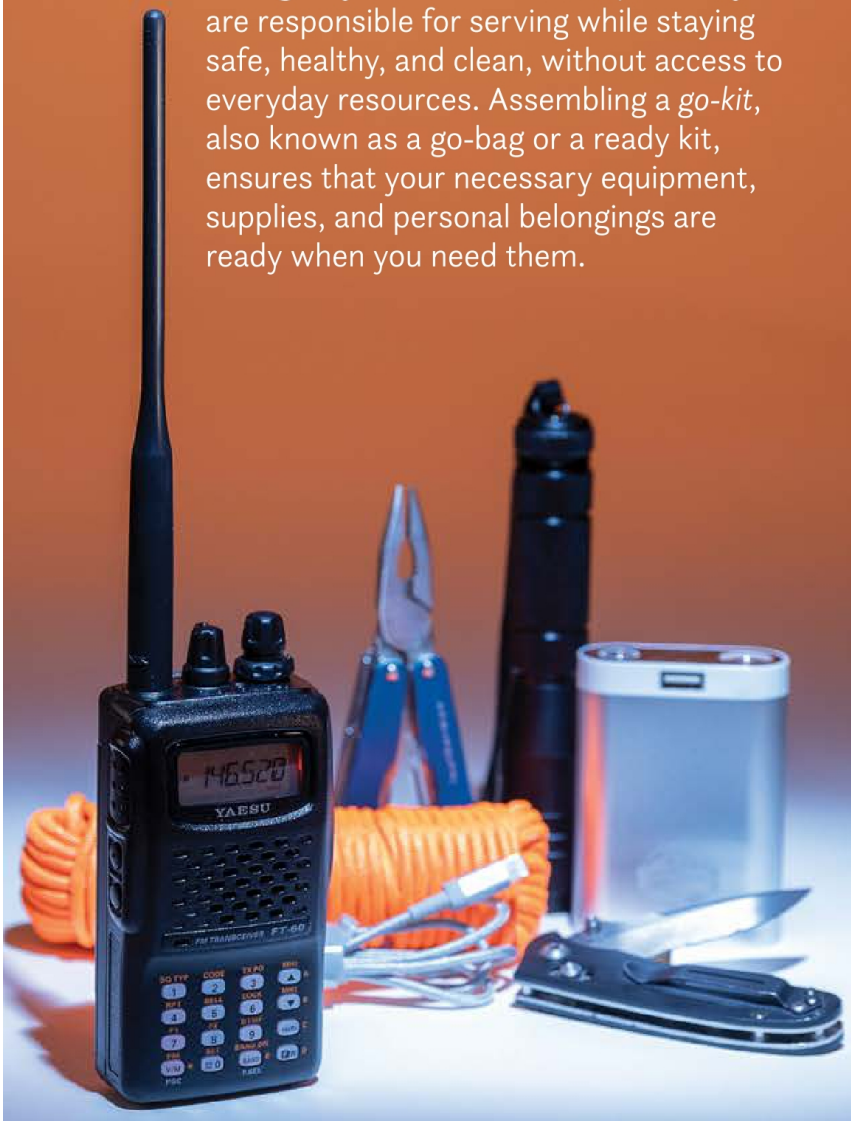
Go-Kit Basics

Preparing an efficient go-kit ensures you are ready when a deployment call comes.

Caroline Kenney

For emergency communications operators, being prepared for a deployment involves a wide range of considerations. In the event of an emergency, a disaster, a public service deployment, or a power outage, as an emergency communications operator, you are responsible for serving while staying safe, healthy, and clean, without access to everyday resources. Assembling a *go-kit*, also known as a go-bag or a ready kit, ensures that your necessary equipment, supplies, and personal belongings are ready when you need them.



Make it Modular

It's important to have a go-kit that allows for responses to many types of incidents or events. In his 2011 presentation "Personal Go-Kit for Emergency Communications," Dan O'Connor, KE7HLR, explained that the best go-kits use a modular concept. Dan said, "Ideally, you should divide your go-kit into small, easily transportable modules, based on expected type of assignment, length of assignment, and storage location."

These modules should be tailored to your needs, with consideration of radio equipment, power sources, clothing, personal gear, food, and water. Each supplemental module should, as Dan said, "extend your capabilities and endurance." The modular system helps reach a balance between being applicable to any response, while remaining lightweight and easy to maneuver. Additionally, it allows you to update modules one at a time based on type of deployment.

Short-term Go-kits

A basic go-kit for short-term deployments should not be more than 10 pounds, and it should contain items needed for a short-duration mobile or foot assignment. One handheld radio that you are familiar with, a spare battery, coax connectors, cables, a headset mic, and a charging system may be enough, along with a water bottle and snacks. You can also break down basic go-kits into more specific types. For instance, a basic HF go-kit should contain a 100 W HF transceiver, a tuner, an antenna, a microphone, and a power supply. A VHF/UHF go-kit should include a dual-band mobile transceiver, power supply, headset, handheld transceivers, and a supply of alkaline batteries. A digital go-kit should include a communication speaker, automatic antenna tuner, an interface, sound card, interface cables, a power supply, and dc outlet panels.

Any short-term deployment go-kit can be stored in your vehicle for immediate access, and contained in a waist pack, a backpack, or a small duffel bag. Depending on the location of the assignment, hands-free options for go-kits can be useful. For example, while operating at a race or a parade, you may not have a safe place leave your belongings. In those cases, a small backpack would probably be the best option for your go-kit, preferably one with several pockets and a place for water.

This go-kit includes an Icom 880H D-STAR radio, as well as the appropriate power and accessories to keep the radio operating at full performance. [Michael Fontana, N1RFD, photo]

Long-Term Go-Kits

The essentials for a 24 – 72 hour go-kit are a 2-meter or dual-band radio, a gain antenna, an auxiliary power source, writing materials, and comfort and safety items. This should allow for continuous operation for several hours, and added modules for overnight safety and comfort will help sustain you for several days.

The gain antenna module of your long-term go-kit should include a compact J-pole for VHF and UHF operating, which can be built from TV twinlead. Additionally, you'll want to include over 50 feet of coax, and barrel connectors to put it together.

According to the *ARES Field Resources Manual*, it's important to have more power than you think you'll need. A 72-hour go-kit should have several methods of connecting equipment to numerous power sources, including extra battery packs, an alkaline battery pack, and gel-cell or deep-cycle marine batteries. Buying or building a solar charging device is also a good idea, and try to get access to a power generator that can be used in place of the normal electrical lines.

For the comfort and safety module of your extended-deployment go-kit, make sure to include water, enough food for 3 days, eating utensils, a steel cup, a battery-powered light source or a lantern that uses propane, and a blanket. For food, meals ready to eat (MREs) are a great source of nutrition, and unlike freeze-dried foods, they do not require water for reconstitution.

These go-kits can be stowed in a rugged, waterproof Pelican container, or a heavy-duty duffel bag with a shoulder strap.

Test Your Go-Kit

The contents of your go-kit may need adjustments based on weather, season, and type of deployment. The go-kit provides a foundation for packing for a deployment, but before you leave, you should also assess the particular exercise or deployment to make the best decisions regarding gear and welfare equipment.

As an emergency communications operator, you are responsible for your own capabilities, comfort, and safety. In order to ensure you have everything you'll need to perform your duties, it is vital that you pack a go-kit and field test your power sources and antenna regularly. In order to be of assistance in an emergency situation, the first step is preparing yourself.

Caroline Kenney is Assistant Editor of QST *magazine.*

Go-Kit Must-Haves from Experienced Hams

Joe Carcia, NJ1Q: I use a large laptop bag to transport my gear. Here's some of what I carry.

- Switching power supply
- Headset with adapters and footswitch
- CW paddle
- Automatic antenna tuner
- Wire for 40-meter dipole antenna
- 30' RG-58 coax with UHF connectors
- 30' 300-ohm ladder line
- Homebrewed CW/audio interface (for CW and digital modes)
- 2-port USB-to-serial adapter
- Wire pigtails/jumpers for equipment
- 2 jumper wires (with small alligator clips)

Bob Allison, WB1GCM: Include a checklist with the go-kit to make sure all items are accounted for after each operating session. Check off the item before placing it back in the kit. Of course, no go-kit is complete without a copy of *The ARRL Repeater Directory*!

John Bloodgood, KDØSFY: My EDC (Every Day Carry) kit is designed around operating with a handheld or the mobile in my vehicle. It's small and light, fitting easily in a small sling bag. It contains many of the items on the checklist at right, as well as the following:

- Jump/boost battery for phone
- Manual for my radio
- Copy of the *National Interoperability Field Operations Guide* (NIFOG) or *Auxiliary Communications Field Operations Guide* (AUXFOG)

Extended Deployment (72-hour) Equipment Checklist

Basic Gear Module

- ☐ Additional radios, packet gear
- ☐ Power supplies, chargers, batteries
- ☐ Microphones
- ☐ Headphones
- ☐ Patch cords
- ☐ Antennas with mounts
- ☐ Extra coax
- ☐ RF connectors and adapters
- ☐ Power, audio, and other connectors and adapters

Tools and Accessories Module

- ☐ Toolbox
- ☐ Soldering iron and solder
- ☐ Volt ohm meter
- ☐ SWR bridge (VHF and HF)
- ☐ Electrical and duct tape
- ☐ Safety glasses
- ☐ Logbooks
- ☐ Message forms
- ☐ Pens and pencils

Comfort and Safety Module

- ☐ 3-day change of clothes
- ☐ Foul weather gear
- ☐ Toilet articles
- ☐ Shelter (tent and sleeping bag)
- ☐ Portable stove; mess kit with cleaning kit
- ☐ Waterproof matches
- ☐ Flashlight
- ☐ Candles
- ☐ Alarm clock
- ☐ 3-day supply of water and food
- ☐ Snacks
- ☐ Liquid refreshments
- ☐ First aid kit
- ☐ Throat lozenges
- ☐ Prescriptions
- ☐ Aspirin or other pain reliever