



Introduction to Amateur Radio Emergency Service (ARES)

and

Radio Amateur Civil Emergency Service (RACES)



Amateur Radio

- The Communications Act of 1934 created the FCC and acknowledged “amateur” radio as a service that could fill the need for a pool of experts who could provide backup communications during emergencies.
- The FCC also acknowledged the ability of the hobby to advance radio technology and to enhance international goodwill.
- Amateur Radio operators are required to pass a series of FCC written exams.

Amateur Radio

- The FCC has assigned large portions of the radio spectrum for amateur use. In return, amateurs are expected to use these privileges to provide communications assistance to the public in times of need or distress.
- There are about 750,000 Amateur Radio Operators (ARO's, HAMS) in the U.S.

Amateur Radio

- The Amateur Radio Emergency Service or “ARES” was established in 1935 as part of the ham radio association.
- ARES consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes.



What is ARES?

ARES (Amateur Radio Emergency Service)

- The emergency communications arm of the ARRL (American Radio Relay League).
- Not directly connected with any government entity.
- Organized on a section-by-section basis within the ARRL field organization and responds on a local or regional level.
- ARES operators provide their own insurance.
- You become an ARES amateur radio operator by joining ARRL, but you do not need to be a member of ARRL to participate in ARES.
- ARES volunteers provide communications for:
 - Government Agencies
 - Disaster relief organizations
 - Public Service events
 - Emergencies or disasters
 - Training exercises



What is RACES?

- RACES (Radio Amateur Civil Emergency Service)
- A civilian entity established by the federal government after World War II
- A radio service using amateur radio stations or civil defense communications during periods of local, regional or national civil emergencies.
- When a governmental entity (City, County, State or Federal) requests amateur radio assistance, the response is through RACES.
- Defined under Part 97 of the FCC Rules (47 C.F.R. 97.407) RACES operators are covered by government insurance.
- You become a RACES amateur radio operator by signing up with EMA and becoming a member of a local ARES/RACES organization.



ARES versus RACES

Think of ARES as “civilian” and RACES as “government; ARES as “no insurance” and RACES as “insured.”

During a “non-declared emergency”, ARES can operate under ARES, but when the emergency or disaster is officially declared by a governmental authority, the operation can become RACES with no change in personnel or frequencies.

A county in Maine will have an ARES Emergency Coordinator position, and the person in that position maybe also that County EMA RACES Radio Officer.

What does Amateur Radio bring?

- Public safety and critical infrastructure entities usually maintain private telecom networks to support their operations during a disaster.
- Private networks that survive a disaster are usually overloaded as traffic shifts away from carrier networks.
- *Amateur radio can provide a critical backup capability!*

What does Amateur Radio bring?

Amateur radio can provide communications locally, regionally, nationally and even worldwide depending on the type equipment and antennas deployed. This capability *utilizes no fixed telecom infrastructure*, making amateur radio virtually immune to natural disasters.



What does Amateur Radio bring?

- Amateur equipment and operators are widely distributed throughout the country and provide their own equipment.
- Certified emergency communications operators maintain “go kits” with equipment, food, water and other supplies. This means amateur radio can be deployed quickly to disaster zones.
- Thousands of radio amateurs are available to assist when local resources are exhausted.