



Lake County Amateur Radio  
Emergency Service  
(LCARES)

# Operating Plan

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## Table of Contents

I. INTRODUCTION .....	3
A. Lake County Amateur Radio Emergency Services .....	3
B. Relationships .....	3
C. Served Agencies .....	3
D. Purpose and Authority .....	4
II. CONFORMANCE WITH THE NORTH FLORIDA AMATEUR RADIO EMERGENCY COMMUNICATIONS PLAN .....	4
A. Definitions .....	4
B. Policies .....	7
1. Duty .....	7
2. Message Traffic .....	7
3. Nets .....	8
C. Emergency Coordinator (EC) .....	8
D. Alerting And Notification .....	8
Levels of Alert .....	8
E. The GATEway System .....	11
Selecting GATEway Stations .....	11
III. ORGANIZATION, PROCEDURES, FREQUENCY PLANS .....	12
A. Organization and Duties .....	12
B. Alert Procedures .....	13
1. In County .....	13
2. Outside County .....	14
C. Emergency Frequency Plan .....	14
1. In County .....	14
2. Outside County .....	14
D. District/Section HF Net Contact Procedures .....	14
E. GATEway Station Operations .....	14
F. Health And Welfare Traffic Procedures – NTS Liaison .....	15
IV. LAKE COUNTY SPECIFIC PLANS .....	15
A. Probable Emergencies and Response .....	15
B. Lake County EOC and Alternatives .....	17
C. Lake County Emergency Shelters .....	17
D. Lake County Hospitals .....	17
E. LCARES Emergency Communications Trailer .....	17
F. Mobile Communications Support Teams .....	18
Appendix A – LCARES Organization Chart .....	19
Appendix B - Lake County, Florida ARES Frequency Plan .....	20
Appendix C – LC Emergency Shelters .....	22
APPROVALS .....	23

## I. INTRODUCTION

### A. Lake County Amateur Radio Emergency Services

Lake County Amateur Radio Emergency Services (LCARES) is an operating unit of Lake Amateur Radio Association, Inc. (LARA), a non-profit corporation, affiliated with the American Radio Relay League, Inc. (ARRL). LCARES is an integral unit of Amateur Radio Emergency Services, (ARES<sup>®</sup>), a trademark of the ARRL, which provides the management framework for county, regional, statewide, and national emergency communications.

The Unit is organized to provide emergency communications by federally licensed volunteer radio operators and technicians. Initial and continued training is conducted locally through the ARRL Amateur Radio Emergency Communication Courses (ARECC), and the Emergency Management Institute, FEMA, U.S. Department of Homeland Security. This training in emergency services and the Incident Command Systems (ICS) is a requirement of all LCARES members.

Of the two field deployable Amateur Radio Emergency Services organizations, ARES and Radio Amateur Civil Emergency Services (RACES), we choose ARES due to its suitability for local jurisdictions, strength of the national and statewide organization, unlimited training opportunities, and maximum frequency interoperability. If mandated by a government jurisdiction we can switch over to RACES if necessary. This results in a single point of contact for activation of LCARES by Lake County Division of Emergency Management.

### B. Relationships

LCARES is the operational unit for Lake County, Florida. It, along with ARES groups for Orange and Seminole counties, make up the East Central District. The East Central District is part of the Northern Florida Section, the largest administrative unit of the emergency communications organization.

### C. Served Agencies

Our primary Served Agency is the Lake County Department of Public Safety, Division of Emergency Management (EM). This Agency is charged with the responsibility of protecting citizens and property from natural and unnatural disastrous events. This responsibility becomes increasingly difficult when commercial wired, wireless, and public safety communication is overloaded or disrupted.

Lake County EM and LCARES share the common directive of providing contingency planning, communications, and operational services as needed to protect life and property before, during, and after an incident. This is accomplished by LCARES participation on the EM staff as part of the unified command structure of ICS and LCARES participation as a volunteer agency within ESF-2, Communications.

From time to time, other agencies may become Served Agencies of LCARES through entering into Memoranda of Understanding (MOUs) in compliance with ARRL standards and master MOU's.

## D. Purpose and Authority

The primary purpose of the Amateur Radio Service, as defined by Part 97 of Federal Communications Commission law, is the rendering of public service communications for the general public in times of emergency, when established communications systems are not available or seriously diminished. Of secondary significance is the experimentation and advancement of the radio art for the public welfare.

LCARES operates and maintains a system of publicly and privately owned communications assets comprised of voice, text based, position tracking, and e-mail over radio channels and frequency bands covering all of Lake County, the State of Florida, and beyond. Since our members are licensed to adapt or modify a system under real time conditions these systems are capable of operating under adverse conditions.

Authority for our actions as an ARES group derives from Public Law. Our common purposes with Lake County EM create a natural alignment. And our resources, physical assets, trained personnel, and technical knowledge, supplement and augment LC EM ESF-2 communications.

## II. CONFORMANCE WITH THE NORTH FLORIDA AMATEUR RADIO EMERGENCY COMMUNICATIONS PLAN

In order to insure commonality among ARES units working within the North Florida Section, the following sub-sections (Definitions, Policies, Emergency Coordinator, Alerting Procedures, and GATEway System) are excerpted from the NOFAR EmComm Plan and incorporated for use by LCARES. For the purposes of this section, AREC and ARES may be used interchangeably.

### A. Definitions

“Activated Alert” – Orange Alert - Condition Activated Alert members are active at assigned duty posts – not on standby.

"AEC" – Asst. Emergency Coordinator

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

“AREC” – Amateur Radio Emergency Communications.

“ARECP” – Amateur Radio Emergency Communications Plan.

"CEM" – County Emergency Manager or County Emergency Management

"Communications emergency" – as defined by the FCC – occurs when normal communications systems are disrupted in a specified area.

"County" - Any geographical jurisdiction assigned to an EC. 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 Sheriff's 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 activities in a cluster of counties comprising a District

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

"Deployment Team" – A group of experienced Amateur volunteers selected and trained to mobilize on very short notice to operate in an incident area for as unspecified period of time – usually three to seven days.

"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" – Emergency Coordinator. An 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" – Emergency Operating Center; an emergency headquarters.

"ESF" – Emergency Support Function. Each ESF is a group of people in an EOC dealing with specific kinds of problem.

"FDEM" – Florida Division of Emergency Management (see DEM).

"FEMA" – Federal Emergency Management Agency

"Formal traffic" – is written using a designated message form. It is used when Amateur Radio operators relay information between third parties.

"Forward Command Assistance Team" FCAT – A forward deployment management team that travels into an incident area where AREC members are effected by a high impact event that produces trauma.

"Fully Operational" – Red Alert - Maximum level of activation in the Northern Florida AREC Plan.

"GATEway Stations" – Fixed stations providing liaison between two nets.

"GPS" – Global Positioning System

"HAZMAT" – Hazardous Materials.

"Hot-Standby" – White Alert - notice to members to prepare for deployment on very short notice.

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

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

"NF" – Northern Florida - The Northern Florida Section of the State of Florida.

"NM" – Net Manager.

"NOAA" – National Oceanic and Atmospheric Administration - Home agency for the National Weather Service

"NTS" – National Traffic system.

"NWS" – National Weather Service

"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.

"Section" – Administrative unit headed by elected Section Manager (SM). Florida has

three Sections; Northern, Southern, and West Central.

"SEC" – Section Emergency Coordinator – Official responsible for all emergency communications 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.

"Service information" – Handling notes attached to a message form.

"Service message" – Radiogram relating to handling of another message.

"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

"Stand down" – Blue Alert – Alert status allowing officials at their discretion to shut down operations when they complete their emergency-related duties.

"STM" – Section Traffic Manager

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

"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 from the SEOC. It will NOT usually include receiving or transmitting messages 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.

"Tracking Number" – A number issued by the State Emergency Operations Center for each restoration activity.

"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.

## B. Policies

Certain policies prevail when Northern Florida Emergency Communications groups conduct emergency operations.

### 1. Duty

The SEC, DECs and ECs do not assume specific operating duties when their organizations are on an alert status above "Hot-Standby". They must remain free to cope with their official duties. When a County or District is not activated, however, this restriction does not apply.

AREC operators on duty are directed only by emergency communications officials. Served-agency officials may not change the amateur radio volunteer's instructions.

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

AREC operators, while on duty, perform only their assigned radio duties. If the operator wants to assume other duties he asks the EC for relief from radio duties.

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

### 2. Message Traffic

Complete service information will be written on the message form.

Formal written message format is used whenever third parties are involved.

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

A reply takes the same precedence as the original; a Priority message gets a Priority reply.

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

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

In-coming Welfare inquiry traffic will not be handled on any AREC Net operating in Condition Activated Alert or Fully Operational.

Out-going Welfare "assurance" messages get a W (Welfare) precedence and will not be handled on any net operating on Activated Alert unless approved by the Net Manager. They will not be handled at all during Fully Operational Alerts.

### 3. Nets

All efforts will be made to continue the regular net operations so that information flow can be maintained throughout the emergency for all stations. Activation of the Northern Florida Emergency Net shall be the decision of the Section Manager in consultation with the Section Emergency Coordinator or designee.

Activation of the NFEN will be made to secure the network for efficient handling of tactical and formal emergency and priority traffic.

Regular operations by other NF nets cease on 3950 kHz when the Emergency Net is activated.

NTS liaisons are not maintained during emergency operations.

At their option, amateur radio emergency communications 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 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.

### C. Emergency Coordinator (EC)

The EC is the chief Amateur Radio Emergency Communications official in the County, and is the primary point of contact. The EC is directly responsible to the DEC. The duties of Emergency Coordinator require a serious commitment of time and effort by the volunteer who accepts it. The EC serves at the pleasure of the SEC or SM, but works closely with the DEC day to day.

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

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 radio official. 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.

### D. Alerting And Notification

#### Levels of Alert

When a disaster strikes or threatens any Northern Florida community, affected ECs and DECs may invoke any of four levels of alert of their organization:

**Hot – Standby ( White Alert )** notifies AREC operators 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 24-48 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. 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 DECs in the affected areas. A Hot – Standby Alert declaration signals DECs that they should alert ECs, "deployment team" coordinators, Net Managers, and other key emergency communications officials to prepare for short-notice calls. All radio operators in the alerted Districts or Counties should monitor designated net frequencies and keep closely in touch. Alerted Amateur Radio Emergency Communications operators should prepare to be en route to duty posts within two hours or less of being assigned. 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 Hot – Standby Mode customarily run in "free mode," i.e., they are not directed. Radio operators and officials should monitor the appropriate frequencies for information and for possible increases in or cancellation of the alert status.

**Activated Alert ( Orange Alert )** is descriptive of operational status. It is usually issued by DECs or ECs and designates nets, GATEway activations; jump teams, and such, to perform specific tasks. The alert level becomes Activated in a County or District when specific duty posts are staffed and become operational. A net typically "goes Activated" when a net control operator opens the net. A DEC may place any District or local net or other operating unit (such as a deployment team or County EOC AREC staff) in his District on Activated Alert. Most emergencies, even severe ones, can be handled without ever going beyond Activated Alert.

**Fully Operational ( Red Alert )** is the highest possible level of alert in an emergency communications 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 emergency net or frequency, the alert level is automatically Condition Fully Operational and remains so until all distress traffic has been cleared. Fully Operational Alert can be invoked at the Section level only by the SM. It is the only alert level under which the SM will consider asking the FCC to clear a frequency. Fully Operational Alert is declared 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. A District EC can put his District on Fully Operational 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 Fully Operational 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. Nets or areas NOT designated in the bulletin will continue in whatever level of alert prevailed before the Fully Operational Alert began.

**Standown Alert ( Blue Alert )** authorizes DEC's and EC's to begin the stand-down phase of the activation. Standown is permissive only; it does not require that operations be shut down in the specified area. It simply advises the designated DEC's and/or EC's that no apparent reasons exists 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. Only the SEC (or SM) may invoke a Stand down Alert for a Section net, or if more than one District is involved in the emergency operation, because specific DEC's or EC's may not be aware of conditions elsewhere that might require their support. A DEC can invoke a Stand down Alert in the District net if the emergency- operation involves only his/her own District and no Section net is in operation.

**No Alert** is the normal situation for Amateur communication. No state of alert or emergency exists.

## E. The GATEway System

The Gateway System is to be activated by the SM/SEC only when deemed necessary. Most operations will be conducted at the local or County level. When activated the Gateway stations serve the entire District.

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.

GATEways may be clustered in or near major urban areas 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.

### Selecting GATEway Stations

DECs will provide a current listing of potential GATEway stations to the SEC. DECs may change the designation of GATEway stations at anytime through verbal notification to the SEC and notifying the net control of the active GATEway station. An active Gateway station will notify the net control station of his/her designated replacement before leaving the net. They may use voice or digital modes depending on the assignment. They should be of high-quality performance, with good signals that under normal conditions cover the entire Section and beyond.

Selection and recruitment of GATEway Stations are responsibilities of the District Emergency Coordinator.

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 operations 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 the Tallahassee GATEway) and pass traffic from the SEOC to GATEways.

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.

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.

A GATEway cannot function without VHF links to the County EOC and other local points designated by the EC or DEC. ECs are strongly encouraged to use the County and District VHF nets and avoid using HF at all, if possible, for local communications. This reduces congestion and confusion on the HF Emergency Net and expedites all traffic. It also reduces demands on Counties with scarce personnel better used on other assignments.

### III. ORGANIZATION, PROCEDURES, FREQUENCY PLANS

#### A. Organization and Duties

LCARES is organized under a standard ICS structure. Specific positions and responsibilities are as follows:

Position	Responsibilities
EC	Organizes and coordinates ARES in the County to accommodate the needs of agencies served
AEC – Public Information	Handles all public relations/media contacts
AEC – Information Technology	Organizes and maintains all info tech systems and procedures, and radio/technology interfaces
AEC- Operations	Organizes and coordinates all operations including ARES EOC staff
AEC - Finance	Handles all legal and financial transactions for the organization
AEC - Planning	Develops and maintains organization’s response plans and training plans
AEC – Logistics	Handles all logistics including recruiting and coordination with County Volunteer organization
Net Manager	Manages County ARES net(s) and liaison to NTS system

## B. Alert Procedures

Alerts within Lake County will use the four color-code alert levels as specified in the NOFAR Emergency Communications Operating Plan and the East Central District Plan.

There are two emergency categories to consider: Unanticipated Emergencies and Anticipated Emergencies. Unanticipated emergencies, such as tornadoes, fires, chemical spills, etc., are events for which there is little or no warning and the event occurs as a surprise. Anticipated emergencies such as hurricanes, floods, and severe winter storms generally receive coverage by the media long before the event and allow for more anticipation and preparation ahead of actual activation. Activation requests may originate from either within Lake County (generally unanticipated localized emergencies) or sources outside Lake County (generally anticipated emergencies covering large areas). Regardless of the source of the activation request, the Alert Procedure is the same. However, activation originating within the county requires notification of the ARES chain of command outside the county. Notification methods are as follows:

### 1. In County

Requests for activation, whether originating from Lake County EM, the North Florida Section EC, or the East Central District EC, are directed to the Lake County EC or, in his absence, his designee. Requests from Lake County EM generally are received by phone or through the County Reverse 911 System. Request originating outside Lake County may be received by phone, radio, and/or email. Once notified, the EC and/or his designee, in turn activate nets, pre-assigned teams, and groups as needed.

Three primary means of notification are used:

1. The local ARES repeater (N4FLA, 147.000, - offset, 103.5 tone)
2. Phone trees
3. E-mail

Any combination of these means may be used depending on the level of alert and the quantity and availability of responders.

Typically, if the need for responders is large and/or ongoing, a Logistics Net will be established on one of the Alternate Tactical Ops frequencies for checking in available responders and assigning initial reporting sites and times. The frequency of the Logistics Net, along with instructions for those seeking to volunteer their services will be regularly announced on the primary LCARES Emergency Net as long as the need for volunteers exists.

## 2. Outside County

In the event of an alert originating from our served agency(s), at the time of activation, or as soon as possible thereafter, the EC or his designee, notifies the DEC and the EC's of Orange and Seminole counties of our activation by phone, email, or VHF.

In addition, all activations require regular communications and reports to the District and Section chain of command. Communication paths and schedules will be established as soon as possible following activation and maintained throughout the duration of the emergency

## C. Emergency Frequency Plan

### 1. In County

Because of possible frequent changes in this list and in order to facilitate updating and maintaining the overall plan, the current County Emergency Frequency Plan, which includes in-county, outside county, and state-wide voice, data, VHF, UHF, and HF is incorporated as Appendix B.

### 2. Outside County

Because of possible frequent changes in this list and in order to facilitate updating and maintaining the overall plan, the current County Emergency Frequency Plan is incorporated as Appendix B.

## D. District/Section HF Net Contact Procedures

In the event that District and/or Section HF Nets are activated without activation of the Lake County EOC, the EC will designate stations within the county that have both HF and VHF/UHF capability to monitor these HF Nets, check-in on a regular basis, and liaison to local Nightly ARES VHF net.

When the EOC is activated, the LCARES staff at EOC provides this linkage.

## E. GATEway Station Operations

LCARES maintains two GATEway capable stations. The primary, N4FLA, is located in the Lake County EOC (Tavares) and the second, K4FC is located in the LARA Clubhouse (Tavares) – a storm hardened facility with emergency generator capability sufficient for extended off-grid operation. Both facilities have:

1. HF, 80 meters through 10 meters, with both voice and digital modes,
2. VHF/UHF with voice, SEDAN, APRS, PACKET, and ECHOLINK, and
3. Fulltime Winlink RMS stations.

GATEway stations operate under the direction of the District Emergency Coordinator. The DEC may, at his discretion, appoint additional GATEway stations within the County as needed.

NOTE THAT except in highly unusual and extreme circumstances, ALL LCARES local communications are to take place on VHF/UHF.

## F. Health And Welfare Traffic Procedures – NTS Liaison

Given that LCARES primary served agency is Lake County Emergency Management and the tactical nature of the communications needs of that agency, coupled with the availability of Salvation Army Team Emergency Radio Network (SATERN), in almost all instances, the following will apply.

1. LCARES will re-direct all requests for outbound H&W traffic to the local SATERN representatives. LCARES will only accept and process outbound H&W traffic when all other duties have been fulfilled, or there is a failure of the SATERN net.
2. Any LCARES Emergency Net when operating at Orange Alert or above will not accept in-bound H&W traffic.
3. NTS liaison will not be maintained by any LCARES net during emergency operations.

## IV. LAKE COUNTY SPECIFIC PLANS

### A. Probable Emergencies and Response

The Lake County Comprehensive Emergency Response Plan evaluates the various types of emergencies that might occur and establishes the planned responses from Lake County EM. Activation is planned at three (3) response levels. They are:

Level III - Danger possible - Monitoring Phase. Operating under normal conditions, however monitoring the situation. EOC Section Chiefs and emergency response agencies notified. Emergency procedures reviewed. Organizational plans reviewed and updated.

Level II - Danger probable – Partial Activation, operating under standby conditions. Key EOC personnel notified to report. EOC activated. Public informed. State Warning Point and adjoining counties notified. Ensure personnel have been briefed and family responsibilities have been addressed. Municipality/County coordination established. Citizen Information Center activated.

## LCARES Operating Plan

Level I – Full Activation – Operating under standby procedures preparing for conditions of probable danger. EOC is fully operational. Public informed. All agencies should coordinate with the EOC as required.

The 12 anticipated emergencies, listed in order, are:

1. HURRICANES
2. TORNADOES
3. ARMED VIOLENCE (Civil Disturbance, Terrorism or Military Conflict)
4. DROUGHTS
5. FLOODS
6. SEVERE WINTER STORMS/FROSTS
7. HAZARDOUS MATERIALS (Non-Radioactive)
8. WILDFIRES
9. TRANSPORTATION ACCIDENTS
10. LIGHTNING
11. SUBSIDENCE (Sinkholes)
12. TERRORISM

Since by their nature some of these events tend to be localized and limited in their impact on communications infrastructure, they are not addressed in this LCARES Operating Plan. Those events that will most likely result in activation of LCARES are:

1. Hurricanes
2. Tornadoes
3. Floods (resulting in Emergency Shelter openings)
4. Severe Winter Storms/Frosts & Freeze (resulting in Emergency Shelter openings)

Our planned responses to these, and any other communications emergencies that may arise, are in five categories. These categories may be used singularly or in any combination as the situation demands. They are:

1. Activation and staffing of the ARES Operations at the County EOC. This may or may not occur at Lake County Emergency Management Activation Level II. It always occurs at Lake County Emergency Management Activation Level I.
2. Activation and staffing of one or more Emergency Shelter Communications Stations
3. Activation and staffing of one or more Hospital Communication Stations
4. Activation, staffing, and deployment of our Emergency Communications Trailer
5. Activation, staffing, and deployment of one or more Mobile Communications Support Teams

**NOTE THAT** any one or more of these responses place LCARES in Orange Alert status and activate the need to communicate up-line as per Section III, B,2.

The primary staging area for all amateur radio volunteers in Lake County is the Lake Amateur Radio Association located at 11146 Springdale Ave Leesburg, FL 34788

## B. Lake County EOC and Alternatives

Selected LCARES members are an integral part of the staff-out and operation of the EOC. These members operate the Amateur Radio Station located within the EOC, N4FLA, with HF, VHF, and UHF capability in both voice and data modes. When N4FLA is activated at the EOC, that location becomes the primary command and control point for all LCARES operations.

Lake County maintains an Emergency Operation Center at the Lake County Administration Building, 315 W. Main St., Tavares, FL. This center has off-grid electrical sufficiency for five days without replenishment.

Lake County has established an alternate Emergency Operation Center at Lake Sumter EMS, 2761 Old Hwy 441, Mt. Dora, FL. This center has off-grid electrical sufficiency for approximately 12 hours and has in place a contract for emergency fuel replenishment.

In addition, Lake County has a fully equipped Mobile Command Center that can function as a stand-alone Emergency Operations Center. It too, contains a full Amateur Radio Station with HF, VHF, and UHF capability in both voice and data modes.

## C. Lake County Emergency Shelters

Lake County Emergency Management has designated 8 Elementary Schools, spread throughout the County, as Emergency Shelter Facilities. These storm-hardened shelters rely on LCARES for communications with the EOC. Each site has an assigned LCARES captain and relief operators. When an event results in Lake County opening one or more of these shelters, we man an Amateur Radio Station at that facility from opening to shutdown.

Because of possible frequent changes in this list and in order to facilitate updating and maintaining the overall plan, the current Lake County Emergency Shelter List is incorporated as Appendix C.

## D. Lake County Hospitals

There are 4 hospitals within Lake County: The Villages Regional Hospital (The Villages), Leesburg Regional Medical Center (Leesburg), Florida Waterman (Tavares), and South Lake (Clermont). Each of these hospitals have a permanently installed Amateur Radio Station which, in times of emergency is manned by a pre-assigned LCARES team to provide communications with the EOC. These teams also maintain and test their assigned stations on a regular basis.

## E. LCARES Emergency Communications Trailer

LCARES owns and operates an Emergency Communications Trailer with HF, VHF, and UHF capability in both voice and data modes. This trailer can be deployed to any site within the county to provide additional control station capability and/or relay capability from areas of inadequate repeater coverage. It can operate off shore power, batteries, or an on-board generator. APRS and Public Safety radio systems are also installed.

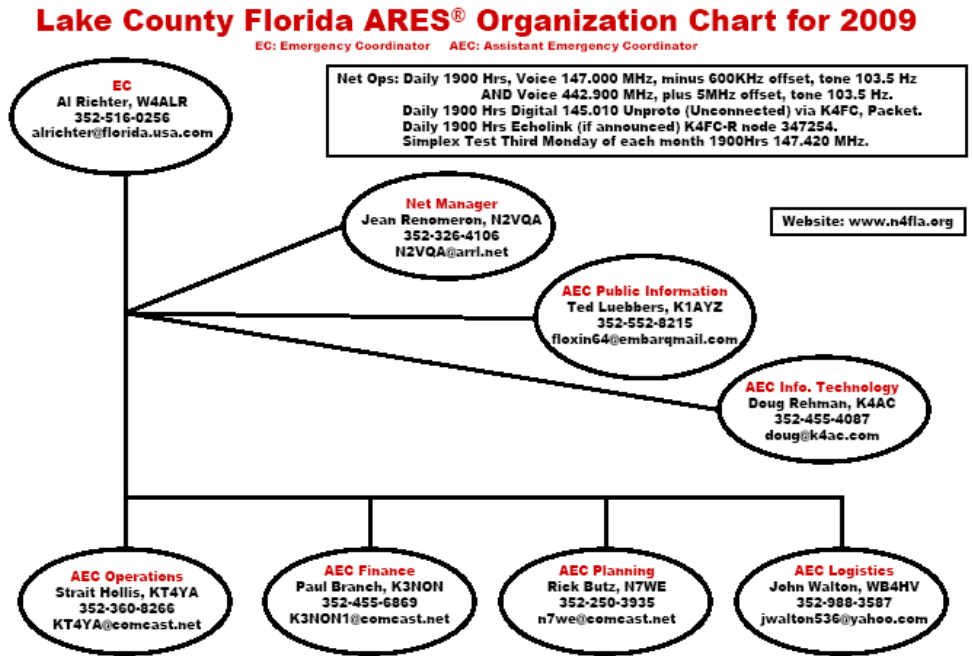
## F. Mobile Communications Support Teams

Immediately after certain types of disaster events, needs may arise for mobile communication support for various response operations that have no communication capability. On request, LCARES provides operators to accompany these responders. Using their personal mobile/portable radios, these LCARES operators provide communications using the tactical nets.

Typical of this type of operation is dispatching of Damage Assessment Teams to survey affected areas. These teams are usually made up of County personnel with special skills in construction and infrastructure such as Building Inspectors, Property Appraisers, and Engineers. They use County vehicles, or if necessary their personal vehicles, both of which often have no communications capability. LCARES operators ride along with County personnel and provide needed tactical communications.

Mobile Teams may also be used in many different situations where no communication infrastructure exists - such as at temporary Points of Distribution (POD), Logistic Staging Area (LSA), etc. Again, LCARES operators using their personal equipment are assigned and deployed as needed to insure tactical communications.

# Appendix A – LCARES Organization Chart



10/29/2009

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## Appendix B - Lake County, Florida ARES Frequency Plan

Check [www.N4FLA.org](http://www.N4FLA.org) often, especially before deployment, for updates

Updated February 19, 2010

CH	Freq.	Offset	Tone	Purpose	ID	Location
<b>VHF Voice Repeaters</b>						
1	147.000	-600KHz	103.5	Primary Tactical Ops	N4FLA	Buckhill Rd.
2	147.255	+	103.5	Alternate Tactical Ops	K4FC	Bassville Pk.
3	146.895	-	103.5	3 <sup>rd</sup> Tac Ops	W4ALR	Eustis
4*	145.390	-	None	4 <sup>th</sup> Tac Ops	KB4NXE	Minneola
5	147.225	+	103.5	5 <sup>th</sup> Tac Ops	W4ALR	Minneola
6*	147.180	+	127.3	6 <sup>th</sup> Tac Ops	K4JV	Clermont
7	146.850	-	103.5	7 <sup>th</sup> Tac Ops	WN4AMO	Umatilla
8*	146.925	-	123.0	Sumter ARES	W40E	Sumterville
9*	146.730	-	103.5	Orange ARES	N2HBX	Orlando
10*	147.165	+	103.5	Seminole ARES	KE4ZIO	Chuluota
11*	146.610	-	123.0	Marion MERT	KE4GSO	Ocala
12*	145.350	-	103.5	Osceola ARES	K4OSC	St. Cloud
13*	146.985	-	127.3	Polk ARES	WC4PEM	Bartow
14*	147.240	+	123.0	Volusia ARES	W2DU	Deland
<i>*NOTE: Repeater channels 4,6, and 8-14 require permission from the owners/control operators before routine drills and training exercises!</i>						
<b>Digital Text Mode Freq.</b>						
15	145.010	Local Area Packet, WinLink 2000 Nodes, K4FC Digipeater, N4FLA-6 Digipeater				
16	144.390	Automatic Position Reporting System (APRS)				
<b>Voice Simplex Ops</b>						
17	147.420	Simplex		Lake County Primary		
18	146.580	Simplex		Lake County Secondary		
19	146.520	Simplex		National Calling Freq.		
20	446.000	Simplex		UHF Simplex		
21	446.575		203.5	Cross-Band Repeat		
<b>UHF Voice Repeaters</b>						
22	442.900	+5MHz	103.5	UHF Primary	K4FC	Bassville Pk.
23	443.550	+	103.5	UHF North	KD4MBN	Eustis
24	444.050	+	103.5	UHF South	K4AUS	Clermont
25	444.550	+	103.5	UHF Central	K4AUS	Tavares

*See Additional Emergency VHF Repeater Listing On Next Page!*

**Lake County, Florida ARES Frequency Plan**  
 Check [www.N4FLA.org](http://www.N4FLA.org) often, especially before deployment, for updates  
 Updated February 19, 2010

Emergency Repeater (Comm Trailer)						
CH	Output (RX) Freq.	Input (TX) Freq.	Tone	Purpose	ID	
26	145.470	147.470	186.2	LCARES Comm Trailer	N4FLA	
<i>NOTE: This repeater is a <u>Split Repeater with an atypical offset</u>. It is an uncoordinated repeater used during deployment of the LCARES Comm Trailer. Please program your radios accordingly.</i>						
District Net Frequencies						
CH	Freq.	Offset	Tone	Purpose	ID	Location
	145.230	-600KHz	103.5	Primary (Linked)	K4IC	Bithlo
	442.625	+5MHz	DCS 411		K4IC	Christmas
	442.700	+5MHz	103.5	Secondary	AA4BC	Orlando
	146.550	Simplex		National ARES Freq.		
High Frequency (HF) Emergency Nets						
3.950 MHz			LSB	North Florida Emergency Net		
7.254			LSB	North Florida Emergency Net		
14.325			USB	National Hurricane Center		
3.651			CW	QFN		
7.051			CW	QFN		

*These frequencies are to be available in your radio and it is strongly suggested that you program and test as many as possible NOW rather than under the pressure of a deployment. These frequencies are continuously reviewed and may change or need to be revised. Please feed back any difficulties that you may have in getting the repeaters to respond on the Daily ARES Net.*

*Check [www.n4fla.org](http://www.n4fla.org) often and check the date of the posting to make sure you are current.*

## Appendix C – LC Emergency Shelters

As of January 1, 2010

1. Astatula Elementary, 13925 Florida Ave., Astatula — pet friendly
2. Leesburg Elementary, 2229 South St., Leesburg — special needs and pet friendly
3. Lost Lake Elementary, 1901 Johns Lake Road, Clermont — special needs and pet friendly
4. Pine Ridge Elementary, 10245 County Road 561, Clermont — pet friendly
5. Round Lake Elementary, 31333 Round Lake Road, Mount Dora — pet friendly
6. Treadway Elementary, 10619 Treadway School Road, Leesburg — pet friendly
7. Umatilla Elementary, 401 Lake St., Umatilla — special needs and pet friendly
8. Villages Elementary, 695 Rolling Acres Road, Lady Lake — pet friendly



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