



HF Interoperable Communications
“We can hear you now”

Some History on the 60M Band

- FCC Granted amateur access on secondary basis in July 2003
- Coordinated between NTIA and FCC
- Federal Government is still the primary user
- Why?
 - Looking for availability of 5MHz for amateurs
 - Could be used for emergency coordination
 - Available until the WRC allocated a 5MHz allocation

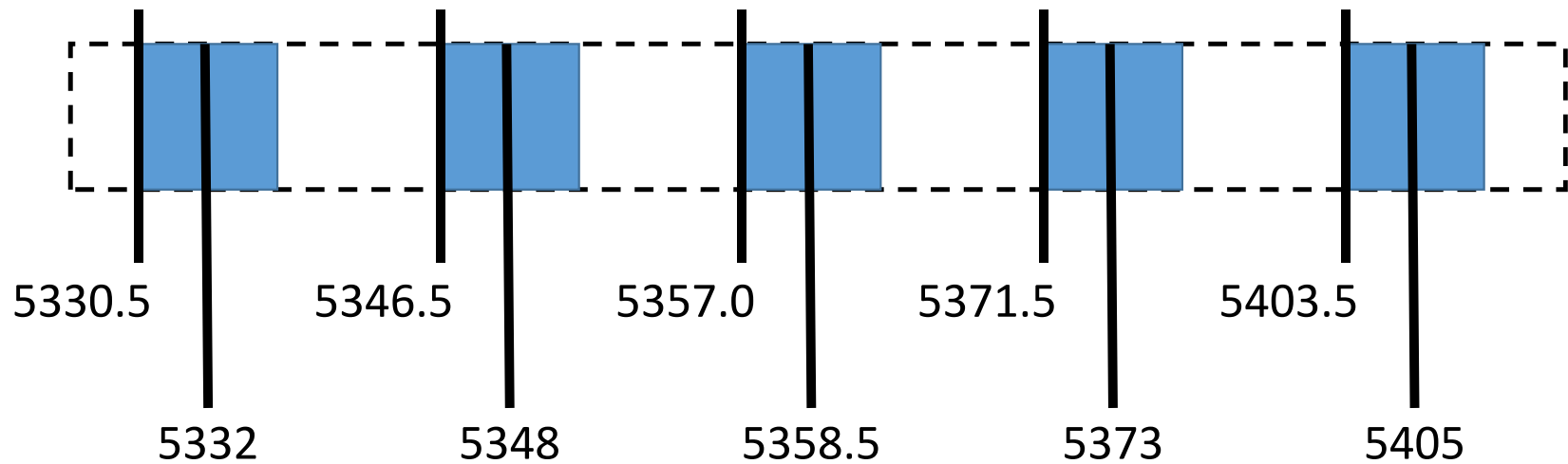
Primary Users of the Frequencies

- Coordinator is FEMA
- Joint use with
 - Army
 - Air Force
 - Department of Homeland Security
 - United States Coast Guard
 - Department of Commerce
- Federal use is limited to 3 KW

The Rules for Use of 60M Band

- 5 “Channels”
- General, Advanced, or Amateur Extra
- Modes
 - USB Voice
 - CW
 - RTTY
 - Data
- Maximum Power = 100W PEP
- Bandwidth Not To Exceed 2.8 kHz
- No automatic operations

Channelized Operations



USB Operations

- Tune to the “Dialing Frequency”
- Centers on the channel frequency

Digital Operations

- Tune to the “Dialing Frequency”
- Place transceiver in USB mode
- Set center at 1500 Hz
- No Unattended automatic operation

Region X HF Interop Exercises

- Initiated during Cascadia Rising Exercise
- Determined need to keep practicing
- Supported by FEMA, NTIA and FCC
- Interoperability between
 - FEMA/States
 - DHS/SHARES
 - USCG/Aux
 - US Army/NG/MARS
 - US Air Force/NG/MARS/CAP
 - DOC/NTIA/NOAA/NWS
 - US Amateur Operators

How can Amateurs do this?

§97.111 Authorized transmissions.

(a) An amateur station may transmit the following types of two-way communications:

(3) Transmissions necessary to exchange messages with a station in another FCC-regulated service while providing emergency communications;

(4) Transmissions necessary to exchange messages with a United States government station, necessary to providing communications in RACES; and

(5) **Transmissions necessary to exchange messages with a station in a service not regulated by the FCC, but authorized by the FCC to communicate with amateur stations.** An amateur station may exchange messages with a participating United States military station during an Armed Forces Day Communications Test.

How can Amateurs do this?

- Coordinated by FEMA with NTIA and FCC
 - Request generated
 - Specific Dates/Times
 - Specific Frequencies
 - Specific Users
 - FEMA Spectrum Manager Reviews
 - Notification sent to NTIA, FCC and ARRL
 - FEMA Spectrum Manager provides authorization

How can Amateurs do this?

FEMA Region 10 will be conducting scheduled Communications Exercises (COMMEX) on the above dates/time. The intent of this COMMEX is to test and exercise interoperable communications (Federal/State/Local/Tribal/Amateur) during a major disaster where communications infrastructure would be significantly damaged or destroyed.

FEMA Region 10 will be using call sign WGY910. Other stations that may be participating in this exercise include, but not limited to, other FEMA stations, SHARES, Air Force and Army MARS. Stations are encouraged to participate.

The COMMEX will use the following suppressed carrier reference frequencies, also known as dial frequencies or window frequencies, 5330.5 kHz, 5346.5 kHz, 5357.0 kHz, 5371.5 kHz, and 5403.5 kHz as part of the exercise. Amateur Radio operators may recognize these frequencies as the 5 channels at 5 MHz (60 meter band) where the Amateur Radio Service has secondary status.

The area of operation is the Continental United States.

FEMA POC: Dave Adsit, KG4BIR, FEMA Spectrum Manager, 540-272-4605, david.adsit@fema.dhs.gov.

Non-US Amateur Operators

- FCC authorization to contact Federal stations does NOT cover amateurs outside of the United States
- Amateurs outside of the US must follow their own laws and regulations
- In some cases, foreign amateurs may be able to relay thru a US amateur
 - KNOW AND UNDERSTAND YOUR COUNTRY'S RULES!

Region X 60m Concept of Use

- Net Control is FEMA Region X
 - May assign alternate NCS as needed
- WILL NOT supersede chain of coordination
 - Not intended for direct FED coordination with local jurisdiction
- Information Sharing/Coordination
- Meet and move for discussions
- Public Messages for media (monitoring)
 - Federal license use

Concept of Use

Channel 1: Calling Frequency

Channel 2: Data

Channel 3: Tactical/Working

Channel 4: Tactical/Working

Channel 5: Tactical/Working

Alternate Calling Freq

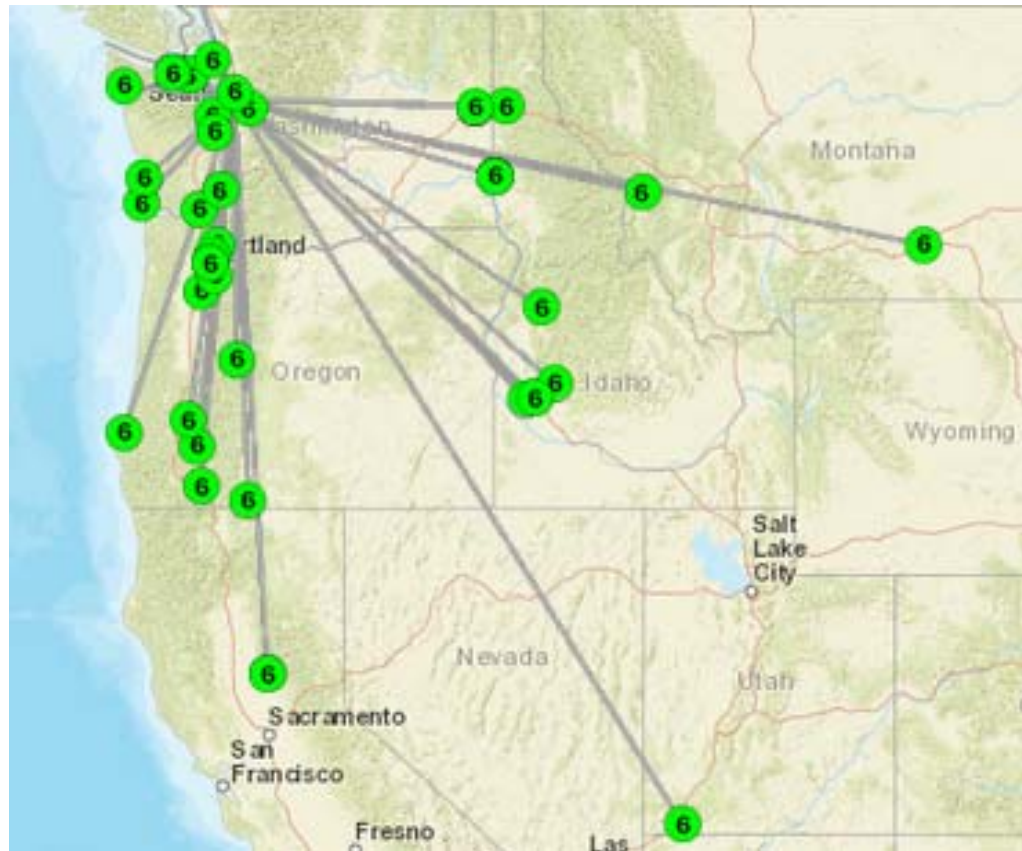
3rd Wednesday Region X COMMEX

- Coordinated with FCC and NTIA thru 2017
- All times are ZULU
- Voice on Channel 1
- Data on Channel 2
 - FL Messenger
 - BPSK31
 - MT63-2KL
- State by State Check-ins
- Location and Message Reception
- Winlink test as well

1730Z	Open net, delay check-ins
1735Z	Net Control sends first digital message (BPSK31)
1740Z	Net Control repeats first digital message using MT63-2KL
1745Z	Net control calls for check-ins and reports
1815Z	Net control transmits 2 nd digital message (BPSK31)
1825Z	Net control re-transmits 2 nd digital message using MT63-2KL
1827Z	Net control calls for additional check-ins and reports
1850Z	Net control closes the net

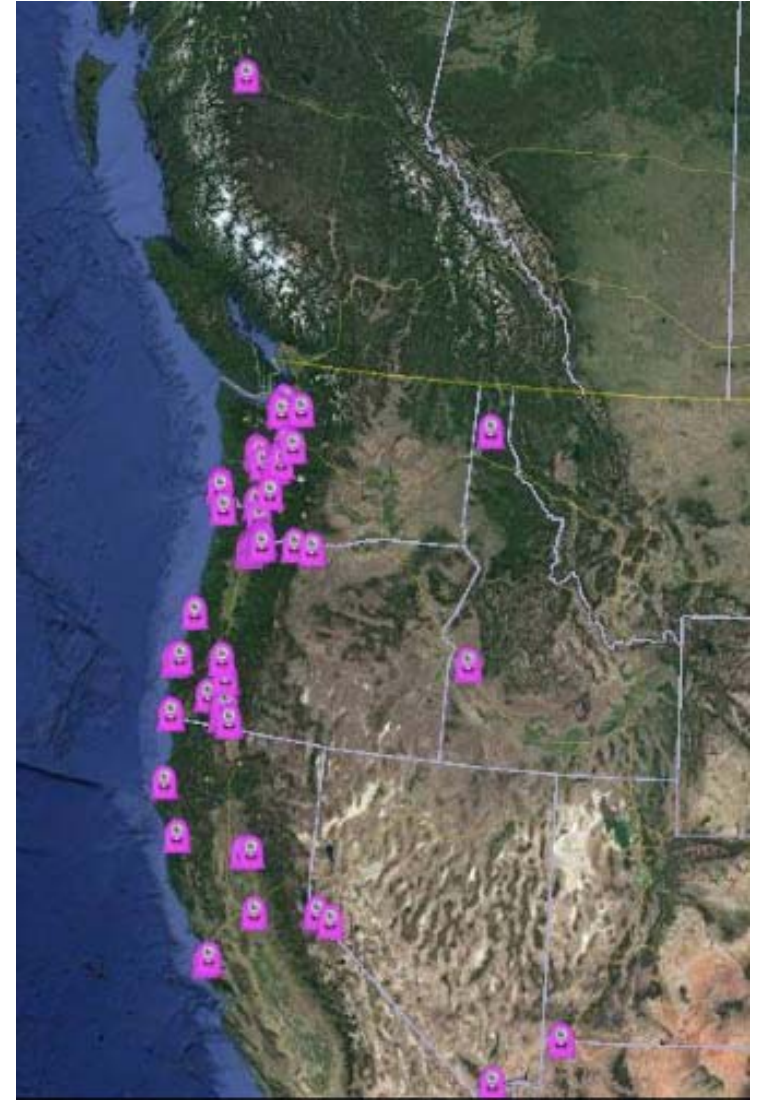
3rd Wednesday Region X COMMEX

- Average 54 check-ins
- Participants
 - States
 - Tribes
 - Local Jurisdictions
 - MARS
 - SHARES
 - USCG
 - National Guard



Five Dot Three Net

- Weekly Amateur 60M Net
 - Mondays 1300-1400 Pacific
 - 2nd & 4th Saturday 1700 Pacific
- NCS is Christine, AF7OK
- Contact/Info
 - af7ok@arrl.net
 - Facebook: Five Dot Three Net
 - Twitter: @FiveDotThree



FEMA Amateur Call Signs

- Any 2-by-3 format call sign having the letters AF, KF, NF, or WF as the prefix and the letters EMA as the suffix are designated as US Government FEMA stations
- Users of FEMA callsigns are licensed amateur operators
- Will only operate in the bands authorized by individual license
- Now in the ULS!

FEMA Region X

KFOEMA

WINLINK

KFOEMA@Winlink.org

Questions/Discussion



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