

Traffic Routing & Message Handling



Traffic Routing

Where do I send this message?

WA. State RACES Plan Outline

THE BIG PICTURE!

- The purpose of this plan is to provide guidance, establish responsibility, and ensure coordinated operations between State of Washington government officials (state/local) and the RACES organizations during times when there are extraordinary threats to the safety of life and/or property.
- This plan, though issued separately, will be considered as the Tab D to Appendix 1 (Telecommunications) to Emergency Support Function (ESF) 2 of the state Comprehensive Emergency Management Plan.

ANNEX A (NETWORK LEVELS) TO STATE RACES PLAN

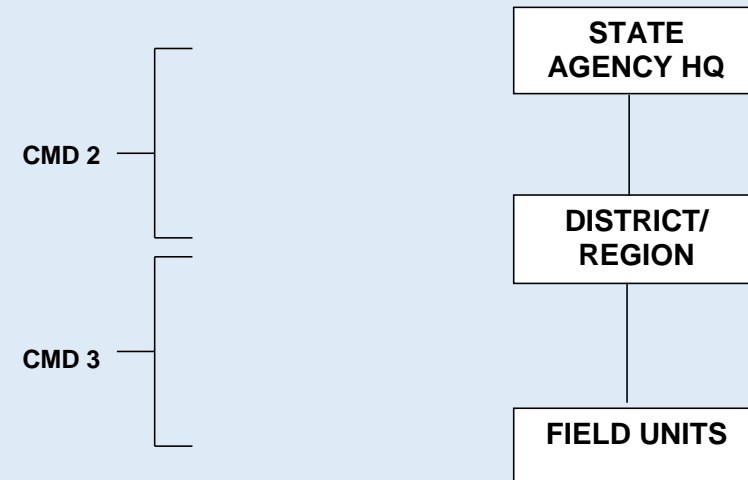
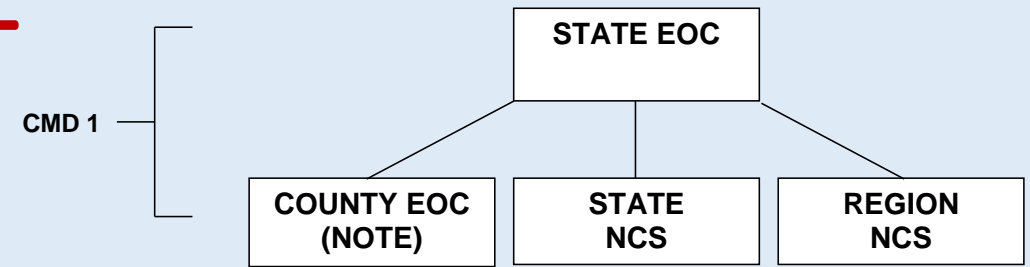
The purpose of this annex is to describe and provide guidance on the implementation of the state and local level networks using amateur radio.

NETWORK LEVELS

For purposes of network management and control, state and local network levels will be established, as needed, to ensure emergency back-up communications are planned/coordinated for and are available to support emergency/disaster operations of the state. Three network levels at both the state and local level have been identified and are defined below.

NETWORK LEVELS - STATE

- State Command 1 (CMD 1)
- State Command 2 (CMD 2)
- State Command 3 (CMD 3)

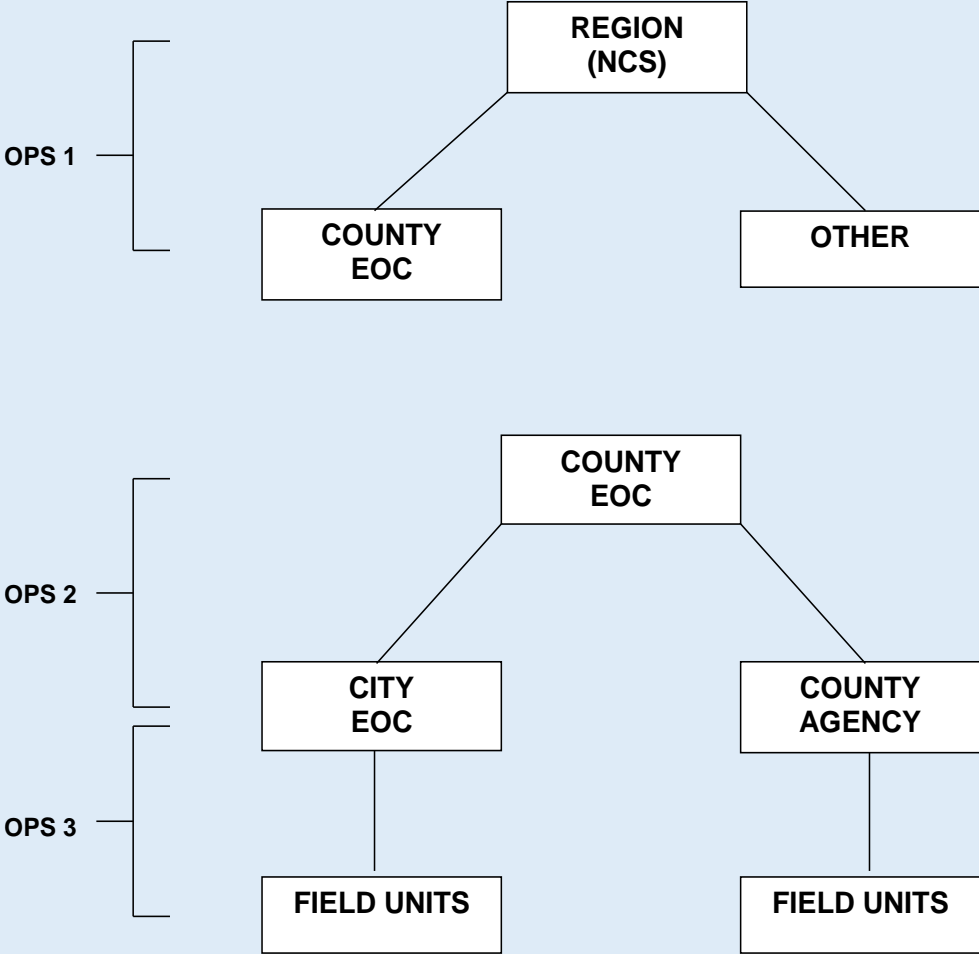


NOTE: COUNTY EOC ON CMD 1 TO PASS "EMERGENCY" TRAFFIC ONLY. MAY PASS "PRIORITY" TRAFFIC IF REGION NCS IS NOT ABLE TO RELAY.



NETWORK LEVELS - LOCAL

- Local Operations 1 (OPS 1)
- Local Operations 2 (OPS 2)
- Local Operations 3 (OPS 3)



Nothing stays the same.....

- State EMD is discussing changing the whole organizational structure of Emergency Communications in the state.
- We don't know what it will look like yet
- **STAY TUNED!!!**

Who can hospitals send message traffic to?

- - King Co EOC – Regional NCS CMD-3/OPS 1
 - Local EOCs - OPS 2
 - Public Health EOC - OPS 2
 - NWHRN – OPS 3
 - Hospital EOC to EOC - OPS
 - Medical vendors (if they have radios and operators



National Traffic System

- The National Traffic Net is a radio net dedicated to relaying long distance messages from individuals in one part of the country to recipients in another part of the country.
- Regular Traffic Nets occur several times a day to relay routine messages
- During an emergency event, these nets are used to connect relatives in other parts of the country, or as Welfare nets.
- Traffic Nets rely strictly on the ARRL Radiogram format, unless there are other communication methods available. (By any means possible)

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, STATE, ZIP _____				
TELEPHONE NUMBER							

REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME

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 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. PRINTED IN USA

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AMATEUR MESSAGE FORM

Every formal radiogram message originated and handled should contain the following component parts in the order given.

I PREAMBLE a. Number (begin with 1 each month or year) b. Precedence (R, W, P or EMERGENCY) c. Handling Instructions (optional, see text) d. Station of Origin (first amateur handler) e. Check (number of words/groups in text only) f. Place of Origin (not necessarily location of station of origin) g. Time Filed (optional with originating station) h. Date (must agree with date of time filed)	CW MESSAGE EXAMPLE I NR I R HXG WIAW 8 NEWINGTON CONN 1830Z JULY 1 a b c d e f g h II DONALD SMITH AA 164 EAST SIXTH AVE AA NORTH RIVER CITY MO 00789 AA 735 4968 BT III HAPPY BIRTHDAY X SEE YOU SOON X LOVE BT IV DIANA AR
II ADDRESS (as complete as possible, include zip code and telephone number)	
III TEXT (limit to 25 words or less, if possible)	
IV SIGNATURE	

Note that X, when used in the text as punctuation, counts as a word.
 CW: The prosign AA separates the parts of the address. BT separates the address from the text and the text from the signature. AR marks end of message; this is followed by B if there is another message to follow, by N if this is the only or last message. It is customary to copy the preamble, parts of the address, text and signature on separate lines.
 RTTY: Same as cw procedure above, except (1) use extra space between parts of address, instead of AA; (2) omit cw procedure sign BT to separate text from address and signature, using line spaces instead; (3) add a CFM line under the signature, consisting of all names, numerals and unusual words in the message in the order transmitted.
 PACKET/AMTOR BBS: Same format as shown in the cw message example above, except that the AA and AR prosigns may be omitted. Most amtor and packet BBS software in use today allows formal message traffic to be sent with the "ST" command. Always avoid the use of spectrum-wasting multiple line feeds and indentations.
 PHONE: Use *prowords* instead of prosigns, but it is not necessary to name each part of the message as you send it. For example, the above message would be sent on phone as follows: "Number one routine HX Golf WIAW eight Newington Connecticut one eight three zero zulu July one Donald Smith Figures one six four East Sixth Avenue North River City Missouri zero zero seven eight nine Telephone seven three three four nine six eight Break Happy birthday X-ray see you soon X-ray love Break Diana End of Message Over. "End of Message" is followed by "More" if there is another message to follow. "No More" if it is the only or last message. Speak clearly using VOX (or pause frequently on push-to-talk) so that the receiving station can get fills. Spell phonetically all difficult or unusual words—do not spell out common words. Do not use cw abbreviations or Q-signals in phone traffic handling.

PRECEDENCES

The precedence will follow the message number. For example, on cw 207 R or 207 EMERGENCY. On phone, "Two Zero Seven, Routine (or Emergency)."

EMERGENCY—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 commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very rare*. On cw, RTTY and other digital modes this designation will always be spelled out. When in doubt, do not use it.

PRIORITY—Important messages having a specific time limit. Official messages not covered in the Emergency category. Press dispatches and other emergency-related traffic not of the utmost urgency. Notification of death or injury in a disaster area, personal or official. Use the abbreviation P on cw.

WELFARE—A message that is either a) an inquiry as to the health and welfare of an individual in the disaster area b) an advisory or reply from the disaster area that indicates all is well should carry this precedence, which is abbreviated W on cw. These messages are handled *after* Emergency and Priority traffic but before Routine.

ROUTINE—Most traffic normal times will bear this designation. In disaster situations, traffic labeled Routine (R on cw) should be handled *last*, or not at all when circuits are busy with Emergency, Priority or Welfare traffic.

Handling Instructions (Optional)

HXA—(Followed by number.) Collect landline delivery authorized by addressee within miles. (If no number, authorization is unlimited.)

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

HXC—Report date and time of delivery (TOD) to originating station.

HXD—Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered report date, time and method of delivery.

HXE—Delivering station get reply from addressee, originate message back.

HXF—(Followed by number.) Hold delivery until (date).

HXG—Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station.

For further information on traffic handling, consult the Public Service Communications Manual or the ARRL Operating Manual, both published by ARRL.



Matching Traffic to Destination

Who needs the information?

Who can provide the resources needed?

How important/timely is it needed?

Start locally!

Is the information or resource request medically related?

Does the information or need relate to infrastructure or other non-medical “stuff”?

Is there a specific designee or addressee, and where are they located?



Message Handling

- MST Primary Mission: Delivering and Receiving hospital message traffic to one or many addressees
- Agility: “When in Rome” – Situational and Conditional process application. (Rome being the operational network being communicated with)

Effective Message Handling

- Increase effectiveness with Repeatable Consistency and Standardization
- Maintain Circuit Discipline
- Use Prowords to aid in brevity
- Prioritization – use precedences to triage (sort) message traffic
 - Precedence is in the eye of the originator

Prioritizing messages

ARRL Precedence format

Priority	Description	Notes
Emergency	Life and Death Urgency	Always Spelled Out in Preamble
Priority (P)	Non-Emergency	Use abbreviation P for Digital. Specific Time Limit
Routine (R)	Non-Emergency – Default	<u>During Disaster</u> : Handled Last or Not-At-All

Hospital Incident Command System

Priority	Description	Notes
Urgent – HIGH	Life and Death Urgency	
Non-urgent – MEDIUM	Non-Urgent	
Informational - LOW	Non-Emergency – Default	<u>During Disaster</u> : Handled Last or Not-At-All

HICS-213 and ICS-213 – General Message Form

○ HICS-213 and ICS 213 – General Message Form

- Used to record incoming messages that cannot be orally transmitted to the intended recipients.
- The HICS and ICS 213 forms are used to transmit messages between agencies (status information, other coordination issues, etc.).
- This form is used to send any message or notification to incident personnel that require hard-copy delivery
- WA ICS 213 RR forms are specifically used only for ordering resources

MST Uses HICS by Default – We Communicate Hospital Information



Which Form to use

- Use HICS-213 forms for Hospital-To-Hospital Message Traffic.
- USE ICS-213 forms for Hospital to Emergency Operations Centers, or other outside agency directed traffic .
- USE WA ICS-213RR to order resources – supplies, equipment, personnel, from either medical or non-medical sources – one type of item per form
- State EMD only accepts ICS-213 or 213RR – loads directly into WEBEOC
- **FEMA ICS-213 uses identical format EXCLUDING Priority**
- ARRL Radiogram – MST does not use for mission Operations

Message Composition

- **Typed or hand-written preferred.**
- **Block letters make it easy for others to read.**
- **Encourage Originators to use Short sentences.**
- **Reduce word count when possible.**
 - **Words not counted for HICS / ICS transmission.**
 - **In the event a long message must be transmitted over voice, shorter is better.**
- **Don't EDIT a message from an originator!**

Message Transmission - Voice

- **Message Handling is not a conversation or Rag Chew.**
 - **Save your Wit and Humor for Non-Emergency Amateur Radio communications.**
- **Listen - Initiate - Request - Wait - Transmit - Confirm - Conclude**
- **Wait for Instruction by Net Control.**
- **Radio circuit discipline is a fundamental ingredient of voice procedure without which a radio net cannot function efficiently.**

Message Transmission - Voice

- **Speak with a Rhythm:**
 - Parse your words.
 - Short sentences divided into sensible phrases which maintain a natural rhythm.
 - When pauses occur between phrases, unkey and let other stations break as required.
- **Speak Slowly.**
- **Speak Clearly.**
 - Use normal voice volume under normal ambient noise conditions.
 - Shouting / too near microphone creates distortion.
 - Slightly higher pitch than normal conversation to improve clarity (frequency response).

Aids to Brevity

- **Get in the Habit of Using Your Prowords instead of whole sentences:**
- **Refer to Handout or . See [ACP 125 Annex A to Chapter 3](#) for more.**

Message Transmission - Digital

Digital is AWESOME!

However! Never send a message with an Emergency or Priority precedence via digital messaging

- Anticipated delivery/response times during a disaster:
 - Emergency – 0-2 hours
 - Priority – 2-12 hours
 - Routine – 12-48 hours, or longer

SUMMARY

- Remember – local communications are first level
- Any Idjit can press a button to send a message.
 - It takes a Village to send and receive Voice message traffic. 😊

QUESTIONS?



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