



DX MONITOR

The official publication of the
International Radio Club of America

August 19 2017 – Volume 55 Number 1 – Edition 1743 – ISSN 899-9733

Welcome to the first issue of "DX Monitor" Volume 55!! Seattle deadline for next issue – Monday 8/28 6 PM PLT (2 week break). IRCA is still looking for a new editor for **DXWorldWide-West**, **DX Test Coordinator** and backup **Editor-in-Chief**.

In This Issue:

Broadcasting Information...	1
Canadian Radio News...	2
Western DX Roundup...	2
Central DX Roundup...	3
Eastern DX Roundup...	4
DX WorldWide – West...	4
DX WorldWide – East...	5
Tropical Band DX...	6
DXpeditions...	7
IRCA Technical Column...	10
Special – MW LoG...	15
Verification Signers...	16
Geomagnetic Indices...	16
2017-2018 Contest Rules...	16

2017 IRCA/NRC/DecalcoMania CONVENTION (last call)

IRCA will be hosting the 2017 **IRCA/NRC/DecalcoMania** Convention held Thursday August 17-Saturday August 19 (checking out on Sunday) at the Airport Plaza hotel, 1981 Terminal Way, Reno NV 89502. For reservations use phone number 775-348-6371 and request International Radio Club of America rate of \$100 per night plus tax (**although several have received an \$89.99/night rate**). Major credit cards accepted. (Attendees are encouraged to double up, share a room and save). Airlines serving Reno include Alaska, Allegiant, American, Delta, JetBlue, Southwest, United, and Volaris. Amtrak passenger train service is available as well. Registration fee (not including banquet) is \$25 payable to **Mike Sanburn**, PO Box 1256, Bellflower CA 90707-1256. Or, by PayPal (add \$1 to cover fee) **mikesanburn@hotmail.com** Include contact info and club affiliation(s) if any. Visitor's information can be found online at **www.visitrenotahoe.com**.

This year's **IRCA/NRC/DecalcoMania** convention in Reno will be an excellent chance to re-connect with old friends and to share DX stories. Speaking of sharing, we issue our annual **call to action** for those who wish to present a talk or paper during the convention. As you know, this can be as *formal* or *informal* as you want. To make it easier, we can provide you with audio-visual support, including slide-preparation and display.

If you're interested in sharing your experiences... or if you want to present questions for discussion that might lead to a better understanding of a particular aspect of your own DXing, please contact Mark Durenberger at **Mark4@durenberger.com**

It is the tradition of both IRCA and NRC to have a Saturday Night auction at their annual conventions. This August is no exception. If you are planning on attending Reno, if you are able to find any interesting and preferably radio/DX related items that can be donated it is always greatly appreciated. Perhaps raid the local thrift store for some radio station coffee mugs, or maybe there is that station T-shirt which no longer fits, some DX books which you have already read 10 times. Best if you can bring them directly to the convention hotel, but I can accept smaller and midsized items mailed via USPS to my PO Box (1256 Bellflower CA 90707-1256) Auction proceeds will be divided between the clubs and hopefully all attendees can leave with a little item or two for their shack. Thank for your time.

Mike Sanburn KG6LJU

2017 Madison-Milwaukee Get-Together (last call)

Our 24th annual get-together will be on Saturday, August 19 at our place in Oak Creek, Wisconsin, 801 E Park Blvd. By all means, go to the Reno convention the same weekend if you can, but if you can't, we offer an alternative. If you're travelling to view the eclipse, take in the get-together as part of your trip. E-mail me at **DXing2@aol.com** or phone me at 414 813-7373 if you'd like more information. **Tim Noonan**

NRC Log

The National Radio Club, the World's Oldest and Largest Broadcast Band DX Club is proud to announce the publication of the 37th edition of the AM Radio Log. The AM Radio Log is a source for information on AM Radio Stations in the United States and Canada. The 37th edition of the Log contains more than 300 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. 9,000+ updates since last year's 36th Edition of the log! Cross references include by State/ Provinces in frequency order. This list is ideal for targeting needed 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 book) 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.

Order by snail mail by check or money order in US funds to National Radio Club, PO Box 473251, Aurora CO 80047-3251 or order using your Pay Pal account at **http://www.nrcdxas.org**

IRCA/NRC MEMBER USA Price \$26.95 Priority Mail, NON-MEMBER USA Price \$32.95 Priority Mail, MEMBER/NON-MEMBER Canada Price US\$39.25 Global Priority Mail, MEMBER/NON-MEMBER outside US/Canada Price US\$49.75 Global Priority Mail.

73, **Wayne Heinen**, Editor AM Radio Log



BROADCASTING INFORMATION – Robert J Wien – 14051 Belle Chasse Blvd #415 – Laurel MD 20707

E-mail: **wienbob@aol.com**

Phone: **301-477-3733**

Column Deadlines: **Saturdays**

DATE OF COLUMN: July 29-August 12 **Column data span:** July 15-August 12 2017, Data courtesy of **Stationintel.com**, FCC database and member contributions.

CALL CHANGES (2 columns combined)

FREQ	OLD CALL	CITY OF LICENSE	NEW CALL
1230	KBCQ	Roswell, NM	KSFX
1310	WRSB	Canandaigua, NY	WOKR
1320	KAWC	Yuma, AZ	KOFA
1590	WOKR	Brockport, NY	WRSB
1590	WGYA	Guayama, PR	WXRF

FORMAT, SLOGAN AND SILENT STATUS CHANGES (2 columns combined)

FREQ	CALL	CITY OF LICENSE	NEW INFORMATION
560	WJLS	Beckley, WV	old slogan: "Your Information and Inspiration Station", new: "WJLS the Voice of Beckley"
580	WLVA	Lynchburg, VA	old slogan: WLVA 94.1 FM and Fox 580", new: "WLVA 94.1 FM, 100.5 FM and Fox 580"
590	WAFC	Clewiston, FL	adds slogan: "Classic Hits WAFC"
610	WCEH	Hawkinsville, GA	was adult standards, now classic hits, adds slogan: "The Fox Classic Hits Network"
740	KTFS	Texarkana, AR	now silent
780	WIIN	Ridgeland, MS	old slogan: "100.9 The Legend", new: "93.5 The Legend"
790	WBLO	Thomasville, NC	was Spanish oldies, now tropical, old slogan: "Pepe 790", new: "Latina Tu Musica"
820	WWBA	Largo, FL	old slogan: "820 News Talk", new: "AM 820 News Talk"
830	WEEU	Reading, PA	old slogan: "The Voice of Berks County and Beyond", new: "The Voice"

890	WKNV	Fairlawn, VA	old slogan: "Joy AM", new: "Joy FM"
930	KKIN	Aitkin, MN	was sports, now adult standards
	WSFZ	Jackson, MS	old slogan: "100.9 The Legend", new: "93.5 The Legend"
1000	KSOO	Sioux Falls, SD	was classic country, now talk, old slogan: "Classic Country 1000", new: "Information 1000"
1050	KORE	Springfield-Eugene, OR	old slogan: "1050 Fox Sports Eugene", new: "1050 and 95-Seven Fox Sports Eugene"
	WBRG	Lynchburg, VA	old slogan: "WBRG 104.5 FM and Supertalk 1050", new: "WBRG 104.5 FM, 105.1 FM and Supertalk 1050"
1060	WIXC	Titusville, FL	adds slogan: "AM 1060 News"
1070	WFLI	Lookout Mountain, TN	adds slogan: "The Legend 1070 AM"
1080	WUFO	Amherst, NY	was urban gospel, now classic hip-hop, old slogan: "WUFO Mix 1080 AM", new: "Power 96.5"
1090	KRKE	Milan, NM	was silent, now religious teaching
1110	WOMN	Franklinton, LA	was silent, now country, adds slogan: "Cat Country 98.9"
	WSLV	Ardmore, TN	was adult contemporary, now classic country
1120	KTXW	Manor, TX	old slogan: "The Bridge 1120 AM", new: "The Bridge 101.1 FM and 1120 AM"
	WTWZ	Clinton, MS	old slogan: "Your AM 1120, The Tradition", new: "The Tradition"
1140	KXRB	Sioux Falls, SD	was talk, now classic country, old slogan: "Talk of Sioux Falls", new: "South Dakota's Country Leader"
1150	WDTM	Selmer, TN	was silent, now southern gospel
1200	WCHB	Taylor, MI	now silent
1200	WFCN	Nashville, TN	was silent, now Moody Broadcasting Network religious teaching, adds slogan: "WMBW Moody Radio Where You Turn for Life"
1230	WBZT	West Palm Beach, FL	was talk, now CBS Sports Radio, old slogan: "Talk Radio", new: "1230 the Zone"
	WSOO	Sault Ste Marie, MI	changes city of license from Sault Ste Marie to Sault St Marie
	KSFX	Roswell, NM	was classic hits, now classic rock, old slogan: "Kool FM", new: "The X"
	WXCF	Clifton Forge, VA	was adult contemporary, now classic hits, old slogan: "101.9 the River", new: "Oldies 107.5"
1290	WOPP	Opp, AL	adds oldies as secondary format
	WJBI	Batesville, MS	now silent
1300	WSSG	Goldsboro, NC	was adult hits, now urban contemporary, old slogan: "92.7 Jack FM", new: "92.7 Jamz"
1310	WGH	Newport News, VA	was urban adult contemporary, now oldies
1320	WENN	Birmingham, AL	was soft adult contemporary, now urban adult contemporary, old slogan: "Easy 1320", new: "Kiss FM"
1330	KVOL	Lafayette, LA	old slogan: "The Voice of Lafayette", new: "The Rewind"
1340	WBGH	Bowling Green, KY	was Fox Sports Radio, now Westwood One Real Country and sports, old slogan: "1340 The Ticket", new: "The Willie Network"
1350	WLou	Louisville, KY	old slogan: "Praise Power 1350 and 104.7", new: "Praise Power 1350 and 104.7" (repeating slogan-ye ed)
1380	WBEL	South Beloit, IL	was talk, now oldies
	KUVR	Holdrege, NE	old slogan: "Continuous Favorites 1380", new: "Continuous Favorites 1380 AM 96.9 FM"
	KQKD	Redfield, SD	now silent
	WLRV	Lebanon, VA	was silent, now religious teaching
1390	KHOB	Hobbs, NM	was silent, now adult standards, adds slogan: "Legends 1390"
1400	WJZN	Augusta, ME	was silent, now classic rock, adds slogan: "Capital 95.9"
	WHGB	Harrisburg, PA	was Westwood One Nashville Icon country, now CBS Sports, old slogan: "Nash ICON 95.3", new: "CBS Sports Radio"
1440	WVGG	Lucedale, MS	was silent, now Westwood One Mainstream Country, southern gospel
1450	WBNP	Newburyport, MA	was oldies, now Bloomberg Radio Network business news, old slogan: "The Legends", new: "Bloomberg 1450"
1460	KHRA	Honolulu, HI	now silent
	WATD	Brockton, MA	was silent, now adult contemporary, adds slogan: "The South Shore's Radio Station"
1470	WMGG	Egypt Lake, FL	changes city of license from Dunedin to Egypt Lake, old slogan: "Las Estrellas 1470", new: "Radio Romantica 1470"
1480	WERM	Mobile, AL	adds oldies as secondary format
	WVOI	Marco Island, FL	now silent
1490	KFKB	Forks, WA	now silent
1490	KXRE	Manitou Springs, CO	was unknown format, now NPR News/talk, adds slogan: "Colorado Public Radio"
1500	WSMX	Winston-Salem, NC	was Spanish religion, now southern gospel
1530	WLAK	New Holstein, WI	was silent, now oldies, adds slogan: "True Oldies 1530"

MEMBER CONTRIBUTION

Martin Foltz of Mission Valley CA sends along the following dated 8/10/17:

1370 KGEN Tulare CA using La Ley slogan and announcing 94.5 FM. And a local format change. 900 KALI West Covina CA heard last night in Chinese with ToH ID for Radio Chinese 1300/1600. Wonder if this is a filler before a format change or an actual change. 100.3 KSWD The Sound is the Los Angeles Rams station. 640 KFI is the Los Angeles Chargers station.

Column 1. Well, we got pummeled with rain this week here in the Laurel area but dried out some today (July 29th). Wow, 1 week till I hit the big 57 (Saturday 8/5). I've been in IRCA for 42 years now, joined when I was just 15, so it's been a part of almost ¾ of my life, wow! Amazing how fast time goes by, DX is still as good as it was back then albeit more high-tech. Not too much longer till the Reno IRCA convention, I can't go because I may have to travel to Houston TX for work-related activities around that timeframe unfortunately. Hope everyone has a good time, though! Send your tips to the appropriate columns, including this one! 73's.

Bob Wien

Column 2. Mid-August now, football season starting soon! Thanks for the tip above, Martin! 8 days till the solar eclipse, DX may be interesting, I heard KOMO-1000 Seattle WA for 10 min. during a total solar eclipse back in the 1980's, and I got it verified via QSL, my only 'eclipse' QSL. Give it a shot! Reno convention coming up very soon, be sure to attend if you can (I can't due to work obligations unfortunately). Turned 57 8 days ago, I don't feel a day over 57 years and 8 days old, heh. Mike Sanburn's birthday is August 15th, Happy Birthday Mr Convention Host!! 73's. **Bob Wien**



CANADIAN RADIO NEWS – Dan Sys
E-mail: sysdan@gmail.com

For July 2017... August 1 2017

PROPOSED TECHNICAL CHANGES

690 BC Vancouver CBU Reduce fulltime power from 50,000 to 25,000 watts. Replace the 4 tower antenna array with a 2 tower system.



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

WDXR DEADLINES: Aug 25, Sept 8, Sept 22, Sept 29, Oct 6, Oct 13, Oct 20, Oct 27, Nov 3 and Nov 10. Please use Eastern Local Time.

REPORTERS FOR THIS ISSUE:

- (RB) **Rick Barton**-PO Box 5503-Peoria AZ 85385 desertmoon_dxshack@inbox.com
Panasonic RF-2200, Grundig Satellit 750 with stock antenna, SW-2000629 with stock loop, Terk loop
- (BB) **Bill Block**-Prescott Valley AZ billblock@cableone.net
R8, Wellbrook ALA1530LNP
- (JCJ) **John Johnson**-2922 S Olivewood, Mesa AZ 85212 John_Johnson@prodigy.net
Icom IC-R75, Wellbrook ALA1530LNP

- *****
- 600 KOGO **CA**, San Diego 7/15 0800 with news magazine. Good, solid on SW-2000629 and Terk loop (inductive coupling). (RB-AZ)
 830 KUYO **WY**, Evansville 8/9 very strong, daytime only station on at night with full power. 0054 out of Moody Bible Institute program with "KUYO" calls in promo, 0059 "KUYO Evansville, Casper Classic Christian Radio bringing you Focus on the Family Monday through Friday at 9:30am" legal ID going into Moody Bible program. New for me. (JCJ-AZ)
- 930 KAPR **AZ**, Douglas 7/19 alone with some noise, no sign of KHJ or KAFF. 0800 with calls given in Spanish twice. New for me. (JCJ-AZ)
 980 KSVC **UT**, Richfield 7/18 0700 Utah local weather, good and dominant on SW-2000629 with Terk loop. (RB-AZ)
 1090 KMXA **CO**, Aurora 8/2 strong with XEPRS nulled. Station must have been on daytime power. 0038 Spanish format, spots with mentions of Colorado and Denver, "KMXA Aurora, Denver" ID in English going into music. New for me. (JCJ-AZ)
- 1130 KSDO **CA**, San Diego heard 8/10 at 0759 with "KSDO San Diego" in English. (BB-AZ)
 1330 KGAK **NM**, Gallup 8/3 2145 local ad spots with man and woman in Navajo, all phone numbers with "5-0-5." ID on the hour, tom-toms and chanting after. Have not heard in a few months, but normally very reliable here. Listening at the wrong times? Good signal, and through major T-storm static with some long, deep fades. Using Terk loop and SW-2000629. (RB-AZ)
- 1390 KHOB **NM**, Hobbs 7/28 good signal, no sign of KENN or KGNU. Station must have been on day time power. 0047 with oldies music, "KHOB 1390 Hobbs" and numerous "Legends 1390 KHOB slogans. New for me. (JCJ-AZ)
- 1480 KHQN **UT**, Spanish Fork 7/20 0900 "KHQN Spanish Fork" by man right on the hour. Interesting music after, not rock or country, more like female folk vocal followed by a show rap. (Wikipedia says the station caters to an Indian immigrant community). Good and alone on the channel, heard on Grundig Satellit 750, stock loop. (RB-AZ)
- 1550 KQNM **NM**, Albuquerque 7/20 0658 "Immaculate Heart Radio" suddenly came up over the channel mumble-jumble. Woman right at the top of the hour "KQNM Albuquerque." Solid, good signal on RF-2200. (RB-AZ)
- 1640 KBJA **UT**, Sandy 8/2 0910 local talk show, local politics. Fair and steady on SW-2000629 and Terk loop. (RB-AZ)
 1660 KBRE **CA**, Merced 7/17 0940 what can best be described as millennial-generation talk show, two guys and a young sounding woman, topical discussion. Very good and dominant with intermittent static crashes on Panasonic RF-2200 and stock loop (this RF-2200 will tune "off band" as high as 1680). (RB-AZ)
- 1680 KGED **CA**, Fresno 7/17 0900 ID, news by male to Dennis Prager Show, good on SW-2000629 with Terk loop. 7/25 0845 malfunctioning promo for Larry Elder and Dennis Prager. Tape loop kept repeating the same chopped-up station promo for those two shows until 0957 when Hugh Hewitt just popped out of nowhere. I wondered how long it would take for someone to fix the glitch. It was hilarious. At 0959 there was a break from Hugh Hewitt and yet another promo for Larry Elder and Dennis Prager! The TOH ID was during a deep fade in signal, but I'm calling it KGED due to the repeated slogan "AM 16-80, The Answer." First tuned in on Panasonic RF-2200 with stock loop and good steady signal, but fading with local sunrise. (RB-AZ)

Rules for the 2017-2018 IRCA Contest can be found elsewhere in this issue of SDXM. There was such a favorable response to the previous contest I've decided to use the same contest format for the coming season. Many new stations were heard by the contestants last year so if you would like to hear new ones also, be sure to enter the contest! – Nancy 8/11 1900



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

RIDING GAIN

[EB-MO] **Eric Bueneman**, Hazelwood MO NUIHEric@aol.com
 CountyComm GP-5/SSB Gen 3 Ultralight receiver, CountyComm high-sensitivity AM loop, Grundig AN-200 loop

DOWN THE DIAL

- 540 KWMT **IA**, Fort Dodge. 8/4 good signal over WAUK. 0555 noted with Classic Country format, "AM Five-40 KWMT Fort Dodge" legal ID into Fox News Radio. [EB-MO]
 730 WZGV **NC**, Cramerton. 7/31 fair signal through XEX. 0559 noted with "WZGV Cramerton, Charlotte" legal ID into local spots. [EB-MO]
 810 WHB **MO**, Kansas City. 7/27 fair to poor signal, mixing with WGY, WMGC. 0529 noted with ESPN promos, sports update, *Mike and Mike* promo into *ESPN Sports Center All Night*. [EB-MO]
 910 WJCW **TN**, Johnson City. 7/30 fair to poor signal, mixing with KVIS. 0528 noted with "Nine-10 WJCW is your station for NASCAR," followed by a list of sponsors and local spots. [EB-MO]
 930 WTAD **IL**, Quincy. 7/27 fair to poor signal over WGAD, WKY. 0533 noted with local spot, calls into *America's First News*. [EB-MO]
 940 KPSZ **IA**, Des Moines. 7/25 good to fair signal over WMIX. 0350 noted with Contemporary Christian format, promo, "This is Praise" ID. [EB-MO]
 950 WORD **SC**, Spartanburg. 7/19 fair to poor signal, mixing with WAKM. 0255 noted with ESPN Sports Center All Night, local spots, promos, "ESPN Upstate" ID followed by a multi-station legal ID at 2300. [EB-MO]
 1010 CFRB **ON**, Toronto. 7/15 fair signal over WINS. 0518 noted with "News, talk 10-10" ID into talk on the U.S. Department of Veterans Affairs. [EB-MO]
 1030 KCTA **TX**, Corpus Christi. 8/1 fair signal over WBZ, WQSE. 0555 noted with "KCTA, your Christian companion, AM 10-30" ID in promo. [EB-MO]
 WBZ **MA**, Boston. 7/28 good signal over KFAY, WQSE. 0350 noted with talk on various topics, including charitable organizations and Amazon, "WBZ news radio 10-30" ID. [EB-MO]
 1070 KTFI **KS**, Wichita. 8/1 fair to poor signal, mixing with KHMO, WCSZ and other stations. 0500 noted with "KFTI Wichita" legal ID into Classic Country format. [EB-MO]
 WFNI **IN**, Indianapolis. 7/16 fair to poor signal, mixing with CHOK, KHMO, WDIA and other stations. 0452 noted with a PSA for the Amateur Radio Emergency Service and an ad for Penske Chevrolet. [EB-MO]
 1150 WCRK **TN**, Morristown. 8/1 fair to poor signal, mixing with KSAL, WHBY, WLOC. 0600 noted with Oldies format, "105-point-Seven WCRK-FM" quasi-ID into *Our Daily Bread*. [EB-MO]
 1230 KWIX **MO**, Moberly. 8/5 fair to poor signal, mixing with WFXN, WIBQ and other stations. 0300 noted with "You're listening to *Red Eye Radio* on KWIX Moberly and KWIX-FM Cairo" legal ID into CBS News. KWIX-FM is on 92.5 MHz. [EB-MO]
 KWNO **MN**, Winona. 8/5 fair to poor through WFXN and other stations. 0530 with "KWNO Winona" legal ID into a health-related infomercial. [EB-MO]
 WFXN **IL**, Moline. 7/29 fair to poor signal, mixing with WHCO and other stations. 0500 noted with "Sports radio 12-30 WFXN Moline" legal ID into sports update from Fox Sports Radio. [EB-MO]
 1240 WENK **TN**, Union City. 7/26 fair to poor signal, mixing with KBIZ, WTAX. 0510 noted with "WENK and WTPR" ID into Classic Hits format. [EB-MO]
 1280 KNBY **AR**, Newport. 7/27 fair to poor signal, mixing with WMCP. 0638 noted with local spots. [EB-MO]
 WBIG **IL**, Aurora. 7/18 fair to poor signal over WGBF, ACI from WKBF 1270. 0522 noted with shopping show promo, "AM 12-80 WBIG" ID and mention of WBIG 1280 AM-dot-com. [EB-MO]
 1340 KROC **MN**, Rochester. 8/5 fair to poor signal through KSMO, KXEO, WLOK, WSOY and other stations. 0500 noted with "KROC AM Rochester" legal ID into ABC News. [EB-MO]
 WBIW **IN**, Bedford. 7/26 fair to poor signal, mixing with KXEO, WLOK, WSOY. 0405 noted with promo for the Bedford Online Web site, calls in sports promo and local spots. [EB-MO]
 WLOK **TN**, Memphis. 8/5 fair to poor signal, mixing with KROC, KSMO, KXEO, WSOY and other stations. 0511 noted with "AM 13-40 WLOK" ID into Urban Gospel format. [EB-MO]
 1350 KRNT **IA**, Des Moines. 7/19 fair to poor signal, mixing with WTDR. 0216 noted with local spots, "ESPN Des Moines" ID in promo, into *ESPN Sports Center All Night*. [EB-MO]
 1430 WRDN **WI**, Durand. 7/15 fair to poor signal, mixing with KRGI, WXNT, local KZQZ off for maintenance. 0349 noted with "Real Country 14-30 WRDN" ID into Country format. WI#70 from my present location. [EB-MO]
 1490 KJIN **LA**, Houma. 7/26 fair to poor signal, mixing with KDMO, KDRS, KFTK and other stations. 0500 noted with "KJIN Houma" legal ID in heavily accented English into a Regional Mexican format. LA#50 from my present location. [EB-MO]
 1540 WBNL **IN**, Boonville. 7/15 fair signal over XCEL. 0441 noted with "You're Hometown Station, WBNL" ID into Easy Listening format; probably on day power. IN#50 from my present location. [EB-MO]
 1620 KOZN **NE**, Bellevue. 7/19 fair signal over WNRP, WTAW. 0244 noted with Fox Sports Radio promo, local spots, Omaha weather forecast, "16-20 the Zone" ID. [EB-MO]

FLASHBACK

August 20 1966 issue of "DX Monitor" ... **Rick Evans** of Gary IN said he was now using a National NC-105 receiver ... **John Johnson** reporting from Keflavik, Iceland mentioned it got dark between 0100-0300 local time ... **Joe Gragg** of Palestine TX returned home from college for the summer ... **Don Erickson** was rounding up money for the trip to Milwaukee WI to attend the convention being held there. //August 17 1991 issue of "DX Monitor" ... **Geov Parrish** of Seattle WA updated everyone on his kidney disease mentioning he was given six months to two years ... **Randy Stewart** of Springfield MO reached 500 stations heard ... **Glen Kippel** of Merced CA hadn't been DXing due to a lot of local noise which turned out to be a photocell controller on a light used for his garage door.

OPEN MIKE

Thanks to Eric we have a column for the first issue of the new volume. Looking back to 1966 when I was in Iceland, I reported WKBW, WPTR, KOMA, KXEL, Radio London, Radio Caroline North, Radio Caroline South, Radio Scotland, Radio England, Radio Luxemburg, and Radio Veronica. Daylight most of the day in August, almost no daylight in the winter months! This column was typed 8-11-17. 73, John



EASTERN DX ROUNDUP – **Eric Bueneman (N0UIH)** – 631 Coachway Lane – Hazelwood MO 63042-1347
E-mail: 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**, Welland ON, Canada
ICOM IC-R75, Pixel RF Pro-1B loop, MFJ-1020C as a tuner
- (PS-ON*) **Paul Snider**, Welland ON, Canada
Elad FDM-S2, Pixel RF Pro-1B loop

ACROSS THE DIAL

- 790 WPIC **PA**, Sharon – 7/18 2250 noted with a talk format, battling it out with WAEB and other stations, hearing a clear "790 WPIC" ID into Fox News Radio. A poor to very poor signal in a mix of stations. (PS-ON) (On my second visit to Erie PA in December 2008, I heard this one, even with CKLW blasting 50,000 watts toward Erie on 800; I reported this to the column when Fresh was editor – eb)
- 970 WFUN **OH**, Ashtabula – 7/16 2256 noted with ads for a medical center and a credit company, "970 WFUN Ashtabula" legal ID at 2258. A poor to very poor signal was noted, mostly under a partially nulled WDCZ. (PS-ON)
- 1020 WRIX **SC**, Homeland Park – 7/14 2301 noted with Southern Gospel and choral Christian music, possible legal ID with mention of WHQA (103.1 MHz in nearby Honea Path – eb), "The Life FM" slogan, more possible promos mentioning The Life FM, Southern Gospel version of "Jesus Loves Me" by Joey and Rory. A poor to extremely poor signal was noted under KDKA, confirmed via the Tune-In Web stream of WHQA 103.1. (PS-ON)
- 1090 KMXA **CO**, Aurora – 8/2 2253 noted with a Regional Mexican format, no legal ID at 2300, "Super Estrella" ("Super Star" in Spanish) slogan, talk by a female announcer in Spanish, another "Estrella" mention at 2321 before playing Mecano's song "Cruz de Navajas" before another "Estrella" mention at 2326. This station must have been on day power. A poor to very poor signal was noted under WBAL; confirmed via Tune-In Web stream. (PS-ON*)
- 1150 WCRK **TN**, Morristown – 7/13 0512 noted with "You're listening to the Greatest Hits of All Time, 105.7 WCRK-FM" ID by a male announcer. The signal was noted mixing with WBAG, WNLR and unidentified stations with Fox Sports Radio, Country music, pop selections from the 1980s and vocal music in Spanish. (KK-VA) (The FM calls are W289BQ – eb)
- 1160 WWQT **NC**, Tryon – 7/13 0500 noted with "Living Life Together, we are The Life FM" ID by a male announcer. A nice surprise and a new station in the log! The signal was noted mixing with WMET, WOBM, WODY, WYDU and unidentified stations carrying ESPN Radio and Spanish language programming. (KK-VA) (Your ESPN is WPIE Trumansburg NY – eb)
- 1220 WGNV **NY**, Newburgh – 7/21 0458 noted with "24/7/365, The Best Country; Fox Country 1220 and 105.3 WGNV" ID by a male announcer. At 0503, this ID was noted by a male announcer: "We are Today's Country, Fox Country 1220 and 105.3 WGNV". This is a difficult frequency due to either WFAX or WHKW. This is a nice surprise; a new station in the log! The signal was noted mixing with WDYT, WFAX and WHKW. (KK-VA) (The FM calls are W287CY – eb)
- 1220 WDYT **NC**, Kings Mountain – 7/21 0459 noted with "Está es" in Spanish, followed by "WDYT 1220 AM... Charlotte" ID in heavily accented English by a female announcer. This is a nice surprise; a new station in the log. The signal was noted mixing with WFAX, WGNV and WHKW. (KK-VA)
- 1230 WFAY **NC**, Fayetteville – 7/21 0458 noted with "ESPN Fayetteville" ID by a male announcer. The signal was noted mixing with WCBT, WFBA, WJOI and an unidentified station with Christian vocal music. (KK-VA)
- 1240 WCBY **MI**, Cheboygan – 7/17 2228 noted with mention of Michigan (which caught my attention), Country format, "WCBY 1240 AM, 100.7 FM" ID at 2230, "Big Country Gold" slogan at 2233. A poor to very poor signal was noted, mixing with CJCS and other stations; confirmed via Tune-In Web stream. (PS-ON) (The FM is W264CF Saint Ignace MI – eb)
- 1240 WGVA **NY**, Geneva – 7/21 0538 noted with mention of "WGVA Weather now" by a male announcer. The signal was noted mixing with WDNE and WTPS. (KK-VA)
- 1250 WGAM **NH**, Manchester – 7/23 2254 noted with Oldies format featuring selections by Carole King, Aretha Franklin and Sir Elton John, "WGAM" jingle ID at 2257, possible legal ID at 2300. A very poor signal was noted under CJYE in a station mix with probably WPGP and an unidentified Fox Sports Radio station (Fort Wayne?). (PS-ON)
- 1250 WPGP **PA**, Pittsburgh – 7/26 0516 noted with "AM 1250, the Answer" ID by a male announcer. At this point, I wasn't sure I was hearing WPGP or WRCW. However, I would later hear a car dealer ad with a phone number in Area Code 412 (Pittsburgh), confirming that this is WPGP. This is a nice surprise and a new station for me as I've heard "AM 1250, the Answer" in the past on 1250 kHz, but I was unable to determine and ID. (KK-VA) (I have this one in my logbook as WTAE, WEAE and WDDZ; I verified this one as WTAE in 1994. – eb)
- 1270 WQTT **OH**, Marysville – 7/26 0500 noted with "The True Oldies Station, 96.7 and 1270 WQTT Marysville" legal ID by a male announcer. The signal was noted mixing with WCBC, WMPM, WTJZ and an unidentified CBS Sports Radio station. (KK-VA)
- 1490 WCDO **NY**, Sidney – 7/31 2344 barely caught the end of a song before hearing a "Tri-County Heartbeat WCDO" ID before fading into the mess. A very poor signal was noted in a mix of stations. (PS-ON*)
- 1490 WMRN **OH**, Marion – 7/16 2157 noted with "1490 WMRN" ID by a female announcer at 2157 before fading out. A very poor signal was noted. (PS-ON)
- 1570 WFLR **NY**, Dundee – 7/19 2354 noted with Country format, caught "WFLR" at 0000 into ABC News, "WFLR News" mention at 0003. A poor to very poor signal was noted in the station mix. (PS-ON)

EDITOR'S NOTES

Welcome to Volume 55! First off, congratulations to Paul on his new receiver! The first logs he made on it were KMXA 1090 and WCDO 1490. I also bought a new receiver this summer, albeit an Ultralight. Kraig sent me a pair of recordings of AM stations broadcasting Morse code IDs... I posted the links on the IRCA Facebook page. Listen for songs that emulate Morse code; he mentions a song by The Guess Who that has some Morse code in the tune. He also notes his tentative log last spring of WRDT 560 is an unidentified station; he's heard PSAs for Michigan Business-dot-org on numerous stations, even those in the Washington/Baltimore area. This is another way the state is trying to attract business, according to Kraig. A new DX season is just around the corner! 73 and good DX from N0UIH, The Florissant Valley Dial Twister



DX WORLDWIDE – WEST – **Temp: Phil Bytheway** – 9705 Mary Ave NW – Seattle WA 98117-2334
E-mail: phil_tekno@yahoo.com
all times UTC

Mondays 1201 PM PLT. All times UTC/GMT. We are looking for a new editor for this column, contact me if interested phil_tekno@yahoo.com.

TRANS-PACIFIC DX ROUNDUP

- 594 **UnID**. Very poor talk 1254 8/12. (SR-AZ)
- 657 **UnID**. With pop music, poor 1248 8/4. (SR-AZ)
+With female vocal pop music, very poor 1249 8/10. (SR-AZ)

- 774 **AUSTRALIA** 3LO, Melbourne. With woman talking, poor/weak at 1247 7/31. Of course faded away by 1300. A number of weak hets across the band (not above 1600 kHz). (SR-AZ)
JAPAN JOUB, Akita, NHK2. Produced a het, then faint audio with a woman speaking at 1152 8/2. (CB-CO)
UnID. Very poor music 1259 8/12. (SR-AZ)
- 846 **UnID**. Had very poor/poor audio briefly 1237 8/1. (SR-AZ)
+Talk, very poor 1253 8/4. (SR-AZ)
- 882 **UnID**. Occasional very poor talk 1250 8/2. (SR-AZ)
- 891 **UnID**. Presumed Australia with very poor talk in splatter 1244 8/2. (SR-AZ)
+English talk very poor/poor 1254 8/4. (SR-AZ)
+Presumed DU very poor talk 1248 8/11. (SR-AZ)
- 1035 **NEW ZEALAND** Wellington, Newstalk ZB. Fair audio for a couple of minutes with a man reading news at 1202 8/8. (NP-AB)
- 1548 **UnID**. Had a brief rise with female talk, very poor 1244 8/11. (SR-AZ)
- 1566 **REP KOREA** HLAZ, Jeju, FEBC. Not threatening audio, but a respectable carrier on 1566 this evening at 0330 7/24. (NP-AB)
+Occasionally very poor, never faded up, 1243 7/31. (SR-AZ)
+At poor level 1244 8/1. (SR-AZ)
+Heard at 1237 8/10 with talk very poor. (BB-AZ)
+Poor/weak 1241 8/10 continuing on past 1245 if it's still supposed to switch pattern. (SR-AZ)
+Very poor 1251 8/11 but doing better after sunrise, briefly, 1305. (SR-AZ)

PAN AMERICAN DX ROUNDUP

- 1480 **MÉXICO** XETKR, Monterrey, NL. 7/20 good with KQAM nulled. 0430 with music, numerous "TKR" slogans between songs. 0503 out of Mexican Anthem with complete station information including "XETKR" call letters. New for me. [JcJ-AZ]

THANKS TO THIS REPORTER

- CB-CO **CRAIG BARNES**, Wheat Ridge CO (via eGroup)
Drake R8A, ALA1530In
- JcJ-AZ **JOHN C JOHNSON**, Mesa AZ
IC-R75, Wellbrook ALA1530LNP loop
- NP-AB **NIGEL PIMBLETT**, Dunmore AB (via eGroup)
Perseus SDR with a Wellbrook Phased Array
- SR-AZ **STEVE RATZLAFF**, near Sahuarita AZ (via eGroup)
R75; E/W longwire



DX WORLDWIDE – EAST – Brandon Jordan – PO Box 338 – Rossville TN 38066
E-mail: bdjorda@gmail.com all times UTC

Deadline – Sunday Midnight Central Time.

*** TRANS-ATLANTIC DX ***

- 1287 **ISRAEL** The Voice of Hope Middle East (Saout al Amal), She'ar-Yeshuv. AUG 11 2355 – religious song vocals and talk in Hebrew/Arabic. Signal was fair on peaks, mixing with SER Spain on the frequency. Matched with online audio at http://www.voiceofhope.com/station_middleeast.html [Willie-NF]
- 1386 **EGYPT** ERTU Janub Sa'id Misr, Al-Uqsur. AUG 3 0055 – Arabic talk by man and then woman //online audio feed and 1476. [Willie-NF]

*** PAN-AMERICAN DX ***

- 530 **CUBA** Radio Enciclopedia CMBQ La Habana. JUL 25 0903 – noted with soft instrumental music and mention of Cuba in Spanish. Fair to poor over CIAO. [Bueneman-MO]
CUBA Radio Rebelde, Guantanamo. JUL 26 0900 – Rebelde ID; well over Radio Enciclopedia. [Connelly*Y-MA]
- 540 **CUBA** Radio Rebelde, Sancti Spiritus. JUL 26 0900 – "Rebelde, la Habana" net ID; just a bit under WFLF. [Connelly*Y-MA]
DOMINICAN REPUBLIC HICM, Radio ABC, Santo Domingo. AUG 2 0059 – Radio ABC ID; slightly over jumble with Rebelde, WFLF. [Connelly*Y-MA]
MÉXICO XETX, Nuevo Casas Grandes, Chih. AUG 3 1055 – choral NA already playing from WSW, 1058 as expected "La Ranchera de Paquimé", XETX sign-on full ID along with 90.5 FM, street address, Grupo BM Radio. [Hauser-OK]
MÉXICO XEWA, San Luis Potosí, SLP. AUG 3 1058 – having just heard XETX sign on, now there is another Mexican NA in its null toward the SSE, and 1100 ID as "Los Cuarenta", ie XEWA. At this angle I am also getting a low het, but no time to pin it down, suspected Nicaragua where Managua sunrise is not until 1132 vs 1140 here. On July 8 until 0459", Bruce Conti in NH measured Radio Corporación on 539.859. [Hauser-OK]
- 550 **PUERTO RICO** WPAB, Ponce. AUG 1 0300 – Ponce mentions in talk; through jumble. [Connelly*Y-MA]
- 560 **CUBA** Radio Rebelde, Ciego Avila. JUL 22 0400 – Vocal //600; mixed with WGAN. Cuban anthem atop at 0401. [Connelly*Y-MA]
- 580 **PUERTO RICO** WKAQ, San Juan. JUL 22 0401 – ID "WKAQ cinco ochenta San Juan" and affiliates list; over WTAG. [Connelly*Y-MA]
- 600 **PUERTO RICO** WYEL, Mayagüez. JUL 4 0100 – WKAQ network ID's; over Cuba.
+Aug 2 0100 – Affiliates list //580 WKAQ; over Cuba, WICC, others. [Connelly*Y-MA]
- 610 **MÉXICO UnID**. AUG 12 1129 – choral NA, loops about SW, fade for ID at 1130. More and more XE's are playing anthem at hourbottoms for some reason. Most likely XEBX Sabinas, Coahuila, but would welcome further XESAC Saltillo, or XEEL Zacatecas. Also often heard is XEGS Guasave, Sinaloa, which is partly //650 XETNT. [Hauser-OK]
- 630 **PUERTO RICO** WUNO, NotiUno, San Juan. JUL 27 0030 – ID "Radio Uno Seis Treinte"; under WPRO. [Connelly*Y-MA]
- 650 **COLOMBIA** HJKH, RCN Antena Dos, Bogotá. JUL 4 0100 – Fast Colombia sports talk mentioning Cartagena team; dominant. [Connelly*Y-MA]
CUBA Radio Rebelde. JUL 5 0200 – 9-note Rebelde sounder; mixed with more common Progreso. [Connelly*Y-MA]
MÉXICO XETNT, Los Mochis, Sin. JUL 23 1120 – Mexican music from XETNT, the major lowband signal holding up as Enid sunrise 1131 is nigh. 1128 full ID as Radio 65, Radio Viva, noticias Altavoz.com, and into choral NA at this odd time.
+Aug 12 1131 – full IDs, maybe sign-ons for Radio 65, XETNT, and XHTNT, 106.5, Los Mochis, Sinaloa; 1133 into 'Rincón Norteña' music. [Hauser-OK]
- 660 **MÉXICO** XEDTL, México, DF. AUG 12 1105 – after choral NA, XEDTL sign-on, Radio Cuidadana of IMER, Ciudad de México, also on an HD2 of some FM frequency. XEEY Ags2 was already on and QRMing. [Hauser-OK]
MÉXICO XEEY, Aguascalientes, Agua. AUG 3 1103 – choral NA from SSW, 1105 into music but interjecting "La Kaliente 102.9", ie XEEY, 50/10 kW. [Hauser-OK]
- 690 **COLOMBIA** HJJCZ, W Radio, Bogotá. JUL 4 0100 – //700 HJCX with W Radio ID, 16 pips; good. [Connelly*Y-MA]
- 700 **COLOMBIA** HJCX, W Radio, Cali. JUL 4 0100 – //690 HJCZ with W Radio ID, 16 pips; good.
+JUL 26 0901 – W Radio net ID; mixed with WLW. [Connelly*Y-MA]
- 710 **MÉXICO** XEDP, La Ranchera de Cuauhtémoc, Chih. AUG 3 1106 – bit of "Ode to Joy" theme, or rather whatever hymn has stolen its tune, and sermon in Spanish about el muro de Jerusalén. Voice sounds like same guy I frequently hear a few minutes later in bajoalemán, ie XEDP, not on the off-frequency transmitter at the moment. Maybe he appreciates Beethoven. [Hauser-OK]
- 720 **DOMINICAN REPUBLIC** Radio Norte, Santiago De Los Caballeros. AUG 2 0100 – Radio Norte ID at 0100:45; in jumble. [Connelly*Y-MA]
NICARAGUA Radio Católica, Managua. JUL 16 0300 – Católica mention, folk religious vocal; mixed with WGN. [Connelly*Y-MA]
- 730 **COLOMBIA** HJCU, Cadena Melodia, Bogotá. JUL 18 0059 – Melodia Estéreo ID; over others. [Connelly*Y-MA]
- 730 **CUBA** Radio Progreso, La Fe. JUL 16 0300 – Overmodulated female vocal //640; over CKAC. [Connelly*Y-MA]
- 740 **CUBA** Radio Angulo, Sagua de Tánamo. JUL 22 0200 – Man "Radio Angulo, transmitiendo desde Holguín, Cuba", 6 chimes; good over WSBR. [Connelly*Y-MA]
- 750 **VENEZUELA** YVKS, RCR, Caracas. JUL 6 0100 – ID "RCR siete cincuenta AM"; good / alone on channel.
+JUL 22 0200 – "RCR, siete cincuenta AM" ID; good over Cuban Radio Progreso. [Connelly*Y-MA]

- 760 **BRAZIL** ZYH588, Radio Uirapuru, Fortaleza. AUG 2 0000 – Man in Portuguese; slightly over mess. [Connelly*Y-MA]
COLOMBIA HJAJ, RCN, Barranquilla. JUL 4 0100 – RCN news intro.
 +JUL 5 0100 – RCN ID; loud.
 +JUL 19 0100 – Banco Popular advert, pips.
 +JUL 22 0201 – Banco Popular advert, net ID "RCN radio, nuestra radio"; loud. [Connelly*Y-MA]
- 780 **BRITISH VIRGIN ISLANDS** ZBVI, Road Town, Tortola. JUL 18 0100 – ZBVI ID, bit of a country gospel song (Jim Reeves?), then a cover version of "Human Nature" (Michael Jackson song); to fair peak through T-storm static. [Connelly*Y-MA]
VENEZUELA YVMN, Radio Coro, Coro. JUL 17 0900 – "Radio Coro presenta...", fair over WBBM.
 +JUL 22 0402 – Venezuelan anthem; slightly over pile.
 +AUG 2 0101 – Radio Coro ID; fair / dominant. [Connelly*Y-MA]
- 800 **BONAIRE** PJB, TransWorld Radio, Kralendijk. JUL 4 0100 – Transmundial and Bonaire mentions in Spanish talk; over jumble.
 +JUL 19 0100 – Usual hymn, male preacher in Spanish; atop pile-up.
 +AUG 2 0100 – Woman "en Bonaire... Caribe Holandesa"; good. [Connelly*Y-MA]
- 810 **BAHAMAS** ZNS3, Freeport. JUL 22 0359 – Commonwealth of the Bahamas mention, anthem; good. [Connelly*Y-MA]
COLOMBIA HJCY, Caracol Radio, Bogotá. JUL 4 0100 – ID "en CARACOL Radio" at 0100:40; mixed with WGY.
 +JUL 5 0100 – "CARACOL Radio" ID; over WGY.
 +JUL 27 0030 – CARACOL Radio ID; dominant. [Connelly*Y-MA]
- 840 **CUBA** CMHW, "W", Santa Clara. JUL 26 0900 – Dobleve ID; over pile. [Connelly*Y-MA]
HAITI Radio 4VEH (4VEF), Cap-Haïtien. JUL 4 0100 – 5-note "Dashing Through the Snow" electronic interval signal at 0100:35; under Cuba.
 +AUG 2 0001 – "Dashing Through the Snow" interval signal at 0001:21, man in French and soft music; over Brazil, Cuba. [Connelly*Y-MA]
- 860 **BRAZIL** ZYJ459, Radio CBN, Rio de Janeiro. JUL 5 0200 – "CBN" network ID, man in Portuguese; through jumble.
 +JUL 18 0100 – Man in Portuguese with fast sports commentary including "goll" shouts.
 +JUL 22 0200 – Woman in Portuguese, fanfare, man with "CBN" mention; over others.
 +JUL 27 0030 – Lengthy "goll" screaming in reverberated Portuguese talk by man; atop right after WWDB signed off. [Connelly*Y-MA]
CUBA Radio Reloj, Jovellanos. JUL 19 0059 – RR beeps in mess. [Connelly*Y-MA]
VENEZUELA YVYE, Radio Enlace 860, Valle de la Pascua. AUG 2 0000 – Talk "Musica y mas musica, Enlace 8-60, tu alternativa"; dominant. Thanks to Henrik Klemetz on RealDX for ID analysis. [Connelly*Y-MA]
- 900 **CUBA** Radio Progreso. JUL 19 0101 – "Big Girls Don't Cry" by the Four Seasons, deep voice announcer //640; good, alone on channel. [Connelly*Y-MA]
- 940 **BRAZIL** ZYJ453, Rio de Janeiro. JUL 22 0201 – Man in Portuguese (possibly religious); in jumble with Colombia, others. [Connelly*Y-MA]
COLOMBIA HJTL, RCN, Cucuta. JUL 22 0201 – Banco Popular advert //760; mixed with Brazil. [Connelly*Y-MA]
PUERTO RICO WIPR, San Juan. JUL 18 0101 – "WIPR nueve cuarenta" ID; briefly over pile. [Connelly*Y-MA]
- 990 **CUBA** Radio Guama, Pinar del Rio. JUL 27 0400 – Xylophone attention signal, Cuban anthem; over domestic jumble. [Connelly*Y-MA]
- 1000 **COLOMBIA** HJAC, RCN, Cartagena. JUL 22 0201 – Banco Popular advert //760; just a bit over Cuban wobbler and huge IBOC blob. [Connelly*Y-MA]
CUBA Radio Granma, Media Luna. JUL 19 0100 – Woman with Radio Granma ID, 9-note 'tinkly' chimes; through IBOC hash. [Connelly*Y-MA]
- 1100 **COLOMBIA** HJCN, BBN, Bogotá. JUL 5 0100 – BBN mention and "desde Bogota, Colombia"; over the stew. [Connelly*Y-MA]
CUBA Radio Angulo, Holguín. JUL 22 0400 – Cuban anthem //740; under WBT. [Connelly*Y-MA]
- 1140 **CUBA** CMIP, Radio Surco, Morón. JUL 26 0300 – Distorted audio fanfare music, man with Radio Surco ID at 0300:45, woman in Spanish; mixed with WRVA. [Connelly*Y-MA]
- 1170 **COLOMBIA** HJNW, Caracol Radio, Cartagena. JUL 5 0201 – "En CARACOL Radio"; over WWVA.
 +JUL 19 0100 – CARACOL Radio ID; dominant.
 +JUL 27 0159 – Several CARACOL Radio ID's; over WWVA. [Connelly*Y-MA]
- 1220 **BRAZIL** ZYJ258, Radio Globo, Rio de Janeiro. JUL 5 0200 – Globo mention, man in Portuguese, sweep tones; in jumble with WQUN, WHKW, WWSF. [Connelly*Y-MA]
- 1540.502 **PERU** OCU2X, Radio Turbomix, Cajamarca. JUL 3 0900 – Carrier, bits of audio. Interference from Indian music on 1540.0, presumably CHIN. [Connelly*Y-MA]
- 1610 **ANGUILLA** Caribbean Beacon, The Valley. JUL 6 0100 – Gene Scott preaching about what to do when everything is going wrong; over two others. [Connelly*Y-MA]
- 1620 **US VIRGIN ISLANDS** WDHP, Fredriksted. JUL 6 0100 – Woman mentioned "on the BBC World Service", 5+1 pips; over Cubans. [Connelly*Y-MA]

CONTRIBUTORS

- [Bueneman-MO] **Eric Bueneman**, NØUIH, Hazelwood MO, USA
 County Comm GP-5/SSB Gen 3 Ultralight receiver, County Comm high sensitivity AM (LW/MW) antenna
- [Connelly*Y-MA] **Mark Connelly**, WA1ION, South Yarmouth, Cape Cod MA, USA (GC= 41.6931 N/70.1912 W) (grid FN41vq)
Receiver: Microtelemcom Perseus
Antenna 1: Cardioid-pattern SuperLoop: 10m vert by 11m horiz (peak 165 deg, null 345 deg)
Antenna 2: Cardioid-pattern SuperLoop: 6m vert by 12.6m horiz (peak 75 deg, null 255 deg)
- [Hauser-OK] **Glenn Hauser**, Enid OK, USA
 DX-398 with internal antenna only or PL-880; NRD-545 with ALA-330S inside E-W or inside random wire N-S; ICR-75 with E-W longwire; FRG-7 with NW-SE short wire
- [Willie-NF] **Allen Willie**, VOPC1AA, Carbonear, Newfoundland, Canada (GC=47°44'15N/53°11'46W) (grid GN37jr)
 ICOM R-75 w/183m random wire to SE @ 135°

73, Brandon



TROPICAL BAND DX (1710-5100 kHz) – Brandon Jordan – PO Box 338 – Rossville TN 38066
 E-mail: bdjorda@gmail.com all times UTC

Deadline – Sunday Midnight Central Time

- 3325 **BOUGAINVILLE** NBC, Kuba. AUG 4 1132 – NBC at S9-S6 with island music, 1151 talk in presumed Pisin. Only hear one station but RRI may be underneath; with BFO there seem to be two carriers slightly offset, so can anyone compare them to the Hz? Or one carrier is wavering. Still on at 1205. [Hauser-OK]
- 3985 **REP KOREA** Echo of Hope. AUG 3 1125 – similar signal (tp 3930) with jamming but talk. [Hauser-OK]
 +AUG 12 1010 – Man in Korean over the top of jammer. Good. [Barton-AZ]
- 3930 **DPR KOREA** Voice of the People. AUG 3 1124 – sounds like //3910 music vs noise jamming, so Voice of the People, clandestine, each 50 kW ND on their recently adjusted frequencies as of a couple months ago. I expect 3930 is bothering JOZ 3925 reception in Asia. [Hauser-OK]
 +AUG 12 1000 - Heard covering the jammer; Good. [Barton-AZ]

CONTRIBUTORS

- [Barton-AZ] **Rick Barton**, Peoria AZ
 SW-2000629/ATS-505 with 20' wire
- [Hauser-OK] **Glenn Hauser**, Enid OK, USA
 DX-398 with internal antenna only or PL-880; NRD-545 with ALA-330S inside E-W or inside random wire N-S; ICR-75 with E-W longwire; FRG-7 with NW-SE short wire

73, Brandon



Aaron Kreider 7/20 (via IRCA eGroup). I went to Iceland for the past week and did a bit of DXing using a Tecsun 880. It was limited as I was travelling with family, hotel noise levels varied greatly, and "night" time hours were limited (3-4 hours).

666 RUV Iceland is on the air most of the time (maybe 90% when I checked) and is probably still running low power as they weren't super strong in Reykjavik. On the east coast of Iceland with a nice water path and generally 1-4 km from the water, I had regular very weak daytime reception of 810 BBC (North Scotland) and 693 BBC (not sure which transmitter). I also had some hets (probably including BBC Wales). I tested several cliffs and didn't notice any gain. Is it possible that lava rocks lack iron and thus aren't as good? I've read that Iceland is low on metals. This is the best daytime distances I've ever had on MW so I was quite happy!

I did one short session of night time listening on the south coast of Iceland near Vik. I didn't hear Faero 531 – so they are still inactive. I also didn't hear Greenland or any US stations. I got the best reception from the UK, followed by Spain. Algeria (531 and 549) was good. I also tentatively heard Tunisia and Morocco. The furthest signal was from Saudi Arabia (585).

Reykjavik isn't the best for DXing Europe as it on the coast, but has a lot of land between it and Europe.

Iceland is an amazingly beautiful country due to the volcanoes, though rather pricy (expect to pay double or more what you do in the US). We drove the highway 1 which wraps around the shoreline much of the time and would provide a lot of opportunities for a more DX oriented visit. Most of the country is open fields and you could also set up long antennas without a problem, assuming the sheep cooperate and that you can figure out who owns it (or frankly they probably won't care or find out). It is nice and temperate in the summer, though it can be also be rather cold (40) and windy (we had 30 mph gusts one day).

Aaron

Oregon Cliff (Rockwork 4) Ultralight (dialog version via eGroup)
Gary DeBock

DXing at the Rockwork 4 ocean cliff near Manzanita, Oregon, 7.5 inch loopstick CC Skywave Ultralights +, 17", 15" and 15" Airport-clearing FSL antennas

8/1. Thanks to Steve for his report from Arizona. The largest collection of ferrite this side of the Ukraine rolled over the Columbia River bridge to Oregon at 0130 local time this morning, as four very "airport unfriendly" FSL antennas deployed for a one week DXpedition to the wild Rockwork 4 ocean cliff near Manzanita. Originally the plan was to wait until Wednesday to hit the cliff, but I had a premonition that something special might show up if an unscheduled, early morning trip was made from Puyallup. Sure enough, the usually anemic 558-Fiji had its best signal for the past few years at the cliff (even better than in Kona, Hawaii last April).

Upon arrival at 1025 UTC (0325 local time) the ICF-2010 spotting receiver showed a decent carrier on 1017, and a rush effort was made to set up the 17" monster FSL for a recording. A3Z in Tonga cooperated nicely with decent-level island music, about the same time I noticed another car drive up to the cliff turnoff to join me in the total darkness (always a moment of trepidation, since you never know what to expect on the wild cliff). This turned out to be Chuck, who unfortunately noticed Tonga's sign off about the same time his broadband loop was ready (1105). 531 had a potent mix of 4KZ and PI for over an hour, while the usual Kiwi powerhouses (603, 657 and 702) were testing the crunch resistance of my CC Skywave Ultralights after 1230. About this time 558-Fiji started sounding like it might even have a real 10 kW transmitter, despite the fact that everyone knows it has serious signal issues. I tried for Theo's 612-Star but it was missing in action, although the 657 frequency had its strongest signal ever heard at the cliff (by far). 702-Magic and 2BL were in a wild S9 snarl for much of the time after 1245, while an apparent 585-2WEB (not //576) was playing some pop music. Chuck and I discussed the propagation quite a few times, finally wrapping up the chase around 1330. My overall impression was that the session had a lot to offer, especially considering the fact that 558-Fiji only showed up 1 day out of 11 last year. Tom has yet to join us-- hopefully he will share in the great propagation.

558 **FIJI** Radio Fiji One, Naulu. Fiji Actually sounding somewhat energetic with typical island music at 1307
<https://app.box.com/s/vprj88dgl97t4lcp5tx23edh31gorfd0> The usual male announcer with more island music at 1333
<https://app.box.com/s/2y8dsur5tdymia0qs4fgfw64e4b4mwng>

657 **NEW ZEALAND** Tauranga, 'Star'. Yikes! With a news signal like this on the "Kiwi Cliff", who would choose to vote against the Labour Party?
<https://app.box.com/s/ef3lyfav23rqu7k86eqbw79xvkuks8oa>

1017 **TONGA** A2Z, Nuku'alofa. Tonga Island choral music at decent level around 1036 (after a rush FSL antenna setup)
<https://app.box.com/s/ef3lyfav23rqu7k86eqbw79xvkuks8oa>

8/1. Well, Theo mentioned that he was looking forward to some more recordings from the "Kiwi Cliff," so I thought I would oblige him. Not to mention the DU-English in some of these ads is way beyond the deciphering capability of any sleep-deprived Yankee DXer.

531 **NEW ZEALAND** 531 PI, Auckland, 5 kW. Strong island music at 1247; generally dominant on the frequency until 1255, when the above station kicked it off the cliff <https://app.box.com/s/kva0d28m519behw4b13mr496mxducw9d>
UnID-DU (either 4KZ or More FM) OK Theo, this lady's DU English speech is potent indeed, but her accent is so strong that she might as well be speaking Chinese (which would be easier for me to understand). Heard at 1255 in a mix with a weaker PI
<https://app.box.com/s/lbmcaqvyyvivedjx1j1ru5ihdcdydses>

558 **FIJI** Radio Fiji One, Naulu, "10 kW". Actually sounding somewhat energetic with typical island music at 1307
<https://app.box.com/s/vprj88dgl97t4lcp5tx23edh31gorfd0> The usual male announcer with more island music at 1333
<https://app.box.com/s/2y8dsur5tdymia0qs4fgfw64e4b4mwng>

585 **UnID DU**. English station not //576 at 1204; maybe 2WEB? <https://app.box.com/s/vxvrtwbaeb037cej1m3qxicl36544hm4>

603 **NEW ZEALAND** Manukau, Radio Waatea, 5 kW. Maori music at S9+ level for over 3 minutes around 1256; the strongest signal this big gun has ever managed at the cliff <https://app.box.com/s/s594rz5pctqf9hahfhp7p1du2ajuzp0>

657 **NEW ZEALAND** Tauranga, 'Star'. S9+ News concerning the Labour Party; another one of the session's awesome Kiwi signals
<https://app.box.com/s/9zien3rdl80pe61vmfsq8sz8jox26rg> Equally strong Christian music and mini-sermon by Irish-accented preacher at 1215
<https://app.box.com/s/psfs64lczen4cfk137pij0hpcq43dad>

702 **NEW ZEALAND** Auckland, 'Magic'. A royal mess at 1243 as the two big gun DU's manage to wipe out the frequency for most of sunrise enhancement. Magic is the oldies station, while the female DU English speaker is from the Oz LR network (2BL, 3LO etc.)
<https://app.box.com/s/m1hlbzi2c98m5ur83mi62ihg2ppyjrpw>

1017 **TONGA** A2Z, Nuku'alofa, 10 kW. Island choral music at decent level around 1036 (after a rush FSL antenna setup)
<https://app.box.com/s/ef3lyfav23rqu7k86eqbw79xvkuks8oa>

1386 **NEW ZEALAND** Auckland, Radio Tarana, 10 kW. Potent signal, but who knows what language this lady is speaking (at 1253). Maybe Hindu-accented DU English, Theo? <https://app.box.com/s/rnz50cg9xv8duvz161jgymjr3xlp4q8h>

1503 **NEW ZEALAND** Christchurch or Wellington, Radio Sport, (5/2 kW). By far the easiest language to understand all session long – Yankee-accented English from the Fox Sports Network at 1315 <https://app.box.com/s/x2qf4vcsdq2f8jvsusob1cbfjdj51x8>

8/2. The stars were dazzling at 0920 UTC (0220 local time) as I drove up to the Rockwork 4 cliff, hoping to catch some exotic Pacific island sign offs on 540, 621 and 1440 (that I had heard at S9 levels in Kona, Hawaii, but all of which were completely plastered by west coast QRM this morning). I noticed a "sleeping squatter" in Chuck's prime antenna setup spot, and remembering that Tom was also driving in overnight from Seattle, it was clear that real estate at our ocean cliff turnoff site would be in serious demand.

1017-Tonga once again cooperated fairly well for its sign off at 1103, ending up with the usual island choral music (the apparent national anthem) before cutting power. Chuck showed up around the same time, and set up his broadband loop in between the "squatter" and me. When Tom also drove in from Seattle around 1130 (still in total darkness) I was ready to relocate to Rockwork 2 or 3, but since DU propagation wasn't quite up to yesterday's high level only two monster FSL's needed to be deployed to cover everything interesting, and I stayed put at the edge of the rock spire. Chuck came over several times expressing his disdain for the propagation, but in my opinion there were some interesting signals, including another strong appearance from 558-Fiji, a moderate appearance from 585-7RN, huge signals from the big guns on 594 and 657 (3WV and Star), and an UnID on 1017. Yesterday's monster signal from 531-More FM in Alexandra (with the cool winter weather) was replaced by the usual snarl of 4KZ and PI, with the latter having the edge at near S9 level for most of the session. Overall it was an interesting morning because of another strong run by 558-Fiji around 1302, indicating that the transmitter and antenna may finally be working as the Japanese donating group intended.

- 531 **AUSTRALIA** 4KZ, Innisfail, 10 kW. Oldies music very briefly on top of PI at 1256, but generally fighting a losing battle
<https://app.box.com/s/ebwixs5qag3u89wwj33upa2f5hxtp2qt>
NEW ZEALAND 531 PI, Auckland, 5 kW. Potent Samoan speech and island music at 1312, dominating over a lackluster 4KZ for most of the session
<https://app.box.com/s/7i377b31k71o8fa9xbro2fhbsw5j582>
- 558 **FIJI** Radio Fiji One, Naulu, 10 kW. Another potent appearance from this rejuvenated wonder at 1302 (the second day in a row)
<https://app.box.com/s/f2lkogkmloww9vo6uehffdqenh7v810i>
- 585 **AUSTRALIA** 7RN, Hobart, 10 kW. Not especially strong but this male DU English speech was clearly //792 at 1315
<https://app.box.com/s/sma3mjwvlyk8q0xp72ac0gocwv7xrt>
- 594 **AUSTRALIA** 3WV, Horsham, 50 kW. Blistering signal from the Oz big gun at 1245 – typical of the LR Network powerhouses on 774 and 828; weak "Dwarf Stars" way down underneath <https://app.box.com/s/m7d0fgnzhxsg1hhawzm1mtct5zudw>
- 657 **NEW ZEALAND** Tauranga, "Star". Not every "Star" was weak this morning – this signal (at 1250) was as strong as any DU on the band
<https://app.box.com/s/wj5chv6w11ez7zgcxws077gqo9ofd5pr>
- 1017 **TONGA** A2Z, Nuku'alofa, 10 kW. The last minute of the station's sign off routine, including island choral music (the National Anthem?) and the abrupt signal cut off around 1103 <https://app.box.com/s/oijccc92lww29gth8f7ba8dt7b5ipzxa>
UnID-DU. The mystery of the morning – male DU English at 1310 (after the Tonga sign off) with apparent sports-related numbers
<https://app.box.com/s/0643sj5019kpivgvz3hou584t2lvqe0n>

8/3. The stars were again dazzling at 1030 UTC (0330 local) as I drove up to the Highway 101 cliff, only to find a lone Harley motorcycle rider occupying Chuck's usual antenna space, and staring directly at me. He stuck around until the 17" FSL was set up and pointed in his direction, at which time he made a sudden, quick exit (total strangers don't trust each other very much in total darkness). Although 1017-Tonga was at a fair to good level and was going past its usual 1100 sign off time, it featured the bizarre male announcer with the bad habit of pausing for long breaks in between his speech (this must be the "island time" effect). He could take lessons from Paul Walker.

Tom and Chuck drove up around 1130 and we were all eager for some nice DU propagation, but the ionosphere didn't seem to have been notified. Usually by 1215 at Rockwork 4 there is a DU snarl on 531 at an S9 level and some Kiwi big guns sounding like you are in downtown Auckland, but it seemed like both NZ and Oz were taking the morning off. Finally around 1245 some unusually strong Oz signals on 585 and 639 showed up, and the real session finally kicked off (for about 45 minutes). 558-Fiji was not impressed with the propagation and stayed down in the tropics, although on a morning like this even a rejuvenated DU transmitter could sound comatose. With the exception of the NZ big guns on 567 and 657 even the Kiwis lacked much energy, and if not for the unusual Oz signals on 585 and from a presumed 639-2HC the session would have been lackluster. Tom and Chuck must have figured that things were a little slack when I was taking pictures of our ocean cliff setup at 1230.

- 531 **NEW ZEALAND** 531 PI, Auckland, 5 kW. Took a while to get untracked but finally reached a good level with Samoan music at 1317
<https://app.box.com/s/8dh3vwwqhephwrrnor5rqmmy68tqqo6m>
- 585 **UnID-Oz**. The puzzle of the morning – one of the strongest DU signals ever heard on 585 was received at 1243, but 7RN or 2WEB? All the ABC RN parallels on 576, 846 and 792 were comatose, and the ABC web site maze wasn't much help. Maybe David Sharp or one of my DXpedition partners can bail me out? <https://app.box.com/s/aptnncjp3ll32d027s691rv82bau3m2>
- 639 **AUSTRALIA** 2HC, Coffs Harbour, 5 kW. Presumed the one with the call-in talk format at a decent level around 1310
<https://app.box.com/s/8h3fcdmvmz2gslknf18r1f5z342y1xm9>
- 657 **NEW ZEALAND** Tauranga, "Star". Very strong as usual at 1318 but maybe slightly off from the torrid strength of the last couple days
<https://app.box.com/s/8vbwk1o3vf13uvwq4fjnex12f7qur716>
- 675 **NEW ZEALAND** Christchurch, Radio NZ National, 10 kW. Once again the leading RNZ frequency with weird female speech at 1322 (no idea what she's trying to say) <https://app.box.com/s/h16ah0ngzwos0v4aome4syt6yeovmp9w>
- 1017 **TONGA** A2Z, Nuku'alofa, 10 kW. Good strength from this male announcer while running on extended time at 1127. Unfortunately he suddenly stops talking for extended periods, making you think that the signal may have collapsed <https://app.box.com/s/zjc64srpsqz6xplxlrv2v8o2i667qrvrc>

8/4. As reported earlier it was a pretty wild ocean cliff session, with both Tom and I judging it to have been the most thrilling ever at Rockwork 4. There was enhanced propagation to both Australia and New Zealand, with Fiji joining in the bonanza as well. Some highlights were the best-ever signals from both 558-Fiji and 558-6WA (in a snarl much of the time), the best-ever signal from the 2.5 kW Radio Kahungunu, unusual Kiwi-Oz mixes across the band, and 558-Fiji sticking around at an S5 level until 1350, 15 minutes after Oz and NZ had bailed. The underperforming Fiji of the past 2 years has suddenly become a DU-DX powerhouse.

There is no way to make a detailed report of such a wild session without extensive file review (which I assume that Tom will be doing for weeks), but some of the highlight signals are linked below. While still in total darkness Tom and I both noticed that Kiwi propagation was unusually good around 1200, and we thought it would turn out to be a great Kiwi morning. It was, but in the increasing daylight the Australian signals also got a major boost, along with 558-Fiji. Snarling frequency fights broke out across the band as enhanced DU propagation kicked in throughout the entire South Pacific. Neither Tom nor I had ever heard anything like it, but it certainly more than made up for Tom's dicey luck the past two days. His Perseus recordings from today may become real classics.

- 531 **UnID**. More FM? Sounds like another Kiwi ad string (minus the "Sheila") at 1258, but I'm certainly no expert on Kiwi English. In a mix with PI and an Oz talk station throughout the session <https://app.box.com/s/jtq9cyi0te4bbri3tv7puzvt289fpmx>
UnID-Oz. ABC-sounding talk hanging around at 1253 over and under PI and the rest. 558-6WA was in at the time but I didn't think to check for a parallel. Maybe 6DL? <https://app.box.com/s/688ujh8qu23t7jl5dfuvvwzsc6iudsw0e>
- 558 **AUSTRALIA** 6WA, Wagin, ABC Regional, 50 kW. In a snarl with Fiji for much of sunrise enhancement, the Western Australian station (with programming matching the "Overnights" podcast on the ABC website) made a return appearance at 1319 to repeat the North American Ultralight DXing distance record of 9,138 miles/14,705 km. First heard at this cliff in August of 2015 <https://app.box.com/s/cze5omzcx1x01p28gpd044wylhd1616y>
FIJI Radio Fiji One, Naulu, 10 kW. The real star of the session, pounding in with serious strength after its recent rejuvenation. Was still easily audible at 1350 during final antenna dismantling. These two MP3's (at 1307 and 1323) were the strongest recordings ever made of the station at the ocean cliff
<https://app.box.com/s/13ra6q2edyniegz3jnwii1nlu6dcoz05> <https://app.box.com/s/ykjkqqa5917h2rfcedhudikwn8ayfye>
- 603 **NEW ZEALAND** Manukau, Radio Waatea. Mix. For the first time ever, at 1254 an Oz station dominates the NZ Maori powerhouse Radio Waatea at the "Kiwi Cliff." Prior to this I had never even heard any competition for Radio Waatea on the frequency (during 12 ocean cliff DXpeditions here)
<https://app.box.com/s/i3mgrjxw0dwadrtc2c69x7f2f7h6qzua>
- 765 **NEW ZEALAND** Napier-Hastings Radio Kahungunu, 2.5 kW. Yikes! The Kiwi Maori station melting down my CC Skywave's front end is running only 2.5 kW of power! Even with its reputation as an overachiever, this signal is straight out of science fiction. There is apparently a new Maori net ID at 1:30 into the recording at the 1300 TOH, but no Maori translator is currently available at the cliff <https://app.box.com/s/qvu2atw8b22qvi8xwkgp95riigd5mlca>

8/5. Tom was fully set up and DXing at 1200 (in the predawn darkness) as I drove up to the cliff, but for the first time during this DXpedition a "sleeping squatter" had the temerity to park overnight in "my" usual antenna setup space. Of course nobody actually owns any real estate at these Highway 101 ocean cliff turnoffs, and it's truly the "wild, wild west," with no guarantees of anything (except that it will continue to be pretty wild).

Yesterday's exceptional DU propagation cooled off somewhat this morning, but Tom and I still found some interesting signals. 558-6WA made a return appearance around 1315, which would have thrilled us in years past except that we had already received both it and 531-6DL yesterday. 558-Fiji seemed to be putting in a ghostly signal at times, but couldn't quite seal the deal. I had an interesting mix on 1026 around 1250 (the 2 kW Newstalk ZB and a presumed 4AA) while Tom mentioned that he found quite a few other unusual signals. After a phenomenal session like yesterday morning's I guess the main challenge is not becoming "spoiled," and reminding yourself that any of these DU's would be outstanding catches back home (especially for me, living in a "DU dead zone" like Puyallup WA).

- 531 **NEW ZEALAND** 531 PI, Auckland, 5 kW. Relaxing Samoan island music at a good level around 1223; in a mix with an apparent More FM later in the session <https://app.box.com/s/drszu22tfpnt0qr9npjinniphqao00ete>
- 558 **AUSTRALIA** 6WA, Wagin, ABC Regional, 50 kW. Not as strong as yesterday, but definitely there with ABC talk at 1315 (and paralleled by Tom for confirmation) <https://app.box.com/s/8ok0u5g8g54u5eiypjrj4c0tger5v4gw>
- 657 **NEW ZEALAND** Tauranga, "Star". As usual, one of the best performers on the cliff with great-level Christian music at 1310
<https://app.box.com/s/q6bb88n9nm2b1irndlnu01ch37uizw0t>
- 765 **NEW ZEALAND** Napier-Hastings Radio Kahungunu, 2.5 kW. Another overwhelming signal from this low-power overachiever at 1259; a Maori net ID is given 35 seconds into the recording (at the 1300 TOH), followed by apparent Maori-accented Kiwi English (just what a sleep-deprived Yankee DXpeditioner needs) <https://app.box.com/s/nxbw4oexrw5svw83c3nd7jfcy282zb8>

855 **UnID-DU**. Male DU English speaker at a pretty good level with ABC-sounding format at 1319, but getting diced up by my home semi-local KHHO
<https://app.box.com/s/xh0gr9lobe3uwd817nhw2k05piwvr75a>

1026 **NEW ZEALAND** Newstalk ZB. (mix) Kaitaia, 2 kW. The low-powered Kiwi station (with talk) in a mix with an apparent 4AA (playing music)
<https://app.box.com/s/xreujg4l6mhh9avuly33ad74rpuas57d>

Ocean cliff site DXpedition session photo from this morning (kindly taken by Tom) is posted at <https://app.box.com/s/dqaag4916uboqcfoq4b7fn5fy9dsr1f>

8/6. The Highway 101 ocean cliff turnoff was jammed with vehicles this morning as two "sleeping squatters" joined Tom and me in the early morning darkness. Since Tom had arrived first (and was fully set up by 1200) it was my job to squeeze in between the two "squatters," hoping that they would not wake up and make any real estate claims. As it turned out they were crashed for the duration, despite having three huge FSL antennas deployed all around them.

DU propagation was good to New Zealand (what else is new?) and OK to Australia, but after Friday's awesome session I think that Tom was looking for more exotic fare. 558-Fiji was in there throughout the session, but seemed to be stuck in the "Twilight Zone" between KPQ splatter and enough strength for a serious breakout. 531-More FM continues to come in like a regular, a drastic change from previous DXpeditions when it was a very rare catch. The 2 kW 1026-Newstalk ZB overachiever had its best signal ever here this morning (sounding like a Kiwi big gun), while the 594-Star network was roasting the Oz big gun 3WV. 666-2CN made an unusual appearance here at 1320, and 585-7RN showed up again for the fourth time in six days.

The main highlight of the morning here was the first ocean beach test of the new 3.5 inch (89mm) "Frequent Flyer" FSL antenna, a model specifically designed for long-range airline travel. It tracked down several Kiwi and Oz big guns at potent strength, providing serious inductive coupling boosts to a stock CC Skywave. But it wasn't the only "Frequent Flyer" model at the cliff this morning – Tom's drone aircraft with a high-resolution video camera made a nice test flight right above the plunging ocean cliff, hopefully taking unique photos of the awesome scenery.

531 **NEW ZEALAND** More FM, Alexandra, 2 kW. Another Kiwi ad string at potent strength at 1307 (unfortunately I can't translate Kiwi, Theo); in a snarl with NZ co-channel PI all session long <https://app.box.com/s/bxpqcx70dks3xrzvrqv9i3ukqt0p7> A typical, half-second More FM ID by the Yankee-accented male voice at 27 seconds into this recording at 1313. They have been using these super short ID's for at least two years

<https://app.box.com/s/r4mf1dtjyonr47vt88pdibwuedwydh>
NEW ZEALAND 531 PI, Auckland, 5 kW. Very good level R&B music at 1237 during a brief break from More FM competition
<https://app.box.com/s/xp2j1k6wjx1gs6eqco3w89js84koqzzh>

558 **FIJI** Radio Fiji One, Naulu, 10 kW. Stuck in the twilight zone between KPQ splatter and a decent breakout at 1258
<https://app.box.com/s/2q01s73w7nrsa6w7x9boc8avtilvdpe7>

567 **NEW ZEALAND** Wellington, Radio NZ National, 50 kW. Finally a powerful signal from this ex-big gun at 1239, whose potent transoceanic signal generally collapsed along with its old tower a couple of years back <https://app.box.com/s/uk0aochlr0o67tm1x0lm435fka6dwz8>

594 **NEW ZEALAND** Star, Timaru/Wanganui, 5/2 kW. The powerful weather report from the Kiwi Star network sends the Oz big gun 3WV to the showers
<https://app.box.com/s/xsgmjwz14w66y5817s1dpj4fentg97ko>

603 **NEW ZEALAND** Manukau, Radio Waatea, 5 kW. Powerful Maori vocal music at 1312 on the 17" Monster FSL (during antenna comparison with the 3.5" Baby FSL) <https://app.box.com/s/2fj2ipij9dcvyqepfcx0bw195z7nw7>

666 **AUSTRALIA** 2CN, Canberra, 5 kW. Pretty unusual appearance at the "Kiwi Cliff" late in the session at 1320
<https://app.box.com/s/63nkybe0oi440v5m58rowk2an3x9jbnf>

1026 **NEW ZEALAND** Kaitaia, Newstalk ZB, 2 kW. Awesome signal from this low-powered Kiwi relay with female talk during call-in program at 1247
<https://app.box.com/s/u562952qyj0n4izhipoo4972062m0qlx>

8/7 early. The last major DXpedition targets were nailed down this morning with the reception of the 1 kW station 936-Chinese Voice in Auckland, NZ, and the 2.5 kW station 576-Star (the "dwarf star") in Hamilton, NZ. As a bonus a huge signal from the obscure 639-5CK pounded in at 1307 (//891). This was Tom's last session at the cliff, and it has been a lot of fun sharing exceptional DU propagation with him over the past few days (well, at least on the fantastic August 4th session).

639 **AUSTRALIA** 5CK, Port Pirie, 10 kW. ABC LR network program //891 at exceptional level around 1307
<https://app.box.com/s/o0ujrozx7w0wf714dnqq5dn7g2j0tr>

936 **NEW ZEALAND** Chinese Voice, Waiulu, 1 kW. Female Chinese speech at fair to good level at 1320
<https://app.box.com/s/k59fahu3g93b1cha02gyyas4co0endwq>

8/7 late. Tom and I had all the real estate we wanted at the ocean cliff this morning as all the "visitors" cleared out. When you drive up to the cliff in total darkness you never really know what to expect, and you need to be prepared for bizarre weather, strange "visitors" and loud audio frequency QRM from 18-wheelers.

Propagation pulled a sudden switch this morning as moderate Oz propagation suddenly morphed into excellent Kiwi conditions. The relatively obscure NZ stations 576-Star (2.5 kW) and 936-Chinese Voice (1 kW) finally showed up on the cliff after 6 days, along with a blistering signal from the relatively obscure Oz station 639-5CK. The Kiwi bonanza occurred late in the session, however, so there was no time to go after other exotic fare like 585-Ruatoria (Radio Ngati Porou). Like 531-More FM, that is another ultra-rare Kiwi station that has never shown up anywhere else on the west coast.

This was Tom's last session at the cliff, and it has been a lot of fun to chase DU-DX with him at this awesome site. This was by far the most thrilling trip we have ever experienced here, with two Western Australians (531-6DL and 558-6WA), multiple receptions of 531-More FM, 558-Fiji (over and over), 639-5CK at monster level, 936-Chinese Voice, 1017-Tonga (over and over) and many others. The choice of early August for optimal Rockwork 4 DU propagation proved to be spot on, and Tom will probably enjoy reviewing his Perseus files from the dazzling August 4th session for months to come.

531 **NEW ZEALAND** 531 PI, Auckland, 5 kW. Strong Samoan music and speech at 1319; occasionally in a mix with 4KZ and More FM
<https://app.box.com/s/e8zw2gq5uz991fc0bxfciq19c360vstxk>

576 **NEW ZEALAND** Star Hamilton, 2.5 kW. The "dwarf star" finally shows up with music //657 late at 1327
<https://app.box.com/s/e9ddentnlmrxkxlayggq11di62w2ezhc>

594 **AUSTRALIA** 3WV, Horsham, 3WV-Star mix. The Oz big gun had a serious edge over the falling Stars with a health related LR network program at 1253
<https://app.box.com/s/rhdqyg98kxtazesu8edtwwy8uvt4fx8w>

639 **AUSTRALIA** 5CK, Port Pirie, 10 kW. One of the big surprises of the session with a blowtorch signal //891 at 1307 from this obscure DU
<https://app.box.com/s/o0ujrozx7w0wf714dnqq5dn7g2j0tr>

936 **NEW ZEALAND** Chinese Voice, Waiulu, 1 kW. The rare, low-power Kiwi station finally makes a decent appearance at 1307 during enhanced conditions
<https://app.box.com/s/k59fahu3g93b1cha02gyyas4co0endwq>

8/8. It certainly seemed like DU propagation kicked back into the exceptional stage this morning from Australia, NZ and Fiji, but unlike last Friday (with Tom) there was no Perseus-SDR DXer to record the bonanza. 558-Radio Fiji One was the main star of the session with awesome signals from 1305-1330, while a presumed 585-2WEB (not //576) wasn't far behind with its rock music late in the session around 1335. The NZ regulars 531-PI and 603-Waatea easily pegged the PL-380's S/N readout at 25, while 1017-Newstalk ZB (2.5 kW) made its first decent appearance.

The ocean cliff was crowded with "interlopers" (as Tom calls them) as I drove up in total darkness at 1150 (0450 local time), but I decided to set up the FSL's in between them, anyway. For the first time ever an "interloper" approached me in the total darkness and stared at me within 10 feet of my DXing position, which provided a little early excitement in the session. Oddly enough this turned out to be a lady, who finally asked if I was "investigating the clouds." After my technical explanation of FSL antenna theory she lost interest very quickly, and promptly returned to her vehicle.

Longwave propagation was dead, but as soon as I set up an FSL on 531 kHz around 1210 a torrent of S9 signals pounded in, including the Kiwi regular PI and an Australian talk-format station that wasn't 4KZ (which was playing oldies at the time). Finally the talk format station had a commercial ad, which narrowed its identity down to a probable 2PM (which would be the fifth DU station to be heard on 531 during this DXpedition, after PI, More FM, 4KZ and 6DL). The rejuvenated 558-Fiji had modest signals until about 1300, when it seemed to get a turbo boost to reach the strongest level I have ever heard (S9) in any North American recording. Late in the session around 1335 a presumed 585-2WEB (not //576, like its very weak Tasmanian co-channel) went on a monster run to reach its best level (S9) ever heard in any ocean cliff DXpedition. It was the last DU signal on the band around 1345, finishing up a seriously enhanced session.

531p **AUSTRALIA** 2PM, Kempsey, 5 kW. Australian call-in talk station with strong signals at 1242 running commercial ads and not 4KZ (which was audible with oldies music under it, at times). This seems like the only real possibility <https://app.box.com/s/jztickg7d207ykg2re1c9jvtjokznf5>

NEW ZEALAND 531 PI, Auckland, 5 kW. Samoan music at overwhelming strength at 1248; this was the strongest signal from this station received in over two years <https://app.box.com/s/b391cdr1t9s4c7y4gp3kt19q1dxbgpj4j>

558 **FIJI** Radio Fiji One, Naulu, 10 kW. Reaching S9 levels at times from 1300-1330, this rejuvenated Pacific island wonder was the real star of a very exciting session. Three exceptional Fiji island choral music MP3's are linked below. 1318z <https://app.box.com/s/6b2fpx2ai8p44138fih4dn1mefzocxi> 1323

<https://app.box.com/s/ca7tpo195gua5eayhc46evv9ix29e9oz> 1313 <https://app.box.com/s/tno4iqisuaw1kx62i80y8rg722y15e4o>

585 **UnID-Oz**. Yikes! This S9 rock music recording at 1335 was not //576, which means that it is most likely 2WEB, Outback Radio in Bourke. If so, it would be far and away the strongest signal ever heard from David Sharp's station <https://app.box.com/s/46t2trpbuq90na4zdr197v1p9ijjuq5l>

603 **NEW ZEALAND** Manukau, Radio Waatea, 5 kW. Another science-fiction level signal from this Kiwi regular with music and female Maori chants at 1303
<https://app.box.com/s/wruaavle3k3s4x9my9armbxl4od0369s>

702 **AUSTRALIA** 2BL, Sydney, 2BL-Magic mix The Auckland oldies station runs out of Magic up against the Oz big gun, leaving it will little but "Sorrow"
<https://app.box.com/s/ur43ihfmgka0d1p6bupbhch9ixc1nrvr>

8/9. The ninth and final session of the Rockwork 4 DXpedition (yesterday morning) featured more exciting DU propagation, with another monster signal from 558-Fiji, a new Oz 558 co-channel with a rock format, the best signal ever from the 1 kW 936-Chinese Voice and the first FSL logging of the 2 kW 927-Newstalk ZB.

The ocean cliff session opened in the predawn darkness at 1150 with the unpleasant sight of a huge RV parked in my usual antenna setup spot. After setting up FSL's in the north end of the turnoff I made my final DXpedition attempt to receive Longwave NDB's from the South Pacific, which were again comatose. 531 was full of signals, though, with PI and a presumed 2PM fighting it out at decent levels. The rejuvenated 558-Fiji started making serious waves around 1247 but was troubled by an UnID Australian rock station, which managed to force it off the frequency at times from 1259-1304. Fiji recovered in fine form, through, finishing up with its island choral music at a huge level by 1329.

Since this was the last day of the DXpedition a deliberate effort was made to go after unheard but marginal DU stations, resulting in a fair to good logging of 846-2RN around 1255, a new logging of a modest-level 927-Newstalk ZB (with an Oz music-format co-channel) at 1306, fair-level 963-Star //657 at 1319, 738-2NR //774 at 1328 (but sliced up by SF splatter), 855-Oz //774 at 1311 (but sliced up by Tacoma splatter) and in one of the most convoluted, back-and-forth parallel checks in ocean cliff history, 837-RNZ //756 at 1345 (which, oddly enough, was the only RNZ parallel audible at that extremely late time, even though the 50 kW Portland mega-pest 750-KXTG is only 70 miles and 6 kHz away). As if to prove the point, I made an recording of 756-RNZ all by itself at 1338, during which the solid rock cliff shut down the Portland splatter to a negligible degree, providing very solid reception of the last surviving Kiwi signal of the session. Wow!

Overall this August 2017 DXpedition has been far and away the most productive Rockwork 4 trip ever, with two Western Australians (531-6DL and 558-6WA) received at decent levels, five stations received on 531 kHz alone (PI, More FM, 2PM, 4KZ and 6DL), 558-Fiji completely restored and reaching S9 levels, an S9 recording of 585-2WEB (confirmed by David Sharp), the best-ever signals from the Kiwis on 531 (More FM), 603, 657, 765, 936 and 1503, monster signals from 585-7RN and 639-5CK, multiple receptions of 1017-Tonga, etc. Even when we needed to dodge the "sleeping squatters" it was a lot of fun to share the cliff with my DXpedition partners Tom and Chuck, especially during the phenomenal August 4th session (when Tom and I both made out like bandits). I'm sure that both of us will remember that wild and wacky session for years to come!

531p **AUSTRALIA** 2PM, Kempsey, 5 kw. The likely one with an ad string in a "talker" format at 1232 with no apparent oldies music transmission for 15 minutes
<https://app.box.com/s/uf6hkk32rw5k6llyi1xo08suvk9iegxe>

NEW ZEALAND 531 PI, Auckland, 5 kW. Female Samoan speech at good level at 1229 <https://app.box.com/s/iifum3lablh8wxwt87toehpuwzo8e9yd>
 558 **FIJI** Radio Fiji One, Naulu, 10 kW. After shaking off the pesky UnID Oz rock station around 1305 this rejuvenated wonder once again pounded in with island choral music at 1329 <https://app.box.com/s/lrsxo24dkqaozmzn8zf5it13c1zfu6f5>

UnID-Oz. Mystery Australian rock station in a snarl with Fiji from 1259-1304, and silencing it during the two recordings linked below. Fast-paced rock music at 1304 <https://app.box.com/s/fyync8y821ua6qx4js7rhrcmn3hcqipt> Female and male-voiced DU English ads at 1259 <https://app.box.com/s/ittyjnuupwt4kdbkj26ui3xv2o1hpcn>

756 **NEW ZEALAND** Auckland, Radio NZ National, 10 kW. The solid rock cliff acts as a "splatter eliminator" to filter out 750-KXTG in Portland (50 kW and only 70 miles away), providing easy reception of this Kiwi RNZ relay (the last surviving DU very late in the session).at 1338 <https://app.box.com/s/anomc4qcr64ezmoe8aykin4podyah1w7>

927 **NEW ZEALAND** Palmerston North, Newstalk ZB, 2 kW. Low-powered Kiwi relay (in a mix with an UnID Oz music station) was tracked //1035 at 1308 to provide an all-new logging <https://app.box.com/s/vdhttgr1d1r0uf69rt4jtr6y7gyno7>

936 **NEW ZEALAND** Chinese Voice, Waiulu, 1 kW. Best signal ever from this amazing 1 kW Kiwi wonder with male Chinese speech at a very good level at 1304 <https://app.box.com/s/z8jbfmptywt446a66kmpqqwzyuq0upsu>

963 **NEW ZEALAND** Christchurch, 'Star', 10 kW. Tracked down at a good level //657 at 1319, apparently with its Oz co-channel at times



IRCA TECHNICAL COLUMN – Nick Hall-Patch – 1538 Amphion St – Victoria BC Canada V8R 4Z6
 E-mail: nhp@ieee.org

How a Beverage antenna can discover its inner feed line - conclusion

(In an introductory article, "How a Beverage antenna can discover its inner feed line – a work in progress", a different approach to running an "over the shoulder" Beverage was described ([DX Monitor](#), 28 January 2017). Re-reading this article will be very helpful in understanding what follows.)

A Beverage antenna is a long length of wire, feeding a receiver at one end, favoring signals off both ends of the wire, with nulls at right angles to the direction of the wire. So an "over the shoulder Beverage" simply uses the antenna to hear DX that is coming from the receiver end of the antenna, as well as signals that come down the wire from the "far" end.

However, when one looks more carefully at the Beverage antenna's azimuthal response, one can see that there is actually a small directionality advantage for signals that arrive from that far end of the wire propagating towards the receiver. Depending on the received frequency and on the length of the Beverage antenna, that advantage can be 2 to 6 dB. In some circumstances, that can make the difference between hearing readable DX from behind the receiver end of the antenna, and hearing mostly interference from the far end of the antenna; effectively, the interference-to-desired-signal ratio will double (or halve, depending upon which end of the antenna one places the receiver).

But, sometimes it's difficult to place the receiver at the "correct" end of the Beverage antenna, for example, when there is a warm and dry listening post on an ocean shore, and the DX is on the other shore of that ocean. In that case, the only place to erect a Beverage would be inland, but then the receiver would be on the undesirable end of the antenna. In the original article, one possible way to place the receiver at the more desirable end of the Beverage antenna was proposed, using shielded twisted pair ("STP") cable. The shield was used as the Beverage antenna, with its matching transformer to ground at the far end from the receiver; with the twisted pair acting as a feed line back to the listening post, providing optimal reception of signals from "behind" the receiver (Figure 1).

In addition, the termination resistor, which can be adjusted for deepest nulling of signals from the undesired direction (in this case, from the far end of the antenna), can be placed close to the receiver, and either be controlled manually, or via a Vactrol (<https://www.dxr.ca/index.php/our-stuff/vactrol>), or motorized potentiometer (<http://www.bamlog.com/remotepotbox.htm>). A relatively short length of paired wire, perhaps using another pair in the CAT5 cable feed line shown at the receiver end in Figure 1, can be used to control these remote terminations.

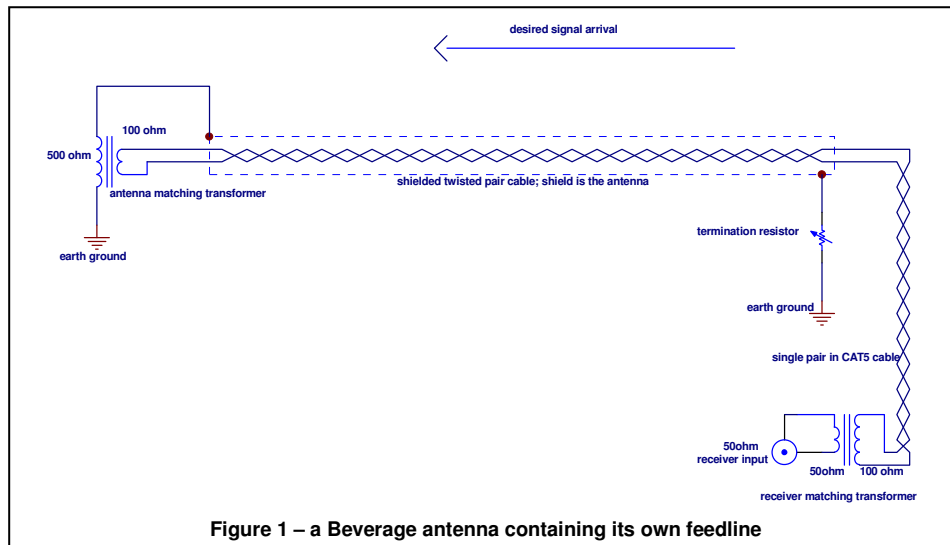


Figure 1 – a Beverage antenna containing its own feedline

At a DXpedition on Prince Edward Island in November 2016, this concept was tested using 500' of STP cable, and configuring that cable as a 500' Beverage on Ground (BOG). Results were mixed, to say the least. The antenna performed poorly, both in terms of raw signal strength, and in response to local electrical noise, when compared with either a 2000' Beverage antenna or with an amplified DKaz antenna, both of them with similar directivity to the STP BOG. But, it did appear that DX signals were actually being conveyed down the inner feed line of this STP, and that further experimentation was justified.

The Grayland tests

In late February 2017, an opportunity to test the concept further presented itself, using the property at the Grayland Motel, at Grayland, Washington, a site that borders the Pacific Ocean. Although the Grayland Motel's main building is only about 700 feet from the beach it was possible to use a 1000' length of wire by running the first 700 feet on 3 foot high supports from the main motel building to the beach, then lay the last 300 feet onto the sand of the beach. This standard wire Beverage was to be the reference antenna, with a 500:50 matching transformer at its east end, and 100' of RG58 coaxial cable back to the receiver, an RFSpace NetSDR.

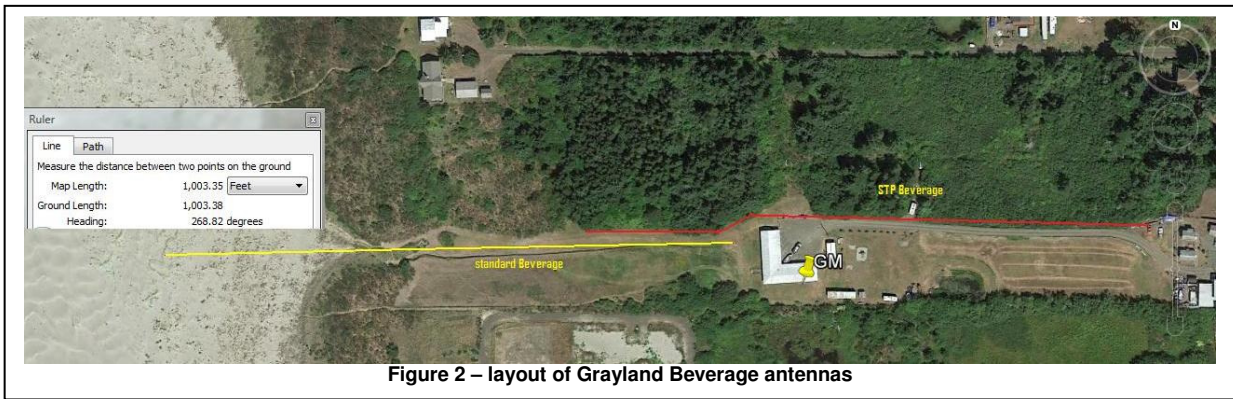


Figure 2 – layout of Grayland Beverage antennas

Figure 2 shows a bird's eye view of the relative layout of this Beverage antenna, plus that of a 1000' STP Beverage laid out further back on the property, with west being to the left in the figure. The STP Beverage was supported at about 5 feet height on tree branches for much of its length from east to west; there was a kink in its layout towards the west end, due to dense foliage on the property, and at that point, the cable was angled down, so that the last 300 feet or so lay on the ground, similar to the change of height of the wire Beverage reference antenna. A Vactrol termination could be placed at the west end of the STP Beverage if desired, and 450' of CAT5 cable conveyed the Vactrol control voltage out to the west end, as well as the signals from the antenna back to the building.

These were obviously not completely equivalent antennas (though certainly more so than the antennas used in Prince Edward Island a few months before), as they had differences in location, height, and layout, but the Beverage antenna is well known for its ability to overlook such differences and deliver similar signal quality from only very roughly similar layouts. If approximately the same results could be obtained from the STP Beverage when compared with the wire Beverage, then the experiment could be regarded as a success. The one important difference between the two antennas is that they were fed from different ends (the wire Beverage from the east end, the STP Beverage from the west), but otherwise both should have somewhat favored signals from the west.

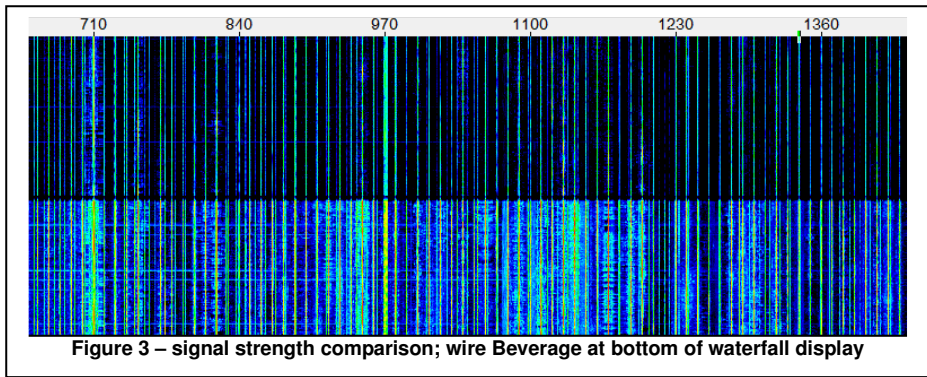


Figure 3 – signal strength comparison; wire Beverage at bottom of waterfall display

So, how did the STP Beverage shape up this time? Still, not very well. First of all, let's look at a couple of illustrations of the receiver data from the morning of 20 February 2017 at 1442UT, approaching local sunrise. Figure 3 shows a waterfall display from SpectraVue software that displays the NetSDR's signal as the receiver input is switched from the wire Beverage to the STP Beverage. The frequency coverage in Figure 3 is roughly 660 to 1430kHz with the bottom half of the display showing the wire Beverage signal strength, the top half the STP Beverage signal (in this display, brighter coloring tending towards orange and red indicates greater signal strength). There is definitely a discrepancy in the overall signal strength delivered by each antenna, and it does not favor the STP Beverage.

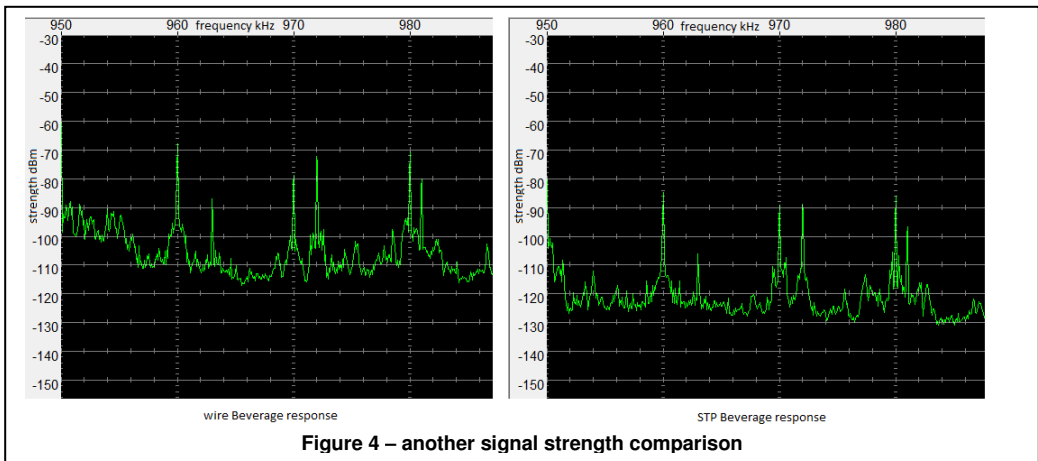


Figure 4 – another signal strength comparison

Figure 4 shows a zoomed-in signal strength display centered approximately on 970kHz from a point in time just before to just after the changeover from wire Beverage to STP Beverage in of Figure 3, and using approximately one second averaging. Both domestic and 9 kHz plan trans-Pacific stations are visible in Figure 4, with some changing strength quite rapidly due to the time of day. But, in spite of this variability it is easy to say that the STP Beverage had a response roughly 15dB below that of the wire Beverage, and that some of the DX signals may have been disappearing into the noise floor.

A number of more haphazard observations were made while using the two antennas, trying to figure out where the loss might be occurring in the STP Beverage, but because there was DX to be heard, and a DKaz was delivering better quality signals than either Beverage, it was decided to DX rather than experiment, as there was an upcoming DXpedition in the Utah desert that might provide better quality controls for comparing a wire Beverage with an STP Beverage. Given that the Grayland Motel closed for good at the end of that week, it was a wise decision.

The Utah tests

At the end of April 2017, Mark Durenberger and Mike Shafer had planned one of their “Two Phools in the Phield” DXpeditions in the southern Utah desert, not far from the Colorado border, and they invited me to join them. It was felt that a properly planned set of tests comparing the STP Beverage with a wire Beverage at that location might explain the reasons for the STP Beverage’s relatively poor performance at Grayland.



Figure 5 – DXers battle the elements

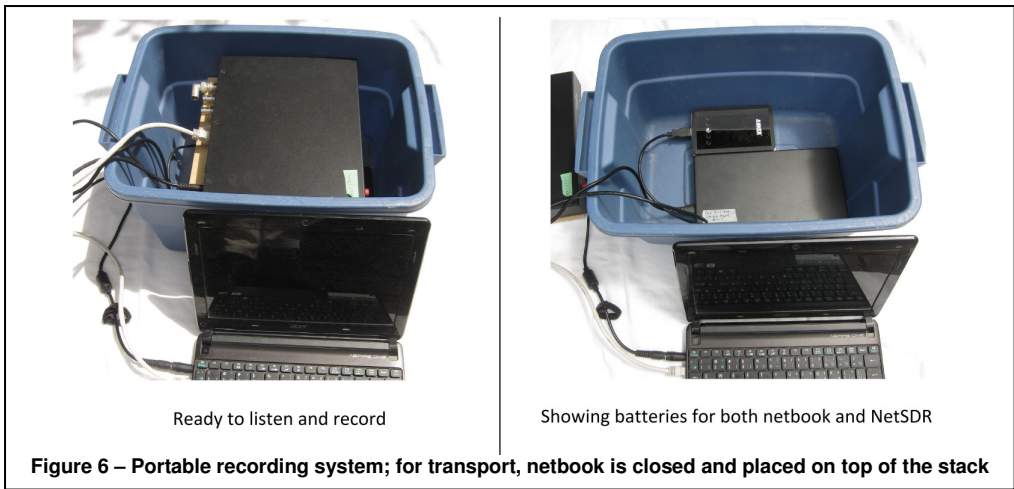


Figure 6 – Portable recording system; for transport, netbook is closed and placed on top of the stack

This location is ideal for antenna experiments, as it is on relatively flat ground for thousands of feet all around, and rather remote from human settlement and its accompanying electrical noise. Grand Junction CO is the nearest town, 35 miles away, and although Interstate 70 is only 2 miles away from the site, it is a section of freeway notorious for its lack of services, and with no accompanying power lines. Perhaps it is not quite so ideal for the antenna experimenters, who need to bring along any modern conveniences required for a listening post, such as a roof, walls etc. Although precipitation is rare (it being a desert), the winds and accompanying dust can be rather wearing when one is listening out in the open, even if sheltered below a canopy (see Figure 5 – note the tilted canopy for wind mitigation)



Figure 7 – two Utah Beverages looking back towards the listening post

A 1000’ wire Beverage was assembled, about 3 feet high and facing away from the listening site at 255 degrees from true North; this was our reference antenna. The 1000’ STP Beverage was the first antenna to be tested, also at about 3 feet height, parallel to the wire Beverage and separated from it by 30 feet. It was as described in Figure 1, but a very short length of CAT5 was needed to connect to the receiver at this location, as compared with the 450 feet of CAT5 used at Grayland. As has been noted, “the Phield” is an isolated location, without many nearby local stations to use as targets when testing antennas in the daytime. We decided to use two mid-band stations as our principal targets, KNZZ-1100, 35 miles away, was our easterly beacon, at 106 degrees and KSSL-1080 90 miles away, was our westerly beacon, at 293 degrees. Because Perseus and NetSDR receivers were used, we were able to record the entire MW band while performing our tests, which allowed for later analysis of other domestic targets, if required.

Two RFSpace NetSDRs with accompanying netbook computers, all powered by lithium-ion battery "portable chargers," were used as test receivers for evaluating the STP Beverage. These receiving and recording systems were completely portable, and could be used at locations other than the main listening post simply by picking them up and moving them; they are designated NetSDR1 and NetSDR2 in the accompanying tables, and were pre-calibrated to provide matching signal strengths for a given input signal (see Figure 6).

Note that although the wire Beverage and the STP Beverage were exactly parallel (see Figure 7), they were not operating in the same mode. The wire Beverage was set up to favor signals arriving from the west, especially if properly terminated at the west end, while the STP Beverage was set up to favor signals arriving from the east. Both antennas were left unterminated for the initial tests, however. We initially placed both receiving systems at the east end of the wires, so, even if both antennas had equal receiving capabilities, different test results were to be expected. And, yes, there were different test results (see Figure 8). As expected, the wire Beverage showed a relative signal strength advantage to KSL-1080, off the west (far) end of the wire, and had less of a signal strength advantage on KNZZ-1100 from the east ("over the shoulder"). But the wire Beverage always had an absolute advantage in signal response compared with the STP Beverage, not quite as pronounced as the difference observed at Grayland, but still substantial.

frequency	wire BEV (NetSDR1)		STP BEV (NetSDR2)	
	1100	1080	1100	1080
signal strength	-45.8dBm	-70dBm	-55.5dBm	-83.4dBm
frequency	1100	1080		
difference: wire - STP strengths	9.7 dB	13.4 dB		

Figure 8 – "wire-STP strength" refers to the difference in signal strength delivered by the wire and by the STP Beverages

The next step was to compare apples to apples, so we needed to "turn the wire Beverage around" by taking the NetSDR1 out to the west end of the wire Beverage along with the 500:50 ohm matching transformer, while the east end of the wire Beverage remained unterminated; NetSDR2 remained at the east end of the STP Beverage. Now both antennas were favoring signals arriving from the east (results are in Figure 9). If both the wire and STP Beverages were functionally alike, then there should have been no difference in response between the two antennas. Instead, once again, we saw that the wire Beverage was delivering considerably stronger signals overall, with the additional wrinkle that the signal from the east was being received slightly better on the wire Beverage. A look at other target stations to the east and west verified that the wire Beverage had an advantage across the band, and that the advantage increased with frequency.

frequency	wire BEV (NetSDR1)		STP BEV (NetSDR2)	
	1100	1080	1100	1080
signal strength	-43dBm	-72.8dBm	-55.5dBm	-83.7dBm
frequency	1100	1080		
difference: wire - STP strengths	12.5 dB	10.9 dB		

Figure 9

Incidentally, because the signal strengths of the two target stations were not varying particularly over time, it was possible to compare signal strengths from each end of the wire Beverage, and get a rough idea of what loss would be involved in using the wire Beverage in "over the shoulder mode" (see Figure 10). With KNZZ-1100 having a 2.8dB advantage when received from the west end of the wire Beverage, and KSL-1080 being down 2.8dB when received from the west end of the wire Beverage, listening "over the shoulder" with this wire Beverage would mean losing nearly 3dB of signal compared with listening from the other end of the wire, at least in the middle of the MW band. Admittedly, an exact 2.8 dB difference in each direction is a bit too good to be true, but a check on other stations in Grand Junction CO (620, 1230, 1340 and 1400kHz, all in roughly the same direction as KNZZ-1100) yielded advantages of 2.2 to 4.0dB when listening from the west end of the wire Beverage.

wire Beverage			
frequency	1100	1080	
dBm strength	-43	-72.8	listening from west end of wire (STP2)
dBm strength	-45.8	-70	listening from east end of wire (STP1)
	2.8	-2.8	advantage to listening from west end (dB)

Figure 10

These observations should encourage the user to make an effort to place the receiver at the correct end of a Beverage antenna, which had been the impetus behind investigating the STP Beverage in the first place. Unfortunately, this particular STP Beverage system is rather lossy, as seen in figure 9.

The next step was to discover where the loss was occurring. At Grayland, it had been found that the shield of the 1000' STP delivered pretty much the same signal strengths as the 1000' wire Beverage when the signal was tapped off at the 100 ohm winding of the antenna matching transformer in Figure 1. So was the twisted pair within the STP cable act as a lossy feed line at MW frequencies? The cable had been purchased as a direct substitute for Belden 8641, and Belden tends to have reasonable documentation, even if our knock-off cable did not. The Belden documentation describes the twisted pair in the cable as being low-capacitance, and specified for "Audio, Control and Instrumentation", with an 80 ohm impedance, but as no bandwidth was specified, perhaps it was not entirely appropriate for RF frequencies.

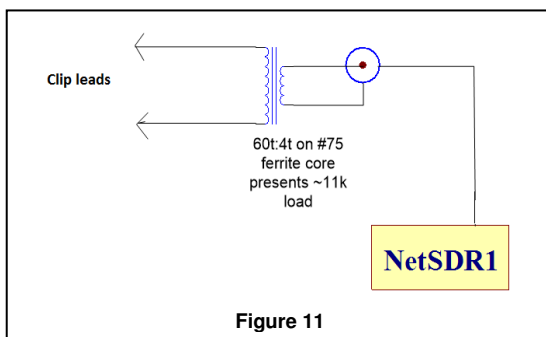


Figure 11

Having anticipated the need to test signals on a twisted pair, we had created a jig (Figure 11) that would allow us to sample signals from both sides of a balanced line and deliver that differential signal to the single-ended input of an SDR without attenuating the signals in the twisted pair. The test jig's SDR would see a "sample" signal attenuated by about 20dB when used in this way, but this was not deemed to be a problem because the measurement would be comparative, at one end of the twisted pair and then at the other, while it was in use. The important requirement was that the use of the jig would not measurably attenuate the signal being monitored.

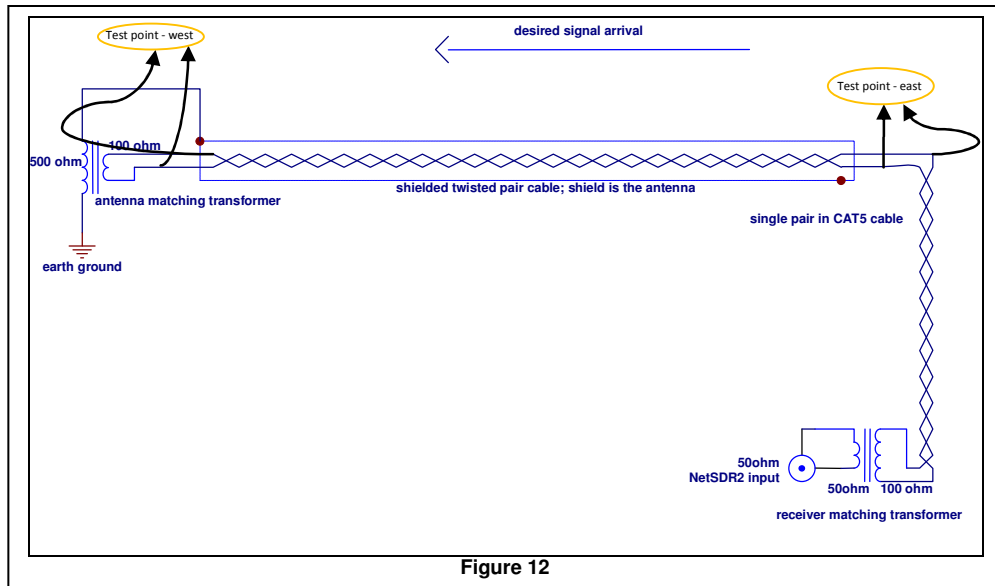


Figure 12

The jig was used with the NetSDR1 system first at the west end of the STP Beverage (“test point west” in Figure 12), then used again at the east end (“test point east”) of the STP Beverage.

Throughout these measurements, the NetSDR2 system was sampling the output of the STP Beverage at its east end to verify that the test signal (KNZZ-1100) did not vary in strength while the tests were being performed. KNZZ’s strength remained at -55.5dBm on NetSDR2 throughout the test. However, when the portable NetSDR1 jig was used to measure KNZZ’s strength at each end of the twisted pair, it showed a west-end level of -60.4 dBm, while at the east end of the twisted pair, the level was -71.9 dBm. That was a loss in signal strength from one end of the twisted pair to the other of approximately 11 dB. Other signals across the band showed similar or slightly higher losses, so it seems that the bandwidth of this cable wasn’t sufficient to transmit MW signals without significant loss. Such cable cannot be recommended unless there is a lot of signal strength to spare on the desired DX. STP cable that is actually specified for MW frequencies, such as Belden 3105, may be more appropriate, but it is also considerably more costly.

Having once been mistaken in assuming low losses in twisted pair feed line, it might have seemed foolish to venture into the next test. However, in order to move on to evaluate Mark Durenberger’s CAT5 remotely-terminated wave antenna, we had laid out 1000’ of unshielded CAT5 cable on the ground parallel to the wire Beverage, and we decided to move the return signal from the STP twisted pair to a twisted pair in the Cat-5 cable. The CAT5 pair had a common mode choke at each end to minimize any signal pickup on it as it conveyed signal back from the west end of the antenna to the east end. This was to be a repeat of the test shown in Figure 8, in order to see if there would be a less pronounced difference between the signal strengths delivered by the wire Beverage and the STP Beverage. The results are in Figure 13.

	wire BEV (NetSDR1)		STP BEV (NetSDR2)	
frequency	1100	1080	1100	1080
signal strength	-43.9dBm	-69.7dBm	-47.6dBm	-77.8dBm
frequency	1100	1080		
difference: wire - STP strengths	3.7 dB	8.1 dB		
original wire-STP strength	9.7 dB	13.4 dB		
advantage to using CAT5 feedline	6 dB	5.3 dB		

Figure 13

The signals coming from the STP Beverage turned out to be about 6dB stronger when a CAT5 feed line was used for the return feed line rather than the STP’s internal twisted pair. So, it can be assumed that the CAT5 twisted pair has about 6dB less loss than the STP’s internal twisted pair, though it should be emphasized that it still has *some* loss, as evidenced by the fact that KNZZ-1100 was still 3.7dB stronger on the wire Beverage compared with the STP Beverage, when we might expect it to have been about 3dB weaker, since the STP Beverage should have been optimized for reception of KNZZ.

There were subtle differences found when comparing the results from the west end of the wire Beverage with those from the STP Beverage that cannot be entirely explained by the observed loss in the STP’s twisted pair. Further tests seemed to show that common mode signals in the feed line might help explain these differences, but those tests will not be covered here. Another consideration is the possibility of standing waves on a twisted pair feed line that is both long in relation to the wavelengths of our test signals, and whose impedance was not defined at MW frequencies. Such standing waves can significantly change a measured signal’s amplitude depending upon what point in a line the measurement takes place in relation to the wavelength of the test signals.

The important findings are these:

- Listening from the “correct” end of the Beverage antenna is important, especially when there is substantial interference in the opposite direction from the desired DX.
- The STP Beverage can indeed mimic a listening post at the far end of a wire Beverage antenna allowing the optimization of “over the shoulder” copy, but unless one can tolerate over 10dB loss in 1000 feet of cable, higher performance STP needs to be used.
- CAT5 twisted pair seems to have less loss than does the shielded twisted pair used here. A CAT5 “over the shoulder” Beverage system, soon to be described in DXM by Mark Durenberger, appears to be less lossy than the STP Beverage, and given that CAT5 and inexpensive STP cables have similar costs per foot, and that CAT5 has additional pairs available for other uses, it would be best for the diehard Beverage experimenter to invest in CAT5 cable for “over the shoulder” DXing needs. However, even CAT5 as a Beverage has some issues, as Mark will explain.

(Special thanks to Mark Durenberger for untold weeks of discussion before the experiment, assistance during it, and several more weeks of figuring it all out once we had our results. Also, many thanks to Mike Shafer for all his preliminary work in setting up the site, for assistance in running the various experiments, and for making sure that no evidence remained of our depredations of the desert)



SPECIAL FEATURE

EVALUATING A MEDIUM-WAVE "LoG"

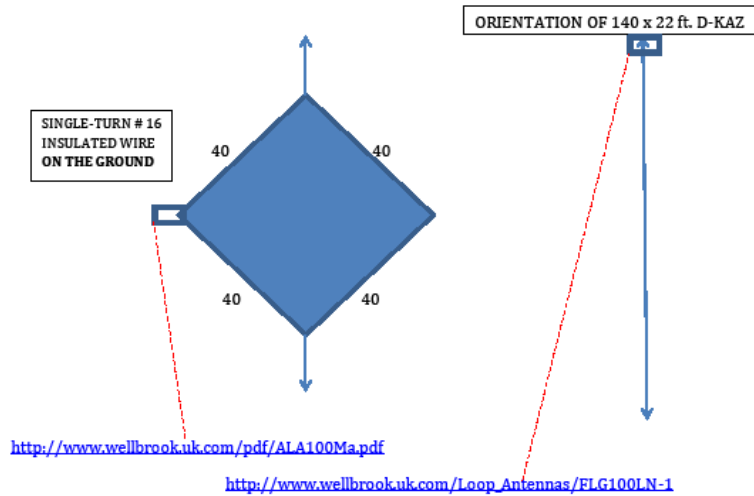
Mark Durenberger July 2017

To a DXer a summer cabin usually means more than relaxation between "cabin-owner projects" and a fishing hole. Up here we also spend 'down time' focusing on some aspect of antenna performance that might challenge the promises of a slick (Perseus) SDR.

I recently saw a paper from Matt Roberts KK5JY on a "LoG" antenna (his acronym for "Loop On the Ground"). His **recently-updated information** was interesting and well-documented. A "LoG" is appealing. There's an overabundance of trees here in North-Central Minnesota that impede use of decent-sized vertical wire antennas oriented in desirable directions.

While most of Matt's information is for the Ham bands, we wanted to observe performance in the Medium-Wave band and to compare the LoG's sensitivity to that of a 140 x 20 ft. "D-Kaz" that's in the only available aperture here (330/150 degrees).

Tracking his suggestion for a loop circumference of **15% of wavelength**, we laid down a diamond-shaped loop with 40-foot sides. Following the observation that the LoG was bi-directional orthogonal to the feed point, we oriented the diamond LOG at 355/150 to emulate the D-Kaz. #16 insulated wire was pinned to the ground and the feed-point was connected to a Wellbrook ALA-100 (designed for Loops). The D-Kaz fed a Wellbrook FLG-100 (designed for Flags). Both low-noise amplifiers deliver 22 db gain.



We made comparative measurements of 28 frequencies from 550 to 1660 kHz (**full data can be downloaded at <http://www.durenberger.com/documents/REFERENCEDATATOWEB.xls>**). For our initial measurement (*relative sensitivity*) we took a "skeleton" set of signal levels of stations that *lay along the main axes* of the antennas. (Because KK5JY had alluded to unique skywave performance, these measurements were made mid-day.)

For assessment of *directivity*, we knew it was highly unlikely that the D-Kaz side-lobe rejection tracked that of the LoG, so off-axis signal comparisons were meaningless... except however that the *change* in signal strength between the two locations of the LoG aperture would be helpful. Data for both feed-point locations is provided.

Here are the relative bearings of the "skeleton" group of stations as well as a virtual representation of the LoG antenna layouts. The **Red** line is 330/150 and the **Green** line is the 60/240 aperture of the LoG when its feed-point was rotated to 150 degrees.




For comparing sensitivity, Perseus SDR signal measurements of these "skeleton" signals are seen below. (The "LoG 150" column reflects the re-positioning of the LoG feed-point.)

FREQ	LoG 240	C/N	LoG 150	C/N	DKAZ	C/N
560	-82	20	-78	28	-88	14
920	-75	27	-82	24	-60	42
960	-52	50	-42	64	-45	57
1050	-91	11	-79	27	-71	31
1070	-66	36	-78	28	-47	55
1310	-68	34	-74	32	-42	60
1410	-70	32	-72	34	-37	65
1560	-78	24	-77	29	-53	49
1600	-68	34	-75	31	-45	57
450	-95		-100		-107	
1720	-109		-112		-97	
MEAN NOISE IS SIMPLY THE AVERAGE OF THE 450/1720 READINGS						
MEAN NOISE	-102		-106		-102	

OBSERVATIONS BASED ON COMPARATIVE DATA:

- For the bottom-line Carrier-to-Noise ("**C/N**") numbers, the D-Kaz performed substantially better than the co-aligned LoG... except for the very low end of the MW band. (This low-end issue is not a surprise since a 140-foot D-Kaz is not big enough to produce uniform pickup down to the low end.) Respected Consulting Engineer Tim Cutforth, who has done extensive experimentation with ground-coupled antennas, advises that a 160-foot loop is *probably too small for good Medium-Wave efficiency*. In his tests he measured a 3 db efficiency improvement each time he doubled the amount of wire. But one must also consider that an un-tuned Magnetic Loop does have a size limit with respect to the frequencies to be measured. Besides, at the end of the day, if the LoG had to be a lot bigger, it wouldn't be useful in our location.
- What was mildly surprising was the variance in the LoG's **450** and **1720 kHz** noise measurements. The *change* in LoG noise pickup between its two orientations is a clue it was probably collecting noise from the cabin or the underground electrical feeder. (The D-Kaz noise was about normal for such an array, when it's handed **22 db** of amplification.) This leads to the question of whether an LoG bias toward "earth-located noise" might be tolerated *if the antenna did a good job of rejecting atmospherics*, resulting in better C/N. With cloud-to-cloud atmospherics, such a ground-coupled antenna should be relatively immune, by definition. (Of course in the case of cloud-to-ground strikes, one would probably want the feedline disconnected from the gear, hi.) So: Before rolling this report off the laptop we did one more set of comparative measurements as described above but the LoG boresight was kept at 330/150. The day we did the measurements above, the QRN was totally absent. Today turned out to be a good day to compare rejection of atmospherics; no bad weather nearby but a modest amount of summer static in the form of lightning hits that pop up sporadically every few seconds. We haven't figured out how to turn the Perseus into a "fast-sample-and-hold" RF meter, so the comparative test for noise spikes was purely subjective. *It was difficult to hear any difference in the noise spikes when switching between the two antennas*. And since the LoG is considerably less sensitive to our meat-and-potato target signals, it doesn't appear to be a tool for good summer C/N. OTOH it may be a superior performer on Ham bands.
- To date, no attempt has been made to compare the side-lobe performance of the antennas. But if one is wondering whether the LoG is in fact directional, consider the above numbers from the 960 and 1050 kHz stations as the boresight is rotated 90 degrees; directly toward them. If directivity is of further interest, perhaps you'll find affirming (or contradictory) evidence in the additional data referenced by URL above.
- The elephant in the room is whether a LoG might be a "superior performer" *with respect to skywave signals*. The EZNEC info in the LoG paper suggests it should clearly favor skywave. However, we attempted to quantify a defensible difference between the antennas during nighttime observations, and couldn't show that the LoG could match the D-Kaz. Cutforth's work included comparisons between the received local groundwave signals of stations within 100 miles and skywave-only signals as observed on a loop on the ground. That comparison found the coupling from incoming skywave to the LoG was about 20 dB *lower* than the coupling from local groundwave stations. However, he says, the electrostatic pickup that causes most local static was also nearly absent, improving the S/N. And there was NO selective fade or short term fading on incoming skywave signals. (I would note that Cutforth was working with larger antennas.) **Bottom Line:** The LoG seems to work as suggested but its relative sensitivity may remain an issue for DXers. It's certainly easy to deploy! And that leaves one to ponder (while fishing): A) What did we miss? and B) Are there relationships between **LoG** and **BOG** antennas that ought to be considered?

Have a good day y'all! Respectfully submitted, Mark Durenberger Mark4@durenberger.com



VERIFICATION SIGNERS – Stephen S Howe – 9 Warner Dr – St Albans VT 05478-1575
E-mail: showe@albany.edu

My deadline is the last Monday of the month at 1500 ELT.

CONTRIBUTOR

MF **Martin Foltz**, Mission Viejo CA; martinfoltz@cox.net

FREQ CALL NAME, TITLE; ADDRESS; WHAT; WHEN; WHO


KCBL Jay Bohannon, PD; 83 E Shaw Ave, #150, Fresno CA 93710; P; 11; MF*

WHAT was received: L = Letter with personalized statement; F = Form letter; Q = QSL card, commercially printed; C = Postcard or similar card supplied by station; P = Prepared card or form supplied by DXer; R = DXer's report returned with statement; cf = Certificate; E = Verification by e-mail; fx = Verification by FAX; M = Coverage map; B = Bumper or other sticker; bc = Business card; + = Extra goodies

WHEN the reply came: Number of days elapsed; f = Follow-up, by mail, FAX, e-mail, or visit; n = Return postage not used; r = Return postage returned

NOTES: * [For this column] = Martin thanks Tim Hall for assistance in identifying advertisers for his reception report

Thanks to Martin we have a column this month. This column was prepared on 7/31/17. 73, SSH.



GEOMAGNETIC INDICES – Compiled by: Phil Bytheway
E-mail: phil_tekno@yahoo.com

Geomagnetic Summary July 1 2017 through July 31 2017


Tabulated from email status daily (K @ 0000 UTC). Thanks to Kevin Redding for posting this to the ABDX eGroup.

Date	Flux	A	K	Space Wx										
7/ 1	71	11	2	no storms	7/12	90	4	1	no storms	7/23	71	14	4	no storms
2	71	18	4	minor, G1	13	92	4	2	no storms	24	70	12	4	no storms
3	72	5	1	minor, R1	14	94	4	1	minor, R1, S1	25	70	9	3	no storms
4	72	4	2	no storms	15	92	4	1	minor, S1	26	69	11	1	no storms
5	73	3	1	no storms	16	87	41	5	moderate, G2	27	68	6	3	no storms
6	76	7	3	no storms	17	86	27	2	moderate, G2	28	70	7	2	no storms
7	80	5	2	no storms	18	78	7	1	no storms	29	70	4	1	no storms
8	87	3	1	no storms	19	73	4	1	no storms	30	70	4	0	no storms
9	91	28	4	minor, G1, R1	20	70	7	3	no storms	7/31	72	3	1	no storms
10	95	9	2	no storms	21	69	14	3	no storms					
7/11	91	8	2	no storms	7/22	70	16	3	minor, G1					

Gx – Geomagnetic Storm Level

Rx – Radio Blackouts Level

Sx – Solar Radiation Storm Level



2017-2018 IRCA DX CONTEST – Manager: Nancy Johnson – 2922 S Olivewood – Mesa AZ 85212
E-mail: NancyJohnson@prodigy.net

2017-2018 IRCA DX CONTEST RULES

This season every station 530-1710 kHz will count. All domestic and foreign stations will be worth one point! Some stations that have not been eligible in the past you will be able to report this season, such as TIS and HAR stations and stations on split frequencies.

The contestant with the most total points at the end of the contest will be determined the winner.

The contest will be open to all IRCA members in good standing. Entrants will be disqualified if they cease to be members of the club. The contest will run from 0001 September 1 2017 through 2359 May 31 2018. You may join the contest at any time during the year.

All loggings must be made within 25 miles of your main DX location. If a person moves during the contest they may start over at the new location. To count a US station, you must hear the actual call letters. To count a Canadian, Mexican or foreign station, you must hear the actual call letters or hear a recognized slogan plus location. Loggings may be first time heard, or relogs of stations heard before. If a station changes call letters it may be relogged and be counted.

Contest entries must list station call letters, frequency, location, date and time of logging. Your contest report of stations heard in any particular month must be postmarked by the 5th day of the following month. For example, a station heard on September 12th must be submitted by October 5th to be eligible. Failure to do this will disqualify the item in question for points. Contest entries must not be sent along with WDXR DX tips as they easily become lost when filed away in the WDXR file. Contest entries may be sent e-mail or postal mail to the address above. E-mail entries must not be "attached files."

The contest manager will have the final word on all station and interpretation of all rules, including disqualification of a station for scoring or a member from the contest.

Standings will be updated on the 15th of each month and results published in the next available bulletin subject to normal deadline delays. The final standings will be tabulated on June 15 2018 and will appear in the July bulletin.

The contest manager may join the contest, but will be ineligible for the prize. There is no entry fee for the contest.

Entry in the contest implies consent to all rules, including those which may appear later as necessity dictates. If you have any questions please write.

Prize: A one year membership in IRCA will be the prize for the contest winner. The contestant with the most total points at the end of the contest will be determined the winner. Have fun! 73 – Nancy

Full Color IRCA Letterhead

Full color 8.5 x 11 MS Word 2007 file with the current IRCA logo. Send email to phil_tekno@yahoo.com to get yours today! Great for verification requests.

IRCA Slogans List (January 2017)

This completely revised Slogans List includes radio slogans from the US and Canada (over 4500). The 2017 IRCA Slogans List is posted on the IRCA website for all to download. The link is: <http://www.ircaonline.org/slogans.htm>

For those preferring a hard copy, one can be ordered from the IRCA.

Prices: **IRCA/NRC members** – \$7.25 (US), \$8.50 (Canada) \$10.00 (México), \$10.75 (rest of the world). **Non-IRCA members** – add \$1.00.

IRCA Mexican Log, 20th Edition (Winter 2015)

The **IRCA MEXICAN LOG** lists all AM stations in Mexico by frequency, including call letters, state, city, day/night power, slogans, schedule in UTC/GMT, formats, networks and notes. The call letter index gives call, frequency, city and state. The city index (listed by state, then city) includes frequency, call and day/night power. The transmitter site index (listed by state, then city) tabulates the latitude and longitude of transmitter sites. This is an indispensable reference for anyone who hears Mexican radio stations. Size is 8 1/2" x 11".

Prices: **IRCA/NRC members** – \$9.50 (US), \$11.00 (Canada) \$12.50 (México), \$14.00 (rest of the world). **Non-IRCA/NRC members** – add \$2.00.

A DXers Technical Guide, 4th Edition (Spring 2004)

In its nearly 200 pages you will learn about the principles underlying the design of successful receivers, antennas and receiving accessories, find reviews of the best commercially available DXing equipment in different price ranges, as well as detailed instructions for building one's own antennas and other DXing aids. Although it focuses on the technical backdrop to medium wave DXing, it will also be of interest to serious shortwave listeners and low band radio amateurs.

Prices: **IRCA/NRC members** – \$15.00 (US), \$16.50 (Canada) \$18.00 (México), \$20.00 (rest of the world). **Non-IRCA/NRC members** – add \$2.00.

IRCA Reprints

The IRCA maintains a large file of articles that have appeared in past issues of **DX Monitor**. These articles cover a wide variety of topics, including: antenna theory and construction, tips for the foreign BCB DXer, how to improve your DXing skills, history of DXing and broadcasting, lists of stations by subject, construction projects and receiver modification, receiver reviews, medium wave propagation, and more. Copies are available for a nominal charge. Price for the complete list is \$1.00.

Also from the IRCA. "IRCA REPRINTS ON CD"!!! 648 Reprints. The entire set, now on one CD. Categories include: Antennas, Domestic, Foreign, History, DX Lists, Receivers and Receiver Modifications, and Technical. Check out the table of contents at: <http://ircaonline.org/2004ReprintList.htm>.

Prices: **IRCA/NRC members** – \$10.00 (US), \$11.00 (Canada) \$11.50 (México), \$12.50 (rest of the world). **Non-IRCA/NRC members** – add \$2.00.

"DX Monitor" on DVD

IRCA's regular bulletin "**DX Monitor**" Volumes 1 through 50 in .pdf format on 2 DVDs. Re-live the days gone by and re-introduce yourself to the former members who helped make the IRCA great!! NOTE: You will NEED a DVD reader to open the .pdf files. These files were TOO LARGE to use regular CD's.

Prices: **IRCA/NRC members** – \$15.00 (US), \$16.00 (Canada) \$16.50 (México), \$17.50 (rest of the world). **Non-IRCA/NRC members** – add \$2.00.

To order from the IRCA, send the correct amount (in US funds payable to **Phil Bytheway**) to: **IRCA, 9705 MARY NW, SEATTLE WA 98117-2334**. Or, order through PayPal [add \$1.00] to email: phil_tekno@yahoo.com (Phil Bytheway). Please state club affiliation when ordering.

The IRCA is a non-profit organization devoted to the hobby of hearing distant stations on the Broadcast Band (510-1720 kHz). **DX Monitor**, the official publication of the IRCA, is published in "soft" form 35 times a year (weekly from November through March, twice monthly from April to November.) **DX Monitor** contains members' loggings, articles on radio stations, receiver reviews, technical articles, DX tips, and other material of interest to Broadcast Band DX hobbyists.



CLUB OFFICERS AND CONTACT INFORMATION

President: Phil Bytheway, 9705 Mary Ave NW, Seattle WA 98117-2334 **E-mail:** phil_tekno@yahoo.com (all proposals, suggestions and gripes go here)

Secretary-Treasurer: Lynn Hollerman, PO Box 60241, Lafayette LA 70596
e-mail: lynnhollerman@yahoo.com – (dues, address changes, IRCA mailing list sign-ups)

Board of Directors: Bill Block – billblock@cableone.net, Dennis Gibson – wb6tnb@yahoo.com, John C Johnson – John_Johnson@prodigy.net, Patrick Martin – mwdxer@webtv.net (Chairman), Bruce Portzer – bportzer@comcast.net, Mike Sanburn – mikesanburn@hotmail.com and Robert Wien – wienbob@aol.com

Publishing Committee: Temporary Editor-in-Chief: Phil Bytheway, 9705 Mary Ave NW, Seattle WA 98117-2334
E-mail: phil_tekno@yahoo.com (all material for publication goes here).

MEMBERSHIP DUES
Worldwide \$10

Make checks and Money Orders in US funds payable to IRCA.

All dues and address changes go to: **IRCA, PO Box 60241, Lafayette LA 70596**

Pay electronically with PayPal – add \$1 to the price above. Go to www.paypal.com, then send your dues to ircamember@ircaonline.org – contact Lynn Hollerman for more information.

Sample copies of **DX Monitor** are available at phil_tekno@yahoo.com

For information on **subscribing to the IRCA mailing list** at Hard-Core-DX, a group e-mail service, contact the moderator, Lynn Hollerman at lynnhollerman@yahoo.com.

Unless otherwise noted, permission is granted to publish, broadcast, or otherwise reproduce non-copyrighted material appearing in **DX Monitor** provided credit is given to the IRCA and permission is obtained from the original contributor. Opinions in **DX Monitor** are those of the original contributors and do not necessarily reflect those of the IRCA, its publishing staff, editors or officers.

©2017 International Radio Club of America

THE INTERNATIONAL RADIO CLUB OF AMERICA
PO Box 60241, Lafayette LA 70596
<http://www.ircaonline.org>