Amateur Radio Emergency Communications Interoperability Plan

Washington State
Homeland Security Coordination
Region 1

3 September 2022 Revision 2.1

Island County
San Juan County
Skagit County
Snohomish County
Whatcom County
Disaster Medical Coordination Center

Revision History

This document was significantly updated from 6 April 2017 revision. Current revision nomenclature was initialized with this publication.

28 May 2019 - Draft Review 31 May 2019 - Rev 1.0 8 June 2019 - Rev 1.1 First Review at Region 1 Management meeting 10 June 2019 – Rev 1.2 Working Ready for publication 25 June 2019 – Rev 1.3 1 July 2019 – Rev 1.4 Changes to 7.1, 11.6 and 15.2 24 March 2020 - Rev 1.5 Change to 11.1, 11.2, 12.4,12.5 and 15.4 11 July 2020 – Rev 1.6 Changes to 6, 7, 7.1 and 14 Changes to 5, 11-11.6, 14, Appendix A ICS-217A 28 July 2020 – Rev 1.7 17 September 2020 – Rev 1.8 Changes to 7, 7.3, 12.4, 12.5, 13, 14, 15.2, 15.4 11 February 2021 – Rev 1.9 Changes to 3, 4, 11.3, 11.5, 11.6, 12.5, 13, 15 App. A, 15.1, 15.2 16 September 2021 – Rev 2.0 Changes to 12.4, 15.4 3 September 2022 - Rev 2.1 Changes to 4, 7.1,11.1, 11.2, 11.3, 11.4, 11.6, Appendix A, 15.1

Approvals

George Boswell (DEC) K7YHB

Scott Honaker (ADEC) N7SS

This page left blank

1. Table of Contents

2.	Ove	rview	6
3.	Sco	pe	6
4.	Res	ponsibilities	6
5.	Voic	e Communication	7
6.	Digit	tal Communication	7
7.	Eme	ergency Activation	8
7	.1. \$	Start of Emergency Operations	8
	Net	Start Script	8
7	.2. [During Emergency Operations	9
	Peri	odic Net Notifications	9
7	.3. F	Following Emergency Operations	9
	Clos	sing Net Notification Script	9
8.	Net	Control Station	10
9.	Wee	ekly Net	10
10.	Str	ructure	10
11.	EC	CC/EOC OPERATIONS	11
1	1.1 I	sland County EOC	11
1	1.2 S	San Juan County EOC	12
1	1.3 S	Skagit County EOC	13
1	1.4 S	Snohomish County ECC	14
1	1.5 V	Vhatcom County ECC/EOC	16
1	1.6 D	Disaster Medical Coordination Center	18
12.	En	nergency Communications Mutual Aid	20
1	2.1	Island County	20
1	2.2	San Juan County	20
1	2.3	Skagit County	20
1	2.4	Snohomish County	21
1	2.5	Whatcom County	23

13	Washington Region 1 Communications Links	24
14	References	25
	Appendices	
	ndix A – ICS form 217A	
15.1	County Capability Comparison	29
15.2	2 Acronyms/Definitions	30
15.3	3 Confidential Contact List	31
15.4	1 Other Resources	31

2. Overview

This document provides the operational parameters, methods and procedures to support emergency amateur communication between the five counties of the Washington Regional Homeland Security Coordination Region 1, hereafter referred to as Region 1.

3. Scope

This document covers the Amateur Radio intra-region communication between Island County, San Juan County, Skagit County, Snohomish County, Whatcom County, and the Disaster Medical Coordination Center (DMCC). It is also intended to provide a reference to adjacent regions in Washington State and British Columbia, Canada. This plan augments but **does not** supersede the amateur radio emergency communications plans of the respective counties. This plan **does not** imply a correlation to any EOC/ECC organization or scope of operations.

4. Responsibilities

Each jurisdiction within Region 1 is responsible to:

- a. Implement their respective communication plan
- b. Monitor the Primary OPS1 Frequency during regional emergency activation
- c. Assure communications are intact within the context of this document
- d. Participate in roll call during activation
- e. Notify ARES District Emergency Coordinator of changes to frequency utilization
- f. Notify ARES District Emergency Coordinator of changes to contact information in this document

The amateur radio emergency communications leader for all of Washington Region 1 (ARES District Emergency Coordinator) is responsible to maintain this document and coordinate the interrelationships between jurisdictional emergency plans within Region 1.

Each ECC/EOC, or the Region 1 NCS if activated, may establish contact with other Region 1 counties. Contact may also be made with other jurisdictions, state ECC/EOCs, and other entities specified in the Washington State Comprehensive Emergency Management Plan as required to facilitate communications.

5. Voice Communication

Communication between the county ECC/EOC's will be conducted on the following analog FM voice repeaters in order of priority depending on equipment, conditions, or operational desires.

	Alpha			Rx		Tx		
Function	Tag	Assignment	Rx Freq	Tone	Tx Freq	Tone	Mode	Remarks
Command	CULT40	Region 1 Net	444.625 W	103.5	449.625 W	103.5	Α	OPS1 Primary
Command	LOOK4O	Region 1 Net	442.250 W	156.7	447.250 W	156.7	Α	OPS1 Backup #1
Command	CONY21	Region 1 Net	224.480 W	103.5	222.880 W	103.5	Α	OPS1 Backup #2

Other frequencies can be used as conditions necessitate using information from the Regional ICS-217 located in the appendix of this document.

6. Digital Communication

Digital communication between the county ECC/EOC's, if used, will use WinLink through one of the local gateway stations or Telnet.

Message content should include the originating stations ECC/EOC affiliation. A call sign is not sufficient to identify sender agency in an emergency.

This digital mode is intended to augment not replace voice communication.

Messages should be sent to the county email address found in Section 11 County ECC/EOC Operations of this document.

7. Emergency Activation

Activation of the Washington Region 1 net may occur in one of the following ways:

- 1. As agreed upon in advance by the amateur radio emergency communications leaders in the Washington Region 1 (for training and exercises).
- 2. At the request of the amateur radio emergency communications leader in an affected area.
- 3. Self-activation by an authorized NCS operator after a disaster or emergency strikes, and when no amateur radio emergency communications leader can be contacted.

It is presumed the Region 1 net would be activated because of a major emergency event significant enough that a county ECC/EOC has been activated within the region. Once activated, and after the start of the regional net, each County ECC/EOC will simply monitor the OPS-1 frequency rather than maintain a formal net. During the net activation, the Net Start Script will be run at the start of every Operational Period or change of Net Control Station.

7.1. Start of Emergency Operations

The regional net shall be established on the Primary Repeater, or if that is not possible, the net shall be established on the Backup#1 Repeater, or if that is not possible, the net shall be established on the Backup#2 Repeater. If these Repeaters are not operational, then all means shall be used to contact other county ECC/EOC's to establish a common frequency for the current emergency. Once the net is established it becomes the active repeater for the duration unless the Net Control Station decides to change frequency.

Net Start Script

This is {call sign} in {name} County, Washington, calling the Washington Region 1 Emergency Operations Net. The purpose of this net is to support and maintain the emergency communications capabilities of Washington Region 1 Emergency Coordination and Operations Centers in Island, San Juan, Skagit, Snohomish, and Whatcom counties.

This net is now activated to provide inter-jurisdictional communications.

This net is limited to stations operating from a county ECC/EOC's, and the Disaster Medical Coordination Center. Other stations involved with emergency communications should contact the net control station within their respective county.

We will now conduct a roll call, please answer in order called.

- Island County ECC/EOC
- San Juan ECC/EOC
- Skagit County ECC
- Snohomish County ECC
- Whatcom Unified ECC
- DMCC

Is there any traffic for the net?

This net shall remain in effect on this frequency with all stations monitoring for traffic. This is not a directed net. If you have traffic for the net, place your call as needed.

This is {call sign} in {name} County monitoring.

7.2. **During Emergency Operations**

During an emergency activation each jurisdiction shall monitor the active repeater for Region 1 traffic.

Periodic Net Notifications

This is {call sign} in {name} County, Washington, net control for the Washington Region 1 Emergency Operations Net. This net has been activated to provide inter-jurisdictional communications for the current {type} emergency affecting our region. This net is limited to stations operating within a state or county ECC/EOC. Other stations involved with emergency communications should contact the Net Control Station within their county. Your voluntary cooperation in maintaining a clear frequency for emergency operations is very much appreciated. ECC/EOCs may directly contact each other or the NCS at their discretion.

Periodic roll calls shall be conducted by the Net Control Station to assure the net remains viable. For periodic roll calls use the script in <u>Net Start Script</u> above.

If communications between counties becomes unusable, the Net Control Station shall take steps to move to a backup frequency and inform all counties of that change.

7.3. Following Emergency Operations

Following an emergency activation this net shall be closed by the Net Control Station and release the repeater to normal use. The deactivation, of the net, will come from the declaring Emergency Manager (except for drills/training exercises).

Closing Net Notification Script

This is {call sign} in {name} County, Washington. The Washington Region 1 Emergency Operations Net, providing inter-jurisdictional communications for the current {type} emergency affecting our region, is now closed.

We would like to thank the repeater owners and all stations for helping to maintain a clear frequency for emergency operations. This frequency is returned to normal amateur use. {call sign}

8. Net Control Station

Any county jurisdiction may assume the role and responsibility of the Net Control Station. This responsibility can be transferred to another jurisdiction at any time with mutual agreement.

The Region 1 Net Control Station is responsible for:

- a. Maintaining communication between all jurisdictions.
- b. Establish the active repeater
- c. Initiate net operations
- d. Conduct a periodic roll call
- e. If repeater becomes unusable, move net to another repeater
- f. Release the repeater for normal use

Communication between counties does not require intervention by the NCS.

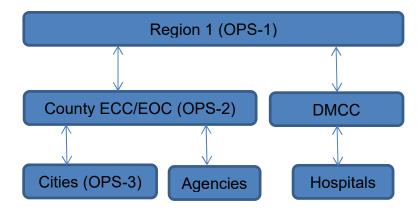
9. Weekly Net

To support and maintain the Region One emergency communications viability, a weekly net shall be established every Tuesday at 1000 hours local time. The current script and report log are found in the OPS-1 Net Script.xls file, posted on the www.WA7DEM.info web site. This format may change periodically, so it is important all Net Control Stations assure they are using the latest script. At completion of the net, forward the completed report to the net manager, rmhawkinson@comcast.net.

The ongoing compilation of net check-in will be provided online for all jurisdictions to view.

10. Structure

Regional communication is structured to control the scope of command and communication. The methodology to conduct nets and communicate information shall follow the following. As example the cities within a county will communicate with their respective County ECC/EOC. This should not be confused with the ICS Command structure.



11. ECC/EOC OPERATIONS

11.1 Island County EOC

Location 855 E. Whidbey Avenue, Oak Harbor, WA 98277

WinLink KI7WND@winlink.org
Tactical Call Sign Island County EOC
Radio Rm Phone (360)279-4700

Contact Robert E. Stephens AF9W EC/RO

Willie Oliver KD7X AEC/MARS

Capabilities VHF/UHV Voice

VHF/UHF Packet
VHF Low (6 Meters)
HF Voice (10-80 Meters)
Access to a WinLink Gateway

CEMNET

Served Agencies Whidbey Health Medical Center

Red Cross Northwest Washington

Camano Island

Medical Reserve Corps

Coupeville NET

NAS Whidbey Naval Health Clinic Oak Harbor

NAS Whidbey ECC/EOC Camano Fire & Rescue

Island County MOC (no matter where it is located)

Camano ARES

Camano Island Yacht Club

Skagit Regional Health, Camano Island Clinic

Website http://www.w7avm.org/Public-Service

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
W7AVM	146.860 W	127.3	146.260 W	127.3	Α	Primary voice Linked 147.220
W7AVM	147.220 W	127.3	147.820 W	127.3	Α	Primary Voice Linked 146.860

11.2 San Juan County EOC

Location San Juan Island FD, 1011 Mullis Street

Friday Harbor, WA 98250

WinLink KE7KMN@winlink.org

Tactical Call Sign San Juan EOC

Radio Rm Phone 360-378-9920 Only available during EOC Activation

Contact Bryan Hoyer, K7UDR EC/PIMC

Ed Kelm, KD7TUN AEC Mullis Fire

Capabilities VHF/UHF Voice (2m, 1.25m, 70cm)

VHF Packet
HF Voice
HF Pactor
VHF Low band
Air Band
CEMNET

Served Agencies Sheriff/Dispatch

Town of Friday Harbor

San Juan Fire Orcas Fire Lopez Fire Shaw Fire San Juan EMS

Red Cross San Juan County
Peace Island Medical Center

Website sjcars.org

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
Cady 11	146.700 W	131.8	146.100 W	131.8	Α	Cady Mountain
NET-16	144.910	none	144.910 W	none	Α	Simplex JNBBS/Winlink
Cony21	224.480 W	none	222.880 W	103.5	Α	Alternate/optionally Linked to Cady 11
Cady41	443.450 W	none	448.450 W	103.5	Α	Linked to Cady 11

11.3 Skagit County EOC

Location 2911 E. College Way, Mount Vernon 98273

WinLink KF7CFR@winlink.org
Tactical Call Sign Skagit County EOC
Radio Rm Phone 360-416-1858

Contact VACANT EC/RO

Capabilities VHF/UHF Voice (6/2/1.25 Meters/70cm)

VHF Packet (145.050, 145.630)

HF Voice

HF Pactor, WINLINK ARDOP

CEMNET

Winlink Gateway KF7CFR-10, KF7CFR-11 (VARA FM)

Outpost

Served Agencies Red Cross Northwest Washington

Skagit Valley Hospital

PeaceHealth United General Medical Center

Island Health

City of Sedro Woolley
City of La Conner
City of Anacortes
Anacortes Fire
Bayridge Fire
Sedro Woolley Fire
Samish Island Fire

Website https://wwwskagitcounty.net/Departments/Emergencymanagement/main.htm

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
LYMAN	145.190 W	127.3	144.590 W	127.3	Α	Primary

11.4 Snohomish County EOC

Location 720 80th St SW, Building A, Everett 98203

Winlink WA7DEM@winlink.org
Tactical Call Sign Snohomish County EOC

Radio Rm Phone 425-388-5099

877-726-8394 (Sat Phone)

8054 (HamWan)

425-388-5060 (ECC Direct)

Contact Scott Honaker, N7SS RO

Gary Nevius, KF7NFB EC

John Sullivan, KG7WFQ R1-HCC

Capabilities VHF/UHF Voice (6m/2m/1.25m/70cm/33cm/23cm)

VHF/UHF Packet

VHF Low

800 MHZ Trunking 2m/70cm/23cm DSTAR HF Voice (10-80 meters)

HF ARDOP

WinLink Gateway (449.400MHz)

Mobile Communications Vehicle DEM10

CEMNET

Served Agencies Snocom 911

City of Arlington
City of Brier

City of Darrington
City of Edmonds
City of Everett
City of Granite Falls

City of Index
City of Lynnwood
City of Marysville
City of Mill Creek
City of Monroe

City of Montlake Terrace

City of Mukilteo
City of Snohomish
City of Stanwood
City of Sultan
City of Woodway
Stillaguamish Tribes

Served Agencies Cont. Tulalip Tribes

Cascade Valley Hospital Evergreen Health Monroe

Providence Regional Medical Center Everett (Colby Campus)

The Everett Clinics
Arlington Health
Bethany at Silver Lake
ARC Everett Office
Warm Beach Fire
Sauk Suiattle EOC

Oso EOC NESCOM

Naval Station Everett

ARC Camano ARC Snohomish County Office

Swedish Hospital Edmonds

Website www.wa7dem.info

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
GRANIT	146.9200 W	123	146.320 W	123	Α	Primary, Resource
CLEARV	442.9750 W	D172	447.9750 W	D172	Α	Backup
LYNNWD	146.7800 W	D172	146.1800 W	D172	Α	Backup
MTLAKE	443.7250 W	103.5	448.7250 W	103.5	Α	Backup
FIRE2	224.3800 W	103.5	222.7800 W	103.5	Α	Backup
FIRE4	444.2000 W	D172	449.7800 W	D172	Α	Backup

11.5 Whatcom County ECC/EOC

Location 3888 Sound Way, Bellingham, WA 98226 WinLink WC7HQ@Winlink.org WUECC WC7SO@Winlink.org ACS Van Tactical Call Sign WC7HQ Radio Rm Phone 360-778-7166 **VACANT** Contact RO Jim McCabe, AE7UQ EC/CBCG Capabilities VHF/UHF Voice (6m/2m/1.25m/70cm/33cm/23cm) VHF/UHF Packet VHF High 800 MHz Trunking Air Band Marine HF Voice (10-80 Meters) HF VARA/ARDOP WinLink EasyPAL **FLDigi** IWIN **EchoLink CEMNET** Served Agencies Whatcom County Sheriff **Nooksack Tribe** City of Bellingham City Blaine City of Ferndale PeaceHealth St. Joseph Medical Center Unincorporated areas in Whatcom County (ACS Groups operating under WCSOACS) WEB Site http://wecg.org/resources.php

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks					
ECC-O 147.5600 W 14		146.2	147.5600 W	00 W 146.2 A ECC OUTGOING		ECC OUTGOING SIMPLEX					
MTCONU	444.0500 W	103.5	449.0500 W	103.5	Α	Primary					
ACS-Usql	445.8250 W	146.2	445.8250 W	146.2	Α	Backup UHF Simplex					
Primary F	Primary Repeater Usage (for reference only) continued										

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
ACS-Vsql	147.5400 W	146.2	147.5400 W	146.2	Α	Backup VHF Simplex
MFSK128	147.5600 W	None	147.5600 W	None	D	Digital Traffic

11.6 Disaster Medical Coordination Center

Location (DMCC) Providence Regional Medical Center, 1700 13th St, Everett, WA 98201

WinLink KI7RYS@WINLINK.ORG (DMCC-REG1; tactical address)

Tactical Call Sign

Radio Rm. Phone

8057 (HamWan)

DMCC

Contact Gilbert "Bo" Bodrak Director, Safety, Security and Emergency

Management

Capabilities VHF/UHF Voice (6m/2m/1.25m/70cm)

VHF/UHF Packet 800 MHz Trunking

HF Voice (10-80 Meters)

HamWAN

Served Agencies Cascade Valley Hospital 330 Stillaguamish Ave, Arlington, WA

EvergreenHealth Monroe 14701 179th Ave SE, Monroe, WA

Island Health 1211 24th Street, Anacortes, WA

(DMCC Backup) Peace Health St. Joseph Med. Cent. 2901 Squalicum Parkway, Bellingham, WA

Peace Health United General Hospital 2001 Hospital Drive, Sedro Woolley, WA

Peace Island Medical Center 1117 Spring St, Friday Harbor, WA
Skagit Valley Hospital 1415 E Kincaid, Mount Vernon, WA
Swedish Hospital Edmonds 21607 75th Ave W, Edmonds, WA
The Everett Clinic – Gunderson 3927 Rucker Ave, Everett, WA

WhidbeyHealth Med. Cent. 101 North Main Street, Coupeville, WA

Naval Health Clinic Oak Harbor 3475 N. Saratoga St., Oak Harbor Bethany at Silver Lake 2235 Lake Heights Dr., Everett

Skagit County Public Health 700 South Second, Rm 301, Mount Vernon

Snohomish County Health Dist. 3020 Rucker Ave., Everett Snohomish County MRC 3020 Rucker Ave., Everett

Skagit Regional Health, Camano Island Clinic

127 E Camano Dr Suite A, Camano

Website https://sites.google.com/view/dmcc-net/

Alpha Tag	Rx Freq	Rx Tone	Tx Freq	Tx Tone	Mode	Remarks
LYMAN2	223.8600 W	103.5	222.2600 W	103.5	Α	Primary Net
LYMAN1	145.1900 W	127.3	144.5900 W	127.3	Α	Primary (during COVID-19 PANDEMIC)
LOOK2	224.1600 W	156.7	222.5600 W	156.7	Α	Backup Net
CULT5	53.5900 W	CSQ	51.8900 W	100.0	Α	Backup
CULT4O	444.6250 W	CSQ	449.6250 W	156.7	Α	Backup (during COVID-19 pandemic)

12. Emergency Communications Mutual Aid

The severity and size of an emergency will vary depending on conditions. If one part of the region has an exceptional need for additional resources, a request for help is expected. To address this potential, some equipment may be available for deployment beyond its jurisdiction. Below is a list of communication resources that may be available for mutual aid deployment.

12.1 Island County

No Deployable Resources

12.2 San Juan County

No Deployable Resources

12.3 **Skagit County**

27 Ft Motor Home

Voice HF, VHF, UHF, 6M, VHF Low, CB, FRS

Digital HF Pactor

Operating Positions 2

Power Battery / Generator

Interop Gateway No

Other Driver Radios



12.4 Snohomish County

Deployable Equipment

Also available at: http://www.wa7dem.info/equipment

Snohomish ACS and DEM maintains several resources that can be deployed during an incident.

The radio room has about 20 **800 MHz handheld** radios and 40 VHF/UHF ham/land mobile cache radios with accessories. There are also about 15 Motorola HT1250 UHF FM handhelds and 12 Motorola XPR6350 UHF DMR handhelds.

There is a small cache of mobile radios and magnetic mount antennas. There are three **Icom IC-208** radios in small Pelican cases with cigarette lighter power cords. There are also three **Powerwerx DB-750X** Dual Band ham/land mobile radios and five **Anytone AT-578UV** DMR Triband ham/land mobile radios.

The radio room has two **portable amateur radio kits** in rolling cases and a separate case with wire antennas, coax, twine for hanging antennas, instructions, notebook, and pens. The kits include a Yaesu FT-897 for HF-UHF and an Icom IC-880 dual band mobile for FM and DSTAR. DEM also has two **land mobile/air band** kits in rolling cases with antennas in a separate bag. The Harris XG-100M is a land mobile radio that covers VHF, UHF and 700/800MHz.

The ACS team built and maintains several portable repeaters. There is a portable VHF repeater on the DEM land mobile frequency (154.055/158.850) pair in a rolling case with a call sign of KIL405. This can be used in addition to the fixed sites at Oso, Clearview, and Whidbey Island. There is also a 443 SNP repeater that operates on the 443.000 shared non-protected amateur repeater frequency. Finally, there are also repeaters for the national interoperability channels of VTAC36 and UTAC43.

12.4 Snohomish County (continued)

COM1/COM2 are nearly identical 34' coaches designed as mobile command and communications vehicles.



DEM-10 is a mobile communications vehicle on an ambulance chassis with amateur, public safety and commercial radios.



The **Mobile EOC (MEOC)** in a 20' trailer designed to allow DEM to evacuate their current facilities and setup operations in any large room.

12.4 Snohomish County (continued)

Two **mobile highway signs** include AM broadcast band highway advisory radios on 600kHz and an MP3 player used to play the broadcast audio.



12.5 Whatcom County

WCSO ACS 4WD Communication Van

Blaine PD ACS Van

(SEE BELOW LINK)

Ferndale PD ACS Van

(SEE BELOW LINK)

WECG/ARES Comm Van

(SEE BELOW LINK)

Whatcom County Assets and Capabilities will not be listed here but are available at: bit.ly/WCACS-Assets.

Whatcom County has the capability to provide an Echolink node that can be linked to any repeater that is reachable from the van's location. The primary use of this Echolink facility should be when a distant command center with Internet needs to monitor local/regional traffic on one of our repeaters. The Internet side of the node will be linked via satellite TCP/IP. Availability of this service is solely at the discretion of the van operator due to the data and RF resources required to offer it. Direct requests for this resource to wcso_acs@co.whatcom.wa.us or WC7HQ@Winlink.org

13 Washington Region 1 Communications Links



It should be noted the State CEMNET Remote Base for Region 1 is located on Galbraith Mtn on a site adjacent to Lookout Mtn south of Bellingham.

NOTE: This map is for listing general locations only. Reference to ESCA to be ignored, organization disbanded.

14 References

This section of the United States Code, as published and as amended in the future, is made part of this plan:

• Title 47, Chapter 5, Subchapter VI, § 606 – War powers of President https://uscode.house.gov/view.xhtml?req=(title:47%20section:606%20edition:prelim) Text contains those laws in effect on July 9, 2020

These sections of the (United States) Code of Federal Regulations, as published and as amended in the future, are made part of this plan:

- Title 47, Chapter 1, §97.303(h) https://www.ecfr.gov/cgi-bin/text-idx?SID=8bd8c075bf9f4ab43aba110fe0d13c6c&mc=true&node=se47.5.97 1303&rgn=div8
- Title 47, Chapter I, §97.407 Radio Amateur Civil Emergency Service https://www.ecfr.gov/cgi-bin/text-idx?SID=0250ec299e80efaede4d154c90b2a820&mc=true&node=se47.5.97_1407&rgn=div8
- Title 47, Chapter II, §214 Use and Coordination of the Radio Spectrum During a Wartime Emergency https://ecfr.io/Title-47/pt47.5.214 https://www.govregs.com/regulations/title47_chapterII_part214_section214.6

Federal Emergency Management Agency Civil Preparedness Guide (FEMA-CPG)

Guidance for Radio Amateur Civil Emergency Service CPG 1-15 Dated March 1991

This document from the State of Washington Emergency Management Division, as published and as amended in the future, is made part of this plan:

 Washington State Comprehensive Emergency Management Plan, Emergency Support Functions (ESF) 2, Appendix 2: https://drive.google.com/file/d/0BwYBIJIzyaeUU1ZmMjJNTkVhWmc/view

The Amateur Radio Relay League

• Recommended practices of Title 47, Chapter 1, §97.303(h) in a PDF: "60-Meter Operations – New Privileges and Recommended Practices Version 6.5 – dated March 27, 2012", is available at: http://www.arrl.org/files/file/Regulatory/Recommended Practices Version 6 5.pdf

Western Washington Amateur Relay Association (WWARA), coordination of repeaters in Regions 1 through 6, available at: https://www.wwara.org/

15 Appendices

Appendix A – ICS form 217A

_	OMMUNICA 217A	ATIONS RES	OURCE AVAIL	ABILITY WO	RKSHE	ET	Frequence HF	y Band -UHF pg 1	of 3	Description Washington Region 1
	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users/Assignments/ Location	RX Freq N or W	RX Tone/NAC	TX Freq W	N or	Tx Tone/NAC	Mode A, D. or M	Remarks
1	HF LSB	WAEMD3	State	3.9850 MHz		3.9850) MHz		Α	State EMD
2	HF LSB	WAEMD7	State	7.2450 MHz		7.2450) MHz		Α	State EMD Alternate
3	HF USB	1	Gov/Amateur	5.3305 MHz		5.330	5 MHz		Α	Calling Channel
4	HF USB	2	Gov/Amateur	5.3465 MHz		5.346	5 MHz		Α	Data
5	HF USB	3	Gov/Amateur	5.3570 MHz		5.3570) MHz		Α	
6	HF USB	4	Gov/Amateur	5.3715 MHz		5.371	5 MHz		Α	
7	HF USB	5	Gov/Amateur	5.4305 MHz		5.430	5 MHz		Α	Alt. Calling Channel
8	HF DIGI	1	Gov/Amateur	5.3320 MHz		5.3320) MHz		D	Calling Channel
9	HF DIGI	2	Gov/Amateur	5.3480 MHz		5.3480) MHz		D	Data
10	HF DIGI	3	Gov/Amateur	5.3585 MHz		5.358	5 MHz		D	
11	HF DIGI	4	Gov/Amateur	5.3730 MHz		5.3730) MHz		D	
12	HF DIGI	5	Gov/Amateur	5.4050 MHz		5.4050) MHz		D	Alt. Calling Channel
13	2 MTR	APRS	APRS	144.3900 W	CSQ	144.39	900 W		D	APRS Channel
14	2 MTR		Camano Island	147.3600 W	127.3	147.96	600 W	127.3	Α	STANWOOD/CAMANO
15	222 MHz		Camano Island	223.8800 W	103.5	222.28	300 W	103.5	Α	SCARC
16	70CM		Camano Island	441.0500 W	127.3	446.0	500 W	127.3	А	STANWOOD/CAMANO (W7PIG) DSQ-031 FUSION
17	2 MTR	W7AVM	Island	146.8600 W	127.3	146.20	600 W	127.3	Α	LINK TO 147.22 (ICARC-Coupeville)
18	2 MTR	W7AVM	Island	147.2200 W	127.3	147.82	200 W	127.3	Α	LINK TO 146.86 (ICARC-Clinton)
19	2 MTR	NET-16	San Juan	144.910 W	CSQ	144.9	10 W	CSQ	A/D	
20	2 MTR	CADY11	San Juan	146.7000 W	131.8	146.10	000 W	131.8	Α	FRIDAY HARBOR SJCARC
21	2 MTR		San Juan	146.7400 W	127.3	146.14	400 W	127.3	Α	MBARC K7SKW@Orcas Isl
22	222 MHZ	CONY21	San Juan	224.4800 W	103.5	222.88	300 W	103.5	Α	OPS-1 Backup MT. CONST. SJCARS
23	70CM	CONY41	San Juan	443.4500 W	103.5	448.4		103.5	А	(N7JN) SJCARS

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25). All channels are shown as if programmed in a portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

ICS Form 217A continued

1	OMMUNIC <i>A</i> 217A	ATIONS RESOU	RCE AVAILAE	BILITY WORI	KSHEET	Frequency Band HF-UHF	pg 2 of 3	Des	Description Washington Region 1		
	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users/Assignments/ Location	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D. or M	Remarks		
24	70CM	MTCONU	San Juan	444.0500 W	103.5	449.0500 W	103.5	Α	MBARC K7SKW@Orcas Isl (K7SKW)		
25											
26	6 MTR	CULT5	Skagit	53.5900 W	100.0	51.8900 W	100.0	Α	Region 1 Cultus		
27	2 MTR	LYMAN1	Skagit	145.1900 W	127.3	144.5900 W	127.3	Α	ARES SAR ARC N7GDE@Skagit		
28	2 MTR	BRRPR	Skagit	146.4375 W	192.8	146.4375 W	CSQ	D	Lyman Packet Repeater		
29	222 MHz	LYMAN2	Skagit	223.8600 W	103.5	222.2600 W	103.5	Α	HOSPITAL / ARC		
30	222 MHZ	LYMN2A	Skagit	224.7800 W	103.5	223.1800 W	103.5	Α	LYMAN (N7IPB)		
31	70CM	LYMAN4	Skagit	442.4000 W	107.2	447.4000 W	107.2	Α	MBARC W7UMH@Skagit (W7MBY)		
32	70CM	LYMN4O	Skagit	444.5000 W	103.5	449.5000 W	103.5	Α	LYMAN (WA7ZUS)		
33	70CM	CULT4O	Skagit	444.6250 W	103.5	449.6250 W	103.5	Α	OPS 1 Primary Cultus		
34	2 MTR	GRANIT	Snohomish	146.9200 W	123.0	146.3200 W	123.0	Α	GRANITE FALLS		
35	2 MTR	LYNNWD	Snohomish	146.7800 W	D172	146.1800 W	D172	Α	BACKUP		
36	222 MHz	FIRE2	Snohomish	224.3800 W	103.5	222.7800 W	103.5	Α	BACKUP		
37	70CM	MTLAKE	Snohomish	443.7250 W	103.5	448.7250 W	103.5	Α	BACKUP		
38	70CM	FIRE4	Snohomish	444.2000 W	D172	449.2000 W	D172	Α	BACKUP		
39	70CM	WINLNK	Snohomish	440.8750 W	CSQ	440.8750 W	CSQ	D	SnoACS Winlink Node		
40	70CM	CLEARV`	Snohomish	442.9750 W	D172	447.9750 W	D172	Α	Clearview (WA7DEM) Fusion		
41	2 MTR	SUMASV	Whatcom	145.2300 W	103.5	144.6300 W	103.5	Α	Backup VHF (Blaine MOU)		
42	2 MTR	FSQ 4.5	Whatcom	145.5800 W	CSQ	145.5800 W	CSQ	D	Alt Digital NCS		
43	2 MTR	ECC-I	Whatcom	146.5400 W	CSQ	146.5400 W	CSQ	Α	ECC Incoming – Simplex		
44	2 MTR	MTCONV	Whatcom	146.7400 W	103.5	146.1400 W	103.5	Α	WHATCOM		
45	2 MTR	ACS-Vsql	Whatcom	147.5400 W	146.2	147.5400 W	146.2	Α	Backup VHF Simplex		
46	2 MTR	ECC-O	Whatcom	147.5400 W	146.2	147.5400 W	146.2	Α	ECC OUGOING SIMPLEX		
47	2 MTR	MFSK128	Whatcom	147.5600 W	CSQ	147.5600 W	CSQ	D	Digital Traffic		
48	222 MHz	LKOUT2	Whatcom	224.1600 W	156.7	222.5600 W	156.7	Α	Region 1 Lookout		

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25). All channels are shown as if programmed in a portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

ICS Form 217A continued

COMMUNICATIONS RESOURCE AVAILABILITY WORK						KSHEET Frequency Band HF-UHF pg 3 of 3			Description Washington Region 1	
	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users/Assignments/	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D. or M	Remarks	
49	222 MHz	KING21	Whatcom	224.8600 W	103.5	223.2600 W	103.5	A	WHATCOM (N7FYU)	
50	70CM	SUMASU	Whatcom	440.3750 W	131.8	445.3750 W	131.8	Α	Blaine ACS (W7BPD)	
51	70CM	LOOK4O	Reg. 1 Whatcom	442.2500 W	156.7	447.2500 W	156.7	Α	OPS 1 Backup LOOKOUT (W7ECG)	
52	70CM	SEHOMU	Whatcom	442.3000 W	88.5	447.3000 W	88.5	Α	Whatcom Primary W7BFD	
53	70CM	MTCONU	Whatcom	444.0500 W	103.5	449.0500 W	103.5	Α	Primary NCS	
54	70CM	ACS-Usql	Whatcom	445.8250 W	146.2	445.8250 W	146.2	Α	Backup NCS UHF Simplex	
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66 67										
68										
69										
70										
71										
72										
73										

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25). All channels are shown as if programmed in a portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

15.1 County Capability Comparison

ECC/EOC Capabilities Comparison

	Capabilities	Island	San Juan	Skagit	Snohomish	Whatcom	DMCC
		EOC	EOC	EOC	EOC	ECC/EOC	
	6m			Yes	Yes	Yes	Yes
	2m	Yes	Yes	Yes	Yes	Yes	Yes
	1.25m		Yes	Yes	Yes	Yes	Yes
	70cm	Yes	Yes	Yes	Yes	Yes	Yes
	33cm				Yes		
	23cm				Yes		
	VHF Low	Yes	Yes		Yes	Yes	
	VHF High				Yes	Yes	
Vaina	Aviation (AM)				Yes	Yes	
Voice	Marine VHF				Yes	Yes	
	HF (10-80)	Yes	YES	Yes	Yes	Yes	Yes
	EchoLink		YES			Yes	
	2m DSTAR				Yes	Yes	
	70cm DSTAR				Yes	Yes	
	23cm DSTAR				Yes		
	800MHz				Yes	Yes	Yes
	DMR			Yes	Yes	Yes	
	HamWan		YES		Yes		Yes
	SHARES HF/V/U				HF		
	HF (60)		YES		YES		
	HF (60)						
	SHARES HF/V/U				HF		
	VHF Packet	Yes	Yes	Yes	Yes	Yes	Yes
	UHF Packet	Yes	Yes		Yes	Yes	Yes
	HF Pactor		Yes	Yes		Yes	Yes
Digital	HF FLDigi					Yes	
Digital	HF ARDOP		YES	Yes	Yes	Yes	
	WinLink Client	Yes	Yes	Yes	Yes		Yes
	WinLink Gateway	Yes	Yes	Yes	Yes		
	HamWan		Yes		Yes		Yes
	VHF VARA FM	Yes	Yes	Yes	Yes	Yes	
	UHF VARA FM	Yes	Yes		Yes	Yes	

15.2 Acronyms/Definitions

ACS – Auxiliary Communications Service

ADEC – ARES Assistant District Emergency Coordinator

ARDOP - Amateur Radio Digital Open Protocol

ARRL - American Radio Relay League

ARES® - Amateur Radio Emergency Service®

AEC - ARES Assistant Emergency Coordinator

ARO - Assistant Radio/RACES Officer

BRRPR – Bit Regenerating Repeater on Lyman Hill

CEMNET – Comprehensive Emergency Management Network

CMD – Command

DEC – ARES District Emergency Coordinator

DEM – Department of Emergency Management

DMCC - Disaster Medical Coordination Center

DMR - Digital Mobile Radio

DVR – Digital Video Recorder

EC – ARES Emergency Coordinator

ECC – Emergency Coordination Center

EM – Emergency Manager

EMD – Washington State Emergency Management Division

EOC – Emergency Operations Center

ESF – Emergency Support Function

FCC – Federal Communications Commission

FM – Frequency Modulation

HF – High Frequency (Shortwave bands)

MARS – Military Affiliate Radio Service

MECC/EOC – Mobile Emergency Operations Center

NAS – Naval Air Station

NIFOG – National Interoperability Field Operations Guide

OPS – Operations

PC – Personal Computer (Laptop/Desktop)

RACES – Radio Amateur Civil Emergency Service

RHSCD – Washington State Regional Homeland Security Coordination District

RO - Radio Officer / RACES Officer

RRC – Regional RACES Coordinator

UHF – Ultra High Frequency

VARA – a **software modem** using orthogonal frequency-division multiplexing (OFDM) modulation

VHF – Very High Frequency

WCSO - Whatcom County Sheriff's Office

15.2 **Acronyms/Definitions (continued)**

WWARA – Western Washington Amateur Relay Association

15.3 Confidential Contact List

A Confidential Contact List is available and will be provided to any of the Region 1 ARES/ACS/RACES team members or Washington State ARES/RACES Leadership upon request to one of the following:

- 1. Scott Honaker (ADEC) N7SS email: n7ss@arrl.net
- 2. George Boswell (DEC) K7YHB email: k7yhb@arrl.net

A link will be emailed to the person requesting the information.

15.4 Other Resources

There are other resources available to the amateurs operating beyond the extent of their license, within Region 1 which include the following and links to the respective information:

CEMNET-

https://mil.wa.gov/emergency-management-radio-systems-comprehensive-emergency-management-network-cemnet

NIFOG - https://www.dhs.gov/publication/fog-documents

Snohomish County Useful Links - http://www.wa7dem.info/links

Washington State Amateur Emergency Communications - http://www.wastateares.org/

Region 1 Amateur-Radio Interoperability Plan (This document), the associated Net Script and the Net History Record - http://www.wa7dem.info/links

Region 1 Digital Proficiency Plan – a 3 level guide to WinLink digital training resources

ARES® is a registered trademark of the American Radio Relay League. Any oversight in listing the ® symbol is unintentional. Information is available in Minute 20 of the ARRL Board of Directors Meeting; ARES® Groups and Use of Registered Trademarks from the July 2004 2nd Annual Meeting.