1. ## **Introduction**

This document is intended to provide information to those interested in Emergency Communications as an Amateur Radio Operator.

2. ## **FCC**

The FCC established amateur radio as a voluntary, non-commercial, radio communications service. It allows licensed operators to improve their communications and technical skills, while providing the nation with a pool of trained radio operators and technicians who can provide essential communications during emergencies.

3. ## **Emergency Communications (EMCOMM)**

What is EmComm? (http://www.cert-emcomm.net/)

"Disaster Emergency Communications is a specialized field within the broader field of emergency communications. Emergency communications or EmComm covers all technical means and modes for public safety agencies at all levels of government (e.g. law enforcement, fire services, emergency medical services) to perform their routine, daily communications. Amateur Radio operators can assist with maintaining operability and interoperable communications before, during, and after declared emergencies, disasters, or planned Special Security Events.

Amateur Radio operators (hams) have informal and formal groups to coordinate communication during emergencies. At the local level, hams may participate in local emergency organizations, or organize local "traffic nets" using VHF (very high frequencies) and UHF (ultra high frequencies). At the state level, hams are often involved with state emergency management operations. In addition, hams operate at the national level through the Radio Amateur Civil Emergency Service (RACES), which is coordinated through the Federal Emergency Management Agency (FEMA), and through the Amateur Radio Emergency Service (ARES), which is coordinated through the American Radio Relay League and its field volunteers. Many hams are also involved in SkyWarn, operating under the National Weather Service and provide emergency weather information to the NWS for analysis and dissemination to the public."

4. ## **ARRL View**

The American Radio Relay League (ARRL) has established Memoranda of Understanding with a number of served Government Agencies and Non-Government Organizations(NGO's). One of the principal justifications for continued access to the Amateur Radio spectrum is public service. A major part of Amateur Radio's public service and emergency communications activities are conducted within the context of the ARRL's formal agreements with the emergency management, government organizations, NGOs, non-profits and public service agencies. (http://www.arrl.org/served-agencies-and-partners)

- The ARRL Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who

have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. More information can be found here http://www.arrl.org/ares on the organization and structure of ARES.

- From the 2019 ARES Plan (http://www.arrl.org/ares-plan), three levels of training will allow ARES participants to enter the program and migrate to higher levels of qualification and service.
  - Level 1 — This is the primary level for those who choose a non-leadership role as well as those new to Amateur Radio or emergency communications. This introductory training is conducted by the local ARES group to meet their needs and those of their served agency or partners. This training could be formal or informal, and would introduce the ARES participant to the fundamentals of emergency communications and provide instruction on how participants are to conduct themselves while serving in the field or otherwise activated. Participants may elect to remain at this level, or any level, based upon the extent of their desired ARES involvement.
  - Level 2 — To qualify for this level, participants shall have completed the following courses:ARRL's EC-001 Introduction to Amateur Radio Emergency Communications (a no-cost program) (http://www.arrl.org/emergency-communications-training/) and FEMA IS-100, IS-200, IS 700, and IS-800. Participants are also encouraged to take advantage of training opportunities available through partners to enhance their knowledge and skill set.
  - Level 3 — This level of training prepares ARES participants to take on leadership positions such as EC, ADEC, DEC, ASEC, and SEC, and other designated positions in the ARES program. Participants are required to complete ARRL's EC-016, Emergency Communications for Management, when available along with FEMA Professional Development Series of courses IS-120, IS-230, IS-240, IS-241, IS-242, IS-244, and IS-288 the Role of voluntary Organizations in Emergency Management. Participants also are encouraged to complete the FEMA courses IS-300, and IS-400 should they be available locally.
  - Level 2 is the level that most amateurs attain.
  - To take the FEMA courses, you will need a Student ID (SID): https://cdp.dhs.gov/femasid
  - To take the courses, go here https://training.fema.gov/is/ and look under "Independent Study"
- The Alabama ARES page can be found: http://www.alabama-ares.org/

5. **RACES**

- Per the site https://www.usraces.org/: RACES stands for "Radio Amateur Civil Emergency Service," a protocol created by the Federal Emergency Management Agency (FEMA) and the Federal Communications Commission (FCC Part 97, Section 407). Many government agencies across the country train their Auxiliary Communications Service (ACS) volunteers using the RACES protocol. The volunteers serve their respective jurisdictions pursuant to guidelines and mandates established by local emergency management officials.

- RACES volunteer operators are:

  - Licensed Radio Amateurs

  - Certified by a civil defense or emergency management agency

- Able to communicate on Amateur Radio frequencies during drills, exercises and emergencies

- Activated by local, county and state jurisdictions and are the only Amateur Radio operators authorized to transmit during declared emergencies when the President of the United States specifically invokes the War Powers Act.

- RACES is not an organization, it is a service that Amateur Radio operators perform for a government agency. It is like joining the National Guard where you are only active during drills or when activated by your governor or a military command.

- Another RACES website: https://www.qsl.net/races/

- For those interested in the relationship/difference between ARES and RACES, this is addressed in the 2015 ARES Manual (http://www.arrl.org/files/file/Public%20Service/ARES/ARESmanual2015.pdf) starting on page 9.

6. Department of Homeland Security (DHS)

In the overall structure of National Incident Management System (NIMS), the DHS places amateur radio emergency communications support under Auxiliary Communications (AUXCOMM). Auxiliary Communicators are one of many Technical Specialists that may be called upon to support the NIMS. The Incident Commander has the final authority as to where the auxiliary communications (AUXCOMM) personnel will reside within their command. In most cases, they are placed in the Support function as part of the Communications Unit.

Opinion: The ARRL ARES organization has failed to effectively incorporate AUXCOMM, at this point. Some state ARES organizations have embraced AUXCOMM and it is a mandatory part of participating in any Emergency Communications activities. Two such states are Colorado and North Carolina. As more states adopt this approach, we have an option to adopt AUXCOMM or to not participant in any NIMS managed activities.

- For more information on AUXCOMM, the course materials can be found on the website at https://www.k4tns.com/auxcomm/

- Additional AUXCOM information available here

  - https://www.enccert.org/wp-content/uploads/2016/04/AUXCOMM_QST_1605.pdf

  - https://www.dhs.gov/safecom/blog/2016/07/11/auxiliary-emergency-communications

  - https://www.dhs.gov/publication/fog-documents

7. National Weather Service

Another area of emergency communications supports the National Weather Service SKYWARN Program (SKYWARN): https://www.weather.gov/skywarn/

"In most years, thunderstorms, tornadoes and lightning caused hundreds of injuries and deaths and billions in property and crop damages. To obtain critical weather information, the National Weather Service (NWS) established SKYWARN® with partner organizations. SKYWARN® is a volunteer program with between 350,000 and 400,000 trained severe weather spotters. These volunteers help

keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.

Although SKYWARN® spotters provide essential information for all types of weather hazards, the main responsibility of a SKYWARN® spotter is to identify and describe severe local storms. In an average year, the the United States experiences more than 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes."

- Another information source for Amateur Radio SKYWARN is https://www.skywarn.org/

- JBWA SKYWARN documents are on the SKYWARN page of the website, at the bottom of the page. https://www.k4tns.com/our-services/skywarn/

- Central Alabama SKYWARN is found here - https://centralalabamaskywarn.org/

8. **How to Participant**

You can join and participant with any of the ARES, RACES or SKYWARN organizations.

- ARES
  - Contact the ARES Emergency Coordinator (EC) for your county or district and let them know of your interest. They will direct you to any meetings or training requirements. The contacts can be found in the website in the next bullet. Butler County Emergency Coordinator is Chuck Stouse, W4WE. Lowndes does not have a Emergency Coordinator. Montgomery County Emergency Coordinator is Otto Arnoscht, N4UZZ. Contact information can be found at QRZ.COM.
  - Create an account on the Alabama ARES website (http://www.alabama-ares.org/) and fill in your information in your profile.
  - The minimum training is described under Section 4, Level 2 and the links are further down in that section
  - Attend ARES forums at Hamfests
- RACES – try some web searches. There are a couple that pop up in north and south Alabama
- SKYWARN
  - Take a SKYWARN class. Look at the website for your local weather service office. Butler is in the Mobile office and Lowndes and Montgomery are in Birmingham.
  - Participant in local training nets
  - Volunteer to be a net controller
  - Listen to nets during severe weather, particular CA SKYWARN on 146.84 (-) 123
- Work with you local Emergency Management Agency
  - Support communication activities
  - Attend emergency planning activities
  - Attend additional training courses made available by your EMA Director

- After completing the FEMA courses, work with EMA Director to obtain a badge. They will usually require a transcript of your coursework that can be obtain through the following request form - https://training.fema.gov/emiweb/downloads/tranrqst1.pdf