



Emergency Communications Plan

March 2024

This document is our attempt to provide a scale able framework for supporting Columbia County Emergency Services. The nature of the need for any event and the available operators will guide the ability to provide the services specified in this document.

In the event there are any conflicts with procedures in this document, The Columbia county Emergency Coordinator or the Deputy Emergency Coordinator will have the authority to adjust the procedure. If needed, the EC or Deputy EC shall consult the Columbia County Director of Emergency Management.

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Purpose

1. **Basis and purpose**....Is to implement Part 97.1 of the FCC regulations applying to Amateur Radio in the Northern Florida Section and Columbia County.

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. 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
- 1.2. The primary responsibility of the Columbia County ARES is to furnish communications in the event of a natural or man made 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 ensure 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: Columbia County Public Safety (Fire/Rescue and Emergency Operations Center); Columbia County Sheriff's Office; Lake City Medical Center; Lake City V.A. Medical Center, American Red Cross; and any other agencies requesting assistance from ARES.
- 1.5. **Summary.** The purpose of this plan is to provide a basic framework for emergency communications when needed, and specifically when requested by the Emergency Management Director. While these may include a wide variety of techniques, frequencies, modes, and volunteers, this plan is specifically directed toward volunteer amateur radio operators who provide useful knowledge, understanding, experience, and equipment to the mix of possibilities.

Introduction

2. Background and Organizational Structure

- 2.1. The Columbia 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. **Florida Statutes / Background Checks.** Background checks for ARES will go through Emergency Management who will work with Columbia County Human Resources. Because of various State of Florida Statutes and rules, only credentialed official county volunteers can serve in sensitive locations. Further information can be found here: [future link](#)
- 2.3. **Confidentiality / Security.** Under federal regulations, the contents of messages handled by amateur radio are not divulged to unauthorized persons and such public service communications are furnished without compensation of any kind; **however, they are also without any guarantee of delivery, security, or accuracy**, other than our best intentions. News media, other amateurs, and even the general public can easily surveil many of the communications handled via amateur radio.

Be aware that amateur radio communications from within the United States, by radio, over the public ham radio WINLINK system, can be viewed by any Winlink member at their US Amateur Radio Message Viewer (see: https://winlink.org/content/us_amateur_radio_message_viewer which will likely require a login to reach). As a result, senders should avoid sensitive information over the WINLINK ham radio ("Public") system, and may wish to move PRIORITY or higher traffic of an official nature (not Health and Welfare) over the SHARES system. The SHARES system offers improved levels of security: Contents of SHARES communications will generally be restricted to those with a need to know, unless of a trivial nature. SHARES frequencies are not generally released to the public. SHARES WINLINK communications are NOT released through any WINLINK viewer system, and participating SHARES stations are empowered to use end-to-end encryption if desired; communications between SHARES relay stations may well be individually encrypted at the transport level.

- 2.4. **Legal Liability Coverage.** Determining the legal liability protection of volunteers who provide service to the State and its political organization, and volunteer organizations, is a complex legal issue beyond the expertise of this document. Those interested are encouraged to review Florida Statute **768.1355 Florida Volunteer Protection Act** which can be viewed at: http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0700-0799/0768/Sections/0768.1355.html This is a good reason that volunteers might wish to

be officially recognized by the County and officially given requests and missions.

- 2.5. **Amateur Radio Good Practice / Good Faith.** Generally, volunteers are covered for liability under the Florida Volunteer Protection Act (768.1355) but the amateur radio operator is cautioned to always act in a manner that is consistent with commonly accepted good practices for amateur radio operations and FCC rules and regulations; and to operate in “good faith” within the scope of their duties. **We remind you NOT to transmit on frequencies assigned to other Services (e.g. law enforcement, forestry, airborne fire fighting, etc) unless authorized by a legal authority, or in situations of immediate loss of life/property where there are no other means whatsoever of obtaining help.** Recent conviction/punishment actions underscore that warning. Acting with wanton or willful misconduct, exceeding their scope of work may exempt Florida Volunteer Act protections. Workers' Compensation, meals, lodging and other benefits are enumerated under Volunteer Benefits FS 125.9504 which can be viewed at: [http://www.leg.state.fl.us/statutes/index.cfm? mode=View %20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=125.9504&URL=0100- 0199/0125/Sections/0125.9504.htm](http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=125.9504&URL=0100-0199/0125/Sections/0125.9504.htm)

- 2.6. Under Federal regulations, Amateur Radio public service communications are furnished without compensation of any kind.

- 2.7. The Columbia County ARES functions under this Emergency Plan under the direction of the Columbia County Emergency Coordinator, who is appointed by the ARRL Northern Florida Section Emergency Coordinator.

- 2.8. The following is required by the Section Emergency Plan

- 2.9. **“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).

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 Assistant 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.

- 2.10. Deputy Emergency Coordinator
Responsibility includes but not limited to performing duties of Emergency Coordinator in the absence of the Emergency Coordinator.
- 2.11. Assistant Emergency Coordinator (AEC) – Operations
Responsibility includes but not limited to performing the tactical organization, coordination and oversight for all event resources
 - 2.11.1. Mobile/Portable operators are dispatched as needed to assigned shelters, Hospitals, and any other agencies as required
 - 2.11.2. Operators of home stations not on emergency power are coordinated to effectively operate the “Neighborhood Stations” as required.
- 2.12. Assistant Emergency Coordinator (AEC) – Net Manager
Responsibilities are to coordinate and supervise traffic handling activities which include, but are not limited to the following:
 - 2.12.1. The Columbia County Emergency Net will be called to order by the Net Control Station (NCS).
 - 2.12.2. Members of the Columbia 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 nets may be assigned:
 - North Florida ARES Net (NFAN)
 - Florida Phone Traffic Net (FPTN)
 - Columbia ARES Net, when activated
- 2.13. Assistant Emergency Coordinator (AEC) – Training
Responsibilities include, but not limited to, preparing training sessions, lesson plans, and arranging for training from outside agencies.
- 2.14. Assistant Emergency Coordinator (AEC) – Public Relations
Responsibilities include, but are not limited to, providing media notification for ARES and amateur radio functions.
- 2.15. Assistant Emergency Coordinator (AEC) – Digital Services
Responsibilities include, but are not limited to, setting up and maintaining digital communications capability within the Columbia County area and acting as digital communications liaison with other counties.
- 2.16. 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.

2.17. Assistant Emergency Coordinator (AEC) – Membership

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

2.18. Assistant Emergency Coordinator (AEC) Logistics

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

2.19. Assistant Emergency Coordinator (AEC) - Webmaster

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

Notification of Possible Activation

3. Initial Situational Awareness

- 3.1. In an emergency in which Amateur Radio might serve the community, the Emergency Management Director or his designee would alert the Emergency Coordinator or the Deputy Emergency Coordinator. They in turn would notify the Amateur Radio operators **by methods defined in this document**
- 3.2. If local telephone service is available, the EC and/or assistant ECs should be notified by telephone, voice or text message.
- 3.3. If telephone service is available, the telephone tree is activated, voice or text message
- 3.4. **ARES(R) Hurricane Net.** During Hurricane season, when Columbia County is within the 3 - day cone of uncertainty forecast track of named tropical cyclones, the ARES(R) net will be active each night at 7:00 PM Local. This provides a means of basic notification to volunteers of important information, and modest amount of detailed information
- 3.5. Any member of the Columbia County ARES who for any reason suspects a communications emergency exists should monitor the assigned net and/or digital systems for activity.

	Technique	Comment / Actions
1	Mass Notification Telephone Message Delivery	Expect messages if this system still in operation, which may direct you to check email or WINLINK email.
2	Primary Command Net (VHF Voice repeater or simplex locally) (SEE ICS-205)	Make inquiries, join existing net, or if indicated initiate formal/informal net
3	VarAC (SEE ICS-205)	Check for v-mail to download containing instructions
4	Local WINLINK Gateways SEE WINLINK SOFTWARE	Observe SIGNON MESSAGE for possible bulletin Download email to potentially find directions from authorities
5	Winlink Radio Only SEE WINLINK SOFTWARE	Additional information may be sent via WINLINK radio-only in extreme situations

ARES Mobilization Procedure

(Determine the need, create instructions, list of available volunteers, make assignments, deploy volunteers)

4. **Creation of Assignments Needed.** The Emergency Management Director shall direct local ARES^(R) leadership which assignments will be needed in priority order. This may include delegating volunteers to existing structures, portable locations, or mobile units.
 - 4.1. Possible assignment locations include EOC, Shelters, Hospitals, PODs, Fire Stations, and Disaster Site
 - 4.2. **Create Detailed Instructions.** Use current ICS 204s and add any additional instructions as needed
 - 4.3. **Recruit Volunteers.** This may entail recruiting volunteers for specific assignments, and may involve several persons making the necessary connections by existing public switched telephone connections where still functioning, or over radio or WINLINK or other techniques if the disaster is already damaging normal communications.
 - 4.4. **Create Assignments.** Match list of available volunteers to assignments. Assign volunteers for shifts as available.
 - 4.5. **Deploy Volunteers.** Direct volunteers to pick up their assignments, folders with instructions and forms at the staging area.
 - 4.6. **Methods.** Detailed directions may then be communicated by
 - 4.6.1. *Voice.* informal or formal messaging over radio channels listed in the ICS-205
 - 4.6.2. *WINLINK* email to groups, such as all ARES(R) volunteers; credentialed ARES(R) volunteers, members of local clubs, as appropriate
 - 4.6.3. *VarAC* Vmail to individuals, bulletins, and live chat may be used
 - 4.6.4. As much as possible, these detailed delivery of instructions should be inclusive of as many potential recipients as possible, while also observing issues of privacy and security where movements of volunteers might give away security risks.
 - 4.6.5. Discussion of these risks suggests the following template as a rough guide to promulgation of detailed directions:

Information Bulletins as Situation Develops	POOL(S) OF POTENTIAL VOLUNTEERS				
	ARES(R) & other volunteers not yet credentialed		CREDENTIALLED VOLUNTEERS		
	Not Available This Incident	Available and Assigned	Not Available this Incident	Available but not assigned	Available and Assigned
<p>1. Initial Notification(s) of Potential Need //</p> <p>2. Requests for Actual Deploy-able Volunteers for This Incident</p> <p>3. Current Situation, Objectives, Actions and Overall Plans (items 4,5,7,8,9 of an ICS- 201; or items 3,4, and "General Situational Awareness" of ICS-202 [available as a WINLINK Form])</p>	<p>1. Text Message</p> <p>2. Email groups (where available)</p> <p>3. WINLINK email groups (those possible)</p> <p>4. Group web page</p> <p>5. Mass notification (credentialed volunteers)</p>				
<p>4. Specific information about shelter opening / staffing (which has information of value to thieves, etc, and may have information that the EOC does not want released to the public until shelters are actually OPEN and directed by Emergency Management Director) such as the information on an ICS-204 or ICS-205A (both available as Winlink Forms)</p>	<p>(No dissemination)</p>	<p>To those serving in critical positions :</p> <p>1. Direct internet-based email</p> <p>2. Direct WINLINK</p> <p>3. Possibly by courier / "runner" via vehicles.</p> <p>4. Mass Notification</p>	<p>(Potentially more sparse information)</p>	<p>1. Direct internet-based email to only the volunteers involved, or credentialed</p> <p>2. Direct WINLINK to only those volunteers, or credentialed</p> <p>3. Even possibly by courier / "runner" via vehicles.</p> <p>4. Mass Notification</p>	

		System		System	
Information Bulletins as Situation Develops	POOL(S) OF POTENTIAL VOLUNTEERS				
	ARES(R) & other volunteers not yet credentialed		CREDENTIALLED		
	Not Available This Incident	Available and Assigned	Not Available this Incident	Available but not assigned	Available and Assigned
Information about amateur ICS-205 frequencies, coded SHARES assignments		1. Direct internet email 2. Direct WINLINK 3. Potentially via courier		1. Direct internet email 2. Direct WINLINK 3. Potentially via courier	
Information about coded SHARES assignments		(Not necessary)		1. Direct internet or WINLINK email to the volunteers staffing SHARES- equipped locations 2. Potentially via courier	

These detailed delivery of instructions should be updated where possible, perhaps every operational period, or every day. *It is important to recognize that the Emergency Manager may CHANGE their planning abruptly based on changing conditions -- so close communications needs to be maintained by local leadership, who will also likely be distracted by their preexisting employment, and needs to prepare their own houses, families etc. This is a prime opportunity to miss crucial changes in plans prior to the incident.* Likewise Local volunteers should be regularly checking the following types of communications resources for potential updates

- Internet email if available
- WINLINK email via local and/or distant servers

It is important for local leadership to decide who/when/how updates will be created and disseminated. In the "fog" of the activation effort it is easy to forget to set up how these updates, potentially at every operational period, will be created. They may optionally include some weather or other status information.

- 4.7. **Resource Net** Upon the awareness or notification that a communications emergency exists, members of the Columbia County ARES will call into the Columbia County ARES Emergency Net. Bulletins may be posted on VarAC, or Winlink email for pickup.
- 4.8. **Do Not Self-Deploy.** Other than as directed by local County officials or their delegates, volunteers should not make travel plans for service, and specifically never to within law-enforcement- restricted areas. Instead, monitor and gain further information to obtain directions from legally authorized individuals.
- 4.9. **Assignments** Assignments and updates from the Columbia County Emergency Management Director may be given by:
- Emergency Coordinator
 - Deputy Emergency Coordinator
 - Assistant Emergency Coordinator – Operations
 - Net Control

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

- 4.10. **Net Control Station** The Net Manager will assume the responsibility of net control or delegate another station as the NCS. Control will preferably be from another location other than the Columbia County EOC.
- 4.10.1. The control station will be extensively utilized during a communications emergency. The control station shall have full emergency power capability with relief operators assigned to ensure continuous operation.
- 4.11. **Continuance of Assigned Presence.** Volunteers assigned to a facility, task, or station should not normally abandon that assignment without prior notification by one of the principles listed in section 4.9 above. They will in turn check with the Emergency Management Director for approval. However, in the event of safety or emergent concerns, the safety of the volunteer and those around them take priority. Net Control should be notified.
- 4.12. **De-mobilization.** De-mobilization will be as directed by the Emergency Management Director, and will be passed along by one of the ARES chain of

command as listed in Section 4.9 above. As noted above, ICS-214's, 309s, 213s and all other documentation must be completed AND FILED prior to demobilization. Filing may be via hand delivery to the EOC, or by WINLINK.

- 4.13. **Notify Section Officials.** The Section Emergency Coordinator will be notified by telephone or any other means available. This should be done upon activation, changing activation levels and upon Deactivation. The SEC may also be a source for additional volunteers.

Operations

5. Traffic Handling

- 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. Documentation is very important for both financial and legal reasons.
Requirement: these forms must be completed and filed prior to demobilization.
 - 5.4.1. The ICS 214 form is used to document events and hours for both financial and legal purposes. Volunteers should maintain timely ICS-214 documentation of all of their significant activities, particularly as relating to assigned tasks. These should be completed individually, except perhaps in the case that two person are assigned to the identical tasking (in which case be certain to list both persons and be clear about how the hours are recorded.)
 - 5.4.2. The ICS 309 form is used to log formal traffic transferred.
- 5.5. Avoid Local Net Control from EOC. Also not a hard-and-fast rule, but our experience has shown that it is often better for any local command net on VHF (which may be formal, informal, or alternate between the two) to have a net control station located either at home (optimal) or at a deployed location other than the EOC
 - 5.5.1. Stations do not transmit unless authorized to do so by net control. The only exception to this is for a station having EMERGENCY traffic.
- 5.6. EOC Assignment. It is suggested that EOC volunteers be limited to 2 or at most 3 persons, that they be of Columbia County communications volunteer Level 2 or Level 3, and that they attempt to attend the daily briefings (briefing schedule may vary by event and will announced by the Emergency Management Director) -- and take copious notes of weather information and other information to pass along to volunteers who may not have the same level of resources. Likewise, it may be a good idea for EOC volunteers to make updates on a periodic basis to all the other deployed volunteers of weather or other pertinent information.

These updates might be "scheduled" at intervals, such as every 4, 8 or 12 hours. They might include both voice updates over a voice command net, entries to the operational plan for each operational period, or special emails via WINLINK or other systems. (This makes the importance of an ICS-205 or 204 assignment document acute)

- 5.7. **EOC Winlink addresses** The regular Amateur Winlink address for the EOC is NF4CA. If the EOC is using SHARES to allow for encrypted messages then the SHARES EOC call sign would be NNA4BP.
- 5.8. The preferred method for receiving routine detailed reports at the EOC shall be Winlink, Vara FM Peer to Peer. Other methods may be used as directed.
- 5.9. **Suggested Deployment:** Details and individual circumstances vary, and can change depending on family issues. However, in general, the purpose of our volunteerism includes actually serving at locations where County leadership needs help, and this unavoidably means traveling to a location of service. Individuals who are part of our credentialed volunteer group are encouraged to maintain some planning for such service.
- 5.10. **Suggested Family Preparation** Many of our volunteers have family commitments that influence their availability for service. There will always be immediate circumstances (such as a family member immediately post-surgery) that will change our availability.

To provide for possible service, we suggest attention to various provisions.

	Item	Comment
<input type="checkbox"/>	Be aware of your NEIGHBORS who may be of help to your family.	They may have space, power generation, skills that may help your family.
<input type="checkbox"/>	CB, FRS or GMRS may assist you in communicating with neighbors in communications / power outages.	There is a possibility of using a county-wide GMRS repeater. Note that GMRS requires a family-level license; no test, but a cost.
<input type="checkbox"/>	Consider integrating your spouse with others of our group.	Increase the possible pool of support. Good for others to know NAMES and Call signs in advance for peace of mind and possible security.
<input type="checkbox"/>	Well-defined family plans for power backup.	Consider electric-start generator, battery powered inverter systems, possible transfer switch; extension cords.
<input type="checkbox"/>	Modest tarp availability, plus pre-cut lightweight plywood sheets to cover top or bottom half of a window, with deck screws of appropriate length and a battery operated drill to easily	Make it easier to deal with a small amount of house damage from flying objects

	install.	
<input type="checkbox"/>	Several day supplies of food products that do not require significant cooking	
<input type="checkbox"/>	Some 5-gallon buckets to deal with water leaks	
<input type="checkbox"/>	Some local fuel storage.	
<input type="checkbox"/>	Consider modest electric chain saw (e.g. Poulon 14") well-prepared if needed to allow exit from driveway etc.	
<input type="checkbox"/>	Small window air conditioner for a bedroom that can be positioned in a window and operated at only 500 watts.	You may wish to use a furniture dolly and a bedside table to pre-position the small AC system at about the right height, so it can be easily moved into position, and duck-tape / newspaper / cardboard used as needed to seal.
<input type="checkbox"/>	Consider emergency toileting options should water/sewer/septic tank issues ensue.	You may wish to have additional water available for flushing if no water pressure; or an emergency toilet or accessory to allow use of 5-gallon buckets, etc.

5.11. **Importance of home-based support.** Our layered communications require additional volunteers at home locations, utilizing high quality systems and antennas to assist provide local leadership with excellent, trained volunteers with situational awareness, and connections to further assets and systems such as remote RMS's. These stations may hear traffic for other Jurisdictions that Net Control may not hear. In which case they may acknowledge the calling station and ask them to standby (Do not speak for the EOC) while you attempt to contact our Net Control Station and advise of the contact. These home-based assignments do not require background checks and are of great value to our service to the community. This is an area where non-credentialed ARES(R) volunteers can help, and where non-integrated volunteers can also become acclimated and help. There are often many dull-spots during the VHF command net, and lots can get done in these times.

Collect neighborhood input for status of:

Utilities
Wind
Rain

Assessment of damages
Road conditions

Observations of traffic, traffic difficulties, and other information as requested. Advise whether you personally observed these conditions or they were reported to you.

Alerts, Drills, and Exercise

6. Skill Development

- 6.1. **S.E.T.** An annual test will be conducted in October in conjunction with the nationwide ARRL Simulated Emergency Test. *(this will change to coincide with Florida as the section changes their SET to outside of Hurricane season.)*
- 6.2. **Public Events** The Columbia County ARES, if requested, may supply public safety communications in conjunction with local events to test the effectiveness of the operation.
- 6.3. **ARES Net** The Columbia County ARES Net meets each Thursday at 1900. Local FM repeaters and simplex will typically be used. Primary on 145.490 (-0.600) MHz No PL, Secondary on 147.180 (+0.600) MHz No PL, Tertiary on 146.940 (-600) Mhz, PL 123.0, Simplex 146.420 and Digital nets (Vara FM 144.990) will be utilized.
- 6.4. **Special Activation** At the discretion of the EC, the ARES Net will be activated unannounced via the telephone tree or other means at least once a quarter.
- 6.5. **Winlink** HF out of area, VHF Vara FM RMS and P2P
- 6.6. **VarAC** vmail, send files, live chat
- 6.7. **APRS** Location beacons and messaging

Volunteer Training and Credentialing

The American Radio Relay League has wisely included more and more formal NIMS-based training in their ARRL ARES(R) Taskbook(s). Further, the ARRL has mandated the achievement of certain levels of training and performance for their recognized field leadership, including at the local level, Emergency Coordinators and Assistant Emergency Coordinators. Florida ARES(R) leadership have additionally lead the way.

7. Qualifications

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

- 7.1.1. IS100 Introduction to Incident Command System, On-line access:
<http://training.fema.gov/emiweb/is/is100a.asp>

IS200 Incident Command Structure for Single Resources and Initial Action Incidents On-line access:

<https://training.fema.gov/is/courseoverview.aspx?code=IS-200.c&lang=en> Prerequisite IS-100

- 7.2. **NIMS:** The National Incident Management System (NIMS) provided by the U.S. Department of Homeland Security, sets the expectation that emergency responders will organize according to a national standard, making it possible for all participants to work effectively together in all aspects of an incident. The American Radio Relay League well understands the importance of meshing with the national goals and standards,

With the advent of additional training requirements imposed upon agencies and organizations assisting them, and the development of the National Incident Management System (NIMS) Incident Command System (ICS) , ARRL was challenged to align the standards of ARES with current needs of our served partner agencies

- 7.2.1. The following courses are 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. National Response Plan (NRP), An Introduction On-line access: <http://training.fema.gov/emiweb/is/is800b.asp>

IS802 Emergency Support Functions (ESF) #2 – Communications

Prerequisites: IS-800, IS-800.A or IS-800.B On-line access:
<http://training.fema.gov/emiweb/is/is802.asp>

7.3. Other FEMA Training courses

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

7.4. Other Courses NIMS training may be obtained here:

<https://training.fema.gov/nims/> :

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

7.5. **Credentialing** In order to provide information about the qualifications of various volunteers, we will be observing the progress of volunteers through the Florida ARES(:R) Taskbook (see <https://arrl-nfl.org/wp-content/uploads/2020/01/Florida-ARES-Training-Task-Book-2020-R1.pdf>), and the Columbia County EOC Taskbook (see future link,) which is specifically oriented toward our local capabilities.

7.6. Our local requirements to be recommended to the Emergency Management Director for consideration of background check and volunteer Credentialing include those requirements listed in our documentation (future link), and also as a matter of common sense, are intended for those volunteers who have a realistic chance of volunteering for service at a location other than their home. Volunteering at their home does not require credentialing! However some training will be beneficial. We are always open to helpful volunteering from home. Every family and every situation is different here

Staging Area Operations

(This may be scaled up when needed.)

8. When amateur operators in large numbers augment Columbia County ARES in response to a disaster or emergency, one or more staging areas may 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 Columbia County ARES member managing staging areas will maintain close liaison with the Columbia County EC via Net Control on the Resource Net to assure effective use of resources and talent.
 - 8.1. 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 volunteer is prepared to stay. Remember we want to recognize their effort after things settle down.
 - 8.2. One or more staging areas may be set up at appropriate locations based on the location and type of emergency response in progress. Sites will be readily accessible along main routes into Columbia 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 vehicles without unnecessarily interfering with commercial or institutional activities that may be in progress.
 - 8.3. Possible sites are as follows:
 - 8.3.1. Primary - EOC.
 - 8.3.2. Ft White Library

Columbia ARES 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.

SAFETY

Personal Safety takes priority over other events. For an emergency that requires assistance, any person who observes a participant who is seriously ill or injured will immediately notify emergency services.

If there is an immediate threat to life or property and traditional cell telephone service is working reliably, dial 911.

DUTIES

The SEC, DEC and ECs do not assume specific operating duties when their organizations are activated. They must remain free to cope with their official duties. When a County or District is not activated, however, this restriction does not apply.

ARES members on duty are directed only by ARES officials. Served-agency officials may not change the ARES volunteer's instructions, without approval from Net Control.

Amateurs who hold professional emergency-response obligations (e.g. police officer or County emergency management) will not be appointed EC or DEC.

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.

The same person will not hold DEC and EC appointments at the same time.

MESSAGING

Complete service information (how to deliver the message or return it) will be written on the message form.

Written messages from served agencies will be in whatever format they require.

Most served agencies will require ICS-213 format. Messages from other groups for input to the National Traffic System or non-official use shall be sent in ARRL format.

Every emergency-related message (except MAYDAY or Welfare) should be given Priority precedence, no matter how routine they may seem.

A reply takes the same precedence as the original.

Priority messages addressed to, or originating at the State EOC take precedence over other Priority traffic.

Emergency-related messages should usually be transferred from ARES nets to commercial circuits at the first opportunity when that will speed delivery.

In-coming Welfare inquiry traffic will not be handled on any ARES Emergency Net operating in Level I or Level II.

Communications with FDEM. Our experience has suggested that it is wise to avoid sending any transmissions to the State FDEM unless requested by the Emergency Management Director. If a priority or emergency message needs to reach the FDEM, then volunteers are advised to try techniques that will give immediate positive feedback of reception, or to use multiple techniques simultaneously, guided by the seriousness of the messaging. All traffic to the FDEM shall originate from the EOC unless otherwise directed by the EC or Deputy EC.

CREDENTIALING

All volunteers that are assigned to the EOC and deployed to shelters are credentialed. (see section 7 for a list of requirements)

NET OPERATIONS

Avoid Local Net Control from EOC. Also not a hard-and-fast rule, but our experience has shown that it is often better for any local command net on VHF (which may be formal, informal, or alternate between the two) to have a net control station located either at home (optimal) or at a deployed location other than the EOC.

Voice used for short or immediate need messages

Data used for lists or longer, not time sensitive messages. Also this method is usually better in adverse weather conditions where propagation is difficult

Forms we use

ARRL Radiogram	Welfare Messages
ICS 201	Incident Briefing
ICS 202	Incident Objectives
ICS 203	Organizational Assignment List
ICS 204	Assignment List
ICS 205	Incident Radio Communications Plan
ICS 205a	Radio Assignments
ICS 213	General Message Form
ICS 214	Unit Log
ICS 309	Communications Log

Out-going Welfare “assurance” messages are assigned a “W” (Welfare) precedence and will not be handled on any net operating on Level II activation unless approved by the Net Manager when no other Priority “P” traffic is pending. They will not be handled on any net at all during Level I activation.

Regular operations by other North Florida HF nets will be monitored during emergency operations.

At their option, ARES officials may use the Emergency Net frequency for consultation and coordination.

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.

Message traffic should be listed 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.

Situation permitting, local emergency communications use VHF or UHF nets in preference to HF.

When any operations tax local ARES resources, the EC will ask the SEC for support. The SEC may assign ARES units from other counties within the District and/or request additional help through the SM. The SM may recruit additional personnel from any available source.

ARES officials may do whatever is legal and reasonably necessary for the orderly conduct of the operation.

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.

Shelter Notes For ARES Radio Operators

1. Upon arrival, contact the Shelter Manager.
2. Locate antenna coax (if available) and hook-up. Set up your station.
3. Have paper and pens handy for notes and message forms.
4. Do **NOT permanently** assume other duties in the shelter. **Stay with your radio.** If the Shelter Manager needs your assistance with some other duty, respond with your willingness to help and that you will need to check with Net Control before leaving your station. Also advise Net Control if you need to take a personal break and again when you return.
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, so watch what you say on the air.
8. Be prepared to use back-up power. The facility may have a generator that provides power to certain outlets, or use your battery.
9. You should operate from inside the shelter, however you may operate from your car if your primary station becomes unusable. You will need either a runner (maybe a capable shelter resident) or another means to stay in contact with the Shelter Manager.
10. Advise Net Control if your shelter begins to fill up. The Shelter Manager can update you 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 or the content of messages to the EOC is not your responsibility. Leave that to the Shelter Manager. Again, our job is to communicate. Remember your RadioGram training

Public Shelters
Columbia County Emergency Management

<u>Shelter</u>	<u>Location</u>
Special Needs	
Westside Elementary	1956 SW CR 252-B, Lake City, FL 32024
Risk Shelters	
Westside Elementary	1956 SW CR 252-B, Lake City, FL 32024
Columbia City Elementary	7438 SW State Road 47, Lake City, FL 32024
Pinemount Elementary	324 SW Gabriel Place, Lake City, FL 32024
Fort White High School	17828 SW State Road 47, Fort Wwite, FL 32038
Host Shelters	
Columbia High School	469 SE Fighting Tiger Drive, Lake City, FL 32025
Eastside Elementary	256 SE Beech Street, Lake City, FL 32025
Five Points Elementary	303 NW Johnson Street, Lake City, FL 32055
Fort White Elementary	18119 SW State Road 47, Fort White, FL 32038
Fort White Middle School	2253 SW Cook Street, Fort White, FL 32038
Lake City Middle School	843 SW Arlington Blvd, Lake City, FL 32025
Melrose Park Elementary	820 SE Putnam Street, Lake City, FL 32025
Niblack Elementary	837 NE Broadway Avenue, Lake City, FL 32055
Richardson Middle School	646 SE Pennsylvania St, Lake City, FL 32025
Summers Elementary	1388 SW McFarlane Ave., Lake City, FL 32025
Community Centers	
Deep Creek Community Center	11934 N US HWY 441, Lake City, FL 32055
Lulu Community Center	205 SE Community Drive, Lulu, FL 32061
Mason City Community Center	11110 S US Highway 441, Lake City, FL 32025
Richardson Community Center	255 NE Coach Anders Ln, Lake City, FL 32055
Fort White Community Center	17579 SW State Road 47, Fort White, FL 32038
Springville Community Center	3710 NW Suwannee Valley Road, Lake City, FL 32055
Westside Community Center	431 SW Birley Ave, Lake City, FL 32024
Winfield Community Center	1324 NW Winfield Street, Lake City, FL 32055
Source October 16, 2023	http://em.columbiacountyfla.com/available-shelters

If you plan to evacuate to an emergency shelter, keep in mind, this listing is just the names and addresses of facilities that may be used during an event. All shelters are not open during every storm. Always listen to local media and monitor social media for the shelters that are open at any particular time.

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.

Amateur Radio Emergency Service Nets

The Northern Florida ARES Net meets each day Monday through Saturday at 9 AM. Generally the net will be on 3950 Khz in Winter months and in Summer months on 7265 KHz depending on conditions.

The Florida Phone Traffic Net meets daily at 7:00 AM on 3940 kHz, but may shift to 40 meters if needed.

When required, the Northern Florida ARES and the Florida Phone Traffic Net combine to become the North Florida Emergency Net.

The Columbia County ARES Net meets the Thursday at 7:00 PM on the NF4CQ (145.490 MHz, No PL) repeater. This net may shift as required.

The Alachua County ARES Net meets at 7:30 PM each Thursday on the K4GNV (146.820 MHz, PL 123.0) repeater.

The Suwannee County ARES Net meets each Sunday at 8:30 PM on the W2TTT (145.270 MHz, PL 123.0) repeater in Live Oak. The backup frequency is 146.55 Simplex.

Repeater and Digipeater Frequencies

REPEATER	
LOCATION	FREQUENCY
North Tower (Lake City) - Primary	145.490 -600 No PL
Cumorah Hill (Ft White)- Secondary	147.180 -600 No PL
South Tower (Lake City)- Tertiary	146.940 -600 PL 123.0
PACKET	
SSID & FUNCTION	FREQUENCY
Packet Digipeater (Lake City): NF4CA-7	145.070
Packet Mail RMS (Lake City): N5CBP-10	145.070
Packet Mail RMS (Mason City): KN4YGT-10	145.070
Vara FM Digipeater (Lake City): NF4CA-11	144.990
Vara FM Mail RMS (Lake City): NF4CA-10	144.990

Emergency Activation Nets

Local emergency frequencies are not generally published in advanced to attempt to minimize interference. See the latest ICS-205

Columbia ARES Operating Procedures: Directed/Tactical Net

Event Name _____
Tactical Call Sign _____

A Directed Net is a communications network strictly controlled by the net control station following established procedures to accurately and rapidly move information for the served agency. Stations are NOT permitted to communicate directly without express permission for Net Control.

TERMS

NCS – the Net control Station is the absolute authority in control of all activity on a directed net. Pro-words are verbal signals used in a directed net to promote accurate, rapid communications. ITU Phonetics Phonetic alphabet used in ALL emergency communications.

DIRECTED/TACTICAL NET PROCEDURES

Pro-words

Pro-words are used to promote accuracy and speed on directed and tactical nets. Proper consistent use of pro-words is the identification of a true emergency communication experts. NO jargon or slang
BE PROFESSIONAL Be Consistent

- **OVER** Used to let a specific station know to respond during an exchange of information
- **OUT** Used to indicate you have concluded this portion of your communications and no response is needed
- **ROGER** Indicates that a transmission has been received correctly and in full; DOES NOT replace the work “yes”
- **Stand by** Used to acknowledge a station, putting them on hold to attend to a more urgent matter
- **Say Again** Used when you did not hear all of what was said. Do Not use “Repeat”
- **Wait** Used to tell all stations to stand by for a general announcement or digital bulletin
- **Affirmative** Positive reply to a question. Means Yes
- **Negative** Negative reply to a question. Means No
- **Clear** This station is leaving the frequency / net.

Phonetics

ITU Phonetics will be used during Directed / Tactical Nets

PHONETIC	ALPHABET	with	NUMBERS	
A - ALPHA	B - BRAVO	C - CHARLIE	1 - WUN	2 - TOO
D - DELTA	E - ECHO	F - FOXTROT	3 - TREE	4 - FOW-ER
G - GOLF	H - HOTEL	I - INDIA	5 - FIFE	6 - SIX
J - JULIETT	K - KILO	L - LIMA	7 - SEV-EN	8 - AIT
M - MIKE	N - NOVEMBER	O - OSCAR	9 - NIN-ER	0 - ZEE-RO
P - PAPA	Q - QUEBEC	R - ROMEO		
S - SIERRA	T - TANGO	U - UNIFORM		
V - VICTOR	W - WHISKEY	X - XRAY		
Y - YANKEE	Z - ZULU			

Columbia ARES Emergency/Exercise Net Operations Script

Text in Italics is not to be read on the air. If on the repeater say repeater, if on simplex say frequency.

Calling all amateur radio stations monitoring this repeater/frequency. This is November Foxtrot 4 Charlie Alpha, NF4CA, Net Control for Columbia County ARES. My personal call is _____.

This repeater/frequency is now under Columbia ARES Emergency Operations Protocol.

The Net Condition is _____

Level 1 – Full Scale Activation

Level 2 – Partial Activation

Level 3 – Monitoring Activation, this is an informal net (no net script is used)

If this is an Exercise then announce: This is an Exercise.

All non-emergency amateur radio stations are requested to clear the frequency or stand-by to ensure that this frequency remains open for Emergency, Priority and Columbia ARES related traffic only. Please refrain from non-event related communication for the duration of this event.

Use the below to call for traffic at least every 10 minutes.

This is NF4CA, are there any stations with emergency or priority traffic? Call signs only, I will come back to you.

This is a directed net so please follow instructions from net control.

Stations with Emergency or Priority traffic only may break the net at any time using the Pro-word Break and wait to be recognized by Net Control.

We will now begin check-ins. Please state your full call sign using ITU phonetics. Do not announce traffic or comments at this time. Do not announce relays until requested to do so by Net Control.

If this is an Exercise then announce: This is an Exercise.

Is the Columbia ARES Emergency Coordinator on frequency?

Are there any Columbia Assistant Emergency Coordinators on frequency?

This is November Foxtrot 4 Charlie Alpha.

Stations with an assigned Tactical call sign come now. Personal call first then Tactical.
(make at least two calls and repeat until no more stations answer)

Are there any relays? Come now with your call sign only.

Mobile or portable stations, please come now.
(make at least two calls and repeat until no more stations answer)

Stations in North East Columbia come now.

Stations in North West Columbia, come now.

Stations in South West Columbia, come now.

Stations in South East Columbia come now

Any non Columbia Stations come now.

Are there any relays? Come now with your call sign only.

If this is an Exercise then announce: This is an Exercise.

Any stations not previously acknowledged by Net Control, come now.

This is NF4CA, Net Control. My personal call is _____.

Stations with Routine traffic or comments for the net come with your call sign only. I will come back to you.

(make at least two calls and repeat until no more stations answer, then call the stations that listed traffic and ask for their traffic)

Make any announcements or give information you have for the net.

Make additional general Net Calls about every five (5) minutes or as necessary to accommodate all check-ins or traffic.

This is NF4CA, Net Control. Are there any additional check-ins?

Periodically, about every 10 minutes announce:

Attention all stations. This is a directed net in support of ongoing emergency communications. We appreciate all stations adhering to Directed Net Procedures and maintaining a clear frequency.

This is NF4CA, Net Control. My personal call is _____.

Script for passing Net Control responsibilities

Current NCS: (New NCS call sign) this is (your call sign)

New NCS: (their call sign)

Current NCS: Are you ready to assume Net Control?

New NCS: Affirmative

Current NCS: Do you need the roster? (if yes, then read the roster, when complete, continue)

Current NCS: (New NCS call sign) assume Net Control.

New NCS: This is (New NCS call sign) I have Net Control.

When concluding the net:

This is NF4CA securing from Emergency Operations Protocol Net Condition at _____ (time) local and returning the frequency to normal amateur use.

We thank all amateurs for your cooperation during this event. This is _____ (personal call) OUT.

Columbia County ARES/SKYWARN Net Script
Net Script Instructions

IMPORTANT: Whenever you see something printed in RED, it is for instructional purposes and is not to be read out loud.

Section 1 – Introduction – to be read at 6:59pm

Calling all amateur radio operators monitoring this repeater. You are invited to participate in the COLUMBIA COUNTY ARES SKYWARN NET which will begin in one minute.

(*PAUSE*)

Section 2 – Start the Net – to be read at 7:00pm

This is _____. (call sign) My name is _____, I am located in _____, and I will be your net control for this evening. Stations with emergency or priority traffic please come now. (*PAUSE*)

This net meets Thursday nights at 7:00pm local time on the NF4CQ repeater at 145.490 mhz, no PL. In the event that no signal is heard, QSY to 146.420 simplex, the ARES primary simplex frequency for Columbia county. (*PAUSE*)

The purpose of this net is a training exercise for emergency communications, information, readiness, and preparation to assist local governments or communities needing communications for local events. This is a directed net so please follow instructions from net control. (*PAUSE*)

Are there any public service announcements please come now. (*PAUSE*)

We will now begin Check-ins. Please state your full call sign using phonetics along with your name. (Roll Call. When you hear your call sign, please reply.)

This is _____, (call sign) Net Control.

Are there any short of time stations?

Are there any mobile stations?

(*Call the roll*)

(After mobile check-ins, begin regular check-ins)

Acknowledge check-ins and mark them on a check-in sheet.

Are there any new check-ins or anyone I have missed? Please come now. (*PAUSE*)

(Add any new check-ins to the check-in sheet)

Section 3 – After Check_ins

(if doing any training session, do that now)

Anyone desiring to become a member of Columbia County ARES, Please see the NF4CA.org web site. (*PAUSE*)

In the event that unusual weather conditions are in your area please announce that you are monitoring and state the weather conditions.

For local weather updates please listen to the National Weather Service at 162.400mhz. Report any hazards to the local 911 or county Sheriff's office.

ANNOUNCEMENTS:

Are there any announcements concerning net business?(*PAUSE*)

The CARS monthly meeting and testing information can be found on the CARS website, NF4CQ.com. (*PAUSE*)

The ARES meeting and training information can be found at NF4CA.org.(*PAUSE*)

SECTION 4 – CLOSE THE NET

Any other late check-ins, please come now.(*PAUSE*)

This is the COLUMBIA COUNTY ARES/SKYWARN NET. This net will meet again next Thursday evening at 7:00pm local time. (*PAUSE*)

A special thank you to Doug Baker, WB4VFT trustee of the NF4CQ repeater.

This net is now closed at _____ (time) and the repeater is being returned to normal Amateur use. This is _____.

Columbia County ARES Training Net Script

(Updated October 22, 2023)

This is NF4CA, Net Control for the Columbia County ARES Training Net. My personal call is _____, and I am located near _____.

The net is condition:

- No Level (DEFAULT CONDITION)
- Note: NCS will be notified by the EC for what level to announce
 - o Level 1 - Full Scale Activation
 - o Level 2 - Partial Activation
 - o Level 3 - Monitoring Activation - Level 3 is typically a "monitoring" phase

The Weekly Columbia County ARES Net meets every Thursday evening at 1900 local time. Check NF4CA.org for the frequency schedule.

(Emergency Net: see the special emergency net script)

(Resource Net: see the special resource net script)

(If there is a digital net included, announce the following)

Is there a Net Control Operator for the Digital Net?

The Digital Net will be on frequency 144.990. The Digital Net will be operated after voice net is completed.

(Otherwise continue)

The purpose of this Training Net is to increase the readiness of local amateurs and their equipment in the event of a communications emergency, and share information of interest to the amateur community. This is a directed net; traffic must be directed by Net Control. All stations are encouraged to check in.

The use of correct ITU phonetics and adhering to normal net procedures is encouraged. When checking in please speak slowly to ensure your call is correctly acknowledged by Net Control.

(ID) This is NF4CA, any station with emergency or priority traffic come now please.

Before we take check-ins, is there an alternate Net Control Station available?
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 ARES officials, please provide status reports if applicable:

- Columbia County Emergency Coordinator
- Assistant Columbia County Emergency Coordinators
- Additional Area EC, AEC's
- Liaison Stations for any agency (Red Cross, Utilities)

Continuing on with regular check- ins:

- Mobile stations
Call for stations to check-in using geographic order. For example if your address is 123 North East Radio street, your North East
- Stations in North East Columbia come now
- Stations in North West Columbia come now
- Stations in South West Columbia come now
- Stations in South East Columbia come now
-

We will now allow a five-second drop of the repeater. Stations may check in via Simplex and additional stations not acknowledged by Net Control.

Do any stations have any relays for the net?

(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.

(After training is over)

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

This concludes the business for The Columbia County ARES training net. I would like to thank everyone for checking in with us tonight.

This is NF4CA securing the net at _____(time), and returning the frequency to normal amateur use.

This is _____(Your call sign), OUT.

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. (check the ICS-204 for your location's call sign) 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".

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 - whiskey (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"

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.
1. 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 is permissible.
2. 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.
3. Elimination of the words "**OVER**" and "**OUT**" is possible when 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 work "**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. Use the phrase **“say again”**
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. If you have a message that has a higher priority than what is being sent, wait until that message is passed and contact NCS immediately. Don't break the net unless you are holding an EMERGENCY message.
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. ***“Q” signals shall NOT BE USED when passing traffic.***
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. Don't forget the message priority order. EMERGENCY first, PRIORITY second, WELFARE third and ROUTINE last.
30. Do not use the words "**ROGER**" and "**WILCO**" during emergency communications unless specifically asked to do so by a serving agency. ***These words have specific meanings and are NEVER said together in the same exchange.*** "**ROGER**" means that you understand what has been sent or asked of you – and nothing else. "**WILCO**" means "WILL COMPLY". When you answer "**WILCO**", it means that you understand what someone has asked of you and WILL DO it.
31. 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.
32. 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 stations-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.

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.

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.

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.

HAZMAT – Hazardous Materials.

Home Stations – Fixed stations providing liaison between neighborhoods and Net Control.

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.

Level I – Defined as the Full Scale Activation Phase. It is the highest possible level of alert in an emergency communications operation. Level I can be declared at the Section level only by the SM by issuance of a Priority bulletin to be transmitted on all active net frequencies. It applies solely to nets and geographic areas designated in the formal order.

Level II – Defined as the Partial Activation Phase. Issued by DEC's or EC's and designates nets. The alert level becomes Partial Activation in a County or District when specific duty posts are staffed and become operational. Most emergencies are handled at this level.

Level III – Defined as the Monitoring Phase. ARES support services may be needed on short notice in the next 24 to 48 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.

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

NFL 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 – No Alert is the normal situation for Ham Radio communications. No state of alert or emergency exists.

NTS – National Traffic System.

NWS – National Weather Service.

Priority - 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.

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.

Routine – The designation for most traffic in normal times. Handled last or not at all during an emergency.

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.

SWO – State Watch Office– Communications center at FDEM; operates 24 hours a day, every day.

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.

Welfare – refers to an inquiry into or an advisory out of the disaster area concerning the health and welfare of an individual.

Digital Methods

9.

9.1. NET OPERATIONS

9.2. THE WINLINK Email by Radio System. Do we need to have Winlink defined to this detail here or elsewhere??

...is a network of amateur radio and authorized government stations that provide worldwide radio email using radio pathways where the internet is not present. The system is built, operated and administered entirely by licensed "Ham" volunteers. It supports email with attachments, position reporting, weather and information bulletins, and is well-known for its role in interoperable emergency and disaster relief communications. It is capable of operating completely without the internet--automatically--using smart-network radio relays. Licensed Winlink operators/stations use both amateur radio and government radio frequencies worldwide. Support for the system is provided by the [Amateur Radio Safety Foundation, Inc.](#), a US 501(c)(3) non-profit, public-benefit entity. Winlink Global Radio Email® is a US registered trademark of the Amateur Radio Safety Foundation, Inc.

9.2.1. 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.

The Winlink system consists of fixed location unmanned Gateway Stations where they serve as an access point to the Winlink system for stations who have no direct Internet connection. The system of Gateways operate 24 hours a day and require no "onsite operator" to be used.

The Winlink 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.

Email sent through the system requires only an originator of the email and can be done anytime of the day or night.

9.2.2. Components and Radio Modes

9.2.2.1. **Conventional Gateway Stations** support the sending and receiving of Email by a radio station into or from the Internet through connected Radio Message Servers (RMS). They can have HF, VHF, and UHF ports. Messages sent by the client go by radio to the RMS and then through the Internet where they are stored on a Central Message Server (CMS) until the recipient connects and downloads messages addressed to themselves. The location of the Gateway Station must have an Internet connection. However, if the Internet connection is lost due to effects of the disaster, the RMS cannot accept connections from client stations and route them to a CMS.

9.2.2.2. A **Hybrid Gateway Station** is similar to a Gateway Station (as above) but is configured to operate in Conventional Mode when it has Internet access and to switch automatically to Radio-Forwarding Mode if it loses the Internet connection.

Packet, Vara HF and PACTOR are modes for HF operation. Due to the nature of these modes and their 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).

Because RMS and Hybrid Stations 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

9.2.2.3. **Peer to Peer** This mode of operation transfers messages directly from one client station to another client station without going through an RMS or a CMS; the Internet is not used. There are several considerations to peer-to-peer mode:

- Both Stations must be on the air at the same time
- Stations must clearly coordinate the frequency
- Both stations must use the same transmission protocol, for example Vara FM

- Messages cannot be sent to Internet e-mail accounts

9.2.2.4. **Radio Only** If a message is created as a radio-only message, and a radio-only connection is made to a hybrid RMS, then the RMS will always use RMS Relay to process the connection. Messages sent will be stored by RMS Relay in its local database. No copy of the message will be uploaded to a CMS. A copy of the message will be made for each Message Pickup Station (MPS) registered for the recipient, and the messages will be routed to the MPS where they will be stored in its local database. Since radio-only messages are stored in the local database of the RMS designated as MPS, radio-only connections to one of the MPS RMS must be made to download these messages.