

“Go Kit”

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A “Go Kit” is a list of items that amateur radio operators will need to have mostly packed with a few items that can be placed in the kit near the time of departure when there is a communications emergency or disaster.

This kit needs to be assembled on the basis of location and the most likely challenges of their area. Items should be included that will allow responding to the unexpected and to assist with neighboring jurisdictions. It is with this in mind, that I have built this list for the Western area of Virginia. This is an area that encompasses mountains nearly 1 mile above sea level and deep valleys that are less than 800 feet above sea level.

The topography of our area is one of the most challenging in the Commonwealth of Virginia and perhaps in the eastern United States. In the western part of Grayson County we have peaks over one mile above sea level. This includes mountains such as Whitetop and Mount Roger with an elevation of about 5540 and 5720 respectively. On the other end of the spectrum we have areas near Martinsville, in Henry County that drops to an elevation of less than 800 feet above sea level. This is a difference of nearly 5000 feet and is a real challenge to normal communications and a greater challenge to providing communications in times of disaster or communications emergencies. This difference in elevation and terrain also contributes to vast differences in weather with precipitation often falling as rain in one area and a blizzard with “Whiteout” conditions occurring in the “Virginia Smokies”.

The selection of clothing, supplies and equipment need to take all these factors into consideration. If a “call –up” occurs in the winter and you are being dispatched to the Grayson Highlands area, you need to take clothing, vehicles, (you may need 4 wheel drive in many areas) and Ham gear that allows you to operate in this harsh environment effectively and safely.

Many “Go Kit” lists rely heavily on the use of handie talkies and supplementing these with gain antennas. This works well when you are located in a metropolitan area with repeaters located in tall buildings with antennas on rooftop towers. These antennas are often 200 or 300 feet above average terrain and are spaced where the Hams would not be over 5 miles from a repeater. In our area we would normally be located as much as 20 or 30 miles from a repeater that is located on a mountain top at 3600 to 4000 feet above sea level and we may have a number of smaller hills “shading” us from a line-of-sight view of the repeater. In these situations we need to lean more toward the rig with 25 watts or more of power

output and a good antenna systems. With H.T.'s we can often hear a repeater "full quitting but our signal into the repeater is going to be noisy or broken up at best. Handie-talkies are designed for about 20% duty cycle on transmit and do not have a heat sink system that would allow one to serve as net control during a time of heavy traffic. They are ideal for talking within a building to form a needed link from one part of the building to another. They are also good for monitoring when you need to be away for a few minutes from your larger rig. They also work well when you are outside and within a reasonable distance from a repeater.

To have an even balance with most area two-meter repeaters you need 50 to 75 watts of output power with an antenna that has at least 3 db gain over a $\frac{1}{4}$ wave vertical. With this combination we are able to maximize our potential for communications support. Rigs with this power out, need a generous heat sink system and the antenna needs to be rugged, light weight, compact and with a high level of gain.

With all the above listed considerations the following is my suggested "Go List" that each person needs to refine to suit his or her own requirements.

- 1) Two-meter rig with a minimum of 25 watts of output power, 50 watts is even better.
- 2) A 10 Amp min. 12-volt power supply, 20 or 25 amps would be a better choice.
- 3) 50 feet of RG-8X or RG8U Coax, This can be made up in shorter sections and put together with barrel connectors if needed.
- 4) A high gain antenna, such as a "Brute" or at the minimum, a Ringo Ranger. (the "Brute" is an antenna that I designed and is very rugged with excellent gain. The measured gain was 3 "S" units over a quarter-wave vertical at a horizontal distance of 10 miles). All the metal parts on this antenna have been machined from the solid and will withstand 100 mile per hour, plus winds. It is very compact, only 54" high with (4) 11 .5" radials the antenna can handle 1000 plus watts at 146 Mhz
- 5) Two-meter HT with at least 2 watts out, 5 watts would be better, If the rig doesn't have a BNC connection for the antenna, you should purchase an adapter to connect to a BNC style connector. You should also have a BNC to SO 239 adapter to allow you to connect your HT to a full size antenna.

- 6) Speaker mike for your HT and an Earphone would also be helpful.**
- 7) Headphones with a 1/8" to 1/4" connector to allow you to use the headphones with most two-meter rigs.**
- 8) A copy of your operator's manual for both your HT and full size two-meter rig.**
- 9) A tripod and short mast that would allow you to set up a portable antenna at a "shelter" or other temporary operating location. You should have one mast cut to allow a set-up with an eight foot ceiling.**
- 10) Current copy of your FCC Operating License
ARES/RACES Photo ID Card**
- 11) ARES forms such as; Radiogram, Red Cross Intake Form, Numbered Message form FSD-3, Emergency Phone Number form, District 13, ARES Log Forms. These and other forms can be pulled down and printed from the District 13 ARES web-site.**
- 12) Pencils, Pens and writing paper.**
- 13) Small Flash Light and a backup larger flashlight.
Alkaline batteries for your flashlight and to go in a spare battery pack for your HT.**
- 14 Battery case for alkaline batteries for your H.T.**
- 15) High Capacity, well charged battery pack for your HT**
- 16) Sealed Gel or other battery with at least 7 AH rating**
- 17) Chargers for you HT and spare batteries.**
- 18) At least 25 feet of cord or rope.**

Spare cord, fuses and connectors, #33 electrical tape, pocket knife, watch, screw driver and pliers

- 19) First Aid kit with 5 days of your own medication requirements. County maps, State Maps**
- 20) A box or bag large enough to carry the above listed items.**
- 21) A full tank of gasoline in the vehicle that you plan to use.**
- 22) Your cell phone if you own one.**
- 23) Spare clothing, and sleeping bag if it is a major event or it appears that it may become one.**
- 24) Snack food**
- 25) One gallon of water per day.**
- 25) Shaving kit with personal items.**

If you have suggest on this document, phone me at 276-398-3548 or e-mal me at glensage@tcia.net.