



DX MONITOR

The official publication of the
International Radio Club of America

February 23 2019 – Volume 56 Number 25 – Edition 1802 – ISSN 899-9733

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This is our last weekly issue – next issue is our **ANNIVERSARY** issue. This week, IRCA welcomes: **Don Moman** in Lamont AB (rejoin), **William Conner** in Norwalk IA, **Chuck Hutton** in Seattle WA (rejoin), **Chris Black** in Newcastle WA (rejoin), **Thomas Rothlisberger** in Brein WA (rejoin) and **Mark McMillan** in Post Falls ID (rejoin). Zowie!!!
Seattle deadline for our next issue (V56_N26) is **Monday 03/04/19 4 PM PLT** – pb

2019 IRCA/DecalcoMania Convention

The 2019 IRCA Convention will be held on September 5, 6 and 7 at the Courtyard by Marriott Seattle Southcenter, 400 Andover Park West, Tukwila WA 98188. Registration is Free*. Banquet (TBA) will be paid for individually by attendees. Guest room rate is \$109 plus tax. Guests are encouraged to share a room and save. Phone number(s) for room reservations are 800-321-2211 or 206-575-2500. You must mention International Radio Club of America Convention to get this rate. Hotel is 2 miles east of Sea-Tac Airport. There is also an Amtrak station in Tukwila just Northeast of the hotel. Parking at hotel is free. There are many restaurants and stores nearby and inside the hotel. Other amenities

include business center, pool, free Wifi, etc.... Visitor's bureau is online at visitseattle.org. Your host for this event is Mike Sanburn: mikesanburn@hotmail.com

* Non IRCA members will need to pay a convention registration fee of \$25. Folks can join IRCA for \$5 (\$0 for renewals).

Here is the reservation link your guests can use to make online reservations: https://www.marriott.com/meeting-event-hotels/group-corporate-travel/groupCorp.mi?resLinkData=International%20Radio%20Club%20of%20%20America%5Eseasc%60IRCA%60109%60USD%60false%603%609/5/19%609/8/19%608/15/19&app=resvlink&stop_mobi=yes. If you have questions or need help with the link, please do not hesitate to ask. We appreciate your business and look forward to a successful event. Individuals may also call toll free, 1-800-359-8233, refer to group code "IRC".

WHAT WOULD YOU LIKE TO SEE, HEAR OR LEARN AT THE IRCA CONVENTION?

We have a firm *schedule* for technical talks for the Seattle convention and we're now seeking input on *content*. Take a moment to tell us what you'd like us to present. And if you're willing to share your own thoughts and ideas at the convention, let us know. TNX! Mark4@durenberger.com



WESTERN DX ROUNDUP – Nancy Johnson – 2922 S Olivewood – Mesa AZ 85212-2923
Email: NancyJohnson@prodigy.net

WDXR DEADLINES: March 1, March 15, March 29, April 12, April 26, May 10, May 24, June 7, June 21, July 12, August 9. Please use Eastern Local Time.

REPORTERS FOR THIS ISSUE:

- (RB) **Rick Barton**-9444 W. Newport Dr.-Sun City AZ 85351 desertmoon_dxshack@inbox.com
Satellit 205 (T-5000 series German portable), SW-2000629, Zenith Royal 7000 TO; barefoot or w/some outboard loops
- (BB) **Bill Block**-Prescott Valley AZ billblock@cablene.net
R8, Wellbrook ALA1530LNP
- (pb) **Phil Bytheway**-Seattle WA dxm.eic@gmail.com
Receiver/internal antenna – HXDATA-808
- (JCJ) **John Johnson**-2922 S Olivewood, Mesa AZ 85212 John_Johnson@prodigy.net
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Sangean PR-D15 on batteries with internal 200 mm ferrite bar, 2010 Acura RDX car radio with 4" antenna
- (MS) **Mike Sanburn**-PO Box 1256-Bellflower CA 90707-1256 mikesanburn@hotmail.com
Sangean DT 160

OF SPECIAL INTEREST

- 1350 KDZA **CO**, Pueblo ex-KCCY. 2/10 good with some splash from local KIKO-1340. 0000 out of Fox Sports promo with "KDZA AM Pueblo. Fox Sports 1350" legal ID into Fox Sports. Relog for call change. (JCJ-AZ)
- 740 KCBS **CA**, San Francisco 2/8 0700 up and over blowtorch KIDR, ID "The Bay Area's News Station" and network news ("I'm Deborah Rodriguez"). (RB-AZ)
- 830 KLAAs **CA**, Orange 2/1 2030 with Anaheim hockey play-by-play over/under a number of co-channel stations. Very good on peaks over the mess on barefoot Zenith TO Royal 7000. (RB-AZ)
- 930 KHJ **CA**, Los Angeles 2/8 at 0540 Drew Mariani talk show, ID by slogan, solid and dominant. (RB-AZ)
- 1000 KOMO **WA**, Seattle 2/10 0110 ID "KOMO one-thousand, also on 97.7," local ad spots ("Puget Sound Raffle"), local traffic. No unheard of here, not regular either. Satellit 205, barefoot. (RB-AZ)
- 1010 CBR **AB**, Calgary heard 2/12 at 0810 with Calgary weather report then at 0814 "CBC 1010." (BB-AZ)
- 1150 KEIB **CA**, Los Angeles 2/7 2030 string of program promos, man "On The Patriot, KEIB." Very good on SW-2000629, Terk. (RB-AZ)
- 1260 KSUR **CA**, Beverly Hills 2/12 at 2000 string of oldies before the hour, ID by slogan on the hour. An hour before sunset here, fair and steady. (RB-AZ)
- KBXN **ID**, Weiser listed in NRC log as Spanish, so was confused. 2/9 at 0307 tuned in to hear "99.1 I-Rock" and Boise mentioned. Found I-Rock on web and appeared to be //1260. The Boise mentioned prompted me to think it was KBXN. At 0400 and 0500 no ID, so I figured K256CZ-99.1 was using 1260 for testing? Sent an inquiry Email to the station (they verified they had purchased KBXN and were testing there). On 2/11 0300 same programming was noted, this time at 0301 "KBXN, Weiser... KQBL-HD2... 91.1 I-Rock" ID heard. Now I can count it for the contest, hi. (pb-WA)
- 1440 KUHL **CA**, Santa Maria 2/12 0921 time check and ID "The Information Station, KUHL," spot for Echo Power. (MS-CA)
- 1450 KTIP **CA**, Porterville 2/12 0901 came up loudly with legal ID (EE) "KTIP Porterville-Visalia" (mentions of FM station in heavy accent), lively music (SS), over KVML. (MS-CA)
- 1580 ?KBLA? **CA**, Santa Monica 1/13 0112 Spanish talk in the right direction on a great night for California signals, seemingly eliminating XEDM as a possibility, despite KBLA's "impossible" night pattern. Most nights it is KGAL, or occasionally CKDO, here. (JP-AB)
- 1640 KDIA **CA**, Vallejo 2/15 1015 man with religious lecture, a good hour after local daybreak. Local ad spots, fair and steady on Satellit 205 oriented for receiving from NW. Some long, deep fades after 1030. "This is KDIA" at 1100. Clear ID. (RB-AZ)
- 1670 KHPY **CA**, Moreno Valley 1/13 0110 Spanish talk, with KQMS under doing English talk, thanks to excellent conditions towards California. (JP-AB)
- 1700 ?KKLF? **TX**, Richardson 1/13 0057-0105 playing continuous Mexican music with a few words in Spanish in between when nulling otherwise dominant XEPE with Spanish talk, and occasionally strong KBGG with CBS Sports Radio. First time KKLF, with KBGG dominant most nights here now but when KVNS was all alone most nights just a couple of years ago. (JP-AB)
- XEPE **BCN**, Tecate 1/12 0855 all alone in Spanish on car radio with decent signal despite nearby power lines. (JP-AB)

No bulletin next week so next WDXR deadline will be Friday March 1 (anniversary issue). – Nancy 2/15 1700



CENTRAL DX ROUNDUP – John C Johnson – 2922 S Olivewood – Mesa AZ 85212-2923
Email: John_Johnson@prodigy.net **CDXR reports ONLY: cdxr@ircanonline.org**

RIDING GAIN

[EB-MO] **Eric Bueneman**, Hazelwood, MO **N0UIHEric@gmail.com**
 CountyComm GP-5/SSB Ultralight receiver, Grundig AN-200 tunable loop, Yaesu FRG-7, Worcester Space Magnet II

DOWN THE DIAL

- 630 CFCO **ON**, Chatham. 2/10 fair signal through KYFI. 0515 noted with "CFCO, Canada's best country" ID into Country format. [EB-MO]
- 690 KTSM **TX**, El Paso. 2/13 fair to poor signal, mixing with other stations in KSTL null. 0605 noted with NBC News Radio, local spot and news. [EB-MO]
- 920 KDHL **MN**, Faribault. 2/12 fair to poor signal, mixing with KARN and other stations. 0510 noted with weather forecast, "The mighty Nine-20 KDHL" ID into Country format" [EB-MO]
- 1250 KRRD **AR**, Fayetteville. 2/12 fair to poor signal, mixing with KYYS, WSSP. 0545 noted with Country format, "Country 106-One" ID. Format change from News/Talk. Apparently on day power. Station #25 on 1250 [EB-MO]
- 1270 KFAN **MN**, Rochester. 2/14 fair to poor signal, mixing with other stations. 0200 noted with "KFAN Rochester" legal ID into Fox Sports update. Last noted in 1993 as KWEB. [EB-MO]
- 1360 KMRN **MO**, Cameron. 2/14 fair to poor signal, mixing with KSCJ, WMOB, WSAI. 0616 noted with local spots mentioning Cameron, weather forecast, "US Country" ID into Country format. Apparently on day power. AM station #125 from the Show-Me State. [EB-MO]
- WKMI **MI**, Kalamazoo. 2/14 fair to poor signal, mixing with KSCJ, WSAI. 0532 noted with "WKMI" ID into *America's First News*. [EB-MO]
- WTAQ **WI**, Green Bay. 2/13 fair signal over KSCJ. 0159 noted with local spots, "News, talk, sports, WTAQ Green Bay, WTAQ-FM Glenmore" legal ID into Fox News Radio. [EB-MO]
- 1390 WMER **MS**, Meridian. 2/12 fair to poor signal through WLLI. 0530 with "WMER, 13-90 AM and 93-point-One FM" ID into Southern Gospel format. [EB-MO]
- 1400 WBAT **IN**, Marion. 2/9 poor signal, mixing with KFRU, WGIL and other stations. 0311 poked through with a "WBAT" ID. [EB-MO]
- 1430 WYMC **KY**, Mayfield. 2/9 fair signal through KZQZ. 0437 with "93-point-Nine FM, AM 14-30 WYMC, timeless favorites" ID into Oldies format. [EB-MO]
- 1630 KRND **WY**, Fox Farm. – 2/13 fair to poor through KKGW with no sign of KCJJ. 0450 with Regional Mexican format, "La Jota" ID in Spanish. [EB-MO]
- 1640 WTNI **MS**, Biloxi. 2/13 good signal over WSJP. 0559 noted with ESPN promos, "16-40 WTNI Biloxi, 103-point-Five W278CE Biloxi" legal ID, "103-Five the Champ" slogan into ESPN sports update. [EB-MO]

FLASHBACK

50 Years Ago – February 22 1969 issue of "DX Monitor" ... **Bill Nittler** of Englewood CO mentioned SWLer **Rob Harrington** of Englewood would be joining the IRCA ... **Larry B Godwin** of Englewood CO mentioned the birth of his son David on the 7th ... New member **Reid C Wheeler** of Walla Walla WA mentioned he uses a Knight Star Roamer, a Hallicrafter's S-38E, and a 1928 RCA Radiola 60. He also collects and restores old receivers. // **25 Years Ago – February 19 1994** issue of "DX Monitor" ... **Mike Hardester** of Jacksonville NC received a verie from WJW446 1610 ... **Mike Sanburn** of Bellflower CA said he survived the earthquake, but did have several cassette tapes flying around ... **Larry Godwin** of Missoula MT mentioned he has heard 496 stations from his Missoula location.

OPEN MIKE

Thanks to Eric we have a column this week. This is the last weekly issue of "DX Monitor" and the Anniversary Issue is next. You'll want to send in your Forum reports and be sure to DX and report to your DX columns. Deadline for the Anniversary Issue CDXR column is March 1st. This column was typed 2-15-19. 73, John



EASTERN DX ROUNDUP – Eric Bueneman (N0UIH) – 631 Coachway Lane – Hazelwood MO 63042-1347
Email: n0uiheric@gmail.com **DEADLINES: Friday 2359 ELT**

TUNING THE DIALS THIS ISSUE:

- (KK-VA) **Kraig Krist** (KG4LAC), Manassas VA
 Winradio G33DDC software-defined receiver, Wellbrook ALA1530S+ Imperium loop
- (PS-ON) **Paul Snider**, Thorold ON, Canada **paulisnider@yahoo.ca**
 Elad FDM-S2 software-defined receiver, Pixel RF Pro-1B loop, MFJ-1020C as a tuner

ACROSS THE DIAL

- 960 WQLA **TN**, La Follette – 2/10 2205 noted with a Country format featuring a song by Kenny Rogers; confirmed at 2212 by a check of the Web site of WYSH 1380 Clinton TN. Tried to get an ID or a song match for a good couple of hours during the wee hours of Sunday morning (2/10) but was never 100% sure. A poor to extremely poor signal was noted, mixing with WFIR and an unidentified Oldies station; probably WKVX. (PS-ON)
- 1040 WCHR **NJ**, Flemington – 2/10 2340 noted with sermon from Heritage Baptist Church (confirmed via check of schedule on the station's Web site). A poor to very poor signal was noted, but audible at times, mixing with CJMS, WHO and WYSL; also confirmed by Simple Radio Web stream. (PS-ON)
- 1050 WAMN **WV**, Green Valley – 2/8 1825 noted with an ad for Elkhorn Towers, giving the phone number as (304) 436-6890 by a male announcer. "Willie 94-5, this is WAMN" ID by a male announcer at 1832. The signal was noted mixing with WBQH, WEPN, WVXX and an unidentified talk station. (KK-VA)
- 1550 WIRV **KY**, Irvine – 2/13 2240 noted with Classic Hits format featuring a tune by Bill Withers, "V-99.3" ID at 2242 into a selection by Dion (DiMucci – eb). A poor to very poor signal was noted, mixing with an unidentified ESPN station; no sign of usual CBEF. (PS-ON) (Your unidentified ESPN could be either KESJ Saint Joseph MO or KYAL Sapulpa OK. Sapulpa is apparently running day power at night – eb)

UnID

- 1080 UnID 2/8 1904 noted with partial "Radio Libera..." ID by a male announcer in Spanish. The signal was noted mixing with WTIC, WWNL and an unidentified vocal music station. (KK-VA) (WKAT Coral Gables FL uses a "Radio Luz" slogan; I could not find a station using "Radio Libera", "Radio Libertad" or "Radio Liberación" ID in the NRC Log or the 2019 World Radio-TV Handbook – eb)

EDITOR'S NOTES

Thanks to Kraig and Paul for their logs in this issue. Kraig also notes that WPBS 1040 Conyers, GA has no connection or affiliation with Radio Free Asia; it's just a coincidence that WPBS uses the Radio Free Asia introduction music bed. This is the last weekly edition for Volume 56; the next deadline is March 1. 73 and good DX from N0UIH, the Florissant Valley Dial Twister.



DX WORLDWIDE/TROPICAL BAND DX – Brandon Jordan – PO Box 338 – Rossville TN 38066
Email: dxww.ircan@gmail.com **all times UTC**

Deadline – Monday 1200 UTC.

***** PAN-AMERICAN DX *****

- 730 **MÉXICO** XEHB, Hidalgo del Parral, Chih. FEB 16 1342 – amid Mexican music, "La Mexicana, 107.1". So this remnant 50 kW XEHB from Hidalgo del Parral, is not even worth mentioning; but AM is to stay per IFT in the IRCA Mexican Log. It's the best/only lowband XE propagating this long after 1318 LSR. [GH-OK]

***** TROPICAL BAND DX *****

- 5040 **CUBA** Radio Habana, Habana. FEB 14 0632 – commentary in English. Fair to poor signal. [EB-MO]
- 3240 **ESWATIN** Trans World Radio, Manzini. FEB 14 0310 – Christian teaching in Shona. Fair to poor signal. [EB-MO]

CONTRIBUTORS

EB-MO **ERIC BUENEMAN**, NØUIH, Hazelwood MO
Yaesu FRG-7, Apex 303WA-2 vertical antenna

GH-OK **GLENN HAUSER**, Enid OK

DX-398 with internal antenna only or PL-880; NRD-545 with ALA-330S inside E-W or inside random wire N-S; Nissan stock caradio as specified; ICR-75 E-W longwire.

Thanks Eric and Glenn! 73 and Good DX, Brandon



DX FORUM – Richard C Evans – 3908 Grand Oak Ave Apt 4 – Indianapolis IN 46237
Email: REvans5435@yahoo.com DEADLINES: Saturdays

Deadlines: 3/4 – Anniversary, 3/18, 4/1, 4/15, 4/29, 5/13, 5/27, 6/10, 6/24, 7/15 and 8/12

Glenn Hauser, PO Box 1684, Enid OK 73702 **wghauser@yahoo.com**

Greetings. All times and dates strictly UT. Receiver: mostly DX-398 with internal antenna only or PL-880; NRD-545 with ALA-330S inside E-W or inside random wire N-S; Nissan stock caradio as specified; or IC-R75 with E-W longwire.

750, Saturday February 16 at 1343, "Accentuate the Positive" tune playing, 1345 Bible fund-raiser talk, 1346 "Footsteps from TWR" with Lauren Libby, president; says they use 230 languages, and shortwave listening is increasing, getting back in style (?); Xmas special on KTWR got good response from China, etc; also plugs several-country coverage of hi-power AM without detailing Bonaire or Central Asia. Looping N/S, this is obviously via KMMJ Grand Island, Nebraska, 10.5 kW-limited sked. While now, and never do I hear one of my most-wanted Okies, 220-watt daytimer 750 KSEO Durant! No sign today of 750 KBNN MO, which I was getting February 5 at 1404.

960, Saturday February 16 at 1323, local KGWA Enid found to be in dead air as I am doing JBA TP MW carrier bandscan, so no splatter on 954 or 963, but nil heard there.

I also null 960 as much as possible, hearing only a trace of another station. By 1340, KGWA remodulates. Oh, how I long for the good ole days when KGWA often provided for months a "Fox-hole", 5 minutes of dead air at local midnight allowing me to accumulate a number of other 960 logs from as far away as Calgary straight thru KGWA.

1130, February 15 at 1535, KLEY Wellington KS is still off the air; random daytime checks have not found it since last logged December 2, although I wasn't paying much attention until late January. Have they notified FCC that they are off or applied for STA?

1480, February 15 at 1537, 50 kW KBXD Dallas is still in Vietnamese and still propagating 2+ hours after sunrise as QRM to much closer groundwave KQAM Wichita in English, and making a slow SAH of 45/minute = 0.75 Hz.

1540, Friday February 15 at 1540!, blues music with narration, loops NE/SW with some fades past 1549, suspected KXEL Waterloo IA still skywaving, best on the E-W longwire, while Spanish from Dallas dominates on the DX-398. Confirmed at: <http://www.kxel.com/program-schedule/>. Our American Stories with Lee Habeeb | 8-10 am which does not link to show site, but I find it: <http://www.ouramericannetwork.org/>. "There's no politics at Our American Network, just stories. Daily bringing the campfire scene to your ears with our first show Our American Stories."

And a large archive of listenable episodes, probably this one: <http://www.ouramericannetwork.org/story?title=The-Fred-Davis-Blues>. "The Fred Davis Blues – Howard Husock shares a story of music, friendship, and tremendous talent lost to violence."

Seems like a worthwhile show and a much-needed respite from AM radio politics, like Redeye Radio and Rush also on the KXEL sked, which is yet somewhat diverse. Or find another station: http://www.ouramericannetwork.org/find_station. {Quite a large roster, but in random order! No help in "finding" but most with Listen-Live link}.

UniID. Trans-Pacific JBA MW carrier search February 16 from 1318: 747-NW, 702-WSW, 693-?, 594-?, 882-?, 972-NW, 1098-W, 1188-?, 1503-?; 1566-NW at 1327, the strongest and FEBC South Korea of course. Could not get DX-398 DF on some of the others, too weak and/or both FE and DU. 1566 seemed to have a second carrier causing very slow beat, maybe also WSW, but a 5 kW from Victoria would be unlikely; how about 200 watts from Norfolk Island? Hi. Enid LSR today: 1318 UT, just when I started.

WORLD OF RADIO 1969 confirmed Sun Feb 17 at 0449 on WA0RCR, 1860-AM, MO with some CW QRhaM, about 14 minutes into, so started circa 0435.

3264.573, February 12 at 0001, JBA carrier vs storm noise from western OK, as WBCQ is finally testing this transmitter again, first tipped by Alan Pennington, UK to the WOR log.

Wolfgang Bueschel was also hearing it via remotes near WBCQ, the frequency varying considerably. At 0149 I find it still on 3264.573 but also still a JBA carrier. After 0200 a trace of music; 0240 still JBA carrier. Wonder how much power this is actually running, and what type of antenna, gain? That could be asked of all WBCQ frequencies. Of course 90m would have been much more useful in the quiet winter of minimum storm noise, and minimum MUFs.

3264.87, February 13 at 0011, WBCQ testing here for the second night on slightly higher drift: VP S6-S9 but sounds like AW in conversation with others, so maybe an AWWW playback, although most of the time that's a monolog. Or it could be Pirate Joe on WHVW who sounds a bit like AW, similar accent. Not //7490+ or 9330+ and 5130+ not on the air. This was apparently on late- or all-night as Wolfgang Bueschel was still hearing it via remote at 0835 February 13 on 3264.883.

Why are all WBCQ transmitters never [hardly ever] on-frequency? I guess it's because they rely on ground crystal-controlling, an inexact science; surely the Superstation will employ frequency synthesizer, although if everything stay on 9330[.000?] as planned, rapid and accurate changes will be foregone, while azimuths will be rotated.

3264.9, February 15 at 0200, JBA carrier so presumably WBCQ still testing here; has it been on every night since Monday, all night? Sked still says "There are no scheduled transmissions on 3265 KHz at this time."

3264.9, February 16 at 0020, JBA carrier from WBCQ-4? or -5?

3264.9, February 17 at 0013, WBCQ song not //7490+, 5130+ or 9330+. 0058 enough signal to be sure it's not // any of the others such as TimTron on 5. I wonder if the 24/7 "burn-in" initiation of 3265v is just plugged in to WHVW relay as others have noted at various times.

4045-USB, February 13 at 1204, WCY Lakeland FL with individualized weather forecasts for sailing clients in the Caribbean, now for the Island Pearl around Eleuthera, winds and seas outlook for as far ahead as Saturday and Sunday (February 16-17). He asks how copy? And gets 2-way replies which I cannot copy. Also uses 12350-USB, maybe later rather than simul as nothing audible there now.

4095-AM, February 17 at 0423 weak music S6-S8, 0449 still on with DJ live TC as "11 before 5 o'clock" and ID "X-FM Shortwave", offering QSL for e-reports. Off by next check 0556. Earlier in eve I had patrolled the three main pirate bands and found nothing: 3.4-3.5, 4.0-4.1 and 6.8-7.0 MHz. Thanks for tip on 4095 from Mike Newland in KY at 0235, then reported from across North America. Many more logs of this pirate between 0127 and 0511*: <https://www.ftunderground.com/board/index.php/topic,51099.0.html>.

BANGLADESH. 4750, February 12 at 1345, talk and song I would say is South Asian, so presumed Bangladesh Betar, rather than other possibility CNR1 Hailar – should have ruled that out by // check to another CNR1 frequency. CODAR QRM swishing from both sides. And QRM from non-Spanish 2-way on 4751.8-USB. Anyhow 4750 is the best Asian signal on 60m along with many JBA carriers corresponding to Tibet, East Turkistan, China, India and peripheries, such as 4760.

TAJIKISTAN. 4765.059, February 12 at 1345, very poor signal from something, presumed Tajik Radio, Dushanbe. Offset to 4765.06 has been reported recently by Gianni Serra, Roma; Wolfgang Bueschel on 4765.070; Anker Petersen, Denmark, had Radio Progreso, Cuba on 4765.06! But that would never be on the air at this hour and when I do hear it in the 0130-0500 span, it's never off-frequency. Tajik is sometimes logged as merely "4765" apparently by those not paying attention to detail. From DXLD 18-11: "Tajik Radio, which was reported by Kouji Hashimoto and Wolfgang Büschel, in the February 19-26 period variously as 4765.06, 4765.054, 4765.057, as in DXLD 18-09."

4840, February 13 at 1044, WWCR dead air at S9+30, yet another station failing to fulfill overnight. Supposed to be TOMBS now; by 1154, BS is back. When this happen, 1) is any exact record available or kept on the extent of the failure? and 2) is it determined whether the programmer or the station is at fault (or middlelike like a satellite company)?; and 3) is a financial adjustment made in billing? Or is the client not paying by the minute but rather some kind of flat rate subject to uncompensated outages?

4840, February 15 at 0710, S9+30 of dead air from WWCR when supposed to be TOMBS; may well last all-night but I'm going to sleep.

BRAZIL. 4885, February 16 at 0702, Radio Clube do Pará is S9+10, as the best ZY signal on 60m is even better than usual; hyper DJ and music on "Madrugada" show, NOT for the dozing at 4+ am local. With BFO there always seems to be a second slightly offset under-signal, presumably the other ZY if not later Korea South.

DST in Brasil ends February 17; not including Pará which is on UT-3 year-round. Here's a useful map showing DST/non-DST areas. DST observed roughly in the southern (not eastern) half: <https://www.timeanddate.com/time/change/brazil>.

4980, February 13 at 1156, surprised to find S9+10 signal here playing music loop, the theme from Radio Prague; got to be WRMI-3, which is still webbed at 21-24 UT only, with Supreme Master TV. Must be a test, not //9955 or 9395 now. 1159 Spanish ID strangely mixed with bubbling ute-noise which seems to be in the audio rather than QRM; 1200 to other music but shortly cut off the air. 5010 is not on the air. Aha, must be mistake or change from that, as 5010 WRMI-14 is scheduled at 11-12 including Radio Praga at 1130.

AUSTRALIA. 5055, February 13 at 1041, carrier with trace of modulation from 4KZ, less than S5 storm noise level. No signal at all on 5045-LSB or CLSB, Unique Radio, which is to be expected being even lower-powered and aiming for NSW area coverage only; WOR should have aired earlier at 0930 Wednesday. At 1201, still a trace of talk on 5055.

5055, February 16 at 1225, JBA carrier presumed 4KZ, but as usual nothing detectable on 5045-LSB, where WORLD OF RADIO should be running from 1200 on Unique Radio this alternate Saturday; next: March 2.

5072.166, February 15 at 0702, WTWW-2 is running late again, all-night? with rock music, so I pin down exact frequencies of the parasitic spurs always accompanying 5085, the opposite one measured on 5097.838, ie 12.838 plus and 12.834 minus. So the fundamental should be slightly askew too: but measured independently as 5085.000, so within 2 Hz margins of error.

5130.49, Tuesday February 12 at 0156, WBCQ with 'From the Isle of Music' about to end, poor but better than //7490.18. At 0157, 5130.49 cuts to legal IDs by AW over and over, while FTIOM is still on 7490.18! 9330 is inaudible, off or propped out. At 0201-0202* sign-off classical music on 5130.49.

5130.5, Very poor Friday February 15 at 0059, this WBCQ is on, contrary to never-up-to-date webbed showing nothing between 0330 Wednesday and 0100 Sat – now ending some talk show with phone 323-2943; ID and 0100 into another show, all about guns, mentioning Wednesday, so delayed a day? 0200 abrupt cut to ID and some music; 0203 someone "proclaiming the gospel" from PO Box 23110(?), definitely in Bethlehem PA. Still very poor signal.

5130.49, Saturday February 16 at 0059, WBCQ concluding the "Far Right Radio Show" (or was it "Alt-Right"?), no ID and 0100 into march theme of weapons show "from bare hands to AR-15", S9 and getting louder now, "Weapons Wednesday" is apparently the title regardless of current DOW, with Mark and Don.

So 'Allan Weiner Worldwide' will not be on here, despite being better received than weakening very poor primary 7490.18, while 9330 is inaudible, off? and 3264.9 still JBA carrier. The latter is totally useless here even during primetime; must be very low-powered.

AWWW starts barely audible on 7490.18v, enough to hear his first exclamation "No more hamburgers!" before fadeout. Usually the last ~10 minutes contain some station information, reading and replying to Email, some pirate info from FRW, so I bring up the webcast about 0150, and glean one tidbit of use: says "3265" is 24/7 like 9330.

Until the next, Best of DX and 73 de Glenn



SPORTCHANNELS IRCA – Compiled by: Eric Bueneman (NØUIH)
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Welcome to another edition of SportChannels! Before we get to the column, I have received word that two teams are switching stations. Starting this coming season, the American League's **Oakland Athletics** will be moving its flagship station to KTRB 860 San Francisco CA. Starting with the 2019-2020 season, the NHL's **Saint Louis Blues** will be leaving KMOX 1120/KEZK-HD3 102.5 Saint Louis MO for WXOS 101.1 East Saint Louis IL. Basketball season is under way; in this issue, we'll wrap up the NBA network lists with the Southeast Division of the Eastern Conference. Flagship stations are in **boldface** type, Spanish flagships in **boldface italics**.

ATLANTA HAWKS Steve Holman, Mike Conti, Web: nba.com/hawks/

AM	1320 WKEU Griffin, GA	FM	103.7 W279BC Brunswick, GA (2)
610 WCEH Hawkinsville, GA	1350 WBML Warner Robins, GA	92.7 W224DH Hilton Head Island, SC (1)	104.3 W282AR Savannah, GA (3)
790 WSNF Brunswick, GA	1350 WFNS Blackshear, GA	92.9 WZGC Atlanta, GA	105.9 W290BD Montezuma, GA (4)
1050 WWIC Scottsboro, AL	1400 WSEG Savannah, GA	93.1 WWKM Rochelle, GA	
1150 WXKO Fort Valley, GA	1580 WIOL Columbus, GA	95.7 WIOL-FM Waverly Hall, GA	
1250 WSRB Albany, GA			

Relays: 1) WFNS 1350, 2) WSNF 790, 3) WSEG 1400, 4) WBML 1350

CHARLOTTE HORNETS Chris Kroeger, Web: nba.com/hornets/

610 WFNZ Charlotte, NC **102.5 W273DA Charlotte, NC (relay)**

MIAMI HEAT English: Mike Inglis, Spanish: José Pañeda, Joe Pujala, Web: nba.com/heat/

710 WAQI Miami, FL (Spanish) **790 WAXY South Miami, FL (English)** **104.3 WSFS Miramar, FL (English – simulcast)**

ORLANDO MAGIC No play-by-play personnel information available, Web: nba.com/magic/

AM	1060 WIXC Titusville, FL	1350 WDCF Dade City, FL	FM
640 WMEN Royal Palm Beach, FL	1070 WKII Solana, FL	1400 WZHR Zephyrhills, FL	92.1 W221DX Gainesville, FL (1)
730 WWTK Lake Placid, FL	1230 WGGG Gainesville, FL	1450 WSTU Stuart, FL	94.1 W231DC Fort Myers, FL (2)
740 WYGM Orlando, FL	1240 WFSX Fort Myers, FL	1480 WFLN Arcadia, FL	96.9 W245CL Deltona, FL (3)
810 WRSO Orlovista, FL*	1270 WNOG Naples, FL	1490 WWPR Bradenton, FL	100.1 W261BA Ocala, FL (4)
900 WMOP Ocala, FL	1300 WKQK Cocoa Beach, FL**	1590 WPSL Port Saint Lucie, FL	104.1 WTKS Cocoa Beach, FL*
1040 WHBO Pinellas Park, FL	1340 WTAN Clearwater, FL		105.9 W290DB Naples, FL (5)

Relays: 1) WGGG 1230, 2) WFSX 1240, 3) WYGM 740, 4) WMOP 900, 5) WNOG 1270,

Notes: * denotes station carries select games in case of a conflict with another event on WYGM/W245CL, ** denotes the Magic network list has old call WMEL

WASHINGTON WIZARDS Dave Johnson, Glenn Consor, Web: nba.com/wizards/

AM	960 WTGM Salisbury, MD	1450 WNOS New Bern, NC	104.5 W283DA Lynchburg, VA (3)
580 WLVA Lynchburg, VA	1050 WBRG Lynchburg, VA	1500 WFED Washington, DC	106.5 W293AM Martinsburg, WV (4)
740 WRNR Martinsburg, WV	1230 WJOI Norfolk, VA	FM	107.5 W298BX Winterville, NC (5)
820 WWFD-HD Frederick, MD	1260 WCHV Charlottesville, VA	94.1 W231CE Lynchburg, VA (1)	107.5 WCHV-FM Charlottesville, VA
910 WRNL Richmond, VA	1340 WHAP Hopewell, VA	94.3 W232DG Frederick, MD (2)	

Relays: 1) WLVA 580, 2) WWFD-HD 820, 3) WBRG 1050, 4) WRNR 740, 5) WNOS 1450

This wraps up the radio listings for the National Basketball Association. When SportChannels returns, we'll be into the baseball season, starting with the station listings for the National League Central and American League Central. 73 and play hard from NØUIH, the Florissant Valley Dial Twister.



Solar Eclipse 2017 DX from Western America
by Nick Hall-Patch

1. Introduction

For a brief period during a solar eclipse, the moon's shadow stops the arrival of most radiation from the sun, creating a patch of darkness in the middle of the day over a small portion of the Earth's surface. That patch is surrounded by a substantial amount of twilight as well, in locations where the solar eclipse would be seen as partial (Figure 1).

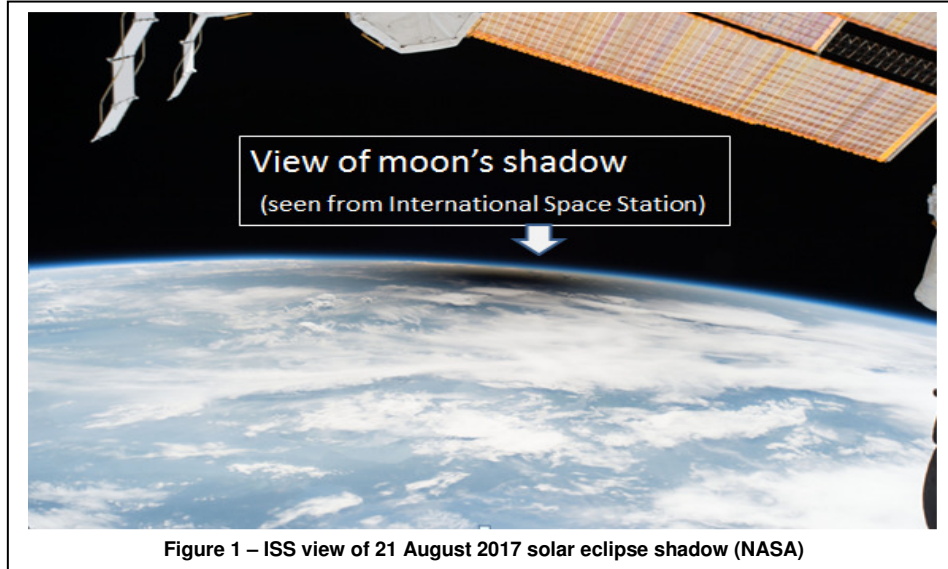


Figure 1 – ISS view of 21 August 2017 solar eclipse shadow (NASA)

Because Extreme Ultraviolet (EUV) radiation from the sun energizes various layers of the ionosphere, and that radiation ends at sunset, medium wave propagation conditions change markedly at night, as the ionosphere reconfigures itself. So, do night-time conditions exist on the medium wave band during the duration of a solar eclipse?

In fact, it has been long been accepted that solar eclipses affect radio reception, and that normal daytime propagation can take on nighttime characteristics for a brief period of time at locations near the path of the eclipse. Indeed, the first recorded instance of such an observation took place during the 17 April 1912 solar eclipse across northern Europe, when William Eccles in London documented the increase in the number of clicks and crackles created by distant lightning discharges as the eclipse progressed, while he listened to radio equipment tuned to near 50 kHz (Nature, 89 (2217), pp191-192). (This was referenced in http://hamsci.org/sites/default/files/publications/2017_IES_Liles.pdf which covers the subject of studying the ionosphere using solar eclipses.)

Since 1912, there have been many solar eclipses and many studies of the influence of eclipses on radio reception. Some of these studies were done in the tradition of what we now call "citizen science", because historically, AM radio was a principal source of entertainment, and many listeners were aware that more distant stations could be heard at night. For example, in 1925, the magazine, Scientific American, organized about 2000 AM radio listeners in the USA to record their observations of the changes in reception during the eclipse of that year. These observations were then used by academics to help verify the existence of skywaves (Scientific American, Vol 132, No 4, pp224-226).

In 1999, Dr Ruth Bamford of the Rutherford Appleton laboratory in the UK reported the effects of the solar eclipse of 11 August 1999 upon radio reception in the paper "Radio and the 1999 UK Total Solar Eclipse" (available at <https://arxiv.org/abs/1703.01491>). The table of contents of that paper speaks to the medium wave DXer, with such headings as "General public medium wave experiment" and "Propagation at 1440kHz".

Most people at that time were familiar with AM radio broadcasts, and Dr Bamford used television and newspaper coverage to encourage the average person to assist with what otherwise would have been strictly an academic experiment. On the day of the solar eclipse, 1700 people listened in the UK for RNE-639 kHz during the solar eclipse, a radio station located in La Coruña, Spain, that would not normally have been heard in most of the UK in the daytime. Up to 25% of listeners did hear it, with some areas having more success than others. In addition, radio amateurs used receiver S-meters to record the strength of various signals, including those of medium wave broadcasters in Europe, and professional monitoring stations recorded signal strength from the Luxembourg broadcaster on 1440 kHz at various British sites as well.

All saw signal strength increases during the eclipse, and Dr Bamford published preliminary results from the experiment a month later in a major British newspaper, continuing the publicity about distant radio reception that she had started before the eclipse. Among the conclusions relevant to the medium wave DXer from that 1999 experiment was that the maximum signal strength received from a target transmitter was likely to occur near the time of eclipse totality over that station.

2. Radio monitoring during the 21 August 2017 solar eclipse

Fast forward to the total solar eclipse of 21 August 2017, the first to cross the North American mainland since 1979. Did anything like the 1999 study occur that was relevant to the medium wave DXer? The answer, unfortunately, is "not really". HamSCI, a group of radio amateurs collaborating with researchers, investigated eclipse effects on the amateur bands and on WWVB-60 kHz. Amateur radio results have been reported in the academic literature (Frissell et al, 2018, <https://doi.org/10.1029/2018GL077324>) and include findings for the 160m (1.8 MHz) amateur band. This, as well as numerous ionospheric eclipse results, are published as part of a special eclipse issue of *Geophysical Research Letters* ([https://agupubs.onlinelibrary.wiley.com/doi/toc/10.1002/\(ISSN\)1944-8007.SOL_ECLIPSE2017](https://agupubs.onlinelibrary.wiley.com/doi/toc/10.1002/(ISSN)1944-8007.SOL_ECLIPSE2017)). All of these may have relevance for the medium wave DXer. There are also some HamSCI datasets directly relevant to the MW DXer: <https://zenodo.org/record/897048/> and <https://zenodo.org/record/851575/>, for example.

Sky and Telescope magazine asked readers of their website to monitor AM broadcasters during the eclipse, but they had responses from only 6 listeners. That was really unfortunate, as AM radio stations, which use a strong, steady carrier transmission, are ideal for monitoring fine details of changes in signal strength, not just for reports of "heard" / "not heard", or rough descriptions of audio volume.

It's not as if medium wave DXers didn't listen during the eclipse; it was just that practically no-one had really planned any coordinated listening beforehand; contributing unusual loggings to a local hobby group seemed to be the extent of interest. There were a couple of medium wave reports to [SWLing.com](https://swling.com) (<https://swling.com/blog/tag/eclipse/>), plus the International Radio Club of America list had a fair number of contributions about unusual DX around the time of the eclipse (<https://www.mail-archive.com/irca@hard-core-dx.com/maillist.html>).

According to those reports, there were indeed nighttime conditions during the eclipse. For example, very unusual and enhanced summer daytime receptions were described, such as:

- México (XEPE-1700) was heard in Victoria BC, for example, as well as by Dennis Vroom in Vancouver WA, and Dave Aichelman in Grants Pass OR
- Bruce Portzer heard California, Nevada and Utah in Seattle, as well as closer states
- California, Nevada, Utah, Colorado, Kansas were heard by Nigel Pimblett in southern Alberta
- further east, Florida and other deep south states were heard in Michigan by Tim Tromp

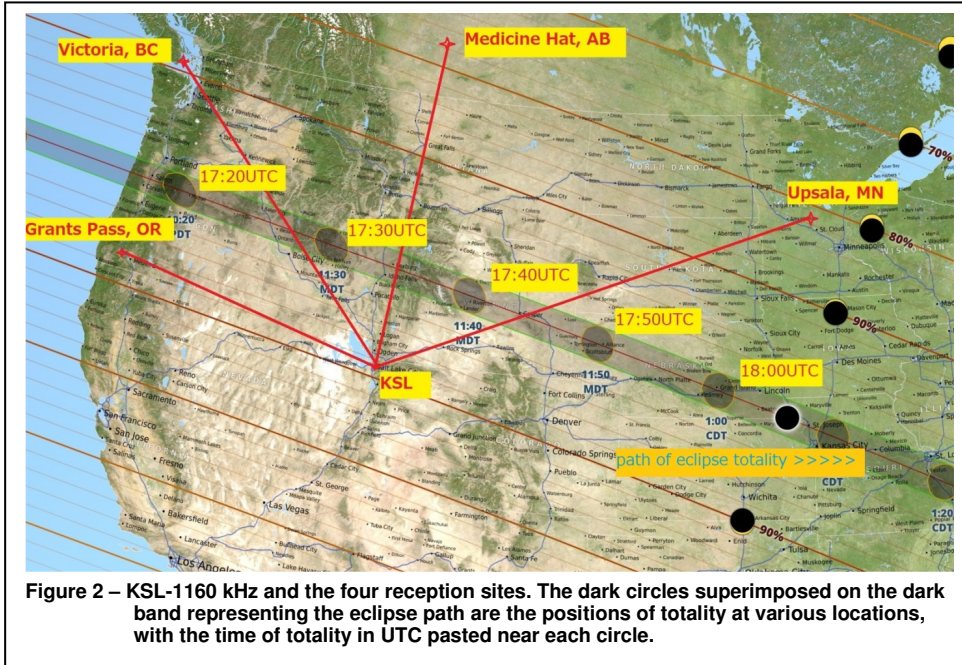
There is no doubt that such anecdotal reports have value to anyone who is attempting to understand radio wave propagation during a solar eclipse. However, the irony of the situation is that medium wave DXers are now more capable of documenting propagation effects than they have ever been before. This solar eclipse was possibly the first time that a number of DXers were able to use wideband recording software defined radios (SDRs) across a wide geographical area. Several DXers in Canada and the United States did, in fact, use their SDRs to listen during the eclipse, and made recordings to play back afterwards, primarily to hear more DX than would have been possible during the few minutes of enhanced conditions.

3. Using SDR recordings to monitor radio propagation during the eclipse

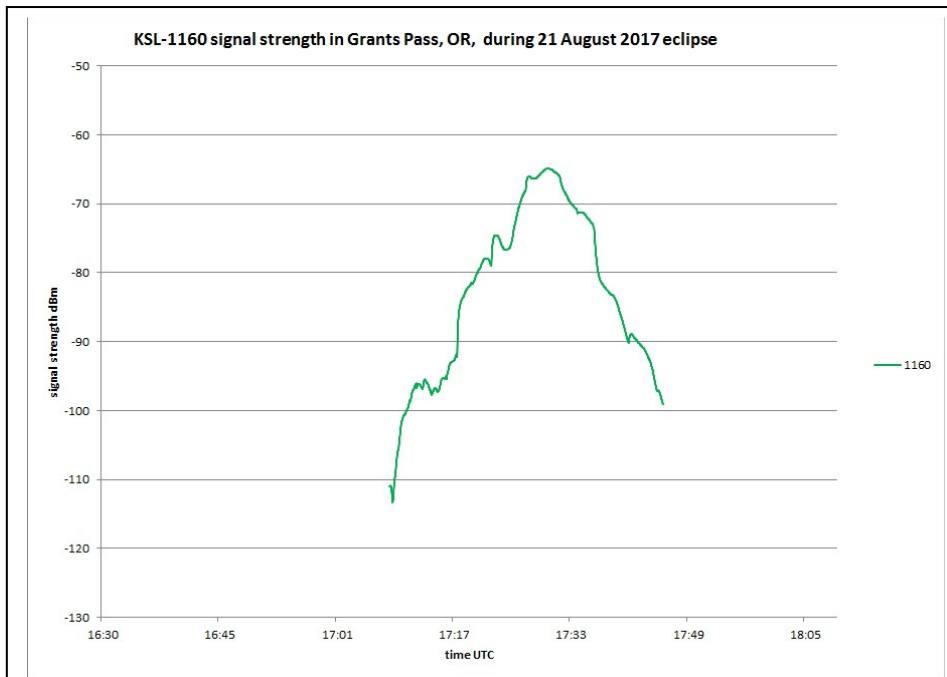
Given the serious firepower that SDRs now provide in their ability to record the entire MW band, it seemed possible to try to emulate some of the work done in 1999 by using some of these DXers' recordings. This article will discuss a small amount of work done with SDR recordings made by four DXers in western North America, Dave Aichelman in Grants Pass, Oregon, Mark Durenberger in Upsala, Minnesota, Nigel Pimblett near Medicine Hat, Alberta, and myself in Victoria, British Columbia. None of these DXers were under the path of totality, though all saw partial eclipses at their locations.

All of these locations were able to hear KSL-1160 kHz from Salt Lake City during the eclipse, at distances of up to 1400 km away, though normally this station would have been inaudible late on an August morning, due to daytime absorption in the ionosphere. I was able to go through the files kindly supplied by each of the DXers, and extract the signal strength of KSL as the eclipse progressed across the USA.

Figure 2 shows a NASA provided graphic of the eclipse path superimposed with the paths from KSL to each of the DXers' locations. Three of the paths crossed the path of the eclipse, one was parallel to it.



So, what did KSL's signal strengths look like from each location? Figures 3 through 6 are charts of KSL's recorded signal strength at the four locations during the course of the eclipse. X-axis in all cases is time UTC, and the Y-axis is signal strength at the input to the SDR in dBm.



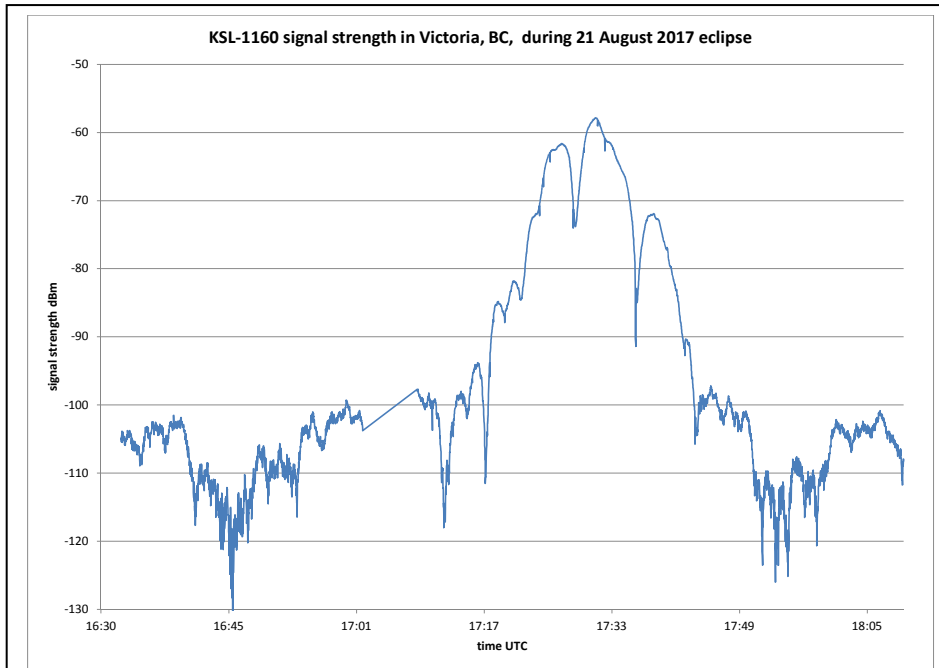


Figure 4 – Signal recorded at Victoria BC, using RFSpace NetSDR and Wellbrook ALA100 Loop. Peak signal strength occurred at 1729:40 UTC, a minute later than at Grants Pass, but with a similar rate of increase to near normal night-time levels.

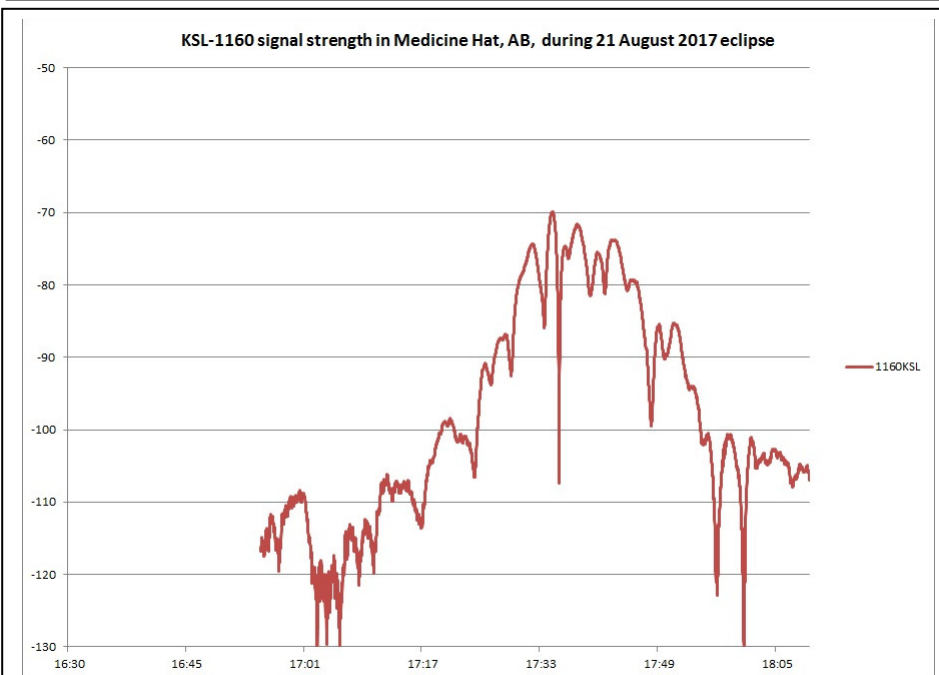


Figure 5 – Signal recorded near Medicine Hat AB, using Microtelecom Perseus and Beverage antenna, with the peak signal strength at 1734:45 UTC, after a 40 dB increase.

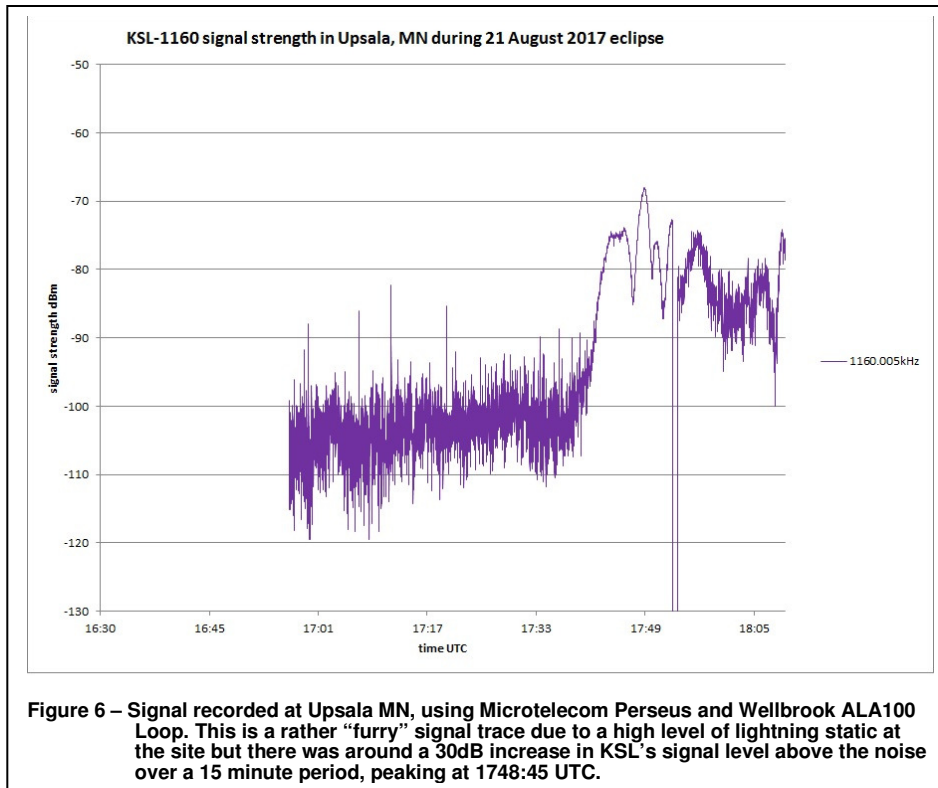


Figure 6 shows that a baseline signal was difficult to derive at the Upsala receiver, due to lightning static. This signal trace is further confused at 1754 UTC by a change of antenna, pointing in a different direction, meaning that any further signals on 1160 kHz after that time are more likely to be from WYLL in Chicago rather than KSL. The signal heard earlier than 1754 UTC was weak and noisy, but was verified to be KSL by comparing the Minnesota audio recordings with what was being heard in Medicine Hat at the same time with much better quality, and containing a call letter identification.

Of note are sudden dropouts in KSL’s signal strength, particularly in the Victoria and Medicine Hat recordings. While not pretending to offer any explanation, it is intriguing to speculate whether ionospheric bow waves or some other sort of traveling ionospheric disturbance (TID) might have caused these dropouts (see <https://news.mit.edu/2018/solar-eclipse-caused-bow-waves-earths-atmosphere-0119>). There was also a C-class X-ray flare observed by GOES at 1755 UTC that may have had some effect.

Dr Bamford’s paper suggested that peak signal strength would occur when totality was over the transmitter, based on the recordings made of Luxembourg-1440kHz in the UK. If that hypothesis was also correct for transmitters that, under a partial eclipse, were close to totality, then the peaks that we all observed should have occurred around 1733:39 UTC when KSL was at 92% totality.

	Time of KSL Max. Signal Strength (UTC)	Time of Max. Solar Occultation (UTC)	Time of Max Occultation 1/2 Way Between xmtr and rcvr (UTC)	Time of Max. Signal vs. Time of Max. Occultation SLC (min:sec)	Time of Max. Signal vs. Time of Max. Occultation at Receiver (min:sec)	Time of Max. Signal vs. Time of Max. Occultation 1/2 Way Between xmtr and rcvr (min:sec)
Grants Pass, OR	17:29:40	17:16:20	17:26	-03:59	13:20	03:40
Victoria, BC	17:30:42	17:20:15	17:26	-02:57	10:27	04:42
Medicine Hat, AB	17:34:45	17:37:24	17:34	01:06	-02:39	00:45
Upsala, MN	17:48:45	18:03:50	17:48	15:06	-15:05	00:45
Salt Lake City, UT	N/A	17:33:39	N/A	N/A	N/A	N/A

Table 1 – A comparison of the times of the peaks observed at each receiver, along with Salt Lake City’s time of maximum occultation. In addition, the approximate time of maximum solar occultation at the receiver, and also at the point where the signal paths were half way between KSL and our receivers are noted. Documenting the times at the half way point along the path assumes that each reception of KSL involved a single ionospheric hop between its transmitter and the four receivers.

Table 1 shows that our observed maximum signal strengths in Grants Pass, Victoria, and Medicine Hat were not exactly at that time of maximum solar occultation at KSL, but perhaps there was a few minutes room for error. However, KSL peaked in Minnesota a full 15 minutes later than maximum occultation in Salt Lake City. If it wasn’t maximum darkness at the transmitter that was defining the receptions, what was?

It can be seen in Table 1 that the signal maximum definitely did not occur at the point of maximum solar occultation at the receiver. However, the time of maximum solar occultation at the half way point along the signal path from transmitter to the receiver (derived from Figure 2) looks more promising, especially for the paths to Medicine Hat AB and to Upsala MN, as both locations saw KSL’s signal peak within a minute of that time. The delay in maximum signal strength at Victoria BC and at Grants Pass OR from maximum solar occultation half way along the signal path might be explained by the fact that not enough solar occultation had yet occurred at the KSL transmitter to dissipate the normal daytime signal absorption, even though the path to more westerly receivers was already open.

Perhaps this is not the only possible explanation of what was observed, however. Because the ionospheric layers would have been pretty dynamic during the passage of the eclipse, there could have been some rather unusual propagation modes available. On the other hand, it does seem telling that the simple single hop hypothesis did seem to line up pretty well for at least two of the data sets.

This might be a good place to discuss at least one of the possible pitfalls of “citizen science” and “found data”, such as these recordings. To make useful observations about the times of maximum signal strength of a certain signal, and then draw conclusions from them, one needs to be confident about such simple things as the accuracy of everyone’s computer clock at the time that the recordings were made. After over a year has passed, how many DXers could be certain that their clocks had been set properly, unless they had specifically noted it down on the day of the eclipse? At the time, no one had planned to be part of a research project; they were just going to record DX. Fortunately, many domestic radio stations still give accurate time checks at the top of the hour, and by listening to each DXer’s files, it is possible to say that everyone’s computer clock was within a few seconds of each other.

4. Conclusion

It is hoped that those who are more knowledgeable about medium wave propagation will be able, by using this data, to develop firmer conclusions about the effects of the solar eclipse. In that vein, all the solar eclipse SDR data used in this article has been uploaded to the HamSCI long term repository. In addition, Tim Tromp’s SDR recordings from western Michigan, and Brandon Jordan’s from Mt Juliet TN, have also been archived. This data is for use by academics, but also by interested amateurs (eg DXers who might want to relive others’ eclipse experiences), and will be found by going to <https://zenodo.org/communities/hamsci>, and if the data is not immediately obvious, then search for “Solar Eclipse 2017 recordings”. Appropriate software for playback of the recordings is available with each data set, as well as instructions, for those interested, on how to use the software to analyze signal strengths, similar to what has been done in this article.

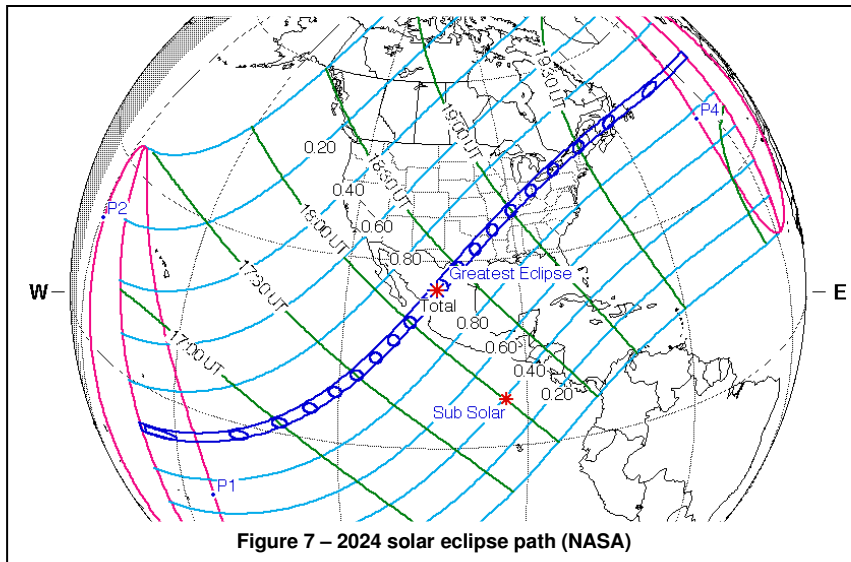


Figure 7 – 2024 solar eclipse path (NASA)

It's probably not too early to start thinking about radio reception for the 2024 total solar eclipse that will cross Mexico, the USA, and Maritime Canada (Figure 7). Perhaps this time we can do some proper planning for some extraordinary MW eclipse recordings.

This article is based on a presentation given at the International Radio Club of America's 2018 convention in St Louis MO. Thanks to Dave Aichelman, Mark Durenberger, Brandon Jordan, Nigel Pimblett and Tim Tromp for sharing their eclipse recordings. Also thanks to HamSCI's Nathaniel Frissell, W2NAF, for his advice and suggestions.



2018-2019 IRCA DX CONTEST – Manager: Nancy Johnson – 2922 S Olivewood – Mesa AZ 85212
 Email: NancyJohnson@prodigy.net

February 15 2019 – Contest Standings

1. Greg Hall	231	3. Tim Noonan	184	5. Phil Bytheway	130	7. Nigel Pimblett	57
2. John C Johnson	229	4. Dennis Vroom	161	6. Nancy Johnson	83	8. Larry Van Horn	51

If you would like to enter the contest rules can be found in the August 18 2018 SDXM (Vol 56 #1). The contest will end 2359 on May 31 2019 so there is still a little time to enter. New catches are guaranteed! – Nancy

39th Edition of the National Radio Club's AM Radio Log

The **NRC's AM Radio Log** is a source for information on AM Radio Stations in the United States and Canada. The 39th edition of the Log contains approximately 302 pages of data and cross references and 12 pages of instructions in 8-1/2" x 11" size, 3-hole punched, US loose leaf format. This publication fits nicely into a 1" three-ring binder. 10,000+ updates since last year's 38th Edition of the log! New for this year is a cross reference by State/Province areas. Additional reference lists include call letters of FM simulcasts with the AM Stations listing, listings of regional groups of stations in the groups section (separate section of the log) and a cross reference of those stations that are licensed to use IBOC (In Band On Channel) digital audio and a comprehensive list of FM translators that are now simulcasting with AM broadcasters.

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