WD2XSH status report: March 1 - May 31 , 2010

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June 21, 2010

1. SUMMARY OF OPERATIONS

This report provides a summary of WD2XSH activity during the spring of 2010. The key statistics of our operations to date are:

- Number of QSOs: 1 additional, total 405;
- Number of reports via web site: 511 additional, total 11,234;
- Operating hours: 11,362 additional, total 60,648; and
- Number of interference complaints: 0.

All statistics are based upon the end of the reporting period (05/31/10).

2. ADMINISTRATIVE

Our present license grant expires on August 1. We need to plan to do an "as-is" renewal in July.

3. COMMUNICATIONS

As usual, the decrease in night-time hours and the increase in QRN in the spring results in reduced operations. Nonetheless, a number of stations have remained active. A good deal of recent activity has been WSPR transmissions. Figure 1 shows the locations and status of our stations.

Several ground-wave tests will be conducted during the summer months. The most extensive is being coordinated by Ralph Wallio W0RPK and involves several midwest stations. Unfortunately, there does not appear to be great interest among many of our operators in helping with these tests.

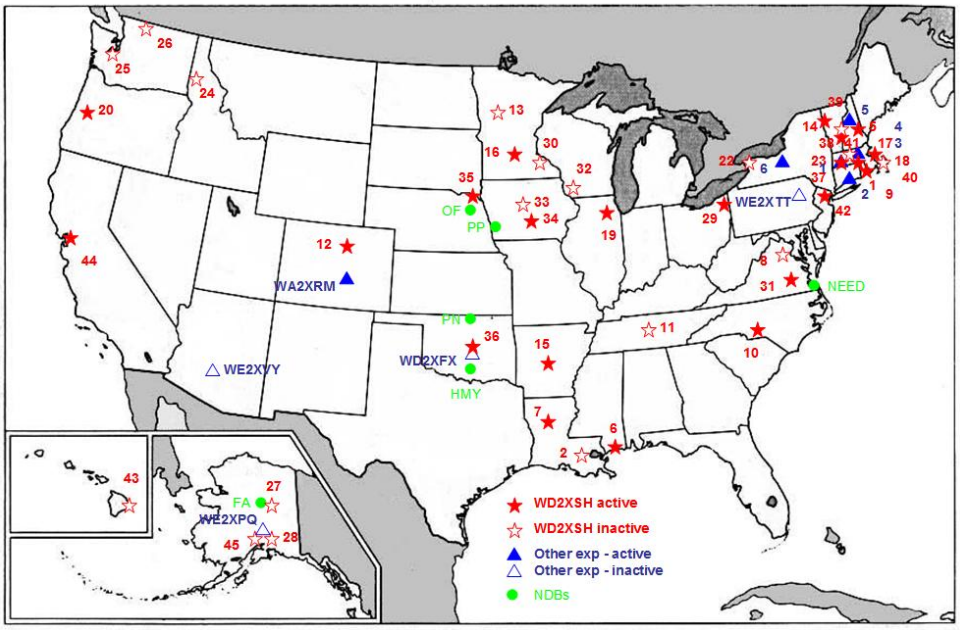

Figure 1. Locations and status of US 500-kHz experimental stations.

4. ACTIVITIES

Our project and operator WD2XSH/31 - Brian Justin WA1ZMS/4 - were featured in the Spring 2010 issue of the 6-2-5 Sentinal. This is the newsletter of the Arlington (VA) Radio Public Service Club.

Six of our operators met at the Dayton Hamvention in May (Figure 2).

Mike Shaw K2LRE - WD2XSH/42 received the David Kintzer Memorial Award from the Veteran Wireless Operators Association. This award recognizes "unselfish cooperation, high standards of integrity, and ardent devotion to tasks."

Figure 2. 500-kHz ops at Dayton Hamvention (left to right): /1 Brown Beezer W1NZR, /5 Dale Gagnon KW1I, /16 Mike Reid WE0H and son Tyler age 12, /42 Mike Shaw K2LRE, /31 Brian Justin WA1ZMS/4, and /35 Jim Wennblom K0HW. Photo by Dean Gagnon, KK1K.

5. INTERFERENCE

There have been no reports of interference, however, we are continuing to monitor two potential interference problems.

NDB OF

NDB OF continues to operate on 510 kHz.

NEED

We continue to hear NEED on 505 kHz from time to time.

NDB FA

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

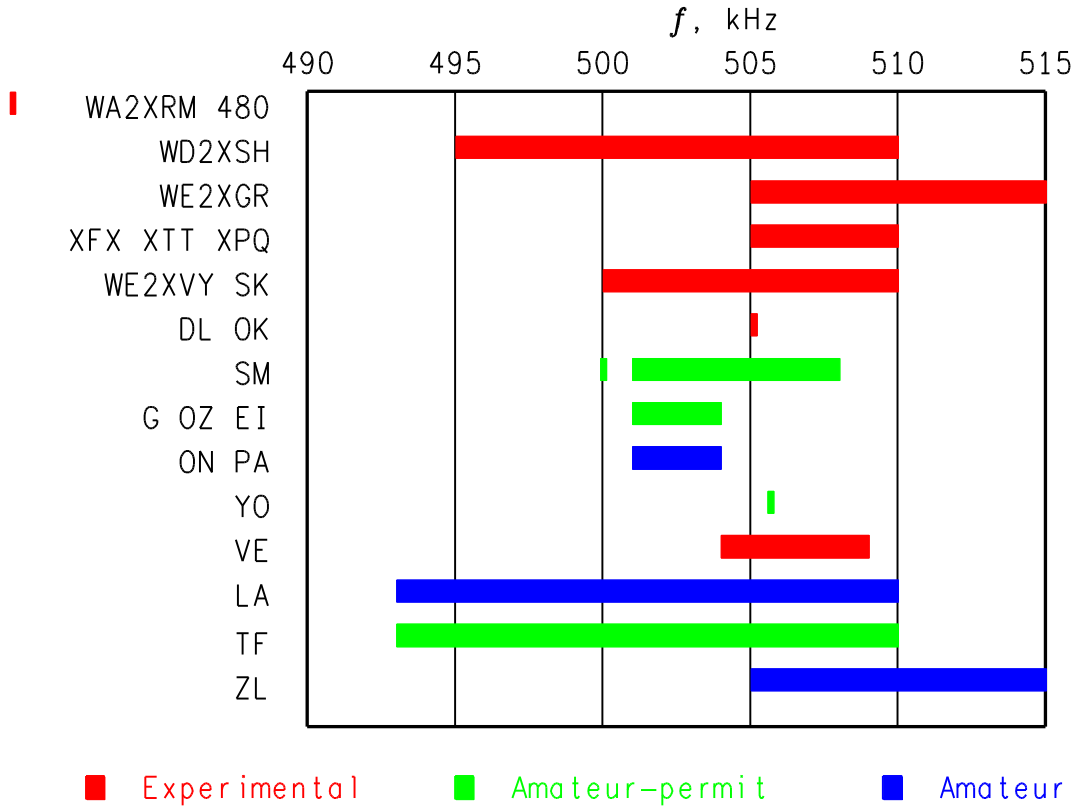

Figure 3. Worldwide amateur activity at 500 kHz.

Telecordia in Piscataway, NJ applied for an experimental license on May 28. Their application asks for 100 W ERP from 495 to 505 and 525 - 535 kHz. This will support their work under a DoD contract to determine the vulnerabilities of broadband infrastructure to jamming and interference.

7. INTERNATIONAL AMATEUR ACTIVITIES

German amateur Horst DO1KHS has been issued experimental license DI2AN.

YO2X is reported to be operating a beacon on 505.110. This is the second Romanian station to operate on 500 kHz.

GB4FPR operated on 502 kHz from Fort Perch Rock to celebrate Marconi Day in April. Several UK stations have been experiment with the new ROS digital-communication software.

8. HERITAGE (MUSEUM) OPERATIONS

Appendix D identifies the known heritage stations in the USA.

WNE (New England Historical Radio Society) has acquired a BC-250GY transmitter that is capable of producing 450 W CW.

9. REGULATORY AND WRC-12

The IMO continues to oppose an amateur allocation. From the COMSAR meeting in London in March:

51 The Group noted that the band 415 to 526.5 kHz was allocated on a primary basis to the maritime mobile service and that Administrations, authorizing the use of frequencies in the band 495 to 505 kHz by services other than the maritime mobile service, should ensure that no harmful interference was caused to the maritime mobile service. It was further noted that, in the draft IMO position under Agenda item 1.10, the future use of the band 415 kHz-526.5 kHz for safety- and security-related systems was supported, recognizing that this band was allocated on a worldwide basis for the use by the maritime community. It was considered that, due to the technology today, these systems would not be operated manually and that automatic transmissions could be carried out at any time, as required. Interference by transmissions from services with secondary status would prevent reception of information from the primary user. It was further considered that a secondary allocation for the amateur service would increase the probability of harmful interference.

In the author's opinion, the IMO has more than adequate spectrum without 492 - 515 kHz and in any case has no real systems to be deployed.

10. PLANS

We are planning to do more ground-wave tests this summer. These tests will involve the midwest stations and several other clusters who produced useful results in the 2008 tests. A number of the new stations are continuing to ready their stations.

APPENDIX A. WD2XSH STATISTICS

STATION	CALL	STATUS	11/30/09		02/28/10		
			HOURS	QSOs	HOURS	QSOs	LAST LOG
WD2XSH/1	W1NZR	Inactive	13:36	7	13:36	7	08/09
WD2XSH/2	W5TVW	Inactive	12:31	22	12:31	22	07/07
WD2XSH/5	KW1I	Inactive	24:07	48	24:07	48	02/09
WD2XSH/6	W5THT	ON	6390:23	154	6854:11	154	05/10

WD2XSH/7	W5JGV	ON	1170:37	0	3850:50	1	05/10
WD2XSH/8	N4ICK	Inactive	0	0	0	0	-
WD2XSH/9	W2ILA	Inactive	9:37	26	9:37	26	05/09
WD2XSH/10	W4DEX	ON	1731:26	26	1731:26	26	05/10
WD2XSH/11	WS4S	Inactive	809:42	12	809:42	12	08/08
WD2XSH/12	AI8Z	ON	17386:35	24	19338:31	24	05/10
WD2XSH/13	K0JO	SK	997:00	7	997:00	7	08/08
WD2XSH/14	W1FR	ON	313:55	8	324:01	8	05/10
WD2XSH/15	W5OR	ON	4134:52	2	4137:37	2	05/10
WD2XSH/16	WE0H	ON	1064:34	14	1077:20	14	05/10
WD2XSH/17	AA1A	ON	2690:57	23	4092:30	23	05/10
WD2XSH/18	N1EA	Inactive	3935:00	0	3935:00	0	04/08
WD2XSH/19	K9EUI	ON	1343:05	3	1382:31	3	05/10
WD2XSH/20	N6LF	ON	2152:53	7	2152:53	7	05/10
WD2XSH/21	W0RW	Dropped	652:42	0	652:42	0	11/06
WD2XSH/22	WB2FCN	Inactive	-	-	-	-	-
WD2XSH/23	K2ORS	Inactive	110:11	0	112:11	0	08/09
WD2XSH/29	KN8AZN	ON	1220:17	5	1800:26	5	05/10
WD2XSH/31	WA1ZMS	ON	1816:14	6	3890:25	6	05/10
WD2XSH/34	W0RPK	ON	148:32	1	150:39	1	05/10
WD2XSH/35	K0HW	ON	1:01	0	11:01	0	05/10
WD2XSH/36	W5GHZ	ON	245:07	0	855:20	0	05/10
WD2XSH/37	W1XP	ON	698:51	5	1743:41	5	05/10
WD2XSH/38	KN1H	ON	168:50	0	517:40	0	05/10
WD2XSH/41	W1XP	?	?	?	5:29	0	05/10
WD2XSH/42	K2LRE	ON	9:11	4	9:44	4	05/10
WD2XSH/44	AC6QV	ON	31:41	0	39:29	0	05/10
WD2XSH/45	KL7UW	ON	-	-	115:01	0	05/10

TOTAL 11/30/09	18 ON	41,269	368
TOTAL 02/28/10	19 ON	49,286	404
TOTAL 05/31/10	20 ON	60,648	405

Note:
Operating hours and QSOs are derived from logs through May 31, 2010.
The statistics in this appendix were compiled by Rudy Severns N6LF using the Excel logs submitted by the stations.
Several stations are subject to a QRT order for not being current in submitting their logs. These stations are required to remain QRT until they have rectified the situation. Generally, these stations have an equipment problem or some other problem that keeps them from operating.
Two stations moved from the location specified on our original license. They are now authorized to operate at their new QTHs.
Some changes (such as a decrease in the number of QSOs) are the result of corrections to the logs.

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	
WD2XSH	43	CONUS	495 - 510	20	09/13/06 - 08/01/10	
WE2XGR	5	New England	505 - 515	200	09/05/07 - 09/01/12	
WE2XFX	1	OK	505 - 510	20	07/27/07 - 07/26/12	
WE2XTT	1	PA	505 - 510	1500*	09/08/08 - 09/01/13	
WE2XPQ	1	AK	505 - 510	50	06/05/08 - 06/01/13	
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.

* RF output to antenna

APPENDIX C. FOREIGN AMATEUR/EXPERIMENTAL BANDS

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	505.60	1	
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	501 - 504	5	
Iceland	NoV	493 - 510	100	CW
New Zealand	Amateur	505 - 515	20	200 Hz

APPENDIX D. HERITAGE STATIONS

CATEGORY	CALLSIGN	FREQUENCIES	OPERATOR / QTH
Coastal	KSM	500, 426	MRHS, Bolinas, CA
	KFS		
	KPH	599, 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	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
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	K1RGO

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
VX9OHH	VE3OHH	Richmond Hill, Ontario	Inactive

APPENDIX G. COMMUNICATION RECORDS

The reception and QSO distances below have been compiled by Ralph Walio WØRPK.

STATION	CW	QRSS	DIGIT	WSPR	WOLF	SSB	QSO
WD2XSH/1	56	--	--	--	--	--	56
WD2XSH/2	778	--	--	--	--	--	775
WD2XSH/5	1,508	1,508	--	--	--	--	1,315
WD2XSH/6	3,434	6,679	--	--	--	--	2,079
WD2XSH/7	3,212	3,212	1,425	--	--	--	266
WD2XSH/9	1,155	--	--	--	--	--	649
WD2XSH/10	3,767	4,369	701	5,305	--	--	747
WD2XSH/11	1,039	4,515	--	--	--	--	884
WD2XSH/12	1,811	1,811	1,306	2,357	--	--	1,696
WD2XSH/14	1,467	1,467	--	--	--	--	747
WD2XSH/15	930	1,432	--	--	--	--	377
WD2XSH/16	1,535	854	1,074	718	--	--	1,089
WD2XSH/17	3,668	4,032	--	4,611	--	--	1,308
WD2XSH/18	3	--	--	--	--	--	--
WD2XSH/19	1,814	465	392	--	--	--	782
WD2XSH/20	4,737	--	--	--	--	--	2,301
WD2XSH/23	1,185	--	--	--	--	--	690
WD2XSH/29	687	1,048	669	1,090	--	--	669
WD2XSH/31	2,057	3,348	--	--	--	--	751
WD2XSH/34	1,060	--	669	273	--	--	669
WD2XSH/35	1,321	--	--	--	--	--	1,209
WD2XSH/36	--	--	--	--	--	--	--
WD2XSH/37	1,098	--	--	3,489	--	--	467
WD2XSH/38	1,468	1,468	--	--	--	--	238
WD2XSH/42	636	--	--	--	--	--	357
WD2XSH/44	2	--	--	--	--	--	--
WD2XSH/45	96	--	--	1,366	--	--	--
WE2XGR/1	2,293	473	473	--	--	1,286	975
WE2XGR/2	3,771	4,137	1,407	4,735	3,747	1,209	3,379
WE2XGR/3	686	3,700	1,476	4,650	--	448	670
WE2XGR/5	174	527	--	--	--	--	174
WE2XGR/6	4,253	1,205	--	4,870	--	994	3,713
WA2XRM	623	1,798	--	--	--	--	--
WE2XPQ	--	1,335	--	--	--	--	--
VX9BDQ	1,745	2,410	--	2,086	--	--	--
VX9MRC	2,325	--	--	--	--	--	1,986
VX9ZZZ	2,505	--	--	--	--	--	2,505