Communications Level 1 Training
Missouri Baptist Disaster Relief
Communication’s
Level 1 Training Manual

This training is an overview. The Unit Leader (Blue Hat) will instruct the Communications Personnel when they are assigned a specific role (OJT-On the Job Training). Today we will acquaint you with the role Communications plays in Disaster Relief and the equipment to be used.

“What use is it, my brethren, if a man says he has faith, but he has no works? Can that faith save him? If a brother or sister is without clothing and in need of daily food, and one of you says to them, "Go in peace, be warmed and be filled," and yet you do not give them what is necessary for their body, what use is that? James 2:14-16 NAS

FIRST WE MEET THE NEED.
THEN WE PLANT THE SEED!

Disaster Relief Communications Units are not the most visible units in Southern Baptist Disaster Relief efforts. These units are in support of the other units and those in leadership. When traveling and when set up in a command area with other units, the multitude of antenna’s, wires and the satellite dish will gain attention. The Southern Baptist Disaster Relief logo and other attention getting devices are used to grab the attention of the onlooker, and put in their minds and hearts one question.... “Why do they do this”? As you and your team travel through the devastation, remember...you are representing Jesus Christ, all other Southern Baptists, the Disaster Relief Ministry, your Association, your Church, and lastly yourself.

LET HIS LIGHT SHINE THROUGH YOU AND YOUR TEAM.
LET HIM LEAD YOU AT ALL TIMES!


Introduction

It is important for us to realize why we have put together a communications unit for Missouri Baptist Disaster Relief.

Why a communications unit?

Let's look at a real-life situation from a previous deployment. A mud out unit with three work orders for an area about 45 minutes away could not do one job. The next two jobs were "completed by others". Cell phones were not working in the mountains. They drove back to Command; 45 minutes away. But no one was there when they arrived at the Command Center. This unit wasted the better part of an entire day driving and waiting. And we won't even begin to speculate about an emergency situation that could have developed. In pages to come we will discuss how to overcome this difficult situation by implementing a Communications Team.

There were a couple more factors that came to bear on making the decision to build a Communications Unit:

- Southern Baptist Disaster Relief has initiated the "Incident Management Team" Format.
- The Incident Management Team standardizes the command structure with all Disaster Relief Partners (Red Cross, Salvation Army, FEMA, etc.).

This means that communications between partners, units and Disaster Relief Leadership becomes so much more important. Many times, in a disaster, standard means of communications will not function properly or will be intermittent. (Cell Phones, Hardwire Phones, Internet Access, even electricity may not work consistently.) We must be prepared and flexible enough to communicate when the normal ways are not working.

Overview of the Missouri Baptist Disaster Relief Communications Unit

The primary function of the Missouri Baptist Disaster Relief Communications Unit is to provide logistical and tactical communications support, as directed, to whatever unit or task to which they have been assigned using multiple communications methods. (This could be a clean up and recovery unit, a large feeding unit, a child care unit, a command unit or managing a local, regional or national net.)
In using the Incident Management Team, administration during the local event is achieved with these officers.

1) The Incident Commander: this person is assigned by the Missouri Baptist State Disaster Relief Director. The IC is in charge of all the units during a response.
   a. The Safety Officer: anticipates, identifies and assesses unsafe conditions. Oversees all health & safety aspects of DR volunteers. Reports directly to the Incident Commander.
   b. The PIO (Public Information Officer): informs the public, media and agencies of the progress being made during the response. Reports directly to the Incident Commander. Approves media interviews with volunteers.

2) The Operations Officer: is responsible for the recovery units (out in the field). This may be a separate person or may be the Incident Commander.

3) The Logistics Officer: is responsible for all units in route to and at the assigned location (including housing, food, general supplies and trailer/vehicle parking). This may be a separate person or may be the Incident Commander.

4) The Administrations Officer: is responsible for all reports, paper work, etc. This person reports back to Jefferson City & the SBC. May be the Incident Commander.

5) The Planning Officer: is responsible for preparations for deployment. This person more than likely will be in the EOC in Jefferson City and/or at the EOC on site. May be the Incident Commander.
Maintaining Communications with Field Units
Using Forward Deployed Team:

With the main unit at the IMT Command Site, a Communications Team armed with Ham & Business Band Radios would contact the recovery units that are outside the "Wireless Zone" to keep communications flowing.

Maintaining Communications with Field Units
Using Area Coordinators:

With the main unit at the IMT Command Site or a EOC (Emergency Operations Center), a Communications Team will use multiple communications methods for communications.
Maintaining Communications with Field Units
Using Multiple Incident Commands:
Unlike the previous flow chart, with the multiple ICs, the main unit at the IMT Command Site or a EOC (Emergency Operations Center) and the Communications Team will still use multiple communications methods for communications.

MAINTAINING COMMUNICATIONS WITH MULTIPLE INCIDENT COMMANDS USING AN E.O.C.

Staffing a Communications Unit
The Missouri Baptist Disaster Relief Communications Unit is composed of three teams:

- THE COMMUNICATION'S ADMINISTRATIVE TEAM
  - This team includes the Comms Assistant for the Trailer
  - Team members to staff a Registration Table (Maybe at a MARC)
  - Team members to take phone calls at a Call Center

- THE RADIO OPERATIONS TEAM
  - Radio Operators in the Comm. Trailer
  - Mobile Radio Operators (x2)
  - Secondary Comm. Units
  - In the future we are trying to deploy Chaplain/Assessor Teams that are Communication Trained

- THE INFORMATION TECHNOLOGY TEAM (IT)
  - Trained in Network & Internet Technology
  - Maintain and Repair Electronic Equipment
  - Install and Maintain Satellite Operations
  - Maintain the Electrical Operations (Generators, Shoreline, etc.)
A list of possible positions include:
1. State Communications Coordinator (Communications White Hat)
2. State Assistant Communications Coordinator
3. Communications Unit Leader (Blue Hat ~ See Appendix C)
4. Communications Radio Operators (See Appendix D)
5. Communications Assistant - Mobile (Radio & Driver)
6. Communications Assistant - On Com Trailer
7. Communications Assistant - Reception/Call Center
8. Technicians - Phone System and Network
9. Rapid Response Operator(s) (Jump Kit)
10. Set up & Transportation of Communications Trailer
What are the requirements to serve in Communications?

Note that we begin with the State Communications Coordinator. This is the Communications White Hat appointed by the State Director. He is the point person on all Missouri D.R. communication responses. He/she is in charge of filling positions requested by the State Director. The Communications Unit Leader (Blue Hat) has the responsibility for the operations of the trailer, the Communications Assistants, Radio Operators, and Mobile Units during deployment at a disaster event. Unit Leaders (Blue Hat) receive their training upon an invitation from the State Communications Coordinator (White Hat). (See Appendix C for more information.)

All Communications volunteers will need to be certified in Disaster Relief. No one is allowed to serve in Missouri Disaster Relief without a background check, going through “Introduction to Disaster Relief,” and training in the specific area or areas of interest. You will also need to complete the D.R. Level 1 training in Communications. (This Training).

**Administration Team:** (Preference given to Assistants with an Amateur Technician License)

The Communications Assistant on the Administration Team will need some basic computer knowledge and basic office skills. (Typing forms, filing, answering phone, maintaining records, etc.) Our goal is for all Communications Volunteers to hold at least a Technician Amateur Radio License. However, at this time, the Communications Assistants on the Administration Team will not need an Amateur Radio License (Preference is given to Assistants who hold an Amateur License). All communications volunteers will assist in the setup and/or closing out of the Communications Trailer.

**Radio Operations Team:** (Must have at least a Technicians License-Preference given to Amateur General or Extra) – In the Mobile Unit (One Assistant must hold at least Amateur Radio Technician license)

The Communications Assistant on the Radio Operations Team working in the Trailer as a Radio Operator must hold at minimum a Technicians Amateur Radio License. (At least one of the Communications Assistants on the Mobile Unit must hold at least a Technician's License). Rapid Response Operators will provide their own "Jump Kit" to go into an area that is not yet ready for vehicles. This person will be licensed.
**Information Technology (IT) Team:** Technical Assistants – Setting up & maintaining Network, Satellite, and Electrical Systems

The Communications Assistant on the IT Team will primarily be working with the Internet and the network. This person will be able to keep these two important systems operational. And we are looking for people to pull and set up the com trailer. These positions do not need the Technician License.

It is especially important in the communications area to know how to work in a team environment. The Communication Unit will help communicate with all the work of the other Disaster Relief Units. It is important to understand and be willing to follow the command structure in a disaster setting. It is just as important to be flexible and be a full part of the “Team.”

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**This training is an overview. The Unit Leader (Blue Hat) will instruct the Operators and Assistants when assigned a specific role. Next, we will acquaint you with some of the equipment used.**

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**The Five Equipment Types of the Communications Unit**

1. Radios: Amateur Radio and UHF/VHF Business Band
2. Satellite Internet/Intranet
3. VOIP Phone System
4. Desktop & Laptop Computers
5. Tools & Spare Parts

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1. **RADIOs**

In Amateur Radio, there are three basic licenses: Technician, General and Extra. VHF (Very High Frequency) & UHF (Ultra High Frequency) Radios go a fairly long distance (line-of-sight) but nothing to compare with an HF (High Frequency) Radio (bounces off the ionosphere so you can conceivably talk around the world). In crisis situations, sometimes the only radio that will reach out is the Amateur HF Radio. The General License allows access to the HF Bands. The main reason for the Communications Unit Leader and the Radio Operator to have a General Amateur License is to be able to communicate over long distances when all other forms of communications fail.

The Communications Unit will employ several different radios. Here is a list of what we currently use:

- Amateur Radios (KDOKVS-Com Unit License ~ See Appendix E)
- Business Band (WQAL495-NAMB License ~ See Appendix E)
- General Mobile Radio Service (WQNP528 License ~ See Appendix E)

These radios will be in various forms: Base Stations, mobile radios and handy-talkies.
2. **Satellite Internet Access**

The Communications Unit employs email through the internet and email/chat using the HF Amateur Radio. The internet system will allow access to Mapping Pages (like Google Maps, Mapquest, etc.). We have deployed a HughesNet Satellite Internet System. This system includes internet access by satellite so we do not have to be hardwired to an Internet Service Provider. The System is capable of email and carries our VOIP phone calls.

3. **Voice Over Internet Protocol Phone System**

The Communications Unit employs a Voice Over Internet Protocol (VOIP) Phone System. The VOIP Phone System is digital and allows us to set up our own “Wireless” Phone System. The Communications Unit has a software-based IP PBX so that a “Phone Operator” is not be necessary when calling from one extension to another in the PBX System. Each Disaster Relief Unit within the area covered by our “Access Point” will have an extension on the PBX Phone system and will be able to access email. We are using software from the 3CX Corporation. For more information on the 3CX Phone System *(See Appendix H)*:

4. **Desktop and Laptop Computers**

The Communications Unit have access to three computers on the Trailer. The computers will allow Assistants to digitally log messages and work on the digital database. There are two separate computers built in to the Communications Trailer and a laptop available.

5. **Tools & Spare Parts**

An inventory of tools and spare parts will be available on the Communications Trailer.

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**FROM THIS POINT ON IN THIS TRAINING WE WILL EMPHASIZE RADIO OPERATIONS**
Five Sections of the Communications Unit

1. Radios

<table>
<thead>
<tr>
<th>Ham Radio</th>
<th>Business, GMRS Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Requires licensed operators</td>
<td>☐ Anyone can operate.</td>
</tr>
<tr>
<td>☐ Requires training and/or familiarity with equipment</td>
<td>☐ Radio is Licensed</td>
</tr>
<tr>
<td>☐ Standard UHF, VHF and HF capability</td>
<td>☐ Standard VHF &amp; UHF capability</td>
</tr>
<tr>
<td>☐ Repeater Capability if available</td>
<td>☐ Simplex Operations – requires no infrastructure</td>
</tr>
<tr>
<td></td>
<td>(GMRS can be repeated.)</td>
</tr>
</tbody>
</table>

**Ham Radio**

- Establish VHF Net --- “KDOKVS Baptist Communications” When Amateur Radio Operators are deployed, we will inform Hams if a repeater is available and if not, what simplex frequency will be monitored.
- Mobile Unit communicates with Com Trailer on 2 meter (i.e. 146.450).
- Partner contact on HF Amateur (American Red Cross, SATUREN, etc. See Appendix B)

**Business, GMRS Radio**

- Recovery Unit communicate on Business Band 151.625, 151.760, 154.5275 to Mobile Unit (Recovery 23, Chain Saw 23, Flood Recovery 23 or Mudout 3)
- IMT and Logistical Units communicate on UHF (Business Band or GMRS ~ Mass Care 2, Child Care, Shower Trailer 2, etc.)
- Chaplains & Assessors use a combination of radios (Chaplain 5, etc.)
ALWAYS REMEMBER
1. Use plain Language
2. Repeat all information (phone & radio)
3. Leave "Roger" at home.
4. Never use special codes (10 codes or Q codes)
5. Learn the International Phonetic Codes
   (See Appendix F)

STEPS FOR RADIO ETIQUETTE ON PREPARATION TO LEAVE BASE

1. Contact Com Trailer/Mobile Unit and inform them you are ready to deploy.

2. Contact Com Trailer/Mobile Unit and inform them you are on location.

3. Contact Com Trailer/Mobile Unit and inform them when you are changing locations.

4. Contact Com Trailer/Mobile Unit and inform them you are about to return to base.

5. Contact Com Trailer/Mobile Unit and inform them you have arrived back at base.
TYPICAL CONVERSATION

Com Trailer on 2 meter Amateur Radio: "WØGRP Mobile 2 this is KDØKVS Baptist Com."

Mobile 2: "KDØKVS Baptist Com, this is WØGRP Mobile 2, go ahead."

Com Trailer: "Operations needs to know the current location of Recovery 35."

Mobile 2: "Operations needs to know the current location of Recovery 35, Stand by Baptist Com and we will check. WØGRP Mobile 2 clear."

Com Trailer: "That is correct, KDØKVS Baptist Com standing by."

Mobile 2 on Business Band: "Recovery 35 this is Mobile 2".

Recovery 35: "Recovery 35, go ahead".

Mobile 2: "Operations needs a current Work Order Number where your unit is located".

Recovery 35: "Operations needs a current Work Order Number where our unit is located. We are currently at Work Order Number 135".

Mobile 2: "I understand. Recovery 35 is currently at Work Order Number 135. Thank you Recovery 35, Mobile 2 clear."

Recovery 35: "Recovery 35 clear."

Mobile 2 on 2 meter Amateur Radio: "KDØKVS Baptist Com, this is WØGRP Mobile 2".

Com Trailer: "WØGRP Mobile 2, this is KDØKVS Baptist Com, go ahead".

Mobile 2: "Baptist Com, Recovery 35 is currently at Work Order Number 135".

Com Trailer: "Recovery 35 is currently at Work Order Number 135. Thank you Mobile 2. KDØKVS Baptist Com clear"

Mobile 2: "WØGRP Mobile 2 clear".
The Trailer Deployment

Setting up the Communications Unit

Using the inventory list, those who are setting up the communications trailer for operation should insure where all the equipment is located and that it is in proper working order. Physically locating the trailer, the persons doing setup should focus on good alignment to the southwest for the satellite system and a good location for the best radio transmissions. The next step would be to set the generator at a safe distance from the trailer, put the jacks on blocks and level the trailer, assemble the mast, antennas, access points and client bridge if needed. The next step involves connecting the shoreline/generator, antennas and network “cat 5” cables. Setup the satellite system. Setup the mobile office, if needed. Set fuel cans in a safe place. Setup the water and sewer system if they are connected.

Operating the Communications Unit

Operations: (working as a team)
1. Run diagnostics on all systems. Log onto satellite system and check for adequate upload/download speeds. Check all phones for integration with the PBX, ability to use outgoing gateways (calls outside unit on SKYPE), and email/internet operations. Also, run a check on the UPS and Battery Inverters to insure proper operation.

2. Meet with the Incident Commander to assess communications needs.

3. Establish Operations Schedule, establish nets on UHF, VHF and HF, open forms on computer or pull hard copies to begin logging and messaging.

4. Operate until unit is no longer needed.

Closing out the Communications Unit

Using the inventory list, insure all equipment is packed and secure for transportation. Physically shut down trailer’s generator, jacks, mast/antennas/Access Points/Client Bridge if used. Store satellite system. Disconnect shoreline/generator, antennas, network “cat 5” cables. Tear down the Mobile Office if it was used. Store fuel cans in safe place for return trip. Disconnect water/sewer system if used.
APPENDIX A
ADDITIONAL INFORMATION

From time to time we are scheduling a two-day class for the Amateur Technicians License. If we have five or six people in a region that is willing to host this Friday and Saturday Class, the students will end that day by taking the FCC exam.

www.fema.gov for ICS 100, 200, 700, 800
www.arrl.org
www.hamtestonline.com (can use without an account)
https://hamstudy.org (must register/sign in)
www.qrz.com (must register/sign in)

Missouri Baptist Communication’s CONTACTS

Missouri Baptist Communication’s Unit: Website: www.mobaptistdr.org

Gaylon Moss, MO Baptist DR State Specialist
  1-800-736-6227 ext. 314, gmoss@mobaptist.org
Jerry Palmer, MO Baptist Communications Coordinator/Trainer
  WØ GRP, 816-895-2979 cell, jpalmer@mobaptistdr.org
Linda Palmer, MO Baptist Communications Trainer
  KDØ MAF, 816-287-1878, lpalmer7@mobaptistdr.org

ALWAYS REMEMBER:
Use plain language (radio)
Repeat all information (phone & radio)
Leave “Roger” at home.
Never use special codes (10 codes or Q codes)
Learn IPC (See Appendix F)
APPENDIX B
MAINTAIN COMMUNICATIONS WITH ALL PARTNER ENTITIES

The Communications Unit must maintain communication with more than just other DR Units. Some of the entities that we must continually converse with include:

- The North American Mission Board
- Local Government Emergency Office Coordinators
- Vendors
- Incident Commanders (On-Site Coordinator)
- Feeding Units
- Recovery Units in the Field
- Red Cross ERV's
- Chaplain's Units in the Field.
APPENDIX C

Unit Leader (Blue Hat) Requirements for the Communications Unit

What are the requirements to serve as the Unit Leader (Blue Hat) on the Communications Unit? First, the Communications Unit Leader will need to be certified in Disaster Relief. No one is allowed to volunteer for Disaster Relief without a background check, going through “Introduction to Disaster Relief,” and training in the specific area or areas where they are interested in serving. The Unit Leader (Blue Hat) will need to complete the D.R. Level 1 training for “Communications” and complete the training for “Unit Leader/Blue Hat”. The Unit Leader/Blue Hat position will be by invitation only.

Second, the Communications Unit Leader (Blue Hat) will need at least a General Amateur Radio License. (Copies of all licenses are filed in the Communications Unit.)

Third, the Communications Unit Leader (Blue Hat) must complete FEMA’s online classes in Incident Command (ICS 100, 200, 700 & 800). (Copies of certificates of completion are forwarded to the MO Communications Coordinator.)

Fourth, the Communications Unit Leader (Blue Hat) will need some basic computer knowledge and radio skills.

Fifth, the Communications Unit Leader (Blue Hat) will participate in Disaster Relief Level 2 Trainings.

Sixth, the Communications Unit Leader (Blue Hat) will need to know how to setup, maintain and operate the Communications Trailer in the Field.

Finally, the Communications Unit Leader (Blue Hat) will need to know how to lead a team in a team environment.

It might be good at this point to give the guidelines for leadership. All Missouri Disaster Relief Units are called out only by the Missouri Baptist Disaster Relief Director. The State Director assigns an Incident Commander, locations and number of units for a particular area. The Incident Commander will be in charge of all of the units in his area. While the Incident Commander is in charge, the responsibility for the operations of the trailer and the communications area is the Communications Unit Leader's (Blue Hat’s) working under the direction of the State Communications Coordinator (White Hat).

The Communications Unit Leader's (Blue Hat’s) Responsibilities

What are the responsibilities of the Unit Leader (Blue Hat) on the Communications Unit? Those responsibilities would include:

- To provide overall coordination of communications between the Incident Management Team and responding or active DR Units.
- To provide leadership and direction to all Communications Personnel
- Verify that the communication network is established and maintained during deployment.
APPENDIX D

Requirements For The Communications Radio Operator

What are the requirements to serve as a Communications Radio Operator?

First, the Communications Radio Operator will need to be certified in Disaster Relief. No one is allowed to volunteer for Disaster Relief without a background check, going through “Introduction to Disaster Relief,” and training in the specific area or areas where they are interested in serving. The Communications Radio Operator will need to complete the D.R. Level 1 training for “Communications.” (This training.)

Second, preference will be given to the Communications Radio Operator who holds at least a General Amateur License. However, a Technician's Amateur Radio License is required.

Third, preference will be given to the Communications Radio Operator who has completed FEMA’s online classes in Incident Command (ICS 100, 200, 700 & 800). (Copies of certificates of completion are forwarded to the MO Communications Coordinator.)

Fourth, preference will be given to the Communications Radio Operator who participates in Disaster Relief Level 2 Trainings.

Fifth, the Communications Radio Operator will know how to setup, maintain and operate the Communications Trailer in the Field.

Sixth, the Communications Radio Operator will need some basic computer knowledge and good radio skills.

Seventh, the Communications Radio Operator will need to know how to work in a team environment.
APPENDIX E

RADIO LICENSES

The Communications Unit will employ several different radios. Below is some of the licenses we carry to ensure we are legally transmitting:

MOBEARS: (Missouri Baptist Emergency Amateur Radio Service) KD0KVS

United States of America
Federal Communications Commission
Amateur Radio License
KD0KVS

Grant Date: 03-22-2010
Effective Date: 03-22-2010
Print Date: 06-22-2010
Expiration Date: 03-22-2020

File Number: 0005181344
Operator Privileges: CLUB
Station Privileges: GMRS (General Mobile Radio Service-UHF)

Special Conditions / Endorsements

This license is not transferable

Federal Communications Commission
Wireless Telecommunications Bureau
Radio Station Authorization

Palmel, Gerald R.
130 Cardinal Circle
Lawson, MO 64062

FCC Registration Number (FRN): 01380792

Call Sign: KD0KVS
File Number: 0005181344
Z-A: General Mobile Radio (GMRS)

Grant Date: 04-20-2011
Effective Date: 04-20-2011
Print Date: 04-20-2011
Expiration Date: 04-20-2016

Special Conditions / Endorsements

This license is not transferable

North America Mission Board Disaster Relief Business Band

United States of America
Federal Communications Commission
RADIO LICENSE

Palmel, Gerald R.
130 Cardinal Circle
Lawson, MO 64062-5314

FCC Registration Number (FRN): 0005761835

Special Conditions / Endorsements

This license is not transferable

State Coordinator Personal License (Jerry Palmer, W0GRP)
APPENDIX F

*International Phonetic Code*

Each amateur radio station has been assigned by the appropriate licensing agency of his or her government a unique call sign. To avoid confusion and enhance effective communications, during network operations, all station call signs should be communicated phonetically. Only the International Phonetic Alphabet should be used:

<table>
<thead>
<tr>
<th>Code</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPHA</td>
<td>NOVEMBER</td>
</tr>
<tr>
<td>BRAVO</td>
<td>OSCAR</td>
</tr>
<tr>
<td>CHARLIE</td>
<td>PAPA</td>
</tr>
<tr>
<td>DELTA</td>
<td>QUEBEC</td>
</tr>
<tr>
<td>ECHO</td>
<td>ROMEO</td>
</tr>
<tr>
<td>FOXTROT</td>
<td>SIERRA</td>
</tr>
<tr>
<td>GOLF</td>
<td>TANGO</td>
</tr>
<tr>
<td>HOTEL</td>
<td>UNIFORM</td>
</tr>
<tr>
<td>INDIA</td>
<td>VICTOR</td>
</tr>
<tr>
<td>JULIET</td>
<td>WHISKEY</td>
</tr>
<tr>
<td>KILO</td>
<td>X-RAY</td>
</tr>
<tr>
<td>LIMA</td>
<td>YANKEE</td>
</tr>
<tr>
<td>MIKE</td>
<td>ZULU</td>
</tr>
</tbody>
</table>

The International Phonetic Alphabet is used around the world and, in some cases, represents the only knowledge of the English language that some foreign operators possess.

Remember: To maximize communications efficiency, your station's call sign should always be communicated phonetically. For example, THIS IS WHISKY FIVE BRAVO VICTOR BRAVO will, most likely, be copied correctly on the first try. Try saying that call sign without phonetics ... you'll understand why the proper use of phonetics is not only desirable, but, in some cases, mandatory.
SCHEDULE FOR TRAINING:

1. PRESENTATION  8:30 – 10:15 AM
2. BREAK 10:15-10:30 AM
3. Equipment Lab & Scenario Part 1 10:30 AM-12:30 PM
4. Equipment Lab & Scenario Part 2 1:00-2:30 PM
5. Break Down Trailer & Equipment 2:30 PM

POSSIBLE CROSS TRAINING OPPORTUNITIES:
Shower & Laundry Training, Damage Assessment (Prerequisites), IMT (By Invitation)

Communications Level One Training!

This training is an overview. The Unit Leader (Blue Hat) will instruct the Communications Personnel when they are assigned a specific role (OJT-On The Job Training). Today we will acquaint you with the role Communications plays in Disaster Relief and the equipment to be used.
DISASTER RELIEF!

“'What use is it, my brethren, if a man says he has faith, but he has no works? Can that faith save him? If a brother or sister is without clothing and in need of daily food, and one of you says to them, 'Go in peace, be warmed and be filled,' and yet you do not give them what is necessary for their body, what use is that? James 2:14-16 NAS”

DISASTER RELIEF!

“FIRST WE MEET THE NEED. THEN WE PLANT THE SEED”!
Not the most visible units in Disaster Relief. We support other units and those in leadership. All the Equipment and the satellite dish will gain attention.

DISASTER RELIEF!

“FIRST WE MEET THE NEED. THEN WE PLANT THE SEED”!

LET HIS LIGHT SHINE THROUGH YOU AND YOUR TEAM.

LET HIM LEAD YOU AT ALL TIMES!
**Why a Communications Unit?**

1. Previous gaps in communications in the field (West Virginia)
2. Initiation of the “Incident Management Team” (IMT)
3. IMT has standardized the command structure of DR Partners (and a greater need for communications).

**Overview**

The primary function of Missouri Disaster Relief Communications Unit is to provide logistical and tactical communications support, as directed, to whatever unit or task to which they have been assigned using multiple communications methods.

**IMT System**
IMS

- **Incident Commander**
  - White Hat assigned by State DR Director
  - In Charge of overall Relief effort.
- **Safety Officer (May be IC)**
  - Oversees all health & safety aspects of DR volunteers
- **PIO (Public Information Officer-May be IC)**
  - Informs the public, media and agencies of the progress being made during the response.

IMS

- **Operations Officer**: responsible for the recovery units (out in the field)
- **Logistics Officer**: responsible for all units in route to and at the assigned location.
- **Administration Officer**: responsible for all reports, paper work, etc.
- **Planning Officer**: responsible for preparations for deployment

MAINTAINING COMMUNICATIONS WITH FIELD UNITS USING FORWARD DEPLOYED TEAM

COMM UNITE AT INCIDENT COMMAND

SATELLITE HF/22 HF/HAM BUSINESS BAND

FORWARDED DEPLOYED (if required)

UHF HAM VHF HAM BUSINESS BAND

VHF HAM BUSINESS BAND/GMRS

RECOVERY UNIT 1

RECOVERY UNIT 2

RECOVERY UNIT 3

CHAPLAIN 1
Communications

- Personnel
  - State DR Communications Coordinator
    - (White Hat) – Assistant Coordinator
  - Unit Blue Hat
  - Three Teams
    - Administration Team
    - Radio Operations Team
    - IT Team

Unit Blue Hat

- Blue Hat Training (By Invitation)
- General Class or higher amateur license
- Completed FEMA ICS 100, 200, 700 & 800
- Trained in set-up, operation and maintenance of Command & Communication Trailer
- Designated by State Communications Coordinator

Unit Blue Hat – Responsibilities

- To provide overall coordination of communications between the incident command group and responding or active DR Units.
- To provide leadership and direction to Communications Assistants
- Verify that the communication network is established and maintained during deployment
Communications Assistant

- Communications Assistant will not need an Amateur Radio License. (Preference will be given to the Communications Assistant & Radio Operators on the Com Trailer that holds at least a Technician License).
- All Communications Assistant will need to be certified in Disaster Relief
- Communications Assistant will need to go through the Communications Assistant Training. (This Training)
- Communications Assistant will need some basic computer & phone skills.
- Communications Assistant will need to know how to work in a team environment.

Communications Teams

- Three Different Communications Teams:
  - **Administration Team:** on the Trailer (Preference given to Amateur Technician)
  - **Radio Operations Team:** (Must have at least a Technician License Preference given to Amateur General or Extra) – In the Mobile Unit (One Assistant must hold at least Amateur Radio Technician license)
  - **Information Technology (IT) Team:** Technical Assistants – Setting up & maintaining Network, Satellite, and Electrical Systems

Communications Level One Training!

This training is an overview. The **Unit Leader (Blue Hat)** will instruct the Communications Personnel when they are assigned a specific role (OJT-On The Job Training). Today we will acquaint you with the role Communications plays in Disaster Relief and the equipment to be used.
FIVE EQUIPMENT TYPES

- RADIOS: Amateur & Business Band
- SATELLITE INTERNET/INTRANET:
- VOIP PHONE SYSTEM
- DESKTOP & LAPTOP COMPUTERS
- TOOLS & SPARE PARTS

FIVE EQUIPMENT TYPES

- RADIOS:
  - Amateur Radios (KD0KVS-Com Unit License ~ See Appendix E)
  - Business Band (WQAL495-NAMB License ~ See Appendix E)
  - General Mobile Radio Service (WQNP528 License ~ See Appendix E)

FIVE EQUIPMENT TYPES

- SATELLITE INTERNET:
  - We have deployed a HughesNet Satellite Internet System. This system includes internet access by satellite so we do not have to be hardwired to an Internet Service Provider.
FIVE EQUIPMENT TYPES

VOIP Phone System:
- Computer Controlled
- Works like a Telephone
- Transfer calls from extension to extension or calls directly from extension to extension.
  - Calls from outside: "Baptist Disaster Relief, may I help you?"
  - Calls from extensions: "Communications Unit, may I help you?"

FIVE EQUIPMENT TYPES

- DESKTOP & LAPTOP COMPUTERS:
  - The Communications Unit have access to three computers on the Trailer.
  - The computers will allow Assistants to digitally log messages, work on the digital database (Like Excel Sheets with Work Orders) and use digital mapping.
  - There are two separate computers built into the Communications Trailer and a laptop available.

FIVE EQUIPMENT TYPES

- TOOLS & SPARE PARTS:
  An inventory of tools and spare parts will be available on the Communications Trailer.

FROM THIS POINT ON IN THIS TRAINING WE WILL EMPHASIZE RADIO OPERATIONS
Radios

Ham Radio
- Requires licensed operators
- Requires training and/or familiarity with equipment
- Standard UHF, VHF and HF capability
- Repeater Capability if available

Business, GMRS Radio
- Radio is Licensed
- Standard VHF & UHF capability
- Simpex Operations – requires no infrastructure (There are a limited number of Business Band or GMRS Repeaters)

Radios

Ham Radio
- Establish VHF Net — "KD6KVS Baptist Com Center"
- Mobile Unit communicates with Com Trailer on 2 meter
- Possible Chaplain/Assessor Teams communicating on 2 meter

Business, GMRS Radio
- Recovery Unit communicate on Business Band 151.525 to Mobile Unit (Chain Saw 23 or Mudout 3)
- IC and Logistical Units communicate on Business Band-UHF or GMRS (Mass Care 2, Child Care, Shower Trailer 2, etc.)
- Possibly in the future we will have a business band repeater (For use by Recovery Units)

Radio - HF/VHF-UHF

- ICOM 7200
Radio UHF

- Yaesu 2900R

Radio UHF/VHF

- Yaesu 8800R

HT Radios

- Baofeng UV-82HP
- Wouxun - KG-UV6D
ALWAYS REMEMBER

1. Use plain Language
2. Repeat all information (phone & radio)
3. Leave “Roger” at home (See Appendix G)
4. Never use special codes (10 codes or Q codes)
5. Learn the International Phonetic Codes (See Appendix F)

RADIO ETIQUETTE

1. Contact Com Trailer/Mobile Unit and inform them you are ready to deploy.
2. Contact Com Trailer/Mobile Unit and inform them you are on location.
3. Contact Com Trailer/Mobile Unit and inform them when you are changing locations.
4. Contact Com Trailer/Mobile Unit and inform them you are about to return to base.
5. Contact Com Trailer/Mobile Unit and inform them you have arrived back at base.

TYPICAL CONVERSATION

Com Trailer on 2 meter Amateur: “WK3GRP Mobile 2 this is KD2KVS Baptist Com”
Mobile 2: “KD2KVS Baptist Com, this is WK3GRP Mobile 2, go ahead”
Com Trailer: “Operations needs to know the current work order number where Recovery 35 is located.”
Mobile 2: “Operations needs to know the current work order number where Recovery 35 is located. Stand by Baptist Com and we will check, WK3GRP Mobile 2 clear.”
Com Trailer: “That is correct, KD2KVS Baptist Com standing by”
Mobile 2 on Business Band: “Recovery 35, this is Mobile 2.”
Recovery 35: “Recovery 35, go ahead”
Mobile 2 on Business Band: “Recovery 35, Operations needs to know the current work order number where you are working.”
TYPICAL CONVERSATION Part 2

Recovery 35: "Mobile 2, Operations needs to know the current work order number where we are working. We are currently at Work Order # 135."
Mobile 2: "I understand, Recovery 35 is currently at Work Order # 135. Thank you Recovery 35, Mobile 2 clear."
Recovery 35: "Recovery 35 clear."
Mobile 2 on 2 meter: "KDKVVS Baptist Com, this is WJQRP Mobile 2."
Com Traller: "WJQRP Mobile 2, this is KDKVVS Baptist Com."
Mobile 2: "Baptist Com, Recovery 35 is currently at Work Order # 135."
Com Traller: "Recovery 35 is currently at Work Order # 135. Thank you Mobile 2, KDKVVS Baptist Com clear."
Mobile 2 on 2 meter: "WJQRP Mobile 2 clear."

ALWAYS REMEMBER:
- Use plain language (radio)
- Repeat all information (phone & radio)
- Leave "Roger" at home.
- Never use special codes (10 codes or Q codes)
- Learn the International Phonetic Codes

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Appendix A
- From time to time we are scheduling a two-day class for the Amateur Technician License. If we have five or six people in a region that is willing to host this Friday and Saturday Class, the students will end that day by taking the FCC exam.
- www.fema.gov for ICS 100, 200, 700, 800
- www.arrl.org www.hamtestonline.com
- https://hamstudy.org
- www.qrz.com
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Communication's Level One Training

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