

Basic Ham Radio Go-Kit

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What's a Go-Kit?

- A ham radio station you can take to the field
- Includes
 - Radio equipment
 - Personal gear
 - Food and water
- Can be pre-assembled but could be easily assembled based on a check-list
- **Always** have a check-list

Radio Equipment – Basic FM Voice

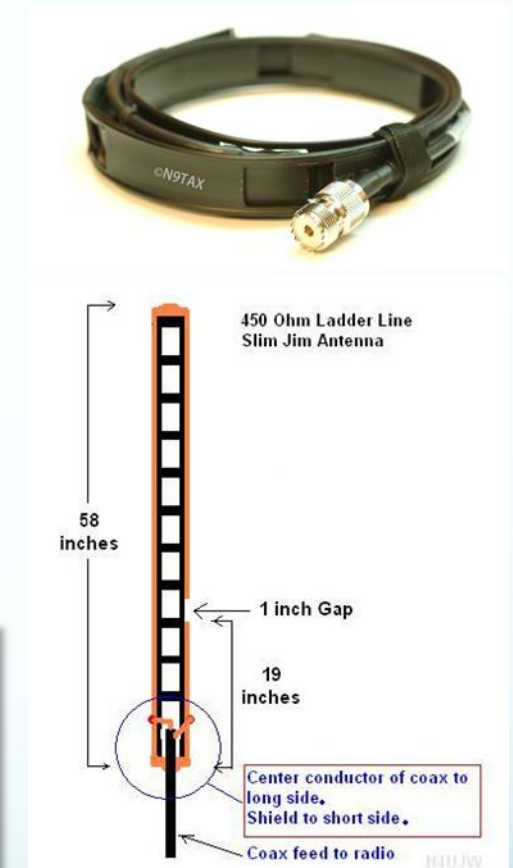
- Dual-band 2M/70CM HT (mono band ok but limits capabilities)
- Extended range antenna, i.e. 15” - 19” whip
- Backup battery and/or alkaline battery pack option
- Car and Wall Charger for HT
- Headset especially in noisy environments
- Radio manual or cheat sheet – I keep my manuals on my smartphone
- Pre-program radio for commonly used local frequencies

Selecting a Handheld Radio

- Dual Band 2M/70CM
 - One band at a time reception ok
 - Two band at a time reception better for monitoring multiple frequencies
- Can be charged from multiple sources not just charging cradle
 - Allows operation and charging from 12v battery or car 12v outlet
- Easily adjustable volume and squelch controls
- Ability to lock keyboard and frequency controls

Increasing the Range of Your HT

- Add a Rat tail aka Tiger tail to your HT consisting of a 19" length of wire and an alligator clip or ring connector to attach to radio antenna outer shield
- Hang a roll-up J-Pole in a tree
- Use magnetic mount antenna on vehicle
- Use an external antenna like a mobile dual band on a pole 38" Half-wave 2M/70CM antenna requires no ground plane for good SWR
 - This also extends mobile radio range
- Use SMA/BNC to SO-239 adapter to connect HT to coax



Radio Equipment – High Power FM Voice

- Dual Band 2M/70CM Mobile Radio
- Magnetic Mount Antenna or mobile mounted antenna
- Power supply
 - Lightweight switching power supply in case AC available
 - Deep Cycle Battery – Lead Acid, Gel Cell, Lithium
- External speaker
- Radio manual or cheat sheet
- Pre-program radio for commonly used local frequencies

Selecting a Mobile Radio

- Dual Band 2M/70CM
 - One band at a time reception ok
 - Two band at a time reception better for monitoring multiple frequencies
- Cross-band repeater capability very useful
- Ability to connect to soundcard or packet TNC for digital modes

Other High-Power Go-Kit Accessories

- Pole mounted dual band antenna for extending range
- Tripod or drive-on mount for pole
- Coax
- Fused power distribution block
- Headset

Radio Equipment – FM Digital/Packet

High Power FM Voice Kit plus

- Laptop computer with fldigi and RMS Express
 - Consider backup power for laptop like extra battery or 12v power supply
- Soundcard
 - built in to computer or external like Tigertronics Signalink
- Radio to soundcard interface

Operating Accessories

- A notebook or clipboard
- Pens and pencils
- Copies of ICS forms like ICS-214, ICS-309 and ICS-213 and ham radio license
- ICARES Frequency List (ICS217)
- GPS and/or compass
- Maps of the area
- Headlamp for operating in the dark
- Clock or watch
- Cell phone with ICARES and County contacts



Tools

- Rope or String
- Electrical Tape, Rescue Tape, Duct Tape
- Extra power supply wire and connectors
- Fuses
- Spare coax in multiple lengths with barrel connectors
- Swiss Army Knife and/or Multi-Tool
- Crimping Tool, Side Cutter, Adjustable Wrench, etc.
- DVM
- Antenna Analyzer/SWR Meter



Personal Gear

- Clothing as appropriate for weather
- Bright Yellow or Orange Safety Vest – Surveyor Vests have lots of pockets for radios, spare batteries, granola bars, water bottle, etc
- Food and water for at least 24 hours – 72 hours is better
- Medications, glasses, etc.
- Cash for incidentals; credit cards won't work if power is out
- Hand sanitizer, tissues, and mountain money (toilet tissue)
- First Aid Kit
- Flashlight with extra batteries
- FEMA Go-Kit covers personal safety and survival gear for 72 hours (<https://www.ready.gov/build-a-kit>)

Be Ready to Go

- Store equipment in easily carried containers, i.e. backpack, duffel bag, toolbox, etc
- I keep my radios on chargers and pack at the last minute
- Rotate the water and food so it doesn't go bad
- Keep spare batteries charged
- Check the **Check-list** before leaving because when you hurry you will forget something
- Then check the Check-list again 😊

Sample Checklist - 2 HOUR CARRY KIT

- Programmed 2m/70m HT w/spare batteries
- Earbuds/mic or speaker/mic
- Radio user cheat sheet
- 2m/70m mobile antenna (mag/win mount)
- Licenses/ Maps/ Forms
- Logging/note taking equipment
- ICARES freq. list – ICS 217
- Cell Phone w/County telephone list
- Safety gear/vest/first aid kit/gloves/safety glasses
- Water - 32 oz

Sample Checklist - 12 HOUR GO KIT

2 Hour Carry Kit plus

- Batteries for 12 hours (3000mAh)
- Power adapters: Powerpoles/ lighter adapter/terminal adapters
- Coax adapters (HT to coax) 25 feet coax
- Mobile/stationary radio HF/VHF/UHF
- Fused distro panel/fuses/extension cord, multi outlet cord
- Antennas/ vertical/ j-pole/ wire
- Mast and supporting base
- Laptop with USB flash drive
- Software or hardware TNC for packet
- Tools (multitool knife)/tape/SWR&VOM meters
- Seat/table/canopy/tarp
- Safety cones/tape/sticks
- Vehicle w/jumper cables
- Money (cash) / credit cards/trash bags
- 64 oz water/cooler or ice chest
- Food for 12 hours
- Personal items/Soap/TP/Prescriptions/Tylenol/Eyeglasses
- Flashlight/AM radio/binoculars/fire extinguisher/camera

Sample Checklist - EXTENDED GO KIT

(24 hours plus)

12 Hour Carry Kit plus

- DC regulated supply/Inverter/generator
- Extra clothes for climate
- MRE's or other meals
- 1 gal/day of water

Questions?

