

WD2XSH status report: September 1 - November 30, 2008**Prepared by Fritz Raab, W1FR, Experiment Coordinator****December 28, 2008****1. SUMMARY OF OPERATIONS**

This report provides a summary of WD2XSH activity during the fall of 2008. The QRN has decreased and propagation has improved considerably from summer, and activity is accordingly up as well. The key statistics of our operations to date are:

- Number of QSOs: 18 additional, total 296;
- Number of reports via web site: 390 additional, total 7132;
- Operating hours: 6,605 additional, total 31,127; and
- Number of interference complaints: 0.

All statistics are based upon the end of the reporting period (11/30/08).

2. ADMINISTRATIVE

We identified two corrections to be made in the August 22 filing for expansion. ARRL attorney Chris Imlay W3KD made the corrections on October 16.

I have asked the FCC whether we could be granted permission to communicate with foreign amateur-experimental stations (e.g., the Canadians) by a post-grant communication. While this should be simple as it does not involve any new stations or frequencies, it appears that they have no procedure for dealing with such a request other than our filing a formal request for modification.

3. COMMUNICATIONS

Activity has increased considerably this fall. A number of trans-continental and trans-Atlantic receptions have been reported.

The ground-wave tests concluded at the end of the summer. Logs have been received from all but the New England cluster. I am working on software for processing the data.

On Nov. 30, WE2XGR/6 and GI4DPE has a hybrid SSB-CW QSO. WE2XGR was transmitting LSB on 510 kHz and running about 50 W ERP (vs. his usual 200 W ERP) because of ice on his antenna. GI4DPE (Northern Ireland) responded in CW. This is the first transatlantic reception of SSB voice on 500 kHz .

4. INTERFERENCE

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

NDB OF

K0HW is again making signal-level comparisons, and will continue through the end of February. This year's tests use a single omni-directional antenna and a single receiver so that the results will be completely consistent. Two stations in Oklahoma (KD5UWL and W5GHZ) plan to conduct similar tests involving our signals and the two 500-kHz NDBs near them.

NEED

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

SBQ

A mystery signal identifying itself as SBQ has been observed several times in Nachitoches, Louisiana by W5JGV, starting on November 5. This appears to be an FSK signal, as the Morse ID "SBQ" has been observed on 507.2 kHz, and an inverse-keyed signal has been observed simultaneously on 507.5 kHz. This is an over-the-air signal and has been heard only at night, suggesting it is sky-wave. Unidentifiable signals on 507.5 kHz have been reported in Texas and South Dakota, but they could not be identified positively. We are making an effort to ascertain who can hear this signal as the first step in localizing it.

5. OTHER EXPERIMENTAL/AMATEUR OPERATIONS

On September 16, experimental license WE2XTT was issued to Phil Galasso K2PT. He is located in Shickshinny, PA, and has permission to operate from 505 to 510 kHz with 1 kW RF in CW and 1.5 kW in SSB mode.

On December 9, Michael Gray KD7LDO was issued experimental license WE2XVY. He is located in Fountain Hills, Arizona (near Phoenix). He is authorized to transmit on frequencies between 500 and 510 kHz using CW, FSK, and PSK with 200 W ERP. He has an ambitious plan for ground-wave tests that includes automated remote receivers. Two points about this license are of particular interest. While the requested access to 510 - 515 kHz was dropped, no objections were raised about access to the former distress/calling band from 500 to 505 kHz. His application was filed on October 25 and thus issued in only five weeks. Our request for expansion (while more complex) was filed earlier and remains pending.

Currently, this makes a total of six U.S. experimental licenses with access to 500 kHz:

- WD2XSH,
- WE2XGR,

- WD2XFF,
- WE2XPQ,
- WE2XTT, and
- WE2XVY.

In addition, WA2XRM is authorized to operate on 480 kHz.

On December 16, Mike Reid WE0H (WD2XSH/16) requested modification of his own experimental license WD2XGI to include 501 - 509 kHz. This modes include CW and voice transmissions.

On December 17, Brian Ford KF4TAP from Boaz, Alabama filed a new application WE2XXH. He has requested the use of 495 - 510 kHz with CW signals and 1 W ERP, plus a 500-km mobile operating radius.

On December 23, Charles Vest from South Coffeyville, Oklahoma filed a new application for access to 495 - 510 kHz. He has asked for 1-W ERP with narrowband FSK, CW, and general modulation modes for propagation testing.

In preparation for WRC-11, Industry Canada has decided on November 10 to permit Canadian amateurs to operate from 504 to 509 kHz with an ERP up to 20 W and a bandwidth up to 1 kHz. These will officially be special development licenses and will have distinctive call signs.

On September 28, NTTH (*USS Cassin Young*) operated on 512 kHz from the Charleston, MA Navy Yard. The equipment is being restored by Steve Russell, who hopes for more operations in the future.

On November 21 and 22, the Maritime Radio Historical Society arranged for a special event involving KPH/KSM and ships KXCH (*SS Jeremiah O'Brien*) and KYVM (*SS Red Oak Victory*). The KPH transmitter was keyed remotely from its pre-World-War-II site in Marshall and operations were conducted on both MF and HF.

On October 3, LBA, Inc. filed an application for an experimental license (WE2XVO) for testing mine communication on 435 - 495 kHz with 10-W ERP and voice modulation. It will be interesting to see whether this application is opposed by the USCG because of plans for their HA DGPS system.

6. REGULATORY AND WRC-11

The German Seefunker organization is continuing efforts to get UNESCO to declare 500 kHz a world heritage and thereby to prevent other uses. They cite a relatively new UNESCO convention for safeguarding intangible cultural assets. It is unclear whether they could be successful and if so what effect this would have on other uses of the band.

6. PORTABLE STATION

Fred Temple, KN8AZN, continues to refine his Small Wonder Labs PSK20/30/40 digital transceiver and Communications Concepts EB63 linear amplifier modifications for 600m. Both modified units, known as the PSK600 and EB63-600 with an LPF-600, are working on Fred's bench and ready to go on-the-air with 120W output when licensing allows.

Ralph Wallio, W0RPK, with considerable support from Fred, has a PSK600 working on his bench and is now duplicating Fred's EB63-600 and LPF-600. The only differences in modification parts for PSK20 vs. PSK30 and PSK40 are LO crystal frequencies. Modification documentation and parts lists are available.

Design and fabrication work for a portable transmit antenna continue with the goal being a reasonable balance between radiating efficiency and portability. Dimensions of radial field and vertical radiator are limited to allow quick deployment in far less than ideal surroundings.

7. PLANS

Plans for winter quarter include:

- General operations,
- Monitoring to compare signal levels to those of NDBs, and
- Reduction of ground-wave data from this summer.

APPENDIX A. STATISTICS

STATION	CALL	STATUS	08/31/08		11/30/08		COMMENT
			HOURS	QSOs	HOURS	QSOs	
WD2XSH/1	W1NZR	ON	11:37	5	13:36	7	
WD2XSH/2	W5TVW	OFF	12:31	22	12:31	22	QRT Order
WD2XSH/3	WD5CVG	DROPPED	-	-	-	-	Dropped
WD2XSH/4	WD4PLI	DROPPED	-	-	-	-	Dropped
WD2XSH/5	KW1I	ON	19:47	42	21:37	46	
WD2XSH/6	W5THT	ON	3577:22	81	4022:51	90	
WD2XSH/7	W5JGV	MOVED	-	-	-	-	Moved
WD2XSH/8	N4ICK	OFF	0	0	0	0	Inactive
WD2XSH/9	W2ILA	ON	9:37	26	9:37	26	Inactive
WD2XSH/10	W4DEX	ON	856:00	22	1070:58	22	
WD2XSH/11	WS4S	OFF	809:42	12	809:42	12	QRT Order
WD2XSH/12	AI8Z	ON	8670:53	21	10355:53	21	
WD2XSH/13	K0JO	OFF	897:30	7	997:00	7	Illness
WD2XSH/14	W1FR	ON	118:05	5	151:02	5	
WD2XSH/15	W5OR	ON	3345:05	2	3557:18	2	
WD2XSH/16	WE0H	ON	332:04	0	470:44	3	

WD2XSH/17	AA1A	ON	713:38	23	772:49	23	
WD2XSH/18	N1EA	OFF	3935:00	0	3935:00	0	QRT Order
WD2XSH/19	K9EUI	ON	1310:21	3	1310:21	3	QRT Order
WD2XSH/20	N6LF	OFF	1963:12	7	1963:12	7	Inactive
WD2XSH/21	WORW	DROPPED	652:42	0	652:42	0	Dropped
WD2XSH/22	WB2FCN	MOVED	-	-	-	-	Ready
WD2XSH/23	K2ORS	OFF	110:11	0	110:11	0	QRT Order
TOTAL 08/31/08		12 ON	27,445	278			
TOTAL 11/30/08		8 ON	31,127	293			

Note:

Operating hours and QSOs are derived from logs through November 30, 2008.

Total number of QSOs is half the total shown for individual stations.

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.