

CLAY COUNTY
AMATEUR RADIO EMERGENCY SERVICE
OPERATIONS MANUAL



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Clay County Amateur Radio Emergency Service Communications Plan

American Radio Relay League

Clay County Florida Crown District Northern Florida Section

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Clay County Amateur Radio Emergency Service Emergency Communications Plan

1. PURPOSE

- 1.1. ...Is to implement Part 97.1 of the FCC regulations, and Federal and international treaty law applying to Amateur Radio in the Northern Florida Section, Crown District and Clay County.

Part 97.1 Basis and purpose.

The rules and regulations in this Part are designed to provide an amateur radio service having a fundamental purpose as express in the following principles:

- 1.1.1. Regulation and enhancement of the value of the amateur service to the public as a voluntary non-commercial communications service, particularly with respect to providing emergency communications (Emphasis supplied)
- 1.2. The primary responsibility of the Clay County ARES is to furnish communications in the event of a natural disaster and emergencies usually involving major threat to life or property, when regular communications fail or are inadequate.
- 1.3. All drills, training and instruction shall be carried out to insure readiness to respond quickly in providing effective amateur emergency communications whenever an occasion may arise.
- 1.4. The following agencies could be served during a communications emergency: Clay County Publish Safety (Fire/Rescue and Emergency Operations Center); Clay County Sheriff's Office; Orange Park Medical Center; American Red Cross; Salvation Army; City of Orange Park; City of Green Cove Springs; City of Keystone Heights; and any other agencies requesting assistance from the ARES.

2. INTRODUCTION

- 2.1. The Clay County Amateur Radio Emergency Service (ARES) is composed of FCC-licensed Amateur Radio operators who have voluntarily registered their capabilities and equipment for public service communications duty.
- 2.2. Under Federal regulations, Amateur Radio public service communications are furnished without compensation of any kind.
- 2.3. The Clay County ARES functions under this Emergency Plan under the direction of the Clay County Emergency Coordinator, who is appointed by the ARRL Northern Florida Section Emergency Coordinator in consultation the Crown District Emergency Coordinator (DEC).
- 2.4. The following is required by Section Emergency Plan:

“Emergency Coordinator (EC)

The EC is the chief ARES official in the County, and is directly responsible to the DEC. The duties of EC require a serious commitment of time and effort by the volunteer who accepts it. The EC serves at the pleasure of the Section Emergency Coordinator (SEC) or Section Manager (SM), but works closely with the DEC day to day.

The EC’s duties in a medium-to-large county are many and complex. No EC can do everything himself. To be effective, he must delegate duties to Assistance ECs (AECs). He/she may appoint as many AECs as needed. AEC appointments do not need approval by any other ARES official. AECs need not be ARRL members, but should be encouraged to join. They serve at the pleasure of the EC and their appointments lapse when the EC resigns or is replaced, though any or all of the same individuals may be reappointed by the new EC at his/her discretion.

The EC organizes and coordinates Amateur Radio communications in the County to accommodate the needs of agencies served.”

2.5. **Deputy Emergency Coordinator**

Responsibility includes but not limited to performing duties of Emergency Coordinator in the absence of the Emergency Coordinator.

2.6. **Assistant Emergency Coordinator (AEC) – Training**

Responsibilities include, but not limited to, preparing training sessions, lesson plans, and arranging for training from outside agencies.

2.7. **Assistant Emergency Coordinator (AEC) – Public Relations**

Responsibilities include, but are not limited to, providing media notification for ARES and amateur radio functions.

2.8. **Assistant Emergency Coordinator (AEC) – Digital Services**

Responsibilities include, but are not limited to, setting up and maintaining digital communications capability within the Clay County area and acting as digital communications liaison with other counties.

2.9. **Assistant Emergency Coordinator (AEC) – Administration**

Responsibilities include, but are not limited to, keeping records, making reports, maintaining a supply of forms, and disseminating special notifications and notices to members.

2.10. **Assistant Emergency Coordinator (AEC) – Membership**

Responsibilities include, but are not limited to, recruiting and maintaining membership roster.

2.11. **Assistant Emergency Coordinator (AEC) Logistics**

Responsibilities include, but are not limited to, Transportation, Supplies (food, fuel, water, etc.), and Equipment (generators, batteries, antennas, etc.).

2.12. **Net Manager**

Responsibilities include, but are not limited to the following:

2.12.1. The Clay County Emergency Net will be called to order by the Net Control Station (NC).

2.12.2. Members of the Clay County ARES are checked into the net from their mobiles and home stations to await further instructions.

2.12.3. Liaison stations to the following National Traffic System (NTS) nets will be assigned:

North Florida ARES Net (NFAN), 3950 Khz, 0900 Local
Northern Florida Phone Net (NFPN), 2950 Khz, 1930 Local
Liaison to District Net, 146.925 PL 256.7Hz

- 2.12.4. Clay County ARES Net, 146.925 PL 156.7 FM Repeater upon activation
- 2.12.5. Mobile operators are dispatched as needed to Orange Park Medical Center, assigned shelters, and any other agencies as required.
- 2.12.6. Operators of home stations not on emergency power are coordinated to effectively operate the “Key Stations” as required.

2.13. **Assistant Emergency Coordinator (AEC) - Webmaster**

Responsibilities include, but are not limited to, maintaining Clay County ARES Website.

3. ACTIVATING THE PLAN

- 3.1. Any member of the Clay County ARES who for any reason suspects a communications emergency exists should monitor the assigned net for activity.
- 3.2. If local telephone service is available, the EC and/or assistant ECs should be notified by telephone.
- 3.3. In an emergency in which Amateur Radio might serve the community, Amateur Radio operators may be alerted by any city, Red Cross, Emergency Operations Center (EOC) or similar official notifying the Emergency Coordinator. The County EOC shall be notified of any activation.

4. ARES MOBILICATION PROCEDURE

4.1. Use of commercial radio for notification of ARES Activation

4.1.1. Upon activation within Clay County, WOKV is to be notified and they will assist in broadcasting activation. When talking with WOKV Ham Activation must be stated.

4.1.2. The following personnel are authorized to contact WOKV 690 AM.

Emergency Coordinator
Deputy Emergency Coordinator
Net Manager
Assistant Emergency Coordinator – Public Relations
Public Safety PIO
Clay County Sheriff PIO

Persons not named above will not have clearance to go on the air and make an announcement.

4.1.3. The following telephone numbers are for WOKV:

News Director: 904-245-8686
Newsroom Direct: 904-245-8866
Newsroom FAX: 904-245-8815

4.2. If telephone service is available, the telephone tree is activated.

4.3. Upon the awareness or notification that a communications emergency exists, members of the Clay County ARES will call into the Clay County ARES Emergency Net on 146.925 MHz, PL 156.7 FM repeater with 146.925 MHz simplex as an alternate frequency. The District Emergency Coordinator will be notified by telephone or any other means available.

Mobile units are activated and dispatched.

4.4. The EC will assume net control or delegate another station as the NCS. Control will be from the Clay County EOC or another location as appropriate.

4.5. The control station is designated as a “Key Station” and will be extensively utilized during a communications emergency. Key Stations have full emergency power capability with relief operators assigned to ensure continuous operation.

5. OPERATIONS

- 5.1. All written messages for the NTS must be in standard ARRL format.
- 5.2. All messages must have the signature and title of the official originating them. The official signing the message takes responsibility for its content.
- 5.3. Message precedence's of EMERGENCY, Priority, Welfare, and Routine, as defined on ARRL Form FSD-3, shall be used on all messages.
- 5.4. Stations do not transmit unless invited to do so by net control. The only exception to this is for a station having EMERGENCY traffic.

6. DRILLS, TEST AND ALERTS

- 6.1. An annual test will be conducted in October in conjunction with the nationwide ARRL Simulated Emergency Test.
- 6.2. The Clay County ARES, if requested, will regularly supply public safety communications in conjunction with local events to test the effectiveness of the operation.
- 6.3. The Clay County Emergency Net meets each Sunday at 1930 local on 146.925 MHz, PL 156.7 FM Repeater.
- 6.4. At the discretion of the EC, the ARES will be activated unannounced via the telephone tress at least once annually.

7. ALERTING and NOTIFICATION

7.1. Levels of Alert: When a disaster strikes or threatens any Northern Florida community, affected ECs and DEC's may invoke any of four levels of alert for their ARES organization:

7.1.1. **WHITE ALERT** notifies ARES members in a specified area (such as a County or District) or functional unit (such as a net) that their services may be needed on short notice in the next 24-28 hours. It is typically issued by the SEC or, occasionally by DEC, or EC. The alert may apply to the entire Section or to specific Districts or Counties. But omission of any area does not prohibit others from taking whatever precautionary steps may be appropriate. The SEC usually does not issue a follow-up order raising the alert level but leaves that step to the ECs or DEC's in the affected areas. A WHITE Alert declaration signals DEC's that they should alert ECs, "jump team" coordinators, Net Managers, and other key ARES officials to prepare for short-notice calls. All members in the alerted Districts or Counties should monitor ARES net frequencies and keep closely in touch.

7.1.1.1. Alerted ARES members should prepare to be en route to duty posts within two hours or less of being assigned.

7.1.1.2. Preparations may include updating "ready-kits", arranging to take time off from work, fueling vehicles and power generators, charging batteries, obtaining stocks of expendable batteries and testing emergency-related portable equipment Nets operating in White Mode customarily run in "free mode", i.e., that are not directed. ARES members and officials should monitor the appropriate frequencies for information and for possible increases in or cancellation of the alert status.

7.1.2. **ORANGE ALERT** (Condition Orange) is descriptive of operational status. It is usually issued by DEC's or ECs and designates nets, GATEway activations; jump teams, and such, to perform specific tasks. The alert level becomes Orange in a County or District when specific duty posts are staffed and become operational. A net typically "goes Orange" when a net control operator opens the net.

7.1.2.1. A DEC may place any District or local net or other operating unit (such as a jump team or County EOC ARES staff) in his District on Orange Alert. Most emergencies, even severe ones, can be handles without ever going beyond Orange.

- 7.1.3. **RED ALERT** (Condition Red) is the highest possible level of alert in an ARES operation. It is useful for maintaining tight control over HF circuits where heavy traffic and large numbers of stations are causing communication problems. When distress traffic is being handled on any ARES net or frequency, the alert level is automatically Condition Red and remains so until all distress traffic has been cleared.
- 7.1.3.1. Red Alert can be invoked at the Section level only by the SEC or SM. It is the only alert level under which the SEC or SM will consider asking the FCC to clear a frequency.
- 7.1.3.2. Red Alert is declared by issuance of a Priority bulletin to be transmitted on all active ARES frequencies. It applies solely to nets and geographic areas designated in the formal order. A District EC can put his District on Red Alert by declaration, but he must advise the SEC or SM of his action in advance or, if this is impossible, immediately upon taking the action. The bulletin specifies the date and time Red Alert operation is to begin. It should designate the net or nets and/or the geographic area (County or Counties, District or Districts, Section, etc.) to which it will apply. It will designate Key Cities to be activated, if any. Nets or areas NOT designated in the bulletin will continue in whatever level of alert prevailed before the Red Alert began.
- 7.1.4. **BLUE ALERT** (Condition Blue) authorizes DECs and ECs to begin the stand-down phase of the activation. BLUE is permissive only; it does not require that operations be shut down in the specified area. It simply advises the designated DECs and/or ECs that no apparent reasons exist for continuing operation unless they have local requirements. The DEC and EC then may reduce operating hours, restrict operations or close down designated nets as the emergency passes and traffic loads subside.
- 7.1.4.1. Only the SEC (or SM) may invoke a Blue Alert for a Section net, or if more than one District is involved in the emergency operation, because specific DECs or ECs may not be aware of conditions elsewhere that might require their support. A DEC can invoke a Blue Alert in the District net if the emergency operations involves only his/her own District and no Section net is in operation.
- 7.1.5. **NO ALERT** (Condition GREEN) is the normal situation for Amateur communication. No state of alert or emergency exists.

7.2. NET OPERATIONS

- 7.2.1. The Florida traffic net system embraces many kinds of net, using many modes of communication. They operate around the clock, seven days a week, on a wide variety of schedules.
- 7.2.2. The basic cluster of Section nets in Florida embraces those of the National Traffic System (NTS) as well as a variety of special-purpose nets such as the Northern Florida ARES Net, the ARRL Information Net, various circuits operating in CW and various other digital modes.
- 7.2.3. In addition, a great many VHF and UHF local or semi-local nets operate all day, every day, and in just about every mode authorized by the FCC. These include repeaters which, by their inherent nature, may be defined as nets, though they may be seldom, if ever, subject to net controls. Each of these nets has its own procedures, schedule and operating practices and many of them shift around automatically from routine, casual operation to emergency mode.
- 7.2.4. It is not the intent of this plan to prescribe operating functions or procedures for any of these nets unless they are explicitly part of the Country, District, or Section ARES program. Individual participation in almost any well conducted net in any mode, on any frequency is strongly recommended as a way to become familiar with nets and how they operate. The discussions below refer to and recommend procedures for ARES-affiliated circuits; however, most of these procedures work quite well in any well-disciplined traffic or emergency net.

7.3. NFAN-THE NORTHERN FLORIDA ARES NET

- 7.3.1. The Daily ARES Section Net
- 7.3.2. The Northern Florida ARES Net meets Monday through Saturday on or near 3950 KHz LSB, at 0900 Eastern time (0800 Central), the year-around.

7.4. NFPN-THE NORTHERN FLORIDA PHONE NET

- 7.4.1. The Daily Section Sideband Traffic Net
- 7.4.2. The Northern Florida Phone Net (NFPN) meets seven evenings a week on about 3950 KHz at 2330Z LSB as a regular part of ARRL's National Traffic System. Its primary purpose is to handle routine message traffic, and to train net members and net control operators in message handling and net procedures. A secondary daily objective

is to disseminate bulletins and announcement of general interest to Amateurs. During major activations, NFPN merges with NFAN to become the Northern Florida Emergency Net – NFEN.

7.5. NFEN THE NORTHERN FLORIDA EMERGENCY NET

- 7.5.1. During Emergency Net operations, managers of the Phone Net and the ARES Net alternate as Emergency Net Managers, each having full authority while on duty. They are responsible for the entire operation of the net, in all aspects. Between them they cover the full 24-hour period of operation when necessary, arranging their duty periods to suit their mutual convenience.
- 7.5.2. When NFEN is activated, NFAN and NPPN cease operations and their personnel especially Net Controls and GATEway station operators become available for duty around the clock on the emergency net. The NFAN and NFPN Managers, appointed by the STM, become co-managers of the Northern Florida Emergency net relieving each other as necessary to maintain a continuous presence on the activated emergency net. The SEC, however, sets general operating parameters for the emergency net so as to provide maximum utility, while making the best use of available resources.

7.6. The GATEway SYSTEM

- 7.6.1. Every GATEway station serves the entire District.
- 7.6.2. All that's necessary to send a message from a county EOC to anywhere outside the County is simply to send it from the County EOC to a District GATEway station. That station has both a two-meter radio on the District Net and an HF station on NFEN. The two-meter operator just hands the message to the HF operator, or vice versa. Within minutes the message has passed to an HF GATEway on NFEN and has been delivered by telephone or email.
- 7.6.3. GATEways may be clustered in or near major urban areas called Key Cities. Or they may be dispersed anywhere in the District within range of the VHF District Net. Either way, the function is the same, with the District Net playing the central role. In a few cases, a DEC may find it necessary to operate the District Net on two different repeaters because of propagation, technical repeater problems, or stubborn geography. In such cases, GATEways might link the repeaters via voice relay on either HF or VHF. All GATEway operations in each District are managed by the DEC through ADECs.

- 7.6.4. Selecting GATEway Stations
- 7.6.5. HF GATEway stations are pre-designated Amateur Radio stations. They may use voice or digital modes – or both, depending on the assignment – including APRS, AMTQR/APLINK, WINLINK, packet and CW. They should be capable of high-quality performance, with good signals that under normal conditions cover the entire Section and beyond.
- 7.6.6. Section and recruitment of GATEway Stations are responsibilities of the District Emergency Coordinator.
- 7.6.7. GATEway stations may be located anywhere within range of the VHF District Net in homes, clubhouses or any site where good antennas and 24-hour operation are feasible. They may be located at public sites such as the County EOC. The SWP will not be considered to be, or used as, a GATEway station. It will receive traffic from GATEways (usually Tallahassee GATEway) and pass traffic from the SEOC to GATEways.
- 7.6.8. No matter where sited, however, the station must serve the whole ARES system – not just its home County or District or some specific agency or organization.
- 7.6.9. In any high-performance station, the antenna is the primary consideration. The best station cannot be effective when driving a poor antenna; yet a modest station with a high-performance antenna can be extremely effective.
- 7.6.10. A GATEway should have a minimum power output capability of 100 watts, and 500 watts or more is highly desirable under poor propagation conditions. Emergency power is highly desirable to run the station at reasonable output. However, not all GATEways need full-scale auxiliary power if operation can be shifted when necessary to a backup GATEway with either commercial or emergency power.
- 7.7. THE WINLINK2000 Email by Radio System.
 - 7.7.1. System Description.

For emergency/disaster email with file attachments (text, graphics, audio, or photographic) from agencies and organizations as well as individuals responding to a disaster, the Winlink2000 system provides a means to send email from a disaster area where there is no Internet service (within an area called the “last mile” where regular services are no longer working.) It provides a means for agencies to use their

own staff and computers to originate and receive email. The system requires no Amateur to write, pass, format, or transmit the email originated by the staff of the responding agencies. It requires no manned "gateway" stations. Its operation is transparent to the users. (Airmail stations and packet stations require a licensed amateur radio operator at the originating site and receiving site. Paclink stations require a licensed amateur radio operator to be present as a "control" operator but the amateur does not have to do anything with the email messages.)

The Winlink2000 system consists of fixed location unmanned Participating Mail Boxes (PMBOs) and Telpac (Packet to Telnet) Gateways where they can be connected to the internet outside of the "last mile area" and serve as an access point to the Winlink2000 system, manned mobile, fixed location and portable packet, "Paclink" and "Airmail" stations who have no direct Internet connection, and packet stations. The system of PMBOs and Telpac Gateways operate 24 hours a day and require no "onsite operator" to be used.

The Winlink2000 system allows sending and receiving emails to any email address in the world by radio from an area that has no, or has lost access to the Internet.

Sending emails requires no special numbering, formatting, special logging, or text structuring and no intermediate manned amateur stations are required to "pass" or "deliver" the emailed message or files (with the exception of Airmail and packet stations.) The email that is sent is identical to email sent over the wired Internet system and can be received by any addressed email recipient who uses their own email client.

Email sent through the system requires only an originator of the email and can be done anytime of the day or night and requires no net scheduling.

7.7.2. Components and Radio Modes

- 7.7.2.1. PMBOs support the sending and receiving of Email by a radio station into or from the Internet connected Email Servers. They can have HF, VHF, UHF, WiFi and satellite ports. They should be sited at "secure" locations such as an EOC where emergency power is available. At least one in every ARES District should be available and operating 24 hours a day 7 days a week. The location of the PMBO must have an Internet connection. However, if the Internet connection is lost due to effects of the disaster, the PMBO operating in a "hubbing" mode can continue

to support Email between agencies and organizations within radio range of the PMBO. Email to addresses outside of the radio range of the PMBO will be sent as soon as Internet service is restored. Email addressed or copied to Airmail equipped HF stations located within HF radio range can be retrieved from the PMBO that is operating in a “hubbing” mode.

A “Hubbing or ARES PMBO” is similar to a PMBO (as above) but may not have HF ports and provides Email support using Packet on VHF or UHF or WiFi (802.11 B, G, or 802.16 modes) in a Local Area even when connections to the Internet are not available or have been disrupted.

PACTOR is the mode for HF operation. Packet is the mode for VHF and UHF operation. Due to the nature of PACTOR and its ability to support radio transmissions under severe conditions and without high output power radios, the radio power output requirements for the system are within the normal limits of standard amateur radio HF stations (often 100 watts or less). The radio data speed for packet is whatever data rate the local packet support stations operate. 9600 bits per second is recommended to enable email with file attachments to be sent and received in a very reasonable time frame is recommended. PACTOR III has a data rate similar to 9600 bps packet.

Because PMBOs and “Hubbing or ARES PMBOs” are operational 24 hours a day 7 days a week, the use of these resources can be instantaneous and require no call up or assigned operator. They are available to handle normal amateur email for personal use even when an operation in support of a disaster response is not occurring. They are a constant resource to the amateur radio community.

7.7.2.2. **Telpac Gateways** should be located within the area to be supported so that coverage is complete. The Telpac gateways must have Internet connections to support transfer of email into the Internet system, but they can be used as a digipeater if they have lost their Internet connection to get to another Telpac gateway or PMBO that has Internet connectivity. They consist of a radio, a packet controller, a computer, a power source, an antenna, feed line, and a connection to the Internet. Dial up connections can be used but full time DSL or cable modem connections are recommended.

Because Telpac gateways are operational 24 hours a day 7 days a week, the use of these resources can be instantaneous and require no call up or assigned operator. They are available to handle normal amateur email for personal use even when an operation in support of a disaster response is not occurring. They are a constant resource to the amateur radio community and as such their use between disasters provides training for the Amateur Radio operators.

- 7.7.2.3. **PACLINK** stations consist of a laptop (recommended) or desktop computer, a packet Terminal Node Controller (TNC), a VHF and or UHF radio, power source and antenna. They can be portable, mobile or fixed. The computer must have free Paclink software, a free networking enabling software, and an email client such as Outlook, Outlook Express, or Eudora. The radio data rate must be compatible with the Telpac Gateways and or PMBO to be accessed. Paclink stations can support connected computers. The Paclink station acts as an EMAIL server for the other computers.
- 7.7.2.4. **AIRMAIL** stations are normally HF stations but can consist of VHF or UHF stations that consist of an HF transceiver, VHF or UHF transceiver, a PACTOR controller (a packet controller for VHF or UHF), power source, antenna and feed line. HF Airmail stations are capable of sending and receiving email over great distances depending on propagation. They require a licensed amateur radio operator to actually send the email, but the email and attachments can be created by responding agency or organization staff and given to the Airmail station operator on disk or electronically transferred to the amateur operator through a local wired or wireless LAN.
- 7.7.2.5. **PACKET** stations can access the PMBOs and Telpac Gateways without the use of Paclink software but they cannot send and receive attached files and all transmissions are sent in a manual mode using SMTP protocols. They are useful but are not as efficient nor can they handle attachments like Paclink and Airmail stations.

8. STAGING AREA OPERATIONS

- 8.1. When amateur operators in large numbers augment Clay County ARES in response to a disaster or emergency, one or more staging areas will be set up. Incoming amateurs will report there initially to be briefed, given directions, and assigned in accordance with their capabilities matched to the needs for support at the time. The Clay County ARES member managing staging areas will maintain close liaison with the Clay County EC via Net Control on the Administrative Net to assure effective use of resources and talent.
- 8.2. The amateur managing the staging area will record: name, call sign, license class, cell and home phone numbers, capability to provide HF, VHF, UHF and digital modes without assistance. Special needs such as food and shelter or other important information should be noted in remarks. It would be helpful to the EC to know how long each augmentee is prepared to stay. Remember we want to recognize their effort after things settle down.
- 8.3. One or more staging area will be set up at appropriate locations based on the location and type of emergency response in progress. Sites will be readily assessable along main routes into Clay County that are unlikely to conflict with sites in use by county or state government. Where available, sites will have the capability to temporarily park up to 20 vehicles without unnecessarily interfering with commercial or institutional activities that may be in progress. Ordinarily schools, churches, or other high volume traffic sites such as the Dog Track and Orange Park Mark will be avoided if possible.
- 8.4. Tentative sites are as follows:
 - 8.4.1. The shopping center parking lot in front of Rhodes Furniture Co. on the west side of SR 21 (Blanding Blvd.), 1.5 miles south of I-295.
 - 8.4.2. The Kingsley Square parking lot in front of Office Max on the NE corner of the intersection of SR 21 and SR 284 (Kingsley Ave.), 2.3 miles south of I-295.
 - 8.4.3. The Pine Tree Plaza shopping center parking lot in front of St. Johns Seafood Restaurant on the west side of US 17 (Park Ave.), 1.2 miles south of I-295.
 - 8.4.4. The Grande Olde Plaza shopping center parking lot behind Hardees Restaurant on the SW corner of the junction of SR 21 and SR 218 on the southern outskirts of Middleburg.

- 8.4.5. The Cove Plaza shopping center parking lot SW of the junction of US 17 and SR 16 at the southern edge of Green Cove Springs.
- 8.4.6. The ACE Hardware parking lot at the junction of SR 21 and SR 100 in Keystone Heights. This may be congested and amateurs may be redirected to the Shopping Plaza 3500 feet West on CR 100 at the top of the hill from the intersection of SR 21 and SR 100.

9. Training

9.1. As a result of 2005 Hurricane season the Department of Homeland Security and the State of Florida desires that all responders complete the following FEMA courses:

9.1.1. IS100.a Introduction to Incident Command System, IS-100.a (Rev. 7/28/08)

On-line access: <http://training.fema.gov/emiweb/is/is100a.asp>

IS200 Incident Command Structure for Single Resources and Initial Action Incidents

(Rev. 7-28-08) On-line access:

<http://training.fema.gov/emiweb/is/is200a.asp> Prerequisite IS-100.A

9.1.2. The following course is recommended first to give the student a better picture of Incident command structure and the National Response Plan.

IS700 National Incident Management System (NIMS), An Introduction

On-line access: <http://training.fema.gov/emiweb/is/is700.asp>

IS800.B National Response Plan (NRP), An Introduction (Rev. 2-4-08) On-line access: <http://training.fema.gov/emiweb/is/is800b.asp>

IS802 Emergency Support Functions (ESF) #2 – Communications (New 8/6/08) Prerequisites: IS-800, IS-800.A or IS-800.B On-line access: <http://training.fema.gov/emiweb/is/is802.asp>

9.2. Other FEMA Training courses

On-line access: <http://training.fema.gov/emiweb/is/crlist.asp>

9.3. Other Courses recommended:

ARRL's Emergency Communications EC-001 (Level 1)

ARRL's Emergency Communications EC-002 (Level 2)

ARRL's Emergency Communications EC-003R2 (Level 3)

Registration may be attained by going to ARRL's Web site and going to the Education tab. Once registration is complete each student is assigned a mentor and the course is administered through the Distance Learning Center, State of Connecticut.

Definitions

AEC – Assistant Emergency Coordinator

APRS – Automatic Packet Reporting System – A digital system that transmits and displays data on computer screens. Highly effective as a parallel to voice circuit.

ARES – Amateur Radio Emergency Service headed by the Section Emergency Coordinator (SEC); is part of the ARRL field organization.

ARRL – American Radio Relay League – National Amateur Radio organization dedicated to implementing Part 97 of the FCC regulations.

BLUE Alert or **Condition Blue** – Alert status allowing ARES officials at their discretion to shut down operations when they complete their emergency-related duties.

CEM – County Emergency Manager or County Emergency Management.

CERT – Community Emergency Response Team. A group of civilian volunteers that have received formal training in emergency services and act as first responders to a local emergency.

Communications emergency – As defined the FCC occurs when normal communications systems are disrupted in a specific area.

County – Any geographical jurisdiction assigned an EC. For ARES purposes a County can be an actual Florida County, a portion of a County, or a combination of counties.

County Warning Point – A county public safety site, such as a Sheriffs' dispatch office, that functions 24 hours a day. It is a principal contact point for the State Warning Point.

DEC – District Emergency Coordinator - an appointee in charge of ARES activities in a cluster of counties comprising a District.

DEM also **FDEM** – The Florida Division of Emergency Management

Disaster – An event causing death or serious injury to humans or a major loss of property.

Distress traffic – Any traffic relating to an acute, immediate threat to human safety or property; i.e. SOS, MAYDAY, or EMERGENCY traffic.

District – Two or more contiguous counties assigned to a DEC.

EC or Emergency Coordinator – An ARES appointee who supervises emergency planning and operations in a specified geographical area. Reports to the DEC.

Email – Electronic messages exchanged over the Internet or local computer network.

Emergency – Any situation in which human life or property is threatened. The emergency ceases when relief agencies have no further need for our services (see “Disaster”).

Emergency Net – A group of Amateurs using the same frequency and associated side frequencies to support emergency relief measures.

EOC or Emergency Operations Center – An emergency headquarters.

ESF or Emergency Support Function – Each of the 17 ESFs is a group of people in an EOC dealing with specific kinds of problems.

FDEM – Florida Division of Emergency Management (See DEM).

FEMA – Federal Emergency Management Agency.

Formal traffic – Written traffic in ARRL message form. It is used when Amateur Radio operators relay information between third parties.

GATEway Stations – Fixed stations providing liaison between two nets.

HAZMAT – Hazardous Materials.

Informal communications – Radio exchanges between two people not requiring verbatim relay to any third party. Classified as non-traffic; not handled on emergency nets.

Jump Team – A group of experienced Amateur volunteers selected and trained to mobilize on a very short notice to meet an emergency.

Key City – A cluster of GATEway stations within a specific geographic area providing liaison between activated emergency nets or a Served Agency HQ.

LGL – Local Government Liaison is an appointment by the State Government Liaison (SGL) for any specific task.

NF or Northern Florida – The Northern Florida Section of ARRL.

NM – Net Manager.

NOAA or **National Oceanic and Atmospheric Administration** – Home agency for the National Weather Service.

No alert – Same as Condition Green. Normal operations.

NTS – National Traffic System.

NWS – National Weather Service.

Orange Alert or **Condition Orange** – ARES members are active at assigned duty posts – not on standby.

QNC – QN signal for CW or digital net use meaning “All net Member stations please copy”. It indicates that the message to follow is of general interest.

RACES – Radio Amateur Civil Emergency Service – RACES organizations, where they exist in Florida, operate at the County level under direct control of the County Emergency Management Director.

Red Alert or **Condition Red** – Maximum level of ARES activation in the Northern Florida ARES Plan.

Section – ARRL administrative unit headed by elected Section Manager (SM). Florida has three Sections; Northern, Southern, and West Central.

SEC or **Section Emergency Coordinator** – Official responsibility for all ARES activities within a Section.

Secondary net – A communications channel associated with the primary emergency net used for traffic handling and other time-consuming net business.

SEOC – State Emergency Operations Center in Tallahassee.

SERT – State Emergency Response Team. A collection of national, state and local agencies and organizations, including volunteer organizations such as ARES, Florida National Guard and the American Red Cross, that are identified as first responders in an emergency. SERT is managed by the State of Florida Division of Emergency Management (DEM) and coordinates all CERT-team emergency response activities that affect the state of Florida from preparation for an emergency to post-incident mitigation operations.

SET – Simulated Emergency Test.

SGL – State Government Liaison is an appointment made by the Section Manager. The role is that of interface between amateur radio and all facets of state government.

Side Frequency – Secondary Net.

SITREP – Situation Report – message reporting status of emergency-related activities.

SM – Section Manager.

STM – Section Traffic Manager.

SWP – State Warning Point – Communications center at FDEM; operates 24 hours a day, every day.

SWPAS – State Warning Point Amateur Station – An amateur station located at the State Warning Point in the State Emergency Operations Center in Tallahassee. It is activated by the SEOC Operations Officer when needed, is staffed by amateurs recruited by the LGL who has that role, and serves the roles given to it by the SEOC Operations Officer. Usually that will include receiving input from the Tallahassee GATEway, including SITREPS from the SECs, and transmitting traffic for County Emergency Managers to individual amateurs unless they are serving County Emergency Managers or SECs.

Tactical traffic – Spoken instructions or consultation on the air. No third party communication occurs.

Traffic – Any exchange of information between two or more Amateur Radio Stations.

Traffic Log – A list of incoming and outgoing traffic at an Amateur station.

White Alert or **Condition White** – Notice to ARES members to prepare for deployment on very short notice.

NORTHERN FLORIDA SECTION POLICIES

Certain policies prevail when Northern Florida ARES groups conduct emergency operations. When these policies differ from ARRL policy, the NF ARES procedures take precedence.

1. The SEC, DECs and ECs do not assume specific operating duties when their organizations are on Orange or Red Alert. They must remain free to cope with their official duties. When a County or District is not activated, however, this restriction does not apply.
2. ARES members on duty are directed only by ARES officials. Served-agency officials may not change the ARES volunteer's instructions.
3. Amateurs who hold professional emergency-response obligations (e.g. police officer or County emergency management) will not be appointed EC or DEC.
4. ARES operators, while on duty, perform only their assigned ARES duties. If the operator wants to assume other duties he asks the EC for relief from ARES duties.
5. The same person will not hold DEC and EC appointments at the same time.
6. Complete service information will be written on the message form.
7. Written messages in ARRL format are used whenever third parties are involved.
8. Every emergency-related message (except MAYDAY or Welfare) should be given Priority precedence, no matter how routine they may seem.
9. A reply takes the same precedence as the original.
10. Priority messages addressed to, or originating at the State EOC take precedence over other Priority traffic.
11. Emergency-related messages should usually be transferred from ARES nets to commercial circuits at the first opportunity when that will speed delivery.
12. In-coming Welfare inquiry traffic will not be handled on any ARES Emergency Net operating in Condition Orange or Red.

13. Out-going Welfare “assurance” messages get a W (Welfare) precedence and will not be handled on any net operating on Orange Alert unless approved by the Net Manager. They will not be handled at all during Red Alerts.
14. Regular operations by other NF nets cease on 3950 KHz when the Emergency Net is activated. NTS liaisons are not maintained during emergency operations.
15. At their option, ARES officials may use the Emergency Net frequency for consultation and coordination.
16. Except for MAYDAY situations, business on the Emergency Net frequency must not be allowed to cause delays in listing emergency-related traffic or listening for weak stations.
17. Message traffic should be dispatched on the Emergency Net but actually transmitted on side frequencies. However, during long periods of inactivity traffic may be handled on the net frequency at the discretion of the Net Manager or Net Control.
18. Situation permitting, emergency communications use VHF or UHF nets in preference to HF.
19. When any operations tax local ARES resources, the EC will ask the DEC for support. The DEC may assign ARES units from other counties within the District and/or request additional help through the SEC. The SEC may recruit additional personnel from any available source.
20. ARES officials may do whatever is legal and reasonably necessary for the orderly conduct of the operation.
21. ECs appointed to counties with Key Cities must hold at least a General Class Amateur license.
22. UTC in 24-hour format is the preferred time system for all dated ARES messages, documents and schedules. Dates must agree with the time system used.

WHAT TO DO FIRST IN CASE OF AN EMERGENCY

1. Check that you and your family are safe and secure before you respond as an ARES Volunteer.
2. Check that your property is safe and secure before you respond as an ARES Volunteer.
3. Monitor 146.925 MHz (-0.600 MHz), PL 156.7.
4. Follow the instructions you receive from the ARES officials in charge on the above frequency.
5. Contact your local emergency coordinator, or his/her designee, for further instructions.

INITIAL ACTION CHECK-LIST

1. Be prepared to operate. Check all equipment and connections.
2. Check-in with your assigned contact. Deploy to assignment with "Ready" kit.
3. Obtain tactical call sign for your location/assignment.
4. Initiate personal event log.
5. Enter assigned frequency(s) on log sheet and on emergency/frequency plan.
6. Use log form to record messages handled.
7. Use a formal message form when a precise record is required.
8. Use tactical call sign for your location, while observing FCC's ten-minute id.
9. Monitor your assigned frequency **AT ALL TIMES**. Notify NCS if you have to leave.

HAZMAT INCIDENTS

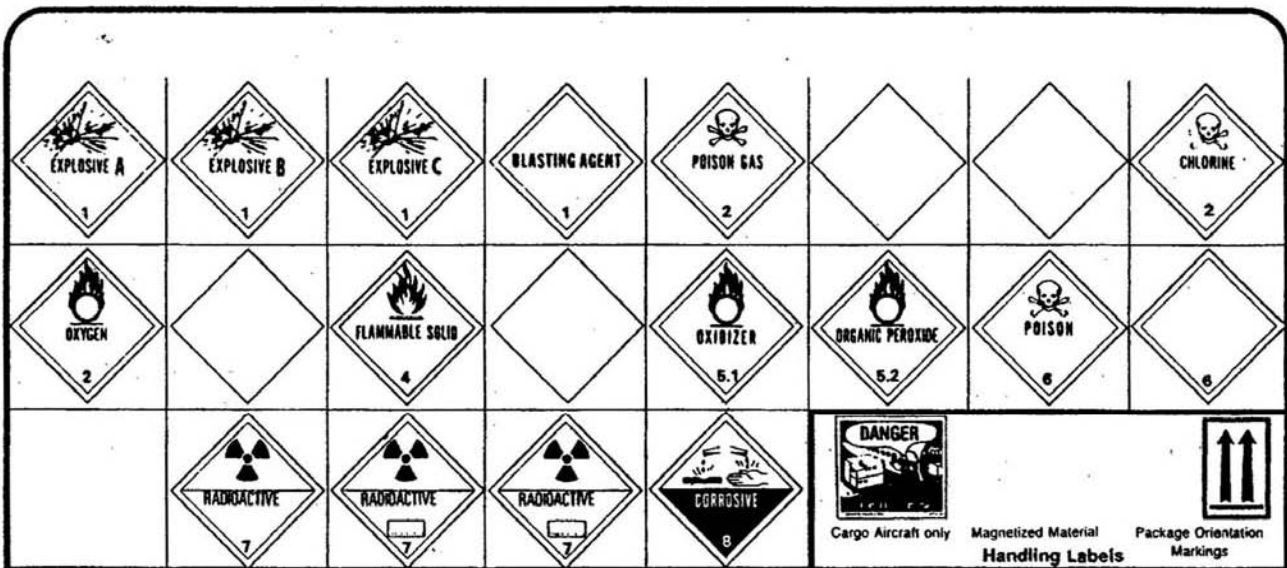
The term “hazardous materials” (HAZMAT) refers to any substances or materials which, if released in an uncontrolled manner (e.g., spilled), can be harmful to people, animals, crops, water systems, or other elements of the environment. The list is long and includes explosives, gases, flammable and combustible liquids, flammable solids or substances, oxidizing substances, poisonous and infectious substances, radioactive materials, and corrosives.

One of the major problems is to determine what the chemicals are, where and in what quantities. Various organizations in the U.S. have established or defined classes or lists of hazardous materials for regulatory purposes or for the purpose of providing rapid indication of the hazards associated with individual substances. As the primary regulatory agency concerned with the safe transportation of such materials in interstate commerce, the U.S. Department of Transportation (DOT) has established placarding and marking requirements for containers and packages, and adopted an international cargo commodity numbering system.

The DOT requires that all freight containers, trucks and rail cars transporting these materials display placards identifying the hazard class or classes of the materials they are carrying. The placards are diamond-shaped, 10-inches on a side, color-coded and show an icon or graphic symbol depicting the hazard class. They are displayed on the ends and sides of transport vehicles. A four-digit identification number may be displayed on the placard or on an adjacent rectangular orange panel.

HAZMAT INCIDENT GUIDELINES

- Approach the scene cautiously – from uphill and upwind. If you have binoculars, use them!
- Try to identify the material by any one of the following:
 1. The four-digit number on a placard or orange panel.
 2. The four-digit number (preceded by the initials “UN/NA”) on a shipping paper or package.
 3. The name of the material on the shipping paper, placard or package.
- Call for help immediately and let the experts handle the situation. **DO NOT** attempt to take any action beyond your level of training. Know what you are capable of doing.



General Guidelines on Use of Labels

- Labels illustrated above are normally for domestic shipments. However, some air carriers may require the use of International Civil Aviation Organization (ICAO) labels.
- Domestic Warning Labels may display UN Class Number, Division Number (and Compatibility Group for Explosives only.) Sec. 172.407(g).
- Any person who offers a hazardous material for transportation MUST label the package, if required. [Sec. 172.400(a)].
- The Hazardous Materials Tables, Sec. 172.101 and 172.102, identify the proper label(s) for the hazardous materials listed.
- Label(s), when required, must be printed on or affixed to the surface of the package near the proper shipping name. [Sec. 172.406(a)].
- When two or more different labels are required, display them next to each other. [Sec. 172.406(c)].
- Labels may be affixed to packages (even when not required by regulations) provided each label represents a hazard of the material in the package. [Sec. 172-401].

UN Class Numbers

- Class 1—Explosives
- Class 2—Gases (compressed, liquified or dissolved under pressure)
- Class 3—Flammable liquids
- Class 4—Flammable solids or substances
- Class 5—Oxidizing substances
 - Division 5.1—Oxidizing substances or agents.
 - Division 5.2—Organic peroxides.
- Class 6—Poisonous and infectious substances
- Class 7—Radioactive substances
- Class 8—Corrosives
- Class 9—Miscellaneous dangerous substances

Substance liable to Spontaneous Combustion Poisonous Substance Poisonous Substance Infectious Substance

EXAMPLES OF INTERNATIONAL LABELS

- These are examples of International Labels not presently used for domestic shipments.
- Text, when used Internationally may be in the language of the country of origin.

EXAMPLES OF EXPLOSIVE LABELS

- The NUMERICAL DESIGNATION represents the CLASS or DIVISION.
- ALPHABETICAL DESIGNATION represents the COMPATIBILITY GROUP (for Explosives Only)
- DIVISION NUMBERS and COMPATIBILITY GROUP combinations can result in over 30 different "Explosives" labels (see IMDG Code/ICAO).

- Code of Federal Regulations, Title 49, Transportation, Parts 100-199. [All Modes]
- International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by air. [Air]
- International Maritime Organization (IMO) Dangerous Goods Code. [Water]
- "Transportation of Dangerous Goods Regulations" of Transport Canada. [All Modes]



U.S. Department of Transportation
**Research and Special Programs
 Administration**

Washington, D.C. 20590

CHART 8
 REV. FEBRUARY 1986

Clay County ARES Weekly Net Preamble

(Updated July 7, 2009)

CQ, CQ, CQ, This is K14UWC, Net Control for the weekly Clay County ARES Training and Traffic Net.

My personal call is _____, and I am located near _____.

The Clay County ARES Net meets every Sunday evening at 1930 local time on the Sleepy Hollow repeater, 146.925, with a PL of 156.7. The backup repeater in Clay County is the Twin Lakes repeater on 147.225, with a PL of 156.7.

If both repeaters fail please tune to 146.925 simplex. The use of 146.505 and 147.570 are predetermined close-in simplex channels for Clay also.

The purpose of this net is to increase the readiness of local amateurs and their equipment in the event of a communications emergency, provide a gateway to the National Traffic System, and broadcast information of interest to the amateur community. This is a direct net; traffic must be directed by Net Control. All stations are encouraged to check in with us and pass traffic.

The use of correct ITU phonetics and adhering to normal net procedures is encouraged. When checking in make sure your call is correctly acknowledged by net control.

(If there is a program, make announcement here, to stay tuned after the business of the net.)

(ID) This is K14UWC, any station with emergency or priority traffic come now please.

Before we take check-ins, is there a volunteer to back up net control and provide possible relays into the net? Call sign please.

Does anyone have any formal written amateur traffic?

Does anyone have any formal or informal announcements?

We will now take check-ins from ARRL officials:

- District Emergency Coordinator
- District Assistant Emergency Coordinators
- Clay County Emergency Coordinator
- Assistant Clay County Emergency Coordinators
- Liaison Stations for any agency (Red Cross, Utilities)

Continuing on with regular check- ins:

- Mobile stations
- Alpha through Golf
- Hotel through Oscar
- Papa through Zulu

We will now allow a 10 second drop of the repeater, stations may relay simplex check ins, and echo-link stations are welcomed to transmit now. (the idea behind this is if someone cannot make the pl tone they can get relayed in to the net).
(After 10 seconds....)

Does any stations have any relays for the net?

Listening for additional stations wishing to check in or not acknowledged by net control.

(ID) This is KI4UWC, net control station, on 146.925, PL 156.7, does anyone have emergency traffic?

Is there any further business for the net before we close?

This concludes the business for The Clay County ARES Sunday night net. I would like to thank everyone for checking in with us tonight. (If there is a program, turn over for program at this point.) Stay tuned for tonight's program to follow before we return the frequency to normal traffic.

This is KI4UWC securing the net at _____ (time), and returning the frequency to normal amateur use.

This is _____ (Your call sign), OUT.

Email the net report to Tom Behnken, Net Manager @ w4esp@yahoo.com, or submit a net report at www.clayares.org, using the Clay County ARES web site reporting tool.

REPEATER	
LOCATION	FREQUENCY
Sleepy Hollow - Primary Repeater	146.925 -600 PL 156.7
Twin Lakes - Secondary Repeater	147.225 -600 PL 156.7
Simplex #1	146.925
Simplex #2	146.505
Simplex #3	147.570

COMMUNICATIONS PROCEDURES

CALLING AND COMMUNICATING TECHNIQUES

The secret to working quickly and efficiently in an emergency net is to use standard procedures. The techniques presented herein are the most common. It doesn't take much analysis to see that standards and guidelines must be established and then utilized.

Before you key your mike, gather your thoughts about what you are going to say. Many hams have a tendency to talk and/or repeat too much. Say what you need to say without unnecessary repeats. Keep in mind that you must strive to get your message through the first time.

In general, there are five parts to Calling/Communications. The more serious or complex the situation, the more important these procedures become. The information printed herein **MUST** be practiced until it is second nature.

FIRST, you **MUST** give the tactical call of the station you are calling. This alerts that station that they are being called and that they should listen to determine who is calling.

SECOND, say "THIS IS". The called station knows your tactical call follows. This is extremely important in cases where there is a lot of confusion.

THIRD, give your tactical call sign. Note that we say tactical call sign and not ham radio call sign. Tactical call signs are important and ham call signs are not, egos notwithstanding.

FOURTH, give your message. Speak clearly. Don't speak too fast especially if the message needs to be written down. Pause after logical phrases. Do not use the word "break" when you pause. It is confusing, wastes time, and has another connotation in formal message handling. Merely un-key and pause. If the other station has questions, they should key up and make their request known. This also permits other stations to break in, if they have emergency traffic.

FIFTH, end your message with "OVER" or "OUT".

EXCEPTIONS OR VARIATIONS

1. It is sometimes permissible to omit the call designator of the station you are calling BUT only after communications have been established and no confusion will occur. Don't waste time by using superfluous call signs.
2. The term, "THIS IS" is used to separate the FROM and TO call signs. If, and only if, confusion will not result, omitting the "THIS IS" phrase permissible.
3. If you are the calling station and you omit your own tactical call sign, you can create confusion. In certain situations, such as quick replies between operators, it can be accomplished without confusion. You must NOT use this simplification where messages can be interpreted incorrectly.
4. Elimination of the words "OVER" and "OUT" is possible where it doesn't introduce problems. Un-keying after your message implies "OVER". To comply with FCC regulations, you must give your FCC assigned call every ten minutes OR at the end of a series of exchange communications, whichever comes first. Giving your call sign implies an "OUT" ending. Should giving your call cause any confusion; do not hesitate to add the word "OUT" ending. In HF single-sideband radio, it IS necessary to say the word "OVER".

RADIO PROCEDURES DURING EMERGENCIES

1. Identify yourself at the beginning of each transmission especially where confusion may result if omitted.
2. Identification is a requirement of the FCC. Stations must give complete station identification at least once in a 10-minute operating period, particularly when tactical calls are being used.
3. Listen before transmitting. Be sure you are not on the air with someone else.
4. Know what you are going to say before you push the mike button; in other words, engage your brain before you put your mouth in gear.
5. Hold the transmit button down for at least a second before beginning your message to insure that the first part of your message is not cut off.
6. TALK ACROSS THE FACE OF YOUR MICROPHONE. This technique makes the communications more understandable. In other words, hold the face of the microphone almost at a right angle to your face.

7. Speak slowly, distinctly, clearly, and do not let your voice trail off at the end of words or sentences. Give each and every word equal force. For some this takes a lot of practice and conscious effort but do it.
8. Never acknowledge calls or instructions unless you understand the call instructions perfectly. If you do not understand, ask for a repeat.
9. When you understood the message, acknowledge the receipt with the words “copy”, “received”, or “acknowledged”. The word “copy” is preferred and NEVER the word “QSL”.
10. The word “break” is never used UNLESS there is an emergency. Give your call letters to gain access to a net.
11. Always acknowledge calls and instructions. Nothing is more disruptive to the smooth flow of communications than dead silence in response to a message. If you cannot copy or respond to the call immediately, then tell the caller to say again or stand by. Otherwise, acknowledge each call immediately.
12. Under stress, many operators have a tendency to talk too fast. ACCURACY FIRST; SPEED SECOND.
13. At times, radio conditions are poor and words must be overly exaggerated to be understandable. In general, speak very slowly and distinctly to carry through static and weak signals.
14. If you are relaying a message for another person, be sure you repeat the message exactly, word for word as it is given to you. If it makes no sense to you, get an explanation before you put it on the air. If necessary, refer the message back to the originator for clarifications.
15. There is no place for “Q” signals during official and emergency communications. They are too easily misunderstood, rarely save time, and often result in errors.
16. Do not act as a relay station unless Net Control, or another radio station asks for a relay – and you can fulfill the requirements with your station.
17. When transmitting number (house numbers, street and telephone numbers, etc.), always transmit number sequence as a series of individual numbers. Never say numbers in combinations.
18. If a proper name needs to be transmitted, always spell it out using the ICAO phonetic alphabet. Do not use cute or self-invented phonetics. There is no place for them in official and emergency communications. Avoid using the phrase “common spelling”, to reduce confusion.

19. ONLY TRANSMIT FACTS. If your message is a question, deduction, educated guess, or hearsay, identify it as such. Do not clutter up the air with nonessential information. Be careful what you say on the air. There are many ears listening. Many facts will be taken out of context, even when carefully identified.
20. If you do not understand the whole message given to you or if you missed a word out of the transmission, reply with "Say again". Do not say "please repeat", because it sounds too much like the word "received" when conditions are poor.
21. Chewing gum, eating, and other activities with items in the mouth tend to clutter up the clarity of your speech. Don't.
22. Avoid angry comments on the air at all costs. Obscene statements are not necessary and are out of place in all communications.
23. Sound alert. Nothing destroys confidence as much as a bored or weary sounding radio operator. If you are tired, get a relief operator.
24. During an incident, communications suffers enough confusion without wisecracks and jokes. Amateur radio may be a hobby to enjoy, but when providing emergency communications you must remember that it is serious business and should be treated as such at all times.
25. Stay off the air unless you are sure you can be of assistance. It does no good to offer advice, assistance, comments, or other input to a net unless you can truly provide clarification. It is better to remain silent and be thought a fool than to open your mouth and remove all doubt!
26. Always know your location. If you are mobile or portable and moving around, always keep a sharp lookout for landmarks. You must be able, if called upon, to describe accurately your location at any time. This is particularly important if you are with a search team or other mobile units.
27. On VHF and UHF frequencies, particularly when on the fringes of communications look for a receiving "hot spot" site and use it. Don't walk around talking while in a communications fringe area. Repeaters have much more power than your handheld. Even if you have a good signal from a repeater, it does not mean you are good going into the repeater.
28. If you check into an emergency net, you must monitor on the net frequency. If you must leave the frequency, ask permission from the NCS. Report to the NCS when you return to the net. It is vital that the NCS knows the availability of each station on the net and it is up to YOU to keep the NCS advised. However, if the NCS is very busy and you must leave the net, do so without interrupting the net.

29. Net Control Stations frequently are very busy with work that is not on the air. If you call the NCS or dispatcher and do not get a reply, be patient and call again in a minute or two. If you have an emergency, say you have "Emergency traffic" after you identify yourself when you call the NCS. Be patient with the NCS and other stations.

30. A mobile radio (that is one that is mobile, portable, or airborne) has priority over any other type of radio station AND other forms of telecommunications. This is true in all radio services. Fixed station operators must recognize that a call from a mobile station takes precedence over telephone calls, personal conversations, and other activities. Respond promptly to any call from a mobile station—even if it is to advise the caller to standby.

In conclusion, these few rules and suggestions are intended to help you become a better operator—whether public safety or amateur radio. Analyze your present operating methods and try to polish each element so your participation in radio communications is professional and worthwhile. Your Net Control Station operator may have the final authority, but good, clean operating methods and procedures almost make a net run without an NCS.

TACTICAL CALLS – WHEN AND HOW TO USE THEM

Tactical calls are used to identify a location during an event regardless of who is operating. This is an important concept. The tactical call allows you to contact a location without knowing the FCC call of ANY operator at that location. It also eliminates confusion at shift changes and when a person takes a break from operating.

Think about that. Do you answer a call from the sound of a person's voice or from the identified location? The answer is obvious: from the identified location.

Tactical calls should be used for all Emergency nets, once there are more than three participants, and most public service nets, if there is more than minimal traffic.

Use your assigned SKYWARN identification number (if you have one) when checking into a SKYWARN Net. For example: "CLA 8" followed by any report for the NCS.

Net Control will assign the tactical call as each location is opened. It will normally be some unique identifier that indicates which location or function this is. Some examples are:

- NET – for Net Control
- CHECK POINT-1 – for the first check point in a public service event
- CP – for the Event or Incident Command Post (ECP or ICP)
- FIRE-BASE-1 – for the first firebase established or the firebase in a particular region
- SHELTER 5 – For Public Shelter #5 on the country's list of shelters
- EMS – for the operator stationed with the EMS vehicle or
- AID-3 – for the third aid station on a route, etc.

Specifically for SPECIAL EVENTS the following Tactical Calls can/will be used:

- NET CONTROL
- REST 1 – for Rest Stop 1
- REST 2 – for Rest Stop 2
- REST 3 – for Rest Stop 3
- TURNAROUND – for the Course Turnaround point
- BICYCLE 1 – for a communicator using his Bicycle to traverse the course
- BICYCLE 2
- MOTORCYCLE
- EMS
- START – Who calls the Start of the Race
- FINISH – For the Start communicator who then becomes the Finish Line communicator
- MILE 1 – for communicators stationed in intermediate spots between the Rest Stops
- MILE 2
- MILE 3
- Maybe SHADOW 1 – for the Course Director Shadow

Proper use of tactical calls can best be explained by example:

1. INITIATING A CALL

1.1. If you were at aid station three during a directed net and wanted to contact Net Control you would say "NET, AID3" or, in crisper nets, simply "AID3". If you had emergency traffic you would say "AID3, emergency traffic" or for priority traffic "AID3, priority traffic".

1.2. Notice how you have conveyed all necessary information without using any unnecessary word or time. If you had traffic for another location, such as checkpoint five, you would say "AID3, traffic for CHECK POINT 5". This tells NCS everything needed to handle the traffic. NCS will then call checkpoint 5 with "CHECK POINT 5, call AID3 for traffic", if there is no other traffic holding. (Thus, there is no need to ask Net Control for permission to go direct with Check Point 5.) Notice that there has been no FCC issued calls used. At this point none are necessary.

2. TRAFFIC DURING A CALL

2.1. Tactical calls will normally not be used in the contact unless a separate location is mentioned in the message.

3. COMPLETING A CALL

3.1. To complete the call from AID3, after the message/traffic is complete you would say "(your call), AID3". This fulfills your identification requirements and tells NCS that you believe the call to be complete.

3.2. If the Net Control Station believes the exchange to be complete, and the member station has not identified. Then the NCS should say, (completing this example) "EMS, do you have further traffic?" At that point EMS should either finish with the traffic or identify and clear.

4. THE LEGAL STUFF: (Part 97)

4.1. Legal requirements, within nets, are those of identification and operation on frequencies within the Amateur Radio Bands. The FCC tells us that you MUST identify at ten-minute intervals during a conversation and in your last transmission. During periods of heavy activity in event nets it is easy to forget when you last identified.

4.2. The easiest way to insure you comply with FCC identification requirements during an event net is to identify with your FCC issued call as you complete an exchange.

4.3. This serves two functions:

- 1) Tells NCS you consider the exchange to be complete without having to use extra words (saves time)
- 2) Fulfills all FCC identification requirements.

5. DON'T OVER IDENTIFY

5.1. There is normally nothing that will expend more time, needlessly, than over identification. Someone that uses their FCC issued call in every transmission is usually a person that is unsure of themselves, or worse yet, someone that is more interested in having their call known to everyone at the event. In the latter situation, help them find work elsewhere.

5.2. The FCC tells us that you need only identify at ten-minute intervals during a conversation (NOT during a net unless you talk for more than ten minutes) and during your last transmission.

5.3. If you end EXCHANGE, not transmission, with your call, that tells everyone that you are of the opinion the exchange is complete and you fulfilled all FCC requirements.

AMATEUR RADIO EMERGENCY SERVICE NETS

The Northern Florida ARES Net meets each day Monday through Saturday at 9 a.m. on 3950 KHz. Very seldom does the Northern Florida ARES Net go to 40 meters. When they do, it is somewhere between 7242 KHz and 7260 KHz depending on conditions.

The All Florida 40 meter frequency is 7242 KHz and nets meet there at Noon and 5 p.m.

The Regional SKYWARN Net meets each Friday at 9:30 a.m. on the KF4MX repeater (146.625 MHz) in St. Augustine.

The Florida Crown District ARES Net meets at 8:30 PM on the first Wednesday of each month on the Clay County ARES repeater KI4UWC (146.925 MHz, PL 156.7). This net is reserved for District EC's, ADEC's, Clay County EC's and AEC's, and all ARRL-appointed officials, as well as EC's and AEC's from other Crown District member counties.

The Duval County ARES Net meets at 7:30 p.m. each Wednesday on the W41Z repeater 146.70 MHz, PL 127.3).

The Tri-County ARES Net (Nassau and Se Georgia counties) meets at 6:30 p.m. each Wednesday on the N4PAO (147.00 MHz) repeater.

The Clay County ARES Net meets each Sunday at 7:30 p.m. on the KI4UWC (146.925 MHz, PL 156.7) repeater in Orange Park. The backup repeater is the Twin Lakes repeater (147.225 MHz, PL 156.7).

The Clay County ARES Packet Net meets each Sunday at 7:30 p.m. on 144.93 MHz simplex.

Emergency Activation Nets		
Clay County Command Net	145.925 MHz	PL 156.7
Clay County Back-up Frequency	146.925 MHz	Simplex
County to County	146.700 MHz	
Hospital Net (Subject to change)	146.880 MHz	PL 127.3
Clay County Internal Communication	146.505 MHz	Simplex
Clay County Administrative	146.670 MHz	
NF Net	7253.50 MHz	LSB

SHELTER NOTES FOR ARES RADIO OPERATORS

1. Upon arrival, contact the Principal or Shelter Manager.
2. Locate antenna coax and hook-up.
3. Have paper and pens handy for notes and message forms. Ask Shelter Manager for help.
4. Do **NOT** assume other duties in the shelter. **Stay with your radio**. Ask the Shelter Manager for a runner or use FRS radios to stay in contact with the shelter Manager. Your job is communications **ONLY**. If you secure at the shelter, be sure to take your FRS radios with you. You are not obligated to leave them unless you so desire.
5. Check-in with Net Control and advise you are operational. If you find it necessary to leave your radio, always advise Net Control of how long you may be gone and check back in upon your return.
6. Advise Net Control of the approximate hour you feel you will need to be relieved of duty so that he or she can line up a replacement.
7. Do **NOT** give out information to the press!! Call Net Control for instructions if this situation arises (NOTE: There is nothing to keep the press from listening in on your conversations with Net Control, however).
8. Be prepared for back-up power if you are battery operated.
9. You may operate from your car if you desire, but you will need either a runner or an FRS radio for contact with the Shelter Manager.
10. Advise Net Control if your shelter begins to fill up. The Shelter Manager should keep you informed so that arrangements can be made to open additional shelters if necessary.
11. Do not tune to other frequencies on your shelter radio. Listen very carefully, as you may be called for a bulletin at any time.
12. Making decisions regarding shelter activity is not your responsibility. Leave that to the Shelter Manager. Again, our job is to communicate and to communicate **ONLY**.

If you plan to evacuate to an emergency shelter, keep in mind that specific shelter openings will be announced according to the severity and circumstances of the storm. All shelters are not open during every storm. Stay tuned to your local media or contact the Clay County Division of Emergency Management at (904)284-7703 to find out which shelters are open in your area.

A shelter is a refuge of last resort. The environment can be challenging. Take water, nonperishable food and the necessary clothing, emergency supplies and medications adequate for you and your family for at least 72 hours. Don't forget blankets, bedding, books, flashlights and quiet games for your children. Residents should make separate shelter plans for pets, as they cannot be taken to most public shelters.

**CLAY COUNTY EMERGENCY MANAGEMENT
Public Shelters**

<u>Shelter</u>	<u>Location</u>
Orange Park Area	
Argyle Elementary	2625 Spencer Plantation Boulevard, Orange Park
Montclair Elementary	2398 Moody Avenue, Orange Park
Oakleaf School	4085 Plantation Oaks Boulevard, Orange Park
Oakleaf Village Elementary	Oakleaf Village Parkway, Orange Park
Orange Park High School	2300 Kingsley Avenue
Middleburg Area	
Coppergate Elementary	2250 County Rd. 209 North, Middleburg
RideOut Elementary	3065 Apalachicola Boulevard, Middleburg
Tynes Elementary	1550 Tynes Boulevard, Middleburg
Green Cove Springs Area	
Clay High School	2025 State Road 16 West, Green Cove Springs
Green Cove Springs Junior High School	1220 Bonaventure Avenue, Green Cove Springs
Lake Asbury Junior High School	2851 Sandridge Road, Green Cove Springs
Shadowland Elementary	2945 County Road 218, Green Cove Springs
Clay Hill Area	
Clay Hill Elementary	6345 County Road 218, Jacksonville
Keystone Heights Area	
*Keystone Heights High School	900 S.W. Orchid Avenue, Keystone Heights
McRae Elementary	6770 County Road 315 C., Keystone Heights
*Denotes a Pet-Friendly Shelter	

Special Needs Shelter, Orange Park	The use of this shelter requires annual registration with the Clay County Division of Emergency Management.
Thrasher-Horn Building (Located on the Campus of St. Johns River Community College)	283 College Drive, Orange Park

ARES MESSAGE FORM (Local)
 Clay County Amateur Radio Emergency Service

Station _____

Place of Origin:	
Station of Origin:	
Precedence:	(Circle one) Emer. Priority Welfare Routine
Message Number:	
Today's date is:	
Time now is:	

To:
Where?

Message:

Signed:	
Printed:	
Title:	

FSD-3

Relief Emergency Routine Messages Recommended Procedures

The letters ARL are inserted in the preamble in the check and in the text before spelled out numbers, which represent texts from this list. Note that some ARL texts include insertion of numerals. Example: NR 1 R W1AW ARL 5 NEWINGTON CONN. DEC 25 DONALD R. SMITH AA 164 EAST SIXTH AVE AA NORTH RIVER CITY MO AA PHONE 73-3968 BT ARL FIFTY ARL SIXTY ONE BT DIANA AR. For additional information about traffic handling, consult the ARRL Operating Manual, published by ARRL.

Group One – For Possible “Relief Emergency” Use

ONE	Everyone safe here. Please don't worry.
TWO	Coming home as soon as possible.
THREE	Am in _____ hospital. Receiving excellent care and recovering fine.
FOUR	Only slight property damage here. Do not be concerned about disaster reports.
FIVE	Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated.
SIX	Will contact you as soon as possible.
SEVEN	Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.
EIGHT	Need additional ___ mobile or portable equipment for immediate emergency use.
NINE	Additional _____ radio operators needed to assist with emergency at this location.
TEN	Please contact _____. Advise to standby and provide further emergency information, instructions or assistance.
ELEVEN	Establish Amateur Radio emergency communications with ___ on __MHz
TWELVE	Anxious to hear from you. No word in sometime. Please contact me as soon as possible.
THIRTEEN	Medical emergency situation exists here.
FOURTEEN	Situation here becoming critical. Losses and damage from ___ increasing.
FIFTEEN	Please advise your condition and what help is needed.
SIXTEEN	Property damage very severe in this area.
SEVENTEEN	REACT communications services also available. Establish REACT communication with _____ on channel _____.
EIGHTEEN	Please contact me as soon as possible at _____.
NINETEEN	Request health and welfare report on _____. (State name, address and telephone number.)
TWENTY	Temporarily stranded. Will need some assistance. Please contact me at _____.

TWENTY ONE	Search and Rescue assistance is needed by local authorities here. Advise availability.
TWENTY TWO	Need Accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply without delay.
TWENTY THREE	Report at once the accessibility and best way to reach your location.
TWENTY FOUR	Evacuation of residents from this area urgently needed. Advise plans for help.
TWENTY FIVE	Furnish as soon as possible the weather conditions at your location.
TWENTY SIX	Help and care for evacuation of sick and injured from this location needed at once.

Emergency/priority messages originating from official sources must carry the signature of the originating official.

Group Two – Routine Messages

FORTY SIX	Greetings on your birthday and best wishes for many more to come.
FIFTY	Greetings by Amateur Radio.
FIFTY ONE	Greetings by Amateur Radio. This message is sent as a free public service by ham radio operators at _____, Am having a wonderful time.
FIFTY TWO	Really enjoyed being with you. Looking forward to getting together again.
FIFTY THREE	Received your _____. It's appreciated; many thanks.
FIFTY FOUR	Many thanks for your good wishes.
FIFTY FIVE	Good news is always welcome. Very delighted to hear about yours.
FIFTY SIX	Congratulations on your _____, a most worthy and deserved achievement.
FIFTY SEVEN	Wish we could be together.
FIFTY EIGHT	Have a wonderful time. Let us know when you return.
FIFTY NINE	Congratulations on the new arrival. Hope mother and child are well.
*SIXTY	Wishing you the best on everything on _____.
SIXTY ONE	Wishing you a very Merry Christmas and a Happy New Year.
*SIXTY TWO	Greetings and best wishes to you for a pleasant holiday season.
SIXTY THREE	Victory or defeat, our best wishes are with you. Hope you win.
SIXTY FOUR	Arrived safely at _____.
SIXTY FIVE	Arriving _____ on _____. Please arrange to meet me there.
SIXTY SIX	DX QSLs are on hand for you at the _____ QSL Bureau. Send _____ self addressed envelopes.
SIXTY SEVEN	Your message number _____ undeliverable because of _____. Please advise.

SIXTY EIGHT Sorry to hear you are ill. Best wishes for a speedy recovery.
SIXTY NINE Welcome to the _____. We are glad to have you with us and hope you will
 enjoy the fun and fellowship of the organization.

* Can be used for all holidays.

ARRL Recommended Procedures

Please observe the following ARRL provisions for PRECEDENCES in connection with written message Traffic. The provisions are designed to increase the efficiency of our service both in normal times and in emergency.

EMERGENCY – Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be very rare. On CW/RTTY, this designation will always be spelled out. When in doubt, do not use it.

PRIORITY – Use abbreviation P on CW/RTTY. This classification is for a) important messages having a specific time limit; b) official messages not covered in the emergency category; c) press dispatches and emergency-related traffic not of the utmost urgency; d) notice of death or injury in a disaster area, personal or official.

WELFARE – This classification, abbreviated as W on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after all emergency and priority traffic is cleared. The Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare inquiry).

ROUTINE – Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (R on CW/RTTY) should be handled last, or not at all when circuits are busy with higher precedence traffic.

Note – the precedence always follows the message number. For example: a message number may be 207R on CW and “Two Zero Seven Routine” on phone.



**The American Radio Relay League
RADIOGRAM
Via Amateur Radio**

Number	Precedence	RK	Station of Origin	Check	Place of Origin	Time Filed	Date

To:

This Radio Message was received at:

Amateur Station _____ Date _____
 Name _____
 Street Address _____
 City, State, Zip _____

Telephone Number:

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

REC'D	From	Date	Time	SENT	To	Date	Time

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of QST Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.



**The American Radio Relay League
RADIOGRAM
Via Amateur Radio**

Number	Precedence	RK	Station of Origin	Check	Place of Origin	Time Filed	Date

To:

This Radio Message was received at:

Amateur Station _____ Date _____
 Name _____
 Street Address _____
 City, State, Zip _____

Telephone Number:

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

REC'D	From	Date	Time	SENT	To	Date	Time

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

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Do you have an immediate family member you have been unable to contact because of the disaster?

The American Red Cross Disaster Welfare Information function can assist you. We will be happy to contact your relative and pass a brief message to them concerning your health and welfare following this disaster.

Please complete the information requested below, sign the form permitting us to contact your relative, and return it to the Red Cross worker with whom you are meeting.

Thank you and we look forward to reconnecting you with your family.

Client Information

Name		Date	
Pre-Disaster Address			
Post Disaster Address			
Pre-Disaster Phone		Post-Disaster Phone	

Family Contact Information

Name		Relationship to You	
Address			
Phone		E-mail	
Your Short Message:			

Client Release to Contact Family

I authorized the American Red Cross to contact the designated family member to relay the above, informing them of my current health and welfare. I do/ do not grant permission for the above designated family member to notify other family members.

Signature of Client _____ **Date** _____

Printed Name of Client _____

Name of Red Cross Worker _____ **Function** _____

¿Tiene Usted un miembro de la familia inmediata con cual no ha tenido contacto desde que ocurrió el desastre?

La función de Bienestar de La Familia de la Cruz Roja Americana le puede ayudar. Estamos preparados a establecer contacto con su familia y darle un mensaje breve con noticias sobre su bienestar después del desastre. .

Favor de completar el formulario, fírmelo para damos autorización para establecer la comunicación con su familia y devuélvalo al representante de la Cruz Roja con que listed esta trabajando.

Muchas gracias y esperamos teller el placer de restablecer la comunicación con su familia.

Información del Cliente

Nombre		Fecha	
Dirección Antes Desastre			
Dirección Después Desastre			
Teléfono Antes Desastre		Teléfono Después del Desastre	

Información De La Familia

Nombre		Relación	
Dirección			
Teléfono		E-mail	
Mensaje Breve:			

Autorización Para Establecer Contacto Con La Familia

Par media del presente autorizo a la Cruz Roja American comunicarse con la persona designada de mi familia con el mensaje detallado arriba, dándoles información sabré mi bienestar. Yo doy / no doy autorización que la persona designada notifique a otros de la familia.

Firma: _____ **Fecha** _____

Firma con letra de molde: _____

Nombre del Representante: _____

Función: Cruz Roja Americana _____

Clay County ARES Incident Report Form

Please fill out this form and send a copy to your Emergency Coordinator and to ARRL Headquarters.

Nature of emergency/disaster:

Dates of activity: _____ Places or areas involved: _____

Nets and/or frequencies used:

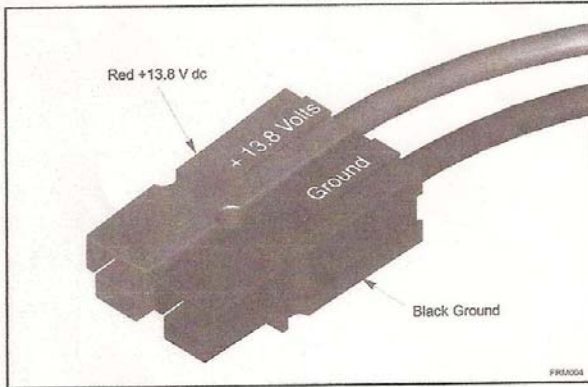
Number of participating amateurs: _____ Number of messages handled: _____

Agencies supported: _____

ARES leadership officials managing deployment: _____

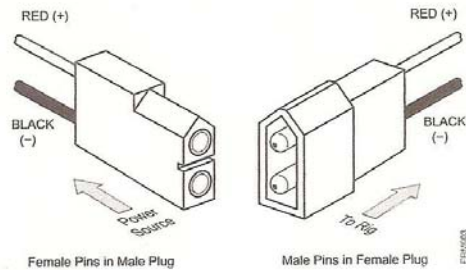
Your name/call: _____ Signature: _____ Date: _____

Power Connector Recommendation



An increasing number of groups have adopted the 30-A Anderson PowerPole connector. Not only can the PowerPole handle greater current, it is also capable of being plugged and unplugged many hundreds of times (operations) without deterioration. These connectors are available from several *QST* advertisers including Cable X-Perts (www.cablexperts.com) and PowerWerx (www.powerwerx.com). More information is available from the Anderson Power Products Web site at www.andersonpower.com. Look for these part numbers:

30 A	Complete Connector	Housing	Contact	Retaining Pin
Black	1330G4	1327G6	1331	110G16
Red	1330	1327	1331	110G16



The 12-A Molex 1545 series connector (part numbers: male, 03-09-2022; female, 03-09-1022) is adequate for low power mobile radios, handhelds and accessories.

It is important to find out which connector is being used in your area. Just to be sure, always check the voltage and polarity of a power source before you plug your equipment in, since polarity conventions are not always followed. Fusing the negative leads helps to protect equipment from ground-fault currents.

ITU Phonetic Alphabet

Pro-words

Voice	Morse Code	Meaning and function
Clear	SK	End of contact. In CW, SK is sent before final identification
Over	AR	Used to let a specific station know to respond
Go ahead	K	Used to indicate that any station may respond
Out	CL	Leaving the air, will not be listening
Stand by	AS	A temporary interruption of the contact
Roger	R	Indicates that a transmission has been received correctly and in full

ITU Phonetic Alphabet

A - alfa (AL-fa)	B - bravo (BRAH-vo)	C - charlie (CHAR-lee)
D - delta (DELL-tah)	E - echo (ECK-oh)	F - foxtrot (FOKS-trot)
G - golf (GOLF)	H - hotel (HOH-tell)	I - india (IN-dee-ah)
J - juliet (JU-lee-ett)	K - kilo (KEY-loh)	L - lima (LEE-mah)
M - mike (MIKE)	N - november (no-VEM-ber)	O - oscar (OSS-car)
P - papa (PAH-PAH)	Q - quebec (kay-BECK)	R - romeo (ROW-me-oh)
S - sierra (SEE-air-rah)	T - tango (TANG-go)	U - uniform (YOU-ni-form)
V - victor (VIK-tor)	W - wiskey (WISS-key)	X - x-ray (ECKS-ray)
Y - yankee (YANG-key)	Z - zulu (ZOO-loo)	

Numbers

One: "Wun"	Two: "TOOO"	Three: "Thuh-ree"
Four: "FOH-wer"	Five: "FY-ive"	Six: "Sicks"
Seven: "SEV-vin"	Eight: "Ate"	Nine: "NINE-er"
Zero: "ZEE-row"		DECIMAL: "day-SEE-mal"