



DOMESTIC  
CAPABILITY

# PRIORITIES

## 2019



**AIR** NATIONAL  
GUARD



# FOREWORD



The Air National Guard (ANG) stands ready to provide Airmen and equipment to support the American people during times of domestic disasters. As a first step to prepare for effective Homeland response, National Guard experts from the 54 states and territories, to include Joint Force Headquarters and all 90 Wings, gather together during the annual ANG Domestic Capability Priorities (DCP) Conference to identify capability gaps and define solutions for the ANG responders.

National Guard representatives identify, prioritize, and organize capabilities according to the Federal Emergency Management Agency (FEMA) construct defined by Emergency Support Functions (ESFs).

The product of the DCP is this book and serves as the foundation for the allocation of the ANG's limited procurement funds. The ANG strives to keep this process transparent and repeatable while documenting, analyzing and validating the priorities from the conference.

ANG Airmen stand ready to respond to both natural and man-made disasters and defend the American Homeland while continuing to maintain Air Force training and readiness standards. This past year demonstrated ANG readiness by challenging our service members with multiple hurricanes, wildfires, mudslides, and national security events taking our Airmen to all corners of our borders and beyond. I am grateful to our ANG Airmen and partner agencies across the country who participate in the DCP process and help steer ANG resources in the most effective direction. The DCP process and resulting products exemplify our steadfast commitment to our communities, states, territories, and this Nation.

A handwritten signature in black ink that reads "L. Scott Rice".

L. SCOTT RICE  
Lieutenant General, USAF  
Director, Air National Guard

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# INTRODUCTION



The 2019 Air National Guard (ANG) Domestic Capability Priorities (DCP) Book documents capability priorities identified during the April 2018 ANG DCP Conference in Colorado Springs, Colorado. This location was retained to continue enhanced NORTHCOM participation with the ANG. The DCP Conference leveraged working groups for 11 National Response Framework Emergency Support Functions (ESF). The conference welcomed over 320 military and civilian attendees representing 53 states and territories from the ANG wings and state Joint Force Headquarters, other government agencies, civil partners, as well as National Guard Bureau (NGB) staff. The objective of the ESF working groups was to identify capabilities needed by the ANG to effectively execute the domestic incident response mission, classified by urgency of need: Critical (crucial within the next 1 to 3 years), Essential (vital within the next 3 to 5 years), or Desired (enhances mission success beyond 5 years).

<b>National Response Framework (NRF) Emergency Support Functions (ESF)</b>
<b>ESF 1 - Transportation</b>
<b>ESF 2 - Communications</b>
<b>ESF 3 - Public Works and Engineering</b>
<b>ESF 4 - Firefighting</b>
<b>ESF 5 - Information and Planning</b>
<b>ESF 6 - Mass Care, Emergency Assistance, Temporary Housing, &amp; Human Services</b>
<b>ESF 7 - Logistics Management and Resource Support</b>
<b>ESF 8 - Public Health and Medical Services</b>
<b>ESF 9 - Search and Rescue</b>
<b>ESF 10 - Oil and Hazardous Materials Response</b>
ESF 11 - Agricultural and Natural Resource (No ANG Equity)
ESF 12 - Energy (No ANG Equity)
<b>ESF 13 - Public Safety and Security</b>
ESF 14 - Long-Term Community Recovery (Superseded by National Disaster Recovery Framework)
ESF 15 - External Affairs (No ANG Equity)

The introductory section of the 2019 DCP book includes a State/FEMA Matrix which identifies states and FEMA regions where working groups recommended fielding equipment. The book identifies nearly \$470,000,000 worth of domestic critical capability shortfalls organized into 11 ESF tabs; each begins with an ESF mission description followed by a summary page of critical, essential and desired capabilities identified at the DCP Conference. An information paper describes each capability classified as critical. Each information paper captures: Background (capability description) and Program Details (quantity of equipment needed, the estimated unit costs, and program costs).

# State and FEMA Matrix

Current and potential locations for capabilities identified in this book

	ESF 1 Transportation	ESF 2 Communications	ESF 3 Public Works and Engineering	ESF 4 Firefighting	ESF 5 Information and Planning	ESF 6 Mass Care	ESF 7 Logistics	ESF 8 Public Health	ESF 9 Search and Rescue	ESF 10 Oil and HAZMAT Response	ESF 13 Public Safety and Security
	Cargo and Utility Vehicles Fleet Modernization										
	Heavy Mobile Equipment Maintenance Truck										
	Debris Clearance and Route Opening Prime Movers										
	Deployable Aviation Refueling Point										
	Prime Mover for Prime Power										
	JISCC Incident Site Data Service Extension										
	JISCC Tactical Mobility Modernization										
	Rapid Deployable Communications Solution										
	Multiband Capable Radios										
	Domestic Cyber Mission System										
	Base Water Storage And Dispensal										
	Debris Clearance Safety Enhancements										
	Potable Water Production Equipment										
	Prime Power Modernization										
	4.0 Cubic Yard Front End Loader										
	Personal Protective Equipment (PPE) Cleaning Capability										
	MAFSS Tanker Base Fixed Pits										
	Structural Firefighting PPE										
	Structural Firefighting Vehicles										
	Aircraft and Structural Live-Fire Training Equipment										
	Mobile Emergency Operations Center Modernization										
	Incident Commander Mobile Situational Awareness Kit										
	Multi-layer Interoperable Cloud-based COP										
	Deployable Radio Interoperability Liaison Kit										
	Network for Info Sharing Outside Military Domains										
	Rapid Deployment Shelters										
	DRMKT and Modernization										
	Disaster Relief Bed-down Set										
	Tactical Field Religious Support Kit										
	DRMKT Support Equipment										
	Modular Aircraft Loading Ramps										
	Weight-In-Motion Scales										
	Mobile Loading Dock and Trailer Ramps										
	25K High-Reach Aircraft Loader										
	KC-135 Fuel Off-Load Hoses/Nozzles										
	Patient Movement Item Kits										
	Medical Rapid Response Equipment										
	Oxygen Generation System										
	Patient Tracking/Treatment System										
	Airway Management Critical Care System										
	PPE for Urban Search and Rescue (USAR)										
	USAR Kit Modernization										
	Open Architecture Modular Mission Pod and Components										
	USAR Vehicles										
	Search and Rescue Searchlight and Loudspeaker System										
	Multi-Layer Portable Power Bank										
	CBRN Prime Mover Upgrade										
	CBRN Response Trailer										
	CBRNE Detection Robot										
	HAZMAT PPE Modernization										
	Security Forces Vehicles										
	Scalable Emergency Vehicle Response Kit										
	Security Forces Interoperable Radios										
	Security Forces Taser Modernization										
	Security Forces Utility Tasked Vehicle										
<b>FEMA Region I</b>											
CT											
MA											
ME											
NH											
RI											
VT											
<b>FEMA Region II</b>											
NJ											
NY											
PR											
VI											
<b>FEMA Region III</b>											
DC											
DE											
MD											
PA											
VA											
WV											







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# Transportation



**Transportation (ESF 1)** – ESF 1 encompasses intermodal transportation, aviation and airspace management, transportation safety, restoration and recovery of transportation infrastructure, movement restrictions, and impact assessment. To move essential resources during a disaster, ANG assistance may be required to clear and restore the transportation system. The ANG can provide temporary alternative transportation

when infrastructure is damaged, unavailable or overwhelmed. The ANG has many transportation resources to support the movement of personnel and materiel, to include heavy equipment, medical first responders and patients, bulk and palletized cargo, fire suppression systems, water, petroleum, oil, lubricants, and ground transportation across a multitude of damaged surfaces.





# **ESF 1 - Transportation**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Cargo and Utility Vehicles Fleet Modernization
- Heavy Mobile Equipment Maintenance Truck
- Debris Clearance and Route Opening Prime Movers
- Deployable Aviation Refueling Point
- Prime Mover for Prime Power

### ***Essential Capabilities List***

- High-Reach Aircraft Loaders
- Ramps to Load Trailers on Aircraft
- Remotely Piloted Aircraft Sense and Avoid System
- Mobile Emergency Operations Center Prime Mover
- 10,000 Pound All-Terrain Forklift

### ***Desired Capabilities List***

- Shop in a Box
- Driving Simulator
- Legacy Ground Control Station to Bridge Block 5 MQ-9 Upgrade
- Unmanned Aircraft System Sustainment Capability
- Prime Mover and Trailer to Make Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Enhanced Response Force Package Modular

*Transportation*

**CARGO AND UTILITY VEHICLES FLEET MODERNIZATION**

**1. Background.** The ANG requires medium-duty class ½-to-2 ½ ton vehicles capable of towing 10,000-20,000 pound Disaster Relief Bed-down Sets (DRBS), Fatality Search and Recovery Trailers (FSRT), Reverse Osmosis Water Purification Units (ROWPU), Disaster Relief Mobile Kitchen Trailers (DRMKT), Joint Incident Site Communications Capability Trailers (JISCC), and Hazardous Materials (HAZMAT) response trailers. Features such as a crew cab, diesel engine, four-wheel drive, dual rear wheels, heavy-duty towing package and suspensions allow enable a more timely and effective response to an array of emergency situations. The ANG needs to replace half of the 1,720 cargo and utility vehicles currently eligible for replacement with tow-capable vehicles that meet the ANG needs.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>860 Cargo and Utility Vehicles Fleet Modernization (3080)</b>	<b>\$41,000</b>	<b>\$35,260,000</b>
<b>Total</b>		<b>\$35,260,000</b>

*Transportation*

**HEAVY MOBILE EQUIPMENT MAINTENANCE TRUCK**

**1. Background.** The ANG requires one-ton, four-wheel drive, crew cab contact trucks in order to perform mobile maintenance support of heavy equipment, emergency vehicles, and large trucks. During domestic response scenarios, quickly and effectively addressing heavy equipment and vehicle breakdown is difficult without specialized systems that can access remote areas in order to make significant repairs on-site. All 90 ANG wings require a service body truck equipped with a mobile crane, welder, air compressor, and hand tool kits.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>90 One-Ton 4x4 Crew Cab Chassis (3080)</b>	<b>\$49,000</b>	<b>\$4,410,000</b>
<b>90 Service Bodies (Maintenance Equipment) (3080)</b>	<b>\$66,000</b>	<b>\$5,940,000</b>
<b>90 Sets of Hand Tools (3080)</b>	<b>\$22,000</b>	<b>\$1,980,000</b>
<b>Total</b>		<b>\$12,330,000</b>

*Transportation*

**DEBRIS CLEARANCE AND ROUTE OPENING PRIME MOVERS**

**1. Background.** The ANG requires 2 ½ ton trucks to provide transportation for debris clearance and route opening equipment packages. During disaster response missions, roads and airfields must be cleared of debris to facilitate the movement of emergency response vehicles, equipment, and personnel. The ANG vehicle inventory lacks adequate trucks for this purpose. Each of the ANG's 90 wings requires one 2 ½ ton truck.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
90 2 ½ Ton Trucks (3080)	\$74,000	\$6,660,000
<b>Total</b>		<b>\$6,660,000</b>



*Transportation*

**DEPLOYABLE AVIATION REFEULING POINT**

**1. Background.** The ANG requires a system capable of off-loading fuel from mobility aircraft into collapsible tanks for multi-point aircraft/vehicle refueling operations. This single-point defueling system must be compatible with C-17, C-130H/J, and KC-135 aircraft. This system can extend the reach of aviation and ground transportation assets into isolated areas experiencing critical infrastructure failure during the first 72 hours following a natural or man-made disaster. One deployable aviation refueling point system is requested for each of the 44 C-17, C-130H/J, and KC-135 wings.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>44 Deployable Aviation Refueling Point Systems (3080)</b>	<b>\$43,000</b>	<b>\$1,892,000</b>
<b>Total</b>		<b>\$1,892,000</b>

*Transportation*

**PRIME MOVER FOR PRIME POWER**

**1. Background.** ANG wings with prime power mission sets require prime mover trucks to transport their generator payloads. Four-door, crew-cab, four-wheel drive, dual rear wheel pickup trucks with a towing capacity of 16,000 pounds are adequate for this tasking. Six prime mover trucks are required at both the 150th Special Operations Wing, New Mexico, and the 118th Wing, Tennessee.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>12 4x4 Dual Rear Wheel Pickup Trucks (3080)</b>	<b>\$75,000</b>	<b>\$900,000</b>
<b>Total</b>		<b>\$900,000</b>

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# Communications

**Communications (ESF 2)** – Communication enablers are comprised of a full spectrum of interoperable capabilities to include voice, data, cellular, radio, and video capabilities over sophisticated networks establishing shared situational awareness among federal, state, and local agencies in response to disaster recovery efforts.

These capabilities include bridging critical communications, facilitating coordination of emergency response operations, and acting as a conduit between responding federal, state, and local agencies. The communications functions encompass close coordination with the commercial information technology industry, reestablishment, and sustainment of communications. Also included in communications is the defense and oversight of information technology resources, incident management, and response operations centers.



cyber defense and mitigation activities, and increase interoperability among responders while reducing response times.

The ANG has 62% of the AF communications capability. Field representatives from the ANG addressed operational shortfalls and proposed updated communications capabilities to improve the ANG's ability to respond quickly and function efficiently during emergency operations in support of civil authorities, federal, and state partners. The capabilities identified improve the security of communications devices and networks, support



## **ESF 2 - Communications**

### **2018 Domestic Capability Priorities Conference**

#### ***Critical Capabilities List***

- Joint Incident Site Communications Capability Incident Site Data Service Extension
- Joint Incident Site Communications Capability Tactical Mobility Modernization
- Rapid Deployable Communications Solution
- Multiband Capable Radios
- Domestic Cyber Mission System

#### ***Essential Capabilities List***

- Commercial Mesh Network
- High Frequency Military Auxiliary Radio System Base Radio Capability
- Intermediate Command and Control Communications Capability
- Airborne Communications Interoperability Node
- Multipath Microwave Solution

#### ***Desired Capabilities List***

- Portable Repeater Solution

*Communications*

**JOINT INCIDENT SITE COMMUNICATIONS CAPABILITY INCIDENT SITE DATA  
SERVICE EXTENSION**

**1. Background.** The ANG requires a multipoint antenna system to allow the Joint Incident Site Communications Capability (JISCC) to extend core data and voice services to responders in a Defense Support of Civil Authorities (DSCA) or all-hazards response event. During operations, incident commanders often request that JISCC teams project communications services to multiple military and civilian entities. Current solutions only allow JISCC to extend services to a single remote site. An incident site communications extension system allows a JISCC terminal to extend data and voice services to multiple locations simultaneously and independently. A multipoint antenna allows JISCC teams to extend and expand services to multiple response entities that operate in hazardous environments while remaining outside of the incident site. Additionally, the system can be configured as a repeater to project services to remote locations not normally accessible to satellite or cellular based systems. Each of the ANG's 41 JISCC systems requires a multipoint antenna upgrade.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
41 Point-to-Multipoint Antenna Systems (3080)	\$62,500	\$2,562,500
Total		\$2,562,500



*Communications*

**JOINT INCIDENT SITE COMMUNICATIONS CAPABILITY TACTICAL MOBILITY  
MODERNIZATION**

**1. Background.** ANG Joint Incident Site Communications Capability (JISCC) units require a dedicated trailer and prime mover package in order to rapidly deploy communications support equipment using tactical airlift and road convoy transport. Since fielding in 2013, the JISCC Block III footprint has continued to expand due to continued use for Defense Support of Civil Authorities (DSCA) operations and expanding disaster relief support requirements. As a result, the JISCC Block III and support equipment no longer fit in the primary trailer and cannot be transported on a single C-130. Additionally, JISCC operators compete for prime movers at ANG wings. A dedicated prime mover would ensure that a JISCC can be repositioned quickly when called upon during a crisis. A dedicated support trailer and two dedicated prime movers are required for each of the ANG's 41 JISCC units.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>41 JISCC Support Trailer (3080)</b>	<b>\$49,000</b>	<b>\$2,009,000</b>
<b>82 JISCC Prime Tow/Mover (3080)</b>	<b>\$65,000</b>	<b>\$5,330,000</b>
<b>Total</b>		<b>\$7,339,000</b>

*Communications*

**RAPID DEPLOYABLE COMMUNICATIONS SOLUTION**

**1. Background.** ANG Communications units require a rapidly-deployable communications kit with organic power generation that provides basic cellular and radio connectivity in a localized area during disaster response operations. This capability fills a communications gap with satellite voice, cellular, data and video streaming when existing the communications infrastructure has been disabled. The kit needs to be lightweight (approximately 90 pounds total) and have a set up time under 15 minutes with no tools. The system needs to combine the use of balanced and prioritized aggregated cellular and satellite bandwidth. The system must include an on-board dual band (2.4 gigahertz (Ghz) and 5.8Ghz) 802.11 a/b/g/n/ac WiFi network. Cellular network capability is needed to support users with Verizon, Sprint, AT&T and T-Mobile and be First Responder Network Authority (FirstNet) Band 14 capable. In order to operate independently in remote locations, small generators should accompany each communications kit. The generators need to be man-portable, weighing no more than 47 pounds (dry weight), incorporate an inverter for computers and sensitive equipment, and be capable of a 120 volt, 2200 watt maximum (18 amperes) output. Each of the 15 Incident Awareness and Assessment/ Unclassified Processing, Analysis, and Dissemination (IAA/UPAD) Communications units requires two deployable communications kits and associated generators. The five remote ANG Communications units require one kit and generator per location.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>35 Rapid Deployable Communications Kits (3080)</b>	<b>\$55,000</b>	<b>\$1,925,000</b>
<b>35 Generators (3080)</b>	<b>\$1,000</b>	<b>\$35,000</b>
<b>Total</b>		<b>\$1,960,000</b>

*Communications*

**MULTIBAND CAPABLE RADIOS**

**1. Background.** ANG Communications units equipped with the Joint Incident Site Communications Capability (JISCC) system require multiband portable land mobile radios (LMR) to ensure continued communications with external agencies. Current JISCC radios are reaching end-of-life and cannot be upgraded to meet future P25 requirements, a suite of standards for digital mobile radio communications. This radio upgrade will also allow the Very High Frequency (VHF), Ultra High Frequency (UHF), and 700/800 megahertz commercial radio bands be embedded on one radio instead of requiring multiple radios operating in different bands. The radio upgrade will also have Long Term Evolution (LTE) capability, meeting the First Responder Network Authority (FirstNet) requirement, in addition to meeting all Department of Homeland Security frequency standards. The ANG requires six portable radios for each of its 41 JISCC Block III units.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>246 Multiband Portable LMRs (3080)</b>	<b>\$6,000</b>	<b>\$1,476,000</b>
<b>Total</b>		<b>\$1,476,000</b>

**DOMESTIC CYBER MISSION SYSTEM**

**1. Background.** ANG Cyberspace Operations (CO) units and Mission Defense Teams (MDT) require the Domestic Cyber Mission System (DCMS) in order to provide domestic cyber support for state missions. The DCMS is a cost-effective solution that provides increased operational capability to ensure protection of state, tribal, and local systems. Presidential Policy Directive 41, as well as the National Guard Cyber Strategic Plan and Strategy, outline the involvement of the National Guard in support of domestic cyber operations. The DCMS is a mobile system that can be scaled to support any state-directed cyber mission. The system provides the ability to conduct network enumeration, forensic assessments, vulnerability assessments, and penetration testing. It provides a rapidly-deployable defense and networked storage system to ensure proper backups of critical systems can be maintained. Up to 24 Cyber Mission Systems (CMS) provided laptops can interconnect with state systems through a networked CMS switch. This connectivity allows members to focus on mission objectives while operating within a networked environment. The ruggedized DCMS is transportable in a hardened case that can be palletized or placed on a commercial aircraft as checked baggage. One DCMS system is required for all 90 wings.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
90 Domestic Cyber Mission Systems (3080)	\$210,000	\$18,900,000
Total		\$18,900,000

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# Public Works and Engineering

**Public Works and Engineering (ESF 3)** – The United States Army Corps of Engineers is the primary agency for providing the public works and engineering emergency support function technical assistance, engineering, and construction management resources during response activities. ESF 3 provides road clearing, airfield recovery, electrical power generation and distribution, emergency repair of water treatment facilities (potable water, ice, and wastewater). Contracting support is provided for construction management, real estate use, life-saving and life-sustaining actions, damage mitigation, expedient bridging, and Explosive Ordnance Disposal (EOD) following a major disaster.



In a major disaster or emergency response, operations may be beyond state and local response capabilities. Homes, public buildings, bridges, and other facilities may have to be reinforced or demolished to ensure safety. Public utilities may be partially or fully inoperable. A major disaster may affect the lives of many state and local response personnel and their facilities, preventing them from performing

their prescribed emergency response duties. Similarly, emergency response equipment in the immediate disaster area may be damaged or inaccessible; therefore, sufficient resources may not be available to state and local agencies to meet emergency response requirements. Federal assistance may be required to identify and deploy resources from outside the affected area to ensure a timely, coordinated, and effective response.

# **ESF 3 - Public Works and Engineering**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Base Water Storage and Dispersal
- Debris Clearance Safety Enhancement
- Potable Water Production Equipment
- Prime Power Modernization
- 4.0 Cubic Yard Front End Loader

### ***Essential Capabilities List***

- Self-Contained Lighting System
- Bomb Squad Emergency Response Vehicle Mast Camera Upgrade
- Pavement Evaluation Kit
- Small Unmanned Aircraft System for Incident Area Assessment
- Explosive Ordnance Disposal Six-Pack Modernization and Standardization

### ***Desired Capabilities List***

- All-Terrain Utility Vehicle (UTV)
- Outdoor Shelters for Civil Engineering Equipment
- High-Capacity Water Pump Kits
- Flood Control Barrier System
- Portable Potable Water Bottling System

*Public Works and Engineering*

**BASE WATER STORAGE AND DISPERSAL**

**1. Background.** The ANG requires potable water containers for storage and distribution during emergency events. Virtually every domestic operation requires access to potable water on-site. Water storage equipment provides an easily transportable, collapsible container system holding at least 320 gallons of potable water. Disposable liners within the containers collapse as water is used, ensuring water exiting the container is of the same quality as the water source. Each ANG wing requires four collapsible containers and stands, one trailer, and 200 liners.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>360 Collapsible Containers (3080)</b>	<b>\$4,700</b>	<b>\$1,692,000</b>
<b>360 Stands (3080)</b>	<b>\$1,400</b>	<b>\$506,800</b>
<b>90 Trailers (3080)</b>	<b>\$6,300</b>	<b>\$567,000</b>
<b>1800 FDA Approved Liner Bags (3080)</b>	<b>\$80</b>	<b>\$144,000</b>
<b>Total</b>		<b>\$2,909,800</b>

**DEBRIS CLEARANCE SAFETY ENHANCEMENT**

**1. Background.** ANG requires additional safety equipment to better enable existing debris clearance sets. Lessons learned from recent natural disasters identified the need for additional items to include battery-powered Light Emitting Diode (LED) safety flares, more robust first-aid kits, electrical safety items, smaller chainsaws, pole saws, LED flood lights, and other miscellaneous items. LED safety flares will improve safety during night and low-visibility operations. Twelve-inch chainsaws enable use in tighter work spaces where the 24-inch saws become bulky, cumbersome, and potentially create an unsafe condition. Pole saws will aid in situations where obstructions (tree limbs, etc.) exist but are out of reach using existing saws. High-voltage detectors will help keep our airmen safe during work near commercial power lines. Current first-aid kits are not sufficient to handle work crew sizes that may be present during a debris clearance event. Extendible LED tripod lights and stands are needed for nighttime operations. The LED lights are brighter, last longer, and require less power than the current halogen lights. Debris clearance safety enhancement packages are required for each of the 83 ANG installations with debris clearance sets.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>83 12-Pack LED Safety Flares, with Cone Adapters, in Soft Case (3080)</b>	<b>\$1,006</b>	<b>\$83,498</b>
<b>166 24-Pack Safety Flares in Hard Case (3080)</b>	<b>\$1,747</b>	<b>\$290,002</b>
<b>166 First Aid Kits (3080)</b>	<b>\$75</b>	<b>\$12,450</b>
<b>83 Voltage Detector Kits (3080)</b>	<b>\$857</b>	<b>\$71,131</b>
<b>166 Personal Volt Detectors (3080)</b>	<b>\$455</b>	<b>\$75,530</b>
<b>166 Cant Hooks (3080)</b>	<b>\$70</b>	<b>\$11,620</b>
<b>166 10-Foot Web Slings (3080)</b>	<b>\$36</b>	<b>\$5,976</b>
<b>166 14-Foot Web Slings (3080)</b>	<b>\$44</b>	<b>\$7,304</b>
<b>166 12-Inch Chainsaws (3080)</b>	<b>\$353</b>	<b>\$58,598</b>
<b>83 Collapsible Pole Saws (3080)</b>	<b>\$114</b>	<b>\$9,462</b>
<b>498 LED Tripod Lights (3080)</b>	<b>\$2,500</b>	<b>\$1,245,000</b>
<b>Total</b>		<b>\$1,870,571</b>

**POTABLE WATER PRODUCTION EQUIPMENT**

**1. Background.** ANG requires potable water production equipment to support regional disaster relief operations. Virtually every major domestic disaster requires large quantities of drinkable water. A Reverse Osmosis Water Purification Unit (ROWPU) provides an expedient water purification and desalination processing capability during these times of crisis. The ROWPU can produce 1,500 gallons of potable water per hour for first responders and the civilian population. In addition to the ROWPU, each storage equipment kit will include two water storage bladders, a light cart, a shelter tent, and a 45-foot trailer to haul the equipment. Each of the ten Federal Emergency Management Agency (FEMA) regions needs one additional ROWPU kit, plus one kit each for Alaska, Hawaii, and Puerto Rico.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>13 ROWPU and Storage Equipment Kits (3080)</b>	<b>\$477,600</b>	<b>\$6,208,800</b>
<b>Total</b>		<b>\$6,208,800</b>

## **PRIME POWER MODERNIZATION**

**1. Background.** ANG requires modernized transportable power generation capabilities. Almost every major domestic disaster requires additional sources of power along with technical assistance for power generation and distribution. Prime power teams provide emergency power to military and civilian facilities including clinics, nursing homes, police stations, command centers, and joint reception, staging, onward movement, and integration sites during disaster relief operations. Employment of both prime power teams during the 2017 hurricane season demonstrated the need for a reconfiguration of the equipment set. Existing generator sets have a limited ability to support the variety of possible employment scenarios. The 30 kilowatt (kW) and 60 kW generators cannot supply sufficient power to structures unless connected in parallel, which is cost-prohibitive using the currently fielded assets. The 100 kW generators have sufficient capacity, but also lack the ability to configure in parallel. All existing prime power generators need to be replaced with trailer-mounted air-transportable 100 kW and 230 kW parallel-capable generator sets, creating a total output capacity of 1,460 kW per team. Additionally, each generator must be attached to its own trailer that is ground and airlift-certified to increase portability since fork lift assets may not be available. Each of the two ANG prime power teams, the 118th Civil Engineering Squadron and 150th Civil Engineering Flight, require the portable power generation package upgrade.

### **2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>20 125kw Trailer-Mounted Generators (3080)</b>	<b>\$76,415</b>	<b>\$1,528,300</b>
<b>4 230kw Trailer-Mounted Generators (3080)</b>	<b>\$141,763</b>	<b>\$567,052</b>
<b>2 100kw Load Banks (3080)</b>	<b>\$8,959</b>	<b>\$17,918</b>
<b>Total</b>		<b>\$2,113,270</b>



*Public Works and Engineering*

**4.0 CUBIC YARD FRONT END LOADER**

**1. Background.** ANG requires larger, more capable front end loaders at Northern Tier bases. These bases receive large amounts of snow each year, and removing this snow is very time-consuming using the current loaders. Each of the 40 Northern Tier ANG bases need a front end loader capable of moving at least four cubic yards of snow at a time.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>40 4.0 Cubic Yard Front End Loaders (3080)</b>	<b>\$292,468</b>	<b>\$11,698,720</b>
<b>Total</b>		<b>\$11,698,720</b>

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# Firefighting

**Firefighting (ESF 4)** – Firefighting capabilities include detecting and suppressing wildland, rural, and urban fires from the ground and air, while managing and coordinating those firefighting efforts. The management of a large firefighting operation often involves thousands of people and equipment from many agencies and jurisdictions. A major disaster may impose extraordinary demands and exceed local firefighting capabilities.



ANG Fire and Emergency Services (FES) personnel can augment local firefighting resources because ANG firefighters maintain the same certifications as their civilian counterparts. The firefighting team consists of managers, incident commanders, and firefighters. In addition to



traditional fire and rescue capabilities, ANG firefighters provide hazardous materials response to include Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) events. The ANG firefighting enterprise consists of 62 FES units, three C-130 and three HH-60 units for airborne firefighting.

Proper personnel protective equipment (PPE), tools, and training are needed for each firefighting specialty in order to reduce the inherent risks of fighting fires.

Proper personnel protective equipment (PPE), tools, and training are needed for each firefighting



# **ESF 4 - Firefighting**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Personal Protective Equipment Cleaning Capability
- Mobile Aircraft Fire Fighting System Tanker Base Fixed Pits
- Structural Firefighting Personal Protective Equipment
- Structural Firefighting Vehicles
- Aircraft and Structural Live-Fire Training Equipment

### ***Essential Capabilities List***

- Rotary-Wing Aerial Firefighting
- Full Motion Video Direct Feeds from Aerial Assets
- All-In-One Trauma Aid Kit for First Responders

### ***Desired Capabilities List***

- Ultrasonic Mask Cleaner
- High Resolution Thermal Viewer

## Firefighting

### PERSONAL PROTECTIVE EQUIPMENT CLEANING CAPABILITY

**1. Background.** The ANG requires upgraded Personal Protective Equipment (PPE) cleaning and testing kits for its Fire and Emergency Services (FES) units. An updated extractor (washer), dryer, and water penetrator tester will provide FES units the ability to conduct proper post-emergency cleaning of PPE. Routine contact with chemicals, fuel, and the products of combustion require decontamination which can take weeks without in-house capability. With the addition of the water penetrator tester, all FES units will have the capability to conduct in-house annual advanced cleaning in accordance with National Fire Protection Association (NFPA) 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*. Currently, FES units utilize a one million dollar, 3-year contract to conduct advanced inspections for one set of gear per ANG Firefighter. An in-house upgraded cleaning and testing kit can be used for structural, wildland, and rescue PPE decontamination and annual advanced cleaning, eliminating the requirement for contract cleaning. Each of the ANG's 62 FES units requires one cleaning and testing kit, as well as equipment training for three personnel.

#### 2. Program Details.

Quantity	Unit Cost	Program Cost
62 Extractor (3080)	\$14,500	\$899,000
62 Gear Dryer (3080)	\$10,000	\$620,000
62 Water Penetrator Tester (3080)	\$2,000	\$124,000
62 Extractor/Dryer Installation (3080)	\$2,000	\$124,000
Total		\$1,767,000

## *Firefighting*

### **MAFFS TANKER BASE FIXED PITS**

**1. Background.** ANG Mobile Aircraft Fire Fighting System (MAFFS) tanker bases require a fixed fire retardant storage tank to enhance airborne firefighting capabilities. The installation of a 100,000 gallon tank and associated pump equipment for a fixed pit adjacent to the MAFFS pits will reduce the response time from 24 hours to 3 hours, and promote efficient support to civil agencies in this critical Defense Support of Civil Authorities (DSCA) mission. This upgrade will enable the rapid projection of military and civilian aerial firefighting resources in the infancy of a wildland fire. A 100,000 gallon tank, preloaded with retardant, could support recurring loads of at least 3,000 gallons per sortie. With this increased capability, each MAFFS base could pursue a Type 1 air tanker base certification, in accordance with the National Wildfire Coordinating Group standards, potentially reaching "Full Activation" tanker base status, rather than "hub" or "reload" base. All three ANG MAFFS units require a fixed fire retardant storage tank.

#### **2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>3 MAFFS Tanker Base Fixed Pits (3080)</b>	<b>\$550,000</b>	<b>\$1,650,000</b>
<b>Total</b>		<b>\$1,650,000</b>



## *Firefighting*

### **STRUCTURAL FIREFIGHTING PERSONAL PROTECTIVE EQUIPMENT**

**1. Background.** ANG Fire and Emergency Services (FES) units require a second set of structural Personal Protective Equipment (PPE) to maintain a 100% firefighter response capability. Per National Fire Protection Association (NFPA) 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, firefighting protective equipment must be cleaned and decontaminated every time there is contact with a hazardous material or bodily fluid. The cleaning, decontamination, and drying process can take several hours to several days, depending upon the severity of soiling and contamination. While this gear is out of service, the capability to continue to respond to emergencies with the appropriate protective ensemble is still required. A second set of structural PPE will provide firefighters the ability to respond to an emergency while the primary set is being repaired or cleaned. The ensemble will include pants, coats, boots, gloves, and hood. Each of the ANG's 62 FES units requires one set of PPE per assigned firefighter.

#### **2. Program Details.**

Quantity	Unit Cost	Program Cost
2000 Structural Ensembles (3080)	\$3,200	\$6,400,000
<b>Total</b>		<b>\$6,400,000</b>

## *Firefighting*

### **STRUCTURAL FIREFIGHTING VEHICLES**

**1. Background.** ANG Fire and Emergency Services (FES) units require an additional fire engine. ANG FES flights are provided fire apparatus according to Allowance Standard Code (ASC) 010, which is based on the assigned aircraft at a given location. All ANG FES flights require to be equipped with two P-22 fire engines, but currently only have one. Structural firefighting capability on ANG installations is dramatically reduced when the single P-22 fire engine is out of service. Additionally, a second P-22 will provide force projection capacity for off-base missions into the local community during times of disaster, while maintaining mission-essential levels of service at ANG bases. One additional P-22 fire engine is required at each of the ANG's 62 FES units.

#### **2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>62 Fire Engine P-22 Vehicles (3080)</b>	<b>\$275,000</b>	<b>\$17,050,000</b>
<b>Total</b>		<b>\$17,050,000</b>

## *Firefighting*

### **AIRCRAFT AND STRUCTURAL LIVE-FIRE TRAINING EQUIPMENT**

**1. Background.** The ANG requires modernized portable and fixed live-fire training equipment to support Fire and Emergency Services (FES) unit annual training needs. ANG FES personnel are required to conduct annual aircraft and structural live-fire training. The vast majority of ANG FES flights do not possess this capability on-site, and must travel to accomplish their annual certifications. ANG Regional Training Sites (RTS) and Combat Readiness Training Centers (CRTC) possess live-fire training assets, but they are routinely out of service and are increasingly obsolete. Mobile live-fire trainers located in each Federal Emergency Management Agency (FEMA) region would be shared between all ANG FES units, allowing for flexible training options and the ability to conduct training with assigned firefighting resources at the home station. The ANG requires a mobile aircraft and structural burn training system in each of the ten FEMA regions, as well as aircraft and structural live-fire training system modernization at all five ANG-operated RTS.

#### **2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>10 Mobile Aircraft Burn Trailers (3080)</b>	<b>\$550,000</b>	<b>\$5,500,000</b>
<b>10 Mobile Structural Burn Trailers (3080)</b>	<b>\$550,000</b>	<b>\$5,500,000</b>
<b>5 Fixed Aircraft Burn Trainer Modernization (3080)</b>	<b>\$750,000</b>	<b>\$3,750,000</b>
<b>5 Fixed Structural Burn Trainer Modernization (3080)</b>	<b>\$750,000</b>	<b>\$3,750,000</b>
<b>Total</b>		<b>\$18,500,000</b>

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# Information and Planning

**Information and Planning (ESF 5)** – Information and Planning has grown tremendously as the sheer volume of information available to responders and incident commanders has exponentially increased with the wide-scale fielding of new technology and communication devices. ESF 5 encompasses the Processing, Analyzing, and Dissemination (PAD) of information needed for coordinating responses and utilizing the resources available. This effort relies on the information generated from ground and air assets used for Incident Awareness and Assessment (IAA). The Command and Control and PAD effort is supported by the ANG Mobile Emergency Operation Centers (MEOC) and the airborne imagery available from the ANG airborne IAA assets.



# **ESF 5 - Information and Planning**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Mobile Emergency Operations Center Modernization
- Incident Command Mobile Situational Awareness Kit
- Multi-layer Interoperable Cloud-based Common Operational Picture
- Deployable Radio Interoperability Liaison Kit
- Network and Servers for Information Sharing Outside Military Domains

### ***Essential Capabilities List***

- Wide-Area Multi-Spectral Imagery
- Cellular and WiFi Signal Boosters
- Airborne Command and Control Node
- Synthetic Aperture Radar for Intelligence, Surveillance, and Reconnaissance Aircraft

### ***Desired Capabilities List***

- Mobile Cell Tower
- Situational Awareness and Communications Small Drone



**MOBILE EMERGENCY OPERATIONS CENTER MODERNIZATION**

**1. Background.** ANG Emergency Management units require mobile Command and Control (C2) capabilities to support federal and state disaster response mission sets. The ANG is partially equipped with Mobile Emergency Operations Centers (MEOCs) that are nearing their end-of-life and suffer from interoperability issues. Modern trailered MEOCs provide mobile C2 capable of broad interoperability among first-responders for on-scene incident management and long-term recovery operations. MEOCs are distributed regionally and can be mobilized within 24 hours of notification. Modernized ANG MEOCs should provide Defense Information System Agency (DISA) compliant full-spectrum voice, data, full motion video, and image assessment capabilities. Modern MEOCs should be designed to meet National Incident Management System (NIMS) requirements, United States Northern Command communications guidelines, and C-17 transportability requirements. The ANG requires 25 regionally-based MEOC systems, and of the 25, six lack a dedicated prime mover vehicle to ensure rapid mobility.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>25 MEOCs (3080)</b>	<b>\$1,000,000</b>	<b>\$25,000,000</b>
<b>6 MEOC Prime Mover Upgrades (3080)</b>	<b>\$80,000</b>	<b>\$480,000</b>
<b>Total</b>		<b>\$25,480,000</b>

**INCIDENT COMMAND MOBILE SITUATIONAL AWARENESS KIT**

**1. Background.** ANG Incident Commanders, first responders, and emergency operations center personnel require the ability to access still and full motion video imagery of a site to enhance decision-making capabilities. The Incident Commander Mobile Situational Awareness Kit (MSAK) utilizes commercial-off-the-shelf tools with government-furnished communications equipment to upload geotagged still images or full motion video to the National Guard Bureau Domestic Operations (DOMOPS) Awareness and Assessment Response Tool (DAART) website. MSAKs can be rapidly deployed on ground vehicles or aircraft at low cost. Each kit contains an upgraded Global Positioning System (GPS) enabled camera, laser rangefinder, infrared camera, video receiver for tactical airborne sensors, and a ruggedized tablet with video capture equipment. The ANG requires one kit for each of the 54 states, territories, and the District of Columbia.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>54 Mobile Situational Awareness Kits (3080)</b>	<b>\$25,000</b>	<b>\$1,350,000</b>
<b>Total</b>		<b>\$1,350,000</b>

**MULTI-LAYER INTEROPERABLE CLOUD-BASED COMMON OPERATIONAL PICTURE**

**1. Background.** The ANG domestic operations enterprise requires a commercial off-the-shelf-based Common Operational Picture (COP) platform that facilitates crisis management and collaboration on and off ANG installations. This web-based solution must be hosted on a Department of Defense-approved GovCloud server and allow responders at all levels and from multiple units to input and share incident data with each other using any internet-connected device. This solution must meet the requirements of AFI 10-2501, *Air Force Emergency Management Program Planning and Operations*, Table A.2.1., Item 5. The solution must include collaboration tools to support response actions at every level to include: first responders, incident command, Mobile Emergency Operations Centers, command and control nodes, information awareness and assessment nodes, Wing Emergency Operation Centers, Joint Force Headquarters, ANG Crisis Action Team, and state/local emergency management. The cloud-based COP must integrate Global Positioning System (GPS) data from portable locators to track/locate personnel and assets, allowing users to configure tracking across the platform. The platform must enable additional data integration from sensors and software platforms. The solution must facilitate migration of existing COP software datasets. The ANG requires a single COP platform and 20 portable GPS locators for each of its 90 wings.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>Cloud-Based Multi-Layer Common Operational Picture For ANG Enterprise (3080)</b>	<b>\$5,500,000</b>	<b>\$5,500,000</b>
<b>1800 GPS Portable Locators (3080)</b>	<b>\$500</b>	<b>\$900,000</b>
<b>Total</b>		<b>\$6,400,000</b>

**DEPLOYABLE RADIO INTEROPERABILITY LIAISON KIT**

**1. Background.** ANG Emergency Management (EM) flights and Unclassified Processing Assessment Dissemination (UPAD) units require cellular data and radio interoperability systems for hazardous material first responders and incident commanders during initial disaster response operations. The communications kits include a cellular data modem with WiFi capability and a radio interoperability module with two to five interoperable ports to enable effective interagency communications. ANG requires one cellular data and radio interoperability system for each of the 90 EM flights and 14 UPAD units.

**2. Program Details**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>104 Deployable Radio Interoperability Liaison Kits (3080)</b>	<b>\$10,000</b>	<b>\$1,040,000</b>
<b>Total</b>		<b>\$1,040,000</b>

**NETWORK AND SERVERS FOR INFORMATION SHARING OUTSIDE MILITARY DOMAINS**

**1. Background.** The ANG requires modern commercial open-architecture networks, cyber-security equipment, a Host Based Security System (HBSS), and enterprise security hardware to support Domestic Operations (DOMOPS) requirements. GUARDNET and AFNET connections provide insufficient bandwidth for participation in DOMOPS Unclassified Process, Assess and Disseminate (UPAD) operations. This capability is necessary to manage, analyze, and disseminate large volumes of video, voice, and data in support of UPAD sites. These sites require a minimum of 100 megabit per second commercial internet connections to permit timely analysis of disasters and dissemination of information. Modernized UPAD capability will allow active communications with the DOMOPS Awareness and Assessment Response Tool (DAART). Current UPAD sites requiring this capability are located at the 15 Distributed Common Ground Station (DCGS) throughout the ANG enterprise. Each of the 15 UPAD sites requires commercial internet access, an additional three workstations, servers, and one site kit (commercial internet router, switch, firewall, and other standard networking equipment).

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>17 Commercial Internet Access (3080)</b>	<b>\$172,500</b>	<b>\$2,932,500</b>
<b>17 Servers (3080)</b>	<b>\$2,000</b>	<b>\$34,000</b>
<b>17 Site Kits (3080)</b>	<b>\$92,000</b>	<b>\$1,564,000</b>
<b>51 Client Workstations (3080)</b>	<b>\$2,000</b>	<b>\$102,000</b>
<b>Total</b>		<b>\$4,632,500</b>

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# Mass Care, Emergency Assistance, Temporary Housing, & Human Services



**Mass Care, Emergency Assistance, Temporary Housing, & Human Services (ESF 6)** – Mass care response, during a disaster, includes the delivery of mass shelter, feeding, and first aid to disaster survivors, fatality management, religious support to responders, and systems to distribute emergency relief supplies to disaster survivors. Disaster survivor check-in and status reporting systems are used to coordinate rescuers, report on victim status, and assist families to reunite.

The ANG provided key services in past mass care events, including three catastrophic storms during the 2017/18 hurricane season. During these events, thousands of soldiers and airmen were called upon to provide emergency assistance and temporary housing.

Additionally, a severe wildfire season in California contributed to mudslides in early 2018, demonstrating how ANG mass care resources can mobilize to assist federal, state, and local authorities.

The ANG needs additional materials, processes, and training to better reach the people and areas requiring assistance, provide essential services once on the scene, and achieve a more effective response to a mass care situation.



**ESF 6 - Mass Care, Emergency Assistance,  
Temporary Housing, & Human Services  
2018 Domestic Capability Priorities Conference**

***Critical Capabilities List***

- Rapid Deployment Shelters
- Disaster Relief Mobile Kitchen Trailer and Modernization
- Disaster Relief Bed-down Set
- Tactical Field Religious Support Kit
- Disaster Relief Mobile Kitchen Trailer Support Equipment

***Essential Capabilities List***

- Generator Modernization
- Physiological Monitor
- Rapid Access Trauma System
- Hoist-Capable Body Bag
- Portable Morgue

***Desired Capabilities List***

- None

**RAPID DEPLOYMENT SHELTERS**

**1. Background.** The Expeditionary Medical Support (EMEDS) Consequence Management (CM) teams need rapid deployment medical tents. EMEDS ability to respond in a timely manner to provide medical care is hindered by the setup time of the medical tents. Each tent takes an average of 25 minutes and a minimum of 8-10 personnel to erect. Rapid deployment tents take under 5 minutes to erect by two personnel. The time savings facilitates decreased response times and availability of emergency medical care during mass casualty incidents. The new rapid deployment medical tents need to meet the following requirements: designed from the ground up to network together through a simple connection process; not require tools, ladders or equipment to deploy; the interior frame should allow support bars capable of holding up to 50 pounds; have rigid double doors to provide a large entry way with a ramp to move gurneys and large equipment; roof cap vents to reduce condensation; flame retardant vinyl that is resistant to ultraviolet light, mildew, and abrasion; a Heating, Ventilation, and Air Conditioning (HVAC) system; Light Emitting Diode (LED) lighting; and Ground Fault Circuit Interrupter (GFCI) outlets. The ANG needs one hardened shelter for each of the 27 Fatality Search and Rescue Teams (FSRT), plus six air shelter kits for each of the 27 EMEDS CM teams.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>30 Rapid Deployment Hardened Shelters *(3080)</b>	<b>\$117,000</b>	<b>\$3,510,000</b>
<b>178 Rapid Deployment Shelters with HVAC *(3080)</b>	<b>\$25,000</b>	<b>\$4,450,000</b>
<b>178 LED Lighting System/Control Box Kits *(3080)</b>	<b>\$6,000</b>	<b>\$1,068,000</b>
<b>178 Equipment Fastening Rod Kits/Equipment GFCI Outlets *(3080)</b>	<b>\$500</b>	<b>\$89,000</b>
<b>Total</b>		<b>\$9,117,000</b>

\*Includes 10% spares.

**DISASTER RELIEF MOBILE KITCHEN TRAILER AND MODERNIZATION**

**1. Background.** Recent disasters such as Hurricanes Harvey, Irma and Maria, as well as other special security events have shown a need for support to civilian agencies National Guard forces as food is a basic necessity of sustainment. The Disaster Relief Mobile Kitchen Trailer (DRMKT) provides a mass field feeding capability. The 19 fielded ANG DRMKTs need modernization to meet safety requirements. These modifications include reductions in weight, changes in weight distribution, and upgrades of internal components. Five new DRMKTs are needed, one each for Puerto Rico, Alaska, Washington and South Dakota, and one to replace a unit rendered unserviceable in a transport accident.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>5 DRMKTs (3080)</b>	<b>\$700,000</b>	<b>\$3,500,000</b>
<b>19 DRMKT Upgrades (3080)</b>	<b>\$170,000</b>	<b>\$3,230,000</b>
<b>Total</b>		<b>\$6,730,000</b>

**DISASTER RELIEF BED-DOWN SET**

**1. Background.** The 2018 hurricane season highlighted the requirement for additional Disaster Relief Bed-down Sets (DRBSs) in non-contiguous states and territories. The DRBS is a self-contained deployable kits that includes sleeping quarters, latrines, showers, laundry, tents, water purification kits, and other basic support items. Time delays encountered during response to Hurricane Maria showed the need to have DRBSs prepositioned in non-contiguous states and territories so forces can quickly respond to disasters and allow airlift to be prioritized to move responders and commodities. Prepositioning DRBSs allow for a rapid and efficient response by allowing the impacted states/territories to establish staging areas and be able to receive responders within the first 36 hours of a disaster. ANG requires one additional DRBS for Alaska, Guam, Hawaii, and Puerto Rico/Virgin Islands to meet this requirement.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>4 DRBS (3080)</b>	<b>\$2,500,000</b>	<b>\$10,000,000</b>
<b>Total</b>		<b>\$10,000,000</b>

## **TACTICAL FIELD RELIGIOUS SUPPORT KIT**

**1. Background.** Service members responding to highly stressful operations are frequently exposed to severe mental trauma and may require immediate religious support. The Tactical Field Religious Support Kit (TFRSK) provides a respite center for these service members to separate from operations and interact with Religious Support Teams (RSTs) who are trained to mitigate operational stress. The TFRSK is a portable self-contained shelter system, which can be towed by a standard 1/2 ton pickup truck. It is erected on-site by a trained two-person RST and is fully mission capable in less than an hour. The kit includes: a three-room portable shelter partitioned into one large open area and two private rooms, an environmental control unit, generator, trailer, hand tools for assembly, storage cabinets, 6 lightweight tables, and 20 chairs. A TFRSK is needed for each of the 90 ANG Wings.

### **2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>90 TFRSK Temporary Shelters (3080)</b>	<b>\$64,50000</b>	<b>\$5,805,000</b>
<b>90 Trailers with Storage (3080)</b>	<b>\$27,000</b>	<b>\$2,430,000</b>
<b>90 Generators (3080)</b>	<b>\$5,200</b>	<b>\$468,000</b>
<b>90 Shelter Covers (3080)</b>	<b>\$1,750</b>	<b>\$157,500</b>
<b>Total</b>		<b>\$8,860,500</b>



**DISASTER RELIEF MOBILE KITCHEN TRAILER SUPPORT EQUIPMENT**

**1. Background.** The ANG requires separate support kits and dining tents to complement ANG-fielded Disaster Relief Mobile Kitchen Trailers (DRMKTs). The addition of a trailered support kit and dining tent for the DRMKT package provides a portable covered location for personnel being fed from the DRMKT. The DRMKT support kit also includes: rapid deployment shelters; tent anchor sets with water bladders; radiant barrier insulation kits with Heating, Ventilation, and Air Conditioning (HVAC) plenum; lighting system; and setup/electrical outlet kits. The ANG requires a DRMKT support kit for each of the 25 deployable DRMKTs.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>25 Rapid Deployment Shelters (3080)</b>	<b>\$22,000</b>	<b>\$550,000</b>
<b>25 Air Shelter Tent Anchor Sets with Water Bladders (3080)</b>	<b>\$625</b>	<b>\$15,625</b>
<b>25 Air Shelter Radiant Barrier Insulation Kits with HVAC Plenum (3080)</b>	<b>\$3,200</b>	<b>\$80,000</b>
<b>25 LED Lighting System/Control Box Kits (3080)</b>	<b>\$5,750</b>	<b>\$143,750</b>
<b>25 Equipment Fastening Rod Kits / Equipment GFCI Outlets (3080)</b>	<b>\$500</b>	<b>\$12,500</b>
<b>Total</b>		<b>\$801,875</b>

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# Logistics

**Logistics (ESF 7)** – The logistics function encompasses those capabilities necessary for the delivery of supplies, equipment, services, and facilities. Integral to logistics is the coordination of supply sources, acquisition, resource tracking, facility space acquisition, and transportation coordination. Logistics includes a centralized management of supply chain functions in support of local, state, and federal governments during domestic incidents. Logistical planning requires integration with community logistics partners through prior planning and crisis collaboration to reestablish local and state self-sufficiency as rapidly as possible.



## **ESF 7 - Logistics**

### **2018 Domestic Capability Priorities Conference**

#### ***Critical Capabilities List***

- Modular Aircraft Loading Ramps
- Weigh-In-Motion Scales
- Mobile Loading Dock and Trailer Ramps
- 25,000 Pound High-Reach Aircraft Loader
- KC-135 Fuel Off-Load Hoses/Nozzles

#### ***Essential Capabilities List***

- Universal Tow Kit
- Hard-Sided Expandable Small Air Mobile Shelter Mobile Work Area
- High-Reach Capable Forklift
- Modular Aircraft Loading Ramps
- Shop In-A-Box (Portable Vehicle Maintenance Tool Container/Shop)

#### ***Desired Capabilities List***

- Mobile Aviation Refueling System
- All-Terrain 10,000 Pound Forklift
- 500 Gallon Mobile Fuel Tanks
- Portable Solar Powered Scales
- Self-Loading 8,000 Pound Forklift and Trailer Combination

### MODULAR AIRCRAFT LOADING RAMPS

**1. Background.** The ANG needs modular aircraft loading ramps. The ANG currently uses pre-cut wood shoring to meet the Air Transportability Test Loading Activity (ATTLA) requirements for loading specialized equipment. Often, the wood shoring requires several aircraft pallets for air transport along with the specialized cargo and adds several thousand pounds of weight. Modular aircraft loading ramps will significantly reduce the number of pallets required and weight of the shoring. Each ANG wing requires eight sets of modular aircraft loading ramps.

#### 2. Program Details.

Quantity	Unit Cost	Program Cost
720 Modular Aircraft Ramps (3080)	\$12,000	\$8,640,000
<b>Total</b>		<b>\$8,640,000</b>

## WEIGH-IN-MOTION SCALES

**1. Background.** ANG units require weigh-in-motion scales to increase cargo throughput by reducing the amount of personnel and time required to process pallets. ANG units are required to accomplish cargo deployment functions for all overseas deployments and domestic operations. During the joint inspection process, cargo is weighed and measured manually using individual wheel scales that require repositioning of scales for each vehicle axle or cargo pallet. The process of weighing, measuring, marking, and calculating the center of balance requires 4-6 personnel and takes approximately 20 minutes per piece of cargo. Weigh-in-motion scales use lasers to precisely measure cargo dimensional data during in-motion weighing which will reduce the number of personnel and total time required to perform the joint inspection by 50 percent. ANG requires two weigh-in-motion scales for each of its nine ANG contingency response units.

### 2. Program Details.

Quantity	Unit Cost	Program Cost
18 Weigh-In-Motion Scales (3080)	\$70,000	\$1,260,000
<b>Total</b>		<b>\$1,260,000</b>

**MOBILE LOADING DOCK AND TRAILER RAMPS**

**1. Background.** ANG requires mobile loading docks and trailer ramps to enable cargo transfer operations in a variety of configurations and geographic locations to support contingency operations. Mobile loading docks and ramps allow for the transfer of equipment, supplies, and vehicles from commercial transport assets without the need for permanent, stationary loading docks. They also allow Point of Distribution missions for the disbursement of supplies and equipment to disaster-stricken areas. Mobile loading docks capable of supporting up to 100,000 pounds, with manual height adjustment from 32 to 56 inches, better equips ANG units to support domestic incidents. Both loading docks and trailer ramps should be of adequate width to accommodate a variety of typical cargo and equipment loads. During domestic operations, these mobile loading docks and ramps can be used to transfer trailers and vehicles ranging in size from commercial semi-trailers to Light Medium Tactical Vehicles. In addition to supporting the ANG’s domestic mission, mobile loading docks and trailer ramps are capable of supporting overseas deployments. Each of the 90 ANG wings requires one mobile loading dock and one mobile trailer ramp.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
90 Mobile Loading Docks (3080)	\$17,417	\$1,567,530
90 Trailer Ramps (3080)	\$7,000	\$630,000
<b>Total</b>		<b>\$2,197,530</b>



*Logistics*

**25,000 POUND HIGH-REACH AIRCRAFT LOADER**

**1. Background.** The ANG requires modern 25,000 pound high-reach loaders (K-loaders) that meet or exceed current Air Force loading equipment standards in order to quickly load heavy cargo and equipment onto wide-body aircraft to support domestic response and Combatant Command mobility operations. Modern K-loaders are disbursed throughout the ANG, mainly across 44 heavy lift aircraft wings (C-130, C-17, KC-135). However, eight ANG units are still equipped with outdated K-loaders approaching the end of their useful design life. These K-loaders present maintenance challenges due to frequent malfunctions and growing parts obsolescence, costing each unit approximately \$25,000 per year for upkeep. These outdated K-loaders prevent ANG airmen from training on the same equipment they are expected to operate during deployed contingency operations. Replacing these eight aging assets will greatly enhance the ANG's ability to rapidly support state missions during domestic response operations as well as Combatant Command taskings.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
8 - 25,000 Pound High Reach Aircraft Loaders (3080)	\$264,472	\$2,115,776
Total		\$2,115,776

*Logistics*

**KC-135 FUEL OFF-LOAD HOSES/NOZZLES**

**1. Background.** The ANG requires KC-135 fuel off-load hoses and nozzles to allow the rapid transfer of fuel from a KC-135 to virtually any fuel truck. This fuel off-load equipment significantly increases the rate of fuel transfer and the variety of fuel trucks compatible with the off-loading operation. Additionally, this equipment allows staged or mobile refueling operations to any military or commercial vehicle during a domestic response by utilizing a simple modification of existing fuel off-load equipment. ANG requires two sets of KC-135 fuel offload hoses and nozzles for each of its 18 KC-135 wings.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>36 KC-135 Fuel Off-Load Hoses / Nozzles (3080)</b>	<b>\$7,000</b>	<b>\$252,000</b>
<b>Total</b>		<b>\$252,000</b>

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# Public Health and Medical Services

**Public Health/Medical Care (ESF 8)** – Public health and medical services include emergency medical management of health service resources, such as preventive and curative health measures, triage of injured or sick, evacuation of the injured or sick, fatality management, blood management, medical supply, equipment, stress control, medical, dental, veterinary, laboratory, optometric, nutrition therapy, bioenvironmental health, and medical intelligence services. These services also include civilian emergency medical management in coordination with religious support teams. Public health and medical services support the public health system in the distribution and administration of vaccines and antidotes, implementation of state emergency medical response plans, protection of critical force health, and delivery of mortuary support.



ANG medical services may be called to support medical emergencies independently or cooperatively depending on the emergency. These services continue to develop cooperative efforts of medical response and support with local emergency medical management organizations at the state, county, and city levels.



Over the last several years, the ANG has developed a robust Chemical, Biological, Radiation, Nuclear, and Explosives (CBRNE) response plan that includes Civil Support Teams (CST), Homeland Response Forces (HRF), and CBRNE Enhanced Response Force Packages (CERFP). These emergency response forces are equipped and trained to respond to hazards, to include specialized skills needed at CBRNE-type events.

**ESF 8 - Public Health and Medical Services**  
**2018 Domestic Capability Priorities Conference**

***Critical Capabilities List***

- Patient Movement Item Kits
- Medical Rapid Response Equipment
- Oxygen Generation System
- Patient Tracking/Treatment System
- Airway Management Critical Care System

***Essential Capabilities List***

- Bariatric Litters and Wheelchairs
- Infection Control and Containment
- Public Address for the Medical Control Center Trailer
- Water Filtration for Contingency Response Element
- Staging kit for Contingency Response Element

***Desired Capabilities List***

- Rapid Application Tourniquet System Kits

**PATIENT MOVEMENT ITEM KITS**

**1. Background.** The ANG needs critical care equipment to safely move patients. During mass civilian evacuations, the ANG is often tasked with supporting the air transport of critically ill patients located in hospitals in the affected area. A Patient Movement Item (PMI) kit, consisting of a ventilator, vital signs monitor, intravenous (IV) infusion pump, and a suction pump will significantly improve a patient’s chances of survival during transport. Based on historical precedent and recent weather-related disaster relief efforts, the ANG requires enough critical care equipment to move up to 560 patients in 24 hours. It is expected that 20% of these 560 patients or 112 of the patients treated will require critical care equipment.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>112 Ventilators (3080)</b>	<b>\$14,014</b>	<b>\$1,569,568</b>
<b>112 Vital Signs Monitors (3080)</b>	<b>\$19,744</b>	<b>2,211,328</b>
<b>112 Intravenous Infusion Pumps (3080)</b>	<b>\$5,807</b>	<b>650,384</b>
<b>112 Suction Pumps (3080)</b>	<b>\$2,518</b>	<b>282,016</b>
<b>Total</b>		<b>\$4,713,296</b>

**MEDICAL RAPID RESPONSE EQUIPMENT**

**1. Background.** ANG Medical Groups need a standardized general purpose first responder kit to render first aid in mass casualty scenarios. This capability is critical for triage, stabilization, and transportation of victims to a higher level of care. The kit needs to be lightweight, easily stored, and easily transported. A folding litter that is easily carried but can transport a non-ambulatory patient is vital. The ideal mass casualty treatment pack needs to have at least a 60-month shelf life and be able to treat a minimum of 50 patients. A treatment pack also needs to incorporate the same supplies as available in the self-aid buddy care kit. The ANG needs two Medical Rapid Response kits for each of its 89 Medical Groups.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
178 Medical Rapid Response Kits (3080)	\$2,100	\$373,800
Total		\$373,800

**OXYGEN GENERATION SYSTEM**

**1. Background.** The ANG requires a lightweight, self-contained, deployable oxygen generation system capable of producing medical-grade, 93% oxygen from ambient air at the point of use. The availability of medical oxygen in a mass casualty incident is a prime factor in saving the lives of critical patients. The ANG’s current oxygen distribution system is no longer supported by the manufacturer and replacement parts are no longer available. In addition, the use of high-pressure oxygen cylinders creates an unacceptable logistical burden associated with transportation, refill, and storage. A self-contained oxygen generation system eliminates resupply requirements. Each of the ANG’s 27 Homeland Response Force / Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Enhanced Response Force Package (CERFP) medical elements needs an oxygen generation system.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>27 Deployable Oxygen Generation Systems (3080)</b>	<b>\$72,000</b>	<b>\$1,944,000</b>
<b>Total</b>		<b>\$1,944,000</b>



**PATIENT TRACKING/TREATMENT SYSTEM**

**1. Background.** The ANG needs a portable patient, casualty, and fatality accountability system to provide timely and accurate information on the location, movement, status, and identity of equipment, supplies, casualties, human remains, and the deceased. In the event of a mass casualty incident, patient treatment at the site prior to transportation is documented on paper tags (e.g. triage tag), which are prone to data entry error and can be lost at the expense of patient care. The patient tracking/treatment system must document medical care, print reports, and provide an intuitive user interface that requires minimal training. The system needs to be able to receive information autonomously through patient monitors to avoid errors made by manual entry. The system must share information via Health Level Seven (HL7) compatible files to external systems such as a Joint Patient Assessment and Tracking System or other hospital-based electronic medical records. One accountability system is requested for each of the ANG's 27 Homeland Response Force (HRF)/Chemical, Biological, Radiological, Nuclear, and high-yield Explosives (CBRNE) Enhanced Response Force Package (CERFP) Medical Elements and 27 Fatality Search and Recovery Teams (FSRT).

**2. Program Details.**

Quantity	Unit Cost	Program Cost
27 Patient Accountability Systems (3080)	\$200,000	\$5,400,000
27 FSRT Accountability Systems (3080)	\$200,000	\$5,400,000
<b>Total</b>		<b>\$10,800,000</b>

**AIRWAY MANAGEMENT CRITICAL CARE SYSTEM**

**1. Background.** ANG Homeland Response Force (HRF)/Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Enhanced Response Force Package (CERFP) medical elements and Guardian Angel (GA) search and rescue units do not have the airway management equipment essential for treatment of critically ill patients. Current medical standards of care for airway management include use of video laryngoscopy as a primary intubation technique or as an airway rescue technique. Ventilators must be: portable; easy to use; include an internal compressor; have adapters for both adult and pediatric circuits; extended battery power; digital airway pressure displays; sensitive alarm system; airway pressure limiting; fittings for High Efficiency Particulate Air (HEPA)/Biological/Chemical filters; automatic altitude compensation; and be airworthy. Monitors must be small and lightweight, and include: a 2-lead electrocardiogram measurement and interpretation system; ability to monitor oxygen and carbon dioxide levels, and blood pressure; automatic and manual defibrillation; external cardiac pacing; an integrated information management system that can send patient information remotely; and be airworthy. Based on their various missions, ANG HRF, CERFP, and GA units need the quantities of video laryngoscopes, defibrillators, and ventilators as defined in the table below.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>54 Video Laryngoscopes (2 per HRF/CERFP) (3080)</b>	<b>\$15,000</b>	<b>\$810,000</b>
<b>10 Video Laryngoscopes (2 per GA) (3080)</b>	<b>\$15,000</b>	<b>\$150,000</b>
<b>2 Video Laryngoscopes (2 per EMEDS) (3080)</b>	<b>\$15,000</b>	<b>\$30,000</b>
<b>135 Defibrillators (5 per HRF/CERFP) (3080)</b>	<b>\$35,000</b>	<b>\$4,725,000</b>
<b>30 Defibrillators (6 per GA) (3080)</b>	<b>\$35,000</b>	<b>\$1,050,000</b>
<b>14 Defibrillators (7 per EMEDS) (3080)</b>	<b>\$35,000</b>	<b>\$490,000</b>
<b>15 Ventilators (3 per GA) (3080)</b>	<b>\$15,000</b>	<b>\$225,000</b>
<b>Total</b>		<b>\$7,480,000</b>

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# Search and Rescue



**Search and Rescue (ESF 9)** – The ANG performs search and rescue utilizing 62 Urban Search and Rescue (USAR) teams distributed across all 10 Federal Emergency Management Agency regions. All teams are organized and trained to rapidly deploy and provide an initial search and rescue capability within hours of an incident or natural disaster. These teams provide Land Search and Rescue (SAR), Maritime/Coastal/Waterborne SAR, and structural collapse USAR. SAR services include distress monitoring, incident communications, locating distressed personnel, coordination, and execution of rescue operations including extrication and/or evacuation, along with providing medical assistance and civilian services. Recent natural disasters ANG units responded to include, but are not limited to, hurricanes, earthquakes, civil unrest, chemical spills, and forest fires.

Three ANG Rescue Wings perform long-range, over-water rescue operations in the East Pacific, West Atlantic, and Gulf Coast regions. Additionally, the ANG also performs search and rescue operations in Alaska and, as the area becomes more accessible, the remote Arctic regions of North America.



# **ESF 9 - Search and Rescue**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Personal Protective Equipment for Urban Search and Rescue
- Urban Search and Rescue Kit Modernization
- Open Architecture Modular Mission Pod and Components
- Urban Search and Rescue Vehicle
- Search and Rescue Searchlight and Loudspeaker System

### ***Essential Capabilities List***

- Water Rescue Boat Kits
- Communications for Search and Rescue to Military Air Assets
- Helicopter Sling-Load Harness Kit
- Global Positioning System Tracker
- Extreme Cold Weather Personal Protective Equipment

### ***Desired Capabilities List***

- Geospatial Information Interoperability Exploitation Portable

## *Search and Rescue*

### **PERSONAL PROTECTIVE EQUIPMENT FOR URBAN SEARCH AND RESCUE**

**1. Background.** The ANG Urban Search and Rescue (USAR) and wildland teams require the correct clothing, hydration systems, and shelters to adequately perform their duties. USAR teams need Personal Protective Equipment (PPE) appropriate for the harsh conditions encountered during operations. PPE should include high-visibility clothing; water, bio-hazard, chemical, and abrasion-resistant clothing and footwear; portable decontamination equipment; and safety pads. Wildland fire rescue teams work in hot and stressful conditions, which necessitates constant hydration via a suspension system with a hydration pack. Additionally, individual wildland shelter kits are needed for wildland team members to provide protection from the elements during overnight operations. The 15 members on each of the ANG's 62 Fire and Emergency Services and USAR teams require the appropriate PPE. Additionally, these members, along with the 150 personnel in the 141st Air Refueling Wing and 194th Wing wildland teams, require suspension systems and hydration packs. Finally, the 150 personnel in the wildland teams each need wildland shelter kits.

#### **2. Program Details.**

Quantity	Unit Cost	Program Cost
930 USAR PPE Sets (3080)	\$1,500	\$1,395,000
1080 Suspension Systems and Hydration Packs (3080)	\$342	\$369,360
150 Wildland Shelter Kits (3080)	\$220	\$33,000
<b>Total</b>		<b>\$1,797,360</b>

*Search and Rescue*

**URBAN SEARCH AND RESCUE KIT MODERNIZATION**

**1. Background.** ANG Fire and Emergency Services (FES) units require modernized Urban Search and Rescue (USAR) kits to provide improved capability to perform their mission in confined environments and collapsed structures. The USAR kit needs to include the following: one low-light camera to provide the ability to search for victims in the dark; two ruggedized computers to aid in command and control; a quick reference manual on the proper procedures in critical situations for each of the 15 members of an FES unit; cutting and confined space kits to remove debris and operate effectively in tight spaces; rope rescue kits to raise and lower personnel; a drill kit for concrete drilling in rubble; and a torch kit for cutting rebar and steel. The 62 ANG FES units need one modernized USAR kit.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>62 Low-Light Camera (3080)</b>	<b>\$3,500</b>	<b>\$217,000</b>
<b>124 Ruggedized Computers (3080)</b>	<b>\$3,000</b>	<b>\$372,000</b>
<b>930 Field Operations Manuals (3080)</b>	<b>\$20</b>	<b>\$18,600</b>
<b>62 Cutting Kits (3080)</b>	<b>\$3,000</b>	<b>\$186,000</b>
<b>62 Confined Space Kits (3080)</b>	<b>\$5,000</b>	<b>\$310,000</b>
<b>62 Rope Rescue Kits (3080)</b>	<b>\$5,000</b>	<b>\$310,000</b>
<b>62 Drill Kits (3080)</b>	<b>\$4,000</b>	<b>\$248,000</b>
<b>62 Torch Kits (3080)</b>	<b>\$1,000</b>	<b>\$62,000</b>
<b>Total</b>		<b>\$1,723,600</b>

**OPEN ARCHITECTURE MODULAR MISSION POD AND COMPONENTS**

**1. Background.** The ANG requires an integrated airborne and land-based communications solution for the units supporting the Search and Rescue (SAR) mission. ANG assets lack the ability to bring civilian SAR counterparts into established military mesh networks in locations with limited to no established connectivity. For Tactical Air Control Parties and Guardian Angels (at both Guardian Angel (GA) squadrons and Special Tactics (ST) squadrons), a commercial ad-hoc mesh network would enable military personnel to connect, interact, track, and bring interoperable life-saving communication technology to individual entities involved in frontline rescue efforts. An open architecture airborne mission system will give ANG aircraft the ability to quickly reconfigure the pod with the components necessary to achieve the desired effect. These capabilities include: an ad-hoc overhead mobile network; full motion video; Very High Frequency (VHF) analog bridging; wide area multi-spectral imaging; wide area motion imaging; WiFi and cellular communications gateway; Link-16/Situation Awareness Data Link (SADL) gateway; synthetic aperture radar; aerial precision geolocation; and military-to-civilian cross-banding. Three pods for each of the ten Federal Emergency Management Agency regions are essential to provide adequate coverage for the United States. Two commercial ad-hoc network nodes and ten commercial network tablets are required for each of the 16 Air Support Operations Squadrons, three GA units, and two ST units.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
<b>30 Open-Architecture Mission Pods (3080)</b>	<b>\$2,000,000</b>	<b>\$60,000,000</b>
<b>42 Ad-Hoc Mesh Network Nodes (3080)</b>	<b>\$20,000</b>	<b>\$840,000</b>
<b>210 Commercial Network Tablets (3080)</b>	<b>\$500</b>	<b>\$105,000</b>
<b>Total</b>		<b>\$60,945,000</b>



*Search and Rescue*

**URBAN SEARCH AND RESCUE VEHICLE**

**1. Background.** Urban Search and Rescue (USAR) teams need heavy rescue vehicles to deliver specialized equipment to disaster response areas within the six hour response time identified in the ANG Search and Rescue Teams Concept of Operations. Specialized USAR vehicles will allow rescue teams to access locations by traversing flooded areas, rubble piles, and extremely rough terrain with the personnel and equipment necessary to conduct operations. Request one USAR heavy vehicle for each of the ANG's 62 Fire and Emergency Services units.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>62 USAR Vehicles (3080)</b>	<b>\$700,000</b>	<b>\$43,400,000</b>
<b>Total</b>		<b>\$43,400,000</b>

*Search and Rescue*

**SEARCH AND RESCUE SEARCHLIGHT AND LOUDSPEAKER SYSTEM**

**1. Background.** ANG Search and Rescue (SAR) HH-60G helicopters need searchlight and loudspeaker systems to enable aircrews to locate and communicate with survivors on the ground during day and night operations. Existing communication and search systems on the ANG HH-60Gs were designed to be covert, limiting aircraft exposure by decreasing light and sound while conducting operations in combat. Individual HH-60G aircrew members do not have the ability to effectively search at night with the current airframe-mounted searchlight because it lacks the agility and control authority to keep up with the aircrews' visual scanning ability. Portable search lights and power packs will provide the HH-60G aircrews an increased search capability at night. Furthermore, a hailing device and power pack will give aircrews an effective tool to communicate with people on the ground and allow aircrew greater efficiency in search and rescue operations. ANG requires two portable search lights, two power packs, and one hailing device with power pack, for each of the ANG's 18 HH-60G aircraft.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>36 Searchlights (3080)</b>	<b>\$9,500</b>	<b>\$342,000</b>
<b>36 Searchlight Battery Packs (3080)</b>	<b>\$2,050</b>	<b>\$73,800</b>
<b>18 Loud Hailing Devices (3080)</b>	<b>\$23,200</b>	<b>\$417,600</b>
<b>18 Loud Hailing Device Port. Power Packs (3080)</b>	<b>\$4,100</b>	<b>\$73,800</b>
<b>Total</b>		<b>\$907,200</b>

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# Oil and Hazardous Materials Response

**Oil and Hazardous Materials Response (ESF 10)** – ANG Emergency Management (EM), and Fire and Emergency Services (FES), and response teams are among the experts available to detect, contain, and mitigate the effects of hazardous materials and Chemical, Biological, Radiological, and Nuclear (CBRN) incidents. ANG units have responded to hazardous material incidents with increasing frequency, particularly for large scale incidents. Through the Domestic Capability Priorities conference process, EM and FES personnel identified capability gaps for detector modernization, CBRN initial response equipment, and responder rehabilitation shelters which were purchased and provided to the field. This equipment provides initial response teams the capability to accurately and safely identify and contain hazardous materials. EM and FES personnel continue to identify capability gaps which will make them more effective and increase their capability to train and respond when required.



# **ESF 10 - Oil and Hazardous Material Response 2018 Domestic Capability Priorities Conference**

## ***Critical Capabilities List***

- Multi-Layer Portable Power Bank
- Chemical, Biological, Radiological, and Nuclear Prime Mover Upgrade
- Chemical, Biological, Radiological, and Nuclear Response Trailer
- Chemical, Biological, Radiological, Nuclear, and Explosive Detection Robot
- Hazardous Material Personal Protective Equipment Modernization

## ***Essential Capabilities List***

- Automated Bioenvironmental Detection
- Down Range Live Feed Camera
- Emergency Management Lightweight Inflatable Decontamination System
- Powered Air Purifying Respirator
- Cascade Air System

## ***Desired Capabilities List***

- Chemical, Biological, Radiological, and Nuclear Detection for Base Gate
- Mercury Clean-Up Kit

**MULTI-LAYER PORTABLE POWER BANK**

**1. Background.** ANG domestic operations incident response teams require an industrial, commercial off-the-shelf, rechargeable power bank to meet specialized equipment needs. This equipment often stays in use for multiple hours or days at a time. Since the majority of this equipment does not have redundancy, it usually requires multiple battery charges during a single shift. A multi-layer portable power bank will alleviate these limitations and meet the following requirements: 1250 kilowatts capacity battery; four 110 volt plug-in ports; 8 IP66 rated universal serial bus (USB) ports; 2000 re-charges per lifecycle; 1.5hr re-charging speed; weigh under 55 pounds; and be weather and shock-resistant. ANG requires one power bank for each Emergency Management flight and each Fire Department across all 90 wings.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>152 Multi-Layer Portable Power Banks (3080)</b>	<b>\$10,500</b>	<b>\$1,890,000</b>
<b>Total</b>		<b>\$1,890,000</b>

**CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR PRIME MOVER  
UPGRADE**

**1. Background.** Emergency Management units require the ability to tow a 15,400 pound trailer. The vehicles tasked to pull Chemical, Biological, Radiological, and Nuclear (CBRN) trailers are not rated to tow the trailers. A 6.7 liter, 330 horsepower, V8 turbo diesel truck is needed to modernize and replace the currently fielded vehicles. The trucks should be four-wheel drive with 750 foot-pounds of torque, have dual rear wheels, an 8 foot truck bed, and have the ability to carry six personnel. One vehicle is requested for each of the ANG's 63 units with a 4F9WM Unit Type Code (UTC).

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>63 CBRN Prime Movers (3080)</b>	<b>\$70,000</b>	<b>\$4,410,000</b>
<b>Total</b>		<b>\$4,410,000</b>

**CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR RESPONSE  
TRAILER**

**1. Background.** ANG Emergency Management (EM) and Fire and Emergency Services (FES) require a Chemical, Biological, Radiological, Nuclear (CBRN) and Hazardous Material (HAZMAT) response trailer. EM and FES suffer from limited capability to provide an effective means to transport associated CBRN response equipment to an incident scene. The CBRN response trailer must have the capability to store equipment, space to conduct medical screening for pre- and post-entry requirements, and provide an area for Command and Control (C2) of responding personnel. Additionally, the CBRN response trailer must have outside area lighting, on-board power generation, heating ventilation and air conditioning, and capability for C2 integration to support 24-hour operations. The ANG requires one trailer for each of its 27 EM flights not tasked with the 4F9WM Unit Type Code (UTC).

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>27 CBRN Response Trailers (3080)</b>	<b>\$70,000</b>	<b>\$1,890,000</b>
<b>Total</b>		<b>\$1,890,000</b>



**CHEMICAL, BIOLOGICAL, RADIOLOGICAL, NUCLEAR, AND EXPLOSIVE  
DETECTION ROBOT**

**1. Background.** Emergency Management Flights require the capability to remotely monitor and detect Hazardous Material (HAZMAT) and Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE). A lightweight, man-portable robot capable of operating in confined spaces such as laboratories, culverts, ditches, sewers, attics, crawl spaces, and rooftops would enable the rapid survey and analysis of HAZMAT/CBRNE sites while mitigating risk and minimizing the exposure of first responders. The robot should be capable of attaching existing detectors and sensors, and have the ability to transmit data to first responders. ANG requires one robot for each of its 63 4F9WM Unit Type Code (UTC)-tasked units.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>63 Lightweight CBRNE Response Robot (3080)</b>	<b>\$180,000</b>	<b>\$11,340,000</b>
<b>Total</b>		<b>\$11,340,000</b>

**HAZARDOUS MATERIALS PERSONAL PROTECTIVE EQUIPMENT  
MODERNIZATION**

**1. Background.** ANG Fire and Emergency Services (FES) Flights need modernized Hazardous Materials (HAZMAT) Personal Protective Equipment (PPE). Their current equipment is reaching the manufacturers' recommended shelf life and cannot be used after expiration, preventing safe and effective HAZMAT response. Encapsulating Level A (highest level of protection) and Level B (reduced level) suits provide vital lifesaving detection and mitigation capabilities. HAZMAT responder safety and effectiveness will be increased with the procurement of National Fire Protection Association (NFPA) 1991 2016 Edition Certified Level A (with flash protection) and Level B encapsulating suits. The ANG requires 15 Level A and 15 Level B suits for each of its 63 FES units.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>945 Level A with Flash Protection (3080)</b>	<b>\$2,200</b>	<b>\$2,079,000</b>
<b>945 Level B (3080)</b>	<b>\$500</b>	<b>\$472,500</b>
<b>Total</b>		<b>\$2,551,500</b>

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# Public Safety and Security

**Public Safety and Security (ESF 13)** – ANG security forces comprise over 7,400 defenders from the 54 state, territories and District of Columbia. ANG security forces units work in cooperation with local, state and federal public safety and security organizations to support a full range of incident management activities. Security forces provide law enforcement operations, access control operations, presence patrols, and protection of personnel and equipment.



ANG security forces units are equipped with “less-than-lethal” use of force options, explosive detection equipment, and traffic control/crowd management equipment. This equipment is used to support local, state and federal authorities during events like natural disasters, civil unrest, as well as major high visibility crowd control events.



# **ESF 13 - Public Safety**

## **2018 Domestic Capability Priorities Conference**

### ***Critical Capabilities List***

- Security Forces Vehicles
- Scalable Emergency Vehicle Response Kit
- Security Forces Interoperable Radios
- Security Forces TASER Modernization
- Security Forces Utility Task Vehicle

### ***Essential Capabilities List***

- Robotic Camera
- Law Enforcement Ensemble Kit
- Less-Than-Lethal Trailer
- Personnel Tracking
- Crowd Control Person Protective Equipment

### ***Desired Capabilities List***

- Mobile Entry Control Point
- Less-Than-Lethal Modernization Kit
- Counter Small Unmanned Aerial Vehicle
- Communication Dish
- Radio Repeater
- High Resolution Thermal Viewer
- Advanced Mobile Operations / Sleep Trailer
- Small Unmanned Aerial Vehicle

**SECURITY FORCES VEHICLES**

**1. Background.** ANG Security Forces (SF) assigned vehicles are in critical need of modernization or replacement. New vehicles need to include a law enforcement package designed for patrol, response, and transporting equipment to ensure units are capable of responding to incidents. This will provide a standardized vehicle fleet, in accordance with Headquarters Air Force (HAF)/A4S Joint Service Law Enforcement Vehicle Standardization document dated 21 July 2015. Each of the ANG's 74 stand-alone SF squadrons will receive between one and three vehicles depending upon unit mission for a total of 439 vehicles.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>439 Mid-Sized Vehicles (3080)</b>	<b>\$50,000</b>	<b>\$21,950,000</b>
<b>Total</b>		<b>\$21,950,000</b>

**SCALABLE EMERGENCY VEHICLE RESPONSE KIT**

**1. Background.** When ANG Security Forces (SF) surge to full capability, more vehicles are required than are routinely assigned to the squadrons. SF units acquire these additional vehicles through their parent wing’s vehicle fleet management office, rental vehicles, or other military vehicles. These vehicles need temporary equipment modifications to include: emergency lighting; high visibility markings; tactical equipment racks and mounts; acoustic hailing device for mass notification and crowd dispersal; basic first aid kit; and traffic warning / traffic control kits. This equipment is removed from the vehicle once the mission has been completed and is subsequently reused when required. Each of the 74 stand-alone ANG SF squadrons need to be equipped with three kits, equating to 222 kits, and each of the 22 tenant ANG SF units need to receive five kits, equating to an additional 110 kits, for a total of 332 kits.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>332 Emergency Response Kits (3080)</b>	<b>\$6,000</b>	<b>\$1,992,000</b>
<b>Total</b>		<b>\$1,992,000</b>

**SECURITY FORCES INTEROPERABLE RADIOS**

**1. Background.** ANG Security Forces (SF) are currently unable to effectively communicate with civilian law enforcement agencies using their organically-owned radio assets. SF radios must be able to operate on all civil networks (Ultra High Frequency (UHF)/Very High Frequency (VHF)/700 megahertz (MHz)/800 MHz) and be compliant with Association of Public-Safety Communications Officials-International’s Project 25 requirements in both line-of-sight and trunked modes. Modernized radios will allow communications on common military and civilian VHF/UHF, amplitude modulation (AM)/frequency modulation (FM) civil bands and grant automatic, instant connectivity among personnel entering the operational area. Each of the ANG’s 186 Security Forces Less-than-Lethal Kit (QFLLL) Unit Type Codes (UTC) needs one portable base station radio set and be able to equip 13 SF personnel with one handheld radio set each. Each of the ANG’s 74 standalone Base Defense Operations Centers needs one console radio set plus 28 Operations Handheld Radio Sets for SF personnel. All 439 SF vehicles must be equipped with a mobile radio set as well.

**2. Program Details.**

Quantity	Unit Cost	Program Cost
2,418 Less-Than-Lethal Kit Handheld Radio Sets (3080)	\$6,500	\$15,717,000
186 Less-Than-Lethal Kit Portable Base Station Radio Sets (3080)	\$6,500	\$1,209,000
2,072 Flight Operations Handheld Radio Sets (3080)	\$6,500	\$13,468,000
74 Base Defense Operations Center Console Radio Sets (3080)	\$6,500	\$481,000
439 Mobile Radio Sets (3080)	\$6,500	\$2,853,500
<b>Total</b>		<b>\$33,728,500</b>



**SECURITY FORCES TASER MODERNIZATION**

**1. Background.** ANG Security Forces (SF) require replacement of the TASER X26E because it will no longer be supported by the manufacturer. The replacement X26P TASERs, cartridges, and batteries will support both Federal and Domestic Operations home station missions. The TASER Training Kit includes training cartridges, live cartridges, targets, downloading cables, software and an extended warranty. Each of the ANG's 186 Security Forces Less-than-Lethal Kit (QFLLL) Unit Type Codes (UTC) requires 13 X26P TASERs and one training kit.

**2. Program Details.**

<b>Quantity</b>	<b>Unit Cost</b>	<b>Program Cost</b>
<b>2,418 X26P TASERs (3080)</b>	<b>\$1,200</b>	<b>\$2,901,600</b>
<b>186 TASER Training Kits (3080)</b>	<b>\$1,000</b>	<b>\$186,000</b>
<b>Total</b>		<b>\$3,087,600</b>

## SECURITY FORCES UTILITY TASKED VEHICLE

**1. Background.** ANG Security Forces (SF) require a diesel powered, fully contained, crew sized Utility Task Vehicle (UTV) with a Light Emitting Diode (LED) light bar, SF markings, and winch to provide SF Defenders with a rapid mobile response vehicle capable of transporting up to six personnel and their equipment in austere environments. This vehicle will transport defenders during natural disasters or other Defense Support to Civil Authorities (DSCA) missions when a full size vehicle cannot access austere terrain. Each of the 186 ANG SF squad teams needs to be equipped with one fully packaged UTV.

### 2. Program Details.

Quantity	Unit Cost	Program Cost
186 Utility Task Vehicle (3080)	\$24,000	\$4,464,000
Total		\$4,464,000

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