Volume 68, No. 10 - December 11, 2000 (ISSN 0737-1659)



#### Inside ...

2 .. AM Switch

3 .. DDXD

12 .. IDXD

16 .. DX'ers' Notebook

19 .. Three-Loop Antenna 23 .. Musings of Members

CPC Test Calendar **KNUS** CO 710 January 7 0200-0300 KRKS CO 990 January 7 0200-0300 CO 1650 January 7 KBID 0200-0300 DE 1450 February 4 0000-0200 WILM

Tests ... From Patrick Griffith: "I met with Director of Engineering Jeff Garrett and Program Director Gregg Cassidy from Crawford Broadcasting / Colorado ... they have authorized me to release an 'official announcement' that we are planning to run simultaneous DX tests on all 3 of their Denver AMs (KNUS/710, KRKS/990, KBID/ 1650) the morning of Sunday, January 7, 2001 from 0200 to 0300 EST.

"The discussion indicated that we will probably run day power/ non-DA the first half hour and standard night power/patterns the second half hour. Programming will include code, unusual music, and other readily identifiable programming. It sounds like the programming will be simulcast.

"They also expressed an interest in live feedback from listeners by telephone and internet during this event. The web address will be DJ@1650thebeat.com and the telephone numbers will be 303-631-2328 and 303-696-1971.

"The mailing address for reception reports is 3131 S. Vaughn Way, Suite 601 - Aurora, CO 80014-3510, ATTN: Gregg Cassidy.

"I plan to create and issue a special QSL for this event. I'll keep you posted of any changes or updates that develop.

From the Publisher ... Since I pretty well shot my wad last issue, let's just turn over the rest of this page to Glenn Hauser.

World Of Radio And Continent Of Media ... Shortwave-only Schedule Effective December 1, 2000

New RFPI time schedule in effect from Dec 1, but not yet frequency schedule; 7480 soon to be activated; 15049 will later switch to 15065. While 15049 continues, it will be 24 hours; when 15065 comes on, no transmissions are scheduled in the 0400-1200 period. For latest update see our Anomaly alert page: http://www.angelfire.com/ok/worldofradio/ Anomaly.html

Days and times are strictly UT Thu 0030 WOR WBCQI 7415 Thu 2130 WOR WWCR 9475 Fri 1030 WOR WWCR 7435 Fri 1900 COM RFPI 21815-USB 15049 Fri 1930 WOR RFPI 21815-USB 15049 Fri 2215 MR WWCR 9475 [Mundo Radial. Spanish1 Sat 0100 COM RFPI 21815-USB 15065/ 15049 7480

Sat 0130 WOR RFPI 21815-USB 15065/ 15049 7480 Sat 0130 WOR WWCR 3215 Sat 0700 COM RFPI 15049 Sat 0730 WOR RFPI 15049 Sat 1230 WOR WWCR 15685 Sat 1300 COM RFPI 21815-USB 15049 Sat 1330 WOR RFP1 21815-USB 15049 Sat 1730 COM RFPI 21815-USB 15049 Sat 1800 WOR RFPI 21815-USB 15049 Sat 2330 COM RFPI 21815-USB 15065/ 15049

Sun 0000 WOR RFPI 21815-USB 15065/ 15049 7480

Sun 0030 WOR WBCQ2 9335-CUSB

Sun 0330 WOR WWCR 5070

Sun 0530 COM RFPI 15049

Sun 0600 WOR RFPI 15049 Sun 0728 WOR WWCR 5070

Sun 1130 COM RFPI 15049

Sun 1200 WOR RFPI 21815-USB 15049

Sun 2000 WOR WWCR 12160

Mon 0100 WOR WWCR 3215 Mon 0601 WOR WWCR 3210

Tue 1200 WOR WWCR 15685

Tue 1900 WOR RFPI 21815-USB 15049 Tue 2000 COM RFPI 21815-USB 15049

Wed 0100 WOR RFPI 21815-USB 15065/ 15049 7480

Wed 0200 COM RFPI 21815-USB 15065/ 15049 7480

Wed 0700 WOR RFPI 15049

Wed 0800 COM RFPI 15049

Wed 1300 WOR RFPI 21815-USB 15049

Wed 1400 COM RFPI 21815-USB 15049 Latest update of the above schedule version

may be found at:

http://www.angelfire.com/ok/worldofradio/ wormassw html

A more detailed schedule including MW, FM, satellite and internet including local times may be found at

http://www.angelfire.com/ok/worldofradio/

wormast.html Audio of WORLD OF RADIO ondemand:

http://www.wrn.org/ondemand/ worldofradio.html

different files via links at top of our homepage:

http://www.angelfire.com/ok/worldofradio/

#### **DX Time Machine**

#### From the pages of DX News:

50 years ago ... from the December 9, 1950 DXN: Jim Critchett, San Francisco, CA reported on "a week of strenuous DX'ing" during his Thanksgiving holiday. At the dials every AM for a week, stations were heard from Cuba, Puerto Rico, Mexico, Canada, and Hawaii, along with many domestics.

25 years ago ... from the December 15, 1975 DXN: Ted Fleischaker. Louisville, KY reported "about 225" for his total, after starting over in September, with kWRG, New Roads, LA having "reported in just a week". 10 years ago ... from the December 10. 1990 DXN: Bill Hale's "Graveyard

Totals" column showed Gene Allen, Vallejo, CA, on top with 639 stations heard, followed by Stan Morss, Boxford, MA, with 605; Don Kaskey, Galva, IA, with 585; Charles Reh, Learnington, ON, with 439, and Bob Knox. Newton, NJ, with 403.

## AM Switch

Ierry Starr w8iv@yahoo.com c/o WHOT Radio 4040 Simon Road

Youngstown, OH 44512-1320

Status changes in AM stations, supplied by the FCC and listeners

#### CALL LETTER CHANGES

	<u>Old call</u>			New call
540	WZER	WI	Jackson	WYLO
730	WLIM	TN	Lenoir City	WKZX
840	WCTG	SC	Columbia	WCEO
910	WYLI	OH	Marietta	WBRJ
970	KAFY	CA	Bakersfield	KZPM
1020	KCKN	NM	Roswell	KXEM
1050	WJXY	SC	Conway	WIQB
1100	KZPM	$\mathbf{C}\mathbf{A}$	Bakersfield	KAFY
1270	WLSM	MA	Louisville	WIRL
1290	WIRL	IL	Peoria	WWFS

#### Are you expiring?

We hope not! To avoid expiration. mail your remittance to the DX News Membership Center early. Allow at least three weeks after mailing your check or money order for new renewal data to appear on your mailing label.

#### APPLICATIONS/GRANTS FOR NEW STATIONS None



#### APPLICATIONS FROM EXISTING FACILITIES

600 CKCL N	NS Truro: to 99.5 FM
------------	----------------------

WSIV NY East Syracuse: 2500/400 U1, city of license to Dewitt, NY 1540

WDLR OH Delaware: 4000/210 U4 1550

#### **GRANTS TO EXISTING FACILITIES**

WPNP FL Mulberry: modify CP to show 250/250 U3

#### **OTHERNESS**

770	WTOR	NY	Youngstown: CP for 9000 D1 is on	
1220	CJUL	ON	Cornwall: new station is ON THE AIR	
1450	WHRC	RI	West Warwick: CP to relocate transmitter is o	on (station has an application for
			500/1000 U5 which was shown as 5000/100	0 in error last week)
1490	KYFO	UT	Ogden: CP to relocate transmitter is on	
1520	WTRI	MD	Brunswick: station is SILENT	D PAR
1570	WGLL	IN	Auburn: station is SILENT	Ding & BKF

THANKS: Bill Hale, Shawn Axelrod, Blaine Thompson, Andy Rugg, Ed Kreiny, and MSI 73 and Good DX, Jerry Starr & Buffalo K. Foonman

Expiring? Time to renew? Not sure when? Need to call or e-mail someone? Check the back page - it's all right there!

The NRC AM Radio Log, 21st Edition, including cross-referenced listings from 530-1700 khz., is compiled from both listeners' reports and official sources, making it the most accurate listing of U.S. and Canadian AM stations available. Unbound, three-hole punched for standard binders. Still only \$16.95 to U. S. and Canadian members: \$22.95 to U.S. and Canadian non-NRC members. Airmail to members: Latin America. \$24.00; Europe, \$25.00; rest of the world: \$28.00. Order from: NRC Publications - Box 164 - Mannsville, NY 13661 (NY residents. please add sales tax).

Domestic DX Digest

West: Bill Hale phantom 2@eaze.net 6124 Roaring Springs Drive - North Richland Hills, TX 76180-5552

hetween Fast and

Central time zones)

East: Michael Shaw mshaw002@tampabay.rr.com

455 Alt. 19 S., Apt. 176 - Palm Harbor, FL 34683-5931

DX Catches in the U.S. and Canada, with 24-br. ELT

#### **DDXD-West**

#### MEDIUM WAVE RAMBLINGS

- ☐ I've received an inquiry asking: "Aren't we on EST now, instead of ELT at the top of page 3 of the latest DX Digest??" We are ALWAYS in ELT. "ELT" is "Eastern Listening Time" and is whatever mode we are in. So our time reporting standard never changes.
- ☐ Wonder of wonders! A postcard mailed by Ken Onvschuk on October 26 just arrived November 22<sup>rd</sup>. Musta got stuck during a stage coach holdup. A word of caution to those who send post cards ... (Ken's was fine, however) ... the post office has a nasty habit of attaching a label to the bottom of the address side. This covers up most, if not all, of what is written on the bottom 1 inch. So print small, and keep the address up above this 1 inch area.
- ☐ Contributors' Comments: "After an up and down season, mostly down, stuff is starting to come in. KVOZ was station #1971 and I hit my year 2000 goal. On 1/1/01 I'll set a goal for 2001 and try for that goal. This year I've heard 15 new stations, which gets more and more difficult with time, but I'm not quitting yet, hi!" - IIR-WI; ... reserved for yours!
- ☐ See you in a week!!!

#### REPORTERS

JAC-TX	John Callarman Krum Optimus STA795 and RS 15-1853 loop						
	<johncallarman@email.msn.com></johncallarman@email.msn.com>						
GJ-CA	Gary Jackson Sacramento FRG-8800 + Kiwa Loop						
JEL-MO	J.E. Lewis Kansas City Grundig Satellit 800 + Select-A-Tenna						
BM-SD	Bill Moser Fort Pierre barefoot Superradio II <wcmfort@dakota2k.net></wcmfort@dakota2k.net>						
KO-IL	Ken Onyschuk Joliet						
JJR-WI	John J. Rieger South Milwaukee FRG100, Kiwa loop, MFJ 959B tuner-preamp <johnjrieger@webtv.net></johnjrieger@webtv.net>						
KR-AZ	Kevin Redding Mesa Radio Shack DX375 and RS 18-1533 loop <lwdxer@juno.com></lwdxer@juno.com>						
MS-MB	Morris Sorensen Winnipeg Drake R-8 with McKay Dymek loop, Hammarlund HQ-150 with SM-2 Space Magnet loop <urbanat@hotmail.com></urbanat@hotmail.com>						
RT-CA	Rich Toebe Davis Sony ICF-2010, Barefoot <richtoebe@jps.net></richtoebe@jps.net>						
EdTX	Editor North Richland Hills						
	STATION NEWS & NOTES						

		STATION INCOMES
1340	WJOL	IL Joliet - A 58-year era ends! On Friday, October 27, WJOL moves from 601
		Walnut Street to 2410 Caton Farm Road, Joliet 60435 along with the transmit-
		ter and satellite links. Reception reports go to Scott Slocum, the morning
		host, sports and program director. Herald-News radio columnist and NRC
		member Don Hazen tells me the "old, rustic transmitter sends out only about
		650 watts, instead of 1000! Takes over ownership soon, and there will changes
		soon. Currently, the station is live only from 6-10 AM, during some of the
		noon hour, and for some emergencies. Otherwise, it's satellite MOR. Also
		they carry ABC News and local sports. (KO-IL)

W OF TO TR

#### UNIDs and UNID HELP

UNID - 11/24 0506 - Heard weakly, but clearly, under KTRB/XEMO in a very tight null. Several mentions of AM 860, News for our area, a 39 degree temperature check. Any idea who this might be? KPAM maybe? (RT-CA)

1390 UNID - 11/25 2017 - Good in WGCI null, with bluegrass music. One break in music with ... on next week's show heard. Fade out at 2031. I've never heard bluegrass on 1390. Stumped! (JJR-WI)

4			TOWANTS COLUMN AT THE TROTTO
1570	WGSR+	FL	DX AND EQUIPMENT TESTS  Fernandino Beach - 11/23 0106-0200 - Up late to do pre-Thanksgiving party preparations and when we were done, I tuned to 1570, nulled XERF and found
À	1040		solid copy on WGSR for about 4 minutes, 0106-0110, and then in and out
W			through 0200. Got a lot of WGSR taped IDs, some music, but the best tape, when Mr. G goofed, said It's called disk jockey error and called it proof that it
1901 (	DANID ALENIUS		was live radio on WGSR. Didn't work because I left the volume down at
			zero. Surprisingly good signal, but who was the station 0143 to 0146 with network sports score program? (JAC-TX)
1570	WGSR-	FL	Fernandina Beach - 11/23 0014 - Test not heard. Semi-local CKMW very dominant. (MS-MB)
			TIS & OTHER STUFF
1610	TIS	CA	Sacramento - 11/23 0700 - Strong signal, giving fog advisory of 100 foot or less visibility on Highways 99, 5 and 80 in Sacramento and San Joquain Val-
			leys. Two beeps between transmissions, used to turn on siign telling people
			to turn on 1610 kHz and listen to transmission. (GJ-CA)
			MIDNIGHT TO MIDNIGHT ELT
690	WOKV	FL	Jacksonville - 11/21 0657-0700 - Fair, over/under an unID, possibly
			Coffeyville. Mention of cold weather, especially inland, mention of golf course, CLs, but no network feed on the hour. Rare here, as Coffeyville and/or Bir-
			mingham usually dominate. (JEL-MO)
730	KBSU	ID	Boise - 11/26 1131 - With real acoustic jazz and Ella Fitzgerald singing Sittin' and a-rockin' during the daylight hours. It's winter! (KR-AZ)
840	KTIC	NE	West Point - 11/25 2057 - Very good, with full ID and C&W/Christmas mu-
880	KRVN	NE	sic. WHAS buried. (JJR-WI) Lexington - 11/25 2054 - Very good, with old C&W music, ad and weather
000	111111	.,2	on KRVN. Not heard in a while here. (JJR-WI)
8 <del>9</del> 0	KVOZ	TX	Del Mar Hills - 11/27 0302 - Poor, but steady in WLS null, with l-o-n-g string of IDs (in TX, NM). Heard SS and Glory, Glory Hallelujah and others. NEW!
			For #1971, and Texas #75. First new one on 890 in 14+ years! (JJR-WI) [This
			station has, without any doubt on my part, been operating U1 10000/10000
			for several weeks, now. They barrel in here (389 miles) at night with a dominant signal over WLS. If anyone at WLS is reading this, I wish you'd get on
			their case!! Same thing with KSAH - 720. By the way, the AM Log continues
900	KFAL	мо	to list this as "Laredo" while the FCC says "Del Mar Hills" - EdTX] Fulton - 11/28 1804-1806 - Female reporting closing stock market info, ID
			with slogan Nobody plays more classic country, then a tune. Good signal, alone
930	WTAD	П.	on frequency. First time heard at this QTH but previously verified. (BM-SD)  Quincy - 11/25 2300 - Fair, on top briefly, with ID by man: This is Sports Radio
			930, WTAD. Format change or just a slogan? (MS-MB)
970	WWIT	NÇ	Canton - 11/27 0342 - Very good and alone, with Cool 970 non-IDs. 30 watts?  (JJR-WI)
980	WONE	ОН	Dayton - 11/23 0003 - Fair, with ABC News, ID mentioning more great
			music on WONE, AM 980 and 1340. Nostalgic music such as Tuxedo Junction. (MS-MB)
990	KWAM	TN	Memphis - 11/26 2338-0000 - Lady announcer with, Hello, this is Georgie Moore
			(or sound-alike) and you're listening to Sunday night jazz on AM-990, The Light. In and out, but at Midnight was strong atop with call letter ID: Memphis'
			gospel choice is The Light, AM-990, KWAM, Memphis. Super strong for 450
1020	кјјк	MAN	watts, heh heh! (JAC-TX)
1020	КјјК	17114	Fergus Falls - 11/25 2043 - Poor, tho steady in KDKA null, with KJ Oldies 'til 2045 fade out. (JJR-WI)
1090	KMXA	CO	Aurora - 11/25 1744 - Good, with Spanish music, fast talking male announcer
1150	СКОС	ON	with many <i>Radio Tricolor</i> lDs and mentions of Mexico and Futbol. (MS-MB) Hamilton - 11/25 2040 - Fair, in WEAQ null, with <i>Oldies 1150 CKOC</i> and into
1200	VENU		mush. (JJR-WI)
1200	KFNW	ND	West Fargo - 11/25 2037 - Very good and unusually loud, with WLXX nulled.  Local chatter. (JJR-WI)
1210	KGYN	OK	Guymon - 11/27 0330 - Good, with WPHT buried. C&W. Uncommon here.

3				
			(JJR-WI)	
1260	WWJQ	MI	Zeeland - 11/26 0734 - Fair, with WJQ-1260 non-IDs. Contemporary Chris-	
1260	VDVD	TA	tian. (JJR-WI)  Ft. Madison - 11/27 1749 - Poor, with <u>Dr Laura</u> on NewsTalk 1360 KBKB, over	
1360	KBKB	IA	others. (JJR-WI)	
1370	KGNO	KS	Dodge City - 11/27 0337 - Good, with 1370 KGNO and satellite oldies. No	
1390	WFIW	IL	WSPD. (JJR-WI) Fairfield - 11/27 1752 - Poor, tho distinct, with 1390 WFIW in WGCl null.	
			Christmas music. NEW! (JJR-WI)	
1410	WRMN	IL	Elgin - 11/27 0334 - Poor, the clear, with WRMN-WJKL prome and weather.  C&W. (JJR-WI)	
1410	CFUN	BC	Vancouver - 11/25 0306 - Faded up over jumble with C-Fun, a new kind of talk	
1450	KFLS	OR	station, then into Mike Siegel's Coast to Coast AM. New from Davis. (RT-CA) Klamath Falls - 11/23 1028 - Faded up over jumble of signals with Your favor-	
1100	Tu Lo	•••	ites from the 50s, 60s and 70s, KFLS, then a spot about the Oregon Insurance	
			Plan, then OLDies song Do You Believe In Magic? Great signal while it lasted.	
			New from Davis. (RT-CA)	
1460	KDMI	IA	Des Moines - 11/23 2359 - Poor, with end of Christian religious program, call	
			letter ID, and weather. In KLTC null. (MS-MB)	
1510	KIRV	CA	Fresno - 11/24 0945 - Sitting on the jumble that is 1510 at sunrise (KGA/	
			KFNN/others), when suddenly out of nowhere: You are listening to the Sound	
			of the New Life, KIRV boomed in, followed by CLAssical type music. REL	
			after the hour, but now about even with KMZT/KFNN/KGA. New from Davis. (RT-CA)	
1520	WWKB	NY	Buffalo - 11/23 2258 - Poor-to-fair, in KOMA null, with talk show, and WWKB-	
1020	***************************************		1520 Weather. (MS-MB)	
1560	KLNG	IA	Council Bluffs - 11/27 1753-1800 - Fourth and Goal prison ministry broadcast,	
			sign-off announcement, instrumental music. Heard many times before, but	
KQI	O-FM • KICC	)-AM	this was the first time I had enough information to report reception. Man I	
	Eduardo A. Medal General Manager		spoke with on the phone said they are preparing an application for a power	
			increase to 5000 or 10,000 watts. (BM-SD)	
1620	WHLY	IN	South Bend - 11/25 0103 - Fair, in KAZP null, with end of ABC News, instru-	
			mental music, and ID as Radio Hollywood, WHLY. (MS-MB)  DDXD-East	
D: 1 61		<i>(1777)</i>		
			his is my first report in 25 years. I was an NRC member in the mid-70's when I	
			am up here 40 miles NW of NYC. All stations reported are new and my total	
	-		s 439 since 1/1/99." Welcome and welcome back, Rick! week; let's get to it!	
10 3 4 10	nger report	tius .	week, let 5 get to it:	
			STATION NEWS	
740	UNID	_	11/16-17 - Huge open carrier heard tonight. I suspect this is the new	
			Toronto station testing. (JR-NY)	
	WBBF	NY	Rochester – 11/16 2014 – Now ID'ing as "93 BBF", reflecting the new opera-	
000	MEDIA	T.7.4	tion on 93.3 FM. (JR-NY)	
900	WKDW	VA	Staunton – 11/28 1427 – C&W with Johnny Cash and "Ballad of Ira Hayes";	
			ID at 1431 as "Five Decades of Country Classics from WKDW". I'm reporting this sami local only because of left Falconer's report in DVN #8 giving	
			ing this semi-local only because of Jeff Falconer's report in DXN #8 giving WKDW as call for 1630 kHz in Augusta, GA. (PFC-VA) [Guess that settles	
			the RDW/KDW confusion in 6808 – MS]	
950	WEZO	NY	Rochester – 11/20 1925 – Good at times with oldies // WBBF-98.9 and "BBF	
			99" slogans. New format, still WEZO? (JF-ON) [Apparently not MS]	
0=0	* ****		UNID, UNID HELP & PRESUMED	
810 820	UNID	_	- 11/24 1658 - Religion under WGY; Caroquet. (RKS-NJ)	
830 860	UNID WNOVn	TATE	——————————————————————————————————————	
000	тиотр	**1	Milwaukee – 11/22 1805 – Presumed with rap and hip hop, CST time check; poor under partially nulled CJBC. (MKB-MI)	
920	UNID		- 10/21 1800 – David Essel. (RKS-NJ)	
950	UNID		- 10/21 1815 - Oldies under WPEN to 1815 pattern change. (RKS-NJ)	
1010	UNID		- 11/25 1755 - Unidentified C&W station up and down. Could have	
			1	

			given ID at Top of Hour but I could not catch it. Went into music till fade out
			at 1806. (FV*MI)
1100	UNID	_	
1130	UNID	_	11/23 1812 - Oldies format; several songs back-to-back with Cre-
Шав	<b>5</b> /		dence Clearwater Revival song "Down on the Corner", followed by The
Mas	34		Mamas and the Papas song "Monday Monday". They gave out a 1-800 re-
Epol			quest line, also mentioned a website hosted by Captain Trivia. The program
A	M		I was listening to was hosted by Ron Foster at Good Time Oldies. Fantastic signal. I listened for 4 minutes but never heard an ID. I believe it might be
15	60		WKRY but not sure. (RCP-IN)
	UNID		11/04 1700 - House of Blues Radio Network. (RKS-NJ)
1150	UNID	_	
	UNID	_	into a C&W-ish version of "Pretty Papers", then faded out. (MKB-MI)
1280	WSVEp	FL.	Jacksonville – 11/12 2120-2150 – UC music, no ID heard; poor. (DT-JAM)
1300p	WTMM		Rensselaer – 10/24 1757-1810 – Sports-talk show. (DT-ON)
1450	WKIPp		Poughkeepsie – 10/26 2058-2100 – Bruce Williams talk show, closest News
	•		Talk to Toronto. (DT-ON)
	WLEC	OH	Sandusky – 11/15 1830 – Mentioning Cleveland Cavs coverage; ID as AM
			1450 and 100.9. There is a 100.9 in nearby Clyde OH. (JR-NY)
1480	CHRDp	QC	Drummondville – 10/24 1901 – French on top. (RKS-NJ)
1530	UNID		11/24 1751 - Country u/WSAI. ( <b>RKS-NJ</b> )
1540	UNID		11/03 1710 - Spanish, then Chinese after 1715; maybe CHIN.
1580	UNID		10/24 1757 - ESPN Radio. ( <b>RKS-NJ</b> )
	WCCF	FL	Punta Gorda – 11/07 2110-2229 – Election results, only close news station to
	7/2/77	<b>.</b> .	here; poor. (DT-JAM)
	KXZZ	LA	Lake Charles - 11/07 2122-2234 - UC music, no ID heard; only Urban Con-
1600	HMID		temporary close; over/under WCCF. (DT-JAM) = 10/23 1805 - Spanish. (RKS-NJ)
1600	UNID	_	10/23 1005 - Spamsn. (KKS-NJ)
			LOGGINGS
540	CBEF	ON	Windsor – 11/23 1646 – Music with announcements for station shows, and
0.20		•	ID in FF. (Normally I would not submit this as DX, as it's a semi-local, how-
			ever this station had the strongest signal of all on the dial). (FV*MI)
550	WSVA	VA	Harrisonburg - 11/24 1619 - Call in with calls. (RKS-NJ)
560	WLLZ		Monroe – 11/23 1650 – Distorted church program. Preacher's voice was
			clipped at times. (FV*MI)
570	WKBN	OH	Youngstown – 11/23 1655 – Psychic program with occasional mentions of
			phone numbers along with "WKBN", and promo for next week's show. This
			one surprised me. (FV*MI)
580	CKWW	ON	Windsor – 11/23 1658 – Christmas music with ID into Tony Bennett song.
	****		(FV*MI)
	WCHS	wv	Charleston – 11/14 0603-0615 – (TLK) "on WCHS talk radio sixty eight".
600	TAICHTE	741	(DL-MD)  Flint 11/22 1700 Music into ton of hour ID: "Michigan/a Salt & Light
600	WSNL	MII	Flint - 11/23 1700 - Music into top of hour ID: "Michigan's Salt & Light.
610	WNTW	V/A	WSNL, Flint, Midland, Bay City, Saginaw"; into music. (FV*MI) Winchester – 11/21 1815 – REL music; ID. (WM-MD)
630	CFCY		Charlottetown – 11/23 1834 – C&W song, female vocalist; male DJ says "from
050	CI CI	• • •	CFCYwhere did the week go? 7:37Cory's going to drop in"; mentions Top
			30 Countdown show; "Your CFCY weather forecast and Alan Jackson, next";
			ad for "The CFCY Top 30 Countdown". (GL-NY)
	CFCO	ON	Chatham - 11/23 1701 - Music into ID: "This is Chatham-Kent's 6-30 Solid
			Gold, CFCO"; into news. (FV*MI)
640	WOI	IA	Ames – 11/25 1900-1908 – Alone with "A Prairie Home Companion" show.
			Quick "WOI, Ames, Iowa" legal ID at 1904 and back to program. (JF-ON)
680	CJOB	MB	Winnipeg - 11/18 1200 - Weak but 100% readable in CFTR phase null with
			end of "Money Talks" program, ID, and into local news. First midday recep-
	TAICHT	1/3/	tion of MB here ever! (JF-ON)
600	WOKY	KY	Corbin – 11/19 2215 – NOS music; spoken ID. (WM-MD)
690	WOKV	fL	Jacksonville – 11/19 1909 – Ads for State Farm Insurance and Arby's, men-
	WNZK	М	tion of Jacksonville; then Jaguars Football pregame show. (WM-MD)
	MARIN	1411	Westland – 11/23 1704 – ID "WNZK" into what sounded like Arabic music.

given ID at Top of Hour but I could not catch it. Went into music till fade out

#### (FV\*MI)

- 710 WOR NY New York City 11/25 1742 Cat food commercial with locations in Brooklyn & Queens. Jingle "Radio 7-10, WOR"; health food spot (I would have spaced this a little further than the cat food commercial), and then into pet store commercial. (9 of 10 LEDs lit on the 2010 with no fading. If CHYR-710 were around, they would have been in serious trouble). Note: All the NY state clears on 660, 710, 770, 810, 880, + 1010 have better signals here than in Lima. (FV\*MI)
  - CKVM QC Ville Marie 11/23 Fair to good with FF paid political announcement for Liberal party. (MKB-MI)
- 720 WGSE GA Hogansville 11/23 1716 Station ID heard "WGSE", then into a talk program hosted by a male and female. Poor signal and way under WGN. (RCP-IN)
- 730 CKDM MB Dauphin 11/23 0718 Fair-good with C&W, ID as "Today's hot country, CKDM", local weather; ad for Roundup Ready Canola. (MKB-MI)
  - KLOE KS Goodland 11/25 1930-1936 Good on west wire mixing with CKDM, with ad cluster during a break in Jayhawks basketball game. Lots of info for a report. Likely on day power. New. (JF-ON)
- 740 KRMG OK Tulsa 11/18 1145 Fair on west wire with promo for NASCAR on KRMG Sunday nights. Nice midday reception. (JF-ON)
  - WNOP KY Newport 11/02 1750 Jazz, local ads. (RKS-NJ)
- 750 WWKK MI Petoskey 11/22 1828 Fair at times after KBNN sign off mixing with WSB and UNID Latin station with oldies music and "Kool 750" slogans. New. (JF-ON)
- 790 CIGM ON Sudbury 11/20 2320 C&W song "Take the Money and Run"; spoken ID.

  (WM-MD)

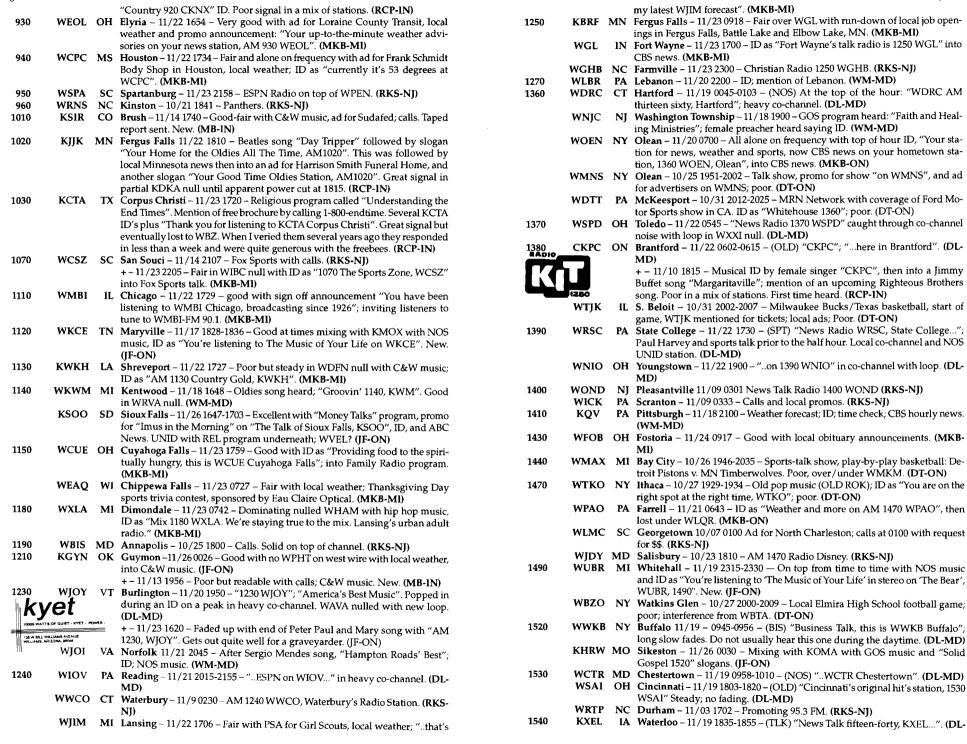
  + 11/20 1721 C&W format in with a very impressive signal. Allan Jackson song "WWW.memory" followed by slogan "Hot New Country on CIGM".

  Followed by a Reba McIntyre song. (RCP-IN)
- **820** WOSU OH Columbus 11/23 0800 Breaking through nulled CHAM with ID as "Morning Edition is next on 820 WOSU". (MKB-MI)
- 850 WRMR OH Cleveland 11/25 1748 Promo "...and thanks for listening to the Music of Your Life on WRMR"; into Christmas music. (FV\*MI)
- WACB NC Taylorsville 11/23 0109 Alone in CJBC null with PSA to prevent forest fires, promo for the Alexander County Baptist Association's Christmas toy collection (donations may be brought to the Taylorsville National Guard Armory). Slogan "You found it, lock it in, B-86" into "Joy to the World" (the

Christmas carol, not Three Dog Night). If their night power is really only 8 watts, this is a totally awesome catch! (MKB-MI)

- WLBG SC Laurens 11/03 2318 ID, supposedly 10 watts. (RKS-NJ)

  880 KRVN NE Lexington 11/22 1750 Fair-poor in fight with WCBS & WRFD, promo for
- RRVN NE Lexington 11/22 1750 Fair-poor in fight with WCBS & WRFD, promo for Real Audio webcast on <u>www.krvn.com</u> web site, C&W music. Heard in Toronto in 1978; QSL took almost 5 years to arrive! (MKB-MI)
  - WMEQ WI Menomonee 11/22 1739 Breaking through nulled WRFD with sports report talking about upcoming Minnesota Wild and Timberwolves games. Nothing in MN on 880; this is presumed since Menomonee is close enough to the MN state line that the Wild and T-Wolves would be "home" teams. (MKB-MI)
  - KRVN NE Lexington 11/25 1753 Song "PT-109" back sell with ID of KRVN, into "ITT" commercial, and weather where it was 38 degrees (28 in Imlay City <grin>). WCBS very dominant, but I was able to hold the radio for enough null to bag this one. (FV\*MI)
- 900 WFRO OH Fremont 11/22 1711 Wiping out CHML with local news and funeral announcements, promo for Fremont Chamber of Commerce Christmas dance at Fremont Country Club. (MKB-MI)
- 920 WPET NC Greensboro 10/21 1839 Carolina Panthers, Greensboro ads. (RKS-NJ)
  - WBAA IN West Lafayette 11/22 0600 Over CKNX with promo for wbaa.org web site; into NPR Morning Edition. (MKB-ON)
  - KARN AR Little Rock 11/22 1736 Fair with ID as "News radio 920 KARN", into talk about George W. Bush's cocaine habit ("at least he admitted it"). (MKB-MI)
  - CKNX ON Wingham 11/22 1817 -Mike Reagan talk show in progress followed by a



1700

10			
			MD)
1550	WTTC	PA	Towanda - 10/26 1817 - "Northeast PA's Oldies Station". (RKS-NJ)
	WDLR	ОН	Delaware - 11/23 2121 - Creaming CBE with Ohio State vs. Florida State
			basketball, ad for Best Western Delaware Hotel. (MKB-MI)
1570	WFLR	NY	<b>Dundee</b> – 11/03 1637 – "Kiss This" and calls. ( <b>RKS-NJ</b> )
	WXLN	NY	New Albany - 11/22 2357-0007 - Kentuckiana ad for Hometown Buffet. "WXLN" spoken ID at top of hour, then lite religious music. Looking for
			WGSR test but no luck. Fair over mucho QRM. (HF-MI)
	CKMW	MB	Winkler - 11/24 0859 - Fair and virtually alone on frequency with ad for
			Southland Honda; time check "One minute before 8 o'clock on CKMW"; into
			C&W song. (MKB-MI)
1590	WPWA	PA	Chester – 11/25 0206 – IDing as "Global Catholic Radio" for #440. (RKS-NJ)
1620	WTAW	TX	College Station – 11/23 2334 – Ad for Oliver Brothers Transmission (in Bryan).
			(RKS-NJ)
1630	WRDW	GA	Augusta – 10/07 2133 – One on One Sports. This one makes it in as early as
			1500 IDing with WAWX (RKS-NI)

1500, IDing with WAWX. (RKS-NJ)

1640 WKSH WI Sussex – 11/23 2357 – SRN News, calls and PO Box in Milwaukee. (RKS-NJ)

1650 KDNZ IA Cedar Falls – 10/10 2353 – Talk show; WWI ID as "KDNZ Cedar Falls", into CBS news; poor. (DT-ON)

1660 KQWB ND West Fargo – 11/18 1150 – Poor, mixing with WQSN with NOS music; Fargo mention. Good daytime skywaves this day with good signals on all X-Band

channels. (JF-ON)

KZRX TX Waco – 11/21 1806 – Station slogan heard "Newstalk KZRX, it's 5:05 PM here at Newstalk 1660 KZRX". Great signal with discussion on college football.

First time heard. (RCP-IN)

WMIB

FL

Marco Island – 11/21 1810 – NOS format; dual ID's heard for 1480 and 1660, followed by songs by Anne Murray: "I Want to Sing a Love Song" and Dean Martin "That's Amore". Fair signal at times but mixing with KZRX and WOSN. First time heard. (RCP-IN)

WEUP AL Huntsville – 11/22 1750 – Station faded up briefly and I was able to hear station slogan "WEUP Traffic and Weather Together". Then was dominated by KBGG. First time heard. (RCP-IN)

#### OFF THE INTERNET

Frederick R. Vobbe (FV\*MI) writes that his loggings are "from my trip to Lapeer County (MI). All loggings were made in Imlay City, Michigan, corner of M-53 & M-21...did not get to set up at the farm in Almont MI as it rained the whole weekend. DXing was confined to the pool room of the Days Inn while watching Jon & Connie get tired of swimming. The funny moment of the day (11/25) came when I was showing my brother my 2010, and while listening to 1340 we heard him doing a commercial on WLEW-1340. He is the CE and does mornings at the station. 1230 WMPC had a real good signal in Lapeer and Macomb county. Very clear and good strength. Contrary, WLSP was under modulated, distorted, and I needed to drive some 12 miles closer to get a better signal from the station. That's two stations that I worked for in the past that at one time sounded good, but now are pitiful".

#### ADDRESS UPDATES

1570 CKMW MB Winkler - 300-561 Main Street, Winkler, MB R6W 1G3 as in Log. P.O. Box 1570 no good. (JF-ON)

#### REPORTERS

MKB-ON	Mike Brooker	Toronto – Panasonics RF-2200, & RFB-45.
MKB-MI	Mike Brooker	DXing in Ann Arbor, MI - Panasonic RFB-45.
MB-IN	Mark Burns	Terre Haute – Drake R-8; Kiwa loop; 80' RW.
PFC-VA	Perry Crabill	Winchester – R8; Kiwa Ioop.
JF-ON	Jeff Falconer	Clinton - Drake R8B; pair of noise reduced/terminated wires
		(east and west), modified MFJ-1026 phasing box, Timewave DSP-
		599zx audio filter.
HF-MI	Harold Frodge	Midland - Drake R8B + 85'/215' RW's; 125 ft. single loop.
DL-MD	Dave Larrabee	Columbia - ICOM IC-706 & R8500 with longwires.
GL-NY	Ginnie Lupi	Ithaca – DX-398; Select-A-Tenna.
WM-MD	William McGuire	Cheverly – DX-398.
RCP-IN	Robert C. Pote	Greenwood – Drake R8A receiver and Kiwa loop.

JR-NY Jim Renfrew Byron – Drake R8, 500' E/W longwire; Radio West loop.

RKS-NJ Rick Shaften Sparta – Hammarlund HQ-180A, RS DX-392, two longwires,

Sanserino loop; MFJ 1026 phaser.

DT-JAM Don Trelford St. Ann's Bay, Jamaica – Grundig Yacht Boy, whip, long "short"

wire.

DT-ON Don Trelford Ontario - No details given.

FV\*MI Frederick Vobbe Imlay City - Barefoot SONY ICF-2010.

## International DX Digest

Jim Renfrew renfrew@localnet.com

6988 Bank Street Rd. Byron NY 14422-9702

] im

Foreign DX Catches. Times are UTC; for ELT, subtract 5 brs.

I've been experiencing some e-mail problems this week. I've got a new computer in my church office which I've been using to access my home e-mail account. One result has been a "frozen" IDXD disk, which I've only been able to recover partially. If you think I missed one of your reports, please send me another copy!

I felt like Shawn Axelrod in the frozen tundra today, when I went out to add five hundred feet to my east/west longwire. Although it was bone-chilling, the ground was actually still wet under the frost, so I finished with about twenty pounds of mud caked onto my shoes. I also added a 300 foot wire aimed SSW. As Captain Kirk might say, "set your phasers on DX"!

#### TRANS-ATLANTIC DX

- 177 GERMANY DLR Zehlendorf, NOV 28 0615 Very weak with distinctive flute music, clearly parallel to same music on 6005 kHz. Signals also evident from 153, 162 (strong), 171, 183, 207, 216, 234. [Renfrew-NY]
- 252t IRELAND Atlantic 252, NOV 28 0622 EE DJ and dance music, weak under NDB interference. [Renfrew-NY]

Jim speaks: "My tentative report to Iceland 189 (lots of distinctive details, but no ID) resulted in a QSL card in today's mail. Yay!"

#### PAN-AMERICAN DX

- 380 CUBA UCY, site unknown, DEC 1 0548 Non-directional beacon. 6[Renfrew-NY]
- 580 MEXICO. XEMU, La Rancherita del Aire, Piedras Negras, COAH. NOV 30 0259 ended a light, romantic norteña ballad by baritone, well atop past 0300 station break, woman DJ, I'm guessing, closes her segment of the program on "La Rancherita del Aire," says "Buenos Noches," then man takes over and leads into a long string of local commercials with a Christmas motif, including one with a deep-voiced Santa going "Ho, ho, ho." (Or is it Jo, jo, jo?) Several mentions of station slogan, "en Piedras Negras" heard during the commercials, but heard no call letters. I've logged this one from Pampa, Texas, in the '60s and Mt. Vernon, Illinois, in the '70s and '80s as the dominant Mexican on 580. [Callarman-TX] (This is the station that WIBW hates -pls.)
- 642 UNID, NOV 30 0407 strong het, no audio on this auroral night. [Renfrew-NY]
- MEXICO. XETOR, Radio Ranchita, Torreon, COAH. NOV 30 0231 Finally got good tape on this one, with female vocal group singing "Radio Rachito me gusta mas," then male announcer with "XE-Tor, Radio Ranchito, 670 kilohertz, desde Torreon, Coahuila ..." and ID mentioned affiliation with a "grupo," the name of which I could not pull out. This must be a successful station, because I've heard this call, slogan and format on this frequency at least a quarter century ago. First time here, though. [Callarman-TX]
- MEXICO XEN Ondas del Lago, Mexico DF, NOV 30 0359 MYL format (US tunes), call letter ID at 0359, then more music (included an "Ondas del Lago" voice-over).

  [Renfrew-NY]
- 700 MEXICO. Unid., probably XEGD, Hidalgo del Parral, CHIH, NOV 29 0354 String of commercials heard weakly but readable in hard-to-obtain WLW null when music ended. Several mentions of Parral among the local retail commercials heard. If I were still sending reception reports, I'd not hesitate to send a 75-percent positive tentative on this one. [Callarman-TX]
- 740 MEXICO UNID, NOV 28 0700 Mexican anthem (at local midnight), and then PERU

signal gone. Los Mochis is the only station, as far as I can see, in the UTC-7 time zone. [Renfrew-NY]

740 VENEZUELA UNID, NOV 30 0257 - anthem, then gone. Radio Maracaibo is shown in the 1999 WRTH with a 0400 sign-off. [Renfrew-NY]

770 MEXICO. Unid. Tried to pull out identification NOV. 30 0201 by going over tapes where one station emphasized the "H" at the end of its call, but I could not determine in the production announcement earlier letter or letters. (Don't think he used the "XE".) There are at least three Mexicans audible on this frequency in KAAM null. [Callarman-TX]

MEXICO. XEMF, Que Bueno, Monclova, COAH. NOV. 29 1654, got to this one early enough to find loud and clear in weak WBBM null. Ended what was almost a ranchera/rap combination and gave identification. Problem earlier with production ID is that it's done by two voices, one through carbon mike (like an old telephone tape) and the other a soft-voiced man, but got clear XEMF call mentioned several times "Radio Sona (uncertain of this word) la Que Bueno, desde Monclova, Coahunila, capital de la ..." The first part did not sound like Radiodifusora ... and it did not say "capital del estado" which, incidentally, is Saltillo. Woman announcer, who appeared to be live, gave time check and continued with slow-paced romantic tune. This station had been on 970, with different slogan. [Callarman-TX]

MEXICO. XEBI, Radio BI, Aguascalientes, AGS, NOV 30 0240 -. I've been tracking several signals on this frequency, mostly a garbled graveyard sound, but at 0240 a string of commercials was heard dominating the channel, short announcement including "Radio BI, la estacion ..." and gave telephone number 91-50-790, el telefono de "Buenos Noches, Aguascalientes." That, it turns out, is the name of the production newscast that XEBI runs in this time block. Primary anchor is a woman and a light drumroll/fanfare is heard between each news item. At 0250, there was another string of local commercials, another "Radio BI" announcement, and program identification, "Esta es Buenos Noches, Aguascalientes." [Callarman-TX]

MEXICO. XEROK, Radio Canon, Juarez, CHIH, NOV 20 0102 - Full identification taped in passing. This former border baby (as XELO) has been weaker than expected here and I noted a second Mexican in its null 24 hours earlier ... but nothing else tonight. [Callarman-TX]

BAHAMAS ZNS3 R. Bahamas, Freeport, NOV 11 0240 - Some sort of rally with woman speaking in an echoey hall about social conditions in the Bahamas. Then the Prime Minster of the Bahamas was introduced. Just over, even with, or just under WGY. Neither was very steady or strong. There were only a few Cubans noted, so this is a welcome surprise. [Kennedy-PA]

MEXICO. XEIK, Piedras Negras, COAH, nov 30 0035-0100 - Loud, steady signal with regional newscast, lots of reporters in different Coahuila communities including Piedras Negras and Acuna. Last item on the newscast had a San Antonio dateline and reported the death of veteran Texas Congressman Henry Gonzalez. The newscast is presented by "Nucleo Radio Socola," apparently a network of Coahuila stations, and, after a drumroll, this identification was heard: "La Norteñita, 830 en la banda amplituda modulada, transmitienda desde Piedras Negras, Coahuila." I had done some extensive taping of this one last year in Mt. Vernon, Illinois, and heard this newscast several times, and noted no call letter ID at 0100, but had heard XEIK ID later when the station was in its music programs. This station has not been heard later in the evening HERE, and thus it may be paying more attention to its night power than it was last year when I heard it on the car radio on the newspaper parking lot well into the night on auroral nights when WCCO was gone. [Callarman-TX]

MEXICO. Unid. NOV. 30 0224-0226 briefly broke through difficult WHAS null and gave quick announcement including something that sounded like "La Palanta." I played tape several times to see if I could pull out either "Pachanga" or "Papantla" but could not. This station's music was more Tropical than Norteña. [Callarman-TX]

John speaks: "I'm continuing to explore the lower part of my Mexi-dial and am coming up with some interesting catches, including one state I've never heard before, from either the Panhandle of Texas or Southern Illinois. I think I'm having a little more trouble than I should with some of these stations because neither 1) my ears nor 2) mi español are as good as they were 25-35 years ago. But I'm having fun, and that's what counts. It also whets my appetite for what I could hear with a good receiver and a phased antenna system."

Steve speaks: "I've been avoiding this south of the border stuff because there's very little to be truned that's not in Spanish. I waste a lot of time trying to ID them only to discover that it's one I don't need. But when you get something new, like the Bahamas, how can you say no?"

#### **CONTRIBUTORS**

@John Callarman, Krum, TX; Optimus STA795 an RS 15-1853 loop. <JohnCallarman@email.msn.com> Steve Kennedy, Coal Township PA.

@Jim Renfrew, Rochester NY; Drake R8, 500' E/W longwire, Grove antenna tuner, SM-1 loop. <a href="mailto:renfrew@localnet.com">renfrew@localnet.com</a>>

### DX'er's Notebook

Dave Braun dcbraun@delanet.com 863 Allabands Mill Rd. Camden Wyoming DE 19934-2132

Shared tips, topics, and Internet info

R-1000 HELP

First off, can anyone help Phil with his request?

Phil Bytheway <phil-bytheway@teknologic.net>: I have an R-1000 with a big crack in the front panel (about 4 inches in the lower left side). Any ideas on where I can get a new one or one off a "dead" receiver? Kenwood tells me they no longer sell parts.

#### DX CONDITIONS

This continues last week's thoughts about the state of the ionosphere.

Patrick Martin <mwdxer@webtv.net>: Yes, I do think that MW transmitting sites are not what they used to be. Here in the USA many stations do not have the "punch" they used to have. There are exceptions to the rule like KGO-810, KNBR-680, KFI-640. But stations like 970-Portland, that used to be KOIN for years. They get out very poorly now. Stations QRM with them 15 miles out of Portland at night. That never used to be the case. Maybe more than atmospheric conditions may be the transmitting systems in the year 2000.

Ben Dangerfield <a href="mailto:ben-dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben-dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben-dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben dangerfield@email.msn.com">ben Dangerfield <a href="mailto:ben dangerfield@email.msn.com</a>): Here is my .02 on the subject. Most of my T40 [Oct 62] and 1510 [Apr 64]; China-1525 [1974]; North Korea on 655 [Apr 65]. Only Tarawa-844 was logged and verified in what seemed to be a high sunspot year, [Mar 70], and that is more in the direction of Tahiti which Bruce recently heard. Of course, in those distant times we had far more open frequencies in the early morning hours, mostly on Monday mornings. Now nothing is ever open or clear.

Russ Edmunds <wb2bjh@nrcdxas.org>: Interesting points! 1, also, heard Tarawa-844 from Northern NJ in relatively unspectacular conditions. China-1525 was heard many times, most during the minimum years in the 1973 area, but that one's a bit different in terms of the propagation involved. I tried numerous times during that period for 4QD-1550 without result.

David Hochfelder < hochfeld@rci.rutgers.edu >: Hello, I've been following the discussion about the ionosphere being somehow maxed out in recent years, and I have to admit I'm a bit baffled. Granted: it's been almost ten years since I abandoned electrical engineering for history, but I did specialize in electromagnetic field theory. Two points: First, I would be very surprised if the ionosphere has some sort of saturation point with respect to incident power density beyond which its ability to refract radio waves is degraded. Or at least, that that limit, if it in fact does exist, is somehow being reached now when it hadn't thirty years ago. Although, to be sure, that would be a difficult proposition to test and even more difficult to determine experimentally some sort of mathematical relationship between incident power density, frequency, and refractive ability. Throw in latitude and you've got quite a research project. Secondly, as far as Harry Helms' point about generating a lot more RF radiation from light dimmers and PC power supplies, I would be very surprised if items like that would affect the ionosphere at all, just from sheer inverse-square considerations. Certainly an individual light dimmer or power supply would have no effect on the ionosphere. While they might radiate a lot of power in aggregate, their collective power density (W/m2), not total power, would appear to be the governing parameter. Because of this I just don't see how they would affect the ionosphere at all. If MW signals just don't have the oomph they used to, it's something more down to earth, like more stations on the band, or it's something to do with this solar maximum being less intense compared to past ones. We've only been observing the sun for a couple hundred years or so, and with respect to radio propagation for eighty, and it wouldn't surprise me if the solar cycle is much more complex than we know now. Another controversy: does the ionosphere actually somehow boost southerly signals in absolute terms during auroral events as compared to their usual received signal strength, or does the aurora simply block interfering northerly signals, making the southerly signals stronger only in relative terms... My opinion on this is that the ionosphere would act to increase absolute signal strength at the receiver only if a geomagnetic storm made the ionosphere in southerly latitudes a better "conductor" at the frequency in question. The real issue is how to test that. Any geophysicists out there? Does anybody know what the HAARP project up in Alaska is all about? Is their research relevant to these questions? But, hey, I can discuss the fine points of radio propagation forever,

ing: it's the best sixty bucks I've spent as far as the fun I'm getting out of it.

Patrick Martin: What an interesting point Dave made on the atmosphere. One point is that I do believe that when AU conditions exist, there is a "boost" to signals to the South. The reason I say this is that many frequencies (splits) like 1017 kHz

but until I upgrade from the Superadio 3 it's all academic. Not that I'm complain-

(Tonga) has much better signals than normal as most of the Pacific has. There is the boost alright, no doubt about that. Oh course knocking out signals to the North is a plus when there is interfering signals, too.

Patrick Griffith <AM-DXer@webtv.net>: I was wondering when someone was going to bring up HAARP. For those that don't know, HAARP is the High Frequency Active Auroral Research Program. It is still under construction and presently running power levels somewhere around 1 million watts. When completed it will be capable of pumping 3.6 million watts of high frequency energy into the ionosphere above southeast Alaska. But HAARP is not the only such project. UCLA has been running another project in Alaska called HIPAS, the High Power Auroral Stimulation Project. They are reportedly pumping out 1 million watts at ELF/VLF frequencies. There are also high power ionospheric stimulation projects operating in Peru, Norway, Russia, and other locations and there is reportedly a similar project called HISCAT being planned in Sweden that will put out 1 billion watts (1 gigawatt) of RF! If you think about the billions of watts of RF that is being radiated into the ionosphere every day from 'normal' broadcasting as compared to a far lesser amount being radiated 20, 30, or 40 years ago, you've got to wonder if there isn't a correlation in the apparent decrease in coverage we all have noticed.

Mark Durenberger <mark@durenberger.com>: In fact there has long been predicted a form of ionospheric intermodulation or sky-wave cross-modulation known as the "Amsterdam" or "Luxembourg Effect." It has been demonstrated that high-power RF actually changed the levels of ionization in the atmosphere and even caused plasma wave generation. I believe it was Consultant Ted Schober who told me of his calculations that a super-power station in the Caribbean would wreak serious havoc with 1560 out of New York. So there's been a bit of thinking about this.

Harry Helms <ak6c@earthlink.net>: That was part of my thinking. We are putting so much RF, at all frequencies, into the ionosphere today that I wonder if we are not degrading its refractive properties. Let's rewind to a century ago. On this night in 1900, the only excitation of the ionosphere would have been from purely natural sources, such as solar activity and thunderstorms. Contrast that with the RF the human race is radiating on a wide range of frequencies. Clearly the ionosphere is being "unnaturally" excited. The question is whether this is playing a role in the degraded MW DX reception many of us are noticing. My remarks about man-made RF generators were not as precise as they should have been. True, the radiation from light dimmers and power supplies is not sufficient for skywave propagation, but that is not true of other RF noise sources such as power lines. For example, there are powerlines which parallel Highway 395 here in California for several miles, and MW reception of even LA powerhouses like KFI-640 is impossible for several miles; there is a constant broadband "buzz" that blankets the AM band and is especially powerful near the transmission towers. I wouldn't be surprised if the collective radiation from those lines could be measured in kilowatts. Ditto for the electrical noise in urban areas. It's like the BBC and NHK synchronized transmitters heard in North America; the individual power of each transmitter may be low, but the combined strength is impressive. I'm convinced that some of the noise I hear at night is being propagated from the SF Bay Area, Phoenix, or Salt lake City. Doubtless the deterioration in transmitting facilities, especially ground systems, is playing a big role in reduced signal levels. However, the decline has been so across-the-board, affecting so many stations in various areas and nations, that I think something more is involved. Radio propagation is a science very much in its infancy; available data only goes back a little over 80 years. Imagine how many erroneous conclusion we would have in astronomy if we only had data going back 80 years! I suspect there is far, far more to radio propagation than we currently know. Maybe the ionosphere is being degraded by all the RF we're asking it to propagate. Maybe there is a decades-long cycle in solar activity that we haven't noticed yet that is producing these conditions. Or maybe it's a combination of these and other factors. Hopefully researchers will notice what we DXers are observing and conduct research into this question.

Russ Edmunds <wb2bjh@nrcdxas.org>: "I was wondering when someone was going to bring up HAARP."

Nor are these a new thing. Scientists in Russia and Alaska have been conducting such experiments for a good 25 years - the number of transmitters and the powers have increased, and new projects replace old, but this is and has been one of the primary methods used in investigating the effects of geomagnetic activity on radio signals of all types. It's become particularly important in view of the increased amount of earth-to-satellite-to-earth radio communications of all kinds.

#### WORLDWIDE MW COVERAGE

Mark Connelly <MarkWA1ION@excite.com>: "my best-ever logging of Saudi Arabia-1521 here in Missouri was in January 1995 right at the onset of a monster geomagnetic storm. It totally OBLITERATED 1520 at their 0300 sign-on." This station must have close to worldwide MW coverage. I remember hearing Saudi: 1521 from FL Paces. The station must have close to worldwide MW coverage.

ing Saudi-1521 from El Paso, Texas when I was there on a business trip in late 1986. I was just using a Sony ICF-2010 and Palomar Loop from a room at the Residence Inn near the airport. When I turned the loop to reduce KOMA-1520, Saudi slipped right by. I think Neil Kazaross and/or Tim Hall heard this in California on a desert Beverage. The station has also been heard by Richard



Wood in Hawaii both via "long path" and "short path". In what must be an all-time MW DX distance record, DXers at a beach in New Zealand heard Saudi-1521 coming in circa 0300-0400 UTC (a bit presunset at their end and post- sunrise in Saudi) on a super long path across the Pacific, roughly across Panama, and then over the Atlantic and North Africa. For US stations with global "get-out-ability", WBZ-1030 Boston, with its salt-marsh transmitting site, is logged often in Europe (not a big deal) but, more interestingly, has been heard by Dave Onley in Australia, Paul Ormandy in New Zealand, and other DXers "Down Under" even with KTWO and other closer US signals on the channel. I have a tape of WBZ recorded by a ham buddy who was in Vietnam in the US Navy in 1965. The signal was quite good for 9000+ miles.

Robert Foxworth <rfoxwort@tampabay.rr.com>: "WCBS New York at 880 with a non-directional signal is another one that seems to be logged on a regular basis by DXers down-under." The WCBS-880 and WNBC-660 site (shared tower) is on High Island, a 5-acre island adjacent to the north end of City Island, part of the borough of the Bronx, New York City, adjacent to Pelham Bay Park. You need a really detailed map to see this island as a named entity. There is a footbridge connecting the two islands (or was when I was there). There is an overwater path for a long distance over Long Island Sound heading to Europe, which may encourage good groundwave for a distance before the signal takes off at a grazing angle to become skywave. This opportunity exists towards the southwest as well, but to a lesser degree. There are several miles of mainly overwater path, leading from the WCBS site, before crossing land, and this probably helps the grazing signal achieve maximum hop distance towards N.Z. as well (but less so towards Australia which is nearly due west from NYC and blocked immediately by land) I believe the WBZ site has a similar situation. Perhaps the tower height is really optimum for 880. They use a resonant gap about 4/5 of the way up, WNBC uses the entire 500-foot height. I don't think WNBC is reported as often as WCBS so perhaps this is partly why. Here in central Florida, reception of WNBC and WCBS don't always occur well at the same times. Sometimes and other times not, which is interesting as the path is identical and frequencies not.

Frederick R. Vobbe <fredv@nrcdxas.org>: Here in Ohio (western side), I can count on WCBS to be in here better than WNBC ever was, and that goes back to the mid 60's when I started DXing. I know they are on separate sites, but the path from Chicago to Lima, 890 is best, with 670, 780, 720 being the next in line. It would be interesting to take hourly field strength readings from various locations in the US on 660/880 and see what the strength does at various times 2 hours before sunset to midnight.

Kevin Redding <lwdxer@juno.com>: I can tell you that as late as 1987 I could hear WCBS, WNBC, WBZ, WBAP and KMOX as far east as the Straits of Gibraltar using a Sony ICF-6500W. I was aboard the USS Caron DD-970 on the way to Lebanon when I heard them. I have no idea if they can be heard there today. The signal that amazed me back in those days was that KTRH was always with a HUGE signal into Central and South America back then.

Patrick Martin: Back in the 60s and 70s, before all the QRM, WCBS was always better than WNBC out here in OR. WABC had QRM from KOB, but WCBS was common.

Robert Foxworth: 1987 was a good solar minima year. In that year I could hear CBN atop 640 at 5PM, DXing from Long Island, Portugal-720 atop WGN, Soviets on 171 LW signing on, etc. all in December of course. KTRH is hard to hear here, sometimes I can get them at local sunrise behind Orlando but I never hear them at night. In recent days I have been hearing KKYX-680 with Radiomundo WRMD nulled (a local) late nights, and KGNC-710 under the two Spanish signals on 710 at sunrise last week I've been trying for KFI at sunrise but this year WGST is turning out to be a real nuisance. I had KFI a few times at 7 AM last year once Cuba is knocked down with looping.

John Tudenham <w0jrp@earthlink.net>: Same here in Joplin 70 miles west of Randy. Have heard WOR but very difficult in KCMO null and Cuban station.

Randy Stewart: Yeah, they're not really a regular, but certainly audible here in MO. I've also heard the Bloomfield financial-news station (WBBR? Not sure of the call off the top of my head...) on 1130 on sunset skip, and WQXR-1560 (i.e. while they were still all-classical). Also WGY-810 Schenectady does okay here on occasion. I have a tentative reception of Yeah, I know, folks, this ain't exactly "rare DX" we're talking about here, but hey, we don't receive NY state out here with the same regularity that we do, say, WLS or WBBM!;)

Ronald Gitschier <1570wyhi@bellsouth.net>: I recall hearing WNBC 660 in Lowell, MA during the daytime better than WABC 770 during the daytime. Lowell, MA is about 25 miles NNW of Boston,

about a couple of miles south of the first 'crook' going W to E in the MA/NH state line. This is back in 1978 to 1981 time frame. And using car radios and also a really nice radio; a Panasonic RF 1150 (or was it 1180). I'd put this against the GE Superadio, nice AM section, FM section, SW, and CB. Audio is sweet w/ sepa-

P.O. Box 2020 Paradise, CA 95967





(916) 877-3872 343-3808 rate bass and treble controls. I still have it, though it's in ragged condition and can't ever part with it with the hopes of rebuilding it. Also has a signal/meter. External AM ferrite rod antenna that rotates off the top of the radio, looks just like a handle of sorts, and antenna input screws, multiplex out via1.8" jack, earphone jack, and line out. And a (manual) timer too. Bought for about \$110 in or around 1978. Musically between WABC and WNBC, I liked WABC better at the time. But WRKO would be my first choice. To get WNBC, I'd have to null WRKO which was about 11 miles directly south of my home in Lowell, within sight of 680's tower lights. To my recollection I got WCBS 880 about the same as WNBC 660. I have a coverage map or two from WNBC's engineering department and a short note from Greg Aull intern typed on A Bill Krause memo pad. Also I used to listen to WFAN 660 during the dawn and daylight hours commuting from Barco, NC to Norfolk, VA with a great signal. I don't recall in detail WCBS 880's signal because I used to listen to Imus from '92-'95 driving into work, and occasionally back home. For news I'd listen to the former WNIS 850 (now WTAR) or WTAR 790 (now WNIS... lol) when they were competitors. Worldwide coverage, I don't have a candidate. I loved listening to Radio Luxembourg on 1440khz in the Persian Gulf during the war when the Saudi 2MW 1440 was off the air, heard on an aircraft carrier with a Kenwood TS-430 and a Cushcraft R-5 Antenna hung off the side of the flight deck. Barefoot the Kenwood transceiver proved to be useless for MARS, but me being me, that station was pressed into different, personal uses as the World's most heavily fortified 11m mobile marine station and AM DX listening post. What? Can't work that station in Malta, no problem, wait patiently and you'll get 60db over 9 when you're sailing by. Or listen to Rap music with all the swear words on Algerian AM stations... This was between bombing missions, of course...

Richard Toebe <richtoebe@jps.net>: I agree with Pat; when I started DXing in Pleasanton CA in 1970, WCBS was an almost nightly reception, WNBC not as common or strong. WABC was mainly heard during KOB silent periods. In the late 70s when I lived in Reno, I had WLS set as a button on my car radio, and got a kick out of listening to it driving home from night school. The other interesting thing is, how TPs just aren't there anymore. Hawaiians used to be common, now in the last two years the only Hawaiian I've heard was KHLO-850. Of course I'm not talking about beverage coastal receptions, but at home with a loop. You can point out the loss of 650 because of KSTE, and 830 because of KNCO, but what about 550, 590, 690, 760, 870, 900, 1040? All were heard at least occasionally. In all the discussion about the ionosphere, I wonder if the antennas have been rejiggered to cut down on skywave.

Patrick Martin: I do think many "newer" stations like KAPS-660-Mt. Vernon, WA have been set up to cut down on skywave. That is true, but I do also think something else has changed to weaken signals, no matter what direction they come from. I remember back in the late 60s, when the band was clear on MMs, only a few NSP stations. Many clear channels. Oh course that has changed, but even when KDWN is off on 720 on MMs, WGN is generally very poor. They used to be armchair copy with a loop, let alone a beverage aimed at them. I remember a old time DXer told me that sometime in the late 40s or early 50s, there was a period when DX on MW was terrible for a number of years. Has the same thing happened today? The only reason some of the DXers are hearing more is because of coastal locations and better antennas?

Russ Edmunds: I really do think that the answer is the simple one - greatly increased numbers of stations everywhere and greatly increased numbers of noise sources, also everywhere. And secondly, not every sunspot cycle is identical to the prior one, or the one before that. If a comparison were done using, say, smoothed mean A- or K- indices over a period of 3-4 cycles, I think the results might well show that the differences also account for some of the observations. These two together could explains some pretty substantial differences in observations over time, and remember, too, all we're dealing with here is anecdotal evidence comparing what we remember to what we hear now, or maybe in some cases, comparing tapes.

Richard Toebe: But Russ, what I think about is that I can still hear WLW even with all the new 700ers here on the Left Coast, but it's been years since I've heard KDKA, which used to come in even with Roswell NM on 1020.

Russ Edmunds: And to me, that is evidence of the variability of things - for you there are probably more signals on 1010-20-30 to interfere than there are on 690-700-10. Of course it could also be — and depending on how far back you're going, may very well be — a result of changes at the stations themselves. I know that KDKA scrapped their old tower during that period, as a for instance.

#### DX NEWS PUBLICATION

This is the continuation of the discussion on the future of the club's publications.

John Tudenham <w0jrp@earthlink.net>: I also miss the old days when we had many musings. Paul and others doing a great job to produce the current DX news. As far as DXing the most difficult thing to ID a station on the AM dial is the lack of ID's. When most stations had local programming and played music you could catch an ID between every song.

Steve Francis <Pellisipi@aol.com>: Speaking of songs, I remember DXing frequency checks, nearly all of which ran a quarter-hour of tone, breaking for an ID every five minutes. You'd hope against hope that the station with the frequency check would stop for that ID while the dominant station was running commercials. You knew

1140 kHz 4120 Barlow Drive POST OFFICE DRAWER "T" LAKE ISABELLA, CALIFORNIA 93240 (619) 379-4146 when the top dog went back into music, you'd have no hope of an ID from the frequency checker for the next two and a half minutes!

Frederick R. Vobbe <fredv@nrcdxas.org>: Let me also offer something to this "On Line DXNews". While it's cool to us, let us not forget the people who do not have access to the Internet, nor the ones that have any use for it in their "radio hobby". On the DX Audio Service side... it would be MUCH EASIER for me to publish web only, and produce just audio files. However, 90% of our membership does not have, nor would they want to get their magazine off the web. You have to keep this thought in the back of your mind. Just because you can do it, does not mean everyone can. What you have as a cool tool on your desktop means nothing to 99.9% of the rest of the folks. I would not support moving to an Electronic version. Unless you are just trying to save a few cents a week, it's easier to get a magazine than use a web page, in my humble opinion. You know, I wonder how many listeners and readers Media Network will have compared to last year at this time now that they are Web Only.

Patrick Griffith: I've been trying to stay out of this but I have to say that I agree 100% with the above. I know that the majority of my co-workers, both older and younger than myself, are not internet capable and are not computer literate. I don't understand this because I don't know how I would survive without web access today. But it's a fact. If you take a look at the magazine racks in a Barnes & Noble store or a Borders Books store you will realize that there are hundreds of periodicals in print. This wouldn't be happening if people weren't buying them. No profit, no production. Why haven't all of these magazines swarmed to the net and e-publishing? It's because most people can't or won't read them there. I am very active on the web yet I personally read between 15 and 20 periodicals monthly. I don't think that's going to change for a long time. And look at the NRC. The fraction of members that you see here on the web is a very small percentage of the membership. Why? Because the majority do not have internet access. Those of us who are internet capable and are computer literate sometimes tend to think that everyone is. And that's not true. I suspect that we are still a minority in this country and I am sure we are in the rest of the world. So I agree that if you went to an e-version you would still have to maintain the hard copy version as well. I think that the e-version presently would serve a minority. <soap box off - 2 cents deposited>

Mike Pietruk <pietruk@shellworld.net>: In an electronic form, my personal favorite is a straight text file as it gets away from the need to be concerned whether or not all computer platforms can deal with it. As an aside, the ultimate answer to the question of how DX News is to be distributed ought to rest not with the board but rather those in the field who actually use the publication. Obviously, the IRCA has wrestled with the issue finding the practical compromise of providing 2 versions – a more frequent and cheaper email format and the traditional print. Where the IRCA will go from here in the years to come, only time will tell. The NRC board needs to accept the notion that the world evolves over time just as radio has. The trick is getting the comfort zone expanded as, if it is not, over time the club may not be able to best serve a major contingent of its members both existing and potential. I can only imagine the fears that the DXAS initially created in some; yet, it has served the club over the years. I can also imagine the fears the email list has had; yet, it too has served the group well. And serving the group and its members as a whole should be the first concern.

Doug Smith w9wi@bellsouth.net>: True, but there's no way to distribute pictures/graphics in a text file. HTML is a good alternative though. Web browsers exist for every reasonably recent OS (I suppose C64 and Apple ][ users are out of luck<g>) and just about everyone has one. Plus, browsers exist which are friendly for the visually-impaired. (I doubt a voice-capable .PDF reader exists) There's no need to buy composing software to create HTML files. Both Netscape and Internet Explorer include a composer that could do a credible job of creating an electronic DXN. Indeed, with a few well-written macros one could really compose an electronic DXN with a text editor. Is there a PKUNZIP for MacOS? Because an "EDXN" would consist of multiple files, (and because many of those files would compress very well) it would be sensible to zip them all up into one file, but only if everyone could expand the zip.

Mike Pietruk: Doug, You are right in the problems that .pdf files can cause for blind users. And, yes, you are also right that.html files likely present the best possibility of combining flexibility of platform with ease of use. I just hope that PLS and the rest of the NRC hierarchy can become willing to at least experiment with the possibilities not at the expense of getting rid of the print publications (that would be a major mistake) and see what new opportunities that might present for the NRC.

Wayne Heinen <Nrclog@aol com>: "As an aside, the ultimate answer to the question of how DN News is to be distributed ought to rest not with the board but rather those in the field who actually use the publication"... "And serving the group and its members as a whole should be the first" Mike, The point being? A few people indicate that they would like an electronic DXN, they're on the list and on line. If and when a large quantity of dues paying NRC'ers approach the board, it may be something to consider. I frankly prefer to have DXN the way it is, much easier to read a nicely printed bound

to have DXN the way it is, much easier to read a nicely printed bound magazine while laying in bed than a fuzzy.pdf off the IIP+. By your own statements the board is doing its job. We respond to the membership, we also realize that most change requires someone to volunteer who has the time, knowledge and desire to do a job. Most NRC project,



including the major publications, DXAS and this list are managed by volunteers who fit that description. When the paying membership has a wish to change, the board will act to facilitate the wished in the manner best suited to the benefit of the club and the hobby...

Russ Edmunds <wb2bjh@nrcdxas.org>: "As an aside, the ultimate answer to the question of how DN News is to be distributed ought to rest not with the board but rather those in the field who actually use the publication. Obviously, the IRCA has wrestled with the issue finding the practical compromise of providing 2 versions – a more frequent and cheaper email format and the traditional print. Where the IRCA will go from here in the years to come, only time will tell. The NRC board needs to accept the notion that the world evolves over time just as radio has." The above misses one very essential point! As a volunteer club, what gets done is always a function of the abilities, time, and, yes, sometimes even preferences of those who are doing the work. I don't wish to put words into Paul's mouth, so let me try to say this as clearly as I can. \*If\* it were determined to also do an E-DXN, and \*if\* this would add work for Paul, then I think Paul should have a major part of the decision. The same would be true for the Log and for Wayne. That is the way this club has been run, with a couple of diversions such as one we've mentioned here a few times in this thread, and has, along the way, been in divergence with the way IRCA has been run, even though both clubs have changed along the way. But in my mind, as I've said here before on this - a major gating factor is "who's going to do the additional work, and does it work logistically?"....

Phil Bytheway <phil-bytheway@teknologic.net>: Russ/Folks, 1 volunteered to do an email version of DXN back when I started the SDXM. The NRC BoD said NO. You are correct, however, that it would require more work by Paul no matter how it is approached, even something simple can take up

a lot of time... right Paul?

Russ Edmunds: And I think Wayne made the other very critical point, probably more directly than either Fred or I or others did — looking at a membership of hundreds, there hasn't been, and is not yet a sufficient number of members asking for an E-DXN to constitute a significant demand. (And that does not preclude the possibility that this very discussion may not somewhere along the line lead directly to such a demand coming about). One more thought here - I would personally be very happy to have "both" an E-DXN and a CD-ROM Log. But I recognize that there is still only a minority of the club who feel that way now, and for some unpredictable time going forward.

Paul Swearingen <PlsBCBDXER@aol.com>: "No disrespect intended, but anyone who thinks keeping material in strictly hard copy is some sort of protection against infringement is kidding themselves." You may be guite right; and the problem is more of a moral than a technical issue anyway, and possibly moot, as the world now knows that the NRC isn't going to stand by idly whilst being ripped off. Interesting that the rip-off individual in question called us a "bunch of hicks" when he didn't get his way and threatened that "the NRC will be history inside a year." Well, we "hicks" are still firmly in charge; the NRC is more sound than ever; and HE is history! Also ironically, we think that there are far more copies of DXAS tapes being passed around than copies of DX News. And, yes, no one has dared to copy the NRC AM Log since that sorry episode 8 years ago. Perhaps I'm just happy that IRCA has found a niche market with SDXM, and I don't want to get into the business of running competition to Phil Bytheway's fine efforts with SDXM and AMDXNF? "I'm not trying to get rid of Paul — NOT YET ANYWAY!:-)" Go ahead! Make my day! Not really - I'm far from wanting to retire - and even at the ripe old age of 55 I could still learn how to handle pdf publications. There may even be some future in offering entire volumes of DXN on CD-ROM's, for example. "but I did want to raise this issue as I think most radio clubs will have to eventually consider going to electronic bulletins to compensate for rising costs and declining membership (fortunately, the latter is not a serious problem for NRC at this time). Bob Grove at Monitoring Times has seen the future and is being very smart about offering MT in PDF form." We're stabilized, for now, at between 690 and 710 members/comp copies, although it was only 3 years ago that we boasted 820 members, our all-time high membership point.

(?-pls.): "I have been scanning and saving issues of 1960s electronics magazines I own (like Electronics Illustrated and Radio TV Experimenter) because the paper they are printed on is getting discolored, brittle, and is clearly not much longer for this world." Copies of DXN from '88 on are printed on better-quality paper than most magazines. I don't know the exact rag or acid content, but I do know that they are NOT fading or decomposing. I may be generalizing a little too much, but low-budget letterpress printing was usually done on cheaper stock, whereas the offset process allowed for the use of longer-lived paper. (Again, ironically, the best-quality printing is done on slow letterpresses.)

#### **NRC's Antenna Manuals**

Now completely revised and up-to-date!

Antenna Reference Manuals, Vol. 1 and 2,
\$6.95 each (\$9.95 to non-members)

Loop Antenna Design & Theory,
\$8.50 (\$12.95 to non-members)

Order from NRC Publications - P. O. Box 164 - Mannsville,
NY 13661. NY orders, please add sales tax.



# Three Loop Antenna Array with Electrically-Rotatable Nulling Mark Connelly, WA110N

By using three broadband loop antennas set up at 120 degree bearing differences, a fully rotatable single-null (cardioid pattern) can be achieved by combining given pairs of loops. Furthermore, the three inherent figure-of-eight (double null) patterns produced singly by each loop can be "slewed" by as much as 30 degrees off their normal axes when the loop in question is phased against one or both of the remaining loops.

Good broadband results may be obtained with each loop element consisting of a 2.5 m (8.2 ft.) per side square: 10 m of wire total per loop. This is mounted in the vertical plane with the bottom side of each square no less than 0.5 m (1.6 ft.) above ground level. The wire comprising the loop may be formed on a non-metallic frame structure or simply held in place with ropes to tree branches or other supports. The feedpoint of the two wire ends is usually at the center of the bottom side (1.25 m from each low corner) and these wire ends connect to the primary of a 1:1 balun transformer, Mini-Circuits T1-6-X65 or a suitable homebrew equivalent. The balun should be mounted in a weatherproof connectorized box for permanent installations. The balun's secondary winding connects to coaxial cable which goes back to the operating position. Satisfactory results should be possible with cable runs up to 50 m / 164 ft. and perhaps longer. The minimum distance between the winding of any one loop and the nearest part of any other loop should be at least 5 m / 16 ft. to reduce unintended pattern alterations.

The maximum pick-up of each loop element is in the two directions obtained if one extends an imaginary line from the top or bottom (horizontal) parts of the square. Nulls are at a right angle to the plane of the loop. Figure 1 (after this article's text) shows the inherent pick-up patterns if the three loops are set up for 0.180, 60.240, and 120.300 degree peak orientations. (Note: 0 deg. = north, 90 = east, 180 = south, 270 = west.)

At the operating position, the coaxial cables from each of the three loops go to inputs of the Loop Switch / Amplifier box (figures 2, 3). This box has a fourth input jack, the auxiliary (AUX) input, that may be used for an omnidirectional horizontal loop, a vertical whip, a random wire, or any other antenna that the operator feels would enhance the usefulness of the set-up.

Switches on the box allow any of the four inputs to be directed to the Line 1 amplifier or to the Line 2 amplifier. Low noise amplification of about 15 to 25 dB is usually necessary with the relatively small broadband loops being used. One could connect two or more inputs to a single line amplifier for potentially unique null solutions, but I won't try to figure out when that could be helpful: that's better left to the end user.

The box's Ground Switch connects loops' coaxial shields to "station ground" (common) or allows them to float. Different locations will exhibit different results in terms of which Ground Switch setting yields the better ratio of desired signals to local electrical noise.

A cardioid pattern, or a close approximation thereof, can be produced with a given pair of loops having a minimum of 60 degrees and a maximum of 120 degrees between the peak pick-up axes of each. Optimum (truest cardioid) nulls will be on the bisector angle between a maximum pick-up lobe of the first loop and that of the second loop. If two loops were oriented so one pointed north-south and the other east-west (90 deg. spread), cardioid nulls would set up best on northeast, southeast, southewest, and northwest axes. As you choose bearings farther from bisector values and closer to inherent loop nulls, the patterns produced by phasing two loops would more closely resemble the figure-of-eight patterns of a single loop because one of the two loops is doing most of the work creating the null and only minimal added signal from the other loop is needed to move null depth from moderate to maximum. There are some situations in which a somewhat rotatable figure-of-eight is the desired pattern instead of the fully rotatable cardioid. The three loop system gives both options.

Looking at the 0:180 loop combined with the 120:300 loop may be instructive.

The 0:180 loop has inherent figure-of-eight nulls at 90 and 270 degrees. By coupling in a little RF from one or both of the other loops, slewed figure-of-eight nulls can be obtained  $\pm$ 15 degrees from 90 degrees and from 270 degrees, i.e. in the 75-105 and 255-285 degree ranges. The 120:300 loop has nulls at 30 and 210 degrees that can be similarly "stretched" to 15-45 and 195-225 degree ranges.

Bisectors for cardioid nulls are at 60, 150, 240, and 330 degrees. These are halfway between lobes at: 0 and 120, 120 and 180, 180 and 300, 300 and 360(0). Cardioid null ranges can be stretched to be 45-75, 135-165, 225-255, and 315-345 degrees. At the edges of the stretched ranges, the cardioid starts to degenerate into an asymmetrical figure-of-eight with one major null and one or more minor ones at

bearings not quite opposite the major one. If a true cardioid is desired and a certain pair of loops is causing reduction of desired direction DX as well as signals to be nulled from the opposite direction, use a non-directional antenna (whip or horizontal loop) at the AUX input to phase against one of the loops for better results.

Pairs of loops to be used for movable nulls (cardioid pattern, figure-of-eight pattern) are shown in Figure 4. Loop #1 is oriented for maximum pick-up on the 0:180 axis, loop #2 is aligned for peaks at 60:240 degrees, and loop #3 has peaks at 120:300 degrees.

A simple-to-use (preferably broadband) phasing unit should be used on the two outputs of the Loop Switch / Amplifier box. The DXP-3 model should well for this, at least in medium frequency (300 kHz - 3 MHz) applications. Links to design documentation for DXP-3 and several other suitable phasing units may be found at my RF Circuit page "http://www.qsl.net/wa1ion/index.html". (If, at a future time, this URL becomes unusable, contact me for updated information.) Some phasing unit construction articles may be obtained in paper form from the National Radio Club reprints service.

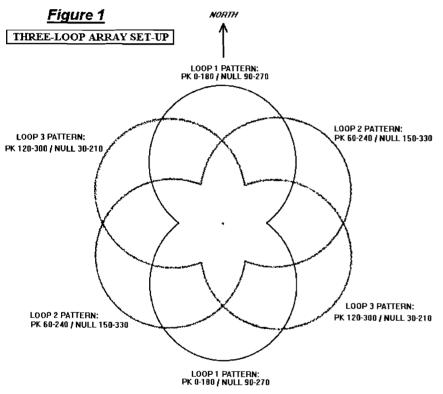


Figure 1 (above): 3-Loop Array Set-Up showing each loop's inherent pattern



## The DX'Pedition Handbook

is simply all you need to plan your next DX'pedition. \$8.95 to NRC members, \$12.95 to non-members. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

Figure 2 (left): Switch and Amplifier Box for 3-Loop Array

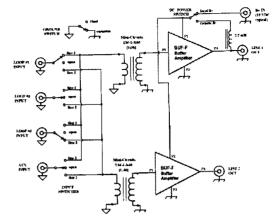


Figure 3 (left): BUF-F Amplifier Schematic (two per Switch / Amp.

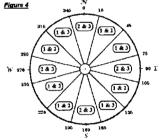
Figure 4 (below): Loop Pairs to Select for Desired Directionality

# 

BUF-F BUFFER AMPLIFIER CARD

Schematic

#### Loop Pairs to Use for Cardiold Nulls in Directions Specified



NRC Station Location
Map Book

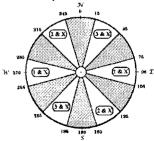
6th edition – \$12.00 to members (\$17.95 non-members), postpaid. Compiled by Bill Hale, this 239-page edition shows the location of all U. S. and Canadian broadcast stations [except TIS/LPRT] as well as

latitude/longitude coordinates, plus instructions by Dave Sundius enabling users to calculate distance and bearing to any station. This 8.5x11-inchsized book is three-hole punched for a letter-size ring binder. Order from NRC Publications - Box 164 -Mannaville, NY 13661. NY orders, please add sales tax.

Figure 3



Loop Pairs to Use for Figure-of-8 Nulls in Specified Directions



Shaded areas may lack figure-of-8 null coverage.

## Musings

of the Members

Dave Schmidt NRCMusings@aol.com P. O. Box 3111

Scranton, PA 18505-0111

Times are local per Muse; submit double-spaced only.

Thoughts from NRC members ... the opinions expressed in this column are those of the individual uriterand do not necessarily reflect those of the editors, publishers, or the National Radio Club, Inc.

#### Karl Jeter - 1890 Abinger Lane - Lawrenceville, GA 30043 (jeterk@worldnet.att.net)

After a two-year absence from these pages, I finally decided to check-in. A brief re-intro might be in order: I am 47, married to Nancy, and have two sons, Kevin(16) and Aaron (6). I am self-employed, with a drafting/design business, which I have been involved in for almost 10 years now. This is my 27th year of continuous membership in the NRC, having joined in 1973 while I was in college. I actually began DXing in 1969, when a friend told me about QSLs, and I was hooked. I had, even before that, often sat at my dad's big console radio during my high school years in NC just to see how many cities I could hear. I moved to GA in 1971 and have been in and around the Atlanta area ever since. My unofficial totals are 1984 heard/1604 verified; I would like to break that lofty 2000 heard plateau this season, as I broke the 1600 mark in verifications earlier this year. DXing for me has become more and more a "seasonal" pastime, as I spend very little time at the dials in the

warmer months now. Being self-employed also cuts into DX time, but on the other hand, sometimes I can listen while I work too! My "workhorse" is a Hammarlund HQ-150, purchased many years ago second-hand from Dick Truax, and it is complemented by a Sangean ATS-803A. Antennas are a Kiwa MW loop and a Quantum Loop. Although I continue to try for veries, I find myself for the first time in 30 years questioning if the poor return rate is worth the effort...but I am just stubborn enough to keep trying anyway. Not trying for those elusive veries would take a lot of the "fun" out of DXing for me! Finally,I was a co-host of the 1978 Atlanta Convention, and filled NRC Reprint orders for about 10 years from the late 70's to the late 80's. I have been spending some time at the dial this fall, with modest results. The expanded band keeps me interested, and have been trying to log/verify as many as possible before they start to sound like GY's! Most recent X-banders logged are WTTM-1680 Princeton, NJ and KBTK-1700 Dallas, TX. A few veries have dribbled in lately: KOLM-1520 (email), WTAW-1620 (Card), WPSL-1590 (form), WTIR-1680 (nice certificate) and #1600 was KDYS-1520 (letter). A full report of recent DXploits has been emailed to DDXD-E. I hope I'll check-in more often than I have been, we'll see! 73

#### Philip Boersma - 15570 Cleveland Street - Spring Lake, MI 49456

OK, time for MR. PHIL to give his 2 cents worth on the on-going debate about electronics vs. paper delivery of DX NEWS. First, a few pertinent facts: I do not own a computer and have no plans to purchase one. I have never been on the Internet except for a few business related things. While I am marginally computer literate, I stink compared to the many tech. Heads, and I have no desire to improve myself. Nevertheless, I have no objection to the NRC continuing to expand its WEB services as an adjunct to a printed DX NEWS. But I require, ultimately, my information to be on paper. In other words, the day the NRC stops printing on paper and mailing out a DX NEWS is the day I stop being a member. Nuff said. As to the future of the AM band, 15 years ago (when I was still working in radio), I was sure the AM band would be vacant by the 21st century. Well, here we are and my radio still has plenty of stations on it (the quality of the programming may have slipped, but I'll let that slide). I really doubt I will see a conversion to digital in my lifetime, especially as long as the NAB and FCC continue to beat the dead-horse known as In-Band, On-Channel. I have not experienced the Canadian variety (ie: new band, etc.) but from what I have read of it, I doubt DXing that Digital Band will be much of a hobby. For me, the fun of hearing a far-off station through static, other stations, and fading in and out are still a thrill, looking up that stations Website and streaming its audio is not. I certainly hope AM radio survives (although if the number of stations were reduced, I wouldn't complain too loudly!). Happy Holidays!

#### Ken Onyschuk - 331 Pine Street #1 - Joliet, IL 60435

My AM local WJOL-1340 moved out of town last week, but only to neighboring Crest Hill, after I checked in with our radio columnist at the Herald-News, Don Hazen. The station is local 6-10A, then Atlanta based Neal Boortz is on 10A-Noon, local from Noon-1P, Boortz again 1P-2P, then a consumer and financial advice period 2P-4P, Mark Vasko



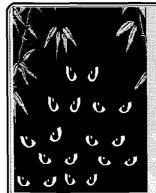
is local 4P-6P, local sports 6P-7P, then Mike Gallagher 7P-Midnite. It's a nice change. I'm not DXing seriously now due to other interests. 1160 is still WXRT-FM simulcast; I've read of no changes yet. Chicago-based News-Web Corp. which owns CH. 50 and WSBC-1240/WCFJ-1470 has agreed to buy WYPA-820, our Catholic Family Radio affiliate and change it, to of all things, ethnic. So I'll have to move to WZER-540 which dominates here. I've been working a couple of part time jobs, doing consumer satisfaction reports for car dealers and newspaper 'stuffing', and assembling Catholic rosaries. Along with that, I enjoy listening to NBA Games of interest and follow the professional bowlers tour heavily. That's it for now, Enjoy The Holidays!

#### Dave Schmidt - P O Box 3111 - Scranton, Pa 18505-0111

Having read the above notes from PHIL BOERSMA regarding the electronic distribution of DX NEWS, I'll have to agree, when it goes as a printed-matter item, then I'll no longer be a member (which I have been since 1964!). For those who do want electronic delivery of DX NEWS, this is fine, but it should be an additional option at this time, and the club should look into having the service made available at a subscription to those who prefer it that way. The NRC did it with the DX Audio service, so this should be another avenue that the club should look into to generate revenue to keep the organization financially alive. But yet, have I seen any offers of anyone stepping forward to actually DO THE WORK? FREE? AS A VOLUNTEER? I hope that those who are in the loop in wanting this service available are in a position to help and MAKE it happen. My job with Digital Radio Engineering has taken me to some of the stations in NY's 'Southern Tier'; it's really amazing to see a station that you have a verification in your collection then find out 'you'll be working on this one'. And the area includes Long Island, where I was this past week. I still haven't been able to get actively involved in listening again, but still do scan the band in my travels and listen to WINR-680 when I'm up in the Binghamton, NY area. Yes, I still have reports to answer from WMBT for the DX TEST from last

February, they WILL BE answered, shortly. Hopefully I can get a few more stations on the DX Calendar list this year also. Your support to this column is the only way it can survive, so make sure you do YOUR part and show some support! Happy Holidays!

1400 KTUC NEWS / TALK / SPORTS



## From NRC's DX Audio Service ... 'After Dark 9'

Now available, it includes longer articles not able to be included in normal DXAS programs ... including John Bowker's "1400 Travellog", "Sex and Deception", "Screening Calls", "A Visit to WODI-1230", "Radio from L. P. B." and much more. Two C-90 tapes in a cassette case, only \$5.00 postpaid to members in the United States, \$9.00 to non-NRC/DXAS members. Other areas, please write for pricing. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

#### AM Broadcast Station Antenna Systems A Basic Guide

Written by NRC'er Patrick Griffith, this book makes it easy for the non-technical DX'er to understand everything about AM broadcast antennas. Over 35 photos. \$13.95 to NRC members (\$17.95, non-members). Order from: NRC Publications - Box 164 - Mannsville, NY 13661 (NY residents, please add sales tax).

