

**WD2XSH status report: December 1, 2014 - February 28, 2015**

**Prepared by Fritz Raab, W1FR, Experiment Coordinator,  
John Langridge KB5NJD, and Warren Ziegler, K2ORS**

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**1. SUMMARY OF OPERATIONS**

This report provides a summary of WD2XSH activity during the Winter of 2014-2015. The key statistics of our operations during this period are:

- Number of QSOs: No additional, total 537;
- Number of reports via web site: 13 additional, total 16,260;
- Operating hours: 8002 additional, total 179,673; and
- Number of interference complaints: 0.

All statistics are based upon the end of the reporting period (02/28/15). Only transmitting hours are included. Only WD2XSH stations are included as only they submit logs. Automatic reporting of WSPR receptions in the WSPR data base has resulted in lowered use of our web site for reporting.

**2. ADMINISTRATIVE**

The WD2XSH license is currently set to expire in August. This is therefore a good time to look at what WD2XSH has accomplished and to consider whether it should be renewed.

The mission of WD2XSH has actually been accomplished. Our operations have demonstrated that

- The amateur community is interested in operations on 630 meters.
- Amateurs with ordinary facilities can use the band; exotic antennas are not required.
- QSOs from 500 to 1000 miles are routinely achieved, and longer distances are possible.
- Both traditional CW and modern digital modes have been used.
- Reliable regional ground-wave communication has been demonstrated. This will make possible regional beyond-line-of-sight emergency communications that is available at all times of day and is not subject to whims of the ionosphere.
- In 179,000 hours of operation, there has not been one complaint of harmful interference from either other radio services or utility power-line communications. The radiated power from some WD2XSH stations, as well as other experimental stations, is well above the 5 W EIRP of the WRC-12 authorization.

Following the WRC-12 decision to create an amateur 630-meter band, most of us expected the FCC to approve access for US amateurs. Had this happened, there would not be further need for the WD2XSH license. Over two years have passed since the ARRL petitioned the FCC to consider this band, and the FCC does not appear to be in any hurry to do so.

There are now a number of other experimental licenses for 630-meter operation, and these will continue whether or not WD2XSH is renewed. However, it is the opinion of the author that the ARRL should have a continued presence in our quest for a 630-meter amateur band.

The author therefore recommends that the license be renewed. A "no change" renewal should be easy to do. However, it would be useful to make one or two changes in location to accommodate operators who have moved more than 50 km from their original locations.

### 3. COMMUNICATIONS

Operations continued throughout the winter. Trans-Atlantic reception reports seem to be down slightly from the previous winter. In one case, WG2XKA and a German station both reported hearing each other. WE2XPQ, was reported by JA8SCD using WSPR on March 13. On January 13, G8HUH received VK5CV on 477 KHz using the "OPERA DYNAMIC" MF/LF beacon mode.

Several stations participated in straight-key night.

The Canadian 630-meter operators held a crossband event on February 14, listening on 160 and 80 meters.

The NDBLIST sponsored its 191st Coordinated Listening Event during the last weekend of February. Fourteen US and Canadian amateur beacons were logged by the participants.

#### STATION NUMBER OF LOGGINGS

WG2XGR/2	10
WD2XSH/12	8
WG2XJM	8
WG2XIQ	8
WD2XSH/31	7
WG2XKA	7
WG2XSB	6
VE7BDQ	5
WG2XSV	5
VO1NA	4
WG2XNI	3
WD2XSH/38	3
VE7CNF	2

VO1NA on 477.7 KHz was logged 2476 miles away in Holland and was the only transatlantic amateur logging reported.

Jim, W5EST, has been doing some interesting analysis of how the ionosphere affects propagation on 630 meters. He continues to work with Carl, K9LA, and has published a number of notes on the subject.

#### **4. ACTIVITIES**

There will be a 630m discussion panel at Hamcom 2015 in June in Dallas. The schedule has not been released. KB5NJD plans to post a recording on his web page.

#### **5. INTERFERENCE**

There have been no reports of interference, however, we are continuing to monitor three potential interference problems: No interference problems have been observed in the 472 - 479-kHz band.

- NDB OF continues to operate on 510 kHz.
- We continue to hear NEED on 505 kHz from time to time.
- NDB FA continues to operate on 510 kHz.

#### **6. OTHER US EXPERIMENTAL LICENSES**

The locations of many of the US experimental licenses are shown in Figure 2. Their parameters are given in Appendix B, and the known unlicensed (part-15) operators are given in Appendix E.

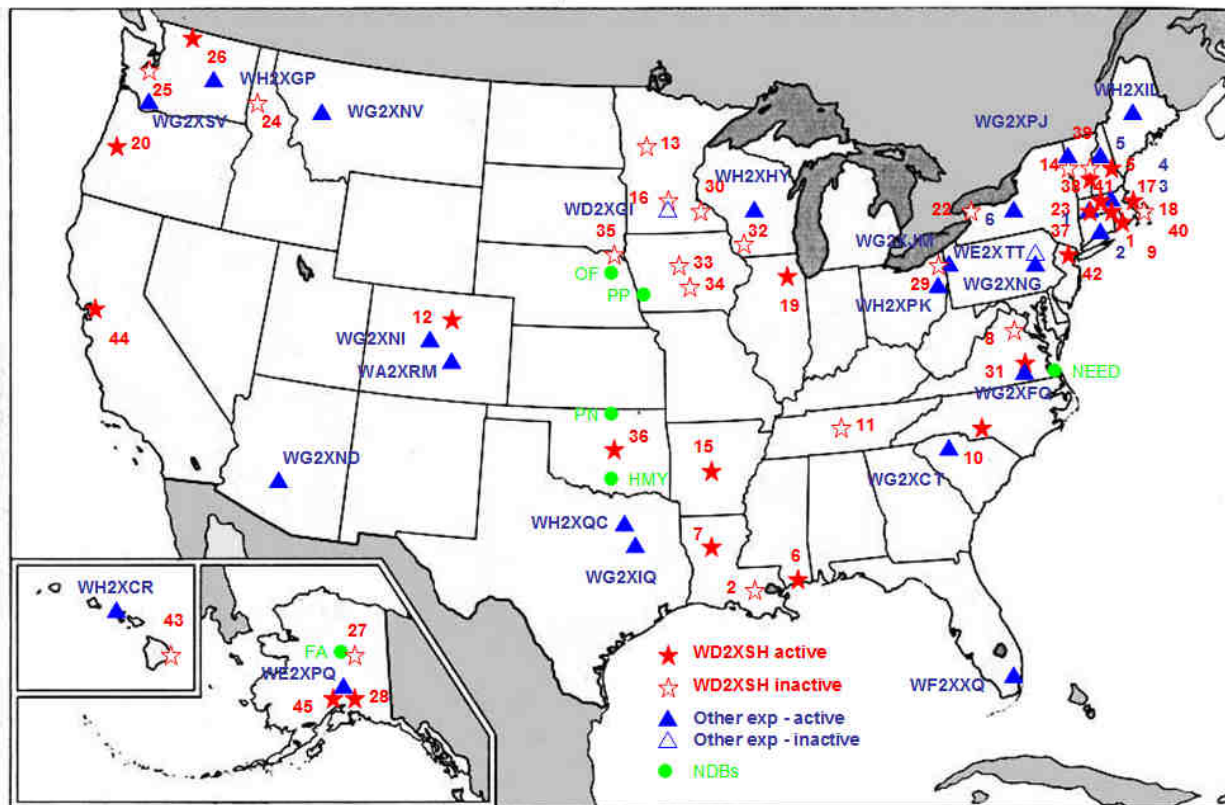


Figure 2. Locations and status of US 630-meter experimental stations.

This past quarter saw one pending license issued, five new applications files and issued, and one new application filed and pending. These licenses add stations in Colorado, Arizona, Pennsylvania (2), Texas, and Maryland. Details are given in Appendix B.

## 7. INTERNATIONAL AMATEUR ACTIVITIES

Japanese amateurs gained access to 630 meters on January 5. They are allowed 1-W EIIRP. However, they may not operate within 200 meters of another building unless they have permission from the resident.

Amateurs in the following countries now have permission to use the 630-meter band:

Germany, Greece, Malta, Monaco, Norway, Phillipines, Czech Republic, Ireland, Switzerland, New Zealand, Finland, Spain, France, Poland, Burgaria, Canada, Vietnam, Japan.

## 8. HERITAGE (MUSEUM) OPERATIONS

Appendix D identifies the known heritage stations in the USA.

The Maritime Radio Historical Society participated in the special event as noted above.

## 9. REGULATORY

Nothing new to report. The FCC has yet to act on the NPR for 137 kHz nor ARRL's petition for 630 meters.

## 10. MISCELLANEOUS

André Kesteloot, N4ICK - WD2XSH/8 passed away on January 4. André was a founder of AMRAD (Amateur Radio Research and Development) and led the AMRAD LF effort to get the first U.S. LF Experimental license WA2XTF back in the 1999. As part of the AMRAD LF effort a high performance e-probe and LF downconverter and operated a long wave beacon on 137 kHz. André was an electrical engineer who retired from working for the CIA, where he was awarded the Intelligence Star.

## 11. PLANS

A number of stations will again transmit greetings during Field Day in June.

Merv, K9FD/KH6 - WH2XCR, has an antenna crew on site this month to help him get his TX system online. He is hopeful to be QRV shortly. He lives in a remote location and this complicates access to hardware that a lot of us take for granted.

## APPENDIX A. WD2XSH STATISTICS

STATION	CALL	STATUS	05/31/14		08/31/14		LAST LOG
			HOURS	QSOs	HOURS	QSOs	
WD2XSH/1	W1NZR	Inactive	4	3	4	3	02/13
WD2XSH/2	W5TVW	Inactive	13	22	13	22	08/07
WD2XSH/5	KW1I	ON	111	57	111	57	01/15
WD2XSH/6	W5THT	OFF	12268	202	12268	202	01/14
WD2XSH/7	W5JGV	ON	28651	1	28651	1	11/14
WD2XSH/8	N4ICK	SK	0	0	0	0	-
WD2XSH/9	W2ILA	Inactive	10	27	10	24	05/10
WD2XSH/10	W4DEX	Inactive	2390	30	2390	30	08/14
WD2XSH/11	WS4S	Inactive	810	12	810	12	07/11
WD2XSH/12	AI8Z	ON	38241	32	38379	32	02/15
WD2XSH/13	K0J0	SK	997	7	997	7	08/08
WD2XSH/14	W1FR	OFF	755	11	755	11	04/14

WD2XSH/15	W5OR	OFF	14142	2	14903	2	11/14
WD2XSH/16	WE0H	Now WD2XGI	1357	16	1357	16	02/14
WD2XSH/17	AA1A	Inactive	11802	23	11802	31	03/12
WD2XSH/18	N1EA	Inactive	3959	0	3959	0	04/08
WD2XSH/19	K9EUI	ON	1431	3	1431	3	01/15
WD2XSH/20	N6LF	QRT	4038	15	4228	15	01/15
WD2XSH/21	W0RW	Dropped	652	0	652	0	02/11
WD2XSH/22	WB2FCN	Inactive	-	-	-	-	-
WD2XSH/23	K2ORS	Inactive	112	1	112	1	08/09
WD2XSH/26	W7WKR	ON	1162	0	1162	0	01/15
WD2XSH/28	KL7Q	Inactive	72	6	72	6	11/14
WD2XSH/29	KN8AZN	SK	499	5	499	5	01/13
WD2XSH/31	WA1ZMS	ON	39627	9	41608	0	02/15
WD2XSH/34	W0RPK	Moved	153	1	153	1	04/11
WD2XSH/35	K0HW	Inactive	11	0	11	1	11/12
WD2XSH/36	W5GHZ	Inactive	1180	0	1180	0	08/10
WD2XSH/37	W1XP	ON	7162	17	7162	17	02/15
WD2XSH/38	KN1H	ON	2791	2	2932	2	02/15
WD2XSH/41	W1HK	Inactive	19	13	19	13	04/13
WD2XSH/42	K2LRE	ON	184	0	184	0	02/15
WD2XSH/44	AC6QV	QRT (Moved)	72	0	72	0	08/12
WD2XSH/45	KL7UW	Inactive	180	6	180	6	11/14
WD2XSH/46	NO3M	Now WG2XJM	1612	5	1612	5	10/12
TOTAL	02/28/14	12 ON	164,393	522			
TOTAL	05/31/14	12 ON	168,472	522			
TOTAL	08/31/14	12 ON	171,671	522			
TOTAL	11/30/14	13 ON	174,833	537			
TOTAL	02/28/15	13 ON	179,673	537			

**Notes:**

Operating hours and QSOs are derived from logs through February 28, 2015. The statistics in this appendix were compiled by Rudy Severns using the Excel logs submitted by the stations. Decreases in the number of operating hours or QSOs from the previous total indicate correction of errors. Several stations are off the air because of health problems, equipment problems, or relocation. "ON" means operation within the past year. Stations who do not submit logs each month are subject to an automatic QRT order and must remain off the air until their log has been brought up to date.

**APPENDIX B. US EXPERIMENTAL LICENSES**

CALL	NUMBER	QTH	f, kHz	ERP, W	DATES	NOTES
WA2XRM	1	CO	480	100	01/01/09 - 01/01/14	
WD2XGI	1	MN	460 - 490	1	04/17/14 - 05/01/19	

WD2XSH	43	USA	495 - 510 461 - 478	20	09/13/06 - 08/01/15	
WE2XGR	8	New England	493 - 515 460 - 480	1000	09/05/07 - 04/15/15	
WE2XFX	1	OK	505 - 510	20	07/27/07 - 07/26/12	Exp.
WE2XTT	1	PA	505 - 510	1500*	09/08/08 - 09/01/13	
WE2XPQ	1	AK	505 - 510 460 - 480	200	06/05/08 - 06/01/18	
WE2XVY	1	AZ	500 - 510	200	12/09/08 - 12/01/10	SK
WF2XAU	1	FL	505 - 510	10	06/23/09 - 01/01/10	Exp.
WF2XXQ	1	FL	495 - 505	500	10/14/11 - 10/01/16	
WG2XCT	1	SC	465 - 510	500	03/14/12 - 03/01/14	
WG2XFQ	1	VA	483 - 510	20	06/08/12 - 06/01/14	
WG2XIQ	1	TX	465 - 478	1	09/12/12 - 09/01/16	
WG2XJM	1	PA	460 - 480 495 - 515	100 100	10/24/12 - 11/01/16	
WG2XKA	1	VT	460 - 490	1	10/24/12 - 11/01/14	
WG2XPJ	1	VT	472 - 479	5	05/14/13 - 05/01/20	
WG2XSV	1	WA	472 - 479	1	11/13/13 - 11/01/15	
WG2XUX	1	KS	472 - 429	1	08/29/13 - 09/01/15	
WG2XXM	1	OK	472 - 479	1	12/03/13 - 12/01/15	
WH2XAR	1	AZ	472 - 479	1	04/01/14 - 04/01/16	
WH2XCR	1	HI	465 - 490	1	04/09/14 - 04/01/16	
WH2XES	1	TX	465 - 478	1	05/16/14 - 06/01/16	
WH2XGP	1	WA	470 - 480	20	06/24/14 - 07/01/16	
WH2XGZ	1	TX	472 - 479	1	07/03/14 - 07/01/16	
WH2XHY	1	WI	472 - 479	20	08/01/14 - 08/01/16	
WH2XIL	1	MA	460 - 488 491 - 517	1000 1000	08/14/14 - 08/01/19	
WH2XND	1	AZ	472 - 479	1	12/03/14 - 12/01/16	
WH2XNG	1	PA	465 - 478	20	12/02/14 - 12/04/19	
WH2XNV	1	MT	472 - 479	5	12/16/14 - 01/01/17	
WG2XNI	1	CO	465 - 480	5	12/31/14 - 04/01/16	
WH2XPK	1	PA	460 - 480	20	02/26/15 - 03/01/17	
WH2XQC	1	TX	465 - 480	5	03/04/15 - 03/01/17	
WH2XRR	1	MD	472 - 479	1	Pending	

\* RF output to antenna

### APPENDIX C. FOREIGN AMATEUR/EXPERIMENTAL BANDS

The following table gives the amateur/experimental authorizations that were in force at some time prior to approval for amateur operation in the 630-meter band. Some of these allocations have been or will be phased-out concurrent with approval of amateur operation.

COUNTRY	TYPE	BAND, kHz	ERP, W
Sweden	NoV	500, 501 - 508	20 CW, SSB, data
Germany	Exp	505.0 - 505.2	9
Czech Republic	Exp	501-504, 505.60	10
Belgium	Amateur	501 - 504	5
Canada	Exp	504 - 509	20
Norway	Am/Herit	493 - 510	100 (RF) CW only
Romania	NoV	505.68	100 (RF)
Denmark	NoV	501 - 504	20
Ireland	NoV	501 - 504	10 CW, PSK-31
Netherlands	Amateur	495 - 505	5
Iceland	NoV	493 - 510	100 CW
New Zealand	Amateur	505 - 515	20 200 Hz
Croatia	Exp	493 - 510	
Australia	Exp	505 - 515	
Spain	NoV	501 - 504	5 100 Hz
Malta 9H1	Amateur	501 - 504	10
Italy	NoV	501	One station
Finland	Amateur	472 - 479	1
France	Amateur	472 - 479	
Vietnam	Amateur	472 - 479	
Canada	Amateur	472 - 479	
Japan	Amateur	472 - 479	1

The following countries have approved amateur operation in the international 630-meter band (472 - 479 kHz):

Germany, Greece, Malta, Monaco, Norway, the Phillipines, Czech Republic, New Zealand, Australia, Switzerland, Finland, Spain, France, Poland, Burgaria, Canada, Vietnam, Japan.

This list has been changing frequently and is no doubt incomplete.

#### APPENDIX D. HERITAGE STATIONS

CATEGORY	CALLSIGN	FREQUENCIES	OPERATOR / QTH
Coastal	KSM	500, 426	MRHS, Bolinas, CA
	KFS		
	KPH	500, 426	MRHS, Bolinas, CA
	KLB	500, 488	Seattle, WA
	WLO	500, 438	Mobile, AL



New	WNE	500, 472	NEHRS, Stoneham, MA
	KDR	500, 482	Bellevue, WA
	WFT	500, 486	KZ4RV, Palmeto, FL
USCG	NMC	500, 448, 472	Bolinas, CA
	NMN	500, 448, 468	Chesapeake, VA
	NOJ	500, 416, 470	Kodiak, AK
Ships	KKUI		SS American Victory
	KYVM		SS Red Oak Victory
	KECW		SS Lane Victory
	KXCH		SS Jeremiah O'Brien
	KHRC		SS Matsonia
	NWVC	500, 512	LST325, Evansville, IN
	NTTH	500, 512	USS Cassin Young, Charleston, MA
	NEPL		USS Massachusetts, Fall River, MA
	NWKJ		USS Yorktown, Charleston, SC
Foreign	LGQ	493 - 510	Rogaland, Norway
	LM500LGN	493 - 510	Bergen, Norway

#### APPENDIX E. US PART-15 OPERATORS

<i>f</i> , kHz	ID	QTH	OPERATOR
510.1	HI	Monroe, CT	
510.903	EH	East Haven, CT	K1RGO
515.15	U	Magdalena, NM	Mike Mideke - Inactive

#### APPENDIX F. CANADIAN 500-kHz STATIONS

CALL	OP	QTH	STATUS
VX9BDQ	VE7BDQ	Delta, BC (near Vancouver)	Active
VX9MRC	VO1NA	Torbay, NFLD	Active
VX9ZZZ	VE1ZZ	Nova Scotia	Active
VX90HH	VE30HH	Richmond Hill, Ontario	Inactive