

**WD2XSH status report: September 1 - November 30, 2014****Prepared by Fritz Raab, W1FR, Experiment Coordinator****December 30, 2014****1. SUMMARY OF OPERATIONS**

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

- Number of QSOs: 15 additional, total 537;
- Number of reports via web site: 59 additional, total 16,247;
- Operating hours: 3162 additional, total 171,671; and
- Number of interference complaints: 0.

All statistics are based upon the end of the reporting period (11/30/14). Only transmitting hours are included. Only WD2XSH stations are included as only they submit logs.

**2. ADMINISTRATIVE**

Expiration of the WD2XSH license in August, 2015 will put about a dozen operators off the air. The FCC does not appear in any hurry to deal with ARRL's petition for a 630-meter amateur band. We therefore should give some thought to renewing the license.

**3. COMMUNICATIONS**

Conditions have been poor recently, with uncharacteristically high noise levels. Many of the operators feel like late summer and early fall had better conditions.

The path to Hawaii has worked well, even for east coast stations. Merv, K9FD / WH2XCR is monitoring while he is working to get his own station on the air. He reports many signals from the mainland are at QSO levels.

Much of the recent activity has used WSPR. A map of reported WSPR receptions appears in Figure 1.

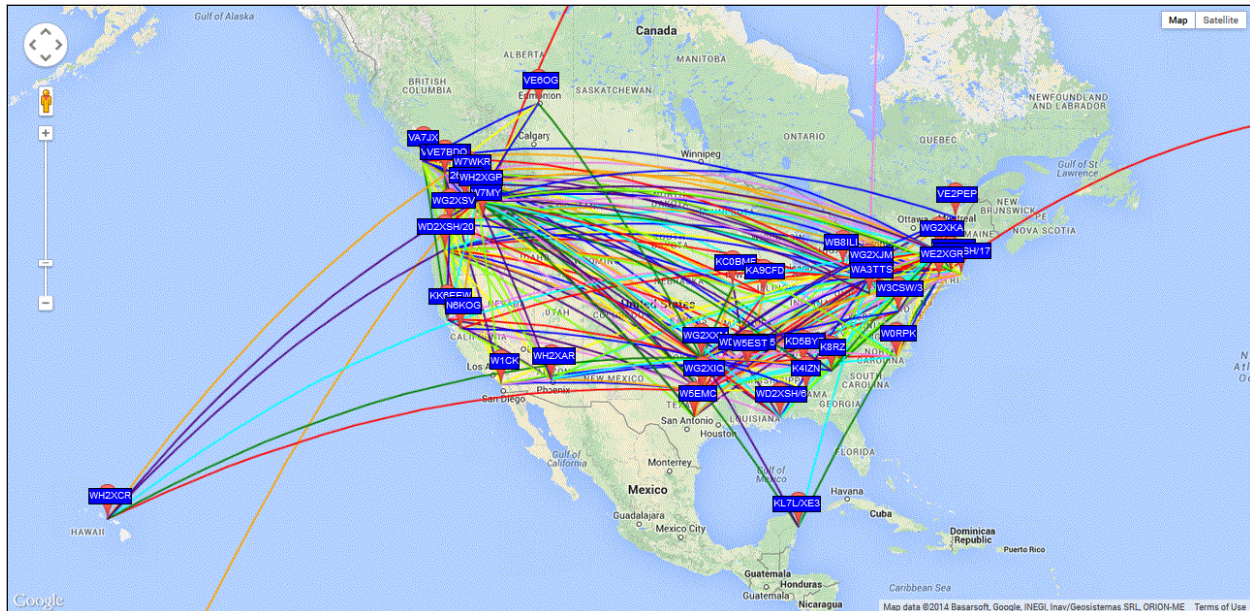


Figure 1. WSPR receptions November 14-15, 2014, courtesy of W0RPK.

### Special Event

We organized a special event on the weekend of October 31 - November 1 to mark the 106th anniversary of the Berlin treaty that made 500 kHz the International Distress frequency. The participants included US experimental stations, Canadian radio amateurs, and the Maritime Radio Historical Society.

Activities for US experimenters included simulating maritime telegraphy with CQs on a calling frequency followed by QSY to a working frequency. Several stations also passed NTS-formatted radiogram traffic from coast to coast. Stations participating included

|                    |               |
|--------------------|---------------|
| WG2XKA (WA3ETD)    | VT FN33ir     |
| WE2XGR/2 (W1VD)    | CT FN31ls     |
| WD2XSH/12 (AI8Z)   | CO DM79gx     |
| WG2XIQ (KB5NJD)    | TX EM12mp     |
| WD2XSH/20 (N6LF)   | OR CN83ls     |
| WG2XJM (NO3M)      | PA EN91wr     |
| WH2XH Y (WD8DAS)   | WI EN52hx     |
| WE2XPQ (KL7L)      | AK BP51ip     |
| WG2XSV (W0YSE)     | WA CN85rq     |
| WH2XGZ (K5FX)      | TX EM10bition |
| WH2XHA (K3DZ)      | PA FN00dl     |
| WD2XSH/5 (KW1I)    | NH FN43fc     |
| WD2XSH/31 (WA1ZMS) | VA FM07fm     |
| WA2XRM (W0RW)      | CO DM78nt     |
| WG2XSB (K1QAR)     | MA FN42fk     |

The QSO made by XSH/31 used a vintage Adams-Morgan Paragon 2-5-U transmitter.

The Canadian amateurs made cross-band QSOs with radio amateurs on 80 meters. VE7BDQ made cross-band QSOs with a number of stations, including

VE7CA  
W7DRA  
N7IO  
NW7E  
KK7UV  
KU7Z  
VA7JWS  
VA5LF  
WB6W

SWL reports were also received from K5HK and K0SBV.

The Maritime Radio Historical Society (MVRS) operated station KSM at Pt. Reyes, CA. KSM made press and NOAA weather broadcasts throughout the evening. These were announced on 500 kc (CQ) immediately before beginning of each broadcast, with PX/WX broadcasts taking place on 426 kc.

KSM maintains watch on 500 kc, but no experimental station transmissions were heard on 500 kc at any time during the event. However, WG2XSV (Vancouver, WA) and WD2XSH/20 were received on approximately 474 kc.

MVRS operators enjoyed working this special event and appreciate the experimenters efforts to mark the significance of 500 kc. More information on their activities will appear on their web site 500kc.org.

Four Mexican stations including XE2EJ were monitoring the band during the event:

They report receiving WD2XSH/2, WD2XSH/7, and KSM.

In general, everyone - experimenters, amateurs, maritime operators, and SWLs had a good time and are looking forward to another such event in the future.

### **Ground-Wave Tests**

Ralph Wallio, W0RPK/WD2XSH/34 organized ground-wave receiving tests from November 19 through December 3. These tests were conducted from 10:00 to 14:00 to minimize sky-wave interference. Brian Justin WA1ZMS/WD2XSH/31 in Forest, VA transmitted. His signal was monitored by

- Bob Stohlman K4RCG Culpeper, VA 100.3mi
- Louis Alexander K4BYN Raleigh NC 111.5mi
- Ralph Wallio W0RPK Greenville NC 163.4mi
- Bill Farmer W3CSW Rockville MD 165.6mi
- Andy Bell KU4XR Friendsville TN 290.9mi

All stations reported reception via QRSS but not CW.

This reception is substantially inferior to that experienced in previous tests in the midwest. However, the ground conductivity is significantly lower in Virginia (2-4 mS/m) than in Iowa (15 mS/m).

### **Fessenden Broadcast**

WG2XFQ (WA1ZMS) made its annual Fessenden broadcast on Christmas Eve with a full-carrier AM signal on 486 kHz, and plans to repeat this on New Year's Eve.

## **4. ACTIVITIES**

Steve, WD8DAS/WH2XHY, was a guest on the "QSO Today" podcast a few months ago and spent quite a bit of time talking about 630m.

Eric, WG2XJM, did some demos with the topband guys and that has stirred lot of interest with many of the big guns.

John Landgridge KB5NJD/WG2XIQ is organizing a panel for HAMCON 2015/

## **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 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.

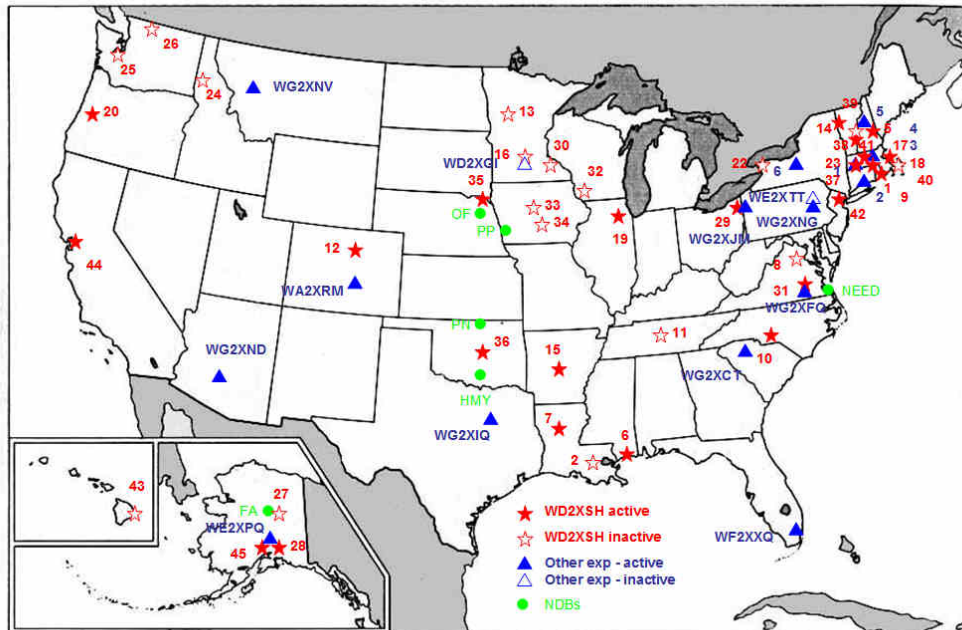


Figure 2. Locations and status of US 630-meter experimental stations.

Three additional US experimental licenses have been approved (WH2XND, WH2XHG, and WH2XNV), adding operations in Arizona, Pennsylvania, and Montana. An application for WG2XNI (Colorado) is pending.

## 7. INTERNATIONAL AMATEUR ACTIVITIES

Japanese amateurs will gain access to 630 meters on January 5. They will be 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

This report includes contributions from John Langridge KB5NJD, Ralph Walio W0RPK, and others.

## 11. PLANS

There are no specific plans for winter quarter.

## 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         | 108      | 57   | 111      | 57   | 11/14    |
| WD2XSH/6  | W5THT  | OFF        | 12268    | 202  | 12268    | 202  | 01/14    |
| WD2XSH/7  | W5JGV  | ON         | 27946    | 1    | 28651    | 1    | 11/14    |
| 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   | 07/11    |
| WD2XSH/12 | AI8Z   | ON         | 37710    | 30   | 38241    | 32   | 11/14    |
| 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    | 11/14    |
| WD2XSH/20 | N6LF   | ON         | 3350     | 7    | 4038     | 15   | 11/14    |
| WD2XSH/21 | WORW   | 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          | 696     | 0   | 1162  | 0  | 11/14 |
| WD2XSH/28 | KL7Q     | Inactive    | 72      | 6   | 72    | 6  | 11/14 |
| WD2XSH/29 | KN8AZN   | SK          | 499     | 5   | 499   | 5  | 01/13 |
| WD2XSH/31 | WA1ZMS   | ON          | 37469   | 8   | 39627 | 9  | 11/14 |
| 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 | 11/14 |
| WD2XSH/38 | KN1H     | ON          | 2549    | 2   | 2791  | 2  | 11/14 |
| WD2XSH/41 | W1HK     | Inactive    | 19      | 13  | 19    | 13 | 04/13 |
| WD2XSH/42 | K2LRE    | ON          | 184     | 0   | 184   | 0  | 11/14 |
| 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     | 11/30/13 | 15 ON       | 157,733 | 514 |       |    |       |
| 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 |       |    |       |

**Notes:**

Operating hours and QSOs are derived from logs through November 30, 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   | 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<br>461 - 478 | 20     | 09/13/06 - 08/01/15 |       |
| WE2XGR | 8      | New England | 493 - 515<br>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<br>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 | 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 |      |
| 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 | 1000 | 08/14/14 - 08/01/19 |      |
|        |   |    | 491 - 517 | 1000 |                     |      |
| 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    | 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  | Toronto, ONT               | Active   |
| VX9ZZZ | VE1ZZ  | Nova Scotia                | Active   |
| VX9OHH | VE3OHH | Richmond Hill, Ontario     | Inactive |