



Bringing Help, Hope, and Healing

Basic Disaster Communications Training & Operations Manual

KYBAPTIST.ORG/DR

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DISASTER COMMUNICATIONS MINISTRY PURPOSES

- Provide the Kentucky Baptist Convention Disaster Relief Ministry with volunteers trained in the procedures and equipment used to perform the role of Communicator.
- Promote further training and recruitment of volunteers for the role of Communicator.
- Provide the Communicator with experience and a written reference for policy, procedure, and operations before, during and following a disaster event.

DISASTER COMMUNICATIONS MISSION STATEMENT

- Provide support communications between a disaster response operating site and KYDR State Director/Office, and other partner agencies.
- Provide intra-team and inter-team on-site communication resources while conducting disaster response activities.
- Process messages for volunteers, partners, and those affected by the disaster.

DISASTER RELIEF COMMUNICATIONS TRAINING OVERVIEW

In preparation for becoming part of the Disaster Communications Ministry team, volunteers will be expected to complete several trainings, including:

Introduction to Southern Baptist Disaster Relief

This course gives a general overview of the work and ministry of Southern Baptist Disaster Relief. It is required for all volunteers every three years, including those recredentialing. This keeps everyone up to date with any changes and current on background checks.

Ministry Area Training – Basic Disaster Communications

This training is designed to acquaint the volunteer with the structure, mission, and objectives of the Disaster Communications Ministry. It is a combination of classroom lecture with PowerPoint, in-class demonstrations, and hands-on setup exercises for reinforcement. Basic Disaster Communications will focus on Starlink internet, cell phone booster system, and business band 2-way radios. This course meets the qualifications to be deployed to serve as an on-site Communicator.

Home and Follow-up Training

Communicators are encouraged to attend First Aid and Basic CPR & AED at future regional training sites. Existing certification through a different source, such as work or other volunteer organization, will also be accepted. Proof of training should be forwarded to the KYDR Ministry Assistant for recordkeeping purposes.

In addition to training in other ministry areas, Communicators are encouraged to take ***IS-100.C Introduction to the Incident Command System, ICS 100*** and ***IS-700.b An Introduction to the National Incident Management System***. Both courses are available free of charge and are offered only by the Federal Emergency Management Agency at <http://training.fema.gov> in the Independent Study area. Each of these courses takes approximately 45 minutes to an hour to complete and are self-paced. Due to the unique nature of the Communicator's role, they may find themselves interacting with various partner agencies. These courses will provide a foundation for the methods and processes used by both government and non-governmental organizations (NGO) in times of disaster or other emergency. Please send training certificates to the KYDR Ministry Assistant and Communications State Coordinator via email for proper recordkeeping.

Advanced Disaster Communications

This training is exclusively hands-on and is held as needed to familiarize Communicators with the workings of the mobile communications service unit. The KYDR mobile communications service unit, KY CC 001, is a utility trailer fitted with a crank-up tower, multiple antennas, and various 2-way radio communications systems including Amateur, Business Band, and Red Cross. Communicators will practice setup, operation, and recovery of the unit, including the operation of the equipment and specialized computer software for disaster response support.

INTRODUCTION TO COMMUNICATION SYSTEMS

In most cases, disaster communications team volunteers, or **Communicators**, will use a combination of three technology systems to provide support communications for disaster response activities. These systems are:

- Starlink by Space Exploration Technologies Corp. (Space-X) – space-based broadband internet using a constellation of low earth orbit satellites, a ground terminal antenna, and router/WIFI access point. Once connected, Communicators and onsite DR leadership will have full access to internet-based resources such as email, video conferencing, and remote file access.
- weBoost 5G Cell Phone Booster – outdoor directional antenna, antenna mast, powered booster/amplifier, indoor antenna, and interconnecting cables. Once installed, the unit will provide rebroadcast of distant cell phone tower data to significantly improve cell phone reception.
- Business Band 2-Way Radio – handheld and mobile radios on FCC licensed business band VHF and UHF radio frequencies. Volunteers will be able to talk across the disaster operations site for the purposes of command and control, activity coordination, and safety. A specialized pair of radios called a repeater may be deployed to significantly increase the signal strength and range of two-way radios to a 5–10-mile radius, dependent on terrain.

In addition to the above systems, Communicators with general technical knowledge of computers, networking, and cellular phones may be called upon to provide support in a multitude of technology related areas. Some examples may include adding phones and laptops of DR leadership to a WIFI network, adding printers to a WIFI network, and connecting laptops to network printers.

PREPARING TO SERVE

GENERAL

Communicators can expect to be activated when local communications at the planned response site are unavailable or severely degraded or when radio communications on the site between and among the various teams are needed. A single Communicator who has completed Basic Disaster Communications may be deployed in most situations. When conditions dictate the mobile communications service unit be deployed, a two-person team is necessary.

A critical component of pre-travel preparation is the gathering of those items needed during your deployment. If you are willing to be a “first out” responder, pre-preparation is of great importance. When you are first out, a simple rule prevails: *if you do not have it with you, it likely will not be available.* Sleeping and personal hygiene accommodations will be “DR Style,”

so plan accordingly. The Communications State Coordinator will provide more information as it becomes available.

Communicators will generally be requested to serve for a period of 7 days but may serve longer depending on their personal situation. The “first out” Communicator(s) will be responsible for taking the necessary equipment to the disaster response site and setting it up. The “last out” Communicator(s) will be responsible for taking down the equipment, properly storing it, and returning it to the Communications State Coordinator. The Communications State Coordinator will work with teams to ensure resources are available prior to deployment.

CONDUCT YOURSELF AS A SERVANT

Communicators will encounter unique challenges. This will require flexibility, patience, and availability. In these situations, you are a servant, first to the LORD, then the on-site leadership and fellow workers, then the mission.

A gentle, supportive, and loving demeanor will be needed throughout the term of operations. At no time is rude or selfish conduct appropriate, especially toward the disaster survivors.

Interaction with disaster survivors is likely. A frequent query is, “Why are you here?” Be prepared to answer. You are not a counselor, but you need to be alert to those who need counseling. Be a good listener. Respect a survivor’s property. One element of good servanthood is restoring the survivor’s property including reuniting them with lost property.

Your daily prayer life should include a petition for survivors, those who might be lost or unaccounted for, your disaster service leadership, your team, and yourself.

You are an ambassador for Jesus Christ, and your service during a disaster response gives you an excellent opportunity to show it!

KEEP IN TOUCH

Your availability to serve at a particular time and place is related to the ability of KYDR Leadership to contact you in a timely manner. The most effective means of timely communication for any general information or Call-Out Notification is by e-mail. Therefore, please keep the KYDR Office and your Communications State Coordinator apprised of your current e-mail address.

Once teams are being formed, the Communications State Coordinator may contact you by phone to coordinate further details. Please ensure your current phone number is on file with the KYDR office.

You may contact the KYDR Ministry Assistant to update contact information by emailing dr@kybaptist.org.

CALL-OUT NOTIFICATION

All states and units participating in the Southern Baptist Disaster Relief Ministry observe three (3) levels of readiness. They are:

Alert – This is the lowest level of readiness and is intended to make you aware of the potential need to serve. Contact from KYDR leadership is once daily. When the alert status is activated, you will be notified by email. This email will be brief information about the situation and any specific information known at the time. No response to an alert is necessary.

Stand-By – Issued when the need for volunteers is probable and teams are being formed. A detailed list of requested positions, by ministry focus area, will be communicated in this email. If you can serve and have been trained in the ministry focus areas being requested, respond to

the Stand-By email by following the instructions in the email. Do not respond if you are unavailable to serve, as these types of emails may cause confusion and increase the number of emails received.

Go/No Go – Teams developed during the Stand-By phase are given specific travel instructions, destination, and departure timing. If activated, the Communicators will report their departure, if any issues arise during travel, and their arrival to the KYDR Office and Communications State Coordinator. If not activated, the team will be moved to a lower level of readiness or stood down. Requests for additional volunteers may also be sent via email during an extended operation on **GO** status. **DO NOT SELF DEPLOY!**

Final notification of any deployment is **Stand Down**. This order may be given prior to departure if it is determined deployment is not needed, or after deployment when the mission is complete. Deployed ministry teams will recover all equipment and cease operations.

PRE-DEPLOYMENT ACTIVITIES

GENERAL

Depending on the nature of the disaster and response, the Communications State Coordinator will evaluate the situation and decide which communication systems will be needed. Arrangements will be made among the team members to ensure the necessary equipment is available to the “first out” Communicator(s) preparing to deploy. Communications Team leadership will begin to develop resources in the affected area. A Communicator who is not “first out” may do some of this work. The information will be forwarded to the Communicators in the field in a timely fashion: via cell phone or email.

CELL PHONE APPLICATIONS

Communicators should download and install three cell phone applications prior to deployment. These applications or Apps will assist with antenna location and pointing and provide exact location coordinates of the disaster ministry site. All applications are free and can be downloaded from mobile phone App Stores.

- Easy QTH Locator – provides exact GPS coordinates, which may be useful for multiple applications.



- Starlink by Space-X – used to identify an appropriate location for the Starlink antenna and other network maintenance functions.



- weBoost by Wilson Electronics – used to identify pointing angle of the directional antenna used with the cell phone booster system.

App Icon



Apple App Store



Google Play Store



LOCAL DISASTER SERVICE RESPONSE PLANS

Perform a search of the internet using Google or other search engines using the location the team is being deployed plus the expression “disaster response plan.” Once located, download, and save a copy of the document. This document will include the overall disaster response plan for the area including names and contact information for governmental agencies involved in disaster response activities.

NOAA WEATHER RADIO

Current weather information for the affected area is crucial for the welfare of disaster volunteers as well as residents. Communicators should maintain awareness of weather forecasts using one of more of the following two systems:

- Internet (if available) sites like Weather.com or Accuweather.com should be checked at least daily.
- NOAA weather radio stations are programmed as memory channels in all handheld radios. Select the correct channel for the NOAA weather radio station closest to the disaster site location. A comprehensive list of NOAA weather radio stations can be found at https://www.weather.gov/nwr/station_listing.

PORTABLE COMMUNICATIONS EQUIPMENT READINESS

The portable communications systems previously described are stored in several equipment cases and bags for immediate deployment and are maintained regularly.

PERSONAL VEHICLE EQUIPMENT READINESS

Prior to traveling into the affected area, individuals should examine the readiness of all vehicles/trailers going into the area. Items to consider should include tire condition/wear, any items known to need repair, and time/distance since last regular maintenance. It is easier to get an oil change at home than on a disaster site.

Communicators are highly encouraged to top off with fuel 100 miles out from the disaster site, where fuel will be more readily available.

PORTABLE EQUIPMENT SETUP AND OPERATIONS

Starlink Satellite Internet

General

Starlink is a commercially available low earth orbit broadband satellite internet system which uses an extensive constellation of satellites to provide reliable high-speed internet to remote locations. KYDR is using the transient RV version of the system and can therefore deploy it anywhere in the world where Starlink provides service. The system consists of a rectangular flat antenna, a mast and tripod, interconnecting cable, and a router/WIFI access point. An adapter is also available to connect wired network devices such as legacy computers and printers without wireless capability. The router/WIFI access point has been set up and preconfigured and no further configuration should be required. WIFI SSID broadcast is KYDR_STARLINK.

Equipment/Tools Needed

- Starlink Kit (grey hard side backpack)
 - Flat panel antenna
 - Small tripod
 - 75' cable
 - Wired network adapter
 - Router/WIFI access point
 - Power cable
- 25 lb. black sandbags, 3 ea.
- 3 round tent stakes
- Tripod Kit (long black bag w/ grey streamer)
 - 5-foot tripod
 - Cable covers, yellow, 3 ea.
 - Antenna mast
- Electrical tape
- 50' black Cat-6 cable
- 2 lb. hammer



Setup

1. Collect all necessary equipment and tools from the list above.
2. Select a relatively flat spot, open to the sky, and clear of obstructions (trees and buildings). The selected spot should be within 40' of a door that can be closed except for emergency access.

3. Open the Starlink app previously downloaded. Swipe from right to left to change screens to “EASY SELF_INSTALL” (Fig. 1) and select FIND A LOCATION.
4. Select the small, rectangular antenna and click CONFIRM. (Fig. 2)

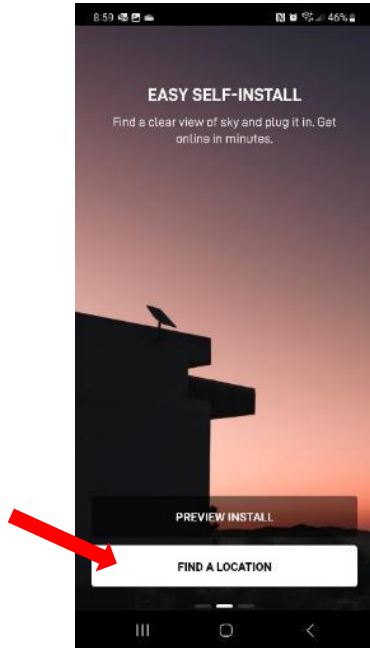


Fig. 1

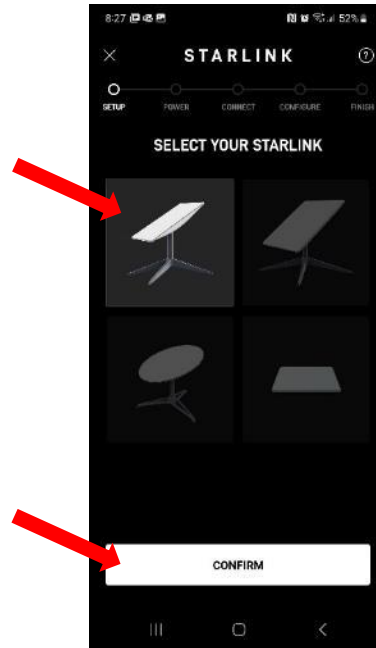


Fig. 2

5. Read the instructions on the screen. When ready, click I'M READY.
6. The app will now use the phone's camera to confirm a clear view of the sky. Ensure there are no obstructions in the area needed for the antenna. If you see any obstructions in the area, reposition and repeat the process.
7. Once a suitable location has been identified, continue the process.
8. Set up the tripod when prompted.

Note: Tripod being set up is not the small one from the case which is depicted on the app. Setup will be completed with the Tripod Kit identified in the equipment list.

9. Remove all contents from the long black tripod kit bag with grey streamer.
10. Deploy the 5-foot tripod, extending it completely. Loosen the retaining bolts at each level to ensure the mast will pass through the center.
11. Drive one round tent stake through the center hole of each tripod leg base into the ground using the 2lb hammer from the black toolbox. (Fig 3)
12. Install three 25 lb sandbags, one on each tripod leg, by wrapping four Velcro straps around the tripod leg. Once secured, rotate the sandbag to the outside. (Fig 3A)



Fig 3



Fig 3A



Fig 4

13. Install the mast section in the tripod with the oblong hole down and the crimped end with a detent to receive the locking mechanism on the antenna up.
14. Secure the mast with the bolts and nuts at each level. No tool is required; hand tightening of the nuts and bolts is sufficient. **(Fig. 4)**
15. Install the 75' network cable in the mast by feeding the flat end up the oblong hole and up through the top of the mast. Note that the 75' cable has been modified to include a flat cable for easy door pass through. An additional 50' cable can be added to this modified cable as necessary to accommodate different installation conditions.
16. Remove the rectangular antenna from the case and insert the cable into the slot at the base of the short antenna mast extending from the antenna. Ensure the connector seats completely. **(Fig. 5)**
17. Pass any excess cable back down the top mast section and install the antenna on the mast, lining up the locking mechanism with the detent on the mast. Insert until the locking mechanism clicks. **(Fig. 6 and 7)**



Fig. 5



Fig. 6



Fig. 7

18. Run the cable down one of the mast legs in the direction where the cable will enter the building.
19. Use cable covers as necessary to mitigate any trip hazards on the cable at traffic areas.
20. Pass the flat cable **over** the door previously selected for building entry. **(Fig 8 & 9)** Attach an **“EMERGENCY EXIT ONLY”** sign to each side of the door. Laminated signs are available in the grey Starlink backpack. Using shielded CAT-6A couplers from the black toolbox, add the 50’ black cable to the flat cable if necessary to reach the desired router location.



Fig. 8 (Outside)



Fig. 9 (Inside)

21. Continue to route the remaining cable to the final position of the router/WIFI access point, using cable covers where necessary.
22. Remove the router/WIFI access point, power cable, and wired network adapter (if needed) from the grey backpack.
23. Insert the wired network adapter into the bottom of the router/WIFI access point. Insert the cable from the antenna into the wired network adapter, and the power cable into the power port.
24. Plug up the power cable and allow the system to boot up. **(Fig 11)**
25. After several minutes, connect to WIFI SSID **KYDR_Starlink** using the password provided by the Communications State Coordinator and ensure internet connection using the Starlink app.

Recovery and Storage

Note: Use of a mobile phone connected to the KYDR_Starlink WIFI with the Starlink app installed is necessary before proceeding.

1. Open the Starlink app on a mobile phone connected to the KYDR_Starlink WIFI and navigate to **Settings**. (**Fig 10**)
2. Place Starlink antenna in **STOW** position using app. The antenna panel will revert to a horizontal position. **Note: The antenna must be in this position to properly fit in the grey equipment backpack.**
3. Recover yellow cable covers used to mitigate trip hazards.
4. Disconnect power, LAN adapter (if used), and antenna feed cable from the bottom of the router/access point.
5. Disconnect the black extension network cable and reconnect the grey cable to the flat cable used for door passthrough.

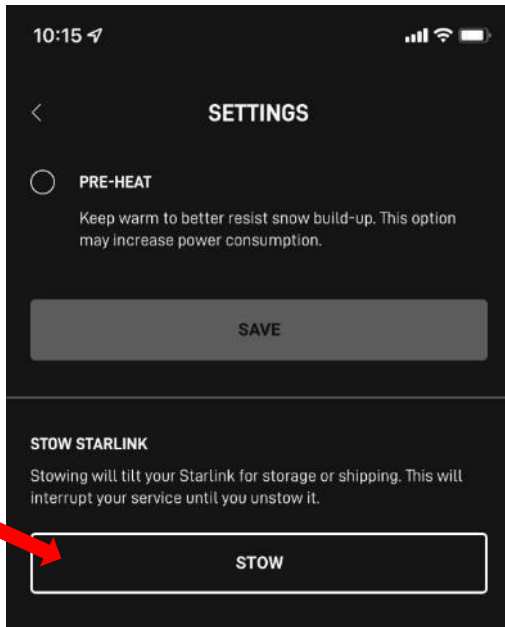


Fig. 10



Fig 11

6. Coil cable coming from the LAN adapter and place the adapter in the small grey bag. Coil the black cable, if used, and place it back in the black rolling toolbox.
7. Place router, power cable and LAN adapter in backpack case. (**Fig. 12**)
8. Remove the antenna from the mast by pushing the release button on the base of antenna mounting tube and remove antenna and lift upward. (**Fig. 6 and 7**)
9. Remove feed cable from base of antenna, sliding it completely out of the slot. (**Fig. 5**) Set the antenna panel aside flat side down, in a safe location where it will not be damaged.



Fig. 12



Fig. 13



Fig. 14

10. Remove the cable from the mast and coil the 75' cable and place in grey cable bag. Place bag with cable back inside the grey backpack case.
11. Place the small antenna base in backpack case. **(Fig. 13)**
12. Flip neoprene cover on top of base prior. **(Fig. 14)**
13. Place antenna panel in backpack case, angling the tube into the slot in the neoprene cover, base first. **DO NOT FORCE THE ANTENNA INTO PLACE OR ATTEMPT TO MOVE THE MOUNTING TUBE. (Fig. 15)**
14. Press the opposite end of antenna panel into the formed case interior until flat in the case. Place the instruction sheet on top of the antenna. **(Fig. 16)**



Fig. 15



Fig. 16

15. Close and zip the case. The Starlink Kit is now ready to travel.
16. At the 5' mast tripod, loosen 3 bolts on 2 levels and remove mast from tripod.
17. Place the mast into the black storage bag with grey streamer.
18. Remove three sandbags from the tripod legs.
19. Collapse the tripod. Adjust tripod base pads to allow tripod to fit into the black storage bag with grey streamer.
20. Place all remaining items from the Tripod Kit into the black storage bag with grey streamer and zip the bag closed. Tripod Kit is now ready to travel.
21. Review the equipment list above to ensure all items are packed and accounted for before leaving the area.

weBoost 5G Cell Phone Booster

General

The weBoost 5G cell phone booster is a simple system which consists of a directional antenna, tripod and mast, an amplifier, inside antenna, and cables. Once connected and operating, the system will receive weak signals from a distant cell phone tower, amplify the signal, and re-broadcast the signal in an interior space. As a result, cell phone usage in the selected interior space should be enhanced.

Equipment/Tools Needed

- weBoost Kit (yellow case)
 - Exterior directional antenna
 - Pole mounting bracket
 - Inside panel antenna w/bracket
 - Amplifier
 - Power supply
 - Alcohol Prep Pads
- Cable covers, yellow, 3 ea. (not pictured)
- 35 lb. sandbags, 3 ea.
- Electrical tape
- Tripod Kit (long black bag w/ yellow streamer)
 - 5-foot tripod
 - 16' telescoping mast (not pictured)
- RG-6 coaxial cable, long, medium, and short, located in black rolling toolbox.
- Flat RG-6 cable, approx. 6" long, from the black rolling toolbox



Setup

1. Collect all necessary equipment and tools from the list above.

2. Open the weBoost app previously downloaded to determine the general direction from your location to the closest cell phone tower. **(Fig. 17)** Start the app and select FIND along the bottom row of icons. **(Fig. 18)**

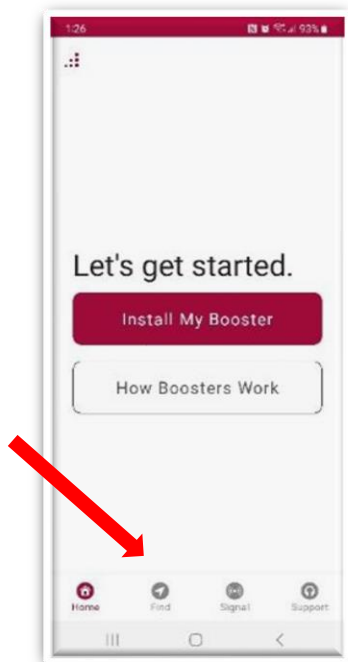


Fig. 17

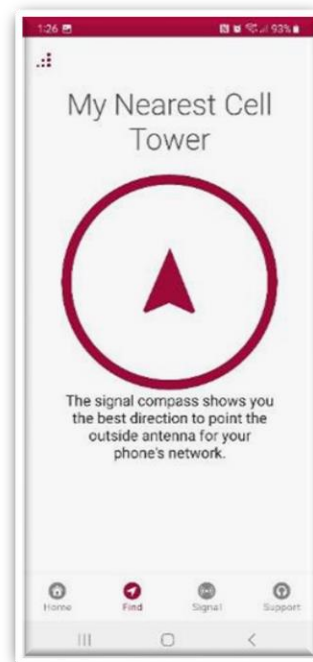


Fig. 18

Note: The booster will only work for a single cell phone carrier. Pointing information is provided based on the cell phone carrier of the phone using the app. As a result, it may be beneficial to determine which cell phone carrier is most prevalent among the on-site DR leadership and volunteers and use a phone for setup on that carrier. A schedule for multiple carriers may also be developed.

3. Place all necessary equipment clear of any obstructions in the direction of the cell tower. If possible, avoid trying to access cell tower signals through a building or other obstructions, such as large trees. Select a location close to a building entry point, either a window or unused door.
4. Remove all contents from the tripod kit bag.
5. Deploy the 5-foot tripod, extending it completely. Loosen the retaining bolts at each level to ensure the mast will pass through.
6. Install three 35 lb. sandbags, one on each tripod leg, by wrapping a Velcro strap around the tripod leg. Once secured, rotate the sandbag to the outside. **(Fig 19)**
7. Remove the 16' telescoping mast and extend it to the longest length. Rotate each section ¼ turn counterclockwise to lock the joint.
8. Install the telescoping mast into the tripod. **(Fig. 20)** Extend the top section a few inches to assist with installation of the antenna bracket.



Fig 19



Fig 20

10. Attach the antenna bracket to the top of the top section of the mast using 4-point pass through knobs. Secure finger tight. **(Fig. 21 and 22)**



Fig. 21



Fig. 22

11. Install the external directional antenna on the antenna bracket using two knurled plastic knobs. The knobs are already installed in the antenna and will need to be removed prior to aligning the antenna to the bracket. Once aligned, use the same knobs to attach the antenna to the bracket. Hand tightening these knobs is also sufficient. **(Fig. 22 and 24)**



Fig. 23



Fig. 24

12. Position the pigtail from the antenna down the mast and secure it to the mast with electrical tape. **(Fig. 25)**

13. Extend the 16' mast/antenna assembly by unlocking each section with a clockwise twist, extending fully, and locking back in place with a counterclockwise twist, starting with the uppermost section. Secure the antenna cable as each mast section is extended. The completed system is shown in **Fig 28**.



Fig. 25



Fig. 27



Fig. 28

14. Using the weBoost app again, determine the exact pointing angle to the target cell tower. Rotate the mast to align the antenna with the arrow on the compass of the weBoost app. **(Fig. 2)**
15. Once final direction is determined, secure the mast with the bolts and nuts at each level. No tool is required; hand tightening of the nuts and bolts is sufficient. **(Fig. 27)**
16. Attach the RG-6 coaxial cable down one of the mast legs in the direction of where the cable will enter the building.
17. Use cable covers as necessary to mitigate any trip hazards on the cable at traffic areas.
18. Attach the short, flat RG-6 cable to the end of the cable opposite the antenna. Use the flat RG-6 to pass under an exterior door seal or window. If a door is used, attach **“EMERGENCY EXIT ONLY”** signs to both sides of the door. Laminated signs are stored in the lid of the yellow case. Passing the flat cable through a window is preferable. **(Fig. 29)**



Fig. 29



Fig. 30



Fig. 31



Fig. 32



Fig. 33

19. Determine a stable location near a 110v outlet to place the booster and a good attachment point for the inside antenna. It is recommended to attach the inside antenna to a glass window for the best results.
20. Attach the medium length cable to the end of the flat RG-6 cable now inside the building. Attach the opposite end of the medium length cable to the port on the booster labeled **“Outside Antenna.”** **(Fig. 30)**
21. Attach the short cable to the port on the booster labeled **“Inside Antenna.”** **(Fig. 30)**
22. Use two adhesive Command Strips to attach the inside antenna mounting bracket to a glass window. Use an alcohol prep pad to clean the window in the target area to promote adhesion. **(Fig. 31)**
23. Install the inside antenna onto the mounting bracket, cable pigtail pointing downward.
24. Attach the short cable to the pigtail coming out of the inside antenna. **(Fig. 32)**
25. Plug the power supply into a 110v outlet and plug the other end of the cable into the power port on the amplifier. The amplifier will initiate a test sequence and the indicator light should show solid green if all is working correctly. If not, disconnect the power for 30 seconds and re-energize. If problems continue, check cable

connections and consult the troubleshooting guide in the app if any other color or light combinations are displayed. **(Fig. 33)**

26. Use yellow cable protectors to cover exposed cables and mitigate trip hazards where necessary.

27. Cell phone booster is now operational.

Recovery and Storage

1. Remove power supply from wall outlet and weBoost amplifier and store in the lower level of the yellow case.
2. Remove cables from the weBoost amplifier and store the amplifier in the lower level of yellow case.
3. Remove the inside antenna from bracket, coil cable, and store in the lower level of the yellow case.
4. Remove the Command Strips holding the inside antenna bracket and store bracket in the lower level of the yellow case with the inside antenna.
5. Install case divider and upper section in the yellow case.
6. Disconnect the short, flat RG-6 cable from the long and medium length cables.
7. Individually coil the medium length and short length RG-6 cables. Return cables to the tripod storage bag.
8. Collapse the mast by unlocking and lowering each section until the mast is completely collapsed. Lock each section once collapsed.
9. Remove electrical tape securing the cable, then coil the cable. Return long RG-6 cable to the tripod storage bag.
10. Disassemble directional antenna from bracket, being sure to re-install the knurled knobs **BACK INTO THE ANTENNA**. Place directional antenna in upper level of the yellow case.
11. Disassemble antenna bracket into two pieces. **DO NOT REMOVE BOLTS**. Ensure 4-point pass through knobs are screwed back on the bolts.
12. Place both pieces of the antenna bracket back in the upper level of the yellow case. Close and secure the case. The weBoost kit is now ready to travel.
13. Removed the antenna mast from the tripod and placed it back in the black storage bag with the yellow streamer.
14. Remove three sandbags from the tripod legs.
15. Collapse Tripod. Adjust tripod base pads to allow tripod to fit into the black storage bag with the yellow streamer.
16. Place all remaining items from the Tripod Kit into the black storage bag with the yellow streamer and zip the bag closed. Tripod Kit is now ready to travel.
17. Review the equipment list above to ensure all items are packed and accounted for before leaving the area.

Business Band 2-Way Radio

General

Two kits of seven VHF/UHF handheld radios are available for on-site communications purposes among volunteer teams. These radios are programmed with multiple channels so each team may have their own frequency to communicate internally within a team, or the entire site may choose to use the same frequency. All NOAA weather radio frequencies are also programmed for immediate access to weather conditions and forecasts. Finally, two Repeater pairs are available for situations where the tactical repeater system is installed at the disaster operations site. Handheld radios can be very helpful when caravanning to coordinate travel and fuel stops.

Equipment/Tools Needed

- Handheld Business Band 2-Way Radio Kit (Orange case), 2 available
 - 6-position radio charger and cable
 - Extra belt clips
 - Flexible antenna, 9 ea.
 - Manual
 - Commercial grade VHF/UHF 2-way radio, 7 ea.
 - Waterproof hand microphones, 7 ea.
 - 16" flexible antenna, 2 ea. (located behind the lid foam) **Fig. 34**



Setup

1. Release four latches on the lid of the orange case and open the lid.
2. Remove charger and power cable from the upper section of the orange case and connect to a 110v wall outlet. A light at each charging position will show red.
3. Remove one radio and one flexible antenna from the upper section of the orange case. Screw antenna into the antenna connector on the radio. Place the radio in one of the open charger positions.
4. Remove the top section of foam and plexiglass divider and set aside.
5. Remove five additional radios and flexible antennas, assemble, and place in open charging positions. (**Fig. 35**) Radio is fully charged when the red light for the position turns green.
6. Remove the first radio which reaches full charge and replace it with the seventh radio.

7. Install the hand mic by opening the cover on the right side of the radio, revealing 2 holes. Insert the pins on the mic connector in the two holes on the radio. (**Fig. 36 and 37**)



Fig. 34



Fig. 35



Fig. 36

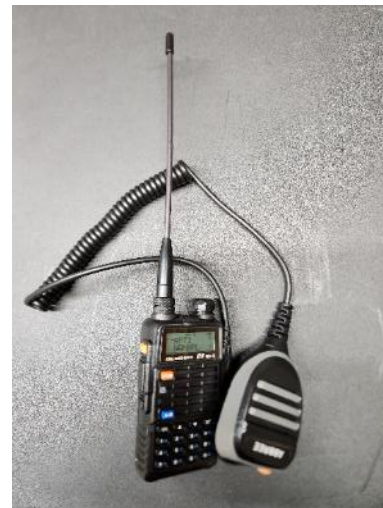


Fig. 37

Recovery and Storage

1. When handheld radios are no longer needed, collect all radios, hand mics, and antennas and check them in per the daily activity routine.
2. Remove all hand mics and antennas, placing them back in the designated locations in the orange case.
3. Place six radios back in the lower section of the orange case. Install plexiglass divider and top foam section back in the orange case.
4. Place one handheld radio, 6-position charger, and power cord back in their designated location of the top layer of the orange case.
5. Secure the lid of the orange case with four latches. Handheld radio kit is now ready for travel.

UHF Business Band Tactical Repeater

General

A tactical repeater is a specialized radio system which uses two connected radios working together to simultaneously receive and rebroadcast signals from remote users. Signals are received and rebroadcasted from an efficient elevated antenna, significantly extending the coverage area.

Equipment/Tools Needed

- UHF Business Band Tactical Repeater
- 25' Push-Up Antenna Mast
- VHF/UHF Antenna
- Ground Radials, 3 ea.
- Impact Driver, Socket Adapter, and Socket
- Mast Base
- Earth Anchors, 3 ea.
- Self-vulcanizing rubber tape
- Antenna Mount
- Tent Stakes, 3 ea.
- Multi-Screwdriver
- Mast Guy Lines, 3 ea.
- Antenna Feedline
- 100' Extension Cord
- Electrical Tape
- Black rolling toolbox/repeater enclosure



Setup

1. Collect all equipment and tools described and pictured above. The repeater is stored in a blue equipment case, antenna and mast will be loose, ground radials and all other equipment and materials will be in a black rolling toolbox.
2. Select an appropriate location for the mast/antenna in a relatively open area. The area should be unpaved and within 100' of a 120v power outlet or generator.
3. Once a suitable place is located, install the black plastic mast base directly on the ground, securing it in place with 3 tent stakes. **(Fig. 38)**

- Uncoil the three ratcheting guy lines and extend to their longest length. **(Fig. 39)** Mark the location for each earth anchor approximately 8' from the mast base, evenly spaced approximately 120° apart. **(Fig. 40)** Each guy line is 16' and can therefore be used to assist in identifying the proper distance for the anchor from the base.



Fig. 38



Fig. 39

- Collect the 3 earth anchors and unscrew the eyelet from the end to reveal a 10mm hex head fitting. **(Fig. 41)** Use the impact drill, socket adapter, and socket to drive one earth anchor at each of the 3 positions identified in **step 4. (Fig. 42)**

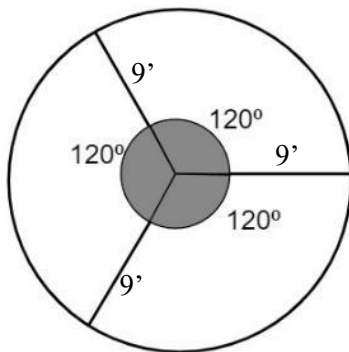


Fig. 40



Fig. 41



Fig. 42

- Screw the eyelet back on each earth anchor.
- Twist each section of the antenna mast to unlock it, extend the section, and twist in the opposite direction to lock it into place. Slide the three guy line attachment points to the lowest point of their section. **(Fig. 46)**
- Attach the three guy lines to the threaded chain links attached to the mast. Screw the link closed once the loop has been attached to the link. **(Fig. 46)**
Note: A second person is required for steps 9 through 17.
- While a second person holds the antenna mast, attach the antenna to the top mast section using the integrated mount and knurled thumb nuts. **(Fig. 43)**
- Install the 3 7" ground radials in the threaded holes on the base of the antenna and finger tighten. **(Fig. 44)**

11. Roll out the antenna feed cable and attach one end to the pigtail extending from the antenna mount. **(Fig. 45)** Secure the feed cable to the mast with loops of electrical tape at multiple locations along the length of the mast.



Fig. 43



Fig. 44

12. The antenna system is now complete, and the antenna end must be supported to keep the radials from hitting the ground and becoming bent.



Fig. 45



Fig. 46

13. Position one person at each end of the mast. Position the bottom end adjacent to the antenna base. One person holds the bottom of the mast against the ground with their foot while the second person starts moving towards the base of the mast, walking the mast up, hand over hand, into the air.
14. Once the mast is vertical, place the mast in the base and continue to hold the mast in the vertical position. **(Fig. 47)**
15. The second person will attach the guy line with the ratchet mechanism to the eyelet. **(Fig. 48)** Tension the guy line by pulling the end of the guy line through the mechanism. Repeat for the remaining two guy lines and continue to make tension adjustments until the mast is secured and vertical.



Fig. 47



Fig. 48

16. Remove all remaining contents from the black rolling toolbox and place in one of the antenna tripod bags. Place the empty black rolling toolbox at the base of the antenna mast. Place the lid on the top of the toolbox, leaving 6" – 8" of exposed opening. **(Fig. 49)**



Fig. 49

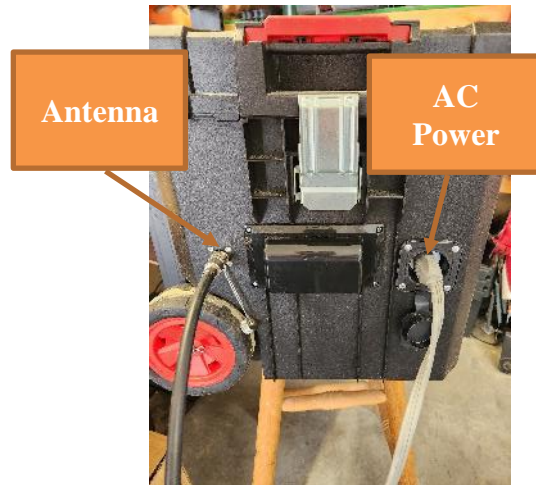


Fig. 50

17. Remove the repeater from the blue equipment case and place it on the toolbox lid. The rear of the repeater should be on the same end as the opening and the ports through the toolbox. **(Fig. 49)**
18. Connect the antenna and power cable to the appropriate connectors on the side of the toolbox. **(Fig. 50)** Run the 100' extension cord to a nearby 110v AC outlet or generator.
19. Connect a power supply cable and a 2' coaxial cable available in the blue equipment case to the corresponding ports inside the toolbox.
20. Toggle the power supply on/off switch on the front of the repeater. **(Fig. 52)**
21. Power on a nearby handheld radio and set channel to RPT1.
22. Power on both repeater radios, starting with the top (transmitter), followed by the bottom (receiver). A morse code ID will be heard on the handheld radio as the repeater controller boots up. **(Fig. 52)** The repeater will continue to ID in morse code at 15-minute intervals during periods of activity and hourly intervals during periods of inactivity. Select the appropriate repeater pair for the mission as

described in the “**Repeater Operation Basics**” section of this manual. Ensure all handheld radios are set to the same channel, RPT1 or RPT2.

23. Once proper operation is confirmed, place the repeater inside the black rolling toolbox. Connect the red/white flat connector cable to the case fan power pigtail at the back of the power supply. Install the lid and secure with two latches.

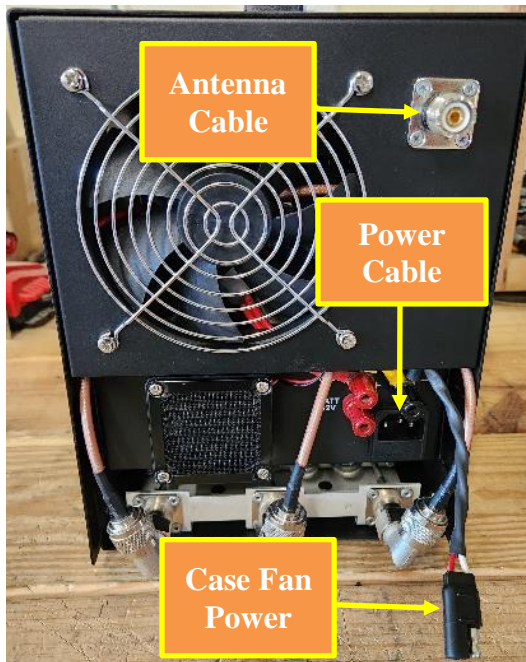


Fig. 51

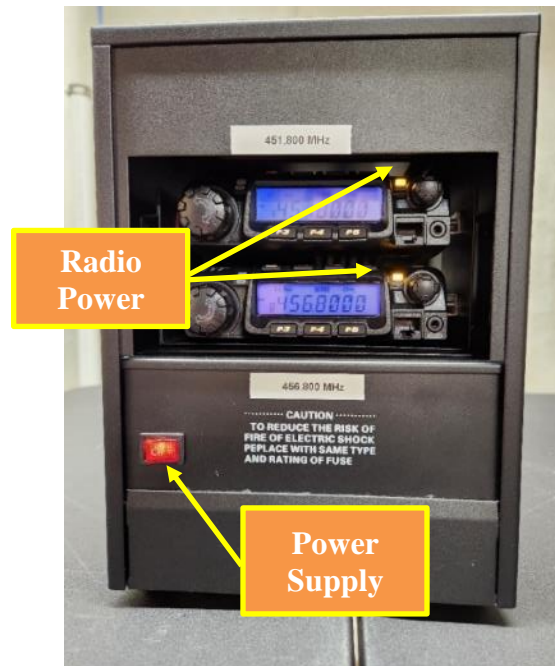


Fig. 52

Recovery and Storage

1. When the tactical repeater is no longer needed, remove the lid and disconnect the case fan power cable. Remove the repeater from the toolbox and position the lid and repeater as shown in **Fig. 49**.
2. Turn the power off the top and bottom radios.
3. Turn power off at the power supply toggle switch. (**Fig. 52**)
4. Disconnect the coaxial and power cable from their associated ports. (**Fig. 51**) Coil the power cable and secure it with Velcro cable tie. Coil the 2' coaxial cable, looping it through itself to maintain a coil.
5. Disconnect the antenna and power cable from the ports on the black rolling toolbox.
6. Place the tactical repeater in the padded blue equipment case. Note: there is a top and bottom section of padding. Orient the repeater so the connectors on the back are to the right and aligned with the slots in the padding. (**Fig. 53**)
7. Place the TOP sections of padding in the case, along with the power cable. (**Fig. 54**) Place the power and coaxial cable inside the case, in open gaps in the padding.
8. Close the case; the tactical repeater is now ready to travel.

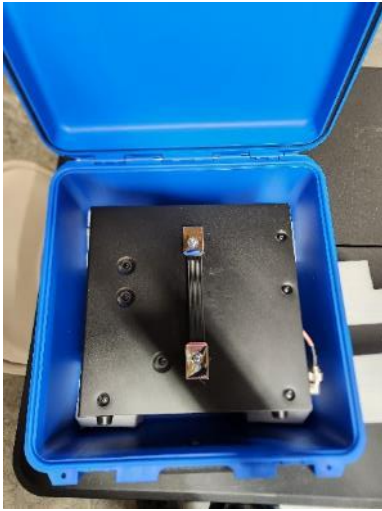


Fig. 53



Fig. 54

Note: A second person is required for steps 8 through 13. Do not let the antenna end of the mast hit the ground to ensure the ground radials are not damaged.

9. While one person holds the antenna mast in the vertical position, push the button on the ratcheting mechanism on guy line tensioners and pull the guy line through the mechanism to its longest length. Repeat the process on each of the three anchors. **(Fig. 48)**
10. Remove the mast from the mast base. **(Fig. 47)** One person will walk the mast down, hand over hand, while the second person holds the bottom end of the mast against the ground with their foot.
11. Remove the ground radials from the base of the antenna and place them in the black cloth tool bag. **(Fig. 44)**
12. Disconnect the antenna feed cable from the feed line pigtail at the bottom of the antenna mount. **(Fig. 45)**
13. Remove the antenna from the mast by loosening the four knurled thumb nuts. **(Fig. 43)**
14. Remove the tent stakes holding the mast base in position. Return the mast base and tent stakes to the toolbox.
15. Roll the feed cable up small enough to go back into the black rolling toolbox. Secure the roll with a yellow Velcro cable tie and return it to the toolbox.
16. Disconnect the guy lines from the antenna mast and return them to the black cloth tool bag. **(Fig. 39 and 48)**
17. Twist the antenna mast at each section and collapse it to the shortest position.
18. Remove the eyelets from each of the earth anchors.
19. Use the impact drill, socket adapter, and socket to remove the three earth anchors. **(Fig. 42)** Reattach the eyelets to the anchors and return the anchors, impact drill, and socket adapter to the black cloth tool bag. Return tool bag to the toolbox.
20. Coil the 100' extension cord small enough to go back into the black rolling toolbox. Secure the coil with a yellow Velcro cable tie and return it to the toolbox.
21. Inventory all equipment and tools prior to leaving the area.

ON-SITE DUTIES

Once all equipment which is needed for the response is set up and operational, the Communicator will transition into routine on-site duties. These duties include but are not limited to the following:

- Review all equipment for effective and safe operation. Add red flags, marker cones, and cable covers where necessary to ensure a safe installation.
- Check equipment daily for proper operation. Check all masts and tripods for secure and proper installation.
- Perform a network speed test on the WIFI network to confirm proper operation. This test can be performed with the StarLink App or Speedtest by Ookla, available at mobile phone app stores. Network speed can also be checked at www.speedtest.net.
- Power down the tactical repeater and disconnect the power and antenna cables from the exterior ports on the black rolling toolbox and secure inside at night or periods of severe weather.
- Perform logistical operational support communications duties for the on-site White Hat and Blue Hats.
- Maintain awareness of local weather conditions. Inform the on-site White Hat and Blue Hats if there is any significant risk of severe weather.
- Using whatever means available, provide communication services even to the point of being a courier.
- Coordinate and/or direct communications support efforts and needs with government officials and other NGOs, as necessary.
- Support technology related requests for DR Leadership, volunteers, and disaster survivors, within the expertise of the Communicator.
- Perform other communication activities as time permits, including skill development activities and training.
- Complete **Form 214 – Communications Activity Log** (Appendix 2) daily and send to KYDR Leadership and the Communications State Coordinator.
- Issue and maintain accountability of portable and hand-held radios and other DR communications equipment.
 - Record each volunteer's name, serial number of the radio, and whether a hand mic is issued on a single line on **Form 214 – Communications Activity Log** in the RESOURCES ASSIGNED section. Record a checkmark in the ISSUED column.
 - Radios are to be turned in at the end of each workday for charging, inspection, and accountability. Record a checkmark in the RETURNED column on **Form 214** for each radio as it is turned in.
 - Inspect each radio for damage and proper operation. Additional antennas and belt clips are available in the orange case if necessary.
 - Turn off the radio and place it in an open position of the 6-position charger, rotating the seventh radio on the charger when possible.
 - Make notes on **Form 214** in the ACIVITY LOG section if any information needs to be communicated to the Communications State Coordinator about the equipment. Be specific about the issue and which system needs attention. If the

- issue is with a handheld or portable radio, record the serial number of the specific radio and label the radio using tags available in the black toolbox.
- Process and send health and welfare messages for those affected by the disaster and fellow volunteers if other communications resources are unavailable.
 - Provide the person requesting a message to be sent with a copy of **Form 213 – General Message Form (Appendix 3)**
 - Send the message without delay using available communications systems, including internet email or Amateur Radio, if available.
 - If/When a response is received, print a copy of the response, and provide it to the original requestor.
 - At no time should the original message or response be shared with anyone other than the requestor.
 - If multiple radio systems are being used on site, complete one **Form 309 – Communications Log (Appendix 4)** for each radio system. (e.g., Amateur, Red Cross, Business Band) Record the time, mode, identification of involved parties, and a general description of the exchange in the identified columns. This log is not necessary if Business Band Radios are the only radio system in use. Use the Activity Log section of **Form 214** instead to record any notable activities. Instructions passed from the White Hat to Blue Hats regarding tasking and work orders are examples of items to record. Ongoing coordination chatter between team members need not be documented.
 - Maintain all forms described above and return them to the Communications State Coordinator for filing at the end of the deployment.

OPERATIONS EXPERTISE

Business Band Radio Operations

Regulatory Information

The Kentucky Baptist Convention Disaster Relief operates business band 2-way radios under license from the Federal Communications Commission (FCC) using call sign WQTJ714. This license covers multiple frequencies in both the commercial 2-meter and 70-centimeter bands. See frequency plan below for specific frequencies.

Kentucky Baptist Convention is also authorized to operate under the FCC license issued to the North American Mission Board using call sign WQAL495.

For interoperability purposes with other state communications teams operating under WQAL495, each radio is programmed with the common frequency 151.625 MHz and is identified with channel ID NAMB. An additional channel with channel ID NAMBPL is also on 151.625 MHz but adds 100 Hz Private Line Tone.

The FCC issued call sign is not required to be used, however, tactical callsigns can be useful for clarity. Examples might include Kentucky DR Command, Inventory, Shower Unit, or something similar which identifies the function of the unit. Names of individual radio users may also be used.

No periodic ID is required.

Frequency Plan

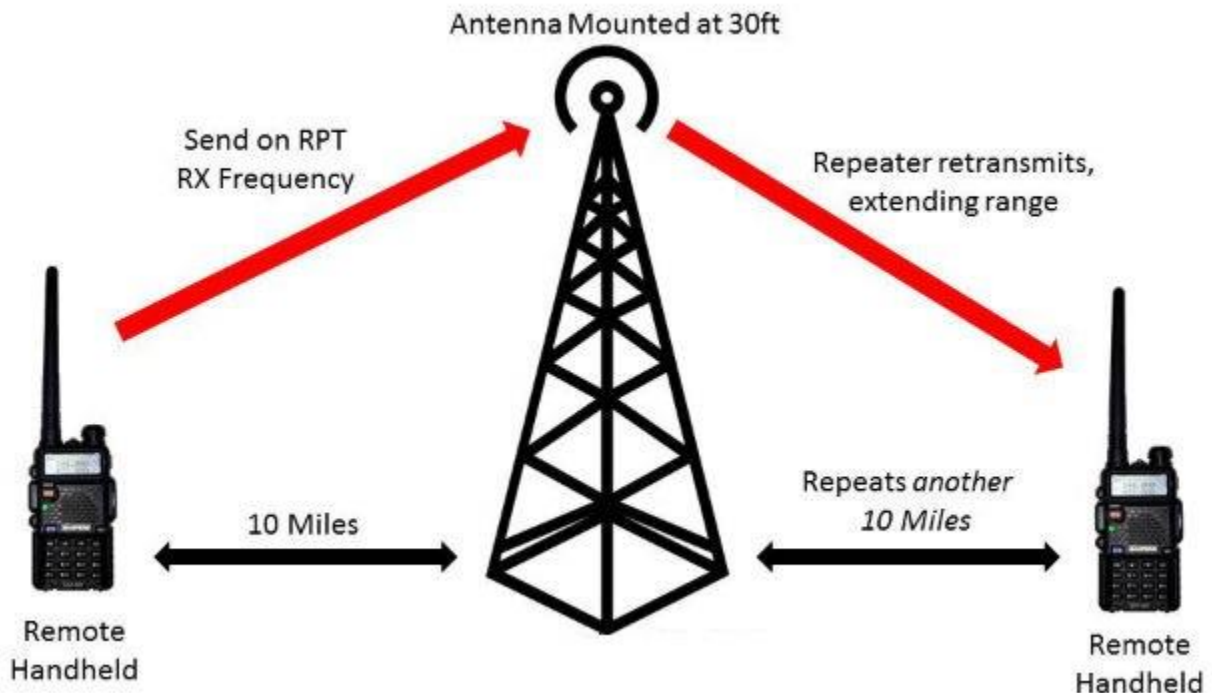
The frequency plan loaded in all KYDR hand-held radios is provided below for use by Communicators to program their personal equipment if desired. Tone mode TSQL indicates the associated tone is applied to both the transmit and receive function of the radio. Mode Narrow FM is indicative of 12.5 kHz bandwidth and channel spacing. Communicators may not use the frequencies listed below for any purpose other than KYDR operations, while on or traveling to a response site.

Channel Name	Receive Frequency	Transmit Offset	Tone Mode	PL Tone	Mode
NAMBPL	151.6250 MHz	None	TSQL	100.0 Hz	Narrow FM
NAMB	151.6250 MHz	None	None	None	Narrow FM
KYDR22	151.5050 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR23	151.5125 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR24	151.7000 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR25	151.7600 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR26	154.5275 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR27	158.4000 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR28	158.4075 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR41	451.8000 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR42	451.8125 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR43	456.8000 MHz	None	TSQL	107.2 Hz	Narrow FM
KYDR44	456.8125 MHz	None	TSQL	107.2 Hz	Narrow FM
RPT1	451.8000 MHz	+ 5 MHz	TSQL	107.2 Hz	Narrow FM
RPT2	451.8125 MHz	+5 MHz	TSQL	107.2 Hz	Narrow FM

Repeater Operation Basics

A tactical repeater is a specialized radio system which uses two connected radios working together to simultaneously receive and rebroadcast signals from remote users. Signals are received and rebroadcasted from an efficient elevated antenna, significantly extending the coverage area. Typically, the antenna for a repeater should be placed as high as reasonably possible to have a large footprint of coverage.

In a tactical situation, an extended mast, highest level of a multi-story building, or location on the top of a hill in the served area are all feasible options. Ultra-High (UHF) Frequency radio waves are considered to be “line of sight” rather than propagating through the ionosphere. UHF can typically tolerate more physical obstructions than Very High Frequency (VHF) radio waves. As with any radio system, the higher the antenna, the better the coverage. In a disaster relief situation, this system should provide reliable communications between volunteers and remote teams up to 10 miles or more apart, depending on terrain and antenna location. Reference the below infographic for a graphical representation of a repeater’s operation.



The KYDR tactical repeater is programmed with four frequencies, two for transmit and two for receive. These two pairs of frequencies, 5 MHz offset from each other, are used simultaneously, with one receiving signals from a remote transmitter and retransmitting to other users in the coverage area. The proper configuration of the tactical repeaters is shown below in **Fig. 57 and 58** and includes the channel ID for the handheld radio for each repeater pair configuration. Two pairs are available if other users in the area are using one of the pairs, causing interference. The primary pair is 451.800/456.800 MHz (RPT1), with 451.8125/456.8125 MHz (RPT2) as an alternative.



Fig. 57 – Channel RPT1

451.8000 – RPT1TX

456.8000 – RPT1RX



Fig. 58 – Channel RPT2

451.8125 – RPT2TX

456.8125 – RPT2RX

SAFETY

INTRODUCTION

Your personal safety and that of the other disaster relief volunteers is of the utmost importance. Safe operations must always be a conscious consideration.

PERSONAL SAFETY

Consider your personal safety when you prepare for travel. Travel with apparel/clothing appropriate for the task. Shoes with steel toe and shank are critical for any fieldwork. Comfortable clothing should allow freedom of movement but should not be so baggy that it could become entangled in machines. Hearing and eye protection are always desirable when situations dictate.

Fatigue, heat exhaustion, or hypothermia in freezing conditions are serious conditions possible on any disaster relief deployment. There is no shame in taking frequent rest breaks. Regular water breaks are imperative during hot conditions and cold dry conditions.

Use hand sanitizer frequently when interacting with others, particularly before eating or serving food.

ENVIRONMENTAL SAFETY

At any disaster scene, there are potential hazards to health and safety. Among the potential risks are airborne molds, fecal/waste residue, insects, reptiles, and stray cats and dogs.

If working “on the ground” be aware that flooding/high water conditions will force a host of live critters to find shelter wherever they can. Under debris, on shelving, in and on storage containers are favorite hiding places.

Cleanliness is critical. Wipe all horizontal surfaces with a chlorine bleach solution or other antibacterial product to decontaminate hard surfaces.

Avoid all animals.

EQUIPMENT SAFETY

The use of tools under disaster conditions requires special attention. Power tools must have appropriate grounding. Avoid using power tools in wet conditions.

Fuel transfers are always high risk. Filling HOT generators, heat units, etc. requires special attention. Fuel storage areas should be away from foot and vehicle traffic. Fuel containers should always be closed when not being used. Keep ABC fire extinguishers readily available during any fueling operation.

Climbing and ladder use are opportunities for injury. Check the condition of all ladders before use. Handle ladders carefully. Most ladders should be moved and setup with assistance.

ITU PHONETIC ALPHABET AND FIGURE CODE

When it is necessary to spell out call signs, service abbreviations and words, the following letter spelling table shall be used. Symbols to be emphasized are underlined.

Letter	Code Word	Spoken As	Letter	Code Word	Spoke As
A	Alfa	<u>AL</u> FAH	N	November	NO <u>VEM</u> BER
B	Bravo	<u>BRAH</u> VOH	O	Oscar	<u>OSS</u> CAH
C	Charlie	<u>CHAR</u> LEE	P	Pape	PAH <u>PAH</u>
D	Delta	<u>DELL</u> TAH	Q	Quebec	KEH <u>BECK</u>
E	Echo	<u>ECK</u> OH	R	Romeo	<u>ROW</u> ME OH
F	Foxtrot	<u>FOKS</u> TROT	S	Sierra	SEE <u>AIR</u> RAH
G	Golf	GOLF	T	Tango	<u>TANG</u> GO
H	Hotel	HOH <u>TELL</u>	U	Uniform	<u>YOU</u> NEE FORM
I	India	<u>IN</u> DEE AH	V	Victor	<u>VIK</u> TAH
J	Juliett	<u>JEW</u> LEE <u>ETT</u>	W	Whiskey	<u>WISS</u> KEY
K	Kilo	<u>KEY</u> LOH	X	X-ray	<u>ECKS</u> RAY
L	Lima	<u>LEE</u> MAH	Y	Yankee	<u>YANG</u> KEY
M	Mike	MIKE	Z	Zulu	<u>ZOO</u> LOO

When it is necessary to spell out figures or marks, the following table shall be used:

Figure	Spoken As
0	ZAY-ROH
1	WUN
2	TOO
3	TREE
4	<u>FOW</u> -ER
5	FIFE
6	SIX
7	SEV- <u>VEN</u>
8	AIT
9	<u>NIN</u> -ER
Decimal	<u>DAY</u> -SE-MAL



Kentucky Baptist Convention

Disaster Relief Ministry
 13420 Eastpoint Centre Drive
 Louisville, KY 40223
dr@kybaptist.org

COMMUNICATIONS – GENERAL MESSAGE FORM (213)

SHADED AREA TO BE FILLED IN BY OPERATOR

Serial Number	Precedence (Circle one) EMERGENCY PRIORITY WELFARE ROUTINE	Tactical location & Operator	Time: Date:
INCOMING MESSAGE		OUTGOING MESSAGE	Related to MESSAGE #
To: Name	Title	Tactical Location - Address	
From: Name	Title	Tactical Location - Address	
MESSAGE:	Reference message #	Time:	Date:
Signed:			
RECORD OF DELIVERY			
Word Count			
Circle one: SENT RECEIVED	Time: Date:	Operator – Name & Call sign	Mode (Circle one): HF VHF TELEPHONE / FAX COURIER OTHER _____



Kentucky Baptist Convention

Disaster Relief Ministry
 13420 Eastpoint Centre Drive
 Louisville, KY 40223
dr@kybaptist.org

COMMUNICATIONS – LOG (309)

INCIDENT NAME			OPERATIONAL PERIOD		From: Date: Time:
					To: Date: Time:
RADIO NETWORK (HAM HF, HAM VHF, BUSINESS, RED CROSS)			RADIO OPERATOR (Name, Call Sign)		
Time (Local) (24:00)	From Call Sign/ID	To Call Sign/ID	Freq./Mode (e.g. USB, FM, Winlink)	Message	

Updated 11.08.2022

KY DISASTER RELIEF COMMUNICATOR CHECKLIST

Pre-departure checklist

- Ensure you have read and understand the content in the Basic Disaster Communications Training & Operations Manual.
- Download cell phone apps for Starlink, weBoost, and Easy QTH Locator.
- Identify best source of weather (cell phone app or NOAA radio station on handheld) www.weather.gov/nwr/station_listing
- Confirm you have the contact information for KYDR Leadership in your phone.
- Download and save/print the disaster response plan for the location of the call-out.
- Pack any documentation you may need such as equipment manuals, training manual, road maps, etc.)
- Complete the KYDR Release Form and Waiver of Liability and Release form and pack with other documentation.
- Personal vehicle check (tires, oil, etc.)
- If you are the first Communicator at the location, coordinate with the Communications Team Leader regarding picking up the communications equipment needed for the call-out.
- If you are transporting equipment or the driver of a carpool, print out expense reimbursement form, note reimbursable expenses and maintain receipts.

Travel and arrival at site

- Top off fuel 100 miles before arriving at call-out location.
- Report to the White Hat upon arrival and provide KYDR Release and Waiver of Liability and Release forms.
- If you are the first Communicator at the location, set up and test all equipment, then assist leadership in connecting laptops, printers and phones to the Wi-Fi.
- If you are relieving a Communicator who is going home, meet with the current Communicator who will brief you on the site and introduce you to leadership and volunteers who utilize the handheld radios.

On-Site Daily – AM

- Sign check-in sheet.
- Check weather.
- Start a new Communications Activity Log (214).
- Test, assign, and distribute handheld radios at breakfast (if the weather forecast indicates rain, remind everyone to protect their radios under a jacket, tent, etc.).
- Setup Tactical Repeater
- Check all equipment, cords, and antennas.
- Check in with all leadership to identify needs.
- Help where needed.

On-Site Daily – PM

- At dinner, collect handheld radios and put them on charger. Switch out the 7th radio before retiring for the night.
- Complete Communications Activity Log (214) and send to KYDR Leadership by 7:00 pm.
- Bring the Tactical Repeater inside for safe storage.

Departure

- If you are departing and the site is remaining active, brief the incoming Communicator who will be taking over communications on the site.
- If the site is shutting down, coordinate with leadership before breaking down and packing the equipment to ensure they have communications capabilities they need until they are ready to leave.
- If you are bringing the equipment home with you, coordinate with the Communications Team Leader regarding delivery of the equipment.

NOAA Weather Radio Information

Frequency	Modulation
162.400 MHz	Wide FM
162.425 MHz	Wide FM
162.450 MHz	Wide FM
162.475 MHz	Wide FM
162.500 MHz	Wide FM
162.525 MHz	Wide FM
162.550 MHz	Wide FM

A complete directory of frequencies by state can be found at https://www.weather.gov/nwr/station_listing.