

Prince William County ARES

Quick Reference Guide

version: 6.4

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Contact Information

Name	Home	Cell	Work
David A. Lane, KG4GIY, EC	(703) 361-3042	(703) 628-3868	
Brian Cochran, WC4J, AEC		(703) 965-6011	
David Meola, KI4AZX, AEC		(703) 307-7014	
Ray Hutt, AA4SI, AEC	(703) 670-2879	(703) 203-2210	

If a repeater goes off-line, monitor the OUTPUT for instructions on which frequency to turn to!

IN THE EVENT OF AN ACTIVATION

1. Make sure your home and family are secure before responding to any request for help.
2. If instructed, tune to the frequency indicated by the phone call or email. Otherwise, tune to 147.240+ or 146.970- and check into the Net.
3. Add the last minute items to your “go-kit” and make sure you have directions to your deployment location and the necessary identification.
4. Report as indicated. Remember that you may be the first operator on scene. Be polite and helpful and if possible, choose the best tactical location to set up the station.
5. If asked to move by a site manager, MOVE. If you can ascertain the reason for the move, please note it and pass it on to the EC for the after action report.
6. Always remember to get permission to “check-out” of a net, even if it is for a bathroom break. Never leave your radio without telling the NCS.
7. At the end of an activation, return the operating space to “normal.” Make sure the site manager knows you are leaving. Check-out of the net, unless you have already been instructed to secure.

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Preprogrammed Memory Channels and PWCARES Frequency List

Memory Channel	Memory Name/Purpose	Frequency	Tone
1	OVH2M/Operations and Logistics	146.970 -	100 Hz
2	WWI2M/Operations and Logistics	147.240 +	107.2 Hz
3	NVFM2M/Fairfax ARES	146.790 -	
4	NVREGN/Northern Virginia Regional Operations and Coordination	146.910 -	
5	SKYWARN/National Weather Service—Sterling	147.300 +	
6	MDREGN/Maryland Regional Operation and Coordination	147.105 +	
7	MTVERN/Mount Vernon (Alexandria)	146.655 -	141.3 Hz
8	ALEX2M/Alexandria ARES	147.315 +	
9	ARL2M/Arlington ARES	145.470 -	
10	FAQ2M/Fauquier ARES	147.470 +	167.9 Hz
11	LOU2M/Loudon ARES	145.310 -	
12	DULLES/Dulles Airport 2m machine, max 15w out	147.330 +	203.5 Hz

21	OVH440/Command and Control/Operations and Logistics	442.200 +
22	WWI440/Command and Control/Operations and Logistics	444.900 +
23	FALLSC/Fall Church ARES	442.425 + 91.5 Hz
24	NERA/Main Repeater, linked system	442.725 + 107.2 Hz
25	NERA/DC	449.975 - 107.2 Hz
26	KT4ER/Bull Run Mountain	448.325- 100.0 Hz
27	NERA/Bull Run Mountain	447.775 - 67.0 Hz
28	OVHMAN/Ole Virginia Hams Manassas Repeater	443.500 + 110.9 Hz
31	VHF1/PWCARES VHF Channel 1/Operations and Logistics	147.525
32	VHF2/PWCARES VHF Channel 2/Operations and Logistics	146.475
33	MEDCOM/InterHospital communications/MedComm back-up	146.445
34	ARC-CHP/Red Cross Chapter-to-Chapter communications	146.535
35	ARC-FLD/Red Cross Field Operations	146.420
36	XBAND1/Combine with 147.525—VHF1 (left)	445.950 100.0 (right) Hz
37	XBAND2/Combine with 146.475—VHF2 (left)	446.050 100.0 (right) Hz
38	XBAND3/Combine with 146.970—OVH2M (left)	445.975 100.0 (right) Hz
39	XBAND4/Combine with 147.240—WWI2M (left)	446.025 100.0 (right) Hz
40	Packet	145.730
41	APRS	144.390

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Local Frequencies

Virginia

Jurisdiction	Primary Repeater	Secondary Repeater	Simplex
Virginia Region	147.300 (alt/liaison)		3947 kHz 7240 kHz
146.910 (Primary)	145.210 PL 141.3 (Western Counties)		(alt) 145.730
Alexandria	146.655 PL 141.3	147.315	146.490
Arlington	145.470		146.580

Fairfax	146.790	146.910 and 224.100 448.035 (DV)	145.340 (DV) 146.415
Falls Church	447.425 PL 91.5	147.210	445.975 147.435
Fauquier	147.165 PL 167.9		146.430/147.500
Loudoun	145.310	443.225 PL 103.5 (Portable) PL 203.5 (Dulles Airport 15W)	147.480
Prince William	146.970 (Manassas) PL 100 147.240 (Woodbridge) PL 107.2	444.900 (Woodbridge) (Manassas) 442.5125 (Manassas DV) 147.345 (Quantico) PL 167.9	147.525 (Primary) 146.475 (Secondary) 445.925 (Secondary)
Skywarn	147.300		
Medcomm			146.445
American Red Cross (Chapter to Chapter)			146.535
American Red Cross (On-Site)			147.420
Northern Virginia Traffic Net			147.300

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Local Frequencies

Maryland

Jurisdiction	Primary Repeater	Secondary Repeater	Simplex
Maryland Region	147.105	146.730	3920 kHz
Anne Arundel	146.805	147.105	
Calvert	146.985 PL 156.7		146.580
Charles	145.390 PL 186.2	443.700	
District of Columbia	147.090	147.045	146.505
Frederick	145.430		
Hagerstown	147.060		
Montgomery	146.955	145.450	146.460
Prince George	146.610	146.880 and 147.150 PL 114.8	147.540
Skywarn	147.300		
Towson	147.030		
American Red Cross (Chapter to Chapter)			146.535
American Red Cross (On-Site)			147.420

Baltimore Traffic Net

146.67

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Go-Kit Essentials

Must Have Gear

- Identification (driver's license, FCC license, hospital IDs)
- Radio (at least a 5w 2m/440 HT w/ batteries and a copy of the manual)
- Antenna (1/4 wave, magnetic mount preferred)
- Stationary Supplies (Paper, pen-cil/pen, TP/paper towel, ARRL message form, IC-213)
- Personal medications
- Appropriate clothing and foot-wear (including a hat and rain coat)
- Food and water (snacks, etc.)

Important Things

- Money (small bills, change)
- Extra power (spare dry cell battery case and batteries, "wall wart" charger, pig tails, power strips)
- Antenna connectors (SMA/BNC/PL259 and assorted others)
- Noise reductions devices (headphones/boom mikes)
- Reference material (frequency charts and repeater/net guides)
- Flashlight, multi-tool, duct/gaffers tape, loose wire, cable ties, work gloves
- First-aid kit

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Incident Command System Forms

Available at <http://www.pwcares.org/html/ics.html>

205 Incident Radio Communications Plan

205a Communications List

213 General Message

214 Unit Log

214a Individual Log

216 Radio Equipment Worksheet

217 Radio Frequency Assignment Worksheet

All ARES/RACES members should become familiar with the forms listed above. At a minimum, each member should have a copy of ICS-213 and ICS-214a with their kit at all times, in addition to the ARRL radiogram form.

AECs and NCSs should become familiar with all the forms, especially the work-sheets as they may be used to draft a communications plan that is beyond the current plan, as conditions warrant, or as part of an overall support function to the County in the event of a RACES activation.

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CSALT

for ordering provisions, resources, or teams

C-capability being requested

S-size

A-amount being requested

L-location the mission/resources are being deployed

T-FEMA Type

T-time the supplies/resources are needed

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Traffic Handling Quick Reference

Hotel Codes

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

HXB (Followed by number) Cancel message if not delivered within [x] 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 addresses, 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.

Group One—For Possible *Relief Emergency* Use

Emergency/priority messages originating from official sources must carry the signature of the originating official.

ARL Code Meaning

ONE Everyone safe here. Please don't worry.

- TWO** Coming home as soon as possible.
- THREE** Am in [name of] hospital. Receiving excellent care and recovering fine.
- FOUR** Only slight property damage here. Do not be concerned about disaster reports.
- FIVE** Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated.
- SIX** Will contact you as soon as possible.
- SEVEN** Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.
- EIGHT** Need additional [number] mobile or portable equipment for immediate emergency use.
- NINE** Additional [number] radio operators needed to assist with emergency at this location.
- TEN** Please contact [name]. Advise to standby and provide further emergency information, instructions or assistance.
- ELEVEN** Establish Amateur Radio emergency communications with [operator] on [frequency] MHz.
- TWELVE** Anxious to hear from you. No word in some time. Please contact me as soon as possible.
- THIRTEEN** Medical emergency situation exists here.
- FOURTEEN** Situation here becoming critical. Losses and damage from [event] increasing.
- FIFTEEN** Please advise your condition and what help is needed.
- SIXTEEN** Property damage very severe in this area.
- SEVENTEEN** REACT communications services also available. Establish REACT communication with [operator] on channel [number].
- EIGHTEEN** Please contact me as soon as possible at [number/location].
- NINETEEN** Request health and welfare report on [individual] . (State name, address and telephone number.) *Should not be used.*
- TWENTY** Temporarily stranded. Will need some assistance. Please contact me at [number/location].
- TWENTY ONE** Search and Rescue assistance is needed by local authorities here. Advise availability.
- TWENTY TWO** Need accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply with-out delay.
- TWENTY THREE** Report at once the accessibility and best way to reach your location.
- TWENTY FOUR** Evacuation of residents from this area urgently needed. Advise plans for help.
- TWENTY FIVE** Furnish as soon as possible the weather conditions at your location.
- TWENTY SIX** Help and care for evacuation of sick and injured from this location need-ed at once.

Group Two—Routine Messages

ARL Code Meaning

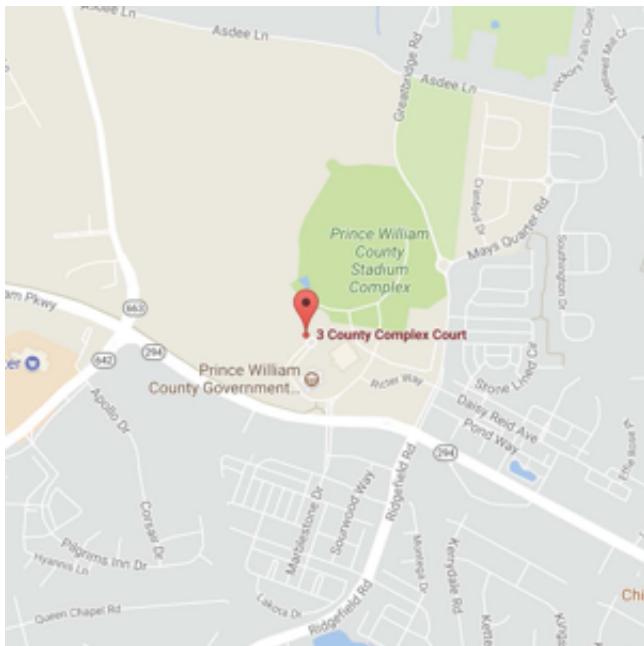
FORTY

- SIX** Greetings on your birthday and best wishes for many more to come.
- FIFTY** Greetings by Amateur Radio.
- FIFTY ONE** Greetings by Amateur Radio. This message is sent as a free public service by ham radio operators at [club]. Am having a wonderful time.
- FIFTY TWO** Really enjoyed being with you. Looking forward to getting together again.
- FIFTY THREE** Received your [item]. It's appreciated; many thanks.
- FIFTY FOUR** Many thanks for your good wishes.
- FIFTY FIVE** Good news is always welcome. Very delighted to hear about yours.
- FIFTY SIX** Congratulations on your [event], a most worthy and deserved achievement.
- FIFTY SEVEN** Wish we could be together.
- FIFTY EIGHT** Have a wonderful time. Let us know when you return.
- FIFTY NINE** Congratulations on the new arrival. Hope mother and child are well.
- SIXTY** Wishing you the best of everything on [date].
- SIXTY ONE** Wishing you a very Merry Christmas and a Happy New Year.
- SIXTY TWO** Greetings and best wishes to you for a pleasant [holiday] holiday season.
- SIXTY THREE** Victory or defeat, our best wishes are with you. Hope you win.
- SIXTY FOUR** Arrived safely at [location].
- SIXTY FIVE** Arriving [at location] on [date/time]. Please arrange to meet me there.
- SIXTY SIX** DX QSLs are on hand for you at the [regional] QSL Bureau. Send [quantity] self addressed envelopes.
- SIXTY SEVEN** Your message number [message number] undeliverable because of [reason]. Please advise.
- SIXTY EIGHT** Sorry to hear you are ill. Best wishes for a speedy recovery.
- SIXTY NINE** Welcome to the [organization]. We are glad to have you with us and hope you will enjoy the fun and fellowship of the organization.

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Maps

Prince William EOC: 3 County Complex Court, Prince William, VA



Prince William EOC

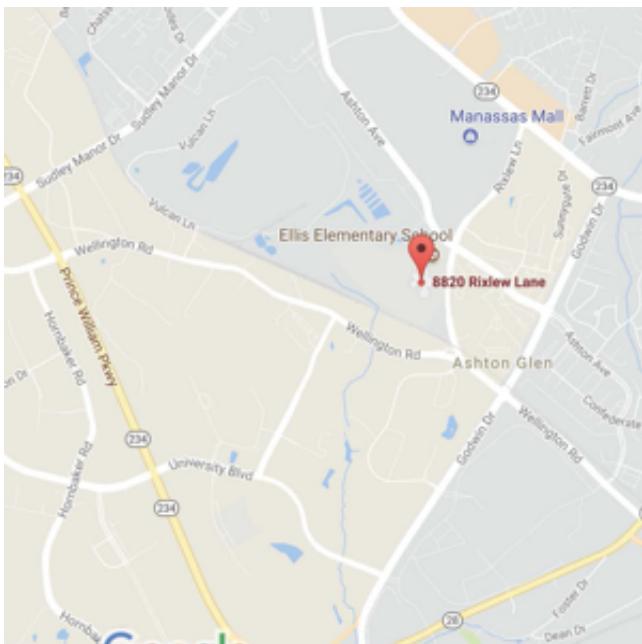
Shelters

Battlefield High School: 15000 Graduation Drive, Haymarket, VA



Battlefield High School

Stonewall Jackson High School: 8820 Rixlew Ln., Manassas, VA



Stonewall Jackson High School

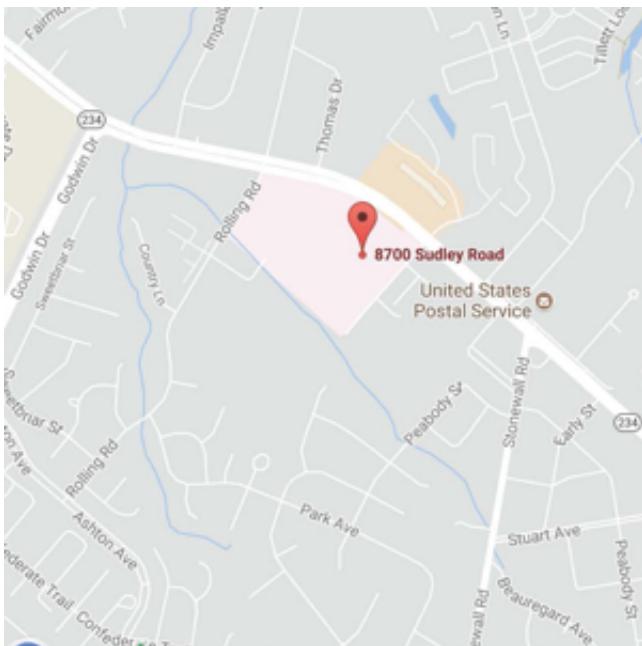
Freedom High School: 15201 Neabsco Mill Road, Woodbridge, VA



Freedom Jackson High School

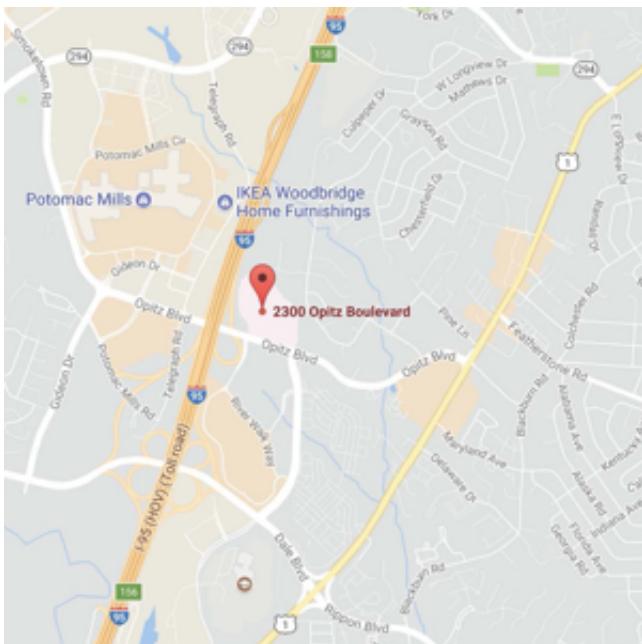
Hospitals

Novant Prince William: 8700 Sudley Road, Manassas, VA.



Novant Prince William

Sentara Potomac: 2300 Opitz Blvd, Woodbridge, VA



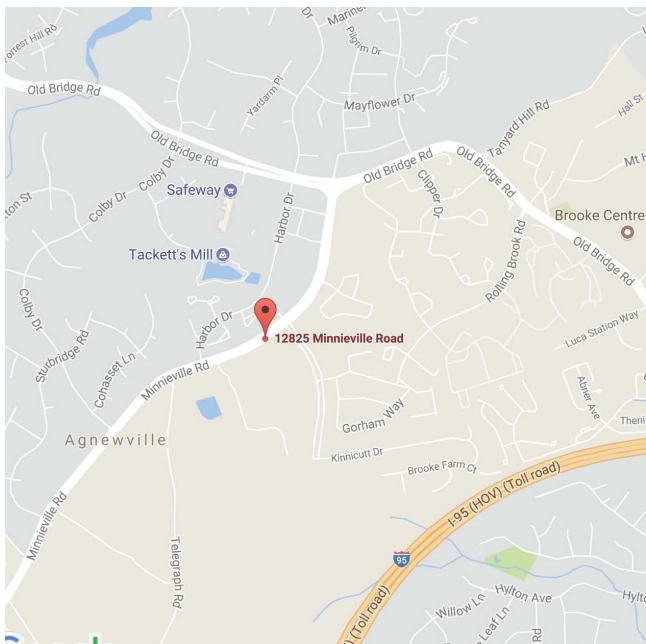
Sentara Potomac

Novant Heathcote: 15225 Heathcote Blvd, Haymarket, VA



Novant Heathcote

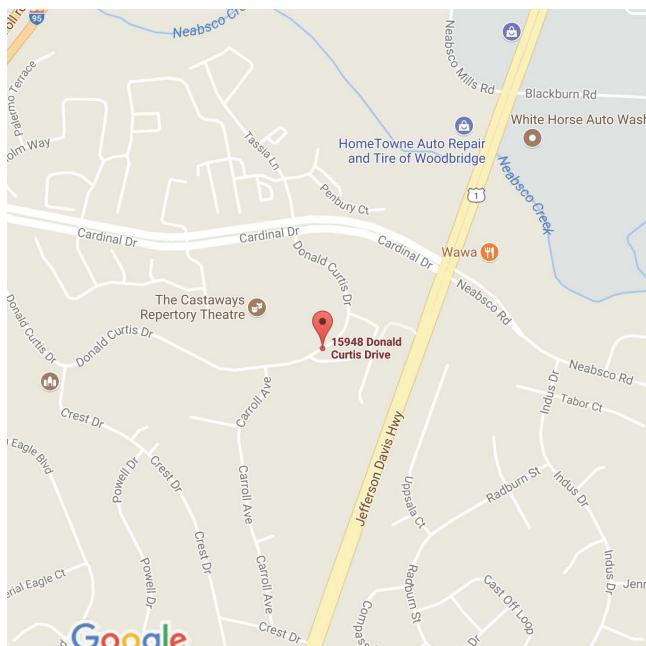
Sentara Lakeridge: 12825 Minnieville Rd, Lake Ridge, VA



Sentara Lakeridge

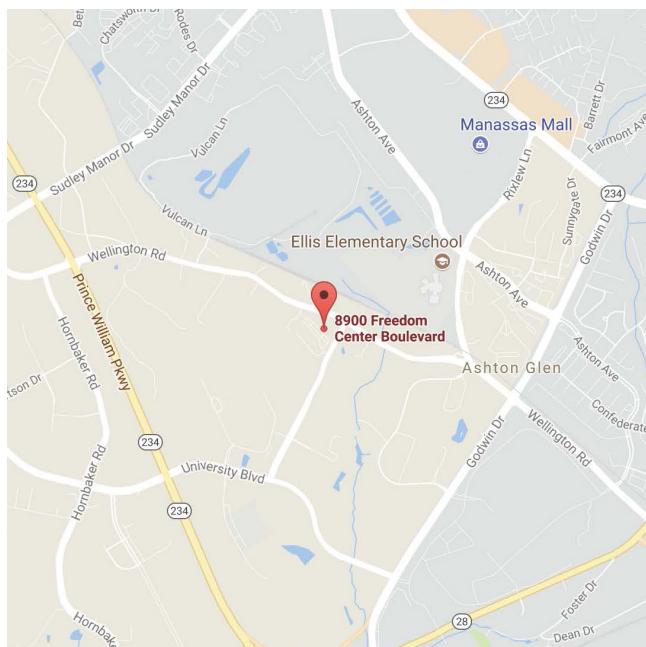
Other places of interest

Eastern District Police Department: 15948 Donald Curtis Drive, Woodbridge, Virginia 22191 703-792-7200



Eastern District Police Department

Western District Police Department: 18900 Freedom Center Blvd., Manassas, Virginia 20110 703-792-5111



Western District Police Department

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Templates and other tools

Forms

ARRL Radiogram

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							
RECD' 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, CT06111				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			

ARRL Radiogram

ICS 205 Radio Communications Plan

1. Incident Name	2. Operational Period (Date / Time) From: _____ To: _____		INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-OS		
3. BASIC RADIO CHANNEL USE					
SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS
4. Prepared by: (Communications Unit) _____ Date / Time _____					
INCIDENT RADIO COMMUNICATIONS PLAN			June 2000 ICS 205-OS		
Electronic version: NOAA-1.0-June 1, 2000					

ICS 205 Radio Communications Plan

ICS 205a Communications List

1. Incident Name		2. Operational Period (Date / Time)	COMMUNICATIONS LIST ICS 205A-OS
From:		To:	
3. Basic Local Communications Information			
Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #s, etc.)	
4. Prepared by: (Communications Unit)		Date / Time	
COMMUNICATIONS LIST		June 2000	ICS 205a-OS

Electronic version: NOFA 1.0 June 1, 2000

ICS 205a Communications List

ICS 213 General Message Form

1. Incident Name	2. Date and Time of Message	GENERAL MESSAGE ICS 213-OS
3. TO: ICS Position		
4. FROM: ICS Position		
5. Subject:		
6. Message		
7. Reply		
8. Signature / Position (person replying) Date / Time of reply		
GENERAL MESSAGE		June 2000
ICS 213-OS		

Electronic version NOA4.10 June 1, 2000

ICS 213 General Message Form

ICS 214 Unit Log

1. Incident Name	2. Operational Period (Date / Time)	UNIT LOG ICS 214-OS
From:	To:	
3. Unit Name / Designators		4. Unit Leader (Name and ICS Position)
5. Personnel Assigned		
NAME	ICS POSITION	HOME BASE
6. Activity Log (Continue on Reverse)		
TIME	MAJOR EVENTS	
7. Prepared by:		Date / Time
UNIT LOG		June 2000
		ICS 214-OS

Electronic version: NOAA 1.0 June 1, 2000

ICS 214 Unit Log

ICS 214a Individual Log

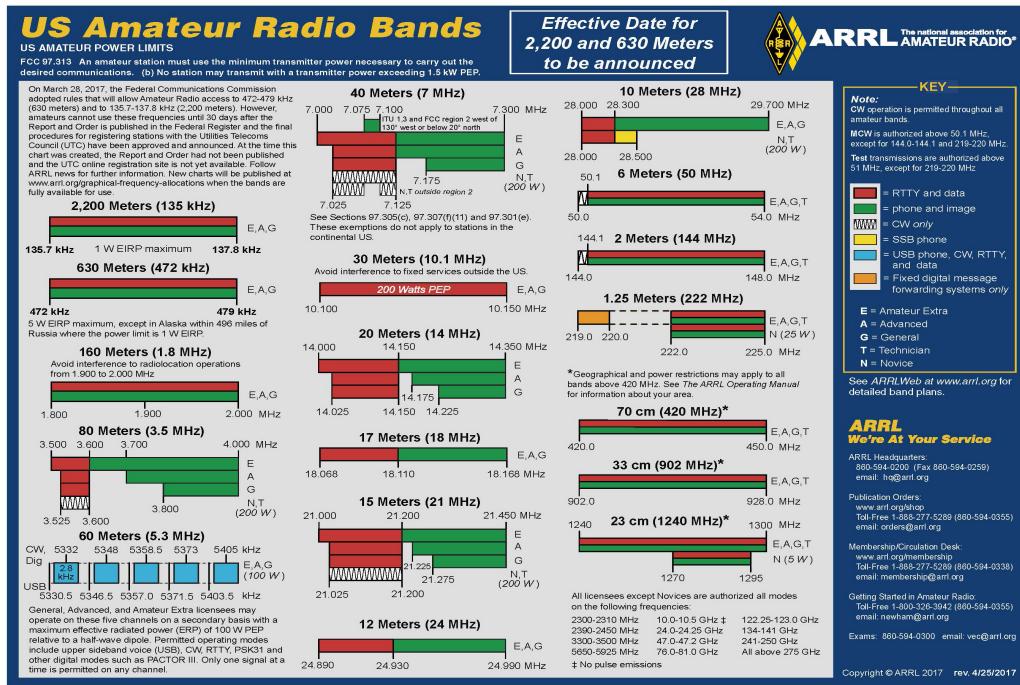
1. Incident Name		2. Operational Period (Date / Time) From: _____ To: _____		INDIVIDUAL LOG ICS 214a-OS	
3. Individual Name		4. ICS Section		5. Assignment / Location	
6. Activity Log				Page	of
Time	Major Events				
7. Prepared by: _____ Date / Time _____					
INDIVIDUAL LOG		June 2000		ICS 214a-OS	

Electronic version NOA4.10 June 1, 2000

ICS 214a Individual Log

Misc

Band Plans



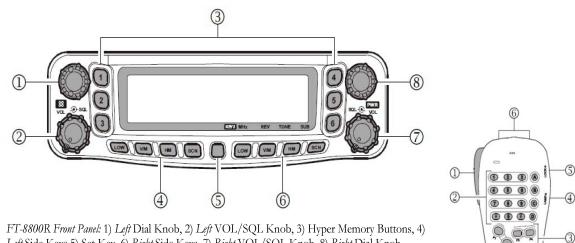
Band Plans

FT-8800 Quick Reference Guide

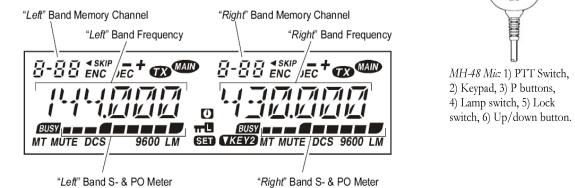
- [FT-8800 \(PDF\)](#)
- FT-8000 QRC Page Images

Yaesu FT-8800R Basic Operations

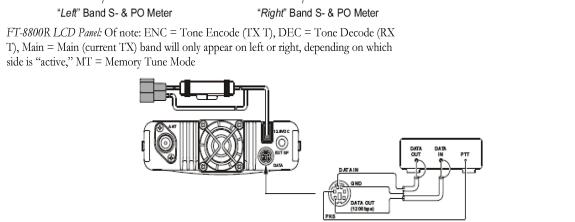
These instructions are not a substitute for reading the manual



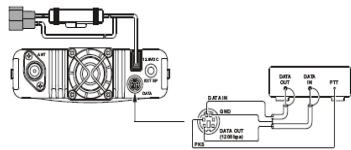
FT-8800R Front Panel: 1) Left Dial Knob, 2) Left VOL./SQL Knob, 3) Hyper Memory Buttons, 4) Left Side Keys 5) Set Key, 6) Right Side Keys, 7) Right VOL./SQL Knob, 8) Right Dial Knob



MFL-48 Mic: 1) PTT Switch,
2) Keypad, 3) P buttons,
4) Lamp switch, 5) Lock
switch, 6) Up/down button.



FT-8800R LCD Panel: Of note: ENC = Tone Encode (TX T), DEC = Tone Decode (RX T), Main = Main (current TX) band will only appear on left or right, depending on which side is "active," MT = Memory Tune Mode



1200bps Packet Setup

NOTE: The FT-8800 is a dual receive radio with a *left* and *right* side and set of keys and knobs. The active side is identified by a **MAIN** icon in the top "right" corner of the active display. When the instructions refer to **MAIN** key or knob, they refer to the active transceiver side and do not affect the inactive side until the inactive side is made active.

To select the **MAIN** band, either press the P1 key on the mic or the **DIAL** knob on the side you wish to set active.

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FT-8800 QRC Page 1

**Preprogrammed Memory Channels and Frequencies
FT-8800**

Memory Channel	Memory Name/Purpose	Frequency	Tone
1	OVH2M/Operations and Logistics	146.970 -	
2	WWI2M/Operations and Logistics	147.240 +	
3	NVFM2M/Fairfax ARES	146.790 -	
4	NVREGN/Northern Virginia Regional Operations and Coordination	146.910 -	
5	SKYWARN/National Weather Service—Sterling	147.300 +	
6	MDREGN/Maryland Regional Operation and Coordination	147.105 +	
7	MTVERN/Mount Vernon (Alexandria)	146.655 -	141.3 Hz
8	ALEX2M/Alexandria ARES	147.315 +	
9	ARL2M/Arlington ARES	145.470 -	
10	FAQ2M/Fauquier ARES	147.470 +	167.9 Hz
11	LOU2M/Loudon ARES	145.310 -	
12	DULLES/Dulles Airport 2m machine, max 15w out	147.330 +	203.5 Hz
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22	WWI440/Command and Control/Operations and Logistics	444.900 +	
23	FALLSC/Fall Church ARES	442.425 -	91.5 Hz
24	NERA/Main Repeater, linked system	442.725 +	107.2 Hz
25	NERA/DC	449.975 -	107.2 Hz
26	KT4ER/Bull Run Mountain	448.325 -	100.0 Hz
27	NERA/Bull Run Mountain	447.775	67.0 Hz
31	VHF1/PWCARES VHF Channel 1/Operations and Logistics	147.525	
32	VHF2/PWCARES VHF Channel 2/Operations and Logistics	146.475	
33	MEDCOM/InterHospital communications/MedComm back-up	146.445	
34	ARC-CHP/Red Cross Chapter-to-Chapter communications	146.535	
35	ARC-FLD/Red Cross Field Operations	146.420	
36	XBAND1/Combine with 147.525—VHF1 (left)	445.950 (right)	100.0 Hz
37	XBAND2/Combine with 146.475—VHF2 (left)	446.050 (right)	100.0 Hz
38	XBAND3/Combine with 146.970—OVH2M (left)	445.975 (right)	100.0 Hz
39	XBAND4/Combine with 147.240—WWI2M (left)	446.025 (right)	100.0 Hz
40	Packet	145.730	
41	APRS	144.390	

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FT-8800 QRC Page 2

Power*Turning the power on and off (Pg. 20)*

To turn the radio **on**, press and hold the **right VOL** knob for 2 seconds (Fig. 1). The LCD will show the current power supply voltage for 2 seconds before switching to normal mode.

To turn the radio **off**, press and hold the **right VOL** knob for 2 seconds.

Changing the Transmit Power Level (Pg. 23)

Press the **LOW** key on the active (MAIN) band you wish to modify the power on. There are four settings. For 2m/70cm, Low is 5W, Mid2 is 10W, Mid1 is 20W. On 2m, High is 50W and on 70cm High is 35W



Figure 1

Band Management *Selecting the Operating Band (Pg. 20)*

Transmission is possible on the side where the **MAIN** icon is lit.

To select the left or right side for transmission:

Mic: Press the **P1** button

Fax: Briefly press the **DIAL** knob on either the left or the right side as needed.

Selecting the Frequency Band (Pg. 21)

Press and hold the **DIAL** knob to step through the bands in the following progression:
144 MHz → 250 MHz → 350 MHz → 430 MHz → 850 MHz → 144 MHz ...

Locking the Radio *Locking the Radio (Pg. 24)*

To activate:

1. Press the **SET** key momentarily to enter the set mode
2. Rotate the **MAIN** band **DIAL** knob to select Menu 21 (LOCK).
3. Press the **MAIN** band **DIAL** knob momentarily, then rotate it to change the setting to **ON**.
4. Press the **SET** key momentarily to save the setting and exit to normal operations

To deactivate:

1. Press the **SET** key momentarily to enter the set mode
2. Rotate the **MAIN** band **DIAL** knob to select Menu 21 (LOCK).
3. Press the **MAIN** band **DIAL** knob momentarily, then rotate it to change the setting to **OFF**.
4. Press the **SET** key momentarily to save the setting and exit to normal operations

MIC Gain Control *The mic input level and receiver bandwidth are coupled in the FT-8800R. Changing the receiver spacing reduces the mic gain. (Pg. 54)*

1. Press the **SET** key momentarily.
2. Rotate the **MAIN** band **DIAL** knob and select Menu 44 (WID,NAR).
3. Press the **MAIN** band **DIAL** knob momentarily and rotate it to display NAR-ROW.
4. Press and hold the **MAIN** band **DIAL** knob for 1/2 second to save the setting and return to normal operations.

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Repeater Offsets *Setting Repeater Offsets (Pg. 27)*

The FT-8800R comes preset with the following shifts: On 2m, 600 kHz, on 70cm, 5 MHz.

To manually set the positive (+) or negative (-) or disable the offset follow these steps:

1. Press the **SET** key momentarily.
2. Rotate the **MAIN band DIAL** knob to select Menu 33 (RPT.MOD).
3. Press the **MAIN band DIAL** knob momentarily, then rotate the dial to select “+,” “-,” “+,” or OFF.
4. Press and hold the **MAIN band DIAL** for 1/2 second to save the settings and return to normal operations.

CTCSS *CTCSS Operation (Pg. 29)*

Enabling CTCSS involves two steps. You have to set the Tone Mode (Set menu 41) and Tone Frequency (Set menu 40).

1. Press the **SET** key momentarily.
2. Rotate the **MAIN band DIAL** knob to Menu 41 (TONE M).
3. Press the **MAIN band DIAL** knob momentarily and then rotate it so that **ENC** appears on the display (see the LCD figure on page 1). This activates the CTCSS encoder.
4. Rotating one more step will enable **ENC.DEC**, the Tone Squelch mode (TSQ) if required.
5. Press the **MAIN band DIAL** knob momentarily and rotate it to Menu 40 (TONE F).
6. Press the **MAIN band DIAL** knob momentarily to enter the menu screen and rotate the knob to select the CTCSS tone frequency you need.
7. When it has been selected, press and hold the **MAIN band DIAL** knob for 1/2 second to save the setting and return to normal operation.

Cross Band Repeater Operations *Enabling the cross band function (Pg. 56)*

1. Configure the band(s) as needed with power and **ENC.DEC** as needed.
2. Press the **SET** key momentarily.
3. Rotate the **MAIN band DIAL** knob to select Menu 45 (X-RPT).
4. Press the **MAIN band DIAL** knob momentarily. X-START will appear.
5. Press the **MAIN band DIAL** knob again to activate the cross band repeater mode.
6. To exit, press the **SET** key.

Internet Connection Feature*Turning the Internet Connection Feature (WIRES) off (Pg. 50)*

The FT-8800R comes with the Yaesu WIRES system. It is very easy to bump it into the ON position. This is how you turn it OFF.

1. WIRES is enabled when the INT is lit in the LCD panel.
2. To disable it, press the **VOL** knob briefly to turn it off.

RF Squelch*Additional RF Squelch Settings (Pg. 26)*

1. Press **SET** key momentarily.
2. Rotate the **MAIN band DIAL** knob to select Menu 32 (RF SQL).
3. Press the **MAIN band DIAL** momentarily and rotate to select the signal strength to open the squelch (options are OFF, S-2, S-5, S-9 or S-FULL. PWCARES default is OFF). Use the **SQL** knob (with the volume) to set.
4. Press and hold the **MAIN band DIAL** knob for 1/2 second to save the settings and return to normal operations.
5. If you set the values, turn the **SQL** knob fully clockwise (to the right).

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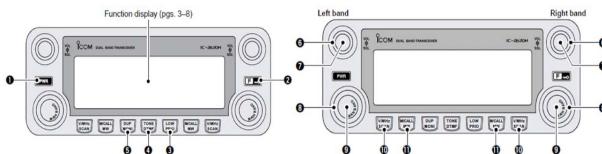
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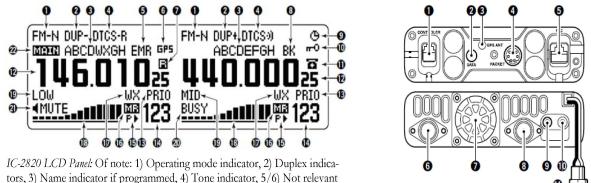
- [IC-2820 \(PDF\)](#)
- IC-2820 QRC Page Images

Icom IC-2820H Basic Operations

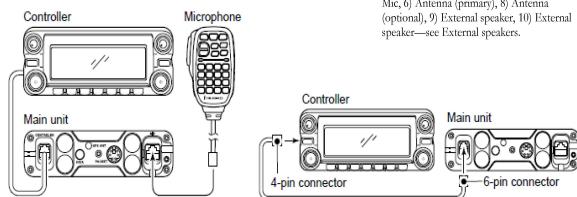
These instructions are not a substitute for reading the manual



IC-2820 Front Panel: 1) Power, 2) Function/Lock key, 3) Output Power/Priority, 4) Tone/DTMF, 5) Duplex/Monitor, (Button 2-5 are for the **MAIN** band only), 6) SQT, 7) VOL, 8) DIAL, 9) MAIN band (push), 10) VFO/Tune/Scan, 11) Memory/Call/Memory write.



IC-2820 LCD Panel: Of note: 1) Operating mode indicator, 2) Duplex indicators, 3) Name indicator if programmed, 4) Tone indicator, 5/6) Not relevant without D-Star board, 10) Lock function enabled, 17) Weather indicators if programmed, 19) Power level, 22) **MAIN** band indicator



The IC-2820 has a magnetic attached face plate. The connector cable may not be attached to the radio initially (use the short one, not the long extender cable). Note that the six-pin end goes into the main unit and the four-pin end goes into the face plate. The microphone should already be attached and covered by a faceplate.

NOTE: The IC-2820 is a dual receive radio with a *left* and *right* side and set of keys and knobs. The active side is identified by a **MAIN** icon in the top "left" corner of the active display. When the instructions refer to **MAIN** key or knob, they refer to the active transceiver side and do not affect the inactive side until the inactive side is made active.

To select the **MAIN** band, either press the **DIAL** knob on the side you wish to set active.

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Preprogrammed Memory Channels and Frequencies
IC-2820

Memory Channel	Memory Name/Purpose	Frequency	Tone
1	OVH2M/Operations and Logistics	146.970 -	100 Hz
2	WWI2M/Operations and Logistics	147.240 +	
3	NVFM2M/Fairfax ARES	146.790 -	
4	NVREGN/Northern Virginia Regional Operations and Coordination	146.910 -	
5	SKYWARN/National Weather Service—Sterling	147.300 +	
6	MDREGN/Maryland Regional Operation and Coordination	147.105 +	
7	MTVERN/Mount Vernon (Alexandria)	146.655 -	141.3 Hz
8	ALEX2M/Alexandria ARES	147.315 +	
9	ARL2M/Arlington ARES	145.470 -	
10	FAQ2M/Fauquier ARES	147.470 +	167.9 Hz
11	LOU2M/Loudon ARES	145.310 -	
12	DULLES/Dulles Airport 2m machine, max 15w out	147.330 +	203.5 Hz
21	OVH440/Command and Control/Operations and Logistics	442.200 +	
22	WWI440/Command and Control/Operations and Logistics	444.900 +	
23	FALLSC/Fall Church ARES	442.425 -	91.5 Hz
24	NERA/Main Repeater, linked system	442.725 +	107.2 Hz
25	NERA/DC	449.975 -	107.2 Hz
26	KT4ER/Bull Run Mountain	448.325 -	100.0 Hz
27	NERA/Bull Run Mountain	447.775 -	67.0 Hz
33	MEDCOM/InterHospital communications/MedComm back-up	146.445	
34	ARC-CHP/Red Cross Chapter-to-Chapter communications	146.535	
35	ARC-FD/Red Cross Field Operations	146.420	
36	XBAND1/Combine with 147.325—VHF1 (left)	445.950 (right)	100.0 Hz
37	XBAND2/Combine with 146.475—VHF2 (left)	446.050 (right)	100.0 Hz
38	XBAND3/Combine with 146.970—OVH2M (left)	445.975 (right)	100.0 Hz
39	XBAND4/Combine with 147.240—WWI2M (left)	446.025 (right)	100.0 Hz
40	Packet	145.730	
41	APRS	144.390	

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Power*Turning the power on and off (Pg. 15)*

To turn the radio **on**, press and hold the **[PWR]** button for 1 second (Fig. 1). The LCD will show the current power supply voltage for 2 seconds before switching to normal mode.

To turn the radio **off**, press and hold the **[PWR]** button for 1 seconds.

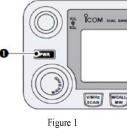


Figure 1

Changing the Transmit Power Level (Pg. 23)

Press the **[LOW-PRIOR]** to change the power output levels. Low is 5W, Mid is 15W, High is 50W on 2M and 35W on 70cm.

Memory Mode*Memory Mode Operations (Pg. 61)*

The IC-2820 deployed at the EOC and Potomac Hospital have been preloaded with the frequencies listed in the guide. To ENTER memory mode:

1. Press **M/CALL-MW** button once. The MR icon appears on the active frequency. You will need to do this for each active frequency once.
2. Turn the **DIAL** until the desired memory bank is displayed.
3. To enable the name function:
 - A. Push the **FUNCTION** key
 - B. Push the **LOW-PRIOR** button once
 - C. Push the **FUNCTION** key twice to return to normal operations

Locking the Radio*Locking the radio (Pg. 19)*

Press the **FUNCTION-LOCK** key for 1 second to lock or unlock the frequency.

Band Management*Selecting the Operating Band (Pg. X)*

Transmission is possible on the side where the **MAIN** icon is lit.

To select the left or right side for transmission:

Mar: Press the **BAND** button.

Fax: Briefly press the **MAIN-BAND** knob on either the left or the right side as needed.

Selecting the Frequency Band (Pg. XI)

Press and hold the **DIAL** knob for 1 second, then rotate the **DIAL** to step through the bands.

Direct input with Mic (Pg. XI)

Push the **VFO/LOCK** button, push the **T-OFF/ENT C** button, push the number buttons for the frequency.

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CTCSS*CTCSS Operations*

Enabling CTCSS involves two steps. You have to set the Tone Frequency (Pg. 32) and enable the Tone mode (Pg. 30).

Setting the Tone Frequency (Pg. 32)

1. Push the **FUNCTION** key to display the function guide.
2. Push the **MENU (V/MHZ-SCAN)** key (far right).
3. Rotate **DIAL** to select DUP/TONE, then push **MAIN-BAND**.
4. Rotate **DIAL** to select REPEATER TONE then push **MAIN-BAND**.
5. Rotate **DIAL** to select the tone you want, and then push **MAIN-BAND** to set.
6. Push **BACK (V/MHZ-SCAN)** (far right) twice to exit and return to normal operations

Enabling Tone Mode (Pg. 30)

1. Push **TONE-DTMF** to enable TONE. It rotates through TONE, TSQL, and disabled.

Repeater Offsets*Setting Repeater Offsets (Pg. 30)*

The IC-2820 comes preset with the following shifts: On 2m, 600 kHz; on 70cm, 5 MHz

To manually set the positive (+) or negative (-) or disable the offset, push the **DUP-MONI** button to change between off, DUP-, and DUP+.

This works ONLY for the active frequency.

Cross Band Repeater Operations*Enabling the cross band function (from KB 743G461664)*

1. Configure the band(s) as needed with power levels and TONE as needed.
2. Press and hold both left and right **MAIN** dials then the **FUNCTION** key together. After two beeps, the lock key will flash in the upper right of the display.
3. When in cross band mode, the VHF frequency is on the left and the UHF frequency is on the right.
4. Repeat step 2 to return to normal operations.

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