# WD2XSH status report: June 1 - August 31, 2014

## Prepared by Fritz Raab, W1FR, Experiment Coordinator

#### October 9, 2014

#### 1. SUMMARY OF OPERATIONS

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

- Number of QSOs: 0 additional, total 522;
- Number of reports via web site: 25 additional, total 16,188;
- Operating hours: 3,199 additional, total 171,671; and
- Number of interference complaints: 0.

All statistics are based upon the end of the reporting period (08/31/14). Only transmitting hours are included. Only WD2XSH stations are included as only they submit logs.

#### 2. ADMINISTRATIVE

Nothing to report.

## 3. COMMUNICATIONS

The summer has presented surprisingly good opportunities for DX, especially for operators using WSPR. A number of operators reported very good conditions in spite of the time of year.

On July 26, WSPR signals from WA3ETD - WG2XKA were received in England. A

David, VK2DDI reported reception John Langridge's (KB5NJD / WG2XIQ) WSPR transmission on 475.621 kHz on August 25 at 09:50 UTC. This is a distance of 8628 miles. VK2DDI is near Berry Mountain in New South Wales, and WG2XIQ is in Duncanville, TX. This time of year may present a good compromise between propagation conditions and noise levels in both locations.

On September 1, Rudy Severns, WD2XSH/20, was received by VK2XGJ. WH2XGP was also received by ZL2AFP. Both were transmitting WSPR.

A number of 630-meter operators participated in field day on June 26 by transmitting special messages. The participants included WG2XKA (WA3ETD), WG2XJM (NO3M), WG2XIQ (KB5NJD), WD2XSH/20 (N6LF), WE3XGR/3 (W1TAG) and WE2XPQ (KL7L). A number of reports were received and this seems to have stirred-up interest in the band.

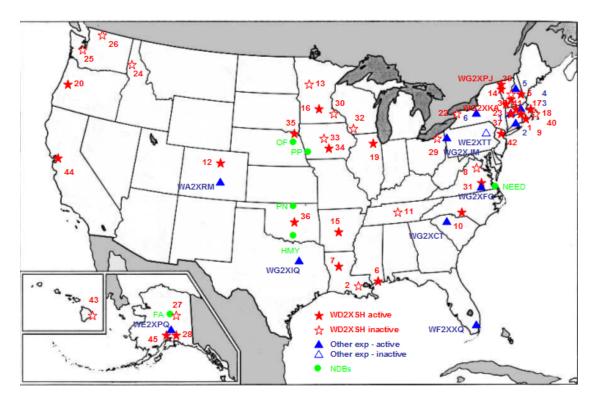


Figure 1. Locations and status of US 500-kHz experimental stations.

## 4. ACTIVITIES

Ed Cole KL7UW - WD2XSH/25 gave a presentation at the local amateur radio club in Alaska.

## 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 frequency bands of US and foreign amateur and experimental licenses are shown in Figure 2. Some of the foreign allocations have been terminated as national regulators approve

amateur operation in the 630-meter band. The parameters of U.S. experimental licenses are given in Appendix B, and the known unlicensed (part-15) operators are given in Appendix E.

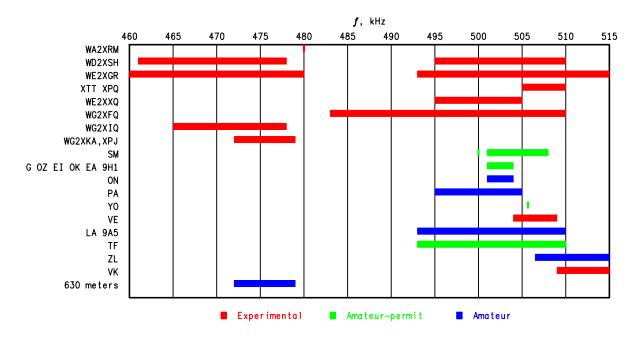


Figure 2. Worldwide amateur activity near 500 kHz.

A number of new experimental licenses have been granted, and several of these stations are now on the air. WH2XGP (Washington), WH2XGZ (Texas) WH2XHY (WI), and WH2XIL (MA). WH2XIL is Warren Ziegler's experimental license and includes a variety of LF and VLF frequencies in addition to 630 meters. WG2XSV (W0YSE) has been modified to allow operation from his new QTH in Vancouver, Washington.`

#### 7. INTERNATIONAL AMATEUR ACTIVITIES

The author has nothing new to report on the international situation.

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.

It is ironic that the quest for 630 meters was initiated in the USA and US amateurs were the first on the 500-kHz band under experimental licenses. However, it looks like we will be one of the last ones to have true amateur access to the band.

## 8. HERITAGE (MUSEUM) OPERATIONS

Appendix D identifies the known heritage stations in the USA.

The Maritime Radio Historical Society held its annual "Night of Nights" on July 12.

## 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

Nothing to report.

#### 11. PLANS

The Berlin treaty made 500 kHz the official international maritime distress frequency. A special event on October 31 and November 1 will mark the anniversary of that treaty. Participating in this event will be:

- US experimental stations (WD2XSH and others),
- · Canadian radio amateurs, and
- Maritime Radio Historical Society (KPH/KSM).

These stations will transmit special messages and in some cases offer special QSLs. US experimental stations will also simulate maritime communication by calling CQ on a designated calling frequency and then QSYing to another frequency. Silent periods will be observed. Canadian 630-meter operators will engage in cross-band QSOs with amateurs on 80 and 50 meters. Communications between stations in one group and another are unfortunately not permitted.

Information on this event is posted on the 500kc.com web site, the MRHS 500kc.org web site, and the RAC web site.

#### APPENDIX A. WD2XSH STATISTICS

STATION	CALL	STATUS	05/3 <sup>-</sup> HOURS		08/3 <sup>-</sup> HOURS	•	LAST LOG
WD2XSH/1 WD2XSH/2 WD2XSH/5	W1NZR W5TVW KW1I	Inactive Inactive ON	4 13 106	3 22 57	4 13 108	3 22 57	02/13 08/07 05/14
WD2XSH/6	W5THT	0FF	12268	202	12268	202	01/14
WD2XSH/7	W5JGV	ON	26689	1	27946	1	05/14

WD2XSH/8	N4ICK	Inactive	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	11/10
WD2XSH/12	AI8Z	ON	37231	26	37710	30	08/14
WD2XSH/13	K0J0	SK	997	7	997	7	08/08
WD2XSH/14	W1FR	OFF	755	11	755	11	04/14
WD2XSH/15	W50R	OFF	14142	2	14142	2	05/13
WD2XSH/16	WEOH	Now WD2XGI	1356	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	08/14
WD2XSH/20	N6LF	ON	2671	7	3350	7	08/14
WD2XSH/21	WORW	Dropped	652	0	652	0	02/11
WD2XSH/22	WB2FCN	Inactive	-	-	-	-	-
WD2XSH/23	K20RS	Inactive	112	1	112	1	08/09
WD2XSH/26	W7WKR	Inactive	896	0	696	0	03/14
WD2XSH/28	KL7Q	Inactive	72	6	72	6	08/13
WD2XSH/29	KN8AZN	SK	499	5	499	5	01/13
WD2XSH/31	WA1ZMS	ON	35430	8	37469	8	08/14
WD2XSH/34	WORPK	Moved	153	1	153	1	04/11
WD2XSH/35	KOHW	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	08/14
WD2XSH/38	KN1H	ON	2549	2	2549	2	04/14
WD2XSH/41	W1HK	Inactive	19	13	19	13	04/13
WD2XSH/42	K2LRE	ON	184	0	184	0	08/14
WD2XSH/44	AC6QV	QRT (Moved)		0	72	0	08/12
WD2XSH/45	KL7UW	Inactive	180	6	180	6	02/14
WD2XSH/46	NO3M	Now WG2XJM	1612	5	1612	5	10/12
TOTAL 08/3		14 ON	153,713	504			
TOTAL 11/3		15 ON	157,733	514			
TOTAL 02/2		12 ON	164,393	522			
TOTAL 05/3		12 ON	168,472	522			
TOTAL 08/3	1/14	12 ON	171,671	522			

#### Notes:

Operating hours and QSOs are derived from logs through August 31, 2014. 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	NUMBE	R 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	20	09/13/06 - 08/01/15	
			461 - 478			
WE2XGR	8	New England	493 - 515	1000	09/05/07 - 04/15/15	1
			460 - 480			
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	200	06/05/08 - 06/01/18	
			460 - 480			
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	100	10/24/12 - 11/01/16	
			495 - 515	100		
WG2XKA	1	VT	460 - 490	1	10/24/12 - 11/01/14	
WG2XPJ	1	VT	472 - 479	1	05/14/13 - 05/01/15	I
WG2XSV	1	WA	472 - 479	1	11/13/13 - 11/01/15	I
WG2XUX	1	KS	472 - 429	1	08/29/13 - 09/01/15	
WG2XXM	1	OK	472 - 479	1	12/03/13 - 12/01/15	i
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	i
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	1000	08/14/14 - 08/01/19	
			491 - 517	1000	. , , , ,	

<sup>\*</sup> 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
UK	NoV	501 - 504	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	

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

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

## **APPENDIX D. HERITAGE STATIONS**

CATEGORY	CALLSIGN	FREQUENCIES	OPERATOR / QTH
Coastal	KSM KFS	500, 426	MRHS, Bolinas, CA
	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 KYVM KECW KXCH KHRC NWVC NTTH NEPL NWKJ	500, 512 500, 512	SS American Victory SS Red Oak Victory SS Lane Victory SS Jeremiah O'Brien SS Matsonia LST325, Evansville, IN USS Cassin Young, Charleston,MA USS Massachusetts,Fall River,MA USS Yorktown, Charleston, SC
Foreign	LGQ	493 - 510	Rogaland, Norway
	LM500LGN	493 - 510	Bergen, Norway

# APPENDIX E. US PART-15 OPERATORS

f, kHz	ID	QTH	OPERATOR
510.1	HI	Monroe, CT	
510.903	EH	East Haven, CT	K1RG0
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