

**ANNEX 1 to ESF 2 – COMMUNICATIONS
OKANOGAN COUNTY
AMATEUR RADIO EMERGENCY SERVICE (ARES) &
RADIO AMATEUR CIVIL EMERGENCY SERVICES (RACES) PLAN
Updated 2017**

I. INTRODUCTION

- A. Okanogan County ARES/RACES is a small volunteer organization of FCC licensed Amateur Radio operators whose major purpose is to provide regional and county-wide emergency communications. In Okanogan County the ARES/RACES organization is a dual organization. It can operate as ARES, sponsored the American Radio Relay League (ARRL); or it can operate as RACES, which is administered by FEMA under Federal Communications rules (Part 97, Subpart E. Section 97.4017). **For purposes within this plan they will be referred to as ARES/RACES.** Which role the organization takes depends upon the particular emergency or disaster situation as follows:
1. ARES provides emergency communications for non-governmental organizations (public and private) and local governmental agencies in times of “non-declared” emergencies or disasters. Operation is governed by this ARES/RACES plan, which is interfaced with the Okanogan County Comprehensive Emergency Management Plan and the Washington State RACES Plan. A secondary purpose of ARES is to provide non-emergency, public service, communications for county agencies or other qualified organizations at the discretion of ARES officers.
 2. RACES on the other hand, provide emergency communications for governmental agencies only, during officially “declared” emergencies or disasters (usually declared at the county, state, or federal level). Operation is governed by this ARES/RACES plan, the Okanogan County Comprehensive Emergency Management Plan and the Washington State Radio Amateur Civil Emergency Service (RACES) Plan.
- B. It should be noted that ARES and RACES licensed operators can hold dual registration in both organizations. Further, it is encouraged by the ARRL that licensed amateur radio operators be registered/certified as both and that cooperative efforts between RACES and ARES organizations be established and maintained.

II. PURPOSE

The purpose of this plan is to provide guidance, establish responsibility, and ensure coordinated operations between Okanogan County Emergency Management officials and the ARES/RACES organization during times when there are extraordinary threats to the safety of life and/or property. Maximum benefits from the ARES/RACES organizations can be obtained only through careful planning which identifies the organizations, agencies, and individuals concerned and assign a definitive role to each. This plan enables agencies and organizations having emergency responsibilities to include the ARES/RACES organizations in local emergency plans and programs.

This plan, though issued separately, will be considered as Annex 1 to Emergency Support Function (ESF) 2 of the County Comprehensive Emergency Management Plan.

III. SCOPE

This plan provides guidance for the Okanogan County ARES/RACES organization to support local Emergency Management officials and other local public and private agencies during emergency conditions. The information in this plan is to be used as a guide. It is not the intent of this plan to limit the actions of an operator who is on site and best able to assess the prevailing conditions. However, since uniformity of procedure leads to general understanding by others about what they should do, utilization of this plan will define the Standard Operating Procedure (SOP) for the organization.

IV. AUTHORITY

- A. 47 CFR, Ch. 1, Part 97, subpart E, section 407, Radio Amateur Civil Emergency Services.
- B. FEMA Civil Preparedness Guide (CPG) 1-15, dated March 1991, titled: Guidance for Radio Amateur Civil Emergency Service
- C. RACES Plan, State of Washington Department of Emergency Management
- D. Okanogan County Comprehensive Emergency Management Plan, Emergency Support Function 2, Communications

V. ORGANIZATION:

- A. Emergency Coordinator (EC)/Races Office (RO)

Per CPG 1-15, the local Emergency Management appoints, in writing, a reliable amateur radio operator to serve as the Races Officer. The Emergency Coordinator (for ARES) and Races Officer (for Races) are hereafter simply called

the “Emergency Coordinator (EC)”, coordinates the overall program of the organization. The EC will appoint Assistant Emergency Coordinator(s) (AEC).

- B. During actual emergency exercises and missions, the two-person team concept will be utilized. Teams have been tentatively assigned to the County EOC; however members may be reassigned to any location depending on the situation.
- C. To become a member of the Okanogan RACES/ARES Team, an individual will fill out an EMD-024, Emergency Working Registration Card and submit it to the EC. Upon approval by the EC, the registration card will be forwarded to Emergency Management and an Okanogan County ARES/RACES identification badge will be issued.

* All applicants are subject to a background check conducted by the Okanogan County Sheriff’s Office.

VI. CONCEPT OF OPERATIONS

- A. All agencies and organizations will utilize the principles of the National Incident Management System (NIMS) and specifically the policies and procedures in the Incident Command System (ICS) for response.
- B. **Notification:**
 - 1. All amateur operators should tune to the primary frequency (145.45, Repeater or alternate 3.985 HF) to receive information and instruction during times of emergency. Each ARES/RACES member is expected to have a basic awareness of events taking place that might result in an emergency or disaster. This could include a mass casualty event, flood, and wildfire, etc.
 - 2. Should the need arise; the County DEM/EM may request the use of available volunteer communications equipment and personnel by contacting the EC.
- C. **Activation:**
 - 1. The EC will contact AEC(s) to determine what resources are available.
 - 2. Upon activation, the EC or AEC will initiate coordination net on the frequency established in the VHF/UHF band plan and assign and dispatch amateurs to provide backup communication.
 - 3. Flexibility and net discipline are key factors in successfully providing

effective communications. All amateurs entering the net should not transmit unless they are responding to a request from the net control operator. Tactical call signs are to be established for all assigned stations.

4. Amateur radio operators should be prepared to support the following tasks/missions at the local levels:

- a. Provide back-up emergency direction and control communications between the county EOC and other local EOC's or incident command posts. (i.e., local hospitals, Public Health, and Red Cross Shelters, staging areas, and base camps, etc).
- b. Emergency communications for shelters, emergency worker centers, sheriff and police departments, 9-1-1 centers, fire departments/districts, and other requirements designated by the local emergency management office.

5. HF Activities:

Designated HF stations will be contacted by the AEC to provide liaison and traffic handling with section nets as well as other emergency nets. The AEC will notify the section level official responsible for HF operations which stations represent ARES/RACES.

Subsequent to a disaster, HF stations will provide emergency and priority traffic in and out of the area. If time permits, one way health and welfare (H&W) messages out of the area may be provided. Incoming H&W will be coordinated through the AEC.

6. Message traffic should be sent and received using the message form in attachment #3, Message Form.
7. Should additional amateur radio resources be needed for tasks/missions, the EC will contact adjoining counties to exhaust all local resources. If local resources have been exhausted, then the EC will contact the County EOC who will in turn contact State EOC to request additional resources/equipment.
8. This plan recognizes that amateur radio, primarily through ARES organizations/operators, will continue to support requirements for American Red Cross, hospitals, the business community, other non-government agencies, and the general public.

D. Warning, Alert & Response Levels

The EC/AEC will develop and maintain phone trees to alert their group members

in the event of an emergency. They should also work with local repeater owners to establish emergency alerting procedures.

E. Deployment of Personnel

The EC will usually be the liaison with the agency served and coordinates the alerting and deployment of personnel. Upon arrival at the assigned location ARES/RACES members should immediately identify themselves to the person in charge or the contact person provided by the EC or Net Control. Operations will be established as soon as possible for passing formal written traffic. In most instances 2 operators will be assigned to each location to provide relief and backup equipment.

F. Regional Support

1. ARES/RACES may be called upon to support activities in surrounding jurisdictions. The call for support may be an informal request for help from a neighboring EC, or a formal request from the State.
2. At no time, should help offered to a neighboring jurisdiction impact ongoing operation.
3. In the event of a regional activation, the EC in affected jurisdiction shall have overall authority for deploying resources.

G. Demobilization

1. EM or County EOC will advise the EC/AEC when their services are no longer needed. The EC/AEC will notify individual operators.
2. Operators will coordinate with the respective IC they are supporting. Clean up their work area and provide paper work to the EC for inclusion in the after actions report.

VII. RESPONSIBILITIES

A. Local DEM/EM is responsible for:

1. Ensuring an EC is appointed.
2. Assist in preparing and maintaining this plan, as needed.
3. Maintaining, at the local EOC, a radio station capable of communicating on appropriate and assigned amateur frequencies used within the county and regional jurisdiction for emergency communications.
4. Provide assistance and guidance as necessary.

5. Coordinate amateur radio communications requirements with state, federal, and other organizations located within the jurisdiction.

B. EC shall be responsible for:

1. Maintaining and executing this plan as needed. Identifying and coordinating the operation of amateur networks to support the operational requirements identified above.
2. Identifying and designating the Net Control Station. Ensuring designated stations are prepared to assume role as the County NCS.
3. Supervise the operation of the ARES/RACES radio station located in the county EOC. Ensure that operators are trained and exercised on the equipment.
4. Coordinate the use of local amateur operators and equipment in support of county government agencies, federal agencies, and others located within a local jurisdiction/region.
5. Develop training and education opportunities for the membership.
6. Being prepared to receive traffic from the general public (licensed independent stations) over local emergency nets.
7. Maintain liaison with other ECs in surrounding counties.

C. Assistant EC shall be responsible for:

1. Provide overall coordination of the Net Control Team and establishes a Coordination Net for training exercises and missions.
2. Coordinate the recruitment of new members; keeps a record of all meetings, exercises and missions; maintains a database of membership.
3. Act as liaison with government and emergency service agencies.
4. Provide logistical and technical support to all teams in the areas of radio equipment, packet equipment, computers, antennas, power supplies, propagation and frequency planning.

D. ARES/RACES members are responsible for:

1. Participating in training sessions.

2. Briefing the EC/AEC of any changes in equipment or license status that may affect operation in the program.
3. Developing a strong background in emergency procedures, FCC Rules and Regulations and network procedures.
4. Being available when emergency communications are required by the Director of Emergency Management/County Emergency Manager.
5. Helping strengthen the organization by offering suggestions and positive feedback to correct deficiencies.
6. Complying with volunteer standards established by Okanogan County ARES/RACES and its served agencies. Specifically, the completion of NIMS ICS 100, 200, & 700 training.
7. Notifying the EC, in writing, when terminating membership.

VII. TRAINING

1. Federal and county regulations require the following certifications by all members of the ARES/RACES cadre:
 - a. IS-700 National Incident Management System (NIMS)
 - b. IS-100 Incident Command System
 - c. IS-200 ICS for Single Resources and Initial Action Incidents
2. Members of the leadership team and other identified operators must also possess IS-800 National Response Framework.
3. The EC shall obtain certification in ICS course 300 (Intermediate ICS) and ICS course 400 (Advanced ICS).
4. Members of the leadership team and other identified individuals are encouraged to obtain ICS 300 and ICS 400.
5. All team members are required to learn the forms related to the ICS.
6. All team members are encouraged to practice their skills. County ARES/RACES team will supply public safety communications in conjunction with local events to test the deployment and operational capabilities of its members and to provide a service to the community. This may be in conjunction with local clubs as required.
7. Once per year there will be a call up. This call up will be unscheduled and will constitute a test of the communications tree.
8. Conduct a yearly test of all communications systems. Participation in an exercise will cover this requirement.

9. An annual simulated emergency test will occur. It may be conducted in October in conjunction with the ARRL Simulated Emergency Test (SET) and the SET may be localized or conducted in cooperation with surrounding teams.
10. Additional training opportunities may become available as specific needs and personnel interests develop.
11. Training may include classroom study, field exercises and may include audio-visual material developed specifically for such purposes and made available by sponsoring organizations.
12. Any relevant training undertaken by members should be reported to the EC for tracking purposes.
13. ARES/RACES members may be called upon to assist agencies conducting SAR operations. Many times these types of operations are conducted in remote areas, where communications on the agency's frequencies may be difficult due to lack of repeaters. In most instances communications will be tactical in nature and a single net will be sufficient. In addition, simplex operations may be sufficient with the occasional use of a repeater to pass logistical requests. The EC should choose the most appropriate modes.
14. Weekly Okanogan County radio net.
15. Quartely EOC to EOC radio test, in conjunction with WA State EMD.
16. COM-L training for EC and AEC's.

Attachment #2 - MESSAGE PREPARATION INSTRUCTIONS and FORM: EOC Staff

1. PURPOSE

The purpose of this annex is to identify and establish guidance for use of the message form when transmitting and receiving message traffic between stations and for use in the EOCs.

II. USE OF THE ARRL RADIOGRAM

- Keep messages simple, clear, and be specific rather than general or vague.
- ALL messages will be processed through the Message Center Supervisor.
- One message per sheet.

NO other EOC staff (other than Runner) is allowed in the HAM Operator area.

Emergency or disaster situations can be confusing. Much of the information passed on by messages is critical to our recovery. Important information could be lost unless all message traffic is recorded accurately in a logbook.

After an emergency it is important to study the actions taken by all participants. We can identify what we did right and what needs to be improved. It is difficult to study our responses without an accurate record of those actions.

THE AMERICAN RADIO RELAY LEAGUE							
RADIOGRAM							
VIA AMATEUR RADIO							
NUMBER	PRECEDENCE	HR	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
1	R	G	K4IWW	12	CARY NC		DEC 20
TO					THIS RADIO MESSAGE WAS RECEIVED AT		
JOHN Q PUBLIC					AMATEUR STATION _____ PHONE _____		
1234 MAPLE AVE					NAME _____		
ANYTOWN NC 27000					STREET ADDRESS _____		
					CITY AND STATE _____		
TELEPHONE NUMBER 919 555 1234							
ARRIVE	7PM	DEC	24	X			
LOOKING	FORWARD	TO	SEEING	YOU			
X	LOVE						
BETTY M PUBLIC							
REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME
<small>THIS MESSAGE WAS TRANSMITTED BY THE STATION IN THE MANNER INDICATED. THE RADIO MESSAGE RECEIVED IS SUBJECT TO THE RIGHTS OF THE AMERICAN RADIO RELAY LEAGUE. THIS MESSAGE IS HANDLED SOLELY FOR THE PURPOSE OF CARRYING. NO OTHER PURPOSES CAN BE ASSUMED BY A "HAND CARRIED" MESSAGE. MESSAGE MAY BE FILED WITH THE NAME OF THE STATION TO WHICH IT WAS SENT. THE STATION OF ORIGIN MAY BE IDENTIFIED FROM THE MESSAGE. THE STATION OF ORIGIN MAY BE IDENTIFIED FROM THE MESSAGE. THE STATION OF ORIGIN MAY BE IDENTIFIED FROM THE MESSAGE. THE STATION OF ORIGIN MAY BE IDENTIFIED FROM THE MESSAGE.</small>				<small>THE AMERICAN RADIO RELAY LEAGUE, INC. IS THE NATIONAL AMATEUR SOCIETY OF LICENSED RADIO AMATEURS. THE LEAGUE IS A NON-PROFIT ORGANIZATION. THE AMERICAN RADIO RELAY LEAGUE, INC. IS A NATIONAL ORGANIZATION. THE AMERICAN RADIO RELAY LEAGUE, INC. IS A NATIONAL ORGANIZATION. THE AMERICAN RADIO RELAY LEAGUE, INC. IS A NATIONAL ORGANIZATION.</small>			

Form: Copyright 1995, American Radio Relay League. Used with permission

NUMBER (Mandatory) Message Center Supervisor applies

First identify the originating station (i.e, EOC, MV, NV, OD, etc) then start with number 1 and continue subsequently. Example: EOC- 1; MV-1

PRECEDENCE (Mandatory) - Originator applies.

The Precedence of the message determines what order the messages will be handled. Precedence’s in ascending order of priority:

ROUTINE (R)

99.99% of all messages have this precedence. These messages will be handled last.

WELFARE (W)

This message is either an inquiry to the health and welfare of an individual in a disaster area or a report of the health and welfare of an individual. These messages will be handled before ROUTINE traffic.

PRIORITY (P)

These are messages have specific time limits. They are also for Official messages, not covered in the EMERGENCY category. This traffic will be handled before WELFARE or ROUTINE.

EMERGENCY (E)

Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular communication facilities. When in doubt, do NOT use this precedence. This traffic will be handled first and immediately.

Example: NR 1 R (for Routine)

HX = Handling Instructions – Originator applies.

Handling Instructions are sometimes used to tell the various stations along the way, what the desires of the originating state are.

HXA (followed by a number) = Collect land line delivery authorized by the addressee within ... miles. (If no number, authorization is unlimited.)

HXB (followed by a number) = Cancel message if not delivered within ... hours of filing time; service originating station.

HXC = Report the time and date of delivery to originating station.

HXD = Report to the originating station the identity of the station from which you received, plus time and date. Report the identity of the station to which it was relayed, plus time and date, or if delivered report time and date of delivery.

HXE = Delivering station gets a reply from the addressee, and originate a message back. ***This is the primary handling instruction we will be using.***

HXF (followed by number) = Hold delivery until ... (date).

HXG = Delivery by mail or land line toll call not required. If toll or other expenses involved cancel message and service originating station.

Example: NR 1 R HXE

STATION OF ORIGIN (Mandatory) – HAM Operator applies.

This is the call sign of the Amateur Radio Station generating (originating) this message.

Example: NR 1 R HXE K4IWW

CHECK (Mandatory) – HAM Operator applies.

This is a count of the number of words used in the TEXT (only) of the message. Words in the address or signature are NOT counted. Groups of figures, letters, combinations of figures and letters, and "X" are counted as words. This is the method that Amateurs use to make sure that the TEXT was received without error. Both the sender and receiver should end up with the same word count (CHECK).

Example: NR 1 R HXE K4IWW 12

PLACE OF ORIGIN (Mandatory) - Originator applies.

This field is the station of origin (who is initiating the message). In the example the Okanogan County Emergency Operations Center is initiating the message.

Example: NR 1 R HXE K4IWW 12 OC EOC

TIME FILED – Ham Operator applies.

The time the message was originated. Use Local time. Examples: 1615Z.

Example: NR 1 R HXE K4IWW 12 OC ECO 1615Z

DATE (Mandatory) - Originator applies.

This is the date the message was originated. Use month and day. The year is NOT used.

Example: NR 1 R HXE K4IWW 12 OC EOC 1615Z DEC 20

ADDRESSEE (Mandatory) - Originator applies.

The name(s) and address of the person to which this message is going. Same message can be sent to more than one location.

Example:

MV Hospital
 NV Hospital
 OK-Three Rivers Hospital

TEXT (Mandatory) - Originator applies.

Finally! This is the message you are sending for the signature person to the addressee. It should be short (*usually less than 25 words*) and in telegram style. No punctuation is used. The letter "X" is used (similar to STOP in telegrams) to end one idea and start another.

Example TEXT:

Need bed count X

NOTE: "X" is the only jargon allowed. "?" ok too.

SIGNATURE (Mandatory) - Originator applies.

This is the name of the person sending the message. See example above.

RECEIVED BLOCK (Optional) – HAM Operator applies

This is for the handling station to write down whom they received the message from. This field is only for the book keeping of the handling station.

SENT BLOCK (Optional) – HAM Operator applies

This is for the handling station to write down whom they sent the message to. This field is only for the bookkeeping of the handling station.

(Taken from: NC ARRL Section, January 18, 2002)

ATTACHMENT #3 – Message Form

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							

REC'D				SENT			
FROM				TO			
DATE				DATE			
TIME				TIME			
<p>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, CONN. 06111</p>				<p>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 COMMUNICATIONS AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATION-WIDE MESSAGE HANDLING.</p>			
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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							

REC'D				SENT			
FROM				TO			
DATE				DATE			
TIME				TIME			
<p>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, CONN. 06111</p>				<p>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 COMMUNICATIONS AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATION-WIDE MESSAGE HANDLING.</p>			
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Message LOG		1. Incident Name:		2. Operational Period: Page ___ of ___		
No.	Date/Time	From	To	Summary	Action Taken	Reply Required/ Reply Complete