Estes Valley Amateur Radio Club

Amateur Radio Emergency Service

Field Operations Guide

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PREFACE

CODE OF FEDERAL REGULATIONS (CFR)

97.1 Basis and purpose. (of Amateur Radio, **Bolding by EVARC**)

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) **Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.**

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.

(d) **Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.**

(e) **Continuation and extension of the amateur's unique ability to enhance international goodwill.**

THE RADIO AMATEUR'S CODE

The Radio Amateur is

CONSIDERATE...They never knowingly operate in such a way as to lessen the pleasure of others.

LOYAL... They offer loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in their country, through which Amateur Radio in their country is represented nationally and internationally.

PROGRESSIVE...They keep their station up to date. It is well-built and efficient. Their operating practice is above reproach.

FRIENDLY...They operate slowly and patiently when requested; offer friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

BALANCED... Radio is a hobby, never interfering with duties owed to family, job, school, or community.

PATRIOTIC...Their station and skills are always ready for service to country and community.

- adapted from the original Amateur's Code, written by Paul M. Segal, W9EEA, in 1928

FIRST THINGS FIRST

Rule Number 1: Do NOT self-deploy, don't become another victim needing to be rescued.

Rule Number 2: See Rule Number 1

WHAT TO DO FIRST IN CASE OF AN EMERGENCY

1) Check that you and your family are safe and secure before your response as an ARES volunteer.
2) Check that your property is safe and secure before you respond as an ARES volunteer.
3) Monitor EVARC repeater (channel 15 or 16) and NCARC UHF repeater (channel 2).
4) Follow instructions you receive from the ARES directors in charge on the monitored repeater channels
5) Prepare for deployment. Check your Go Bag. Batteries charged? Spare batteries available? Food & Water? Clothing as necessary. Car gassed up? Don't become another victim needing to be rescued!
6) Deploy only when requested.

HOW DO I JOIN ARES R1D1?

https://coloradoares.org/section/region1/r1d1/

MISSION

The EVARC/ARES team is a group of dedicated and experienced amateur radio operators who voluntarily make themselves available to quickly respond to any communications emergency in Colorado. The team is under the direct control of the Colorado Section Amateur Radio Emergency Service Region 1 District 1 Emergency Coordinator (DEC). The current R1D1 Emergency Coordinator is Joe Hawley. The ARES/EVARC mission is to:

1) Assure the safety of team members when activated in an emergency situation.
2) Provide accurate situation reports to served agencies including government agencies / Incident Commanders / and Non-government Organizations (NGOs)
3) Identify greatest needs to protect people and property.
4) Accurately handle traffic of served agencies.
5) Identify potential ARES follow-on requirements.
6) Be prepared for any communications assignment.

ACTIVATION AND MUSTERING

Upon declaration of an emergency communications situation EVARC/ARES members will be alerted and advised to either monitor a specific (repeater or simplex) frequency or report to a designated assembly area (see Assembly Areas section). Members will respond with their "Go Bag" and radio equipment prepared to sustain themselves for up to 3 days. The alert will be made by the team leader using a 'Telephone Tree' or by radio.

The first member to check in on the assigned frequency will assume network control duties until relieved by a team leader. The network control operator can assign another member to act as alternate control operator and logger. Both control and alternate operators will log members checking in recording their location and availability.

If directed to an assembly area, members will report to net control when they arrive at the assembly area. After all responding operators have arrived at the assembly area the team leader will report to the DEC that the team is assembled and ready for deployment.

The goal is for the team to be assembled within one hour of notification.

While at the assembly area members will have their Go Bag, radio equipment and ID badges checked. Vehicles will be checked for fuel (they should have at least one-half tank). Before deployment the team will be given a briefing on the mission to include frequencies and tactical calls. Upon direction of the DEC the team will deploy to the assigned area.

DEPLOYMENT

The team should be deployed on orders from the R1D1 Emergency Coordinator (DEC) or Assistant DEC. The DEC will contact the Served Agency Director (SAD) to request deployment. Estes Park is a Served Agency for ARES purposes. If the SAD for Estes Park is unavailable, the DEC will go down the EVARC calling list in Appendix J to request deployment. If deployment is requested by a local served agency, the DEC should be notified of the request and deployment. If the team is standing by in the assembly area, it is normally ordered to move to the impacted area as a team and will report to the Emergency Coordinator (EC) of that area. The EC will provide the team mission and assignments. An exception to this would be if the impacted area covers more than one EC's area of responsibility in which case the DEC, Section Emergency Coordinator (SEC) or Major Disaster Emergency Coordinator (MDEC) would control the team.

The team is most effective when deployed as a team because it trains as a team and maximizes the effectiveness of individual skills. The significant purpose of the team is to provide eyes where needed and furnish emergency managers with situational awareness during the early stages of an incident. Thus the mobile operators deployed are called 'Scouts'.

In addition to the above, the team has the capability to support itself for food, water, and fuel for a few days.

The primary purpose of the team is to quickly establish communications in an impacted area where no other capability exists. However, after a day or two, when additional public, private and ARES communications assets are in place, the team may be available for other assignments. These assignments could include support for shelters, hospitals, distribution points, volunteer reception, etc.

To aide in deployment the team will use the Colorado Department of Transportation (CDoT) Official Highway Map. Also, members are encouraged to have a Street Guide for the county to which they are deployed.

EQUIPMENT

Each member is expected to furnish their own radio equipment and vehicle. The minimum equipment recommended is a dual band VHF/UHF mobile radio with a gain antenna. Also, members should have a HT and some means of maintaining their vehicle battery.

Additional radio equipment suggested includes a portable VHF radio with a mag mount antenna for use in another vehicle or inside a building. Spare batteries for the HT are also required. All radios should have power cords with Anderson PowerPole™ connectors.

Digital operators should have their own laptop computer and TNC and/or external sound card set up to work with either their mobile or portable radio.

Other required equipment includes:

- Go Bag
- Food/water for one day
- Credit card/money for gas
- Applicable forms
- Clipboard and this FOG.
- Bright yellow ARES vest or jacket from ARRL.
- Flashlight with spare batteries.
- Manuals or Nifty Guides for radios.
- EVARC and/or ARES IDs.
- FCC license.
- Colorado Highway map.

See Appendix E for complete Go Kit recommendations.

ORGANIZATION

The EVARC/ARES team is a group of volunteer amateur radio operators each with different skills and physical abilities which are considered when making assignments. The Team Leader is designated by the District Emergency Coordinator (DEC). The other leadership positions are Assistant Team Leader, Resource Manager, Network Manager, Digital Manager and Exercise Coordinator. These positions are designated by the Team Leader. The Resource Manager also is the team Safety Officer. When activated, other positions may be designated as required.

The majority of team members are 'Scouts' who are assigned to various operator positions when deployed. Scout duties are:

° Proficient in network operating protocols.

° Vigilant situational awareness and safety.

° Expert in map reading and orienteering.

° Accuracy in reporting and logging information.

° Maintaining contact with Net Control.

Network Control Operators (NCO) are designated as required. The principal duty of the NCO is to maintain radio contact with Scouts. Assisted by a logger, the NCO records the location and status of all Scouts and other operators checked in to the net. The NCO and logger will pass all reports and traffic to the appropriate authority recording time and action taken. All members of the team are expected to participate as an NCO and become proficient in handling traffic.

The Resource Manager (RM) is a key position. The RM is responsible for maintaining records on team members and, as Safety Officer when deployed, keeping track of deployed members. The RM is also responsible for members training records and credentials. During prolonged deployments, the RM coordinates the availability and assignment of members. Specific duties are listed under responsibilities.

Other positions may be designated as the situation requires. If the team will be deployed longer than 24 hours a Logistics Officer will be assigned the duties of fuel and food resupply. Liaison Officers may be assigned to supported agencies or as Assistant EC's as required.

Base Support Operators are an essential element. When the team is alerted, at least one member of the team will be designated to remain at the Estes Park Health (EPH) Radio Room and act as temporary net control. The Base Operator will advise the team of the required assembly location, frequencies and any other information needed to facilitate assembly. Upon deployment, Base Operators will monitor all significant incident activities and keep the Leader informed. The Base Operator may also provide relays and repeater and digital gateway status. When the team is deployed, the Base Operator acts as an anchor and safety monitor for the team.

RESPONSIBILITIES

MEMBER RESPONSIBILITIES

Members are expected to always follow safe practices, obey FCC rules for amateur radio operators, and follow orders of the team leaders. Members are expected to:

- Attend training meetings. R1D1 usually hold quarterly meetings in various locations.
- Check in to the weekly net and affirm their availability for deployment.
- Complete required formal FEMA and ARES training courses.
- Become proficient in net operation and traffic handling.

- Accurately log traffic and major events.
- Conduct themselves professionally and ethically.
- Be accurate when reporting observations (no hearsay or rumors).
- Be responsive to served agencies requests.
- Become proficient in programming radios.
- Be self-supporting for 24 hours (food, water, personal needs).
- Be positive and support teamwork.
- Seek opportunities to learn new Emergency Communications skills.

ESTES PARK ARES SERVED AGENCY DIRECTOR RESPONSIBILITIES

The Served Agency Director is responsible for all activities and member safety. Some responsibilities of the SAD are:

- Point of contact for ARES R1D1 District Emergency Coordinator (Joe Hawley)
- First point of contact for requests from served agencies in the Estes Valley. If not available, the next person on the calling list will be contacted.
- Attend ARES R1D1 monthly meetings. Attending all meetings is not required. Attend as many as possible.
- Maintain the ARES calling list for the Estes Valley.
- Activate the hospital emergency room if needed and if available. Otherwise, the next person on the ARES calling list will do it.
- Participate in Thursday evening R1D1 ARES nets as often as possible.
- Organize ARES training as needed for Estes Valley ARES members, with assistance from other EVARC members.
- Organize participation in disaster simulation exercises. Generally, this will be 1 or 2 exercises per year plus any that EVARC wants to do.
- Make sure our emergency communications equipment is operational with assistance from other club members. This could be delegated. Your role would be to make sure it gets done.
- Recruiting amateur radio operators who have the potential for significant contribution to the team's mission.

- Planning for potential deployments to include logistical support.
- Responsive to the ARES leadership and supported agencies.
- Providing leadership and direction for deployment operations.
- Acknowledging members who deserve special recognition for outstanding performance.
- Ensuring compliance with FCC rules.

SAFETY OFFICER RESPONSIBILITIES

The Resource Manager is the team safety officer. The Safety Officer reports directly to the team leader and is responsible for:

- Responding to emergency activations and exercises.
- Collecting and logging accountability ID cards.
- Providing a Safety Briefing to the team before deployment or exercise to include: - Weather conditions expected for the operational period.
    - Route availability to the area of deployment (bridge status, roadblocks etc.)
    - Road conditions to and in the area of deployment (storm damage, hazards).
    - Driving safety.
- Handling any accidents or injuries to include obtaining medical support, Law Enforcement (and animal control if needed) and documenting the incident.
- Identifying any hazardous conditions with potential impact to the team such as chemical spills, levee breaks, radiological or biological releases, downed electrical wires, etc.
- Checking credentials of any visitors or walk-in volunteers.
- Providing a safety briefing to any operators reporting for relief, i.e., for the second operational period.
- Inspecting all facilities such as antennas and operating locations for any safety hazards and ordering corrective action.
- Notifying the team leader of any accidents, safety hazards or incidents.
- Returning accountability ID cards to members and notifying net control of any unaccounted members.

MEMBER TRAINING REQUIREMENTS

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) TRAINING

All EVARC members interested in emergency service are required to complete the following FEMA on-line courses: IS 100c, IS-200c, IS-700b and IS-800d . There may be more current versions of these courses. If the links don't work, check the list of courses at this web site:

https://training.fema.gov/is/crslist.aspx?all=true

Review the online material, take the multiple-choice final exams, and email a copy of your certificates to admin@COAresR1D1.org. Retain a copy for your own records.

ECOM TRAINING MATERIAL

Additionally, we would like you to read and understand the Colorado ECom material, written by Pat Lambert, W0IPL. While some of the references to organizations are no longer current (substitute ECom with ARES R1D1), the information regarding emergency communications is timeless. Please note that the embedded tests are no longer required, and the ARRL sponsored ARECC courses are also no longer required.

- ECom Intro - https://coaresr1d1.org/images/forms/EComIntro.pdf
- ECom Basic - https://coaresr1d1.org/images/forms/EComBas.pdf
- ECom NVIS - https://coaresr1d1.org/images/forms/EComNVIS.pdf
- ECom NCS - https://coaresr1d1.org/images/forms/EComNCS.pdf

Please review the Colorado ARES Region 1 District 1 Training webpage for additional training information.

RESOURCES

Resources that all members **MUST** have

ARRL Field Resources Manual
http://www.arrl.org/files/file/Public%20Service/ARES/ARESFieldResourcesManual_rev10-2019.pdf

Or a hard copy from: https://www.arrl.org/shop/ARES-Field-Resources-Manual/

ARRL Amateur Radio Emergency Services - March 2015
http://www.arrl.org/files/file/Public%20Service/ARES/ARESmanual2015.pdf

OPERATIONAL PLAN

OPERATIONAL PLAN FREQUENCIES

The Operational Plan follows the Colorado Section ARES and the R1D1 Operational Plan for all frequencies to be used when deployed.

https://coaresr1d1.org/images/documents/R1D1_Channel_Utilization_v45b.pdf

The EVARC has established a frequency plan for local use. The R1D1 frequencies are cross-referenced to our channel numbers in the table below.

R1D1 xref Chnl	Channel	Recv Freq	Xmit Freq	Offset	CTCSS/PL Tone	System	Function	Comments
1	1	145.115	144.515	- 600 kHz	100.0 Hz	HORTH2	Secondary Ops	Horsetooth Mountain 2m-W0UPS
2	2	447.275	442.275	- 5.00 MHz	100.0 Hz	HORTH7	Primary Ops NCS	Horsetooth Mountain 7c-W0UPS
4	3	448.025	443.025	- 5.00 MHz	100.0 Hz	BUDWI7	Primary Ops NC	Budweiser Event Center 7c-W0UPS
5	4	147.36	147.96	+ 600 kHz	100.0 Hz	CSU2	Resource Net	Colorado State University 2m, Durward Hall-W0QEY
	5	147.195	147.795	+ 600 kHz	100.0 Hz	L0VLD2	Secondary Ops	West of Loveland, Namaqua Hill 2m-W0XYZ
	6	449.575	444.575	- 5.00 MHz	100.0 Hz	LOVLD7	Secondary Ops	West of Loveland, Namaqua Hill 7c-W0XYZ
7	7	146.625	146.025	- 600 kHz	100.0 Hz	BUKHR2	Secondary Ops	Buckhorn Mountain-Primary Weather Operations SKYWARN 2m-W0UPS
8	8	447.7	442.7	- 5.00 MHz	100.0 Hz	BUKHN7	Secondary Ops	Buckhorn Mountain-Primary Weather Operations SKYWARN 7c-W0UPS
	9	146.85	146.25	- 600 kHz	100.0 Hz	GNCAR2	Secondary Ops	North of Greeley 2m-W0UPS
	10	449.85	444.85	- 5.00 MHz	100.0 Hz	CSU7	Secondary Ops	Colorado State University Dunward Hall 7c-W0QEY
	11	147	147.6	+ 600 kHz	100.0 Hz	GWARS2	Secondary Ops	West of Greeley 2m-KC0KWD
	12	448.475	443.475	- 5.00 MHz	100.0 Hz	GWARS7	Secondary Ops	West of Greeley 7c-KC0KWD
	13	447.45	442.45	- 5.00 MHz	123.0 Hz	FTCOL7	Secondary Ops	Horsetooth Reservoir Ridge 7c-KC0RBT
	14	449.725	444.725	- 5.00 MHz	127.3 Hz	GSREP7	Secondary Ops	University of Northern Colorado, Greeley 7c-K0OJ
	15	146.685	146.085	- 600 kHz	123.0 Hz	ESTPK2	Secondary Ops	Estes Park-VHF 2m-N0FH
	16	449.8	444.8	- 5.00 MHz	123.0 Hz	ESTPK7	Secondary Ops	Estes Park- UHF 7c-N0FH
	17	449.1	444.1	- 5.00 MHz	100.0 Hz	PORT7	Portable Repeater	Deployable 7c

R1D1 xref Chnl	Channel	Recv Freq	Xmit Freq	Offset	CTCSS/PL Tone	System	Function	Comments
	18	449.425	444.425	- 5.00 MHz	94.8 Hz	CRISMT	Secondary Ops	Christ Mountain 7c-N0ZUQ
9	19	146.94	146.34	- 600 kHz	103.5 Hz	SKYWN	PL for regular mode	Note: Tone of 103.5 when not in Severe Weather Mode, 2m
	20	146.94	146.34	- 600 kHz	91.5 Hz	SKYWN	PL for severe WX mode	Note: Tone of 91.5 when in Severe Weather Mode, Denver,2m
6	21	145.31	144.71	- 600 kHz	88.5 Hz	BMTTH2	Statewide Operations	Communications with State EOC/DHSEM, Boulder Therdin Mtn. 2m KB0VJJ
	22	146.7	146.1	- 600 kHz	100.0 Hz	BOULD2	Longmont coordination	Located on Table Mesa Linkable to 448.900, Boulder Table Mtn. 2m-W0DK
	23	448.9	443.9	- 5.00 MHz	100.0 Hz	BOULD7	Longmont coordination	Located on Table Mesa Linkable to 146.700, Boulder Table Mtn. 7c-W0DK
	24	145.00	145.00	S	67.0 Hz	PRISX2	Primary Simplex	Primary VHF Simplex
11	25	146.565	146.565	S	67.0 Hz	SECSX2	Secondary Simplex	Secondary VHF Simplex
15	26	147.42	147.42	S	67.0 Hz	TACSX2	Tactical Simplex	Tactical VHF Simplex
	27	147.57	147.57	S	67.0 Hz	TACSX2	Tactical Simplex	Tactical VHF Simplex
	28	445.775	445.775	S	67.0 Hz	PRISX7	UHF Simplex	Primary UHF Simplex
13	29	445.875	445.875	S	67.0 Hz	SECSX7	Secondary Simplex	Secondary UHF Simplex
16	30	446.225	446.225	S	67.0 Hz	TACSX7	Tactical Simplex	Tactical UHF Simplex
17	31	446.275	446.275	S	67.0 Hz	TACSX7	Tactical Simplex	Tactical UHF Simplex
	32	146.52	146.52	S	67.0 Hz	NAT2X	Nat'l 2m Calling Freq	National 2m Calling Frequency
	33	446	446	S	67.0 Hz	NAT7X	Nat'l 70cm Calling Freq	National 70c Calling Frequency
18	34	145.03	145.03	S	67.0 Hz	CSU	Packet W0QEY-1 N0FH-10 for RMS	Packet BBS W0QEY-1 1200baud CSU in EP N0FH for BBS, N0GH-10 for RMS
19	35	145.07	145.07	S	67.0 Hz	LRA	Packet RMS Gateway	Packet Winlink 2000 RMS Gateway Connect to WolRA-10
	36	145.75	145.75	S	67.0 Hz	PACKET	R3D2 Packet (no BBS)	R1D1 Packet (no BBS)
	37	145.77	145.77	S	67.0 Hz	PACKET	R3D2 Packet (no BBS)	R1D1 Packet (no BBS)
	38	144.39	144.39	S	67.0 Hz	NAAPRS	National APRS	National APRS network Frequency APRS only-no connected mode packet
	39	146.55	146.55	S	67.0 Hz	EVAR2X	EVARC 2m Simplex	EVARC 2m Simplex, Estes Park-N0FH

R1D1 xref Chnl	Channel	Recv Freq	Xmit Freq	Offset	CTCSS/PL Tone	System	Function	Comments
	40	446.1	446.1	S	67.0 Hz	EVAR7X	EVARC 70c Simplex	EVARC 70c Simplex, Estes Park-N0FH
	41	147.27	147.87	+ 600 kHz	100.0 Hz	LONGM2	2m	Longmont 2m-W0ENO
	42	448.8	443.8	- 5.00 MHz	88.5 Hz	LONGM7	70c	Longmont 70c-W0ENO
	43	147.03	147.63	+ 600 kHz	100.0 Hz	ALNPK2	2m	Allenspark 2m-KI0WG
	44	146.805	146.205	- 600 kHz	100.0 Hz	GLDHL2	2m Boulder	Gold Hill 2m, Boulder-K0ARK
	45	146.61	146.01	- 600 kHz	100.0 Hz	BDIRLP	2m	Boulder 2m-W0DK
	46	145.145	144.545	- 600 kHz	107.2 Hz	DSQMT2	Denver 2m	Denver Squaw Mt 2m-W0CRA
	47	145.16	144.56	- 600 kHz	107.2 Hz	COSPR2	2m	Colorado Springs 2m-W0CRA
	48	145.46	144.86	- 600 kHz	107.2 Hz	BOULH2	Boulder 2m	Boulder 2m, Lee Hill-W0CRA
	49	147.225	147.825	+ 600 kHz	107.2 Hz	DCFMT2	Denver 2m	Denver Conifer Mtn. 2m-W0CRA
	50	447.15	442.15	- 5.00 MHz	107.2 Hz	DCFMT7	Denver 2m	Denver Conifer Mtn. 2m-W0CRA
	51	447.575	442.575	- 5.00 MHz	107.2 Hz	DSQMT7	Denver 7c	Denver Squaw Mt 7c-W0CRA
	52	447.975	442.975	- 5.00 MHz	107.2 Hz	BOULH7	Boulder 7c	Boulder 7c-Lee Hill-W0CRA
	53	146.085	146.685	+ 600 kHz	123.0 Hz	EVIN2X	EVARC Reverse Repeater VHF	See Note below
	54	448.8	443.8	- 5.00 MHz		EVRVC7	EVARC Reverse Repeater UHF	See Note below
	55	146.085	146.085	S		EVRVC2	Simplex EVARC VHF Repeater Input	See Note below
	56	146.685	146.685	S		EVRO2X	Simplex EVARC VHF Repeater Output	See Note below
	57	444.8	444.8	S		EVRVC7	Simplex EVARC UHF Repeater Input	See Note below

R1D1 xref Chnl	Channel	Recv Freq	Xmit Freq	Offset	CTCSS/PL Tone	System	Function	Comments
	58	449.8	449.8	S		EVRO7X	Simplex EVARC UHF Repeater Output	See Note below
	59	443.325	443.325	S	123.0 Hz	XPSFPD	Pinewood Spring Xband	Pinewood Springs Cross Band at Fire Station
	60						Blank	
	61	147.585	147.585	S	123.0 Hz	XGHCB2	Glen Haven Crossband VHF	Glen Haven Cross Band to Pole Hill Repeater
	62	169.800	169.800	S		RMNP	Rocky Mountain NP	Monitor only. DO NOT transmit on this frequency.
	63	449.8	444.8	- 5.00 MHz	110.9 Hz	GLENH7	Glen Haven 7c	Operates on same frequencies as Estes Park UHF with different Tone

+ = Positive Offset

- = Negative Offset

S = Simplex

Note: Channels 53 and 54 are set up as "Repeater Reverse" Channels. They have a specific use and can be ignored in normal conditions. They are set up to monitor the repeater input frequency and transmit on the repeater output frequency. If the repeater is down for maintenance or other reasons, these channels can be used to communicate with a caller to let them know that the repeater is down, if the caller is in range. Since the repeaters are not being used on these channels, tones are not required.

Note: Channels 53-58 are primarily for testing purposes to diagnose repeater problems, and can be ignored for normal use. For example, assume someone using the repeater has terrible audio. Is the repeater over modulating or is their signal to the repeater over modulated? Use the channel for the Repeater input frequency (channel 55 or 57) to monitor their transmission to the repeater. If it is over modulating, then it is the caller that is causing the problem. If the audio sounds normal, then monitor the repeater output frequency (channel 56 or 58) to verify it is or is not over modulated. A reminder: both Pole Hill UHF and Glen Haven repeaters operate on the same frequency. Both repeaters can be heard on these channels.

DAMAGE ASSESSMENT

EVARC/ARES is trained to provide local preliminary damage assessment and situational awareness reporting using ESF-16 guidelines and appropriate forms. Scouts can perform residential, business, and public property inspections by either windshield or street by street surveys.

Damage assessment reporting can use the served agency's forms or the ARES Rapid Assessment Report. For example, the American Red Cross Form 5233 (Checklist for Assessing Damage to Work Areas) can be used for reporting to the Red Cross.
See Forms attached.

MESSAGE HANDLING

EVARC/ARES can handle several types of message traffic. When scouts are mobile, they will pass messages using tactical voice net protocols. When scouts are located at a fixed facility such as a shelter, they will maintain hard copies of all messages as well as a log. Message forms used will be as required by the supported agency, for example the ICS form 213 General Message form. ARRL Radiogram forms will be used when passing formal numbered traffic over the Colorado Traffic Net and may be used if requested by the Colorado Emergency Services Net NCO.

All messages to any supported agency and any other official traffic will be documented on hard copy or in computer files and will be logged. After stand down, the logs will be turned over to the appropriate agencies and all message copies will be retained for two months.

Caution is required when transmitting traffic over voice nets to insure sensitive information is not disclosed. For example, patient names will not be broadcast. When sensitive information must be transmitted, it will be by digital means.

All exercise traffic will be prefaced by the phrase "Drill traffic, drill traffic, drill traffic". "Exercise" may be substituted for the word drill if requested by the NCO.

Lengthy messages such as lists will be transmitted by Winlink RMS Express. See appendix D for RMS procedures.

SAFETY

ALL members will keep safety as their number one priority for any situation. That includes having proper clothing in their go kit for seasonal weather and safe driving at all times. Particular attention is required when moving through areas of debris watching for dangerous items and downed power lines. Special attention is required when encountering

HazMat locations. Electrical, wiring, antenna guy ropes and RF safety is especially important when setting up radio sites and antennas. Always THINK SAFETY.

APPENDIX A: GLOSSARY

AEC	Assistant Emergency Coordinator
APRS	Automatic Packet Reporting system
AR	Amateur Radio
ARC	Amateur Radio Club
ARES	Amateur Radio Emergency Service
CDoT	Colorado Department of Transportation
CTCSS	Continuous Tone Coded Squelch System
DEC	District Emergency Coordinator
DHS	Department of Homeland Security
E-Team	Computer & Digital Radio Operators
EC	Emergency Coordinator
EPH	Estes Park Health (formerly EPMC)
EPMC	Estes Park Medical Center (now EPH)
EVARC	Estes Valley Amateur Radio Club
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
Go Bag	Essential and portable collection of personal items, radio equipment and supporting materials
HF	High Frequency
HUTAC	Ham UHF Tactical (frequency)
HVTAC	Ham VHF Tactical (frequency)
IAP	Incident Action Plan
ICS	Incident Command System
MDEC	Major Disaster Emergency Coordinator
NCO	Network Control Operator
NCS	Network Control Station
NLE	National Level Exercise
PL	Private Line, also referred to as Continuous Tone Controlled Squelch System (CTCSS) (sub audible tone)
RM	Resource Manager
SAD	Served Agency Director for agencies served by ARES
SEC	Section Emergency Coordinator
SITREP	Situation Report
TNC	Terminal Node Controller
TX	Transmission or Transmit
UHF	Ultra High frequency
VHF	Very High frequency
WebEOC	Crisis / Event Information System
Winlink	Worldwide system of radio email
Winmor	Same as Winlink, but using HF frequencies

APPENDIX B: ONLINE REFERENCES

Colorado ARES: https://coloradoares.org/

Colorado ARES R1D1: https://coloradoares.org/section/region1/r1d1/

Colorado ARES R1D1 Comm Plan: http://coloradoaresR1D1.org/index.php/R1D1/commplan

ARES/Field Resources Manual: http://www.arrl.org/files/file/Public%20Service/ARES/ARESFieldResourcesManual_rev10-2019.pdf

ARES/Clothing: https://www.arrl.org/shop/Whats-New/

ARRL/ARES: http://www.arrl.org/ares

ARRL/Training: http://www.arrl.org/emergency-communications-training

ARRL ARES Letter Issues (E-letter): http://www.arrl.org/ares-el

FCC-CALLS: https://wireless2.fcc.gov/UlsApp/UlsSearch/searchAmateur.jsp

FEMA/Training: https://training.fema.gov/emi.aspx

FEMA/ICS: https://training.fema.gov/is/crslist.aspx?all=true

FEMA/NIMS: https://training.fema.gov/allhazards/

FEMA/ESF: https://search.usa.gov/search?utf8=%E2%9C%93&affiliate=netc&query=esf&commit=Search

ICS/FORMS: https://training.fema.gov/icsresource/icsforms.aspx

NIFOG: https://www.cisa.gov/safecom/field-operations-guides

POWER POLE- Assembly: https://powerwerx.com/help/powerpole-assembly-instructions

REPEATERS: http://www.artscipub.com/repeaters/

WebEOC Manual: www.gema.ga.gov/content/forms/WebEOCUserManual.pdf

WINLINK: https://www.winlink.org/ https://www.winlink.org/RMSChannels

NOTE: URL's are subject to change. If the one you are looking for doesn't work, use your favorite search engine using the listed subject.

APPENDIX C: ARRL FIELD SERVICE FORM - FSD-220

ITU PHONETIC ALPHABET

A – Alfa **(AL** FAH)	**J** – Juliet **(JEW** LEE ETT)	**S** – Sierra (SEE **AIR** AH)
B – Bravo **(BRAH** VOH)	K – Kilo (KEY LOH)	T – Tango **(TANG** OH)
C – Charlie **(CHAR** LEE)	**L** – Lima **(LEE** MA)	**U** – Uniform **(YOU** NEE FORM)
D – Delta (DELL TAH)	**M** – Mike (MIKE)	V – Victor **(VIK** TORE)
E – Echo **(ECK** OH)	**N** – November (NO **VEM** BERR)	**W** – Whiskey **(WISS** KEY)
F – Foxtrot **(FOX** TROT)	**O** – Oscar **(OSS** CAR)	**X** – X-Ray **(EX** RAY)
G – Golf (GOLF)	P – Papa (PAH PAH)	Y – Yankee **(YANG** KEY)
H – Hotel (HOH **TELL)**	**Q** – Quebec (KEY **BECK)**	**Z** – Zulu **(ZOO** LOU)
I – India **(IN** DEE AH)	**R** – Romeo **(ROW** ME OH)	**Bold** syllables are emphasized

COMMUNICATION PROCEDURES (FSD-220)

Phrase	Meaning
Go Ahead	Used after calling CQ (on HF), or at the end of a transmission, to indicate any station is invited to transmit.
Over	Used after a call to a specific station, to indicate end of current transmission
Stand by	A temporary interruption of the contact, i.e. 'Stand by one'
Roger	Indicates a transmission has been received correctly
Affirmative	Yes, agreed
Negative	No, that is not correct

Say Again (all after)	Repeat last transmission, repeat all after .....
Clear	End of a contact
Leaving the air	Indicates that a station is going off the air, and will not listen for any further calls.

APPENDIX D: STATION LOCATIONS & PHONE NUMBERS

EVARC STATION LOCATIONS

Primary: Estes Park Health Radio Room, 555 Prospect Avenue, Estes Park, CO 80517, West side (rear) of building, entrance between Emergency Room and Estes Park Health Living Center. Phone: 970.577.4617

Auxiliary 1: Estes Park Library, 335 East Elkhorn, Estes Park, CO 80517, Hondius Room. Phone 970.586.8116

ARES ORGANIZATION CONTACTS

District Emergency Coordinator (DEC) Joe Hawley	970-669-4428 (Home) 970-689-0828 (Mobile)
Colorado ARES Region 1 District 1	https://coaresr1d1.org
Colorado ARES R1D1 Served Agencies	https://coaresr1d1.org/index.php/served-agencies
Colorado State ARES	https://coloradoares.org

PHONE NUMBERS:

Estes Park Health Radio Room:	970.577.4617
Estes Park Police - Non-emergency:	970.586.4000
Larimer County Sheriff - Non-emergency:	970.577.2020 (Estes Park) 970.498.5100 (Fort Collins) 970.416.1985 (Dispatch)
Estes Park Fire Department:	970.577.0900
Glen Haven Fire Department:	970.586.5406
Pinewood Springs Fire Department:	303.823.5086
Rocky Mountain National Park:	970.586.1203 (Dispatch)

Red Cross - Bill Howell:	970.586.5455 (home) 970.481.1243 (cell)
Salvation Army - Gordon Slack:	970.577.1472 (home) 970.222.2120 (cell)

APPENDIX E: GO KITS

Only you can decide what items need to be in your "Go Kit"! Your radio equipment will determine what accessories, cables, batteries, etc., you may need. The season and weather will dictate what clothes and personal items you should bring. Items that everyone should have are:

- water
- HT radio & spare batteries, or spare charged batteries
- Earphone
- copy of FCC license,
- ARES/EVARC badges,
- drivers license,
- some cash,
- radio manuals,
- this FOG,
- ARES vest or jacket,
- notebook, clipboard, pens, and pencils
- snacks and
- any essential medications you need.
- The following items are listed for what you *might* need.
- Radio Equipment:
- Radios with manuals and headphones/headset, additional charged battery packs, Suitcase Stations
- Portable antenna(s) and masts, guy ropes, tent stakes
- Feed-line jumpers (3- 4 foot) and coax barrel connectors
- Radio accessory kit including microphone, VSWR meter
- Antenna tuner, key, TNC, SignalInkUSB™, serial/USB adapter
- Power cords and outlet strips, power supply, fuses, HT chargers

- Andersen PowerPoles™, electrical tape, coax seal tape
- Ground rod, ground wire, small generator, extra fuel
- Solar panel, solar controller and deep cycle battery
- Other equipment
- Folding table, chair, paper, pens, forms, notebook, clip board
- Lap top computer, portable printer, ink cartridges
- Tool kit, appropriate tools, sledge hammer
- Small fan or heater
- Battery powered desk lamp, flashlights, batteries, cell phone charger
- White board, dry markers, maps, street guide
- Portable AM/FM/Weather radio with batteries
- Tarp, large umbrella, sleeping bag, cooking items
- First Aid Kit, toilet kit, towel, toilet paper, safety glasses
- Waterproof bag, 100MPH (Duct) tape, VOM/DMM
- Rope, bungee cords
- Battery powered headlamp
- Cold weather items:
- Blanket (wool or good insulating material)
- Dry Socks (wool or good insulating material)
- Thermal underwear, watch cap to cover ears
- Gloves (mittens preferred)
- Candles or other heat source
- Tarpaulin (Shelter may be needed from snow and wind)
- Waterproof matches
- Extra dry clothes, boots
- High energy food bars

- Water in thermos
- Hand warmer, sun screen, lip balm, ear plugs
- Warm weather items:
- Water (at least a gallon per day)
- Light colored clothing
- Rain pants and jacket with hood
- Wide brim hat, neck scarf
- Waterproof matches
- Insect repellant, net
- Sun screen (SPF 15 minimum)

APPENDIX F: ESTES PARK HEALTH RADIO SETUP [DEPRICATED]

[EVARC equipment has been removed from Estes Park Health. The information in this section has not been removed. A future revision of the FOG will restructure the information after the equipment setup at the Estes Park Memorial Observatory has been finalized.]

There are three radios at the EPH Radio room. Two can be used for cross-band connection to the Horsetooth 70 cm repeater (Channel 2, 447.275) repeater. This allows radios to connect to the EPH site on Channel 39, 146.550 for crossband connection to the Horsetooth repeater.

The Kenwood D710 is the preferred machine as the setup is simpler. The older Yaesu are included in case there is an issue with the D710.

The third radio is a AnyTone AT-578UV DMR radio. The AnyTone and the D710 share the same antenna. There is an antenna switch located in the rack to the far right of the counter to connect either to the antenna. Check to see that the switch is in the proper position for the radio being used.

User manuals for all three radios are located on the Google Shared Members drive, in the Radio Manuals folder.

HOW TO USE THE CROSSBAND WITH THE THURSDAY NET

Announce on either EVARC repeater frequency (channel 15 or 16):

QST QST QST this is (Call Sign)

We will be setting up Cross Band repeat shortly for those wishing to check into the R1D1 ARES net at 1900 local time.

The ARES net is held on the NCARC repeater 447.275 Mhz or EVARC Channel 2.

We will repeat the net locally on our club Simplex frequency of 146.550 or Channel 39 on your transceiver. This is (Call Sign).

KENWOOD D710 SETUP

Verify that the Antenna Switch is in the proper position for the D710 radio. The switch is located in the rack to the far right of the counter.

Radio Setup

The PM (Programmable Memory) button is the second button on the right side of the Control Head. PM button Off is for any mode, any frequency, any operation.

For **APRS with voice operation**, press the PM button then press #1.

For **Winlink on VHF and Voice operation**, press the PM button, then the #2 button.

To return to normal voice and APRS operation, press the PM button, then turn the radio off.

For **Crossband Severe Weather operation**, press the PM button, then press the #4 button.

To return to normal voice and APRS operation, turn the radio off. Then press and hold the Tone button, and turn the radio on and release the buttons.

For **Normal Voice Crossband**, press the PM button, then the #5 button. Turn the radio off. Then press and hold the Tone button, turn the radio on. Then release the Tone button. (The Tone button is the third button from the left on the Control Head.

To release from Normal Crossband operation, turn the radio off. Then press and hold the Tone button and turn the radio on, then release the Tone button. Then press the PM button followed by pressing the #1 button.

For **IRLP operation**, press the Push to Talk (PTT) button, then press the Tuning button. Then press Tuning Button and select IRLP or Lyons, then press the Tuning button and release.

Press 73 to clear.

When the radio window is amber, the radio is in Normal mode. When the radio window is green, the radio is in digital mode.

To scan, ensure the PTT is on the "B" side. Momentarily press the Tune button. The radio will start scanning. Press the PTT button to stop scanning when desired.

To disable/enable the "A" side, momentarily press and hold the "B" volume knob until the "A" side disappears/ appears. Disable when no longer needed.

D710 Microphone Buttons

The "A" button is the Enter button.

In Memory mode, press the A button, then enter a memory channel number.
In VFO mode, press the A button, then enter the frequency on the key pad.

"The "B" button switches the "A" side to the "B" side and vice versa

The "C" button returns the radio to "MR" mode.

The "D" Button controls the power output.

Low tone is High power (50 watts.
The 1st High tone is Medium power (10 watts).
The 2nd High tone is Medium power (5 watts).
Pressing the D button again cycles to Low tone (High power).

YAESU FT-8800R SETUP

The FT-8800R radio allows the left-side and right-side to be interconnected on different bands and provides the ability to allow low-power stations or stations in locations unable to directly reach an emergency repeater to communicate. The primary caveat is that the lowest power possible should be used to prevent equipment failure.

Setup instructions (usual use configuration listed below to connect Estes Park 2 meter simplex frequency to NCARC Horsetooth UHF repeater used by R1D1 nets.)

- Set left side frequency to 146.550 (channel # 39)
- Set left side power to **LOW**
- Set right side frequency to 447.275 (channel # 2)
- Set right side power as low as possible (button marked "**LOW**")
- LOW - 5 watts
- MID2 - 10 watts
- MID1 - 20 watts

To activate cross-band mode (Note: MAIN looks like a little football, and will be on either left or right)

- Press "**SET**" momentarily. (Unmarked button in the middle)
- Turn MAIN knob (either upper left or right knob) to # 45 (displayed as **XPRT**)
- Press MAIN knob momentarily (displays **XSTART**)
- Press MAIN knob again (will now be in Cross-Band Repeat mode)

To cancel cross-band mode

- Press "SET" (Unmarked button button in the middle) which exits the mode.

ANYTONE AT-578UV DMR RADIO

The AnyTone radio is a DMR radio, set up to be compatible with other DMR radios in the Front Range. It may be required, during an emergency, to use this radio to communicate with other stations. Because the configuration of the AnyTone radio is somewhat complicated, this radio is reserved for emergency use and testing.

The front panel of the AnyTone radio is pictured below.

Verify that the Antenna Switch is in the proper position for the DMR radio. The switch is located to the right of the radio.

The power button is near the lower left. Press and hold for a few seconds until the boot up is started. It should start up, configured to operate on the designated talk group.

If problems arise with the AnyTone radio setup, contact of the following members for help.

Name	**Call Sign**	**Email**	**1st phone**	**2nd phone**
Rob Galyan	KE7RG	rhgalyan@gmail.com	307-921-1972 (c)	970-586-5410 (h)
David White	K6OG	sdwtulok@aol.com	970-577-1310 (h)	918-625-6495 (c)
Steve Lambert	WB5YXJ	blackbear@q.com	970-586-4037 (h)	505-385-2489 (c)
Bob Leavitt	KEØSDV	bob@bobleavitt.com	402-488-5335 (c)	970-480-1588 (h)

APPENDIX G: INTERNET TO CELL PHONE TEXT INSTRUCTIONS

In order to reach via internet (or packet) email the following cellphone carriers with a text message, use the below:

1234567890@tmomail.net	T-Mobile
1234567890@txt.att.net	AT&T
1234567890@vtext.com	Verizon
1234567890@messaging.sprint.com	Sprint

APPENDIX H: CONTACT INFORMATION AND CALLING LIST

CONTACT INFORMATION

To be used by Served Agencies

1) Call the list in the order shown below.
2) If there is no answer, continue down the list. You may leave a voicemail, but continue down the list.
3) When you reach someone on the list, ask if they would deploy their response team. If they are unable, continue down the Calling List.
4) Please give the nature of the emergency, the location, the assistance required, and a desired response time.
5) Leave your name, agency name, and contact information (telephone number, etc.).

EVARC CALLING LIST

- **ARES Served Agency Director - Bob Leavitt**. **Address:** 740 Ramshorn Dr., Estes Park, CO 80517. **Telephone:** 402-488-5335 (Cell & Text); or 970-480-1588 (Home). **Email:** bob@bobleavitt.com
- **Bob Leavitt**, President of EVARC. **Address:** 740 Ramshorn Dr., Estes Park, CO 80517. **Telephone:** 402-488-5335 (Cell & Text); or 970-480-1588 (Home). **Email:** bob@bobleavitt.com
- **Steve Lambert**, Vice President of EVARC. **Address:** P. O. Box 301, 1617 Dunraven Glade Road, Glen Haven, CO 80532. **Telephone:** 505-385-2489 (Cell & Text); or 970-586-4037 (Home). **Email:** blackbear@q.com
- **David White**, Secretary of EVARC. **Address:** 1063 Morgan Street, Estes Park, CO 80517. **Telephone:** 918-625-6495 (Cell & Text); or 970-577-1310 (Home). **Email:** sdwtulok@aol.com .
- **Art Hiester,** Treasurer and Resource Director of EVARC. **Address:** 1440 Juniper Drive, Estes Park, CO 80517. **Telephone:** 714-496-3378 (Cell, or Text). Email: art.hiester@gmail.com .
- **Larry Olson**, Club Station Trustee of EVARC. **Address:** 229 Pine Tree Dr., Estes Park, CO 80517. **Telephone:** 970-586-9393 (Home); or 970-222-9090 (Cell or Text); or 970-577-6868 (Business). **Email:** larry.olson@olsoneng.com .

Please consider the Contact Information as *Confidential*. Share only as necessary.

TO BE USED BY EVARC LEADERSHIP

Initial Contact from Served Agency

- Write down the name, agency, and their contact information.
- Be sure to understand the nature of the emergency, the location, the assistance required, and their desired response time.

Initial Organization

- Call at least one other person on the EVARC Leadership Team list.
- Decide between yourselves who will be the initial EVARC Command and who will handle EVARC Resources. These may later change as more appropriate persons become available.
- Make sure that you have the contact information for the other leadership team person(s) as you will need to coordinate activities.

Command

- Decide on initial resources (people & equipment) and a method of contacting.
- Select an initial staging area, if required (may change later).
- Decide about local repeater utilization (linked or un-linked). Resource Net and Tactical Net.
- Notify R1D1 Leadership about the proposed deployment plans. Request their support and any addition initial staffing from them.
- Decide about regional repeater utilization, if required.
- Report status to served agency and seek any additional information (needs).
- Hand off command responsibility, when and if a more appropriate team member joins the deployment.

Resource

- Locate EVARC Leadership List; EVARC Resource List; and R1D1 Leadership List.
- Continue contacting the EVARC Leadership; begin calling the membership (as required).
- Make a list of those volunteering to serve and their contact information (repeater or cell phone, etc.).
- Determine equipment resources available; access to water & food; and personal gear (i.e. coats, rain gear, flashlights, etc.).

- Determine response time and start a schedule.
- Hand off resource responsibility, when and if a more appropriate team member joins the deployment.

APPENDIX I - FORMS

The forms identified below are on the following pages.

ARRL FORMS

FSD 244 - Disaster Welfare Message
FSD 255 - Emergency Reference Information
ARRL Radiogram

ICS FORMS

ISC - 205 - Incident Radio Communications Plan
ISC - 205a - Communications List
ISC - 213 - General Message
ISC - 214 - Activity Log
ISC - 309 - Communication Log

RED CROSS FORM

ARC 2079-I - Client Information and Release Form (September 2003)
ARC 5233 - Checklist for Assessing Damage to Work Areas

AMATEUR RADIO DISASTER WELFARE MESSAGE

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time filed	Date
	W			ARL			

TO

Message Receipt Or Delivery Information
Operator and Station _____
Sent To _____
Delivered To _____
Date _____ Time _____

Telephone Number

(CIRCLE NOT MORE THAN TWO STANDARD TEXTS FROM LIST BELOW)

ARL ONE Everyone safe here. Please don't worry.
ARL TWO Coming home as soon as possible.
ARL THREE Am in _____ hospital. Receiving excellent care and recovering fine.
ARL FOUR Only slight property damage here. Do not be concerned about disaster reports.
ARL FIVE Am moving to new location. Send no further mail or communications. Will inform you of new address when relocated.
ARL SIX Will contact you as soon as possible.
ARL SIXTY FOUR Arrived safety at _____.

Time	Date	Telephone	Signature

THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM

VIA AMATEUR RADIO

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date

TO

This Radio Message Was Received At
Amateur Station _____ Phone _____
Name _____
Street Address _____
City and State _____

Telephone Number

From Date Time	To Date Time
REC'D	**SENT**
This message was handled free of charge by a licensed Amateur Radio Operator whose address is shown in the box at right above. As such messages are handled solely for the pleasure of operating. No compensation can be accepted by a "Ham" operator. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from A.R.R.L. Headquarters 225 Main Street, Newington, CT 06111	The American Radio Relay League, Inc., is the national membership society of licensed radio amateurs and the publishers of QST Magazine. One of its functions is promotion of the public service communications among amateur operators to that end. The League has organized the National Traffic System for daily nationwide message handling.

FSD-244 (1/04)

Emergency Reference Information for Amateur Radio Station

_____

Telephone Numbers
(List name and/or number)

State Police _____

Local Police _____

Sheriff _____

Fire Department _____

Ambulance _____

OEM _____

SM _____

SEC _____

DEC _____

EC _____

Net Manager _____

National Weather Service _____

Red Cross _____

Salvation Army _____

Other _____

What to report:

Caller's name
Location
Situation
Injuries: number, extent
Fire?
Traffic blocked?
Need assistance?
Weather conditions

	Frequency	***Time***	***Days***
ARES Net			
RACES Net			
SKYWARN Net			
Section/Local Net			
Packet BBS			

FSD-255 (1/04)

THE AMATEUR RADIO EMERGENCY SERVICE

The radio amateur best justifies his existence by the service rendered to the community in times of disaster and distress when normal communications media are not available, have failed or are badly overburdened.

In the event of a communications emergency all amateurs are dedicated to serve in the public interest, within their ability, to provide temporary communications for a stricken area until normal facilities are restored.

The ARRL Amateur Radio Emergency Service is composed of licensed amateurs who have voluntarily registered their qualifications and equipment for communication duty in the public service when disaster strikes.

Further information on the Service may be obtained from your Section Manager, Section Emergency Coordinator or ARRL Headquarters. Visit **www.arrl.org/sections**.

BEFORE EMERGENCY

Prepare yourself by providing radio equipment together with an emergency power source upon which you can depend.

Test both the dependability of your emergency equipment and your own operating ability in the annual ARRL Simulated Emergency Test and the several annual on-the-air contests, especially Field Day.

Register your facilities and your availability with your local ARRL Emergency Coordinator. If your community has no EC, contact your local civic and relief agencies and explain to them what the Amateur Service offers the community in time of disaster.

IN EMERGENCY

Listen before you transmit. Never violate this principle.

Report at once to your Emergency Coordinator so that the EC will have up-to-minute data on the facilities available. Work with the local civic and relief agencies as the EC suggests. Offer these agencies your services directly in the absence of an EC.

Operate on the air in accordance with FCC regulations.

SOS and "Mayday" are the International distress calls for emergency only. They are for use only by stations seeking emergency assistance.

Respect the fact that the success of the amateur effort in emergency depends largely on circuit discipline. The established Net Control Station should be the supreme authority for traffic routing.

Cooperate with those we serve. Be ready to help, but stay off the air unless there is a specific job to be done that you can handle more efficiently than any other station.

Copy all bulletins from W1AW or check the ARRL Web site. During time of emergency, bulletins will keep you posted on the latest developments.

AFTER EMERGENCY

Report to ARRL Headquarters and your ARRL Section leaders as soon as possible and as fully as possible so that the Amateur Service can receive full credit. Report your activity with the ARRL Public Service Activity Report form (FSD-157) at **www.arrl.org/FandES/field/forms/** (printable and on-line versions are available).

The American Radio Relay League
RADIOGRAM
Via Amateur Radio

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date

To:

This Radio Message was received at:

Amateur Station_____ Date_____
Name_____
Street Address_____
City, State, Zip_____

Telephone Number:

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

From	Date	Time	To	Date	Time
REC'D			SENT		

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of *QST* Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.

The American Radio Relay League
RADIOGRAM
Via Amateur Radio

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date

To:

This Radio Message was received at:

Amateur Station_____ Date_____
Name_____
Street Address_____
City, State, Zip_____

Telephone Number:

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

From	Date	Time	To	Date	Time
REC'D			SENT		

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of *QST* Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared: Date: Date Time: HHMM	3. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks

5. Special Instructions:

6. Prepared by (Communications Unit Leader): Name: Signature: _____

ICS 205	IAP Page	Date/Time: Date

ICS 205
Incident Radio Communications Plan

Purpose. The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders. Information from the Incident Radio Communications Plan on frequency or talkgroup assignments is normally placed on the Assignment List (ICS 204).

Preparation. The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the Incident Action Plan.

Distribution. The ICS 205 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.

Notes:

- 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.
- The ICS 205 serves as part of the IAP.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Date/Time Prepared**	Enter date prepared (month/day/year) and time prepared (using the 24-hour clock).
3	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
4	**Basic Radio Channel Use**	Enter the following information about radio channel use:
	Zone Group	
	Channel Number	Use at the Communications Unit Leader's discretion. Channel Number (Ch #) may equate to the channel number for incident radios that are programmed or cloned for a specific Communications Plan, or it may be used just as a reference line number on the ICS 205 document.
	Function	Enter the Net function each channel or talkgroup will be used for (Command, Tactical, Ground-to-Air, Air-to-Air, Support, Dispatch).
	Channel Name/Trunked Radio System Talkgroup	Enter the nomenclature or commonly used name for the channel or talk group such as the National Interoperability Channels which follow DHS frequency Field Operations Guide (FOG).
	Assignment	Enter the name of the ICS Branch/Division/Group/Section to which this channel/talkgroup will be assigned.
	RX (Receive) Frequency (N or W)	Enter the Receive Frequency (RX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions. The name of the specific trunked radio system with which the talkgroup is associated may be entered across all fields on the ICS 205 normally used for conventional channel programming information.
	RX Tone/NAC	Enter the Receive Continuous Tone Coded Squelch System (CTCSS) subaudible tone (RX Tone) or Network Access Code (RX NAC) for the receive frequency as the mobile or portable subscriber would be programmed.

Block Number	Block Title	Instructions
4 (continued)	TX (Transmit) Frequency (N or W)	Enter the Transmit Frequency (TX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions.
	TX Tone/NAC	Enter the Transmit Continuous Tone Coded Squelch System (CTCSS) subaudible tone (TX Tone) or Network Access Code (TX NAC) for the transmit frequency as the mobile or portable subscriber would be programmed.
	Mode (A, D, or M)	Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation.
	Remarks	Enter miscellaneous information concerning repeater locations, information concerning patched channels or talkgroups using links or gateways, etc.
5	**Special Instructions**	Enter any special instructions (e.g., using cross-band repeaters, secure-voice, encoders, private line (PL) tones, etc.) or other emergency communications needs). If needed, also include any special instructions for handling an incident within an incident.
6	**Prepared by** (Communications Unit Leader) • Name • Signature • Date/Time	Enter the name and signature of the person preparing the form, typically the Communications Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).

COMMUNICATIONS LIST (ICS 205A)

1. Incident Name:	2. Operational Period:	Date From: Date	Date To: Date
		Time From: HHMM	Time To: HHMM

3. Basic Local Communications Information:

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc.)

4. Prepared by: Name:	Position/Title:	Signature: _____
ICS 205A | **IAP Page**	Date/Time: Date	

ICS 205A
Communications List

Purpose. The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Preparation. The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period.

Distribution. The ICS 205A is distributed within the ICS organization by the Communications Unit, and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

Notes:

- The ICS 205A is an optional part of the Incident Action Plan (IAP).
- This optional form is used in conjunction with the ICS 205.
- If additional pages are needed, use a blank ICS 205A and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Basic Local Communications Information**	Enter the communications methods assigned and used for personnel by their assigned ICS position.
	• Incident Assigned Position	Enter the ICS organizational assignment.
	• Name	Enter the name of the assigned person.
	• Method(s) of Contact (phone, pager, cell, etc.)	For each assignment, enter the radio frequency and contact number(s) to include area code, etc. If applicable, include the vehicle license or ID number assigned to the vehicle for the incident (e.g., HAZMAT 1, etc.).
4	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

GENERAL MESSAGE (ICS 213)

1. Incident Name (Optional):		
2. To (Name and Position):		
3. From (Name and Position):		
4. Subject:	**5. Date:** Date	**6. Time** HHMM
7. Message:		
8. Approved by: Name:	Signature: _____	Position/Title:
9. Reply:		
10. Replied by: Name:	Position/Title:	Signature: _____
ICS 213	Date/Time: Date	

ICS 213
General Message

Purpose. The General Message (ICS 213) is used by the incident dispatchers to record incoming messages that cannot be orally transmitted to the intended recipients. The ICS 213 is also used by the Incident Command Post and other incident personnel to transmit messages (e.g., resource order, incident name change, other ICS coordination issues, etc.) to the Incident Communications Center for transmission via radio or telephone to the addressee. This form is used to send any message or notification to incident personnel that requires hard-copy delivery.

Preparation. The ICS 213 may be initiated by incident dispatchers and any other personnel on an incident.

Distribution. Upon completion, the ICS 213 may be delivered to the addressee and/or delivered to the Incident Communication Center for transmission.

Notes:

- The ICS 213 is a three-part form, typically using carbon paper. The sender will complete Part 1 of the form and send Parts 2 and 3 to the recipient. The recipient will complete Part 2 and return Part 3 to the sender.
- A copy of the ICS 213 should be sent to and maintained within the Documentation Unit.
- Contact information for the sender and receiver can be added for communications purposes to confirm resource orders. Refer to 213RR example (Appendix B)

Block Number	Block Title	Instructions
1	**Incident Name** (Optional)	Enter the name assigned to the incident. This block is optional.
2	**To** (Name and Position)	Enter the name and position the General Message is intended for. For all individuals, use at least the first initial and last name. For Unified Command, include agency names.
3	**From** (Name and Position)	Enter the name and position of the individual sending the General Message. For all individuals, use at least the first initial and last name. For Unified Command, include agency names.
4	**Subject**	Enter the subject of the message.
5	**Date**	Enter the date (month/day/year) of the message.
6	**Time**	Enter the time (using the 24-hour clock) of the message.
7	**Message**	Enter the content of the message. Try to be as concise as possible.
8	**Approved by** • Name • Signature • Position/Title	Enter the name, signature, and ICS position/title of the person approving the message.
9	**Reply**	The intended recipient will enter a reply to the message and return it to the originator.
10	**Replied by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person replying to the message. Enter date (month/day/year) and time prepared (24-hour clock).

ACTIVITY LOG (ICS 214)

1. Incident Name:	2. Operational Period: Date From: Time From:	Date To: Time To:

3. Name:	4. ICS Position:	5. Home Agency (and Unit):

6. Resources Assigned:

Name	ICS Position	Home Agency (and Unit)

7. Activity Log:

Date/Time	Notable Activities

8. Prepared by: Name: _____ Position/Title: _____ Signature: _____

Date/Time: _____

ACTIVITY LOG (ICS 214)

1. Incident Name:	**2. Operational Period:** Date From: Date To: Time From: Time To:

7. Activity Log (continuation)**:**

Date/Time	Notable Activities

8. Prepared by: Name: ____________ Position/Title: ____________ Signature: ____________

 Date/Time: ____________

ICS 214
Activity Log

Purpose. The Activity Log (ICS 214) records details of notable activities at any ICS level, including single resources, equipment, Task Forces, etc. These logs provide basic incident activity documentation, and a reference for any after-action report.

Preparation. An ICS 214 can be initiated and maintained by personnel in various ICS positions as it is needed or appropriate. Personnel should document how relevant incident activities are occurring and progressing, or any notable events or communications.

Distribution. Completed ICS 214s are submitted to supervisors, who forward them to the Documentation Unit. All completed original forms must be given to the Documentation Unit, which maintains a file of all ICS 214s. It is recommended that individuals retain a copy for their own records.

Notes:

- The ICS 214 can be printed as a two-sided form.
- Use additional copies as continuation sheets as needed, and indicate pagination as used.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Name**	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4	**ICS Position**	Enter the name and ICS position of the individual in charge of the Unit.
5	**Home Agency** (and Unit)	Enter the home agency of the individual completing the ICS 214. Enter a unit designator if utilized by the jurisdiction or discipline.
6	**Resources Assigned**	Enter the following information for resources assigned:
	• Name	Use this section to enter the resource's name. For all individuals, use at least the first initial and last name. Cell phone number for the individual can be added as an option.
	• ICS Position	Use this section to enter the resource's ICS position (e.g., Finance Section Chief).
	• Home Agency (and Unit)	Use this section to enter the resource's home agency and/or unit (e.g., Des Moines Public Works Department, Water Management Unit).
7	**Activity Log** • Date/Time • Notable Activities	• Enter the time (24-hour clock) and briefly describe individual notable activities. Note the date as well if the operational period covers more than one day. • Activities described may include notable occurrences or events such as task assignments, task completions, injuries, difficulties encountered, etc. • This block can also be used to track personal work habits by adding columns such as "Action Required," "Delegated To," "Status," etc.
8	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

COMM Log ICS 309-SCCo ARES/RACES	1. Incident Name and Activation Number	2. Operational Period (Date/Time) From: To:
3. Radio Net Name (for NCOs) or Position/Tactical Call		4. Radio Operator (Name, Call Sign)

5. COMMUNICATIONS LOG

Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	

6. Prepared By (Name, Call Sign)	7. Date & Time Prepared	8. Page _____ of _____

Communications Log (ICS Form 309-SCCo ARES/RACES)

Purpose: The Comm Log records the details of message traffic and is used by either an individual or a Net Control Operator (NCO). These logs provide the basic reference from which to extract communications traffic history.

Preparation: The Comm Log is initiated and maintained by the Net Control Operator (NCO) or the individual operator (e.g. a field communicator). Completed logs are submitted to the supervisor who forwards them to the Documentation Unit.

Distribution: The Documentation Unit maintains a file of all Comm Logs. All completed original forms MUST be forwarded to the Documentation Unit.

Instructions for completing the form:

Field #	Field Title	Instructions
1	Incident Name / Number	Enter the name and activation number assigned to the incident
2	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time
3	Net / Position Name	**For NCOs:** Enter the name of the radio net **For Others:** Enter the name of the position or tactical call
4	Radio Operator	Enter the name and call sign of the radio operator
5	Communications Log	**Time:** Enter the local time in 24-hour format **From:** Enter the *From* call sign or ID and the message number **To:** Enter the *To* call sign or ID and the message number **Message:** Enter the message
6	Prepared By	Enter the name and call sign of the person completing the log
7	Date & Time Prepared	Enter the date and time the form was prepared (24-hour clock)
8	Page numbers	Enter the page number and number of pages

Submit this form to your supervisor at the end of your shift.

American Red Cross

Client Information and Release Form

Do you have an immediate family member you have been unable to contact because of the disaster?

The American Red Cross Disaster Welfare Information function can assist you. We will be happy to contact your relative and pass a brief message to them concerning your health and welfare following this disaster.

Please complete the information requested below, sign the form permitting us to contact your relative, and return it to the Red Cross worker with whom you are meeting.

Thank you and we look forward to reconnecting you with your family.

Client Information

Name		Date	
Pre-Disaster Address			
Post-Disaster Address			
Pre-Disaster Phone		Post-Disaster Phone	

Family Contact Information

Name		Relationship to You	
Address			
Phone		E-mail	

Your Short Message:	

Client Release to Contact Family

I authorize the American Red Cross to contact the designated family member to relay the above, informing them of my current health and welfare. I ✍ do/ ✍ do not grant permission for the above designated family member to notify other family members.

Signature of Client _____ **Date** _____

Printed Name of Client _____

Name of Red Cross Worker _____ **Function** _____

American Red Cross

Información y Autorización del Cliente

¿Tiene Usted un miembro de la **familia inmediata** con cual no ha tenido contacto desde que ocurrió el desastre**?**

La función de Bienestar de La Familia de la Cruz Roja Americana le puede ayudar. Estamos preparados a establecer contacto con su familia y darle un mensaje breve con noticias sobre su bienestar después del desastre.

Favor de completar el formulario, fírmelo para damos autorización para establecer la comunicación con su familia y devuélvalo al representante de la Cruz Roja con que listed esta trabajando.

Muchas gracias y esperamos teller el placer de restablecer la comunicación con su familia.

Información del Cliente

Nombre		Fecha	
Dirección Antes Desastre			
Dirección Después Desastre			
Teléfono Antes Desastre		Teléfono Después del Desastre	

Información De La Familia

Nombre		Relación	
Dirección			
Teléfono		E-mail	

Mensaje Breve:	

Autorización Para Establecer Contacto Con La Familia

Par media del presente autorizo a la Cruz Roja American comunicarse con la persona designada de mi familia con el mensaje detallado arriba, dándoles información sabré mi bienestar. Yo doy [ ] / no doy [ ] autorización que la persona designada notifique a otros de la familia.

Firma: _____ **Fecha:** _____

Firma con letra de molde: _____

Nombre del Representante: _____ **Función:** _____
Cruz Roja Americana

American Red Cross
Ready Rating™

Checklist for Assessing Damage to Work Areas

The following checklist is designed to assist in documenting losses incurred as a result of the recent emergency. Please add items to this list as appropriate.

Building _____ Room _____ Inspected By _____ Date _____

Category	Condition	Priority
Electrical Equipment		
• Computers		
• Printers		
• Monitors		
• Peripherals		
• Copiers		
• Calculators		
• Other		
Communications		
• Telephones		
• Cellular Phones		
• Two-way Radios		
• Fax Machines		
• Other		

American Red Cross

Adaptation by _____.

American Red Cross
Ready Rating™

Category	Condition	Priority
Supplies		
• Paper		
• Forms		
• Other		
Furniture		
• Chairs		
• Desks		
• Credenzas		
• Tables		
• Other		

American Red Cross

Adaptation by _____.