

Commonly Used EmComm Glossary, Acronyms, and Abbreviations:

AAR: After Action Report

AAR/IP: After-Action Report/Improvement Plan

ACS: Auxiliary Communications Services as defined by State OES

AEC: Assistant Emergency Coordinator (ARES)

ARC: American Red Cross. Also Amateur Radio Club.

Affirm: Affirmative, Yes, Will comply. Also use "Will Co" or "Will do".

ARES: Amateur Radio Emergency Services sponsored by the ARRL

ARRL: The American Radio Relay League is the national organization for Amateur Radio,

Authority Having Jurisdiction (AHJ): An entity that has the authority and responsibility for developing, implementing, maintaining, and overseeing the qualification process within its organization or jurisdiction. This may be a state or Federal agency, training commission, NGO, private sector company, or a tribal or local agency such as a police, fire, or public works department. In some cases, the AHJ may provide support to multiple disciplines that collaborate as a part of a team (e.g., an IMT).

Auxfog and Auxcomm: Auxiliary Communications System standard operating guides for disaster communications as defined by CISA

Back: I am back on frequency and in operation, standing by.

BC: Block Captain

CERT: Community Emergency Response Team

CISA: The Cyber-Intelligence Security Agency which regulates emergency radio communications for the federal government under the DHS. See <https://www.cisa.gov/topics/emergency-communications>

Clear: Finished, Also voice "OUT". Clear and out signify no further traffic.

Confirmed: Signifies: "That is correct".

Climate Change: Climate conditions can cause tornado-like destructive winds and unprecedented tornado firestorms knocking out conventional communications and structural integrity.

Closing: Closing station and shutting down (CL on CW).

Command Net: As the size of an incident increases and more jurisdictions become involved in the incident, a Command Net may become necessary. This net allows the incident managers to communicate with each other to resolve inter- or intra-agency problems, particularly between cities or within larger jurisdictional areas. It is conceivable that this net could become cluttered with a high volume of traffic. It may also be necessary to create multiple command nets to promote efficiency. For ARES purposes a command net will involve strategic planning and coordination between the EC, AEC, Net Control Stations (NCS), staff, and supervisory personnel.

Comm Hub: Neighborhood Communications Hub

ComL: Communications Unit Leader (COML): An Incident Command System (ICS) position that is responsible for the management of the operational and technical aspects of incident management within the Communications Unit. Plans and manages the technical and operational functions of the Communications Unit during an incident or event. Manages Communications Unit personnel (COMT, INCM, RADO, etc.). Participates in incident action planning; prepares the Incident Radio Communications Plan (ICS Form 205) and is responsible for Unit documentation (e.g., ICS Form 214). Undergoes rigorous training such as:

IS-100 ICS Introduction (Online)

IS-200 ICS for Single Resources (Online)

IS-300 Intermediate ICS (Online/In-Person)

IS-700 NIMS Introduction (Online)

IS-800 National Response Framework (Online)

E/L 969 All-Hazards COML Training (In-Person, 24 hours)

G606 SEMS Introduction (Online)

Required Experience: Public Safety field operations

Technical communications

Public Safety technology awareness

Applicable communications plan

ComT: Communications Technician as defined and designated by CISA who has undergone rigorous training as a communications technician. The training includes, but is not limited to:

1. Installs and tests communications equipment
2. Configures equipment to the needs of the incident
3. Distributes communications equipment to incident personnel
4. Maintains and repairs communications equipment
5. Identifies and specifies the need for additional infrastructure to support communications

Community Comm Hub Manager: Arranges for a message center manager, scribe, GMRS ops, and Ham RADOS. See DRCC below.

CommU: Communications Unit as defined by DHS and CISA

CWS: Contra Costa Community Warning System

DAT: Damage Assessment Team

Directed Net: The Net Control Station (NCS) oversees the operation. For routine or priority traffic say break. For emergency traffic say: "EMERGENCY" followed by your suffix or tactical callsign". The NCS will say: "EMERGENCY go ahead". Then identify yourself and list your traffic. The NCS will then give further procedural instructions. Voice, "PRIORITY" for priority traffic. In a directed net, notify the Net Control Station and NCS will direct you. For more, see "**Nets by Types**" below.

DRCC: District Radio Communications Coordinator (DRCC) coordinates between the ARES/Ham Net and the neighborhood GMRS Network (District or Zone network) EmComm Hubs to establish procedures for a functional neighborhood Comm Hub **before** the disaster. Same as ZRCC (Zone Radio Communications Coordinator). The DRCC coordinates communications needs with the CERT/NERT neighborhood Zone Coordinator or Area Coordinator) in preparation for a functional and efficient message integrated center, in an attempt to provide a ham net operator and train a GMRS Net operator(s), multiple scribes, and a message center manager for 24/7 disaster operations, thus linking individual citizens and families with outside resources.

DUPLEX and SIMPLEX:

Duplex: Operation where the transmit frequency differs from the receive frequency. Duplex operation is commonly used in repeater operation as well as in cross band operation.

Simplex: Direct communications where the transmit and receive frequencies are the same.

EC: Emergency Coordinator under ARES

EmComm: Emergency Communications

Emergency: Any incident, whether natural, technological, or human-caused, that necessitates responsive action to protect life or property.

EMMA: Emergency Management Mutual AID

EMP: Electromagnetic Pulse: EMPs can be caused by solar storms and atmospheric explosions which can destroy conventional communications facilities, electronics, computers, etc. if not protected, e.g., the sun, lightning, nuclear explosions. Or similar.

EOC: [Abbreviation Emergency Operations Center](#). The emergency operations center (EOC) is the central location from which all off-scene activities are coordinated. Senior elected and appointed officials are located at the EOC, as well as personnel supporting critical functions, such as operations, planning, logistics, and finance and administration. The key function of EOC personnel is to ensure that those who are located at the scene have the resources (i.e., personnel, tools, and equipment) they need for the response. In large emergencies and disasters, the EOC also acts as a liaison between local responders and the State. (Note that States operate EOCs as well and can activate them as necessary to support local operations. State EOC personnel report to the Governor and act as a liaison between local and Federal personnel.)

The physical location where the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction.

Emergency Operations Plan (EOP): A plan for responding to a variety of potential hazards.

ERP: Effective Radiated Power. Usually calculated by RF output in watts times the gain of the antenna over a theoretical dipole (dBd). EIRP is the effective radiated power using a theoretical isopole (dBi), which is theoretically 2.5 db less efficient than dBd. Examples: 5 watts RF output using a dipole antenna would equal 5 Watts ERP. Using 5 watts RF output a 3 dBd gain antenna, the ERP would be 10 watts.

FEMA: Federal Emergency Management Agency: Manages CISA and is managed by DHS.

FLDIGI: A software modem program that supports most data transfer modes except packet (AX.25) and VARA.

FRS: Family Radio Service limited to .5 watts on channels 8-15, and 2 watts on ch.1 – 7 and 2 watts on Ch. 16-22. External antennas are not allowed. FRS works well for short distance radio communications within buildings and blocks (line of sight) depending upon terrain.

<https://www.fcc.gov/general/family-radio-service-frs>

GMRS: General Mobile Radio Service uses channels from around 462 MHz to 467 MHz. The most common use of GMRS channels are for short to medium distance two-way communications using hand-held radios similar to walkie-talkies, base stations, and repeaters. A small base station is one that has an option of an outside antenna and can transmit with no more than 5 watts on channels 1-7, .5 Watts on channels 8-15, and 50 watts on the rest of the GMRS frequencies (Ch. 16-22)

<https://www.fcc.gov/general/general-mobile-radio-service-gmrs>

OLD FRS/GMRS Channel nomenclature: Please note that the channel designators for GMRS and FRS changed as of September 1, 2017 For example: channel 7 FRS is the old GMRS channel 15 but the frequency is the same 462.7125 MHz. This information may be useful to avoid confusion for those who have older equipment. In the new radios Channels will be designated 1-22 in both FRS and GMRS services.

GMRS and FRS Dual Service Radios:

Many manufacturers have in the past received FCC type approval to market radios that are certified for use in both GMRS and FRS (called dual service radios). Others market FRS only or GMRS only radios.

Ham: An FCC-licensed amateur radio operator capable of high power and long-distance Communications.

HSEEP: Homeland Security Exercise and Evaluation Program

Incident: An occurrence, natural or manmade, that necessitates a response to protect life or property. In NIMS, the word "incident" includes planned events as well as emergencies and/or disasters of all kinds and sizes.

Incident Action Plan (IAP): An oral or written plan containing the objectives established by the Incident Commander or Unified Command and addressing tactics and support activities for the planned operational period, generally 12 to 24 hours.

Incident Base: A location where personnel coordinate and administer logistics functions for an incident. There is typically only one base per incident. (An incident name or other designator is added to the term Base.) The ICP may be co-located with the Incident Base.

Incident Command (IC): The ICS organizational element responsible for overall management of the incident and consisting of the **Incident Commander** or Unified Command and any additional Command Staff activated.

Incident Command Post (ICP): The field location where the primary functions of incident command are performed. The ICP may be co-located with the Incident Base or other incident facilities.

Incident Command System (ICS): A standardized approach to the command, control, and coordination of on-scene incident management, providing a common hierarchy within which personnel from multiple organizations can be effective. ICS is the combination of procedures, personnel, facilities, equipment, and communications operating within a common organizational structure, designed to aid in the management of on-scene resources during incidents. It is used for all kinds of incidents and is applicable to small, as well as large and complex, incidents, including planned events.

Incident Commander (IC): The individual responsible for on-scene incident activities

Interoperability: The ability of systems, personnel, and equipment to provide and receive functionality, data, information, and/or services to and from other systems, personnel, and equipment, between both

public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together.

KHz: Kilohertz: A frequency abbreviation for one thousand Hertz (cycles) per second.

Leader: The ICS title for an individual who is responsible for supervision of a unit, strike team, resource team, or task force.

Liaison Officer (LOFR or LNO): A member of the ICS Command Staff responsible for coordinating with representatives from cooperating and assisting agencies or organizations.

Local Government: Public entities responsible for the security and welfare of a designated area as established by law. A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under state law), regional or interstate government entity, or agency or instrumentality of a local government; a tribe or authorized tribal entity, or in Alaska, a Native Village or Alaska Regional Native Corporation; a rural community, unincorporated town or village, or other public entity.).

Logistics: The process and procedure for providing resources and other services to support incident management.

Logistics Section: The ICS Section responsible for providing facilities, services, and material support for the incident.

Logistics Net: A net dealing with the procurement, maintenance, and transportation of material, facilities, staffing, and scheduling personnel during a disaster.

MASS CARE: The sheltering, feeding, resting, and basic survival services for victims (usually performed in a shelter).

MAT: Mutual Aid Team: A group of not more than 5 trained, vetted, and self-contained RADOS capable of traveling to disaster areas as requested.

MCU: Mobile Communications Unit

Message Center Manager: An operational position to triage and route messages effectively in and out of Community Comm Hubs.

MM: refers to the USGS Modified Mercalli Intensity Scale that rates earthquake intensities based on subjective criteria.

MHz: MegaHertz: A frequency abbreviation for one million Hertz (cycles) per second.

Mitigation: The capabilities necessary to reduce the loss of life and property from natural and/or manmade disasters by lessening the impacts of disasters.

Mobilization: The processes and procedures for activating, assembling, and transporting resources that have been requested to respond to or support an incident.

Multiagency Coordination Group (MAC Group): A group, typically consisting of agency administrators or executives from organizations, or their designees, that provides policy guidance to incident personnel, supports resource prioritization and allocation, and enables decision making among elected and appointed officials and senior executives in other organizations, as well as those directly responsible for incident management. Can also be called the Policy Group.

Multiagency Coordination Systems: An overarching term for the NIMS Command and Coordination systems: ICS, EOCs, MAC Group/policy groups, and JISs.

Mutual Aid and Assistance Agreement: A written or oral agreement between and among agencies/organizations and/or jurisdictions that provides a mechanism to quickly obtain assistance in the form of personnel, equipment, materials, and other associated services. The primary objective is to facilitate the rapid, short-term deployment of support prior to, during, and/or after an incident.

National Incident Management System (NIMS): A systematic, proactive approach to guide all levels of government, NGOs, and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents. NIMS provides stakeholders across the whole community with the shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. NIMS provides a consistent foundation for dealing with all incidents, ranging from daily occurrences to incidents requiring a coordinated Federal response.

NCS: Net Control Station

Nets by Type

Logistics Net: A net dealing with the procurement, maintenance, and transportation of material,

facilities, staffing, and scheduling personnel during a disaster.

Tactical Net—The Tactical Net is the front-line net employed during an incident, usually used by a single government or disaster services agency to coordinate **operations** within their designated jurisdiction. There may be several tactical nets in operation for a single incident depending on the volume of traffic and number of agencies involved. Communications include both point to point tactical comms and written traffic handling. If traffic is light resource net business such as recruiting and scheduling can be combined and operated as joint function.

Resource Net—For large-scale incidents, a Resource Net is used to recruit operators and equipment in support of operations on the Tactical Nets. As an incident requires more operators or equipment, the Resource Net evolves as a check-in place for volunteers to register and receive assignments. It can also serve as a travel net that keeps track of deployed assignees.

Command Net—As the size of an incident increases and more jurisdictions become involved in the incident, a Command Net may become essential. This net allows the incident managers to communicate with each other to resolve inter- or intra-agency problems, particularly between cities or within larger jurisdictional areas. It is conceivable that this net could become cluttered with a high volume of traffic. It may also be necessary to create multiple command nets to promote efficiency. For ARES amateur radio field operations, the command net will be the preferred private channel for the Emergency Coordinator (EC), his/her assistants (AECs), the Net Control Stations, and related staff to plan strategy and staffing.

NGO: Nongovernmental Organization: A group that is based on the interests of its members, individuals, or institutions. An NGO is not created by a government, but it may work cooperatively with government. Examples of NGOs include faith-based groups, relief agencies, organizations that support people with access and functional needs, and animal welfare organizations.

OA: Operational Area

OES: Office of Emergency Services

Offset: Used by repeaters to demarcate the transmit offset frequency which is either up or down from the receive frequency. Generally, the offsets for 2m operation are + or - 600 Hz. For UHF and GMRS (70cm) the offset is generally + 5 MHz.

Open and Directed (Closed) Nets—A net may operate as an open or “free form” net, or as a directed net where a net control station (NCS) is used to control the flow of transmissions on the channel. Typically, when the amount of traffic is low or sporadic, a net control isn’t required and an open net is used. Stations merely listen before they transmit. When a net is declared a “directed” net, then all transmissions must be directed by the NCS.

OVER: Go ahead or simply voice, “go”

Packet Radio: A radio communications protocol that implements AX.25 over amateur radio.

PL: Acronym for Private Line (usually CTSS or DCS). These are sub-audible tones sent on transmit used to access/activate repeaters or switches. Do not use on receive.

PIO: Public Information Officer

POC: Point of Contact

PRECEDENTS:

EMERGENCY—Any message having life and death urgency to any person or group of persons, that is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief efforts for the stricken populace in emergency areas. On CW and digital modes, this designation will always be spelled out. When in doubt, do not use this designation.

PRIORITY—Abbreviated as P on CW and digital modes. This classification is for important messages having a specific time limit, official messages not covered in the emergency category, press dispatches and emergency-related traffic not of the utmost urgency.

WELFARE—Abbreviated as W on CW and digital modes. This classification refers to an inquiry about the health and welfare of an individual in the disaster area, or to an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after all Emergency and Priority traffic is cleared. The American Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare Inquiry).

Public Information Officer (PIO): A member of the ICS Command Staff responsible for interfacing with the public and media and/or with other agencies with incident-related information needs.

RACES: Radio Amateur Civil Emergency Service sponsored by the FCC but now superseded by the Auxilliary Communications Service (ACS). In California, State ACS is the Radio Amateur Civil Emergency Service (RACES) unit for the State of California, which encourages participation and cooperation with (and between) other Emergency Communications (EMCOMM) units statewide, including (but not limited to) City and County RACES units, the Amateur Radio Emergency Service (ARES), the **Military Auxiliary Radio System (MARS)**, and the American Red Cross (ARC).

Roger: Message received. Or say, “check”, “understood”, or “copy”

RADO: Radio Operator under CommU

Radio Officer: As defined by RACES and State OES

Resource Net: For larger-scale incidents, a Resource Net is used to recruit operators and equipment in support of operations on the Tactical Nets. As an incident requires more operators or equipment, the Resource Net evolves as a check-in place for volunteers to register and receive assignments. Also used to track personnel back and forth safely to and from assignments.

Resource Nets may be combined within and under Logistics (a Logistic Net) unless traffic becomes too heavy. In case of heavy traffic, a new frequency and net control station should be established for an independent Resource Net apart from the Logistics Net. Also see Tactical Net.

Reunification: Reuniting victims with family, friends, relatives, pets, and livestock.

SAR: Search and Rescue

SCRIBE: Logs the gist of communications using ICS form 309 on net frequencies.

SEMS (California's Standardized Emergency Management System)

SHARES: SHARed RESources (SHARES) High Frequency (HF) Radio Program

SitMan: Situation Manual

SitRep: Situation Report, Confirmed or verified information regarding the specific details relating to an incident.

SitStat: Situation Status

Situation Report (SitRep): Confirmed or verified information regarding the specific details relating to an incident

SOP: Standard Operating Procedure t.

Staging Area: A temporary location for available resources in which personnel, supplies, and equipment await operational assignment.

Standard Operating Procedure (SOP): A reference document or an operations manual that provides the purpose, authorities, duration, and details for the preferred method of performing a single function or several interrelated functions in a uniform manner.

Strike Team (ST): A set number of resources of the same kind and type that have an established minimum number of personnel, common communications, and a leader. In the law enforcement community, strike teams are sometimes referred to as resource teams

Tactical Net: The Tactical Net is the frontline net employed during an incident, usually used by a single government or related disaster services agency to handle emergency traffic within their jurisdiction.

There may be several tactical nets in operation for a single incident depending on the volume of traffic and number of agencies involved. Communications include traffic handling (written and point to point) and if time permits resource recruiting.

TL: Team Leader

Triage: Originally, the sorting of and allocation of treatment to patients and especially battle and disaster victims according to a system of priorities designed to maximize the number of survivors

Triage areas: Locations used to evaluate medial casualties and/or to perform temporary emergency medical treatment if required.

VARA: VARA comes in a few flavors. VARA is a popular, proprietary, software modem that is used for transmitting and receiving data over amateur. VARA HF is a High Performance HF modem based on OFDM modulation. VARA Modem, brings state of the art Military grade technology to new and existing HF data. **VARA FM** is faster, but only operates on VHF/UHF frequency bands. **VARAc** is primarily used on HF peer to peer.

WebEOC: WebEOC is a secure, Internet-based emergency information management application that provides real-time information sharing of operational details from various government and public safety groups in response to an imminent threat, emergency or disaster. It requires an internet connection.

Winlink: A digital radio platform that supports packet radio (AX.25), VARA HF, VARA FM, VARAc, etc.

ZC: Zone Coordinator. Same as CERT Area Coordinator.

Zone: A defined area with boundaries

ZRCC: Zone Radio Communications Coordinator. Same as DRCC (District Radio Communications Coordinator) who coordinates between the ARES/Ham Net and the neighborhood GMRS Network (District or Zone Hub network) to establish procedures for a functional neighborhood Comm Hub in the planning stage before the disaster. The ZRCC (or DRCC) coordinates communications needs with the CERT/NERT Zone Coordinator or Area Coordinator **before** a disaster, in an attempt to provide a functional message center that titrates messages between the GMRS Neighborhood LAN and the wider Ham net (WAN) while providing counseling and training for the GMRS Net operator(s), multiple scribes, and a message center manager. in preparation for a functional, efficient, and integrated message center, in an attempt to provide a working relationship between a ham net operator and trained GMRS Net operator(s), multiple scribes, and a message center manager for 24/7 disaster operations, thus linking individual citizens and families with outside resources.

ICS Form Definitions and Utilizations

ICS 309 is the preferred log form for scribes using FRS/GMRS and Ham radio transactions over that of standard form, **ICS-214** (activity log). Ideally each LAN and WAN should have a scribe which succinctly describes all relevant transactions.

ICS 213 is the standard message form to be filled out in triplicate according to instructions. Additional appendages to the standard form is to append a message number, precedent, location, and station of origin to each message. Ask your client for their preferred format.

ICS 205 The Incident Radio Communications Plan is a form to use to identify frequencies, channels, function, and purposes of incident. **assignments**. The plan is a summary of information obtained about available radio frequencies and the assignments of those resources by the Communications Unit Leader for use by incident responders.

It is given to all recipients as part of the Incident Action Plan (IAP). The ICS 205 is used to provide, in one location, information on all radio frequency **assignments** down to the Division/Group level for each operational period.

Elements of an ICS-205 include:

Channel Number for easy reference

Function Enter the Net function, scope, or name for each channel

RX (Receive) Frequency and whether narrowband or wideband (N or W)

RX Tone: Best not to use.

TX (Transmit) Frequency add (N or W)

TX Tone if any: Enter the Transmit Continuous Tone Coded Squelch System (CTCSS) subaudible tone (TX Tone) or DCS Code

Mode (A, D, or M) Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation. Remarks

ICS 217: [Net Availabilities](#): Communications **Resource Availability**: Similar to ICS-205 (assignments). The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

References:

[THIS FILE \(EmComm_Glossary_Acronyms\)](#)

[The Contra Costa County ARES EmComm Operations Document \(Contra Costa EmComm Operations Procedures\)](#)
[Modified Mercalli Intensity Scale](#)
[CoCo County Op Aid 1 \(rev-06/2024\)](#)
[ARES \(ARRL\) Manual](#)
[ARES Field Resource Manual](#)
[ARRL EmComm Training](#)
[CISA SHARES \(HF Digital EmComm System\)](#)

Here are some links to ACS, Auxcomm, CISA, and CommU (Communications Units). These federal agencies are not oriented toward providing local communications for community disaster victims directly, but are more focused on collecting data and establishing situational awareness for government disaster relief entities, law enforcement, agency interoperability, and general ICS processes.

<https://www.cisa.gov/emergency-communications>

CommU Training Documents <https://www.cisa.gov/publication/comu-training-documents>

SHARES is a national digital communications system that parallels amateur radio
<https://www.cisa.gov/shared-resources-shares-high-frequency-hf-radio-program>

[Auxiliary Communications Field Operations Guides \(AUXFOG\)](#) (This a DHS/CISA Publications Page)

AuxComm is an all-inclusive term used to describe the many organizations and personnel that provide various types of communications support to emergency management, public safety, and other government agencies. Auxiliary Communicators have been assisting the public safety community for over 100 years. These uniquely qualified communicators give their time and resources freely, without hesitation, providing auxiliary communications to NIMS/ICS personnel and public safety partners. Additionally, Auxiliary Communicators frequently provide communications support during planned events, community functions, and training exercises.

Get the **AUXCOM** smart phone app (**very useful**) <https://www.cisa.gov/safecom/eauxfog-mobile-app>

Also **useful** is **NIFOG** (National Interoperability Field Operations Guide)
<https://www.cisa.gov/safecom/enifog-mobile-app>

[FEMA Presentation PDF on How to Utilize Ham Radio During Disasters](#): Rich Content (March 30, 2021)

FEMA/NIMMS **Guides for [Emergency Managers working with Amateur Radio Operators](#)** (An Adobe Connect Webinar) <https://fema.connectsolutions.com/plqiby693o3d/?proto=true>

[An ACS descriptor podcast by Seattle ACS](#)
<https://disasterzone.buzzsprout.com/1176869/9627197-amateur-radio-systems>

Tim, N6CC, has an informative webpage dedicated to EmComm/CERT and CommU in Co Co County
<https://www.n6cc.com/emergency-response-races/>

ARES (Amateur Radio Emergency Services)

[The ARRL's Amateur Radio Emergency Service \(ARES\) Program](#)

[The ARES Manual](#) (PDF)

Further References from Kensington Amateur Radio Operators and El Cerrito Ham Operators (KAROECHO)

[The KARO-ECHO HYBRID/Modified ICS-213 ARES/RACES MESSAGE FORM as fillable PDF](#) or in [MS Word format](#)

[ICS-213 \(pdf\) \(fillable PDF\)](#) ([Word](#) dot doc) (ICS Standard Form)

[ICS-213 Fillable. docx](#) (ICS Standard Form)

[ICS 309 Communications Log KE-ARES \(PDF\)](#) Printable

[ICS-309 KE-ARES Fillable Log Form \(MS Word\)](#)

[ICS-309 KE-ARES Fillable Excel Format \(xlsx\)](#)

[Message Handling Best Practices](#) This is a detailed, advanced, and rigorous Instructional guide. (see Chapt. 8 of KE Field Operations Handbook)

[Obtaining Fills efficiently in Message Handling](#) (short easy to understand primer)

Using [ICS-213 Form Made Simple](#)

[Comparing ICS-213 Message Form with the ARRL Message Form](#) (a very short critique)

[A Breakdown of the Elements of the ARRL/ARES Standard Message Form Made Simple](#) for Dummies!

[A Short Example Why We Use the ARES/ICS Modified/hybrid Message Form](#)

[Utilizing the FOUR Time/Date Stamps of the KE Modified form 213](#), with clarifications on word count (check).

[A Succinct Presentation of How to Use Prowords, Get Fills, Use Op Notes, and Handling](#)

[Instructions](#) Based on the 03/25/2021 Net

KARO-ECHO Disaster Communications Field Operations Handbook. Link at <https://www.karoecho.net/documents>

How to work a Directed Net (Link at <https://www.karoecho.net/documents>)

[Modified Mercalli Intensity Scale](#) from the USGS

[Emergency and Battery Power Operations](#) Direct link

Efficient Message Handling (advanced) Link at <https://www.karoecho.net/documents>

[KARO-ECHO Self-Evaluation Task Book](#) DRAFT

[KARO-ECHO TRAINING GUIDE BASED ON THE FOUR LEVELS OF SKILL](#) (Short Form)

[KARO-ECHO TRAINING GUIDE Based on the Four Levels of Skill \(Detailed long-form\)](#)

[KARO ECHO Go Kit / Checklist Recommendations](#). This Go-Kit is based on the above four types of deployment (Level A, Advanced B, Extra C, and MAT Qualified).

[A Jump-Kit Check-List with Extensive Discussion/Explanation](#)

[The Role of a Message Center and Message Center Manager](#)

[Role of a Neighborhood District Radio Communications Coordinator](#) (DRCC) in Creating and Maintaining Neighborhood Comm Hubs

KARO-ECHO Training Page <https://www.karoecho.net/workstreams/training>

KARO-ECHO Documents page <https://www.karoecho.net/documents>

ARES (ARRL) Manual <http://www.arrl.org/files/file/Public%20Service/ARES/ARESmanual2015.pdf>

ARES Field Resource Manual http://www.arrl.org/files/file/ARES_FR_Manual.pdf

Also please see WWW.KAROECHO.Net for more training and operational guides.

EC/K Disaster EMComm Acronym and annotated glossary list (Rev. 08/20/2024, ni6a)