



Heart of TN. A. R. E. S.



Heart of Tennessee
Amateur Radio Emergency Service®

Logistics
LOG 3-2

Logistics GO KITS/JUMP KITS

1. Introduction

Providing communications during disasters and emergencies is what the Amateur Radio Emergency Service® is about. Providing communications requires more than just a radio. There are many items that comprise a communications package. This document defines requirements for various components of a communications package. Ideally, all components will be contained within a Response Team's capabilities. These are commonly referred to as Go Kits, Ready Bags or Jump Kits. Additional kits will be identified that would be helpful in a major emergency.

2. Responsibilities

Each member is responsible for ensuring they are prepared to respond with equipment as outlined in this document. The particular operating capabilities will vary depending on the class of license and interest, however, within a Response Team, all components should be available to maximize the response capabilities.

The Assistant Emergency Coordinator (AEC) for Response Teams and Response Team Leaders are responsible for ensuring the individual Response Teams are appropriately equipped to respond to particular needs to meet the Served Agency's requirements.

The Logistics Coordinator is responsible for deploying Response Teams equipped as required to meet Served Agency's locations requirements.

"Serving the Community and Our Fellow Citizens through Amateur Radio Communications"



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3. Related Publications

TS 1-1 DC Power Connector

4. Definition of Terms

AEC Assistant Emergency Coordinator

ARES® Amateur Radio Emergency Service® (ARES® and Amateur Radio Emergency Service® are registered service marks of the American Radio Relay League.)

EOC Emergency Operations Center

NVIS Near Vertical Incidence Skywave

RT Response Team

RTL Response Team Leader

5. Guideline

There are multiple operating capabilities and therefore, multiple GO KIT configurations. Members should be equipped with one or more GO KIT capabilities. All 12-volt, DC powered equipment should connect to its power source using Anderson Powerpole connectors as described in TS 1-1. The following sections define requirements for GO KITs:

5.1. GO KIT Contents

5.1.1. General Requirements

The following items are required for inclusion in every individual's GO KIT:



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- Copy of Standard Operating Guidelines (SOGs) and Operation Plans (OPLANs)
- Heart of TN.ARES® ID
- Amateur Radio license
- Driver's license
- Emergency cash
- Map(s) of area (street/topographic)
- Note pads
- Pencils
- Flashlight w/extra batteries
- Headphones/ear bud
- ARES® Field Resources Manual (with information completed)
- ARRL Message forms or facsimile
- Watch
- Spare glasses (contact solution if you wear contacts)
- Blaze-orange vest
- Whistle
- Immediate Damage Assessment forms (OPLAN 200-2)
- Copies of equipment manuals
- Small tool kit (pocket knife, screw driver(s), pliers, Leatherman pocket tool, electrical tape, duct tape, spare fuses, etc.)
- Water for 72 hours
- High-energy snacks/food, condiments for 72 hours
- Change of clothes
- Rain gear
- Sunscreen
- Individual first aid kit with 3-day supply of personal medications
- Bug repellent
- Personal hygiene items
- For cold weather
 - Warm clothing & boots
 - Gloves
 - Wool blanket

5.1.2. Shadow-Initial Responder Kit

Various served agency personnel as well as others may require someone to be available to provide communications while functioning during a disaster or other event. This concept is known as shadowing and each team should include at least one individual capable of providing this service. In addition, this kit is suitable for initial response to other communications needs. The



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following items should be in a Shadow-Initial Responder's communications kit:

- Handheld 2m and/or 70 cm (depending on net requirements) with Alkaline battery pack
- Quarter wave or greater gain antenna ("Rubber Duck" not acceptable)
- Extra batteries for radio
- Magnet mount antenna
- 25' coax cable with connectors
- BNC adapter for handheld to mag mount
- Barrel connector to mate mag mount to coax cable
- Speaker mike
- Cigarette lighter cord
- Cigarette lighter to car battery adapter
- Lead acid battery, gel cell or other emergency power source (17 amp hour or larger)
- Trickle charger or other charger for emergency power source
- Charger for handheld batteries
- Boots with protective toes
- Backpack or other means to carry supplies while shadowing
- Compass and/or GPS unit

5.1.3. Mobile VHF/UHF Kit

Mobile operations are critical to certain missions and can also serve as immediate support when arriving on site. A mobile VHF/UHF station should have the following communications package:

- Mobile 2m and/or 70 cm (depending on net requirements), capable of 25 W or greater
- Gain antenna
- Compass and/or GPS unit

5.1.4. Mobile HF Kit



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There will be instances when VHF/UHF operations may not provide the communications required to support the served agency and HF will be required. Typical HF operations will be over relatively short distances for typical HF communications and will require operation on the lower HF frequencies. A whip antenna may prove unacceptable due to the low radiation angle of such antennas. The short distances will require Near Vertical Incidence Skywave (NVIS) operation which may be achieved by bending the antenna in a more horizontal position. A mobile HF station should have the following communications package:

- Mobile HF radio capable of operation on 80 and 40 meter bands
- Mobile antenna capable of operation on 80 and 40 meter bands
- Means of placing the antenna in an angled or horizontal position
- Compass and/or GPS unit

5.1.5. Portable VHF/UHF Kit

Many locations to which a person may respond will require more power than available from a handheld radio. For long-term operation, additional power and a better antenna system are needed. The following communications package makes up the portable VHF/UHF kit:

- Mobile 2m and/or 70 cm (depending on net requirements) configured for fixed- station operation
- AC power supply capable of supporting radio
- Back-up battery supply with minimum 34 amp-hour rating or more
- Trickle charger or other charger for emergency power source
- Antenna for outdoor installation including mast and other items needed for temporary installation
- 100' coaxial cable and connectors/adapters to extend antenna from radio
- Caution/flagging tape to mark antenna and other hazards



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- 25' power extension cord(s), bulb(s)
distribution, and lamp(s) with spare

5.1.6. Portable HF Kit

For situations requiring HF capabilities, the following portable communications package is required:

- Mobile HF radio capable of operation on 80 and 40 meter bands with mic and CW key
- Near Vertical Incidence Skywave (NVIS) antenna capable of operation on 80 and 40 meter bands
- Multi-band dipole (80 and 40 meters), i.e. G5RV
- 100' coaxial cable and connectors/adapters (and control cable for antenna tuner if required) to extend antenna from radio
- Antenna tuner
- Caution/flagging tape to mark antenna and other hazards
- AC power supply capable of supporting radio
- Back-up battery supply with minimum 75 amp-hour rating or more
- Trickle charger or other charger for emergency power source
- Ground rod(s) and ground wire
- 25' power extension cord(s) and distribution
- 110 V desk lamp

5.1.7. Packet Kit

With the need for more secure means of communications, packet radio can play an important role in providing emergency communications. The following communications components make up the packet kit:

- Packet station capable of operating on assigned VHF and/or UHF frequencies, including computer, radio interface, and standard terminal software package
- Printer, printer paper, connecting and
- Emergency power source for computer, terminal node controller and radio interface, as required
- All components listed for portable



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VHF/UHF Kit
power cables (optional)

5.1.8. Response Team Support Kit

Additional resources may be required for various locations to which response teams may respond. Each response team should also have the following items available:

- Table for equipment and operation
- Chairs for personnel
- File sorters
- Binders with tabs
- Sticky-finger
- Generator
- 100' heavy duty extension cords
- Power distribution/strips
- Ground rod for generator
- FRS Radio(s)
- Additional antennas – HF, directional
- VHF/UHF with support masts
- Low-loss feed line for additional antennas
- Extended tool kit (volt-ohm meter, socket set, rope, extra guy stakes, hammer, tie wraps, etc.)
- Means of extracting ground rods
- Battery with cigarette lighter outlet
- Fire Extinguisher • Multi-outlet cigarette lighter adapter

5.1.9. Desirable Kit Items

In addition, there are other items that are “nice to have”. Some individuals may consider some of these items “necessary”. This list is not exhaustive, but is provided as a guide and to initiate brainstorming of other items you may want to include in a more exhaustive GO KIT.

5.1.9.1. Individual GO KIT

- Cell phone & accessories including, batteries, charger, cigarette lighter plug, hands-free kit
- Sleeping bag
- Cot
- Small pillow
- Sleeping tent
- Wash cloth, towel, bath soap

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- Cheap paint drop cloth
- Emergency poncho
- Back pack
- Fanny pack
- Radio Pouch
- Water bottle
- Cooler for food/water
- Waterless hand cleaner
- Dust mask
- Hard hat
- Extra bulb for flash light
- Roll of toilet paper
- Multi-tool
- Hat
- Moist towelette packets
- Scanner
- Weather radio
- Role-up TV twin-lead J-pole
- Hazmat Pocket Guide
- Phone Books
- Clip Board
- Post its
- Return address labels
- Disposable Camera
- Video Camera
- Heavy boots
- Pocketed vest (camera vest)
- 3 Trash bags
- Zip Loc Bags
- Cup
- Survival Blanket (Space Blanket)
- Storage container for supplies
- Binoculars
- Broadcast radio/battery operated TV
- Umbrella
- Spare shoelaces
- Earplugs

5.1.9.2. Response Team GO KIT

- Desk set telephone (pulse & tone capable)
- Dual outlet phone jack
- 100' of Phone Wire with RJ-11 plugs
- RJ-11 phone jack with alligator clips
- Tent to house operation

5.1.9.3. Logistics Team GO KIT

- Portable antenna
- Collapsible mast
- Status board with markers
- 50 Feet of Phone Wire with standard plug ins
- Phone Box with Alligator Clips



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5.1.9.4. Tool Kit

- Fresh roll of electrical tape
- 15' of red and black 12 gauge wire
- Anderson Powerpole connectors
- Crescent wrench
- Hammer
- Wire cutters
- Wire strippers
- Tire patch kit
- Spare Tire
- Hack Saw
- Bolt Cutters
- Screw drivers small philips, medium philips, large philips
- Screw drivers small regular, medium regular, large regular
- 12/120v soldering iron
- Solder
- Multi-meter
- Safety glasses/goggles
- Nut Driver set
- Folding set of Allen/Torx wrenches
- Vehicle tow strap
- 10w30 oil for generator
- Work gloves
- Jumper cables
- Shovel
- Highway flares
- SWR meter
- SMA – BNC
- Alligator clips and wire
- Lighter
- Heat shrink tubing
- Misc. electrical connectors and crimpier
- Nylon string
- Guy rope
- 100' tape measure
- Special adapters for any radios
- Tool container
- Fence pliers
- Three-wire to two-wire AC adapter
- Three-wire outlet tester
- Zip cord
- Antenna insulators
- Mast sections, preferably nonconductive
- Tent pegs for guys
- Lead weight and 50' of light line for tossing over tree branches

5.1.9.5. First Aid Kit



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- Assorted band-aids
- Gauze pads
- ACE bandage
- Moleskin
- Folding scissors
- Tweezers
- Needle
- Forehead thermometer
- Antiseptic wipes
- Anti-bacterial cream
- Tylenol pills
- Imodium pills
- Benadryl pills
- Bee sting pain relief capsule
- Eye-contact lens rewetting drops
- Eyeglass repair
- Lip balm
- Tampons (they also soak up blood from wounds)
- Personal prescription medications
- Latex Gloves
- Insect Repellant
- Sun Screen
- Antacid
- Kleenex
- Medic Shears
- Aspirin

5.2. References

Multiple sources as well as experience have been used in developing these lists. A list of source materials includes:

- ARRL Emergency Communications Level 1 course.

6. Release Information

Keith Miller N9DGK, Emergency Coordinator, is the author of this document. The date of publication for this document is March 07, 2008, and is the initial release.

The Planning Committee is responsible for managing the contents of this document.