization	Fully staffed US&R multi-functional management team; Organized based on ICS guidelines, Command and Operations, Planning, Logistics, Finance and Administration	Organized based on ICS guidelines, Command and Operations, Planning, Logistics, Finance and Administration			



RESOURCE: US&R Incident Support Team						
CATEGORY: Search & Rescue (ESF #9)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
		Logistics, Finance and Administration				
Equipment		Same as Type II	Living support as necessary			
Supply	Computer Supplies	Same as Type II	Ink cartridge; CD; Computer; Disk; DVD; Modem; Mouse; Mouse pad; Printer; Scanner			
Equipment	Communication Equipment	Same as Type II	Antennas; Celwave; Fax; GPS; Microphone; Pager; Phone; Radio; Repeater; Receiver; Recorder; Repeater; Satellite; Satellite phone; Speaker phone			
Equipment	Tools	Same as Type II	Blade; Can opener; Chisel; Drill; Drill bit; Fire extinguisher; Flashlight; Guywire; Hammer; Handtruck; Knife; Level; Lightstick; Measuring tape; Nails; Paint; Pump; Rope; Shovel; Screwdriver; Smoke detector; Saw; Wrench; Toolkit; Tool bag; Wire brad; Wrecking bar; Wrench			
Equipment	Power Supply	Same as Type II	Battery; Bulb; Charger; Electric cord; Extension cord; Generator; Grounding; Power adapter; Power cord; Power supply; Socket; Surge protector; Transformer; Watt meter			
Supply	Administrative	Same as Type II	Accounting book; Acetate; Binder clip; Chalk; Chalk line Bracket; Calculator;			



RESOURCE: US&R Incident Support Team						
CATEGORY: Search & Rescue (ESF #9)				KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
			Clipboard; Envelope; Etcher; FEMA logo; Filing box; Flip chart; Folder; Form; Glue; Handbook; Hole punch; Laminating sheets; Letter tray; Marker; Marker-board; Measuring tape; Memo pad; Name tag; Note pad; Paint; Paper; Paper clip; Pen; Pencil; Push pins; Rubber band; Ruler; Scissor; Sheet protector; Shrink wrap; Sign; Stamp; Staple; Stapler; Staple remover; Stationery; Stenopad; Tape; Tape dispenser; Three hole punch; White out; Writing pad			
Equipment	Logistics	Same as Type II	Can opener; Cleaner; Clock; Cup; Garbage bag; Road atlas; Tissue; Toilet paper; Zip-lock bags; A/C unit; Blanket; Chair; Commode; Cot; Fan; MRE; Pillow; Sheet; Sleeping bag; Sleeping pad; Table; Tarp; Tent; Towel; Water			
COMMENTS:		Federal asset. ISTs provide Federal, State, and local officials with technical assistance in the acquisition and utilization of ESF 9 resources through advice, incident command assistance, management and coordination of US&R task forces, and obtaining ESF #9 logistic support. ISTs are self-sufficient and mobilize within 2 hours of a request.				



RESOURCE: US&R Task Forces						
CATEGORY: Search & Rescue (ESF #9)			KIND:			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Number of People per Response	70-person response	28-person response			
Personnel	Training	Same as Type II	NFPA 1670 Technician Level in area of specialty Support personnel at Operations Level			
Personnel	Areas of Specialization	High angle rope rescue (including highline systems) Confined space rescue (permit required) WMD/HM operations Defensive water rescue ALS intervention Communications	Light frame construction and basic rope rescue operations HazMat conditions Trench and excavation rescue ALS intervention Communications			
Personnel	Sustained Operations	24-hour S&R operations Self-sufficient for first 72 hours	12-hour S&R operations Self-sufficient for first 72 hours			
Personnel	Organization	Same as Type II	Multidisciplinary organization of Command; Search; Rescue; Medical; HazMat; Logistics; Planning			
Equipment	Sustained Operations	Same as Type II	Potential mission duration of up to 10 days			
Equipment	Rescue Equipment	Same as Type II	Pneumatic Powered Tools Electric Powered Tools Hydraulic Powered Tools Hand Tools			



RESOURCE: US&R Task Forces						
CATEGORY: Search & Rescue (ESF #9)				KIND:		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
			Electrical Heavy Rigging Technical Rope Safety			
Equipment	Medical Equipment	Same as Type II	Antibiotics/Antifungals; Patient Comfort Medication; Pain Medications; Sedatives/ Anesthetics/Paralytics; Steroids; IV Fluids/Volume; Immunizations/Immune Globulin; Canine Treatment; Basic Airway; Intubation; Eye Care Supplies; IV Access/ Administration; Patient Assessment Care; Patient Immobilization/Extraction; Patient/ PPE; Skeletal Care; Wound Care; Patient Monitoring			
Equipment	Technical Equipment	Same as Type II	Structures Specialist Technical Information Specialist HazMat Specialist Technical Search Specialist Canine Search Specialist			
Equipment	Communications Equipment	Same as Type II	Portable Radios; Charging Units; Telecommunications; Repeaters; Accessories; Batteries; Power Sources; Small Tools; Computer			
Equipment	Logistics	Same as Type II	Water/Fluids; Food; Shelter; Sanitation; Safety;			



RESOURCE: US&R Task Forces						
CATEGORY: Search & Rescue (ESF #9)				KIND:		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
	Equipment		Administrative Support; Personal Bag; Task Force Support; Cache Transportation/Support; Base of Operations; Equipment Maintenance			
COMMENTS	Federal asset. There are 28 FEMA US&R Task Forces, totally self-sufficient for the first 72 hours of a deployment, spread throughout the continental United States trained and equipped by FEMA to conduct physical search and rescue in collapsed buildings, provide emergency medical care to trapped victims, assess and control gas, electrical services and hazardous materials, and evaluate and stabilize damaged structures.					

RESOURCE: Wilderness Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Team	Rescue Capabilities	Same as Type II	Backcountry, low-angle evacuation	Same as Type IV	Trained rescue personnel with experience in nontechnical backcountry evacuation/carryouts supported by local technical experts	
Team	Search Capabilities	Capable of conducting self-sustaining full search operations for 72 hours in all weather and low-angle wilderness terrain Competent and experienced Incident Command staff	Capable of conducting self-sustaining full search operations for 48 hours in all weather and low-angle wilderness terrain Competent and experienced Incident Command staff	Same as Type IV	Capable of searching high-probability local wilderness terrain for short durations (24 hours or less)	
Personnel	Team Composition	At least 6 team leaders and 48 team members to support at least 6 operational field units (at least 1 member of each team must be a medical specialist – see below) Management staff following ICS model	At least 4 team leaders and 28 team members to support at least 4 operational field units (at least 1 member of each team must be a medical specialist – see below) Management staff following ICS model	At least 2 team leaders and 6 team members to support at least 2 operational field units Must be supported by local EMS and technical rescue personnel	At least 1 team leader and 3 team members Must be supported by local EMS and technical rescue personnel	
Personnel	Medical Specialist	National standard EMT curriculum; ACLS, BTLS	National standard EMT-B curriculum or wilderness first responder; BTLS	Same as Type IV	Not required – supported by local EMS	
Personnel	Overhead Incident Management	Same as Type II	Incident staff capable of managing wilderness search operations	Same as Type IV	Unit level mission release No search management capabilities	
Personnel	Crew Availability	Same as Type II	Available for more than 1 full day of operations	Same as Type IV	Available for at least 1 full day of operations	



RESOURCE: Wilderness Search and Rescue Team						
CATEGORY:	Search & Rescue (ESF #9)			KIND:	Team	
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
Personnel	Sustained Operations	72 hours	48 hours	Same as Type IV	24 hours	
Personnel	Training	Same as Type II plus: Personnel demonstrate proficiency in mantracking and working with expert mantrackers	Same as Type III plus: 1 member of each team must be current to the requirements of the medical specialist (see above) Must also be knowledgeable of procedures involved with helicopter transport and coordination with search crews, both ground and air Must have the ability to operate in an ICS structure, and be able to plan, organize, and direct search and rescue missions Team members must have training for operations in remote locations for extended periods	Same as Type IV plus: Proficiency in backcountry navigation (including the ability to triangulate a position, ascertain a UTM, use GPS, and follow a route to a new location using a topographical map and compass) Must be proficient at conducting and directing search lines	Must be able to operate the team's equipment; Team members are not expected to operate in remote field locations for extended periods Must have basic navigation training using a map and compass Must have technical proficiency in personal survival in local wilderness terrain Must have awareness of mantracking and maintaining site integrity Must have a basic understanding of the ICS Must have proficiency in hasty search techniques	
Vehicle	Transportation	4x4 vehicles that can transport each team throughout or to the search area	Vehicles that can transport each team throughout or at least to the search area 4x4s are not required, but recommended	Same as Type IV	1 vehicle that can transport the team throughout or at least to the search area 4x4s are not required, but recommended	
Equipment	Clothing	Same as Type II	Same as Type III	Same as Type IV	Appropriate level of PPE for working environment	
Equipment	Communications	Same as Type II	Same as Type III plus: VHF capability to	Same as Type IV plus: VHF communications	VHF Radios for team communications	



RESOURCE: Wilderness Search and Rescue Team						
CATEGORY: Search & Rescue (ESF #9)			KIND: Team			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER
COMPONENT	METRIC					
			communicate with aircraft	capability with other teams	Cell Phone	
Equipment	Search & Rescue	Same as Type II	Equipment to support remote extrication and field transport of survivors	None required	None required	
Supply	Self-sustaining	Equipped to be self-sustaining for 72 hours in local wilderness environments	Equipped to be self-sustaining for 48 hours in local wilderness environments	Same as Type IV	Equipped to be self-sustaining for 24 hours in local wilderness environments	
Equipment	Medical	Same as Type II	Same as Type III, plus ability to support survivors	Same as Type IV	As appropriate for level of training, as applied in wilderness environment and meeting local protocols and requirements for support of the team	
COMMENTS	Team members will usually only work a maximum of 12-hour shifts, depending on individual unit policies and procedures. Crew availability does not require continuous availability of specific personnel, only that crews are available to those specifications, though some personnel may have extended assignments in the field. Medical support and technical rescue equipment is expected to be provided by local EMS and other technical rescue personnel for Type III and IV teams.					