• Serving DX'ers since 1933

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# Inside $\dots$

2 ... AM Switch

6...Help needed to proof the Log

7 ...DDXD

13 ...IDXD

20 ... Target DX

21 ... Review: Great Radio Sitcoms

23 ... Confirmed DX'er

26 ... NRC Contest

28 ... Wellbrook Phased Array

39 ... The AM Dial in 1933

43 ...IDXA

44 ...DDXA

45 ... Musings of the Members

47 ...Pittsburgh: NRC '08



WNRC holds open auditions ... Fred Vobbe is looking for a little help in programming WNRC for the convention, especially recording voice tracks for an on-air shift. See http://e-dxn.com/news/ viewtopic.php?p=1738#1738 for more information, or contact Fred directly (see back page for contact info.)

Madison-Milwaukee GTG ... From Tim Noonan: "The 15th annual Madison-Milwaukee Radio Get-Together will take place on Saturday, August 16, beginning at 1 p.m., in Oak Creek WI. The event is open to all radio hobbyists and is an informal gathering where radio fans and DXers can exchange ideas and make and renew friendships. This year's location is the home of Tim and Jill Noonan and their sons, 801 E Park Blvd in Oak Creek, and you can obtain directions and more information from Tim at <DXing2@aol.com> or 414 762-2702."

Radio Podcasts ... BTC Podcast number 11 is now ready for listening. Access this link for the latest news from your NRC/IRCA Joint Broadcast Test Committee: <a href="http://www.dxtests.info/pod-">http://www.dxtests.info/pod-</a> casts/BTC\_Podcast\_11.mp3.>

*From the Publisher* ... Hope you enjoy this DXN; it's the 600th one I've put together, and I cleaned out everything I could find and crammed it into this 48-pager.

Now, about my retirement ... ain't going to happen for a little while, anyway. (Thanks for all the kind words sent to me, though!)

When I informed the NRC BoD 14 months ago that I wanted to retire as publisher after this issue, they did everything possible to find a replacement for me, and so far they've found at least three to take over various parts of my duties, especially online supervision, mailing, and membership. Unfortunately, the fourth person, an actual layout editor, has not stepped forward, although we've had some tentative inquiries but no definite commitment from anyone.

So at least for the next few issues, I will continue

laying out DXN and transmitting it to the new printer in Watertown, NY, who will also handle all mailing duties. I stated that I wanted out from under deadlines that confined me to one place 30 times a year, and at least now if I need to get out of town during a weekend that I have to lay out DXN, I can take a laptop with me and do it.

Please note address changes on the back page. P. O. Box 5711 will close at the end of June, and mailings sent to it will be forwarded to the Aurora address for the normal 60 days and then probably returned to the mailer. Please also note that ALL membership inquires and subscription payments should now go to the Aurora address, along with requests for sample and back issues (the archives are headed west!). I will also continue to accept mailed submissions for publication in DXN at my home address, along with IDXA and DDXA submissions.

Unfilled positions ... We're still in need of volunteers for the following positions: a DXN publisher, ASAP, and one or more persons to edit future NRC publications developed by contributors or the club.

DXN Publishing Schedule, Volume 75 July 11 July 21 | 30. Aug. 8 Aug. 18 Aug. 18

### DX Time Machine From the pages of DX News

50 years ago ... from the June 14, 1958 DXN: Ronald Harcourt, Port Hope, Ont., reported hearing tests from three Canadian Civil Defense stations on 5/15, namely VE9SJ-860 Camp Borden; VE9SK-740 Peterborough, and VE9SL-990 Kingston, Ont.

25 years ago ... from the June 13, 1983 DXN: An article written by Neal A. Perdue described the loop designed by Paul Kowalski in detail ... dues went up by \$2.00 to \$20.

10 years ago ... from the May 18, 1998 DXN: The NRC BoD decided not to renew the membership of the NRC in ANARC ... leading the pack of DDXA participants was Robert Kramer, who reported the most Total Domestics Heard at 2733, followed by Kermit Geary with 2487, John Malicky with 1184, Karl Forth with 1077, and Jerry Starr with 1055.



# Bill Hale w\_r\_hale@sbcglobal.net 6124 Roaring Springs Drive North Richland Hills, TX 76180-55 North Richland Hills, TX 76180-5552



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

Stati	ds chang		Tivi stations, s	supplied by the 1 CC,	Civi C, and iisteners
		9	CALL LETTER CH	<u>ANGES</u>	oral consequences of the consequences
	Old Call			New Call	
600	CKBD	BC	Vancouver	CKPK	N N
			[will become CKP]	K on FM 100.5	12
820	NEW	MN	Wilton	WBKK	(6 3 3)
850	WNTJ	PA	Johnstown	WKGE	PLINICIAL S
920	KNFX	MN	Austin	KQAQ	Control of the last of
			[Now C&W with I	Fox News]	
950	KSWD	AK	Seward	KSEW	
970	WZQK	MS	Brandon	WJFN	// W W W \
990	WLGZ	NY	Rochester	WRCI	11000000011
1050	WRFS	AL	Alexander City	WBNM	11765 27 11
1190	WTBZ	WV	Grafton	WVUS	
			<del>-</del>	o move here from 1260]	72 511
1100	WZFN	MN	Dilworth	WZFG	
1230	NEW	GA	Smithville	WUCN	II may
			[Has a CP for U1 1	1000/1000]	F 16 34 11
1300	WTIR	FL	Cocoa Beach	WMEL	-
<b>1420</b>	KQYS	MO	Neosho	KBTN	00 100
<b>1450</b>	WCIE		Spring Lake	WFBX	$_{b}$ $\sim$ $\lambda$ $\chi$ uppure $t$ $\sigma$
1490	WANA	AL	Anniston	WSYA	244
1490	WPRR		Johnstown	WNTJ	Region
<b>1570</b>	WWSZ		New Albany	WNDA	
1600	WOKB	FL	Ocoee	WLAA	1100 0111
			[CP moving from V		11 12 1111
1620	WWLV		South Bend	WPNT	(0.1)
1680	WLAA	FL	Winter Garden	WOKB	,
			<u>CF</u>	es ON THE AIR	
1420	WRCG	GA	Columbus - Now	<b>on with U1 5000/79</b> from a r	new tower.
1460	WZNZ	FL	Jacksonville - Nov	w on with U2 15000/5000.	
1600	WATX	TN	Algood - Now on	with U1 2500/20. [correction	from last issue]
			CPs N	NOT ON THE AIR	
1670	<b>CBEU</b>	QC	Gatineau - An iter	m reported here in Issue 27 s	saying that this new X-Band
			station was on the	air but it seems that our so	urce has, once again, jumped
				Larnon sends word that CBI	
				<u>ACTIONS</u>	
600	CKBD	NS	Halifax - CP grant	ed to move to 100.5 FM with	n 11 kW ERP.
690	<b>CBDS</b>	MB	Pukatawagan - Th	e CRTC has approved the ap	plication by the CBC to oper-
				tter here to replace its AM tr	
			will operate at 102	.5 MHz with an ERP of 200 w	vatts. The CBC indicated tha
			the FM transmitte	r is intended to replace its e	xisting CBDS- AM transmit
				ly, the Mathias Colomb Cree	
				hat the CDDC (transmitter)	

980	WHAW	<b>WV</b> Weston - CP granted for U1 25000/47, amended from U1 25000/49.
000	CLOIL	ON D ( 1

be history.

**ON Peterborough - CP granted to move to FM**, but on a frequency different from 980 CKRU 96.7 MHz for which they applied.

advised the CBC that the CBDS (transmitter) site is contaminated and they will proceed to decontaminate it by June 2008. The CBC stated that the FM transmitter needs to be operational by this date. The CBC further advised the Commission that there will be no simulcast period. So . . . bottom line . . . chances are that by the time this notice hits your mailbox, CBDS on 690 will

			3
1010	WIOO	PA	Carlisle - CP granted for U4 5000/60. Station will add two towers to its
			current single stick at N40-09-30 W77-11-49. The day pattern will shoot the
			signal north, while at night it will be headed south.
1100	WISS	WI	Berlin - A CP mod has been granted for D1 2500/0 CH 1600, overriding a
			previous grant for D3 14000/0.
1120	WTWZ		Clinton - CP granted for D1 10000/0 CH 2500.
1120	NEW	TX	Manor - New station granted with U4 250/153 from four towers (4-day/3-
			night) at N 30-20-51 W97-31-23. The day pattern is headed west- northwest
1200	NEW	<b>37A</b>	while the back of the kidney-shaped night pattern is zeroed at St. Louis. <b>Bon Air - New station granted with U4</b> 50000/10000 from six towers (6-
1200	INLIV	VA	day/5-night) at N37-33-24 W77-41-50. Both patterns direct the signal to the
			southeast, although at slightly different headings. Bon Air is a west suburb
			of Richmond, so this new station should be well heard in the Norfolk area.
1230	CKDR-5	ON	Red Lake - CP granted to move to 97.1 MHz with 420 Watts.
1240	<b>WMFG</b>		Hibbing - CP granted for U1 490/490 from a newly-built, taller tower at the
			same site at N47-24-30 W92-57-04. WMFG shares the tower with KMFG-FM
			in Nashwauk, Minnesota and WMFG-FM in Hibbing. Taller tower = lower
			power to cover the same area.
<b>127</b> 0	WXGO	IN	Aurora - CP granted for D3 330/0 from six towers at N39-02-30 W84-56-28
			plus a change in CoL from Madison. The new coverage area is a slender pat-
1200	NEW	SC	tern directed east-northeast.
1300	INEVV	SC	Gloverville - New station granted with U4 2500/820 from three towers (using all 3 day and night) at N33-31-40 W81-49-18. Both patterns are directed
			to the SSE.
1320	NEW	CO	Keystone - New station granted with U4 1000/500 from three towers (3-
			day/2-night) at N39-36-46 W106-00-05. The day pattern is directed to the
			southwest, while the night pattern favors the southeast.
1340	NEW	ID	Wendell - CP granted for U1 250/250 at N42-45-58 W114-39-29.
1350	WCHI		<b>Chillicothe -</b> Coordinate correction to N39-19-16 W82-57-09.
1380	KRKO	WA	Everett - CP granted for U2 34000/50000 from four new towers at N47-52-
			<b>32 W122-04-42</b> . The new night pattern is somewhat elliptical headed to the
1400	WEOD	MC	northwest.
1400 1420	WFOR CKPT		Hattiesburg - Coordinate correction to N31-20-06 W89-19-35.  Peterborough Has made the move to 99.3 MHz as CVPT FM Energy 93 point
1420	CKFI	ON	<b>Peterborough - Has made the move to 99.3 MHz</b> as CKPT-FM <i>Energy 93 point</i> 3.
1450	CKDR-4	ON	Ear Falls - CP granted to move to 97.1 MHz with 420 Watts.
020	MCEZ		AMENDMENTS TO CONSTRUCTION PERMITS  Lealing in Progression and differentiate to their CR (a.m. 112, 5000/2000 to 112)
930	WSFZ	MS	<b>Jackson -</b> Requests a modification to their <b>CP for U2</b> 5000/3600 to U2 3800/3100.
1340	NEW		<b>Bend -</b> CP mod requested for U1 1000/500, up from <b>U1 250/250</b> .
1380	KRCM	TX	<b>Shenandoah -</b> Applies for a modification to their <b>CP for U1 250/69</b> to U4
			10000/35. This is in addition to their change in CoL from Beaumont.
			<u>APPLICATIONS</u>
540	WETC	NC	Wendell-Zebulon - Applies to increase their day power to become U4
			10000/400.
800	KINY	AK	<b>Juneau -</b> Applies for U1 10000/7600. A TV antenna mounted atop, but not
			isolated from, the KINY tower was not taken into consideration when com-
			puting antenna height, therefore a reduction of 200 nighttime Watts. Then
000	1/13/13/	A T/	one day later
800	KINY	AK	<b>Juneau -</b> Applies for an STA of U1 2500/2500. Quoting from the application: "The electrical grid that serves the town of Juneau, including the KINIV

tion: "The electrical grid that serves the town of Juneau, including the KINY transmitter site, is heavily dependent upon hydroelectric power from electric generators located at the Snettisham Dam, in Juneau Borough, some 30-odd air miles to the Southeast of the built-up town area. On April 16, snow slides roared out of the mountains some 25 miles southeast of the town, uprooted transmission towers, and destroyed 1.5 miles of the high-voltage transmission line that links the community of 30,000 to the hydroelectric plant. As a result, the town is now totally dependent upon emergency power from diesel-driven generators. There is a limited stock of diesel fuel on hand, and

replenishment supplies must come via barge from refineries a great distance away. In light of this, the Juneau Commission on Sustainability has asked all residents and businesses to conserve electricity to the maximum extent possible. Also, due to the high cost of operating the emergency power generators (and of replenishment supplies of diesel fuel), the cost of electricity is expected to quintuple in the short term. It is estimated that it will take two to three months to repair the downed high tension lines and to restore normal hydroelectric service to Juneau." [See update below]

1350	KTIK	ID Nam	pa - Applies for U	2 25000/600.
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1490	<b>KWOK</b>	WA	Hoquiam	- Applies for U1 1000/8	20.
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<sup>1570</sup> WECU NC Winterville - Applies for U1 8000/200.

NEW CA Jackson - Applicant for a new station on 1340 here has requested an STA to operate D1 250/0 for a period of one week to do ground conductivity testing in support of its application for the 1340 station. Since there is usually no advance 'warning' of STAs being granted or instituted, those of you in the vicinity of Jackson (located about 25 miles southeast of Sacramento) might want to check 1700 kHz occasionally. The applicant stipulates that the carrier of the test transmitter will be unmodulated, except for hourly station ID.

### **AMENDMENTS TO APPLICATIONS**

1120	NEW	<b>TX</b> Manor - Requests an application modification to be U4 250/153.
1430	NEW	MI Marquette - Requests an application modification to be U2 50000/2000.
<b>1560</b>	WTOD	<b>OH Toledo -</b> Deletes CH operation from its application, now to be U4 4300/2.

### **APPLICATIONS FOR NEW STATIONS**

<b>1240</b>	NEW	<b>AZ</b> Prescott - U1 1000/1000.
1400	NEW	<b>GA</b> Clayton - U1 250/250.
1490	NEW	<b>TX</b> Alpine - U1 1000/1000.
1520	<b>NEW</b>	AL Fultondale - Applies for U4 6000/200.



### LICENSE RENEWALS GRANTED

930 KKXX CA Paradise

**CBU** 

690

### **RECONSIDERATION REQUESTS**

**1540 NEW FL Southchase -** Application for U4 7000/300.

### **RECONSIDERATION REQUESTS GRANTED**

560 WCKL NY Catskill - License reinstated following deletion.

**1270 WTJZ VA Newport News -** APP for U4 15000/1800 [initially dismissed but resubmitted with new technical data].

### **RECONSIDERATION REQUESTS DENIED**

**1500 KIEV CA Culver City -** After an original CP was issued on October 23, 1984, and after ten amendments and postponements over the past 24 years, the FCC has denied the latest request for reconsideration. As of now, scratch this one from your AM Logbooks.

#### **DISMISSALS**

		coverage area of the FM signal. This CBC station will remain on the air.
890	<b>WWOF</b>	GA Lithia Springs - Application for CH portion of this CP moving from 1000 at
		Walhalla, leaving them with a CP for D1 5000/0.

**BC** Vancouver - Application to move to FM was denied due to lack of intended

1150 KBPO TX Port Neches - License renewal.

1220 WGNY NY Newburgh - Application for U1 1250/45. WGNY remains U2 5000/180.

**1250 KHIL AZ Willcox** - Application to move to 1260 kHz at Kearny with D1 10000/0.

**1270 WHEO VA Stuart -** Drops their 'plans' to add night service as U1 5000/95.

**1370 KAWW AR Heber Springs -** Drops their 'plans' to add night service as U1 1000/71.

1480 WISL PA Shamokin - License cancelled and call deleted...

### **HEAR AND THAR**

□ **OFF the air: CJCH-920 Halifax, Nova Scotia** has turned the AM transmitter to the OFF position, as their new FM station on 101.3 has signed on with a CHR format. So much for the usual three

month simulcast period; WSLK-880 Moneta, Virginia; WOLH-1230 Florence, South Carolina; KWAK-1240 Stuttgart, Arkansas; WHYM-1260 Lake City, South Carolina; WRLM-1480 Irondale, Alabama; WGEN-1500 Geneseo, Illinois (probably permanent as the tower site is being developed for retail sales, and programming has moved to co-owned FM 102.5); WMCW-1600 Harvard, Illinois (the result of co-owned and near-by WONX-1590's power upgrade. WMCW has an Auction 84 application to move to 'suburban' Wausau, Wisconsin on 1180. PS - Anyone know what the "MCW" in those calls stand for? Answer buried below).

□ Back on: WCIS-760 Morganton, North Carolina with Southern gospel; KQAQ-970 Austin, Minnesota has returned to the air with a Classic Country format and Fox News on the hour; KLTK-1140 South West City, Missouri; and KBYO-1360 Talullah, Louisiana [calls corrected from last issue].

□ JUNEAU UPDATE. According to the *Juneau Empire* dated June 3, 2008: "Juneau's hydroelectric power has been restored. The city is no longer running on costly diesel. Alaska Electric Light & Power Co. spokesman Scott Willis said the power was back online at 9:17 p.m. Sunday. That's on the early side of last week's estimate from the utility company that the line would be repaired early to midweek this week, and much earlier than the company's original late-July estimate." So we can assume that KINY is back on regular power.

□ FINES: \$7000 to KINO-1230 Winslow, Arizona for filing their renewal application in an untimely manner; \$8000 to Phillips Broadcasting (WFOY-1240 & WAOC-1420) of St. Augustine, Florida for public file violations; and \$8,000 to WBLT-1350 Bedford, Virginia for unauthorized control of the station (it's a long story on that one).

☐ The CBC stations in Windsor, Ontario, CBEF-540 and CBE-1550, have been granted 'nested' FM transmitters. CBE will be rebroadcast on 102.3 MHz with 690 Watts ERP, while CBEF will be on 105.5 MHz with 620 Watts ERP.

☐ WHAV Lives On (at least the call letters): An Internet audio service says it has won protection for the call letters WHAV so that no radio station can "steal" part of the local community's heritage. "The U.S. Patent and Trademark Office has awarded WHAV federal protection from service mark infringement," states the station. "Federal registration was sought to ensure the call letters would forever be associated with audio broadcasting in Haverhill, Mass." It explains that these calls were once used by the Haverhill Police shortwave station, and later turned over to a broadcast station in 1947. The organization has posted an extensive and interesting history of the call letters and its related owners at http://www.whav.net/vintage.html. "The letters remained in use through several owners until 2002, when they were abandoned. COCO+CO. received a service mark for the call letters in 2004 for its Internet and cable television station from the Commonwealth of Massachusetts." WHAV President/GM Tim Coco says in the announcement, "Federal registration of the WHAV name was necessary to prevent another radio station elsewhere in the country from adopting the calls and stealing a portion of Haverhill's heritage." The company airs a "Soft Gold" format online and says it has a strong Web presence as well as access to cable subscribers in several local communities. It said the application for a service mark was reviewed and approved by the Commissioner of Patents and Trademarks.

☐ Thanks to Shawn Axelrod, Perry Crabill, Wayne Heinen, Deane McIntyre, Radio World Online and Upper Midwest Broadcasting.com for tidbits/updates/corrections. Answer to our quiz: "The Milk Capital of the World".

### **GRAVEYARD DX UPDATE**

\* record held by DXer from North America (excluding Alaska)

4040 1 TT

+ record held by a DXer in USA/Canada where a Canadian/USA record exceeds that mileage

1240 kHz	<u>z</u> :				<u>Miles</u>
WNBZ	NY	Saranac Lake	Jeff Falconer	Clinton, ON	373
KCCR	SD	Pierre	Neil Kazaross	Barrington, IL	+ 631
1400 kHz	<u>z</u> :				
WEOA	IN	Evansville	Jeff Falconer	Clinton, ON	+ 512
WIEL	KY	Elizabethtown	Jeff Falconer	Clinton, ON	* 469
<b>KMHL</b>	MN	Marshall	Jeff Falconer	Clinton, ON	+ 709
WOND	NJ	Pleasantville	Jeff Falconer	Clinton, ON	+ 467
WICK	PA	Scranton	Jeff Falconer	Clinton, ON	+ 336
WJZM	TN	Clarksville	Jeff Falconer	Clinton, ON	+ 579
WHUB	TN	Cookeville	Jeff Falconer	Clinton, ON	+ 556
WXAM	VA	Charlottesville	Jeff Falconer	Clinton, ON	+ 418

**TOTALS:** 

Jeff Falconer Clinton, ON

6					
1450 kHz	<u>z</u> :				
WCUM	CT	Bridgeport	Barry McLarnon	Ottawa, ON	+ 315
WILM	DE	Wilmington	Jeff Falconer	Clinton, ON	+ 410
WFMB	IL	Springfield	Barry McLarnon	Ottawa, ON	+ 804
WKTQ	ME	South Paris	Barry McLarnon	Ottawa, ON	+ 270
WNBP	MA	Newburyport	Barry McLarnon	Ottawa, ON	* 301
WIBM	MI	Jackson	Barry McLarnon	Ottawa, ON	+ 483
WNBY	MI	Newberry	Barry McLarnon	Ottawa, ON	+ 473
WHLS	MI	Port Huron	Barry McLarnon	Ottawa, ON	+ 369
KOKO	MO	Warrensburg	Jeff Falconer	Clinton, ON	+ 716
KWPM	MO	West Plains	Barry McLarnon	Ottawa, ON	* 1025
WCTC	NJ	New Brunswick	Jeff Falconer	Clinton, ON	+ 424
WPSE	PA	Erie	Barry McLarnon	Ottawa, ON	+ 308
WFRA	PA	Franklin	Barry McLarnon	Ottawa, ON	+ 341
WMAJ	PA	State College	Barry McLarnon	Ottawa, ON	+ 331
WHSC	SC	Hartsville	Jeff Falconer	Clinton, ON	+ 645
WMOC	TN	Chattanooga	Jeff Falconer	Clinton, ON	+ 625
WSMG	TN	Greeneville	Jeff Falconer	Clinton, ON	+ 519
WFTR	VA	Front Royal	Barry McLarnon	Ottawa, ON	+463
WREL	VA	Lexington	Barry McLarnon	Ottawa, ON	+ 558
WHNK	WV	Parkersburg	Barry McLarnon	Ottawa, ON	* 512
WRCO	WI	Richland Center	Jeff Falconer	Clinton, ON	+ 444
1490 kHz	<u>z</u> :				
WPNA	IL	Oak Park	Jeff Falconer	Clinton, ON	+ 339
WNDU	IN	South Bend	Jeff Falconer	Clinton, ON	+ 273
KRIB	IA	Mason City	Jeff Falconer	Clinton, ON	+ 587
WSIP	KY	Paintsville	Jeff Falconer	Clinton, ON	+ 407
WBAE	ME	Portland	Kraig Krist	Manassas, VA	+ 507
WODJ	MI	Whitehall	Jeff Falconer	Clinton, ON	+ 241
WBTA	NY	Batavia	Jeff Falconer	Clinton, ON	+ 174
WKNY	NY	Kingston	Jeff Falconer	Clinton, ON	+ 400
WDLC	NY	Port Jervis	Jeff Falconer	Clinton, ON	+ 383
WWBN	NC	New Bern	Kraig Krist	Manassas, VA	+ 246
WERE	OH	Cleveland Heights	Jeff Falconer	Clinton, ON	+ 145
WNTJ	PA	Johnstown	Jeff Falconer	Clinton, ON	+ 265
WLPA	PA	Lancaster	Jeff Falconer	Clinton, ON	+ 365
WDXB	TN	Chattanooga	Jeff Falconer	Clinton, ON	+ 625
WTXS	WV	Fairmont	Jeff Falconer	Clinton, ON	+ 295
WLFN	WI	La Crosse	Tim Hall	West Bend, IA	+ 172
WOSH	WI	Oshkosh	Jeff Falconer	Clinton, ON	+ 349
CHYM	ON	Kitchener	Jeff Falconer	Clinton, ON	+ 64
			•	,	
TOTALO			1000 1040 1	1040 1400 1450	1400 TOTAI

[Remember, the TOTALS do NOT reflect the number of records held. They are the number of stations DXed on each of the Graveyard channels. Check out the Totals column at and see if your latest efforts are listed there. If not . . . send 'em in! But keep in mind the Graveyard DX minimum mileage is 60 miles.]

1240

45

1340

56

1400

59

1450

58

**1490 TOTAL** 

324

53

**1230** 

53

It's time for volunteers to help proof the 29th edition of the NRC AM Log!
Wayne says: "Hard to believe that it is almost June 1 and the August 1 deadline for changes to the NRC AM Radio Log database is growing near. Anyone wishing to help proof a geo-

graphical area in the USA and Canada should let me know.

"The easiest way is to proof it and send it back and forth is for me to send a Excel spreadsheet or a Word document. If you change a piece of data, change the font color to red or blue, and then I will know what fields to update. Just let me know which format will work for you!

"For snail mailers, just drop me a note with the areas and I'll send a Log type print out that can be annotated and returned via snail mail

"E-mail me at <amradiolog@nrcdxas.org or write NRC Log, P.O. Box 473251, Aurora, CO 80047-3251." 73 - Wayne Heinen, Editor, NRC AM Radio Log

# Domestic DX Digest

West: Bill Dvorak westlogs@aol.com
3358 Ridgeway Ave. - Madison, WI 53704-4327

(Division line is between East

and Central time

East: Mike Brooker aum108@idirect.com

99 Wychcrest Ave - Toronto, Ontario M6G 3X8 CANADA



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

## **DDXD-West**

### FROM THE VAST WESTLAND

- Mow-- it's been *five weeks* since the last issue of *DX News* reached your mailbox! The best place to take a nap in the Dvorak household the last few weeks has been at the DDXD-West editor's desk. Having said that, I hasten to add that we are very grateful for the nice turnout, fine loggings and great station news items that you see below. Thank you, reporters, for all the great work!
- Our DDXD-W reporters have done a great job of keeping us up-to-date on what AM stations are broadcasting in IBOC in their markets. This time **Bruce Winkelman** checks in with the latest on Tulsa. "Well, Tulsa has four IBOCers now. KFAQ 1170 was noted with IBOC for the first time last evening (6/4), making 1160-1210 a real mess with WOAI 1200 TX also in there. KAKC 1300 noted this evening (6/5) on the drive home with IBOC. They had turned the IBOC off over a year ago. So Tulsa IBOC stations are: KFAQ 1170, KAKC 1300, KMUS 1380 and KTBZ 1430." Thanks, Bruce! To our readers: please keep us updated on the IBOC scene in your market.
- ♠ Wow, it'll be five weeks until the next issue of DX News reaches your mailbox! I guess it is time to fluff up the pillow that sits on the DDXD-West editor's desk. Please try to keep me from overnapping-- I look forward to your loggings! 73 Bill

### Reporters

DP-CA1	<b>Dale Park, DXing in Hayward.</b> Honda car radio.
DP-CA2	Dale Park, DXing in Fairfield, Honda car radio.

**DP-CA3 Dale Park, DXing in Vacaville.** Honda car radio.

**DP-CA4 Dale Park, DXing in Fremont.** Honda car radio.

**DP-HI Dale Park, Honolulu.** Station news.

**GH-IL Greg Harris, Park Forest.** Icom R75 / Quantum loop or Hula Hoop loop, or SRF59 / Internal ferrite rod antenna.

**JEL-MO J. E. Lewis, Kansas City.** Grundig G5, Select-A-Tenna, or Honda Odyssey radio.

**JJR-WI John J. Rieger, South Milwaukee.** Icom IC-R75, Kiwa loop, MFJ-959B tuner-preamp.

JRT- MO John Tudenham, Joplin. Station news.

**JW-CO John Wilkins, Wheat Ridge.** Drake R-8, 4-foot box loop.

**KO-IL Ken Onyschuk, Lockport.** Station news.

**MLP-NE Mike Plumb, Papillion.** Ten-Tec RX-350D, Quantum QX loop, MFJ 959B DSP filter, Quantum QX loop, plus 30' square loop placed close by the other antenna.

**WH-CO** Wayne Heinen, Aurora. Drake R8B, Modified 4' NRC Altazimuth loop, DX Engineering RPA-1.

Ed.-WI Your editor, Madison.

### Station News

600 CKBD BC Vancouver. Per *Vancouver Sun*, the CRTC has approved three new FM stations for metro Vancouver, one on 100.5 to replace CKBD. Ironically, all three FMers will air variations of the adult album alternative (AAA) format. (DP-HI) (Speculation has already begun that someone will step forward to claim the 600 frequency-- perhaps one of the other area stations, perhaps an ethnic broadcast organization. Stay tuned. Ed.-WI)

690 CBU BC Vancouver. According to Dean McIntyre on the NRC listserv, in the same decision authorizing CKBD's move to FM (see above) the CRTC approved the move of CBU to 88.1 FM, 8.9 kW. But as Dean points out, the decision contained "...a twist. The CBC had also applied for FM transmitters at Gabriola Island and Nanaimo, which at present are served by CBU but would not receive a reasonable signal from the new Vancouver FM transmitter. Given the lack of FM frequencies in the area, these applications were denied. The

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			CRTC also pointed out that even with the Gabriola Island and Nanaimo FM transmitters, many areas which presently receive CBU would be without CBC Radio service if CBU went silent. So it appears that CBU will remain
			in operation on AM and will simulcast the new FM station." Score one for
700	WEEL	AL	Canadian AM! (EdWI)  Dothan. Per Radio-Info.com, station has switched from "Oldies 700" to "Gospel 700" after a station sale. The sale also included translator station W261AT on 100.1 FM, which relays WEEL during the day but otherwise has its own
750	KXL	OR	programming. <b>(DP-HI) Portland.</b> Adds Glenn Beck 5/12 per Premiere Radio Networks news release 5/8. Station airs it delayed at 2107-2400. <b>(DP-HI)</b>
770	KTTH	WA	<b>Seattle.</b> Per <i>Seattle Post-Intelligencer</i> , station adds "Best of Clark Howard" Saturdays 2007-2300 and moves Kim Komando to Sundays 1207-1500. ( <b>DP-HI</b> )
920	KBAD	NV	<b>Las Vegas.</b> Adds "Costas on the Radio" per Premiere Radio Networks news release 5/21, airing Sundays 2006-2200. <b>(DP-HI)</b>
950	KKFN	CO	<b>Denver.</b> Per <i>Rocky Mountain News</i> , station ended the simulcast with 104.3 FM (see DDXD-W #75-26 <b>EdWI</b> ) 5/30 and is just running a tape loop directing listeners to FM. No word on if KEPN 1600 will move to 950. <b>(DP-HI)</b>
970	WJFN	MS	<b>Brandon. 5/19.</b> Per Radio-Info.com, station dropped Real Country and callsign WZQK and is now Sporting News Radio, sometimes // WSFZ 930. This makes it five sports stations in Central Mississippi. <b>(DP-HI)</b>
1100	WZFG	MN	<b>Dilworth.</b> Per <i>Grand Forks Herald</i> and Premiere Radio, station will switch from C&W to conservative talk featuring Rush Limbaugh (a friend of the station president). WZFG broadcasts with 50 kW. Station will be known as
1210		4.5	"AM 1100 the Flag" and be located at 64 Broadway, Fargo 58102-4934. Station president claims the signal will cover 100,000 square miles. ( <b>DP-HI</b> ) (Calls are new, ex-WZFN. Apparently the station, which has tested periodically in the past, is currently silent. According to the station's website http://www.am1100.tv, it will return sometime in July. <b>EdWI</b> )
1240	KWAK	AK	<b>Stuttgart.</b> A 5/12 post by <b>Fritze Prentice</b> on the WTFDA listserv revealed that this station was forced off the air on 5/10 due to power outages when a tornado hit Stuttgart. After reading a later report that the station was still off air, I asked Fritze if he could confirm the on-air status of the station and if he knew what kind of difficulty they were having. On 6/5 he confirmed that the station was still off the air. Fritze phoned the station, but station personnel were tight-lipped as to what the trouble was and its possible return date. <b>(EdWI)</b>
1240	WAVN	MS	
1250	WHNY	MS	McComb. Per WLBT-TV channel 3 (Jackson MS) website, station went off the air 5/6 due to vandals destroying the transmitter and stealing the breaker box. The engineer suspects copper thieves. This follows recent thefts of copper from WLBT-TV's transmitter site and another Jackson TV station. WHNY was previously off for nearly a year following Hurricane Katrina. (DP-HI)
1260	KGIL	CA	<b>Beverly Hills.</b> Per Radio-Info.com, station adds Michael Savage 5/19 on tape at 1000, replacing Neil Boortz. <b>(DP-HI)</b>
1290	KWFS	TX	<b>Wichita Falls.</b> Adds "Kim Komando Radio Show" per program message board 5/19; show airs Saturdays at 1607. <b>(DP-HI)</b>
1360	KMNY	TX	<b>Hurst.</b> Per Nova M Radio news release and Itradio.blogspot.com, the Biz Radio Network will move to another station (presumably KJSA 1110) 7/1 and the liberal talk that had been airing weeknights will expand to fulltime, featuring Randi Rhodes. <b>(DP-HI)</b>
1380	KRKO	WA	<b>Everett</b> . Per <i>Everett Herald</i> , station has received a CP to build four towers (one 349 feet tall, the others 199 feet tall each) on a 40-acre site in the Snohomish River Valley. KRKO hopes to be on the air by the end of July with 34 kw day-time (reaching from Tacoma to Mount Vernon) and 50 kw night. However, opponents of the new tower site still hope to stop the county from allowing
1450	NEW	СО	KRKO to install two more towers for a new sister station on 1520. ( <b>DP-HI</b> ) <b>Glenwood Springs.</b> Per Glenwood Springs <i>Post-Independent</i> , United Min-

			istries has been awarded the 1450 frequency and plans to relay KJOL 620. <b>(DP-HI)</b> (According to the FCC database, this remains an application. The <i>Post-Independent</i> article goes on to say that, although the FCC ruled in favor of the United Ministries application over a competing application in Vail, a CP has not been issued yet. <b>EdWI</b> )
1450	KHIT	NV	<b>Reno.</b> Adds "Costas on the Radio" per Premiere Radio Networks news release 5/2. <b>(DP-HI)</b>
1500	WGEN		<b>Geneseo.</b> Per Radio-Info.com, station signed off for good 5/15 after over 40 years. A developer bought the transmitter site. Station was automated, and the programming (and website) have been transferred to sister station WJRE-FM 102.5 Galva IL. <b>(DP-HI)</b>
1560	WMBH	MO	<b>Joplin.</b> Silent now for three months, probably gone. Owes everyone including the engineers. <b>(JRT-MO)</b>
1580	WKKD	IL	Aurora. Noticed on Sunday afternoon 5/4 while driving locally that 1580 WKKD was gone, and noted the next day that they were still silent. The station has a CP to move to Silvis IL, near Moline in the Quad Cities area and 150 miles west of current location. I thought that perhaps they had completed the move. I e-mailed Bob Feder at the <i>Chicago Sun Times</i> paper about this. He wrote back that WKKD has not moved, but that its owner Kovis Communications permanently shut down sister station WMCW 1600 (see below). I noted WKKD back on Tuesday 5/6. <b>(KO-IL)</b>
1600	WMCW	IL	<b>Harvard.</b> Robert Feder's <i>Chicago Sun Times</i> media column of 5/6 sheds a little more light on what <b>Ken Onyschuk</b> revealed above about this station. Kovis communications turned off this station's switch very quickly and without warning, ending a 53-year history of serving the small community of Harvard on the far northwest fringe of suburban Chicago. Owner Kovis has long-range plans to move both WKKD 1580 and WMCW (to Weston WI) to clear adjacent frequencies of a third Kovis station in the Chicago area, ethnic WONX 1590 Evanston IL. <b>(EdWI)</b>
1600	KOKE	TX	<b>Pflugerville.</b> Per Radio-Info.com, station is now relayed on translator K274AX 102.7 FM in Austin. <b>(DP-HI)</b>
1660	KXTR	KS	<b>Kansas City.</b> According to news sources, a teenager apparently climbed on top of their building during the night of 5/16 and then went up their tower. The body of the deceased was discovered the next morning. ( <b>JEL-MO</b> )
700	KALL	UT	Regular DX Loggings (times in ELT)  North Salt Lake City. 5/8 0722. Tom Barberi show in progress; traffic at 0730,
740	KCBS	CA	followed by ads and program notes. Fair with some fading. (JW-CO)  San Francisco. 5/27 1259. New ID: "What Happened, and Why, KCBS and  KCBS HD San Francisco Oakland San Jose": CBS news HD was an CDB
790	KGHL	MT	KCBS-HD San Francisco-Oakland-San Jose"; CBS news. HD was on. ( <b>DP-CA1</b> ) <b>Billings. 5/14 0659.</b> Out of C&W with legal ID at 0659:50: "We're your home for Lonnie Bell's Classic Country, the Mighty 790 KGHL AM Billings;" CBS news followed at 0700. Fair. ( <b>JW-CO</b> )
840	KMPH	CA	Modesto. 5/27 1621. PSA for festival in Riverbank, back to "Dr. Laura" adver-
910	KVIS	OK	tising her four-day West Coast cruise, //KSFO 560. Fair to good. ( <b>DP-CA2</b> ) <b>Miami. 5/2 2259.</b> Fair to poor signal. At 2259:30 religious music, ID: "You're listening to KVIS 910 AM Oklahoma"; network news followed. Was unable to hear the name of the city in the ID because of the jumble of stations underneath. Moderate fading; station was just ahead of the others on 910.
930	KKXX	CA	Station faded into the jumble after the start of the news. New! (MLP-NE)  Paradise. 5/27 1624. "Dave Ramsey Show," ad for his directory of recommended real estate agents, woman with liner "KKXX AM 9-30, Real Talk for the North Valley," Wachovia ad. Fair; QRM from KNEW 910 HD splatter. (DP-CA2)
970	KBUL	MT	<b>Billings. 5/14 0710.</b> 1-800 ad for credit card debt relief; at 0711 guy says "Glenn Beck weekdays at 4 on News Radio 970 KBUL." Fair in QRM. (JW-CO)
1070	KVKK	MN	<b>Verndale.</b> 5/19 0500. Weak out of C&W. KVKK, Verndale and Mankato mentions; "AM 1070" to AP news. New and taped. (WH-CO)
1130	KRDU	CA	<b>Dinuba.</b> 5/15 0730. Program note; then man says "Serving central California since 1946 KRDU 1130. Find us online at krdu1130.com"; into religious

10			
			program at 0731. Fair. (JW-CO)
1240	KSLV	CO	Monte Vista. 5/25 0000. Out of C&W to ABC news; dominant. (WH-CO)
1240	KRJY		Sacramento. 5/27 1645. Urban AC gospel song, mention of "Rejoice Rewind,
1210	1111,1	<b>U</b> 11	Musical Soul Food," into funk gospel; white-accented man with "The all new
			Rejoice 12-40 KRJY news and traffic," slogan and ID "Rejoice 12-40, Musical
			Soul Food, KRJY Sacramento"; listener testimonial; into male DJ with "Af-
			ternoon Praise" show starting off with rap gospel. Last heard as liberal talk
			KSAC. Good. (DP-CA2)
1260	KSFB	CA	San Francisco. 5/27 1820. "Catholic Answers Live" talk show with host Carl
			// KWG 1230 (did not check if KSMH 1620 was also in //). Last heard as
			AC KOIT; callsign was previously on 1220. Good. (DP-CA3)
1290	<b>KPAY</b>	CA	Chico. 5/27 1832. Man phoning in stock market report, man with weather,
			Wells Fargo ad, ad for GOP candidate for State Assembly; back to Lars Larson.
			Poor; heavy QRM from KWSX 1280 HD splatter; before HD this station had
			a fair signal. (DP-CA3)
1310	WIBA	WI	Madison. 5/15 2057. Good with calls, but faded quickly under unIDs and
			Joplin. Rare here. (JEL-MO)
1350	KWMO		Washington. 5/24 2130. Local ads. Decent signal. (GH-IL)
1360	KBUY		<b>Ruidoso.</b> 5/20 0100. Up briefly with call ID to Fox news. (WH-CO)
1420	WKPR	MI	<b>Kalamazoo.</b> 5/5 0730. Local advertisement; phone number had 269 area code.
			In WIMS null. Fair signal. New. (GH-IL)
1460	KXNO	IA	<b>Des Moines.</b> 5/4 0500. ID "1460 KXNO, good morning" by a male announcer.
4==0	X47.4 (73.4)	<b>.</b>	Briefly good signal, then dove into the noise. New. (GH-IL)
1550	WAZX	GA	Smyrna. 5/6 0434. Fair in fade-up with "La Que Buena" over and over and
			over, at least six times! This has been in and out over the past 4-5 months and
1550	KYAL	OK	I finally caught a slogan, hi. 500 watts. (JJR-WI)
1550	KIAL	UK	<b>Sapulpa.</b> 5/6 0440. Poor. "AM 1550, FM97.9 the Sports Animal" with Sporting News Radio. Slogan again at 0459. 40 watts. (JJR-WI)
1550	WZRK	WI	<b>Lake Geneva.</b> 5/18 0635. ID and location and sign-on statement by a male
1550	WZIKIK	**1	announcer. Fair signal. New. (GH-IL)
1550	KYCY	CA	San Francisco. 5/28 1856. Aerosmith's "Lovin' an Elevator," "K-You" slogans
1000	11101	<b>C</b> 11	and promos for financial shows; finally a legal ID at 1905 "KYCY San Fran-
			cisco" and brokered program "Inves-Talk." (DP-CA4)
1560	KGOW	TX	Bellaire. 5/4 2050-2100. Good to excellent with local sports, ad for having
			your event at a crawfish restaurant, mention of the only local sports station
			in Houston. They have a major lobe in my direction but were gone at pattern
			change. (JEL-MO)
1570	WILO	IN	Frankfort. 5/7 0548. Poor to fair over everything else with calls said three
			times. Nostalgia format. (JJR-WI)
1570	KCVR	CA	Lodi. 5/28 1858. SS Mexican pop music; ID in SS (no EE) "Kah-ci-veh-err
			Lodi" into romantica music. Poor; area QRM. (DP-CA4)
4 = 0 0	<b>TATES</b> T	T 4 7 F	

### by a male announcer. Fair in CKDO null. New. (GH-IL)

1580

**WTTN** 

TIS, HAR, Etc.

530 WPJR991 CO Dumont. 5/26 2048. "You're listening to WPJR991 I-70, a service of the Colorado Department of Transportation." This one is the closest of the transmitters using that call along I-70; it's 44 air miles. First time heard at this QTH and on tape. (WH-CO)

WI Watertown. 5/18 2200. "Your home for CCN (missed), WTTN Watertown"

1300 WQGT278t CA Stockton. 5/27 1843. Tentative. NOAA weather mentioning Delta region, North San Joaquin Valley area, Jackson. Poor; over/under unID (KYNO?). (DP-CA3)

# **DDXD-East**

### **REPORTERS**

**EH-MA Eric Hopkins, Ayer** – Sony SRF-M35FP

**RWK-CT** Rick Kenneally, Wilton - Drake R8B, Sony ICF2010, Quantum Phaser and Loop, various long wires in the woods.

**KK-VA Kraig Krist, Manassas** – NRD-545, 12-foot homemade vertical dipole, 134-foot multiband antenna running NW to SE, Terk loop.

DP-HI Dale Park, Honolulu – station newsMKB-ON Mike Brooker, Toronto – Grundig G5, Sony SRF-39FP

(DP-HI)

			STATION NEWS
610	WIOD	FL	Miami - Adds "Costas On the Radio" per Premiere Radio Networks news
040	MELIC	-	release 5/21. (DP-HI)
810	WEUS	FL	Altamonte Springs – Per Radio-Info.com, station has dropped Scott Shannon's
			True Oldies format after only a few weeks and flipped to religious talk and
920	СЈСН	NS	brokered programming, under a new LMA. <b>(DP-HI) Halifax</b> – Per <i>Halifax Chronicle Herald</i> , moved from 920 to 101.3 FM and
720	CjCII	145	switched from oldies to Top 40 as "The Bounce." According to the newspaper,
			CJCH-AM had the second-smallest listenership of the 11 stations in metro
			Halifax. (DP-HI)
1020	<b>KDKA</b>	PA	Pittsburgh – Per Radio-Info.com, station now uses Ibiquity's HD IBOC system,
			sandwiched between two other CBS-owned stns with HD Radio, WINS-1010
			and WBZ-1030. (DP-HI) Oh won't this be fun! Not to mention CFRB-1010 get-
			ting hammered by KDKA's IBOC hiss in parts of southern Ontario. Mike.
1240	WSFC	KY	Somerset – Adds "Kim Komando Radio Show" per program message board
1050	MIZDI	<b>37A</b>	5/19; show airs Saturdays at 1307. ( <b>DP-HI</b> )
1250	WKDL	VA	<b>Vienna</b> - Per DCRTV.com, stn has dropped simulcasting SS WKDW-1460 "La Kaliente" and switched to C&W oldies, using the slogan "12-50 Classic
			Country." (DP-HI)
1300	WAVZ	СТ	New Haven - Adds "Costas On the Radio" per Premiere 5/21. (DP-HI)
1310	WBFD		<b>Bedford</b> - Adds "Costas On the Radio" per Premiere 5/21. <b>(DP-HI)</b>
1340	WQSC		Charleston (see also 1450 WQNT-SC Charleston) - Per Charleston Post-Courier
			and Radio-Info.com message board, station has picked up CNN Headline
			News from WQNT-1450, airing weekdays 0600-1000. (DP-HI)
1350	WNNG	GA	Warner Robins - Per Radio & Records and Radio-Info.com message board,
			flipped from standards to talk 5/07, featuring a simulcast of WMAZ-TV ch.
			13's 1700 news. Hosts include Bill Bennett, Michael Medved, Dennis Prager,
1370	WBTN	VT	Mike Gallagher, Laura Ingraham, Bill O'Reilly and Dennis Miller. <b>(DP-HI) Bennington</b> - Per Rutland Herald, a community group has bought the town's
1370	WDIIN	V 1	only radio stn from Southern Vermont College and convert it into a non-profit
			operation, but will keep its programming and continue to employ SVC stu-
			dents. (DP-HI)
1380	WELE	FL	<b>Ormond Beach</b> - Adds "Costas On the Radio" per Premiere 5/21. <b>(DP-HI)</b>
1410	WPOP		Hartford - Adds "Costas On the Radio" per Premiere 5/21. (DP-HI)
1450	WQNT	SC	Charleston - Per Radio-Info.com message board and Premiere Radio Net-
			work news release, WQNT has dropped news-talk and is all-sports again as
			"Sports Radio 14-50 The Team." WQNT increases Fox Sports Radio to 1900-
			0900 weekdays and "around-the-clock coverage on weekends", plus adds Jim Rome 1200-1500 and "Costas On the Radio." ( <b>DP-HI</b> )
1490	WKYW	KY	Frankfort - Adds "Kim Komando Radio Show" per program message board
1170	******	111	5/19; show airs Saturdays at 1407. <b>(DP-HI)</b>
	<b>WSVM</b>	NC	Valdese - Per Radio-Info.com, station has been sold to a pastor-lead group;
			format at present is oldies. (DP-HI)
<b>1500</b>	WWWT	DC	Washington - Per DCRTV.com, after Tony Korneheiser leaves the station,
			Neil Boortz moves from 1907-2200 to 1407-1600, Stephanie Miller expands
1500	TAZEN ANT	OII	to 0907-1200 6/30 and Jerry Doyle will be added at 1907. ( <b>DP-HI</b> )
1520	WDMN	ОH	<b>Rossford/Toledo</b> - Per Ohio Media Watch weblog and Radio-Info.com message board, they've dropped Christian programming and are now airing talk,
			featuring Bill Press and Stephanie Miller, and EZL music. Station slogan is
			"Dominion 15-20." (DP-HI)
1550	WNZF	FL	<b>Bunnell</b> - Per the <i>News-Journal</i> , Flagler County Broadcasting has received local
			approval to build two towers so that it can sign on by mid-July. WNZF will
			broadcast with 8.7 kW of power with "a news-talk format emphasizing local
			news, weather, emergency information and county events," simulcasting on
a===	TATE A 7 0 7 7	3 5-	106.3 FM. Offices will be at City Plaza on Moody Blvd. ( <b>DP-HI</b> )
1570	WWCK	MI	Flint - Adds "Costas On the Radio" Saturday 1906-2100 per Premiere 5/21.

12			UNID
1710	(Pirate?)		- 5/24 2340 – mambo music heard clear for two minutes then faded out. Been hearing this one fairly regularly here now. Most likely this is one of the Boston-area Caribbean or Haitian pirates. <b>(EH-MA)</b>
			LOGGINGS
1160	WSKW		<b>Skowhegan</b> - 4/30 0700 - Mixing with WVNJ-NJ with ESPN sports, then "AM 11-60 The Score" ID. New <b>(RWK-CT)</b>
	WODY		<b>Fieldale</b> - 4/30 1000 - Briefly but solidly on top with CDC spot "Know what to do about pandemic flu!", recorded ID, ESPN sports ( <b>RWK-CT</b> )
1340	WSTV	ОН	<b>Steubenville</b> – 5/27 0259 – mixing with oldies station, ToH ID by OM: "You're listening to ESPN Radio twelve ninetyWheeling and thirteen forty WSTV Steubenville". <b>(KK-VA)</b>
1350	WARF	ОН	<b>Akron</b> – 5/26 0155 – Sporting News Radio mixing with gospel station, ToH ID at 0300 "Thirteen fifty AM WARF Akronsports thirteen fifty" into sports scores. <b>(KK-VA)</b>
1360	WHJC	WV	<b>Matewan</b> – 5/25 0256 - Gospel programming mixing with other stations, ID by OM "Broadcasting from the twin towers you're listening to WHJC". <b>(KK-VA)</b>
	WNJC	NJ	<b>Washington Township</b> – 5/25 0212 – in mix with OM ID "This is thirteen sixty WNJC" <b>(KK-VA)</b>
	WDRC	CT	<b>Hartford</b> – 5/25 0304 – in mix with talk about Ted Kennedy, ID by OM: "Am sixteen sixty WDRC Hartford". <b>(KK-VA)</b>
1370	WSPD	OH	<b>Toledo</b> – 5/24 0155 – mixing with stations including WWCB with talk about price of oil, ad for buying gold, 0200 ID as " hear it now your news leader, thirteen seventy WSPD Toledo" into Fox News. <b>(KK-VA)</b>
	WWCB	PA	<b>Corry</b> – 5/24 0155 – mixing with WSPD et al, songs, "Isn't It Time" by the Babies, Billy Joel's "Just The Way You Are". ID at 0249, "AM thirteen seventy WWCB". <b>(KK-VA)</b>
1380	WKDM	NY	<b>New York</b> – 5/23 0155 – Chinese talk, OM in English "AM thirteen eighty WKDM New York" back to Chinese program. <b>(KK-VA)</b>
1390	WFBL	NY	<b>Syracuse</b> – 5/18 0156 – mixing with WPLM with oldies, "Solid gold radio" slogan. Noted ID by OM at 0159, " on thirteen ninety WFBLsolid gold radio". <b>(KK-VA)</b>
	WPLM	MA	<b>Plymouth</b> – 5/18 0210 – mixing with WFBL with local weather: "it's currently 62 in Seetalk, ( <i>sic</i> ) 60 in Floraville and 60 in Boston at today's QU 99.1". "QU 99.1" jingle, slogan "Yesterday's music, today's music 99.1" <b>(KK-VA)</b>
	WGRB	IL	<b>Chicago</b> – 5/21 0155 – endless gospel singing mixing with WFBL and WPLM. OM with "WGRB" ID noted at 0257. <b>(KK-VA)</b>
1400	WGTN	SC	<b>Georgetown</b> – 5/19 0155 – oldies, mixing with other stations. At 0214 OM " listening to the greatest hits right hereWGTN oldies station" ( <b>KK-VA</b> )
1410	KQV	PA	<b>Pittsburgh</b> – 5/15 0159 - mixing with other stations (including WRJD and unID ESPN Radio) with ToH ID: "This is your station for news. KQV Pittsburgh fourteen ten AM and worldwide at KQV dot com" into news, 0203 OM "Good morning, KQV news time is 2:03 AM. This hour's newscast from Pittsburgh's all exclusive news station begins in just a moment". <b>(KK-VA)</b>
	WRJD	NC	<b>Durham</b> – 5/15 0155 – mixing with KQV with seemingly endless gospel singing. ID at 0250: "Linda Greenwood 'Joy in the Morning' weekday mornings from 6 to 9 on 'The Choice' fourteen ten AM WRJD". <b>(KK-VA)</b>
1420	WTCR	WV	<b>Kenova</b> - 5/15 2324 - OM with "Fourteen twenty WTCR" ID into bluegrass music. <b>(KK-VA)</b>
	WVOT		<b>Wilson</b> - 5/16 0210 – gospel songs mixing with WHK. Noted ID as "WVOT fourteen twenty AM Wilson North Carolina". <b>(KK-VA)</b>
	WHK		<b>Cleveland</b> – 5/16 0218 – mixing with WVOT, slogan "Cleveland's choice for intelligent talk, News, talk fourteen twenty - fourteen twenty WHK". <b>(KK-VA)</b>
1430	WNSW	NJ	Newark - 5/16 0500 - OM with "AM Fourteen thirty WNSW Newark, New York City" ID into Hindu type music. (KK-VA)
1440	WGIG	GA	<b>Brunswick</b> – 5/8 0234 – mixing with several stations (including WHKZ) with "Coast to Coast AM", OM with ID and Limbaugh promo: " Rush Limbaugh weekday afternoons 'Real Radio' 1440 WGIG Brunswick". ( <b>KK-VA</b> )
	WHKZ	ОН	Warren – 5/8 0258 – religious programming, mixing with several stations, "the

			Manually VI (A a series of Colons Communication of the talls on Communication of
			Word". YL: "A service of Salem Communications" into talk on feminism on
			"The Truth That Transforms". (KK-VA)
1490	WBAE	ME	<b>Portland</b> – 5/6 0159 - mixing with many stations (including WWNB), ToH ID
			by man speaking with echo effect " fourteen ninety WBAE" (KK-VA)
	<b>WWNB</b>	NC	<b>New Bern</b> – $5/6$ 0220 - mixing with many stations (including WBAE), with
			slogan " Carolina Super ESPN Radio fourteen ninety AM" ToH ID noted
			at 0259: "ESPN WWNB fourteen ninety" (KK-VA)
<b>1510</b>	WPGR	PA	<b>Monroeville</b> – 5/29 2015 – gospel music with slogans "Pittsburgh's Gospel
			music" and "Pittsburgh's Gospel WPGR". (KK-VA)
<b>1540</b>	WNWR	PA	<b>Philadelphia</b> – 5/29 2013* - "Overcomer Ministry" into quick sign-off by
			OM, "Delaware Valley WNWR" into SSB. (KK-VA)
<b>1570</b>	WNSH	MA	<b>Beverly</b> – 5/13 0031 – more or less alone on frequency with promo for ad-
			vertising on station: "WNSH listeners are almost exclusively womenand
			we're offering this unique advertising opportunity to both local and national
			businesses, at a crazy low introductory rate of \$21.00 per month", men-
			tioned <u>ads@wnsh.com</u> e-mail. Allegedly 85 watts at night, but sure sounded
			like they were running their 30 kw day rig! Station's web site confirms their
			female oriented talk format. (MKB-ON)
<b>1590</b>	WGGO	NY	Salamanca - 4/27 0200 - Fair mixing with WKHZ-MD, ESPN NFL Draft
			coverage, 10 second break and station ID. New (RWK-CT)
1630	KCJJ	IA	<b>Iowa City</b> – 5/24 2349 – fair and stable signal with ads for University of Iowa
	33		Federal Credit Union and Blue Cross/Blue Shield of Iowa, ID as "sending a
			10,000 watt signal across the Midwest, this is the Mighty 1630 KCJJ", though
			their night power is only 1000 watts. (EH-MA)
1640	WKSH	WI	Sussex – 5/27 0437 – child's voice with "AM sixteen forty Radio Disney Mil-
			waukee". "Win, "Win, WinRadio Disney" and "Radio Disney is unlocking
			the doors to the ultimate Saturday night party" (KK-VA)
1670	WTDY	WI	<b>Madison</b> – 5/24 2329 – fair and stable with local news "from the WTDY
			Madison news desk", promo for production of "Barefoot in the Park" at the
			Fireside Theater. No sign of CJEU. (They're not on air yet with regular programs
			or tests. Mike) (EH-MA)
1680	WDSS	MI	Ada – 5/29 1943 – child with "AM sixteen eighty WDSS Radio Disney" ID
			into acco (VV NA)

proceeding program has been sponsored by 'Insight for Living'". Then OM "... on AM twelve twenty 'The Word'" (this is not a typo by me as WHKW is on 1220). YL with "WHKW Cleveland WHKZ Warren." OM: "Northern Ohio's

# International DX Digest

into song. (KK-VA)

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## Foreign DX Catches. All times are UTC

### Transatlantic DX

- 531 **SPAIN** *RNE5* synchros APR 23 0108 Parallel 621 with Spanish newstalk by man; poor over others. [Connelly-MA]
- IRELAND *Irish Christian Broadcasters*, Monaghan APR 23 0109 Not sure if this station is still active but the talk (by man and woman) definitely sounded English, not Arabic or German which would be the typical other possibilities on 549 here. [Connelly-MA]
- 576 **CANARY ISLANDS** // **SPAIN** *RNE5* synchros APR 23 0112 Talk parallel 621; poor. [Connelly-MA]
- 585 **SPAIN** *RNE1* Madrid (40°28′N 3°52′W) APR 23 0033 Parallel 621, 684 with remake of Brian Hyland hit "Sealed with a Kiss"; fair. [Connelly-MA]
- **PORTUGAL** *R.Renascença*, Muge (39°05′N 8°41′W) APR 23 0023 Portuguese teletalk by man and woman; poor. [Connelly-MA]
- 603 **SPAIN** *RNE5* synchros APR 23 0030 Parallel 585 with talk; poor to fair over others. [Connelly-MA]
- MOROCCO *RTM A*, Sebaa-Aioun (33°54′N 5°23′W) APR 23 0023 Shrill female vocal, then Arabic talk by man; fair. [Connelly-MA]

- 621 **CANARY ISLANDS** // **SPAIN** *RNE1* synchros, Santa Cruz de Tenerife et al. APR 23 0033 Parallel 684 with remake of "Sealed with a Kiss"; fair. [Connelly-MA]
- 639 **SPAIN** *RNE1* La Coruña et al. APR 23 0020 Parallel 684 with man and woman in Spanish; poor in CBN slop. [Connelly-MA]
- 657 **SPAIN** *RNE5* Madrid (40°28′N 3°52′W) APR 23 0022 Man in Spanish, a few piano notes; poor in WFAN slop. [Connelly-MA]
- PORTUGAL *RDP1* synchros APR 23 0022 Likely this with male/female US soul song duet; poor. Potential parallel frequencies had other dominants. [Connelly-MA]
- NETHERLANDS R.Maria, Lopik (52°01′N 5°03′E) APR 23 0033 Man in Dutch, R.Maria ID, then into folk style female vocal; to good peak. [Connelly-MA]
- **SPAIN** *RNE1* Sevilla (37°12′N 5°55′W) APR 23 0014 Poetry reading with classical music accompaniment; good. 0023 parallel 774 with two men in Spanish; good. [Connelly-MA]
- 693 **UNITED KINGDOM** *BBC Radio 5*, Droitwich et al. APR 23 0013 Discussion of US presidential campaign; fair. [Connelly-MA]
- unID APR 23 0016 Koranic male vocal; poor. Several possibilities. [Connelly-MA]
- FRANCE France Info, Rennes (47°51′N 1°30′W) APR 23 0023 Parallel 792 with French talk; fair, over W.Sahara growl. [Connelly-MA]
- 711.05 **WESTERN SAHARA** *RTM* Laâyoune (27°10′N 13°12′W) APR 23 0028 Arabic female wailing. [Connelly-MA]
- **SPAIN** *RNE1* synchros APR 23 0100 Parallel 684 with fast talk Spanish news; in bad CKAC and WJTO slop. [Connelly-MA]
- 738 **SPAIN** *RNE1* Barcelona (41°23′N 2°12′E) APR 23 0013 Parallel 684 with talk; in CHCM slop. [Connelly-MA]
- 747 **CANARY ISLANDS** // **SPAIN** *RNE5* synchros APR 23 0021 Parallel 684 with Spanish talk by man and woman; fair over presumed Netherlands. [Connelly-MA]
- NETHERLANDS *Radio 5*, Flevoland (52°23′N 5°25′E) APR 23 0022 Presumed this with classical piano music; mixed with *RNE*. [Connelly-MA]
- GERMANY *Deutschlandfunk*, Braunschweig & Ravensburg APR 23 0019 Modern classical piano music, man in German, other man said a few words in English, then '30s-era Billie Holiday vocal "In My Solitude"; good. 0100 three short pips, one long pip, then news in German by man; fair. [Connelly-MA]
- **SWITZERLAND** *RSR Option Musique*, Sottens (46°39′N 6°44′E) APR 23 0015 Romantic French vocal, then "Get Up Stand Up" by Bob Marley; good. 0100 Option Musique jingle, news by man and woman in French; good. [Connelly-MA]
- 774 **EGYPT** *Middle East Radio*, Abis (30°45′N 30°57′E) APR 23 0023 Male Arabic vocal; under Spain. [Connelly-MA]
- **SPAIN** *RNE1* synchros APR 23 0023 Parallel 684 with two men in Spanish; fair over Egypt. 0100 parallel 855 with Radio Nacional de España ID, news; fair. [Connelly-MA]
- 783 **MAURITANIA** *R.Mauritanie*, Nouakchott (18°07′N 15°57′W) APR 23 0021 Koranic vocal, Arabic talk; in CFDR slop. [Connelly-MA]
- FRANCE France Info, Limoges (45°56′N 1°10′E) APR 23 0023 Parallel 711 with man, then woman, in French; poor. [Connelly-MA]
- SPAIN RNE1 synchros APR 23 0023 Parallel 774 with man in Spanish; poor in VOWR and PJB slop. [Connelly-MA]
- MOROCCO *RTM* Rabat APR 23 0022 Rustic North African (Berber?) music, Arabic talk; briefly over others. [Connelly-MA]
- 837 **CANARY ISLANDS** // **SPAIN** *COPE* synchros APR 23 0005 Fast Spanish talk; over others. [Connelly-MA]
- FRANCE France Info, Nancy (48°53′N 6°14′E) APR 23 0058 Parallel 711 with jazz; over others. [Connelly-MA]
- 855 **SPAIN** *RNE*1 synchros APR 23 0011 Parallel 936 with man in Spanish; fair. [Connelly-MA]
- FRANCE France Bleu, Villebon-sur-Yvette (48°41′N 2°14′E) APR 23 0008 France Bleu jingle, lounge-style French male vocal; good. 0107 "September" by Earth, Wind, & Fire, then Bleu jingle; good. [Connelly-MA]
- 873 **SPAIN** *SER* synchros APR 23 0008 SER net ID, Spanish talk, soft piano music; fair to good. [Connelly-MA]
- 882 **CANARY ISLANDS** // **SPAIN** *COPE* synchros APR 23 0006 Parallel 837 with fast talk; briefly getting through usually-stronger UK. [Connelly-MA]
- 882 **UNITED KINGDOM** *BBC R.Wales*, Washford (51°10′N 3°21′W) APR 23 0009 Talk about employees' relationships with their companies, how they advance their ideas in the organi-

- zation; good. [Connelly-MA]
- **UNITED KINGDOM** *BBC Radio 5* Live synchros APR 23 0006 Commentary on US Democratic presidential race, mention of super-delegates; to good peak over WABI slop. [Connelly-MA]
- **SPAIN** *RNE5* synchros APR 23 0011 Parallel 855 with Spanish talk; poor. [Connelly-MA]
- **FRANCE** *France Info*, Toulouse (43°21′N 1°20′E) APR 23 0008 France Info mention by man, then lush orchestral music; good. [Connelly-MA]
- **SPAIN** *Onda Cero*, Madrid APR 23 0010 Man and woman in Spanish; to good peak. [Connelly-MA]
- **PORTUGAL** *R.Renascença*, Seixal (38°38′N 9°05′W) APR 23 0008 Man in Portuguese; poor with slop from 970 WZAN. [Connelly-MA]
- **ALGERIA** *RTVA Chaîne* 2, Algiers (36°40′N 3°09′E) APR 23 0006 French talk by woman, then Arabic music; fair over others. [Connelly-MA]
- **SPAIN** *COPE* Madrid (40°28′N 3°52′W) APR 23 0006 Parallel 837 with "discoteca" advert with phone numbers; good, alone on channel and much stronger than the Latin America jumble on 1000. [Connelly-MA]
- **CANARY ISLANDS** *Punto Radio*, Las Palmas APR 23 0010 Non-SER fast Spanish talk by woman; mixed with slow music station (likely Netherlands). [Connelly-MA]
- **UNITED KINGDOM** *TalkSport* synchros APR 23 0001 Parallel 1089 with news about northern England and Scotland, strike at oil refinery, supermarket prices up 15% in last 12 months, Sky News mentioned; fair to good. [Connelly-MA]
- **ITALY** *Rai Radiouno* synchros APR 23 0053 Italian talk with woman in studio and man on phone; poor. [Connelly-MA]
- **SPAIN** Euskadi Irratia, Bilbao APR 22 2358 Parallel 1197 with piano instrumental version of John Denver's "Annie's Song"; good. [Connelly-MA]
- 1071.28 unID APR 23 0002 Low het against Spain. [Connelly-MA]
- UNITED KINGDOM *TalkSport* synchros APR 22 2331 Car insurance advert "comparethemarket.com," ID, "On 1089 and 1053 AM and DAB digital radio, TalkSport"; loud. 0001 parallel 1053 with "That's the latest from Sky News," TalkSport ID, slogan, "All the big names, all the big games"; very good. [Connelly-MA]
- **SPAIN** *RNE5* synchros APR 23 0001 Parallel 1107 with news in Spanish; echoey. [Connelly-MA]
- SPAIN RNE5 synchros APR 23 0001 Parallel 1098 with news; to good peak over 1107.13 growl. [Connelly-MA]
- SPAIN SER synchros APR 23 0004 Parallel 1179, man and woman in Spanish with phone interview; to good peak. [Connelly-MA]
- **BELGIUM** *RTBF VivaCité*, Houdeng (50°29′N 4°08′E) APR 23 0003 Economic news by man and woman in French with mentions of Grande Bretagne; good, over Spain. [Connelly-MA]
- **CROATIA** *Glas Hrvatske*, Zadar (44°06′N 15°15′E) APR 23 0000 Three slow pips (last one longer than first two), Glas Hrvatski and Hrvatski Radio IDs, then into news; loud. 0052 Slavic talk, mountain region polka music; very good. [Connelly-MA]
- **SPAIN** *COPE* synchros APR 23 0001 News by woman in Spanish; way under monster Croatia. [Connelly-MA]
- SPAIN *COPE* synchros APR 23 0052 Parallel 1224 with fast Spanish talk; fair to good. [Connelly-MA]
- **SPAIN** *RNE5* synchros APR 23 0001 Parallel 1107 with news; loud. [Connelly-MA]
- SPAIN *Euskadi Irratia*, San Sebastián APR 23 0000 Parallel 1071 with music fanfare, then Spanish newstalk by woman; poor to fair in WSKW slop. [Connelly-MA]
- **UNITED ARAB EMIRATES** *R.Sawa*, Al Dhabiya (24°11′N 54°14′E) APR 22 2359 Female Arabic vocal; to good peak, dominant. APR 23 0002 Male mideast vocal and orchestra, a few words in Arabic by woman, then Cher dance hit "Do You Believe in Love"; fair to good. [Connelly-MA]
- **CANARY ISLANDS** // **SPAIN** SER synchros APR 23 0004 Parallel 1116 with interview; fair. [Connelly-MA]
- **GREECE** *ERA* Thessaloniki APR 23 0001 talk by man with Elleniki Radiophonia mention; briefly over Canaries-Spain. [Connelly-MA]
- MOROCCO *RTM B*, Casablanca APR 23 0001 Arabic news by man and woman, interview; fair to good. 0053 more like a dialect than "straight" Arabic at this time. [Connelly-MA]
- **SPAIN** *Euskadi Irratia*, Vitoria APR 22 2358 Parallel 1071 with piano instrumental version of John Denver's "Annie's Song"; fair over 1196.68 Angola growl. [Connelly-MA]

- 1197 **UNITED KINGDOM** *Virgin Radio* synchros APR 23 0003 Parallel 1215 with Coldplay or similar song; fair, over Spain and Angola growl. 0051 parallel 1215 with Virgin Radio ID, "How to Save a Life" by the Fray. [Connelly-MA]
- 1206 **FRANCE** *France Info*, Bordeaux (44°57′N 0°11′W) APR 22 2357 Man in French talking about football, then talk by woman, followed by marching band music; good. 0057 sax jazz; local-like. [Connelly-MA]
- SPAIN *COPE* synchros APR 23 0001 Parallel 1224 with Spanish news by woman; mixed with UK. [Connelly-MA]
- 1215 **UNITED KINGDOM** *Virgin Radio* synchros APR 22 2337 Contest caller from Watford, Virgin Radio ID, then "Mr. Blue Sky" by ELO; good, over Spain. [Connelly-MA]
- **SPAIN** *COPE* synchros APR 23 0001 Parallel 1215 with news; to fair peak over others. [Connelly-MA]
- 1233 **UNITED KINGDOM** *Virgin Radio* synchros APR 23 0047 Probably this with pop/rock music but not quite clear enough to establish parallel with 1215. [Connelly-MA]
- 1242 **FRANCE** *France Info,* Marseille (43°16′N 5°18′E) APR 23 0008 Parallel 1206 with woman in French; poor over slop. [Connelly-MA]
- 1251 **LIBYA** *Libyan Jamahiriya*, Tripoli (32°50′N 13°00′E) APR 22 2338 Man in Arabic; fair. [Connelly-MA]
- SPAIN SER synchros APR 22 2337 Parallel 1116 with folk style flute music, then woman in Spanish; fair to good. APR 23 0047 Fast Spanish talk by man; mixed with others. [Connelly-MA]
- **SPAIN** *COPE* Valencia APR 23 0049 Parallel 1224 with excited talk by man, then teletalk; over *Radio XL* (UK). [Connelly-MA]
- 1296 **UNITED KINGDOM** *Radio* XL, Langley Mill (52°33′N 1°46′W) APR 23 0043 Indian pop vocal; under Spain. [Connelly-MA]
- SPAIN *RNE5* synchros APR 23 0047 Parallel 1314 with man in Spanish, then woman; fair over growl. [Connelly-MA]
- unID APR 23 0048 Pop female vocal; poor. UK suspected. [Connelly-MA]
- 1332 **IRAN** *R.Tehran*, Tehran APR 23 0048 Mideast male vocal and mandolin-like instrument, then violins; to good peak. [Connelly-MA]
- NORTHERN IRELAND BBC Radio Ulster, Lisnagarvey (54°30′N 6°04′W) APR 23 0047 Woman talking about budgets and salaries; poor to fair. [Connelly-MA]
- 1377 **FRANCE** *France Info*, Lille (50°31′N 2°59′E) APR 22 2352 Man in French; good. APR 23 0046 Classical music; good. [Connelly-MA]
- NETHERLANDS *The Big L*, Trintelhaven (52°38′N 5°25′E) APR 23 0046 Big L "Solid Gold Rock 'n' Roll" jingle, DJ mentioned that he was on air from 1 to 4 a.m. Beatles-influenced vocal followed. Briefly good. [Connelly-MA]
- 1404 **FRANCE** *France Info* synchros APR 23 0042 Parallel 1377 with classical music; to fair peak. [Connelly-MA]
- ALGERIA *RTA* Algiers (36°40′N 3°09′E) APR 22 2344 Bluesy North African vocal; over Germany for a while. [Connelly-MA]
- GERMANY Deutschlandfunk, Heusweiler (49°21′N 6°55′E) APR 23 0036 Opera, man in German, interview including English talk being translated to German, then jazz; excellent. [Connelly-MA]
- DJIBOUTI *R.Sawa*, Arta (11°31′N 42°50′E) APR 22 2345 "Arabiya" and "Sawa" mentions; good. APR 23 0037 Arabic pop-dance music with strings, vocal; good. [Connelly-MA]
- 1458 **UNITED KINGDOM** *Sunrise Radio, Brookmans Park APR 23 0040 Indian female vocal and drumming; poor. [Connelly-MA]*
- unID APR 23 0038 Group mideast chant; suspected to be Iran as not parallel to 1512 or 1521 Saudis. [Connelly-MA]
- MELILLA // SPAIN SER synchros APR 23 0038 Parallel 1584 with woman in Spanish; to fair peak. [Connelly-MA]
- 1494 **CORSICA** *France Bleu*, Bastia (42°47′N 9°24′E) APR 22 2346 Parallel 864 with pop music; fair. APR 23 0039 France Bleu jingle, mellow vocal; poor. [Connelly-MA]
- 1512 **SAUDI ARABIA** *BSKSA* Jeddah (21°15′N 39°10′E) APR 23 0037 Preaching by man in Arabic; through WWZN slop. [Connelly-MA]
- **SAUDI ARABIA** *BSKSA* Duba (27°20′N 35°45′E) APR 22 2347 Two men in Arabic; local-like signal. [Connelly-MA]
- UNITED ARAB EMIRATES *R.Aap Ki Dunyaa*, Al Dhabiya APR 23 0035 Man and woman in Urdu or similar; poor, just getting through 1540 slop. [Connelly-MA] MAY 12 0115 Amazingly good solid signal; woman and man in Urdu, 0129 music/promo, then more news/talk,

- parallel fair 7145 kHz. [Conti-NH]
- KUWAIT *R.Sawa*, Kabd-Kuwait City (29°10′N 47°32′E) APR 22 2351 Plaintive male Arabic vocal with drumming; to good peak. APR 23 0036 Arabic vocal and strings; fair. [Connelly-MA] MAY 12 0147 Fair through WQEW HD interference; Mid East pop music. [Conti-NH]
- 1548 **UNITED KINGDOM** *BBC R.Bristol*, Bristol-Mangotsfield APR 23 0040 BBC talk with man and woman; atop Kuwait briefly. [Connelly-MA]
- ALGERIA *RASD* Tindouf-Rabouni (27°29′N 7°49′W) APR 22 2348 Politically-oriented Spanish talk, Saharaui mention, segment of rustic North African music; over others. [Connelly-MA]
- 1557 **FRANCE** *France Info*, Fontbonne (43°46′N 7°25′E) APR 23 0037 Man and woman in French; to good peak. [Connelly-MA]
- UNITED ARAB EMIRATES *R.Farda*, Al Dhabiya (24°11′N 54°14′E) APR 22 2350 High-energy Mideast dance-club music with shrieky Bollywood-style female vocal. APR 23 0036 Farsi talk with mentions of Washington, Bosnia, Serbia; to good peak. [Connelly-MA] MAY 12 0135 Fair, best in USB to avoid WQEW HD interference; man and woman with news / talk in Farsi, 0145 pop music, parallel 5860 kHz. [Conti-NH]
- 1584 **CEUTA** *RadiOlé,* Ceuta (35°53′N 5°17′W) APR 23 0038 Man in Spanish, then music; over SER. [Connelly-MA]
- SPAIN SER synchros APR 23 0038 Parallel 1485 with woman in Spanish; mixing with Ceuta. [Connelly-MA]
- unID APR 23 0037 Blank carrier with occasional beeps: maybe some kind of testing postsign-off or pre-sign-on. VOA Kuwait is usual signal here. [Connelly-MA]
- **SPAIN** *R. Vitoria*, Vitoria APR 23 0035 Romantic Spanish female vocal; good, way over SER. [Connelly-MA]

#### Pan-American DX

- 530 **CUBA** *R.Enciclopedia*, unknown location MAY 4 0900 Good, over *RVC*; easy listening instrumentals. [Conti-NH]
- TURKS & CAICOS *R. Visión Cristiana*, South Caicos (21°30′N 71°31′W) APR 23 0030 R. Visión Cristiana Internacional ID, salsa-influenced spiritual vocal; good over 531 het. [Connelly-MA]
- 555 **ST. KITTS & NEVIS** ZIZ Basseterre (17°19′N 62°44′W) APR 23 0027 Reggae music, Caribbean male announcer, "This is National Showcase, family station in your house. We continue with the super-bad music on a beautiful Tuesday night." To good peak despite adjacent WGAN slopper. [Connelly-MA]
- 570 **CUBA** CMDC *R.Reloj*, Santa Clara (22°24′N 79°56′W) APR 23 0110 Beeps, Spanish news, clock ticks; weaving in and out with CFCB and WMCA. [Connelly-MA]
- 650 **MEXICO** XETNT Los Mochis, Sin FEB 29 0310 Phone-in talk, 0323 comments, ID, Mexican group singing. WSM interference. 0349 ID, "La Ley, Los Mochis." [Ervine-TX]
- 670 **CUBA** CMQ *R.Rebelde*, Arroyo Arenas (23°00′N 82°30′W) APR 23 0113 Parallel 710 with sporting event, Cubano mentions; atop YVLL during fades. [Connelly-MA]
- VENEZUELA YVLL *R.Rumbos*, Caracas (10°29′N 66°59′W) APR 23 0017 Man with "en Rumbos, en Caracas" mention with fanfare music, then talk by woman; fair. [Connelly-MA]
- BRAZIL ZYK686 *R.Eldorado*, São Paulo (23°32′S 46°37′W) APR 23 0020 Man and woman in Portuguese with São Paulo and futebol mentions; poor-fair through IBOC hiss. [Connelly-MA]
- 710 **CUBA** *R.Rebelde* synchros APR 23 0110 Parallel 670 with sporting event, Cubano mentions; slightly under WOR. [Connelly-MA]
- 720 **BRAZIL** ZYK276 *R.Guaiba*, Porto Alegre (30°02′S 51°12′W) APR 23 0030 Portuguese preaching and screaming; under Venezuela. [Connelly-MA]
- VENEZUELA YVQE *Oriente* 720, Porlamar (10°56′N 64°12′W) APR 23 0025 "En Venezuela, Oriente" ID, then romantic vocal; good. 0109 booming with nice Oriente ID and timecheck of "ocho y treinte nueve minutos" (8:39) which is UTC-4.5 hours. [Connelly-MA]
- 740 **BRAZIL** ZYH446 *R.Sociedad da Bahia*, Salvador (12°57′S 38°30′W) APR 23 0105 Excited Portuguese talk by man, Salvador mention; a bit under CHCM. [Connelly-MA]
- VENEZUELA YVKS *RCR* Caracas (10°29′N 67°00′W) APR 23 0019 Caracas, RCR mentions in fast Spanish newstalk; under CBGY. [Connelly-MA]
- 760 **BRAZIL** ZYH588 *R.Uirapuru*, Fortaleza (3°45′S 38°31′W) APR 23 0021 Man with religious Portuguese talk; over jumble. [Connelly-MA]
- 760 COLOMBIA HJAJ RCN Barranquilla (10°53′N 74°49′W) APR 23 0013 Parallel 770 with

- speech about the government and economics; mixing with Brazil, others. [Connelly-MA]
- COLOMBIA HJJX *RCN* Bogotá (4°37′N 74°11′W) APR 23 0013 Parallel 760 with fiery Spanish political speech about economic matters, government; good, over others. [Connelly-MA]
- VENEZUELA YVKC Caracas APR 23 0017-0021 Fast Spanish talk, sporting event with a Maracaibo team, "goal" screaming; under WSKO and CFNW mix. Barbados not noted. [Connelly-MA]
- NETHERLANDS ANTILLES PJB *TransWorld Radio*, Bonaire (12°06′N 68°17′W) APR 23 0016 Southern US preacher; over VOWR light music and CJAD newstalk. [Connelly-MA]
- ST. KITTS & NEVIS *TBN/R.Paradise*, Charlestown (17°08′N 62°37′W) APR 23 0006 West Indian accent male preacher with piano accompaniment, God referred to as "the alpha and the omega" (beginning and end); good, over 819 het. [Connelly-MA]
- 820.2 unID APR 23 0058 Growl against strong St. Kitts. This has been YVXG Coro, Venezuela, in the past. [Connelly-MA]
- HAITI 4VEH Cap Haitien APR 23 0059 Five notes (reminiscent of a part of "Jingle Bells"), then "Vous ecoutez 4VEH, la voix..." Folk guitar followed. Over Brazil, others. [Connelly-MA]
- BRAZIL ZYJ459 *Radio CBN*, Rio de Janeiro APR 23 0058 Clear Radio CBN ID, Portuguese talk by man, then woman; well over apparent Venezuelan. [Connelly-MA]
- ST. KITTS & NEVIS *Voice of Nevis*, Bath Village (17°07′N 62°37′W) APR 23 0011 Caribbean accent advert about ready-made kitchen appliances, prices in dollars; fair. [Connelly-MA]
- MEXICO XECH Toluca APR 8 0338 Spanish music, some fading. WHO Des Moines interference. 0407 ballad, ID, "XECH en Toluca." [Ervine-TX]
- 1100 **BRAZIL** ZYK694 *R.Globo*, São Paulo (23°32′S 46°37′W) APR 23 0053 Man and woman in Portuguese with São Paulo mentions; fair. [Connelly-MA]
- VENEZUELA YVQT *R.Carúpano*, Carúpano (10°40′N 63°18′W) APR 23 0000 Boisterous ID, "¡En Venezuela, Carúpano!"; good, way over others. [Connelly-MA]
- MEXICO XEHN *Mariachi Estéreo*, Nogales, Son MAY 14 1127 Presumed with Mexican music, different versions of slogan, e.g. "La música mexicana vive en Mariachi Estéreo, Once Treinta AM." Fair and fadey, starting to deteriorate by 1150. [Wilkins-CO]
- 1140 **VENEZUELA** *R.Porlamar*, Porlamar (10°57′N 63°51′W) APR 22 2358 Isla Margarita and Radio Porlamar mentions; briefly atop CBI. [Connelly-MA]
- 1149.44 unID APR 23 0056 Weak het of unknown origin. [Connelly-MA]
- VENEZUELA YVMY Punto Fijo APR 22 2358 Venezuela and apparent R.Nacional mentions; briefly over domestic pile. APR 23 0056 Maracaibo mentions during sports coverage; over WTTT and others. [Connelly-MA]
- BERMUDA VSB3 Hamilton (32°18′N 64°46′W) APR 23 0055 British woman in BBC World Service programming; briefly popping through generally-stronger WSKW. [Connelly-MA]
- unID APR 23 0055 Total jumble and a 1180.14 off-channel growl. [Connelly-MA]
- 1200 **VENEZUELA** YVOZ *R.Tiempo*, Caracas (10°32′N 66°57′W) APR 23 0052 Telephone numbers "en Caracas"; briefly over WKOX. [Connelly-MA]
- BRAZIL ZYJ458 *R.Globo*, Rio de Janeiro (22°55′S 43°13′W) APR 23 0056 Portuguese talk with São Paulo mentions, Globo jingle, ID, reverberated advert; fair over jumble. [Connelly-MA]
- 1280 **BERMUDA** VSB2 Hamilton APR 23 0045-0049 Religious talk, hymn; to good peak over Maine sports, French talker, and Spanish (WADO or WCMN). [Connelly-MA]
- 1339.4 unID APR 23 0050 Weak het against 1340 domestic pile. [Connelly-MA]

### Transpacific DX

AUSTRALIA 2BL *ABC MS*, Sydney (33°57′S 150°53′E) MAY10 1031 - Tentative; very poor and just strong enough to tell it was muffled male audio distinct from the equally weak phased out remains of WLW and on the edge of WGN IBOC. I think I needed just a couple more dB S/N to be able to hear Aussie talk as I did last September from Wisconsin. Anyhow, this is the best I've ever done here in Illinois for non x-band Aussie audio, but I need something more definite to be able to count it. A couple other Down Under (DU) carriers were in, and as always, all just about gone by a few minutes after sunrise. [Kazaross-IL]

### Ray Moore's Florida TP Review

May 23: Testing my portable rig this morning in anticipation of a trip to the Keys (Marathon) early July and noted best TP signals in ages. Wish I had driven down to the beach where might have had some audio. No audio as usual but carriers all over the band mostly New Zealand; 4 - 1098, 693, 567; 3 - 1332, 1035, 882, 558; 2 - 1512, 1503, 1386, 1107, 702, 657, 1008; 1 - 1566,

1584, 1296, 1125, 1116, 828 kHz. Why don't West Coasters list 882? It is the most consistent DU signal here, not strong but almost always there. May 27: 20 mostly very weak carriers until about 5 minutes before LSR (1035Z) when they suddenly peaked and hung in until about 15 min after LSR. Nothing new, same old suspects. *May* 28: Repeat of 27th conditions, peaked late about 10 min before LSR. No audio of course. 4 - 1575(?); 3 - 1098, 1017, 882, 567; 2 - 738, 702, 558, 1296; 1 - 1548, 1512, 1503, 693, 657, 612, 1116, 1638, 963, 837, 576, 549, 1629 kHz. I'm having 2nd thoughts about 1575. While it certainly isn't Thailand this time of year, it has been reported by several in the northwest. I haven't paid much attention to it but will try to get some reliable bearings on it. 702 is another mystery. There is often a pronounced sub-audible het (SAH) on it and in addition there is another carrier on 702.1 which is audible all day long on all my receivers bearing about 200° which I'm still trying to track down. *May* 29: Nothing exciting this morning - the same stations putting in carriers. The 2010 only has 32 memories and the window is so short here I don't have much time for other frequencies. Some of the best channels are blocked here, notably 774 by local WWCN and usually those 1 kHz from domestics due to inadequate deep skirts on the 2.4 kHz filter. WWCN 770 IBOC actually blocks out DU carriers +/- 40 kHz - sometimes I can get Japan carriers (e.g. 774, 747) in WWCN's null. Here are today's carriers: 4 - 1098 with SAH; 3 - 1017, 738; 2 - 1575(?), 1512, 882, 702, 1008; 1 - 1503, 1296, 1107, 1089, 1008, 1035, 963, 648, 612 kHz. May 30: Listened 1006-1039, LSR 1035Z - only carriers were below 1200 with nice dawn enhancement about 10 min before LSR lasting until 12 min after LSR. One mystery was 747 in the null of local scourge WWCN's IBOC. Their null also nulls DU but points the loop right at Japan which is all I've ever heard here before. Weak but positive carrier but is much too early for Japan here I believe. Tried 693 but carrier there DF DU. Audio none. 4 - 1575(?); 3 - 612, 576, 567; 2 - 1098 with SAH, 1017 with SAH, 882, 558, 1116, 1107 with SAH; 1 - 1035, 1008, 747, 738, 702, 693, 549, 837 kHz. May 31: Activity mostly mid-band, no pronounced dawn enhancement, audio none. 3 - 1098 with SAH, 1017 with SAH, 882; 2 - 1512, 1008, 891, 738 with SAH, 702 with SAH, 1503 with SAH, 558; 1 - 1548, 693, 567, 1116, 963, 945, 936, 657, 648, 1035 kHz. Pedro (my Chihuahua) and I are heading back to bed for a little more sleep. *June 5*: Best DU signals in some time during strong, but short, dawn enhancement. Thought I might have had some audio on the strongest but in and out too fast to linger over them. LSR 1034Z - enhancement started 1029 and out after 1038. 4 - 702, 693, 567; 3 - 738, 657, 576; 2 - 1098, 1008, 882, 612, 549; 1 - 1512, 1503, 1107, 1116, 1089, 1035, 1017, 963, 837, 828, 648, 558 kHz. *June 6*: Listened 1004-1036, unusual conditions, all low band, all early, all (most) New Zealand, no dawn enhancement. LSR 1034. New Zealand in strong at tune in, mostly gone 10 minutes later, no audio. 4 - 1098; 3 - 882, 657, 567, 702 with SAH; 2 - 693, 648; 1 - 1008, 738 kHz.

### **Contributors**

Mark Connelly, Rockport MA; RFSpace SDR-IQ, Drake R8A, DXP-6A, Mini-Circuits ZSC-2-2, cardioid array on roof of car = Vertical: 3.7 m whip (MFJ-1956) to 81:1 xfmr to DX Engineering RPA-1 amp + Loop: Micro SuperLoop, square, 2 m per side, with 16:1 xfmr (to RPA-1 amp) on east bottom corner and 5k potentiometer on west corner.

Bruce Conti, Nashua NH; SDR IQ, WR-CMC-30, MWDX-5, 15 x 23-m SuperLoop antennas east with remote variable termination and south  $1150-\Omega$  terminated.

Jerry Ervine, McAllen TX.

Neil Kazaross, Barrington IL; R8A, phased BOG system at 273°, 600 ft parallel 425 ft.

Ray Moore, Fort Myers FL; Modified 2010 (2.5 kHz Kiwa narrow filter, et. al.), passive hi-Q 23-inch spiral loop.

John Wilkins, Wheat Ridge CO; Drake R8, 4-ft box loop.

73 and Good DX!

# Team Effort ...

That's what makes the NRC so great! And all information, contributions, and editing for DX News, DX Audio Service e-DXN, and all publications is done by unpaid volunteers as part of a team. Perhaps you have a little time to give to your club ... if so, please write to John D. Bowker - P. O. Box 5192 - Sun City Center FL 33571-5192, and let him know what talents and time you can offer to the club. Updates to the NRC AM Log are always needed. Why not write to John today?!

# Target DX Shawn Axelrod amandx@mts.net 30 Becontree Bay

Winnipeg MB R2N 2X9 Canada

### DX'ing 'smart', with shared tips and information from NRC members

Contributors this time:

Brant Hunt – Aiken, South Carolina USA

Welcome to the Target DX Column number 2. I would like to thank all of you who wrote in words of encouragement and sent along best wishes. A very special thanks goes to Brant Hunt who was the very first person to send in information to the column.

I would like to re-state that this column is not only for the DX'er who has been in the hobby for years but also for the newer DX'ers like Brant as well. New DX'ers will help keep the hobby going as many of us "old timers" move along. As the editor of the column I am hoping that every reader will be able to take something from each column that he or she can use. By putting together a list of targets you will be better able to use your DX time to your advantage. You will soon have a list that you can work with based on time of day month or year or propagation conditions.

In this issue we will look at ways to set targets for possible TA's (Trans Atlantic Stations) and TP's (Trans Pacific Stations) as well as the LW (Long Wave Stations) or LA (Latin American Stations).

Brant Hunt put forward an interesting question. He says he has spent time and money assembling what he feels is a good set up and after reading his equipment list I agree he is well set up to DX. However Brant still has not been able to log TA's which he had set as a goal. Brant says he is a novice on the lower bands and feels he needs some help from either me or any of our readers.

First of all let us look at the best times. As Brant lives on the East Coast of the USA he should have a good path to DX Europe and Africa. I have looked over some recent loggings from other East Coast DX'ers and have found that they are hearing TA's from about sunset until 3 or 4 hours after sunset. This pattern seems to hold true for various times of the year not just spring time. In the winter the propagation seems to last until 6 or more hours after sunset on some days.

As with most types of DX TA's LA's or TP's winter seems to be prime DX time for the AM and LW (Long Wave) broadcast band stations. This time of the year in North America sees longer nights and shorter days. The extended hours of darkness enhance propagation for the lower frequencies.

As for what stations to look for this can vary depending on your location. Going through the loggings of other DX'ers can be a good way to put together a list of potential targets. Have a good look at IDXD past columns. Here are some clues as to what to look for:

- Loggings that appear time and again. If they are heard often there is a better chance of you catching
- Check to see how strongly the station was received. If the station is consistently listed as strong or excellent it will mean it is a regular catch.
- Look at the equipment used. If someone has a great receiver, beverage antennas etc and you are using a portable radio you will most likely have more difficulty hearing the stations they listed.
- Avoid stations listed as poor reception or hard to get or rare. These could be targets down the road but if you start off with the easier, larger powered stations first; you will be hearing more new ones sooner. DX'ing can be likened to a baby walking, small first steps a bit unsteady but with practice and patience you will progress.
- Look for stations on split frequencies that are further away from your locals or powerful "pests". The more space between the big interference-producing stations and your targets the easier it will be to log your first new ones. If some DX'ers hear Saudi Arabia on 1521 on a regular basis this could be a good one to start with. However if you have a local on 1520 that is on 24 hours a day 1521 will not work for you.

Once you have looked through the loggings you can make up your own target list based on what will work for you. Each of you will develop a different list based on your location and local stations and pests. On the other hand some or many of the bigger stations will appear on most target lists.

In case you missed it there is a target form and a listing of frequencies using the 9 kHz spacing versus the 10 kHz spacing used in North America; they are available at:

http://www.angelfire.com/mb/amandx/Targets\_Master.xls (Target Sheet Form)

http://www.angelfire.com/mb/amandx/forfreq.html (AM and LW Frequencies List)

If you cannot download a copy I will be pleased to print out a copy and mail it to you free for the

Perhaps an East Coast DX'er could write in and tell us what he or she sees as the best times to DX TA's. And conversely a West Coat DX'er could do so for TP DX targets. Also if possible it would be

great if a DX'er could supply us with a list of easy targets to try for. Remember this column should be based not only on my input, but on that of any and all of the NRC members.

Until next time....

73 Shawn ... Remember On A Clear Day You Can Hear Forever

# The Great Radio Sitcoms

A Book Review by Andy Ooms

Old Time Radio author and historian Jim Cox has written another one of his fascinatingly detailed works, this one covering situation comedies.

Sitcoms have been abundant on television for many decades, but like many of television's other programming concepts, sitcoms were invented for radio. Persons over 65 will remember many of the programs Jim writes about in this book, but younger persons may be familiar with some of influences of these programs on our culture without being aware of the origins of these influences. Examples: "living the life of Riley" is a phrase from the program The Life of Riley. The phrase may predate the radio program; if so, the program has greatly extended it. The most well-known example of age denial comes from The Jack Benny Program, Jack forever remaining 39.

Some of the sitcoms had comic book or comic strip tie-ins: <u>Blondie</u> and <u>Archie Andrews</u> are examples. Some involved celebrities: <u>The Jack Benny Program</u> (Jack Benny), <u>The Adventures of Ozzie and Harriet</u> (Ozzie, Harriet, Ricky, and David Nelson), and <u>The George Burns and Gracie Allen Show</u> (George and Gracie). Other programs whose names are remembered fairly well in entertainment history include the controversial <u>The Amos 'n' Andy Show</u>, <u>The Great Gildersleeve</u>, and my favorite, mostly because of its outrageous puns, <u>Fibber McGee & Molly</u>. A pun example (not one of those mentioned in this book, but one of my favorites):

Fibber: Yup, I was a baseball pitcher in my younger days.

Molly: I never knew that. Southpaw?

Fibber: Nope, Midwest, Maw.

Also, Fibber McGee's closet is phrase that came from the program but outlasted it by many years.

Several of the programs moved to television, but most did not, as it became apparent that radio comedy did not quite fit the new medium. Most notable of the successful transfers was My Favorite Husband, starring Lucille Ball who moved to TV to star in I Love Lucy and several of its descendants.

Like radio soap operas, radio sitcoms seem quaintly innocent compared to television mutations of the formats. But radio comedies managed to be very funny without embarrassing the listeners.

Other radio comedies that were remembered until recent decades include <u>Duffy's Tavern</u>, <u>Our Miss Brooks</u>, <u>The Bickersons</u>, and <u>Lum and Abner</u>.

Author Cox covers the shows and personalities mentioned above plus several others for a total of 20 major sitcoms and 13 slightly less well known programs.

Jim provides some context throughout the book about the rise and fall of radio as America's main entertainment medium for more several decades. Also for each program covered, he delivers the details like the directors, the writers, the orchestra leaders, the vocalists, the sound effects technicians, the announcers, the recurring casts, the supporting casts, the sponsors, the musical themes, the ratings, the actual on-air details (dates, times of day, days of week, and network), and existing archival material. For many of the stars, cast members, and support staff, he tells us some of their history before and after their times on the radio series, and about any movies in which they acted.

The Great Radio Sitcoms was published late last year by McFarland, Jefferson, NC. Their website address is <a href="https://www.mcfarlandpub.com">www.mcfarlandpub.com</a> and their phone number is 800-253-2187.

Professional

Sports

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Networks

Network listings for team sports stations

Here is Minor League Baseball information from web sites via Ken Onyschuk. I had a little time to do some Google searches to get some information that Ken did not have.

**International League (Triple-A Baseball)** 

Buffalo Bisons 1520 WWKB-NY Duke McGuire, Ben Wagner Charlotte Knights 1660 WFNZ-NC Matt Swierad

Columbus Clippers 1580 WKVO-OH Scot Leo

Durham Pulla			
Durham Bulls	1410	WRJD-NC	Neil Solondz
T 1: 1: T 1:	99.9	WRAL-NC	
Indianapolis Indians	950 89.1	WKLW-IN WYBF-PA	Howard Kellman, Scott McCauley
Lehigh Valley Ironpigs	1470	WSAN-PA	Matt Provence, Jon Schaffer
	90.3	WXLV-PA	
Louisville Riverbats	970	WKRD-KY	Jim Kelch, Matt Andrews
Norfolk Tides	1310	WGH -VA	Pete Michaud, Bob Socci
Pawtucket Red Sox	920	WHJJ-RI	Dan Hoard, Steve Hyder
Richmond Braves	910	WRNL-VA	Rob Fish
Rochester Red Wings	1280 1040	WHTK-NY	Joe Altobelli, Josh Wetzel
Scranton/W-B Red Barons	1400	WYSL-NY WICK-PA	(afternoon games only) Mike Vanderwood
Scrafton, W B Red Barons	1340	WYCK-PA	white variati wood
	1590	WPSN-PA	
	1280	WFBS-PA	
Syracuse Chiefs	88.3	WAER-NY	Bob McElliott
Pacific Coast Largue (Triple	A Raabal	1)	
Pacific Coast League (Triple Albuquerque Isotopes	610	KNML-NM	Robert Portney
Colorado Springs Sky	1460	KZNT-CO	Don Karcher, Dick Chase
Fresno Grizzlies	790	KFPT-CA	Doug Greenwald
Iowa Cubs	1460	KXNO-IA	Deere Ehlis, Toby Hyde
Las Vegas 51s	920	KBAD-NV	Russ Langa
Memphis Redbirds	560 560	WHBQ-TN	Dave Kelly
Nashville Sounds New Orleans Zephyrs	560 690	WNSR-TN WIST-LA	Chuck Valenches Tim Grubbs, Ron Swobody
Oklahoma Red Hawks	1340	KEBC-OK	Adam Marco, Jim Byers
Omaha Royals	1490	KOSR-NE	-Mark Nassar, Kevin McNabb
Portland Beavers	1550	KKAD-OR	Rich Burk
Round Rock Express	1530	KZNX-TX	Mike Capps
Sacramento River Cats	92.1	KHTS-CA	John Doskow
Salt Lake Bees Tacoma Raniers	1230 850	KJQS-UT KHHO-WA	Steve Klauke Mike Corto
Tucson Sidewinders	560	KBLU-AZ	-Ryan Radtke
			- y
Eastern League (Double-A)	40=0	THE DOLL	T. C. 1 P. 1 C. 1
Akron Aeros	1350	WSLR-OH WHPA-PA	Jim Clark, Rob Sinclar
Altoona Curve	93.5	$VV \mapsto PA - PA$	Tason Hambach
			Jason Dambach
	1340	WTRN-PA	jusoit Dumbucit
		WTRN-PA WPHB-PA	jusoit Duitibucit
Binghampton Mets	1340 1260	WTRN-PA	Robert Ford
Binghampton Mets Bowie Baysox	1340 1260 970 1290 540	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC	Robert Ford Sam Farber
Bowie Baysox Erie Seawolves	1340 1260 970 1290 540 1400	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA	Robert Ford Sam Farber G. Garnia
Bowie Baysox Erie Seawolves Harrisburg Senators	1340 1260 970 1290 540 1400 1460	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats	1340 1260 970 1290 540 1400 1460 1360	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders	1340 1260 970 1290 540 1400 1460 1360 1400	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats	1340 1260 970 1290 540 1400 1460 1360 1400	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis
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Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg
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Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b>	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ WYDE-AL WDOX-NC WDOD-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b>	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank
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Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies	1340 1260 970 1290 540 1400 1460 1360 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies  West Tenn Diamond Jaxx	1340 1260 970 1290 540 1400 1460 1360 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies  West Tenn Diamond Jaxx  Texas League	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg  R. Potesta
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies  West Tenn Diamond Jaxx  Texas League Arkansas Travellers	1340 1260 970 1290 540 1400 1460 1360 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg
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Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies  West Tenn Diamond Jaxx  Texas League Arkansas Travellers Corpus Christi Hooks Frisco (TX) RoughRiders Midland Rock Hounds	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930  1440 990 99.1 1310  92.7 1360 1640 550	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN WNML-TN WNML-TN WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg  R. Potesta  Phil Elson Matt Hicks Scot Garner, Bill Murcer -B. Harde
Bowie Baysox Erie Seawolves Harrisburg Senators New Britain Rock Cats Norwich (CT) Defenders Manchester (NH) Fishercats Portland Sea Dogs Reading Phillies Trenton Thunder  Southern League (Double-A Birmingham Barons Carolina Mudcats Chattanooga Lookouts Huntsville Stars Jacksonville Suns Mississippi (Pearl) Braves Mobile BayBears Montgomery Biscuits Tennessee (Kodak) Smokies  West Tenn Diamond Jaxx  Texas League Arkansas Travellers Corpus Christi Hooks Frisco (TX) RoughRiders	1340 1260 970 1290 540 1400 1460 1360 1400 610 1490 1240 1260 <b>A)</b> 101.1 570 1310 730 930  1440 990 99.1 1310	WTRN-PA WPHB-PA WBGG-PA WNBF-NY WRGW-DC WJET-PA WTKT-PA WDRC-CT WILI-CT WGIR-NH WBAE-ME WIOV-PA WBUD-NJ  WYDE-AL WDOX-NC WDOD-TN WUMP-AL WFXJ-FL TBA Inet WLWI-AL WNML-TN WNML-TN WNML-TN WNML-TN WNML-TN	Robert Ford Sam Farber G. Garnia Dan Watson, Terry Byrom Jeff Dooley Shawn Holliday Bob Lipman, Mike Murphy Mike Antonellis Steve Deglar Steve Rudetstein, Josh Landsburg  -Curt Bloom -L. Ward Steve Kornya -J. P. Shadrod -B. Eubank -T. Haggerty -J. Goldberg  R. Potesta  Phil Elson Matt Hicks Scot Garner, Bill Murcer

Springfield (MO) Cardinals Tulsa Drillers Wichita Wranglers	98.7 1430	KWTO-MO KTBZ-OK Inet	Mike Lindskog, Rob Evans Mark Nealy
Midwest League (Class-A) Beloit Snappers Burlington Bees Cedar Rapids Kernels Clinton (IA) Lumberkings Dayton Dragons Fort Wayne Wizards Great Lakes (Midland) Loons Kane County Cougars Lansing Lugnuts Peoria Chiefs Quad Cities River Bandits West Michigan Whitecaps Wisconsin Timber Rattlers	1380 1490 1450 1340 1410 1380 3 100.9 1280 92.1 1350 93.9 1340 92.3	WBEL-IL-K. KBUR-IA KMRY-IA KROS-IA WING-OH WKJG-IN WYLZ-MI WBIG-IL WQTK-MI WOAM-IL WYEC-IL WBBL-MI WJMQ-WI	Jacob Matt Pauley John Rogers Gary Determan Mike Vanderwood Kent Horman, Mike Maahs -B. Golden Jeff Hem -B. Tilleon (selected games only) Ben Chisme Dave Skaczen -C. Mehring
Northern League http://ww Fargo-Moorhead RedHawks Gary SouthShore Railcats Joliet JackHammers Kansas City T-Bones Schaumburg Flyers Winnipeg Goldeyes	vw.norther 970 1230 1340 1660 89.1 1290	nleague.com WDAY-MN WJOB-IN WJOL-IL KXTR-KS WONC-IL CFRW-MB	
California League (Class A A Bakersfield Blaze High Desert (Adelanto) Maveric Inland Empire (S Bernadino) 66e Lake Elsinore Storm Lancaster Jethawks Modesto Nuts Rancho Cucamonga Quakes San Jose Giants Stockton Ports Visalia Oaks	ks 960	none KIXW-CA KCAA-CA XEPE-BC KAVC-CA KESP-CA KSPA-CA	Mike Sager Sean McCall Jeff Laskey Greg Young Jeff Levering Bo Fulginiti Josh Rogol, Dan Besbris
Carolina League (Class A Ad Frederick (MD) Keys Kinston (NC) Indians Lynchburg (VA) Hillcats Myrtle Beach (SC) Pelicans Potomoc Nationals Salem (VA) Avalanche	960 105.5 1050 93.9 93.7 Inet 960	none WRNS-NC WKDE-NC WIQB-SC WJXY-SC WXJY-SC WFIR-VA	Chris Hemeyer Scot Bacon, Aaron Canada Jon Laaser, Bret Lasky Jason Benetti
Wilmington (DE) Blue Rocks WInston-Salem Warthogs Florida State League Brevard Manitees Clearwater Threshers	600	WWTX-MD WSJS-NC none none	John Sadak, Mark Kasubinski Ed Lolari
Daytona Cubs Dunedin Blue Jays Fort Meyers Miracle Jupiter Hammerheads Lakeland Flying Tigers Palm Beach Cards Sarasota Reds St. Lucie Mets Tampa Yanks	1300 1410 1310	WELE-FL none WMYR-FL none WADB-FL none none none	Derek Ingram, Matt Martin Sean Fox Brendon Burk
Vero Beach Rays  Northwest League (short sea Boise Hawks Eugene Emeralds Everett Aqua Sox Salem Volcanos Spokane Indians Tri-City Canadiens Yakima Bears	son starts] 1350 1120 1380 1430 790 1040	Inet	Mike Safford Matt McCabe Pat Dillon Past Lafferty Bob Robertson Rob Fai

New York-Penn League (sho	rt season)		
Aberdeen (MD) IronBirds	970		Steve Melewski
Auburn (NY) Doubledays	1590	WAUB-NY	
Batavia (NY) Muckdogs Brooklyn Cyclones	89.1	WBSO-NY Inet	
Hudson Valley Renegades	1260	WBNR-NY	Sean Fort
Tradoon valley Renegaces	1420	WLNA-NY	Scall Fort
Jamestown (NY) Jammers	11_0	none	
Lowel (MA) Spinners	1400	WLLH-MA	
Mahoning Valley Scrappers	1390	WNIO-OH	Max Means
Oneanta (NY) Tigers		none	
Staten Island Yanks	05.2	none	Storio Ionas
State College (PA) Spikes Tri-City (Troy) Valley Cats	95.3	WWZW-PA none	Steve jones
Williamsport Crosscut	91.7	WRLC-PA	
r			
South Atlantic League (Clas			
Asheville Tourists	100.7	WRES-NC	Eric Little, Jay Burnham
Augusta Green Jackets	1630	WRKW-GA	Nick Barnale
Charleston Riverdogs Delmara Shorebirds	910 960	WTMZ-SC WTGM-FL	Josh Maurer
Greensboro (NC) Grasshoppe		WPET-NC	Randy Scott Andy Durham
Hagerstown Sun	95.9	WLTF-MD	Ryan Mack
Greenville (SC) Drive	,,,	Inet	Try art Tracer
Lake County (OH) Captains	1330	WELW-OH	Craig Deds
Lakewood (NJ) Blueclaws	1160	WOBM-NJ	Alex Gyr
Lexington (KY) Legends	1300	WLXG-KY	•
Rome (GA) Braves	1410	WLAQ-GA	
West Virginia (Charleston) Pe	95.7	WATG-GA	Andy Ranch
West Virginia (Charleston) Po	JW 61 14 30	VV3VVV-VV V	Andy Barch
Pioneer League (Rookie)			
Helena Brewers	1340	KCAP-MT	
Idaho Falls Chukars	980		Garshov, John Balgini
Missoula Osprey	930		Ben Catley
Ogden Raptors Orem Owlz	1490 1280	KOGN-UT KZNS-UT	Eric Knighton
Orem Owiz	1200	KZ1\3-U1	Jim Christoph
Appalachian League (Begins	June 20) (	Ken could onl	y find partial information.)
Bluefield Orioles			
Bristol Sox			
Burlington Royals	106.2	1473 (N 1 4 3 7 4	NI: 1 D:
Danville (VA) Braves Elizabethton Twins	106.3	WMNA-VA	Nick Pierce
Greenville Astros			
Johnson City Cardinals			
Kingston Mets			
Princeton Devil Rays			
Pulaski Mariners			
- = Announcers from last sea	2012		
- – Amouncers from last seas	5011		
There are other Minor Lea	igues for w	which Ken did	not provide radio information:
Arizona Fall League	Gulf	Coast League	(Rookie) Venezuelan Summer League
Arizona League (Rookie)		can League	. ,
Here are some Major Leag	nio Racaba	11 (MLR) 1112da	itos from Kon Onyschuk
Atlanta Braves (SS) 10	5.7 WW	WA-GA	ites from Ren Onyschuk.
			maybe they alternate w/950 WROL-MA.
Kansas City Royals 61			t,980 Sun only
Los Angeles Angels (EE) 83	0 KLA	A-CA	•
Los Angeles Angels (SS) 133	0  KWF	(W-CA	
Los Angeles Dodgers (EE) 98	$0  ext{ KFW}$	B-CA	
Los Angeles Dodgers (SS) 93	0 KHJ		
Minnesota Twins (SS) 140 147		IV-MN IO-MN	
New York Yankees (SS) 143		NQ-MN SW-NJ	
, ,		•	
Here is Womens' Nationa	al Basketba	all Association	(WNBA) flagship information for the curre

Here is Womens' National Basketball Association (WNBA) flagship information for the current 2008 season from the Internet via Ken Onyschuk.

Atlanta Dream 1230 WFOM-GAArt Eckman
1340 WALR-GA
Chicago Sky 1690 WVON-ILNone listed (+Ch23 WWME)

Connecticut Sun		Inet
Detroit Shock	1310	WDTW-MI
Houston Comets	1070	KNTH-TXCraig Ackerman WFNI-INChris Denari
Indiana Fever	1070	
Los Angelas Sparks	1150	KTLK-CALarry Burnett
Minnesota Lynx	106.1	KLCI-MNMarney Gellnar
New York Liberty		none (MSG cable only)
Phoenix Mercury		none
Sacramento Monarchs	1140	KHTK-CAJim Kozimor Krista Blunk
San Antonio Silver Stars	760	KTKR-TX none listed
Seattle Storm	1150	KKNW-WADick Faine, Adia Barnes
Washington Mystics		none

# Confirmed DX er

Phil Bytheway phil\_tekno@yahoo.comt 9705 Mary NW Seattle, WA 98117-2334

### Your successes in obtaining QSL's and other station items

Welcome once again to another Confirmed DXer and to our new reporter Mauricio Molano!!

390	KQNI	spokane, wa. FPC in 1 month on 4th 1/ up for 2003 log. V/5 Kent Abendroin, C.E.
		(Wilkins-CO)
680	HJZO	Barranquilla, Colombia. R. NACIONAL DE COLOMBIA, (Barranquilla tx.), p/d letter
		in 70 d. V/S: Juan Carlos Quintero, Coordinador de Proyectos, Subgerencia de Radio.
		Report sent to: R.N. de Colombia., Avda. Eldorado No. 46-76 Piso 3, BOGOTÁ. Replay
		from: R.T.V.C., Carrera 45 No. 26-33, Bogotá D.C. (Molano-Spain)

- 790 KFPT Clovis, CA. PPC in 7 days for f/up. V/S illegible. (Wilkins -CO)
- 860 KTRB San Francisco, CA. F/D letter with towers in the background in 10 days. V/S John Burger, CE. (Wilkins-CO)
- 950 WPEN Philadelphia, PA. F/D letter in 8 months. V/S: John Arndt, Assistant Chief Engineer. ADDR: Greater Media Philadelphia, One Bala Plaza, Suite 339, Bala Cynwyd, PA 19004. (Molano-Spain)
- 1020 KOKP Perry, OK. PPC in 6 days; 3rd f/up for 2001 log. V/S Bill???. (Wilkins -CO)
- 1290 KMMM Pratt, KS. PPC in 10 days for f/up. V/S ??, Pgm Director. (Wilkins-CO)
- 1370 KWTL Grand Forks, ND. P/D "Thank you" folder card with logo in 15 days. V/S Steve Splonskowski, Executive Director. Also rec'd a medium-sized sticker. (Wilkins -CO)
- 1390 KGNU Denver, CO. PPC in 29 days on 5th try from this local stn. V/S Sam Fuqua, Stn Mgr. (Wikins-CO)
- 1500 WWWT Washington, DC. F/D letter in 90d. V/S: Dave Kolesar, Broadcast Engineer. ADDR: 3400 Idaho Avenue NW, Washington, DC 20016. (Molano-Spain)
- 1530 CSB91 Madeira, Portugal. POSTO EMISSOR DO FUNCHAL, returned my PPC signed and sealed in 21 d.. This was my 5th try to QSL this station in the last four years. ADDR: Rua Ponte S. Lázaro 3, 9000-027 Funchal, Madeira, Portugal. V/S: Teresa Clode. (Molano-Spain)
- 1560 KGOW Bellaire, TX. PPC in 16 days for f/up. V/S David Gow. (Wilkins -CO)
- Oshawa, Ontario. April 13, 2008 QSL received in 11 days for postal report to CKDO Studios, 1200 Airport Blvd #207, Oshawa, Ontario L1J 8P5 Canada. Included IRCA/NRC brochure and \$1 US for postage. QSL contains date, time, frequency and is signed by Gerry Beinaide. Front of card is photo of antennas with CKDO "Oshawa's Oldies" logo in upper right. Grid containing CKDO and CKDO-FM1 information over photo of antennas. (Krist-VA)
- 1600 KEPN Lakewood, CO. PPC in 9 days. V/S looks like Gary Nakashima. (Wilkins -CO)
- 1630 KCJJ Iowa City, IA. QSL received in 46 days for a postal report, including VA postcard, NRC/IRCA brochure and \$1 US to KCJJ Radio, PO Box 2119, Iowa City, IA 52244. Signed by Tom Suter General Manager. (Krist-VA)
- 1650 KWHN Ft. Smith, AR. p/D letter & visit card. V/S: Bryan Harris. ADDR: 311 Lexington Ave., Fort Smith, AR 72901. (Molano-Spain)

A big thanks to the following contributors:

Kraig Krist, KG4LAC, Manassas, VA

Mauricio Molano, Salamanca, Spain.

John Wilkins, Wheat Ridge, CO

# NRC Contest

# Bruce Conti nrcidxd@aol.com 46 Ridgefield Drive Nashua, NH 03062-1174

an annual DX contest which encourages DX'ing and offers prizes

A hearty high-five and thanks to all who dared to participate in this year's DX contests, with outstanding catches logged by everyone, some by barefoot ultralight receivers! Congratulations to Doug Allen and his exhaustive efforts to identify Cuban and Latin American targets from northwestern South Carolina. Doug is the inland DX contest winner with the most logs at 1000+ miles. In the sea-gain DX contest with just one additional Rockport, Massachusetts, ocean-view DXpedition this spring to boost his total score for the most 2000+ miles logs, Mark Connelly surpassed my year-long effort, a testament to the effects of a saltwater path in comparison to my 35-mile inland New Hampshire location. Both Doug and Mark will receive the grand prize one-year subscription extensions.

I'm already planning a completely different format for the 2008-09 contest which should give more DXers the opportunity to compete throughout the season. So enjoy the summer, and get your antennas ready for what I hope will be an exciting and fun contest. Until then, here's the final tally for 2007-08.

<u>1000+ Miles</u> **Doug Allen, Inman SC** (56 pts) 530 RVC Turks & Caicos 1134 mi. 540 CBK Regina SK 1629 540 XEWA San Luis Potosí 1446 540.1 YNOW Managua 1537 550 *RJR* Jamaica 1172 550 YVKE Caracas 1941 555 ZIZ St.Kitts 1708 560 R.Rebelde, Moa 1083 570 YVLX Villa de Cura 1958 585 RNE Madrid, Spain 4156 600 CMKV Urbano Norris 1061 621 RNE Canary Isl. 3889 631.28 YVKA Caracas 1942 670 YVLL Caracas 1942 700 HJCX Cali 2203 700 RJR Jamaica 1175 720 RJR Jamaica 1220 720 YVQE Porlamar 2007 730 XEX México DF 1502 750 HJDK Medellín 2028 750 YVKS Caracas 1941 770 HJJX Bogotá 2155 780 YVMN Čoro 1808 800 PJB Neth. Antilles 1803 810 CMDW Guantánamo 1112 810 HJCY Bogotá 2152 820 CMDE Contramaestre 1078 830 XEITE México DF 1503 840 R. Revolución, Santiago de Cuba 1106 850 KOA Denver CO 1282 860 CBKF Saskatoon SK 1598 860 CMDB Baracoa 1115 880 KRVN Lexington NE 1017 895 *VON*, St. Kitts & Nevis 1723

900 CMKP Cacocum 1048

900 XEW México DF 1505

960 CMDJ Guantánamo 1112

990 CBW Winnipeg MB 1283

1030 XEQR México DF 1498

1060 CMDX Baracoa 1115

1050 CKSB Winnipeg MB 1269

1050 R. Victoria, Las Tunas 1021

1030 KCTA Corpus Christi TX 1020

1070 CBA Moncton NB 1184 1070 CMKS Guantánamo 1112 1090 XEFC Merida 1072 1100 HJAT Barranquilla 1726 1120 *R.Magic*, Haiti 1286 1140 R.Bayamo, Media Luna 1066 1150 R.Bayamo, Entronque Bueycito 1200 WOAI San Antonio TX 1012 1220 HJFF Barranquilla 1726 1220 XEB México DF 1501 1280 R.Revolución, Santiago de Cuba 1106 1570 XERF Cd. Acuña 1175 1620 WDHP Frederiksted VI 1597

### Walt Breville, Wentzville MO (2 1030 WBZ Boston MA 1078 mi. 1160 KSL Salt Lake City UT 1134

### Russell Curry, Anchorage AK (29 pts)

680 KNBR San Francisco CA 2021 720 KDWN Las Vegas NV 2306 730 CHMJ Vancouver BC 1335

780 KKOH Reno NV 1957 810 KGO San Francisco CA 2026 940 KKNE Waipahu HI 2766

980 CKNW New Westminster BC 1341

1000 KOMO Seattle WA 1440 1160 KSL Salt Lake City UT 2117 1190 KEX Portland OR 1548 1300 KKOL Seattle WA 1452

1310 KMKY Oakland CA 2003 1310 KLIX Twin Falls ID 1950

1320 CHQM Vancouver BC 1332

1350 KSRO Santa Rosa CA 1954 1360 KUIK Hillsboro OR 1535

1410 CFUN Vancouver BC 1334 1430 KYKN Keizer OR 1565

1470 CJVB Vancouver BC 1331

1480 KBMS Vancouver WA 1534 1530 KFBK Sacramento CA 1962

1550 KYCY San Francisco CA 2021

1550 KRPI Ferndale WA 1362 1550 KKAD Vancouver WA 1537 1560 KNZR Bakersfield CA 2240 1580 KGAL Lebanon OR 1587 1600 KVRI Blaine WA 1352 1640 KDIA Vallejo CA 1986 1700 XEPE Tecate 2469

# Russell Curry, Eugene OR (11 pts) 770 KKOB Albuquerque NM 1067

820 WBAP Ft.Worth TX 1604 830 WCCO Minneapolis MN 1459 870 WWL New Orleans LA 2051 900 CKBI *Today's Country*, Prince Albert SK 1004 940 CJGX GX-94, Yorkton SK 1081 990 CBW Winnipeg MB 1275 1020 KCKN Roswell NM 1237 1040 WHO Des Moines IA 1510 1200 WOAI San Antonio TX 1698 1500 KSTP St.Paul MN 1480

### Jerry Ervine, McAllen TX (2 pts) 530 RVC Turks & Caicos 1719 mi. 1040 WHO Des Moines IA 1098

### Wayne Heinen, Aurora CO (29 pts)

530 La Habana 1758 mi. 530 *RVC* Turks & Caicos 2323 570 CMDC R.Reloj, Santa Clara 650 WSM Nashville TN 1013 690 CBU Vancouver BC 1118 690 XERG Monterrey 1000 700 WLW Cincinnati OH 1090 710 R.Rebelde, La Julia 1758 720 XEDE Saltillo 1005 740 CHWO Toronto ON 1315 747 JOIB Sapporo, Japan 5403

750 WSB Atlanta GA 1203 760 WJR Detroit MI 1138 770 XEACH Monterrey 1000 790 CMAQ *R.Reloj,* Pinar del Río 840 WHAS Louisville KY 1044 870 WWL New Orleans LA 1070 890 XENZ Culiacán, Sin 1034 910 CMFA Agramonte, Cuba 2023 960 R.Reloj, Guantánamo 2209 1000 KOMO Seattle WA 1035 1130 CKWX Vancouver BC 1114 1260 CFRN Edmonton AB 1042 1260 XESA Culiacán, Sin 1034 1360 KKMO Tacoma WA 1031 1530 WCKY Cincinnati OH 1078 1580 WPGC Morningside MD 1489 1580 WPMP Pascagoula MS 1118 1580 CKDO Oshawa ON 1369

### Nancy Johnson, Billings MT (15 pts)

530 La Habana 2167 mi. 530 *RVC* Turks & Caicos 2676 560 WIND Chicago IL 1098 700 WLW Cincinnati OH 1310 760 WJR Detroit MI 1285 780 WBBM Chicago IL 1057 810 KXOI Crane TX 1041 820 WBAP Ft. Worth TX 1093 870 WWL New Orleans LA 1486 890 WLS Chicago IL 1077 890 KVOZ Del Mar Hills TX 1355 1120 KMOX St. Louis MO 1066 1180 CMBA Villa María 2145 1200 WOAI San Antonio TX 1258 1700 XEPE Tecate BCN 1012

### **Taylor McNeil, Arlington MA** (6 pts)

530 *RVC* Turks & Caicos 1441 *mi*. 570 CMDC R.Reloj, Santa Clara

640 CMBC R. Progreso, Guanabacoa

820 CMDE Contramaestre 1552 870 WWL New Orleans LA 1365 900 CMKP Cacocum 1524

### Dale Park, Honolulu HI (23 pts) 560 KSFO San Francisco CA 2392

570 KLAC Los Angeles CA 2559 580 KMJ Fresno CA 2532

612 4QR Brisbane 4702

620 KPOJ Progressive Talk, Portland OR 2592

630 4QN Townsville 4674

640 KFI Los Angeles CA 2567

710 KIRO Seattle WA 2664

720 KDWN Las Vegas NV 2763 780 KKOH Reno NV 2566

860 KTRB San Francisco CA 2421

960 KKGN Oakland CA 2397

1070 KNX Los Angeles CA 2548 1090 KPTK Progressive Talk, Seattle WA 2664

1098 V7AB Marshall Islands 2292

1100 KFAX San Francisco CA 2402 1120 KPNW Eugene OR 2524

1140 CHRB High River AB 3121

1150 KTLK Los Angeles CA 2571 1160 KSL Salt Lake City UT 2979

1170 KFAQ Tulsa OK 3832

1190 KEX Portland OR 2592 1332 4BU Bundaberg, Australia

### Sheryl Paszkiewicz, Manitowoc **WI** (24 pts)

540 XEWA San Luis Potosí 1692 mi.

555 ZIZ St. Kitts 2348

650 CKOM Saskatoon SK 1028

660 KTNN Window Rock AZ 1267 660 XEEY Aguascalientes 1739

670 CMQ R.Rebelde, Arroyo Arenas

690 KTSM El Paso TX 1313 690 XEMA *La MA*, Fresnillo, Zac

710 CMW R.Rebelde, La Julia 1501 730 XEX México DF 1831

750 YVKS Caracas 2624

760 XEABC México DF 1819

770 R.Rebelde, Las Mercedes 1763

800 PJB TWR Bonaire 2487 800 XESPN Tijuana BCN 1771

900 XEW México DF 1833

1000 R.Granma, Manzanillo 1748 1060 XEEP México DF 1827

1140 CHRB High River AB 1304

1140 XEMR Monterrey, NL 1448

1170 XEJTF Zacoalco, Jal 1882 1180 CMBA Villa María 1477

1200 WOAI San Antonio TX 1160 1700 KVNS Brownsville TX 1369

# Mike Plumb, Papillion NE (9 pts)

640 KFI Los Angeles CA 1303 mi. 680 KNBR San Francisco CA 1420 770 WABC New York NY 1145

880 WCBS New York NY 1160

960 CFAC Calgary AB 1088 1030 WBZ Boston MA 1298

1060 KYW Philadelphia PA 1092

1140 WRVA Richmond VA 1034

1140 CHRB High River AB 1085

# Paul Swearingen, Topeka KS (17

530 RCH La Habana 1369 mi.

530 RVC Turks & Caicos 1871 570 CMDC R.Relój, Santa Clara

640 CMBC R.Progreso, Guanabacoa 1349

660 WFAN New York NY 1116

670 CMQ R.Rebelde, Arroyo Arenas

680 KNBR San Francisco CA 1443

730 XEX México DF 1372

770 WABC New York NY 1151 880 WCBS New York NY 1166

900 XEW México DF 1373

960 CFAC Calgary AB 1208

1010 CBR Calgary AB 1211 1030 WBZ Boston MA 1317

1060 KYW Philadelphia PA 1090 1070 KNX Los Angeles CA 1309

1210 WPHT Philadelphia PA 1105

John Wilkins, Wheat Ridge, CO (30 pts)

530 RVC Turks & Caicos 2341 mi. 580 CKUA Edmonton AB 1018 590 XEFD Reynosa, Tama 1033 610 CKYL YL Country, Peace River AB 1261

640 XEYQ Fresnillo, Zac 1154 650 WSM Nashville TN 1031 690 CBU Vancouver, BC 1100 693 JOAB Tokyo, Japan *5803* 700 WLW Cincinnati OH 1106 740 CHWO Toronto ON 1328 747 JOIB Sapporo, Japan 5386 750 WSB Atlanta GA 1222 770 KTTH Seattle WA 1014 774 JOUB Akita, Japan 5593 790 CMAQ R.Reloj, Pinar del Río

1733 790 XENT La Paz BCS 1117 800 CKLW Windsor ON 1163 820 CMDE Contramaestre 2170 828 JOBB Osaka, Japan 5888 840 WHAS Louisville KY 1060 870 WWL New Orleans LA 1089 870 CMDT Sancti Spíritus 1945 930 CJCA Edmonton AB 1020 1000 KOMO Seattle WA 1016 1050 XEG Monterrey NL 1010 1100 WTAM Cleveland OH 1233 1130 CKWX Vancouver BC 1096 1190 WOWO Ft. Wayne IN 1040 1530 WCKY Cincinnati OH 1095

### <u>2000+ Miles</u>

1566 HLAZ Cheju, S.Korea *6470* 

Only additions since the last update are listed here. Consult the January 28 edition of DX News or e-DXN online for more log entries.

# Mark Connelly, Rockport MA (172

pts) 567 RNE5 Spain 782 Tartus, Syria 5366 981 R.Renascença, Portugal 1035 *R.Clube,* Portugal 3207 1039.61 YVLB Valencia 2246 1044 SER Spain 1070 YVMA Maracaibo 2206 1125 *VivaCité*, Belgium 3448 1188 *VRT* Belgium 3403 1190.34 HJCT Barranquilla 2203 1196.68 Malanje, Angola 6512 1296 Reiba, Sudan 6289 1512 Greece (Crete) 4837

### Bruce Conti, Nashua NH (156 pts)

550 R.Nacional, Colombia 620 YNN Nicaragua 22*86* 680 HJZO Sabanagrande 2201 730 HJCU Bogotá 2628 1386 Lithuania 4080 1566 TWR Benin 4982 1611 Vatican Radio, Italy 4108 + 2 synchros

73 and Good DX!

+ 47 synchros

### An In-Use Look at a Beta Prototype of the Upcoming

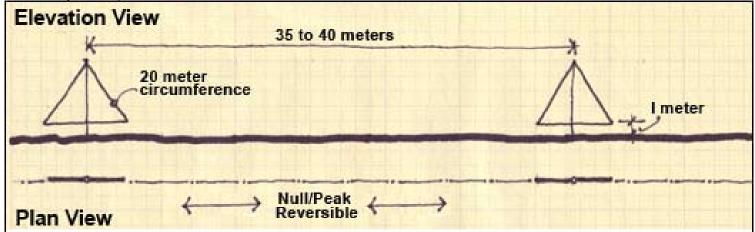
# Wellbrook Phased Array

By John Bryant

I became acquainted with Andy Ikin, the guru of Wellbrook Communications five or six years ago when I purchased one of the first of Wellbrook's extraordinary K9AY antennas to reach North America. I soon wrote a rather glowing in-use review of the Wellbrook K9AY and have corresponded with Andy sporadically ever since. Eighteen months ago, I was very complimented when Andy asked me to join several other MW DXers in the Beta test of a new *broadband* Wellbrook Phased Array. Recently, Andy has decided to make the new two to four element Wellbrook Phased Array commercially available on a "build to order" basis and I am finally able to report on what has become an unexpectedly lengthy odyssey in development of what will likely be a break-through antenna for medium wave DXing.

For initial Beta testing, Andy provided a two-loop end fire phased array, essentially half of the upcoming two-to-four-loop commercial version. Six months ago, Andy provided me with a pre-production unit of the full array. In the commercial version, *each pair* of loops (with the shared control box) is a complete phased array with a totally reversible pattern. The sketch below shows the arrangement

of a 2-loop Array.



As you can see, the two twenty meter circumference loops were positioned exactly 40 meters apart. Please note that the requirement for the 40 meter separation is fairly rigid as is the need to have the loops exactly in the same plane. Although in the commercial version, Andy will provide a bit of adjustability with the spacing (maybe to 35 meters?) the broadband delay line nature of this design makes both of these requirements rather rigid. There is complete flexibility of the positioning of the two arrays in relation to each other, however. (Refer to the Appendix to this article.)

I asked Andy to explain to me the difference between his design approach and the kind of phasing of two antenna elements, popularized by the work of Mark Connelly and others, which many of us use today. He provided me with this answer.

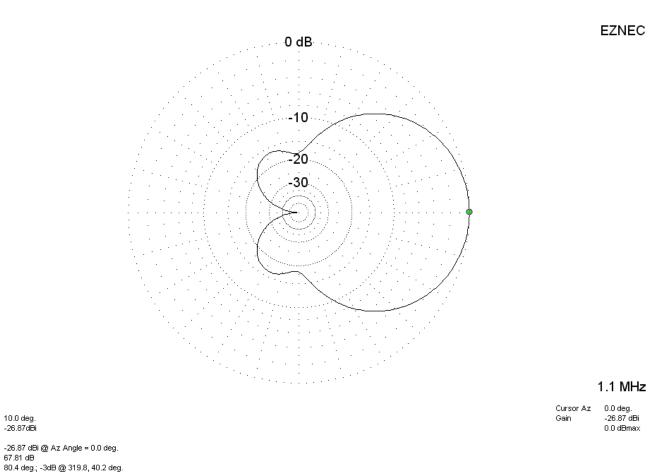
The phasing of two antennas has long been used by DXers to enhance reception; primarily this is done to null an interfering station. The basic operation is to apply a 180 degree phase difference with equal amplitude on the station to be nulled. Whilst this can be very effective, most such phasing schemes will only work over a very narrow frequency band. This is because the antennas and phase shift network changes with changes in frequency. Also incorrect feeder termination may cause frequency-related phase and amplitude fluctuations.

A *broadband* phased array requires a completely different approach to the phasing scheme described above.

First, the broadband phasing system has to provide the correct resistive termination to the antenna feeders, must use constant gain antennas and, ideally, should have minimum of controls, with negligible interaction. More importantly, the phasing scheme must not vary frequency i.e. the array front to back ratio should be relatively constant over the MW band.

The Wellbrook Phased Array implements the above criteria, by using "phase matched" loop antennas i.e. the antenna/amplifier propagation delay is matched to within a few nano seconds across the MW Band. The antenna feeders have the correct resistive termination. Combing the antennas in anti-phase plus a nominal time delay line equal to approx. 80% of the spacing of the elements and this maintains the correct antenna phase difference. Null steering up to over 50dB is achieved by making the delay-line continuously variable and "fine adjusting" the antenna amplitude balance. We also found it to be quite important that the phasing Control Unit be isolated from any receiver impedance mismatch.

I also asked well known MW DXer Neil Kazaross to model *one pair* of the Wellbrook Array using EZNEC software. Neil kindly provided a number of studies. Neil's basic EZNEC response diagrams are reproduced below. The horizontal model is sliced for 10 degree arrival angle



When I saw this, I was reminded of the response pattern of a perfectly terminated one wavelength Beverage. They aren't identical patterns, but they are quite similar. So, using the commercial unit, set up with a full complement of four loops and arranged classically with the two pairs at 90 degrees to each other would essentially be like rotating this horizontal diagram through 360 degrees in four steps. My initial Beta unit, with only two loops and the commercial unit operating with only two loops should give a response pattern like flipping the horizontal diagram shown above back and forth, left to right.

Azimuth Plot

Slice Max Gain

Front/Sidelobe

Azimuth Angle Outer Rina

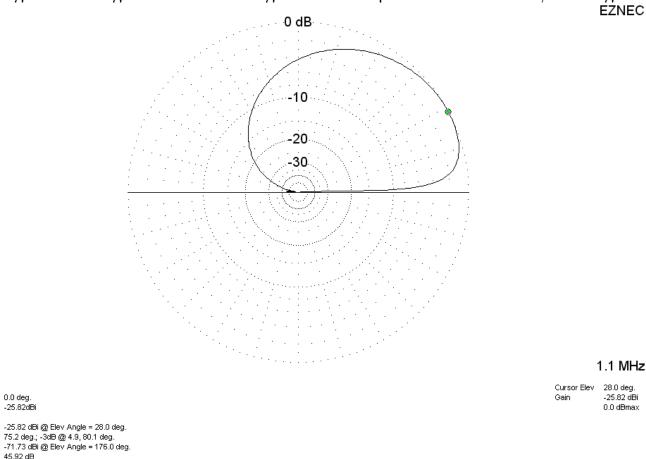
Sidelobe Gain Front/Sidelobe

45.92 dB

Elevation Angle 10.0 deg. Outer Ring -26.87dBi

43.1 dBi @ Az Angle = 244.0 deg

Neil also pointed out that the combination of two loops in this fashion reduces the response (as compared to a single loop) to high arrival angle signals. This is a good thing, since nearby interfering signals are high arrival angle and much of long distance reception comes in at very low angles.



### **OKLAHOMA TESTS: SPRING 2007**

Part of my Beta testing was measuring null depths or front-to-back ratios in real world situations. My winter home in Oklahoma is a perfect location for that type testing because the state was settled so recently (early 1900s) that most roads, highways and towns are on a 90 degree orthogonal grid. Hence, I have a multitude of MW stations exactly to my north, south, east and west. Thus, it was relatively easy to set up the array for measurement. I used my WinRadio G313e which can average signal strength over several seconds and which can be set to very narrow bandwidth to eliminate much of strength variation due to modulation. This article is not intended as a full report on those tests, but I should state that the Array had deeper nulls than I've ever been able to achieve before.

Further, I should comment on the testing of null depths in the real world. Even in an orthogonal world like Oklahoma, it is very difficult to measure the maximum null depth achievable by an antenna. First, the time of day is critical: only around solar noon, to ensure a groundwave-only steady arrival angle; secondly the station to be nulled needs to be quite strong, but probably not too strong. If the theoretical maximum null is, say, 40 dB, testing it on a station that is only 30 dB above the noise (5 Sunits) shows nothing about the *maximum* possible null: you null the 30 dB signal down to the noise floor and that is all you can do. Thirdly, the stations tested need to be fairly closely clustered, geographically at the true backside of the antenna and, of course, the test stations need to be spread across the dial, so that variation of the null by frequency can be addressed. Finally, to achieve the maximum null, the test stations signal MUST NOT be covering a co-channel station beneath it; the energy from that second or third co-channel signal will "fill in" the null giving a too shallow null depth indication. With this latter concern, it becomes somewhat obvious that testing for maximum nulls, even in the daytime, is very difficult even in the sparsely populated RF environment of the American West; in dense RF environments such as the North American East Coast or in Europe, achieving the theoretical null depths in the field must be close to impossible.

In the Oklahoma testing, the nulls on most signals with no audible co-channel station were in the 35 dB range, but on strong signals, right down the bore of the Array, some F/B ratios were right at 45 dB. Extra-ordinary! I should add that I did several similar tests at Grayland, Washington and could – consistently – achieve 48 dB nulls on one of the Portland stations. My guess is that the ultimate nulling ability of this array, *under ideal conditions*, is about 50 dB. The fact that the two-loop array was totally reversible also proved rather handy, even though my main interests in the Spring of 2007 were only southward from Oklahoma (Mexico.)

In Oklahoma, I also tried to emulate using the array under DX conditions in the evening. In two evenings, I was able to look at the performance on each of the 117 or so 10 kHz. channels on the MW band. I considered the antenna a success on a channel if there was a DXable difference between the two positions of the 'Beam Reverse' switch on that channel..... So, the two different stations did not have to be totally separated from each other (although they mostly were, say 75% of the time). As long as I was satisfied that I could definitely ID two different stations, one at each of the switch positions, I declared it a success. In reality, this allowed me to count a handful of situations where I could hear the same station at both switch positions: one way, it was "studio quality" the other direction, I could still hear it, but a second station was now clearly dominant. On an amazing percentage of stations there were two different, totally clear stations. Just amazing. There was a second condition that I also considered effective: when there was a dominant station in one direction and simply nothing in audio in the other. I considered the antenna *not* to be effective if my ear could hear no real DXable difference in the two settings.

The first evening, I went through the 117 or so channels from 530 to 1700 in about an hour. There were 15 channels where my ear could find no difference between the two settings. About half of these were graveyard channels with 100 or more small stations on them and they were just a mess, which ever direction I turned the switch.... just a "furball." That was certainly not attributable to the antenna, but it still wasn't a *DXable difference*. That first night, there were an additional dozen channels where there was a clearly dominant station in one direction and no audio whatsoever in the other. An example of that would be 1200 kHz., with WOAI in San Antonio on the south end of the array and NOTHING off the north. WOAI has been the super-power dominant, clear channel station on that frequency since the late 1920s. Since it is in the center of the continent, 700 km or so to my south, there is very little else in the US or Canada on that frequency. Whatever is there is on the fringes of the continent and directional away from WOAI (and me!) So, there were 12 channels like that.... that the antenna produced an excellent null, but it was not DXable. Still, I counted that dozen in the successful column.... meaning hat the antenna made a DXable difference on almost 90 percent of the channels in one night. FABULOUS!

The second night, I went back and invested a full hour in the 15 channels that had been classed "failures" the previous night. With some tweaking on my part and changed propagation conditions, I could make out a DXable difference on 11 of those 15. Five furballs had gone away in the intervening 24 hours, with DXable stations on both ends. The only furball that just could not be resolved was 1490 kHz., the most crowded channel in the Americas. In the second instance, one station, 50 kW KOKC (formerly KOMA) in Oklahoma City on 1520 kHz., just would not null effectively. I could knock 10 or 20 db off of a 60 dB signal, but it just wouldn't die on either night. Since it is about 100 km. directly to

my south, it should have been nullable. Who knows..... there are always a few mysteries with phasers, it seems. The final two signals that were not nullable (5 to 10 dB) were 740-KRMG, Tulsa and 1170-KFAQ, Tulsa. Both are 50 kW, long-time clear channels with excellent antennas and ground systems. Most importantly, they were exactly 90 degrees off the side of the array.... ya just can't beat the laws of physics entirely, I guess.

So, the 15 channels where the antenna was not DXably effective the first night was reduced to four. I've really experienced such effective performance out of any antenna, not even the Wellbrook K9AY. Most of all, nulling of stations to the side, 50 and more degrees off the centerline of the array was very impressive. With the array erected due North-South, I was able to test nulling to the side EFFECTIVELY: to my ENE, WHAS, Louisville, KY and WLW, Cincinnati, OH, to my WNW, KOA, Denver and to my SE, WWL Orleans. All but Cincinnati were in the mid-800kHz. on the dial. *Very impressive lateral nulling*, since these are each persistent pests on my night-time dial.

My last test in Oklahoma was comparison testing the two-loop array against what my current favorite unidirectional antenna: a broadside phased array of two BIG EWEs, about 28' x 60', both pointed south, nulling to the north themselves and separated by about 350 feet. These units were phased against each other using a fairly new Misek-Lankford phasing box. The Misek design takes a conventional L-C approach to phasing and is both very effective and easy to operate. I had planned this to be my ultimate antenna for Mexico and I figured that it would be about as good as I could ever get. Of course, the real estate necessary for that array (about 80' x 400') is not available to many DXers at their home QTHs;that much acreage isn't that easy to obtain even at a campsite. Further, the two EWEs take four 30' masts and a great deal of coax. Still, when I fire it up, I hear a whole lot of Spanish on the dial and not too much else, when the phaser was set correctly.

Well, before I ended testing of the Wellbrook Array, I wanted to compare DXing performance of the two arrays. I was able to do so for only two evenings. *Nevertheless, the results were quite clear: they were mostly indistinguishable, one from the other, as far as what I could hear to my south.* There is a mild RF amp in the Misek phaser and the Wellbrook ALA-100s loop elements are amplified, so the S-meter readings were quite similar. More importantly, when I simply listened, they were usually identical. However, there were four or five instances where a station to the south was audible on both antenna arrays fairly equally, but.... from a qualitative point of view, one was preferable to the other. In each instance, the array that "heard the signal better" was the Wellbrook Phased Array. So: the Wellbrook required less wire, less coax, only two masts and much less expensive/shorter masts, at that. The again, the instant reversibility of the Wellbrook Array was a real boon. Finally, the broadbanded nature of the Wellbrook was ever so much more productive and easier to operate that the more narrowly focused Misek unit. The best that I can tell, the Wellbrook delivers well more than half its ultimate nulling capacity right across the band in a "set and forget" mode. Once in a great while (10 to 20 percent?) it is possible to improve the null with a bit of careful tweaking, but usually this is unnecessary.... Completely at odds with a conventional phaser that requires practically constant retuning as one moves across the dial.

That completed the Oklahoma portion of the Beta testing. The Wellbrook Phased Array had passed with flying colors and I knew that I'd never again be using my phased array of over-sized EWEs at the home place. The Wellbrook was smaller, easier to operate and far more effective.

### PACIFIC NORTHWEST TESTS: SUMMER & FALL 2007

My second task, along with Guy Atkins of suburban Seattle was testing the Array in the Pacific Northwest in two venues: at our home locations which are each surrounded by 50 kW transmitters and at the well known DXpedition site, Grayland, Washington on the open Pacific shore. In each location, we DX Trans-Pacific medium wave signals that are available the latter half of the night and peak at local dawn.

### **BACKGROUND: GRAYLAND**

We have been DXing at Grayland for 18 years, using long "Beverage" antennas. The relationship of the motel unit that we use to the Pacific shore governs the length of Beverages. There is about 600 feet of open lawn and then 100 feet of dunes and high grass that separate the unit from the high tide mark and the open Pacific. The lawn grows on compacted beach sand; the water table varies between 1 foot beneath the surface in the winter and about 8 or 10 feet down in the summer and fall. *The motel is due east of the beach and the shore line runs very nearly north-south.* Our standard set-up of Beverages is a 700 foot long due West Beverage running to the high tide line (points the central Pacific and at Western Australia) and a 800 to 900 foot long Northwest Beverage pointing more or less at East Asia. Grayland is on the southern portion of the Washington coast with the closest AM transmitters about 20 miles away (two low powered stations.) The some of the closest powerful stations are in Portland, Oregon, to our southeast, about 200 km. away. The other pest stations are directly down the coast in San Francisco, 800 km or so or in Seattle / Vancouver / Victoria to the NNE. Seattle is only 125 km. away while Vancouver is double that.

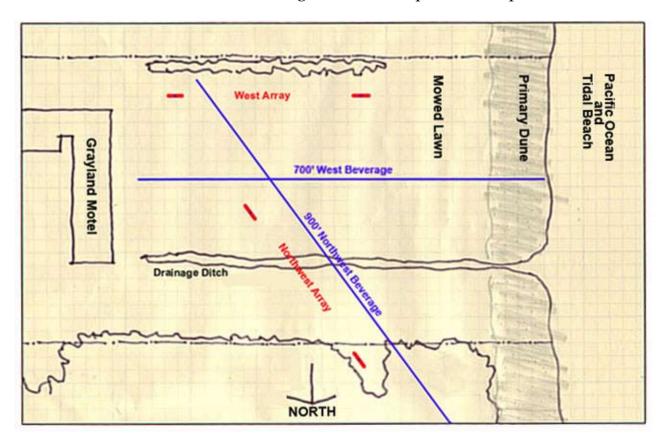
In DXing Trans-Pacific signals from Grayland, what is wanted in antennas is a decent amount of

gain, as much signal to noise ratio as possible and, if possible, maximum rejection of unwanted signals over 180 degrees of azimuth from straight North to straight South. Since our Beverages are considerably less than one wavelength, across most of the MW band, one would think that they would not be very directional. However, there is almost always a *significant* directional difference between what we hear on the W and the NW Bevs at the same time. There are differences in signal-to-noise on the two antennas almost all of the time (listening to the same station, with much better S/N ratio for Japanese signals and often more gain, for instance, on the NW Beverage.)

We have always looked for "better" antennas to use at Grayland. It is almost impossible to properly terminate the Beverages in the sand, and they are a real pain to set up and take down for just two or three mornings of DXing. Over the years, we have experimented with virtually the full suite of antenna possibilities, always carefully A/Bing them against the Beverages. I have been terribly disappointed several times, having found antennas that worked as well as short Beverages in Oklahoma, only to find that they did not do so in the sand at Grayland. What was happening, I finally concluded, was the difference responses of the antennas to the 100% sand ground at Grayland and the almost perfectly conducting greasy iron oxide-rich red clay of central Oklahoma (one of the finest ground planes in the world.) Anyway, I was particularly excited by the giant EWE (20'x60') or even two giant EWEs, phased, that in Oklahoma kept up with and even surpassed 700 foot short Beverages. The EWE, perfectly grounded and working over such a great ground plane, is a real star in Oklahoma. The performance of it and it's cousins the Flag, Pennant and even K9AY were all a disappointment in the pure sand environment of Grayland. For a while, I was also very excited about a special built 3' x 1" tuned/amplified ferrite rod antenna which did "almost as well" as a Beverage in Oklahoma... It fell on its face at Grayland. Of course, not only were the grounded loops working better in Oklahoma than on the sandy beach, but the Beverage was working more poorly over the greasy conductive clay of Oklahoma; it performed AT ITS BEST in the sand of Grayland. We even tried the much vaunted 1 meter square, multi-turn air core loop of a generation ago; it was non-competitive on the beach.

### DXing Performance: Grayland, Mid-September 2007 Attending: Guy Atkins and John Bryant

DXing comparisons were made for four consecutive mornings using the Australian and Japanese stations that were available each morning for about two hours during the very early morning and dawn periods. The Australian MW AM signals varied in strength from providing just threshold audio to a few signals running almost S-9. There were 29 different Australian stations received and 6 stations from New Zealand. About half of the stations were received on multiple mornings, making somewhere around 70 total test receptions. The distance to these stations averaged about 11,000 kilometers or 7500 miles. There were 22 Japanese stations used, with many of them received on multiple mornings, making around 40 total receptions; as with the Aussies, these varied in strength from threshold audio to very strong signals. The distances involved to the Japanese stations were about 7,500 km or 4,500 miles. During the vast majority of the testing, there were virtually no differences of signal strength or signal-to-noise ratio noted between the signals present on the appropriate Beverage and its adjacent Array. Both judgments were non-numeric... simply based on the sound qualities of each signal and the amount the carrier rose above the surrounding noise on the spectrum scope of the WinRadio G313e.



There were a few performance differences between the Wellbrook Arrays and the short Grayland Beverages, though these affected only a few receptions. The major difference was the vastly superior Front-to-Back ratio of the Wellbrook Array. I estimate that the true F/B ratio of the Array was somewhere around 50 dB. Due to the difficulty of achieving a good ground for terminating the Beverage, its F/B ratio was somewhere between zero and 10 dB. Since we were DXing Australian and Japanese stations on the 9 kHz. spacing and our regional American stations were on the 10 kHz. separation pattern, F/B ratio was not a major issue at Grayland, except, potentially, for shedding the much awaited digital hash QRM.

We made one test of the usefulness of the F/B abilities of the Wellbrook that is worth relating: 670, KBOI in Boise, Idaho has been a regional pest at Grayland for years. It is 50 kW, 24 hours and about 450 miles/700 km to the Southeast of Grayland (120 degrees azimuth.) Near dawn one morning, I tuned to 670 and pointed the due E-W Array eastward. Sure enough, there was KBOI at full throttle. I flipped the switch to West and I soon IDed the station on that side of the switch, **all by itself:** KPUA, 10 kW in Hilo, Hawaii, 2700 miles away, at 240 degrees of azimuth, and running 10 kW. It was a truly amazing demonstration of F/B ratio and width of both front lobe and null, since each station was 30 degrees south of the centerline of the array. I'm sorry that I didn't have time to pursue other Hawaiians to further demonstrate this great capability.

Given urban noise, the increase of digital modes on MW and the heavy co-channel interference that most of us suffer, I would imagine that the superb F/B ratio of the Array will be one of its most useful attributes for most DXing situations and one of the primary reasons that the Wellbrook Array will likely become a DXers' favorite.

Another difference between the two antenna types was the fact that the forward lobe of the Array was *somewhat wider* than that of the short Grayland Beverages. This width difference was found by comparing DX stations from Australia and Japan both on the NW — antennas and those pointing West. For instance, there was only a little difference between the signal strength of an Aussie on the W and the NW Array while there was a much greater difference in the strength and S/N ratio between that same Aussie signal on the West and NW Beverages. This comparison was made many times using both Australian and Japanese signals. Clearly the forward lobe of the Array is wider than that of a short Beverage. This width of lobe could be a real advantage to the Array in some circumstances and a disadvantage in others.... The Azimuth for the Aussies was 240 to 250 degrees (West antennas at 270) and the Japanese was at 300 (antennas at 317.)

### DXing Performance: Queen Charlotte Islands, Mid-September Attending: Guy Atkins, Walt Salmaniw, Chuck Hutton, Bruce Portzer and John Bryant

The DXpedition trip to the Queen Charlottes was a real joy, both for DXing and to rub shoulders with the wonderful Haida indigenous culture. However, the Wellbrook's record of performance on the Charlottes was mixed and really quite confusing. The Wellbrooks only operated properly about half the time. This was no real fault of the antennas, just the confusion of five DXers operating 6 or 7 Beverages and then trying to share two very adjustable Wellbrooks. When they were operated properly, I found that they equaled the Beverages much of the time. Three of the seven mornings, I found myself using the Wellbrook as the antenna of choice, but the choice was very close. Until after Chuck and Bruce left, no one but me used the Wellbrooks very much. Whether this was from frustration (the earlier mis-connections) or the pressure of too much DX coming in on antennas that were tried and true (the Beverages) or whether they unexplainably saw differing result, I just don't know.

There seemed to be one important and surprising difference between the Array and the Beverages at QCI, that several of us, including me, saw: the Wellbrook did not do well at all at the extreme beginning of sunset DX and end of dawn DX. In the years that many of us have DXed directly from the beach on either side of North America, we have noticed DX starting to come in much earlier before sunset than it does just inland (in the case of East Coast North Americans DXing Europe) or staying in much later after sunrise as West Coasters DX Asia or DU at dawn from the Pacific beaches. The prevailing theory to account for this thirty to ninety minute extension of the DX opening is that extremely low angle DX is refracted from the edge of darkness far beyond the shore and reaches DXers at the shore, but does not penetrate inland. Some of us visualize it as very weak quasi-ground wave. Who knows if this is the proper explanation? In any case, there is this extension of the DX window that seems to occur only at the beach itself.

At the QCI DXpedition, we were fortunate enough to hear over forty European stations in the early evenings, as well as hundreds of Asian stations in the early mornings, so we were able to experience both the evening and morning beach-related extensions of the DX window. Well, what we noticed there was that the Beverages received this early and late extension much sooner than the Wellbrooks. Several of us noted this difference over several DX sessions. After thinking a while, that lag or delay actually seemed to make sense to us. Although two phased delta loops (the Wellbrook) do have better low angle response than a single delta, they still are probably less sensitive to extreme low arrival

angle signals than are Beverages.... So, it might "make sense" that we would detect those early signals first on the Bevs at sunset and last on the Bevs at dawn.

### DXing Performance: Grayland, Late October 2007 Attending: John Bryant

The main purposes of my second fall trip to Grayland was to reconfirm our earlier finding that the Wellbrooks did as well as the vaunted Grayland Beverages and to reconfirm the early loss of signal by the Wellbrooks after dawn, noted for the first time in the Queen Charlottes.

I spent about ten hours spread over two mornings carefully A/Bing the Wellbrooks against the two Beverages. The two Beverages were both our standard BOGs, with the westerly one 700 feet long and the Northwesterly one at 900 feet. The two Wellbrook arrays paralleled the Beverages but were separated by 40 to 60 feet. Happily, a few Australians were in for each morning, so there were test targets for the Westerly antennas. The Northwesterly group had plenty of low strength targets from Japan, the Koreas and China.

Despite the fact that I can measure the relative strengths of signals numerically (to the dB) with the WinRadio 313e, such measurements were not useful in these tests. In general, the Beverages moved the S-meter further to the right than did either beta Wellbrook. Further, one of the two Wellbrook Beta-generation controllers has about 8 dB more (useless) gain than the other. All of the comparisons were made strictly on the quality of the received signal. This was particularly easy with weak, almost threshold signals and a good antenna switch: easy to determine which antenna allowed you to comprehend the most words, or easy to identify which antenna eliminated the most splatter or IBOC hash and allowed that particular weak signal DX through. Essentially, I shut my eyes and switched the antennas back and forth. It was quite easy and, I believe, both accurate and relevant.

In that kind of comparison test, the Wellbrook Array was the favored antenna about five out of ten times. About three or, more likely, four out of ten times, I could distinguish absolutely no difference in the two antennas being compared. That leaves somewhere about 1 or 2 in ten tries where the Beverages were slightly better.

I should add that in the instances where the Wellbrook was superior, it was attributable to one of two things, both associated (I believe) with front-to-back ratio. On the 9 kiloHertz channels where the DX was close-in to an American channel, the superior F/B of the Wellbrook often delivered more signal and less splatter. There were other instances on the more open frequencies where the Wellbrook simply delivered a signal with less hiss and band noise, despite the generally quiet RF environment of Grayland.

The small minority of signals where the Beverage outperformed the Array are also worth discussing. In about half of these relatively few instances, there was just no evident reason, but performance of the Bevs was just a little better. For the other half of those few instances, though, it appeared that the (probably) slightly narrower front lobe of the Beverage was responsible for the improved performance. For instance, KPUG-1170 in Bellingham, WA is NNE of Grayland about 200 km. That channel is also an active one on the 9 kHz channel scheme. On Friday morning, I heard VOA-1170 Philippines doing battle with KPUG. The next morning it was KBS-1170 from South Korea that was running both over and under regional power KPUG. KPUG was about 45 degrees to the right of dead center of the NW antennas. The DX signal was more prominent on the Beverage in both cases... The slightly narrower Beverage front lobe shed a bit more of the KPUG signal and "let the DX through." So, for this location here, the narrower Beverage view of the world did prove to be an advantage.... about 5 or 10 percent of the time. The rest of the time, the Array was equal or better than the Beverage!

What about this deafness in the extended pre-sunset or post-dawn that we noted at the Queen Charlotte DXpedition? Let me tell you, I was prepared to stay up all morning to quantify the performance of each antenna to the bitter end. I was shocked to find that the deafness noted at QCI just DID NOT EXIST at Grayland. In fact, the Arrays continued to outperform the Beverages right through until the bitter end, 90 minutes after sun-up!

Here are my results from both Friday and Saturday morning. Sun-up was at 1445. The "greater than" symbol indicates that the first antenna performed better than the second.

FREQ	<b>STATION</b>	FRIDAY	SATURDAY
594	Japan	Array>Bev	Array>Bev
738	Cĥina	Array>Bev	Array>=Bev
774	Japan	Array=Bev	Array=Bev
954	Japan	Array>Bev	Array>>>Bev
972	Korea	Array>>>	Bev Array>>>Bev
1287	Japan	Array=Bev	Faded Out
1566	Korea	Array=Bev	Array <bev< td=""></bev<>
		Ouit@1615UT	Ouit@1530UTC

I've given quite a bit of thought to what happened at QCI in those pre-sunset and post dawn

minutes, but I'm still mystified. The theory of the differing arrival angles just "made so much sense!" There are only two physical differences between the situation at Grayland and that at QCI: First, QCI is pretty much right at the edge of the auroral absorption zone. Secondly, our location at QCI was on a north-facing beach, where here at Grayland, we and the beach face due west... so, the azimuth of the arrival of the signal, relative to the beach, was somewhat different, though both approached over the ocean and hit the shore at between 30 and 45 degrees, I think. What, if anything, either of these two facts have to do with what we observed in the Queen Charlottes, I don't know. Someone definitely needs to do some more testing of the Wellbrook vs. a good Beverage at Walt Salmaniw's site in the Queen Charlottes. The Wellbrook Array was outstanding during and long after dawn at Grayland, most probably in the early September trials and very certainly those in late October.

The results of the second Grayland trip simply reconfirmed the findings of the first trip. The Wellbrook Array took up far less real estate and performed as well or better than the Beverages. Where the superiority of the Wellbrook Phased Array was VERY apparent was on the channels where the 9 and 10 kHz spacing coincide: 540, 630, 720, 810, etc. In most instances, the far superior F/B ratio of the Array was very useful. Also, most of the IBOC noise apparent on the Beverages simply disappeared on the Array. I'll not be putting up Beverages again at Grayland.

### DXing Performance: Orcas Island, WA, Mid-August to Mid-November 2007

The first question to be addressed on Orcas Island was whether there were any problems with the Wellbrook Array operating in an intense RF environment. Orcas Island sits at the top of Puget Sound, on the Canada/US border, halfway between Vancouver and Victoria, BC. Greater Vancouver contains eight 50 kW, three 25 kW and one 10 kW MW transmitters, all about 20 miles of open sea from my antennas. Victoria sports two 10 kW. stations that really seem more powerful than 10 kW. In a full season, I did not notice any problems with overloading, etc. when using the lightly amplified Wellbrook.... It behaved exactly as it should. Other DXers in even more intense environments may find differing results, but it darn sure worked well for me!

During the Fall Season, 2007 in the Pacific NW, I also compared the Wellbrook Phased Array to my "ultimate" home antenna: two giant EWEs ( $70' \times 100' \times 70'$ ) on Orcas Island. One of these EWEs points at 310 degrees toward the East Asian Coast and the other points at 260 degrees, toward Australia. I installed the 2-loop Wellbrook Phased Array in parallel with the 310 degree Asian Giant EWE, but northwest of it, so there was no real chance of interaction between the two.

My A/B comparisons were between the NW EWE and the NW array. My general impression over the season was that the Array slightly outperformed the single giant EWE on weak Asian signals that were out in the open. Adequate grounding of the EWEs is very important to their performance, as is the reflective quality of the near field ground. Both are somewhat problematic on my solid rock mountainside site, so I converted the NW EWE to a Conti Super Loop which operates independently from ground. The change from EWE configuration to Super Loop may have produced a slight improvement of back-side rejection on the lower portion of the band. In comparing the two antennas over about a week of DXing Asian stations, the Array continued to be ever so slightly better than the Super Loop on single Asian signals out in the open. Where the difference in the two antennas was striking was on 9 kHz channels that were co-channel or only one kHz. off of regional 10 kHz. channels. Here the significantly superior F/B ratio of the Array meant that there was usually really no comparison. The DX was always significantly better on the Array. The same was true, of course, for most co-channel situations or when needing to shed backside IBOC noise.

During the International MW phase of the testing, I did try phasing the two giant EWEs together using a Misek/Lankford phaser and comparing the result to that from the Array. In that situation, there was almost no difference that my ear could detect between the two systems, almost all of the time. There were a few test situations where one system out performed the other, but not many. The major difference – and very important to me – was that the broadband design of the Wellbrook Array required little to no retuning right across the dial, where the two phased loops, using conventional phasing, required almost constant readjustment as one tried to hop around the band.

Being very internationally-oriented and having access to beach-side DXing, I have not done domestic MW DXing since early 1960, the last of my early stint in the MWDX hobby. However, it seems to me that the Wellbrook Phased Array is particularly well-suited for domestic, co-channel DXing, especially in its full blown four-loop configuration. Since the initial Beta test unit was limited to a two-loop array, I decided to try to DX Alaskans to my Northwest for a couple of weeks to test the antennas. Most Northwestern DXers have noted that Alaskans are particularly difficult to log from western Washington, especially given the relatively short distances involved. This may be attributable to the proximity of the auroral belt, or it might have to do with the fact that almost all frequencies that have Alaskans on them also sport one or more stations in Washington, Oregon or California. Over the years, I'd logged and QSLed 7 Alaskan Stations from Orcas, stations located primarily in Anchorage or in the southern

Alaskan Panhandle which extends down toward NW Washington.

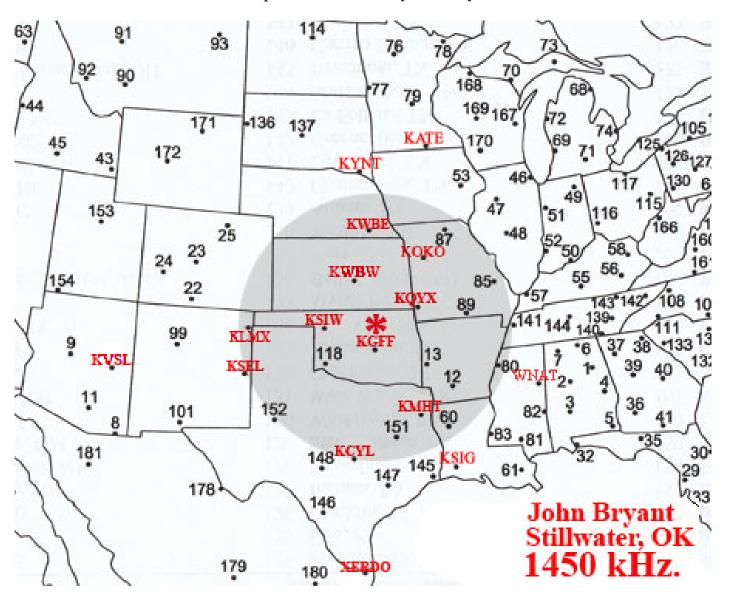
In just over a week of DXing, under good conditions, I added nine new Alaskans to my logbook. Over half of these were in far western Alaska: Sand Point, Dillingham, Bethel, McGrath, and both stations in Nome. In most cases, I compared the reception on the Wellbrook Array against NW giant EWE and against the two EWEs phased together. I would not have received *any* of those nine new Alaskan stations using the NW giant EWE by itself! On a station-by-station basis, I would have received most, but not all, of the new Alaskans using the two giant EWEs and the Misek-Lankford phaser. HOW-EVER, the broadband design of the Wellbrook allowed me to bounce around the dial, checking for all needed Alaskans in about the time that I could laboriously phase the pest stations on one channel with the EWEs.

I'll not be taking down my two giant EWE/Super Loops. They cost too much and were far too difficult to erect in the tops of carefully selected 90 foot Douglas fir trees; its always nice to have a second antenna to try in tough situations. However, I'll be using the Wellbrook Phased Array here on Orcas, as my primary antenna, for the foreseeable future.

### THE FOUR-LOOP ARRAY: Winter-Spring 2008

In late November 2007, just as we returned to Oklahoma, I received a pre-production control unit and an additional two ALA-100 head units so that I could test the full four-loop version of the antenna. Since I expected to have little time for live DXing during our stay in Oklahoma, I decided to join the Graveyard DX Community and test the array nightly over the next 6 months. Modern Graveyard DXing, as practiced in North America, focuses on the six "Local" or Graveyard MW Channels in North America (1230, 1240, 1340, 1400, 1450 and 1490) with the goal being to hear and record as many of the hundreds of "local" stations as possible. The general technique used by most "Gravediggers" is using hourly timed recordings made at the top-of-the-hour throughout each night. These recordings are then reviewed very carefully to attempt to tease out station identification from within the muck or "gumbo" created by so many 1 kW. non-directional stations broadcasting simultaneously on a single frequency. Most GY specialists use directional antennas (EWEs, loops, etc.) or phasing to try to enhance part of the gumbo, while suppressing non-wanted stations.

It seemed to me that difficult environment was perfect to use to assess the pattern shape, front-to-back ratio and general null stability aspects of the Wellbrook Array. The 1450 kHz. map below, based on the NRC Night Time Pattern Book (highly recommended), is an indication of the RF environment and my success during the 6-month trial. Please note that there are 16 stations on 1450 within the 600 km/385 mile "Easily Heard" zone (in gray above) and 76 stations on 1450 kHz. within a circle of 1200 km/750 miles that should have been possible, were they the only station on that channel.



Since there was not a simultaneous effort in parallel using a "normal" antenna, there is really no way to say definitively, just how many more stations the Wellbrook Array allowed me to hear during the six month test. My semi-informed gut feeling is that the Wellbrook Array doubled or tripled my station count over the test period. My listening pattern was to follow the "one-week per channel" sequence used by the GY internet group and, within the week assigned to, say, 1450 kHz., spend two days looking North, followed by two days looking West, then South with the least interesting direction being only given a one day look during that cycle. Over the six months, then, each frequency received one month or about 350 TOH recordings.

While there is no way to say just how many stations I gained by using the Wellbrook, I did learn a number of things applicable to assessing this antenna. First and most importantly, in about 2000 recorded top-of-the-hours over the six months and the logging of over 120 separate stations on the six

Graveyard frequencies, I did NOT ONCE hear a DX station off the back 180 degrees of the array, even as a sub-dominant. That finding is quite amazing to me, especially since I set the Phase and Balance controls once per week, and did not always remember to do that! In Graveyard DXing, the only short-coming (if it is such) of the Wellbrook Array is the breadth of the front lobe. DXing on the Graveyard channel, with a gazillion local 1 kW stations ringed around the horizon, sometimes the dominant station on a particular recording was almost 90 degrees off the pattern center. Having a narrower pattern would be better, but being given up to 4 choices of different 180 degree front lobes is really quite wonderful in itself. Interestingly, I'm sure that some of the energy from the backside was adding to the muck that often exists on these over-crowded channels.... but never did the backside punch through, no matter the propagation... not once. That is simply fabulous.

## FINAL ASSESSMENT

The Wellbrook Phased Array is not a magic antenna nor is it likely to be the best antenna for every imaginable situation found in MW DXing. However, in my judgment, it is a real step forward and is, I fervently hope, the first of a new generation of phased array antennas designed for MW DXing. I particularly look forward to using the full four-loop version of the array for active, real-time domestic (co-channel) DXing, especially from the center of the Continent. There, the ability to rotate the near-equivalent of a one-wavelength Beverage through a full 360 degrees ought to be truly awesome. While those of us operating a four-loop array might wish for a narrower front lobe, the current design seems an excellent choice for most DXers. The wide front lobe will enable DXers to initially cover virtually the entire horizon with a 2-loop set, while still taking advantage of the superb F/B ratio and the very deep and *stearable* rear null. My guess is that most Wellbrook customers will start out with a two-loop version and add the third and fourth loop only after several seasons.

## **Strong Points:**

- More than adequate sensitivity
- Excellent F/B ratio with no requirement for grounding
- Broadband Design: almost a set-and-forget design for DXing the full band without adjustment. This broadband capability may be particularly important for the growing number of DXers using recording SDRs to "scoop up" wide swaths of the band for future careful review
- Relative small antenna size and low visual impact when compared to other MW antennas with similar capability
- Ability to reverse the pattern 180 degrees with the flip of a switch. This was handier in real world DXing than I ever imagined.
- Very broad front lobe and rear null (may also be a weakness, according to the situation.)
- Flexible layout of each pair of the four-loop version
- Commercially available on a "made to order" basis. Although very ingenious members of the hobby can probably replicate most, if not all of the capabilities of the Wellbrook Phased Array, those of us lacking time or possibly the skills to do so will now have ready access to this type of antenna.

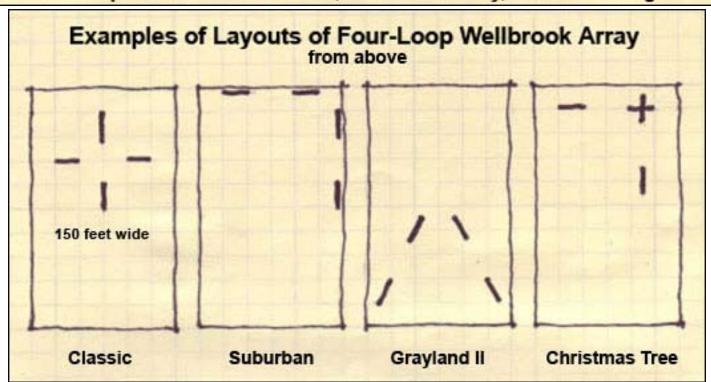
## **Weak Points:**

- Rigid spacing requirement between the two Delta loops in each pair (35-40 meters.) This is inherent in the broadband design of the array, but may be difficult or impossible for some DXers to achieve in the direction desired.
- Very broad front lobe (may also be a strength, according to the situation.)
- Some DXers may prefer a fine tuning control or vernier knob on the Balance control.
- Cost. Given the weakening dollar and the very high cost of goods and services in Wellbrook's home
  economy (Britain), I fear that this antenna will be quite costly. I do believe that the basic unit will
  sell as a control box and two ALA100 loop heads, then easily upgradeable to four loops at a later
  date. That may help. The design requirement that mandates all coax lead-ins be of equal length can
  be a bit expensive, as well.

A final comment on the relative effectiveness of Beverages and the Wellbrook Phased Array: I'm still convinced that the Beverage is, potentially, "the better antenna." At Grayland we are quite restricted

in the lengths and directions that we can run Beverages. We are also faced with an almost impossible task to properly terminate (ground) the far end of the Beverages. The land is pure sea sand and, for most of the times that we are there, the water table is fairly low. Also, there is not room to use a 1/4 wavelength wire termination. I'm personally convinced that it is nearly impossible to get a good F/B ratio with a Beverage at Grayland or similar sandy beach sites. However, if we could erect near-perfect Beverages in the 2000 to 2500 foot range at Grayland *and properlyterminate them,* I remain convinced that they would outperform any other antenna, period. Until that perfect seaside Beverage site comes along, with a magical method of grounding at the far end, I'm gonna remember that a Wellbrook two-loop array is only 150 feet long and requires no grounding at all.

# Side Elevation View Beverage Size Comparison: 70' x 100' EWE, Wellbrook Array, 900 ft. Beverage



Delta Loop
20 meter Circumference

Mast
Inexpensive
Fiberglass Fishing Pole

ALA 100
Head Unit

Elevated
1 meter

# The AM Radio Dial in 1933

Compiled by Bruce Conti

Imagine 15 three-letter call radio stations in California, KDKA the only signal in North America on 980 kilocycles, and a number of split frequency stations on the air in Canada and Mexico. Remember when Betty Boop, The Shadow, Morton Downey, Guy Lombardo, Al Jolson, Colonel Stoopnagle, George Burns, and Gracie Allen entertained the nation by radio? KYW and WCBS were in Illinois, and the top of the dial was 1500 kilocycles. The year was 1933, when the NRC was born. Commemorating the NRC 75th anniversary, here's a list of broadcasting stations originally published in 1933 by the RCA Radiotron Company, Inc. Frequencies and programming may have changed since then, yet many of these stations remain on the air today.

VOWR St. Johns, Nld. 540 kc CKLW Windsor, Ont. 550 kc KFDY Brookings, S.D. KFUO Clayton, Mo. KFYR Bismarck, N.D. KOAC Corvallis, Ore. KSD St. Louis, Mo. WDEV Waterbury, Vt. WGR Buffalo, N.Y. WKRC Cincinnati, Ohio XEI Morelia, Mich. XEY Merida, Yuc. 560 kc KFDM Beaumont, Tex. KLZ Denver, Col. KTAB San Francisco, Cal. WFI Philadelphia, Pa. WIND Gary, Ind. WLIT Philadelphia, Pa. WNOX Knoxville, Tenn. WQAM Miami, Fla. XEAO Mexicali, B.C. KGKO Wichita Falls, Tex. KMTR Los Angeles, Cal. KVI Tacoma, Wash. WEAO Columbus, Ohio WKBN Youngstown, Ohio WMAC Syracuse, N.Y. WMCA New York City, N.Y. WNAX Yankton, S.D. WSYR Syracuse, N.Y. WWNC Asheville, N.C. CHMA Edmonton, Alb. CJOC Lethbridge, Alb. CKCL Toronto, Ont. CKUA Edmonton, Alb. CRCA Moncton, N.B. KMJ Fresno, Cal. KSAC Manhattan, Kan. WDBO Orlando, Fla. WIBW Topeka, Kan. WOBU Charleston, W.Va. WTAG Worcester, Mass. 585 kc XEPN Piedras Negras, Coah.

590 kc

CMW Havana, Cuba

KHQ Spokane, Wash.

WEEI Boston, Mass.

WKZO Kalamazoo, Mich. WOW Omaha, Neb. CFCF Montreal, Que. KFQD Anchorage, Alsk. KFSD San Diego, Cal. WCAC Storrs, Conn. WCAO Baltimore, Md. WICC Bridgeport, Conn. WMT Waterloo, Iowa WREC Memphis, Tenn. KFRC San Francisco, Cal. WDAF Kansas City, Mo. WIP Philadelphia, Pa. WJAY Cleveland, Ohio XETR Mexico City, Mex. KGW Portland, Ore. KTAR Phoenix, Ariz. WFLA Clearwater, Fla. WLBZ Bangor, Me. WSUN Clearwater, Fla. WTMJ Milwaukee, Wis. CFCY Charlottetown, P.E.I. CJGX Yorkton, Sask. KGFX Pierre, S.D. WGBF Evansville, Ind. WMAL Washington, D.C. WOS Jefferson City, Mo. XEX Monterrey, N.L. XEIZ Merida, Yuc. 640 kc KFI Los Angeles, Cal. WAIU Columbus, Ohio WOI Ames, Iowa 645 kc CHRC Quebec, Que. CKCR Waterloo, Ont. KPCB Seattle, Wash. WSM Nashville, Tenn. 660 kc CMAF Miramar, Cuba WAAW Omaha, Neb. WEAF New York City, N.Y. XEM Matamoros, Tamps. 665 kc XER Villa Acuna, Coah. 670 kc WMAQ Chicago, Ill.

KFEQ St. Joseph, Mo.

KPO San Francisco, Cal. WPTF Raleigh, N.C. 690 kc CFAC Calgary, Alb. CFRB Toronto, Ont. CJCJ Calgary, Alb. XET Monterrey, N.L. 700 kc WLW Cincinnati, Ohio 710 kc KMPC Beverly Hills, Cal. WOR Newark, N.J. XEN Mexico City, Mex. 720 kc WGN Chicago, Ill. 730 kc CJCA Oliver, Alb. CKAC Montreal, Que. CMK Havana, Cuba 735 kc XER Villa Acuna, Coah. 740 kc KMMJ Clay Center, Neb. WHEB Portsmouth, N.H. WSB Atlanta, Ga. KGU Honolulu, Haw. WJR Detroit, Mich. 757 kc XEFD Tia Juana, B.C. 760 kc KXA Seattle, Wash. WEW St. Louis, Mo. WJZ New York City, N.Y. XEYZ Mexico City, Mex. 770 kc KFAB Lincoln, Neb. WBBM Chicago, Ill. CHWK Chilliwack, B.C. CKPR Port Arthur, Ont. CMCQ Havana, Cuba KELW Burbank, Cal. KTM Los Angeles, Cal. WEAN Providence, R.I. WMC Memphis, Tenn. WTAR Norfolk, Va. XEP Mexico City, Mex. KGO San Francisco, Cal. WGY Schenectady, N.Y. WBAP Fort Worth, Tex.

WFAA Dallas, Tex.

805 kc XFC Aguas Calientes, Ags. VOAS St. Johns, Nld. WCCO Minneapolis, Minn. WNYC New York City, N.Y. XEMA Ciudad Juarez, Chih. 820 kc WHAS Louisville, Ky. 830 kc KOA Denver, Col. WEEU Reading, Pa. WHDH Boston, Mass. WRUF Gainesville, Fla. XETW Mexico City, Mex. 840 kc CKGW Bowmanville, Ont. CMC Havana, Cuba XFX Mexico City, Mex. 845 kc XETM Matamoros, Tamps. 850 kc KIEV Glendale, Cal. KWKH Shreveport, La. WWL New Orleans, La. WABC New York City, N.Y. WHB Kansas City, Mo. XETH Puebla, Pue. 870 kc WENR Chicago, Ill. WLS Chicago, Ill. 875 kc XEAD Mexico City, Mex. 880 kc CJCB Sidney, N.S. CJRM Moose Jaw, Sask. CJRW Fleming, Sask. CRCO Ottawa, Ont. KFKA Greeley, Col. KLX Oakland, Cal. KPOF Denver, Col. VOGY St. Johns, Nld. WCOC Meridian, Miss. WGBI Scranton, Pa. WQAN Scranton, Pa. WSUI Iowa City, Iowa 890 kc CFQC Saskatoon, Sask. CMX Havana, Cuba KARK Little Rock, Ark. KFNF Shenandoah, Iowa KUSD Vermillion, S.D. VOGT Belle Island, Nld. WGST Atlanta, Ga. WILL Urbana, Ill. WJAR Providence, R.I. WMMN Fairmont, W.Va. XETU Pachuca, Hgo. 900 kc KGBU Ketchikan, Alsk. KHJ Los Angeles, Cal. KSEI Pocatello, Ida. WBEN Buffalo, N.Y. WJAX Jacksonville, Fla. WKY Oklahoma City, Okla. WLBL Stevens Point, Wis. 910 kc

CKY Winnipeg, Mani. XEW Mexico City, Mex. 915 kc CFRC Kingston, Ont. 920 kc KFEL Denver, Col. KFXF Denver, Col. KOMO Seattle, Wash. KPRC Houston, Tex. WAAF Chicago, Ill. WBSO Needham, Mass. WWJ Detroit, Mich. 930 kc CFCH North Bay, Ont. CFLC Prescott, Ont. CKPC Preston, Ont. CKX Brandon, Mani. KFWI San Francisco, Cal. KGBZ York, Neb. KMA Shenandoah, Iowa KROW Oakland, Cal. WBRC Birmingham, Ala. WDBJ Roanoke, Va. WIBG Glenside, Pa. 940 kc KOIN Portland, Ore. WAAT Jersey City, N.J. WCSH Portland, Me. WDAY Fargo, N.D. WFIW Hopkinsville, Ky. WHA Madison, Wis. XEFO Mexico City, Mex. XFO Mexico City, Mex. 950 kc KFWB Hollywood, Cal. KGHL Billings, Mont. KMBC Kansas City, Mo. VONA St. Johns, Nld. WRC Washington, D.C. 965 kc XEAW Reynosa, Tamps. 970 kc KJR Seattle, Wash. WCFL Chicago, Ill. 980 kc KDKA Pittsburgh, Pa. 990 kc WBZ Boston, Mass. WBZA Boston, Mass. WJEM Tupelo, Miss. XEK Mexico City, Mex. 1000 kc KFVD Los Angeles, Cal. WOC Des Moines, Iowa WORK York, Pa. XEA Guadalajara, Jal. XEAE Tia Juana, B.C. XEC Toluca, Mex. XEFE Nuevo Laredo, N.L. XEFI Chihuahua, Chih. XEFJ Monterrey, N.L. XEFS Queretaro, Qro. XEL Saltillo, Coah. 1010 kc CHWC Regina, Sask. CKCD Vancouver, B.C. CKCK Regina, Sask.

CKCO Ottawa, Ont.

CKIC Wolfville, N.S. CKOC Hamilton, Ont. KGGF Coffeyville, Kan. KQW San Jose, Cal. WHN New York City, N.Y. WIS Columbia, S.C. WNAD Norman, Okla. WPAP New York City, N.Y. WQAO New York City, N.Y. WRNY New York City, N.Y. XEU Vera Cruz, V.C. XEE Durango, Dgo. 1015 kc XEJ Ciudad Juarez, Chih. 1020 kc KYW Chicago, Ill. WRAX Philadelphia, Pa. XES Tampico, Tamps. 1030 kc CFBO St. John, N.B. CFCN Strathmore, Alb. CKNC Toronto, Ont. VOX St. Johns, Nld. XEB Mexico City, Mex. 1040 kc KRLD Dallas, Tex. KTHS Hot Springs, Ark. WESG Elmira, N.Y. WKAR E. Lansing, Mich. 1050 kc CHNS Halifax, N.S. KFBI Abilene, Kan. KNX Los Angeles, Cal. XEFC Merida, Yuc. 1060 kc KWJJ Portland, Ore. WBAL Baltimore, Md. WIAG Norfolk, Neb. WTIC Hartford, Conn. 1070 kc KJBS San Francisco, Cal. WCAZ Carthage, Ill. WDZ Tuscola, Ill. WTAM Cleveland, Ohio 1080 kc WBT Charlotte, N.C. WCBD Zion, Ill. WMBI Chicago, Ill. 1085 kc XEFG Mexico City, Mex. 1090 kc KMOX St. Louis, Mo. XEAI Mexico City, Mex. 1100 kc CRCV Vancouver, B.C. KGDM Stockton, Cal. WLWL New York City, N.Y. WPG Atlantic City, N.J. XEWW Vera Cruz, V.C. 1110 kc KSOO Sioux Falls, S.D. WRVA Richmond, Va. 1115 kc VONF St. Johns, Nld. XENT Nuevo Laredo, N.L. 1120 kc CFCA Toronto, Ont.

CFJC Kamloops, B.C.

CHGS Summerside, P.E.I. CHLP Montreal, Que. KFIO Spokane, Wash. KFSG Los Angeles, Cal. KRKD Los Angeles, Cal. KRSC Seattle, Wash. KTRH Houston, Tex. WDEL Wilmington, Del. WHAD Milwaukee, Wis. WISN Milwaukee, Wis. WTAW College Station, Tex. 1130 kc KSL Salt Lake City, Utah WIID Mooseheart, Ill. WOV New York City, N.Y. XEH Monterrey, N.L. 1140 kc KVOO Tulsa, Okla. WAPI Birmingham, Ala. WHAM Rochester, N.Y. 1155 kc XED Guadalajara, Jal. 1160 kc WOWO Fort Wayne, Ind. WWVA Wheeling, W.Va. WCAU Philadelphia, Pa. 1180 kc KEX Portland, Ore. KOB Albuquerque, N.M. WDGY Minneapolis, Minn. WINS New York City, N.Y. WMAZ Macon, Ga. 1190 kc WOAI San Antonio, Tex. WSAZ Huntington, W.Va. CKOV Kelowana, B.C. KBTM Paragould, Ark. KERN Bakersfield, Cal. KFJB Marshalltown, Iowa KFXD Nampa, Ida. KFXJ Grand Junction, Col. KGDE Fergus Falls, Minn. KGDY Huron, S.D. KGEK Yuma, Col. KGFJ Los Angeles, Cal. KGHI Little Rock, Ark. KGVO Missoula, Mont. KSUN Lowell, Ariz. KMLB Monroe, La. KVOS Bellingham, Wash. KWG Stockton, Cal. WABI Bangor, Me. WBBX New Orleans, La. WBBZ Ponca City, Okla. WBHS Huntsville, Ala. WCAT Rapid City, S.D. WCAX Burlington, Vt. WCLO Janesville, Wis. WCOD Harrisburg, Pa. WFAM South Bend, Ind. WFBC Greenville, S.C. WFBE Cincinnati, Ohio WHBC Canton, Ohio WHBY Green Bay, Wis. WIBX Utica, N.Y.

WIL St. Louis, Mo. WJBC La Salle, Ill. WIBL Decatur, Ill. WJBW New Orleans, La. WKJC Lancaster, Pa. WLAP Louisville, Ky. WNBW Carbondale, Pa. WORC Worcester, Mass. WPHR Petersburg, Va. WRBL Columbus, Ga. WWAE Hammond, Ind. 1210 kc CFCO Chatham, Ont. CFNB Fredericton, N.B. CJOR Vancouver, B.C. CKMC Cobalt, Ont. KASA Elk City, Okla. KDLR Devil's Lake, N.D. KFJI Klamath Falls, Ore. KFOR Lincoln, Neb. KFPW Fort Smith, Ark. KFVS Cape Girardeau, Mo. KFXM San Bernardino, Cal. KGCR Watertown, S.D. KGY Olympia, Wash. KIEM Eureka, Cal. KPPC Pasadena, Cal. KWEA Shreveport, La. KWFV Hilo, Haw. WALR Zanesville, Ohio WBAX Wilkes Barre, Pa. WBBL Richmond, Va. WCBS Springfield, Ill. WCRW Chicago, Ill. WEBQ Harrisburg, Ill. WEDC Chicago, Ill. WFAS White Plains, N.Y. WGBB Freeport, N.Y. WGCM Mississippi City, Miss. WGNY Chester Twp., N.Y. WHBF Rock Island, Ill. WHBU Anderson, Ind. WHET Troy, Ala. WIBU Poynette, Wis. WJBI Redbank, N.J. WJBY Gadsden, Ala. WJEJ Hagerstown, Md. WJW Akron, Ohio WKFI Greenville, Miss. WKOK Lewisburg, Pa. WLCI Ithaca, N.Y. WMBG Richmond, Va. WOCL Jamestown, N.Y. WOMT Manitowoc, Wis. WPRO Providence, R.I. WQDX Thomasville, Ga. WSBC Chicago, Ill. WSEN Columbus, Ohio WSIX Springfield, Tenn. WSOC Gastonia, N.C. WTAX Springfield, Ill. XEMB Ensenada, B.C. 1220 kc KFKU Lawrence, Kan. KTW Seattle, Wash. KWSC Pullman, Wash.

WCAD Canton, N.Y.

WCAE Pittsburgh, Pa.

WDAE Tampa, Fla. WREN Lawrence, Kan. KGGM Albuquerque, N.M. KYA San Francisco, Cal. WFBM Indianapolis, Ind. WNAC Boston, Mass. WSBT South Bend, Ind. 1240 kc KGCU Mandan, N.D. KLPM Minot, N.D. KTAT Fort Worth, Tex. KTFI Twin Falls, Ida. WKAQ San Juan, P.R. WXYZ Detroit, Mich. 1250 kc KFOX Long Beach, Cal. WAAM Newark, N.J. WCAL Northfield, Minn. WDSU New Orleans, La. WLB Minneapolis, Minn. WODA Paterson, N.J. WRHM Minneapolis, Minn. XEFA Mexico City, Mex. 1260 kc KOIL Council Bluffs, Iowa KRGV Harlingen, Tex. KUOA Fayetteville, Ark. KVOA Tucson, Ariz. KWWG Brownsville, Tex. WLBW Erie, Pa. WNBX Springfield, Vt. WTOC Savannah, Ga. 1270 kc KGCA Decorah, Iowa KOL Seattle, Wash. KVOR Colorado Springs, Col. KWLC Decorah, Iowa WASH Grand Rapids, Mich. WFBR Baltimore, Md. WJDX Jackson, Miss. WOOD Grand Rapids, Mich. 1280 kc KFBB Great Falls, Mont. WCAM Camden, N.J. WCAP Asbury Park, N.J. WDOD Chattanooga, Tenn. WIBA Madison, Wis. WRR Dallas, Tex. WTNJ Trenton, N.J. XEFW Tampico, Tamps. 1290 kc KDYL Salt Lake City, Utah KLCN Blytheville, Ark. KTSA San Antonio, Tex. WEBC Superior, Wis. WJAS Pittsburgh, Pa. WNBZ Saranac Lake, N.Y. 1295 kc XEAC San Luis Potosi, S.L.P. 1300 kc KALE Portland, Ore. KFAC Los Angeles, Cal. KFH Wichita, Kan. KFJR Portland, Ore. VOKW St. Johns, Nld. WBBR Brooklyn, N.Y. WEVD New York City, N.Y.

WFAB New York City, N.Y. WIOD Miami, Fla. WMBF Miami, Fla. WOQ Kansas City, Mo. 1310 kc CHCK Charlottetown, P.E.I. CKCV Quebec, Que. KCRJ Jerome, Ariz. KFBK Sacramento, Cal. KFGQ Boone, Iowa KFPL Dublin, Tex. KFPM Greenville, Tex. KFXR Oklahoma City, Okla. KFYO Lubbock, Tex. KGBX Springfield, Mo. KGCX Wolf Point, Mont. KGEZ Kalispell, Mont. KGFW Kearney, Neb. KIFH Juneau, Alsk. KIT Yakima, Wash. KMED Medford, Ore. KRMD Shreveport, La. KTSM El Paso, Tex. KXRO Aberdeen, Wash. WAML Laurel, Miss. WBEO Marquette, Mich. WBOW Terre Haute, Ind. WBRE Wilkes Barre, Pa. WCLS Joliet, Ill. WDAH El Paso, Tex. WEBR Buffalo, N.Y. WFBG Altoona, Pa. WEXL Royal Oak, Mich. WFDF Flint, Mich. WGAL Lancaster, Pa. WGH Newport News, Va. WHAT Philadelphia, Pa. WIAS Ottumwa, Iowa WJAC Johnstown, Pa. WKBB Joliet, Ill. WKBC Birmingham, Ala. WLBC Muncie, Ind. WMBO Auburn, N.Y. WNBH New Bedford, Mass. WOL Washington, D.C. WRAW Reading, Pa. WROL Knoxville, Tenn. WSAJ Grove City, Pa. WSJS Winston-Salem, N.C. WTEL Philadelphia, Pa. WTJS Jackson, Tenn. WTRC Elkhart, Ind. 1315 kc XEFB Monterrey, N.L. 1320 kc KGHF Pueblo, Col. KGMB Honolulu, Haw. KID Idaho Falls, Ida. WADC Tallmadge, Ohio WSMB New Orleans, La. 1325 kc CMCY Havana, Cuba 1330 kc KGB San Diego, Cal. KMO Tacoma, Wash. KSCJ Sioux City, Iowa WDRC Hartford, Conn.

WSAI Cincinnati, Ohio

WTAQ Eau Claire, Wis. XEQ Mexico City, Mex. KFPY Spokane, Wash. KGNO Dodge City, Kan. WCOA Pensacola, Fla. WSPD Toledo, Ohio 1350 kc KIDO Ida. KWK St. Louis, Mo. WAWZ Zarephath, N.J. WBNX New York City, N.Y. WCDA New York City, N.Y. WEHC Emory, Va. WMSG New York City, N.Y. 1360 kc KGER Long Beach, Cal. KGIR Butte, Mont. WCSC Charleston, S.C. WFBL Syracuse, N.Y. WGES Chicago, Ill. WQBC Vicksburg, Miss. 1370 kc KCRC Enid, Okla. KFBL Everett, Wash. KFIM Grand Forks, N.D. KFJZ Fort Worth, Tex. KGAR Tucson, Ariz. KGFG Oklahoma City, Okla. KGFL Raton, N.M. KGKL San Angelo, Tex. KICA Clovis, N.M. KLUF Galveston, Tex. KMAC San Antonio, Tex. KONO San Antonio, Tex. KOOS Marshfield, Ore. KRE Berkeley, Cal. KSO Des Moines, Iowa KUJ Walla Walla, Wash. KVL Seattle, Wash. KWKC Kansas City, Mo. WBTM Danville, Va. WCBM Baltimore, Md. WDAS Philadelphia, Pa. WGL Fort Wayne, Ind. WGLC Glens Falls, N.Y. WHBD Mount Orab, Ohio WHBQ Memphis, Tenn. WHDF Calumet, Mich. WIBM Jackson, Mich. WJBK Detroit, Mich. WJTL Oglethorpe Univ., Ga. WLEY Lexington, Mass. WLVA Lynchburg, Va. WMBR Ťampa, Fla. WPFB Hattiesburg, Miss. WQDM St. Albans, Vt. WRAK Williamsport, Pa. WRAM Wilmington, N.C. WRDO Augusta, Me. WRJN Racine, Wis. WSVS Buffalo, N.Y. XEFV Ciudad Juarez, Chih. XEFZ Mexico City, Mex. 1380 kc KOH Reno, Nev. KQV Pittsburgh, Pa. WKBH Lacrosse, Wis.

WSMK Dayton, Ohio XETB Torreon, Coah. 1390 kc KLRA Little Rock, Ark. KOY Phoenix, Ariz. WHK Cleveland, Ohio 1400 kc KLO Ogden, Utah KOCW Tulsa, Okla. WARD Brooklyn, N.Y. WBAA W. Lafayette, Ind. WBBC Brooklyn, N.Y. WFOX Brooklyn, N.Y. WKBF Indianapolis, Ind. WLTH Brooklyn, N.Y. 1410 kc CKFC Vancouver, B.C. CKMO Vancouver, B.C. KFLV Rockford, Ill. KGRS Amarillo, Tex. WAAB Boston, Mass. WBCM Bay City, Mich. WDAG Amarillo, Tex. WHBL Sheboygan, Wis. WHIS Bluefield, W.Va. WODX Mobile, Ala. WRBX Roanoke, Va. WSFA Montgomery, Ala. 1420 kc KABC San Antonio, Tex. KBPS Portland, Ore. KCMC Texarkana, Ark. KFIZ Fond du Lac, Wis. KGFF Shawnee, Okla. KGGC San Francisco, Cal. KGIW Trinidad, Col. KGIX Las Vegas, Nev. KICK Red Oak, Iowa KIDW Lamar, Col. KORE Eugene, Ore. KUMA Yuma, Ariz. KWCR Cedar Rapids, Iowa KXL Portland, Ore. WACO Waco, Tex. WAGM Presque Isle, Me. WAMC Anniston, Ala. WAZL Hazelton, Pa. WEED Greenville, N.C. WEHS Cicero, Ill. WELL Battle Creek, Mich. WENC Americus, Ga. WHDL Tupper Lake, N.Y. WHFC Cicero, Ill. WILM Wilmington, Del. WJBO New Orleans, La. WJMS Ironwood, Mich. WKBI Cicero, Ill. WLBF Kansas City, Kan. WMAS Springfield, Mass. WMBC Detroit, Mich. WMBH Joplin, Mo. WMED Florence, Ala. WPAD Paducah, Ky. WSPA Spartanburg, S.C. WTBO Ĉumberland, Md. 1430 kc CFCT Victoria, B.C. KECA Los Angeles, Cal.

KGNF North Platte, Neb. WBAK Harrisburg, Pa. WCAH Columbus, Ohio WFEA Manchester, N.H. WHP Harrisburg, Pa. WNBR Memphis, Tenn. 1440 kc KDFN Casper, Wyo. KLS Oakland, Cal. KXYZ Houston, Tex. WBIG Greensboro, N.C. WCBA Allentown, Pa. WHEC Rochester, N.Y. WMBD Peoria, Ill. WOKO Albany, N.Y. WSAN Allentown, Pa. WTAD Quincy, Ill. 1450 kc KTBS Shreveport, La. WGAR Cleveland, Ohio WHOM Jersey City, N.J. WSAR Fall River, Mass.

WTFI Athens, Ga. XEAB Nuevo Laredo, N.L. 1460 kc KSTP St. Paul, Minn. WJSV Alexandria, Va. 1470 kc KGA Spokane, Wash. WLAC Nashville, Tenn. 1480 kc KOMA Oklahoma City, Okla. WKBW Buffalo, N.Y. 1490 kc WCKY Covington, Ky. 1500 kc KDB Santa Barbara, Cal. KGFI Corpus Christi, Tex. KGFK Moorhead, Minn. KGIZ Grant City, Mo. KGKB Tyler, Tex. KGKY Scotts Bluff, Neb. KNOW Austin, Tex.

KPJM Prescott, Ariz. KREG Santa Ana, Cal. KPQ Wenatchee, Wash. KXO El Centro, Cal. WFDV Rome, Ga. WHEF Kosciusko, Miss. WKBV Connersville, Ind. WKBZ Ludington, Mich. WKEU La Grange, Ga. WLOE Boston, Mass. WMBQ Brooklyn, N.Y. WMIL Brooklyn, N.Y. WMPC Lapeer, Mich. WNBF Binghamton, N.Y. WOPI Bristol, Tenn. WPEN Philadelphia, Pa. WRDW Augusta, Ga. WSYB Rutland, Vt. WWRL Woodside, N.Y. WWSW Pittsburgh, Pa. XFA Aguas Calientes, Ags.

# International DX Achievements

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# International DX verie/taped totals listed by continents

Yr		1		Total								
Start	DX'er	Loc Upa	late	Oc Ctries	$V_{i}$	eries Fo	rgn	NA	Εı	ır	SA	Af As
1933	Geary, Kermit	PA	2001	62	115	6554	1106	571	152	291	28	2
1938	Anderson, Roger A.	VA/NY/PA	2007	48	105	1448	514	227	128	78	28	5
1947	Luton, Relfe	NC	1973	33	23	1049	142	102	3	4	0	0
1986	Axelrod, Shawn	So Man	2008	29	56	2487	342	196	57	38	12	10
1957	Callarman, John	?	1970	20	50	740	138	72	17	20	3	6
1992	Taylor, Pete	CA	1993	13	26	375	58	22	0	4	0	19
1946	Moore, Ray	MA/FL	2005	11	107	253	252	95	59	52	24	7
1976	Froemming, Gary	AZ	2004	9	24	624	131	157	0	25	0	1
1958	Dangerfield, Ben	PA	2005	8	130	436	337	85	152	45	35	13
1958	Wesolowski, Ernie	NE	2007	7	26	1967	70	55	0	6	1	1
1950	Krejny, Edward	OH	1996	6	76	2733	441	208	91	126	10	0
1969	Karchevski, Bob	MA/CA	1975	6	24	204	141	112	0	0	0	0
1958	Merriman, Alan	VA	1994	3	93	1615	368	212	88	47	14	4
1959	Dabelstein, Carl	NE	1959	3	40	2310	207	25	1	1	0	0
1958	Phillips, Dan	TN/AL	1974	3	26	567	40	21	5	9	1	0
1975	Heinen, Wayne	CO	2006	3	14	1582	115	109	0	1	0	2
1966	Bruner, Jesse R.	KY	1966	2	23	132	27	17	5	3	0	0
1969	Falconer, Jeff	ON	2000	2	22	1091	20	14	2	2	0	0
1931	Holland, George B., Jr.	NY	2006	2	22	885	58	46	5	5	0	1
1952	Schiller, Ron B.	NJ	1999	1	86	2103	254	136	72	34	8	3
1940	Morss, Stan	MA	1993	1	84	3922	424	218	221	65	14	3
1965	Sampson, John	NJ	1965	1	54	445	72	23	38	6	3	1
1965	Neff, James R.	NY	1971	1	29	30	87	70	10	4	1	1
1973	Sgrulletta, John	NY	2007	0	76	92	92	40	34	6	7	5
1976	Renfrew, Jim	NY	2003	0	56	540	91	59	19	10	1	1
1962	Musco, Ron	CT	2003	0	50	1392	54	40	10	5	3	1
1962	Edmunds, R. J. (taped)	NJ	1998	0	43	897	56	50	14	37	0	1
1965	Long, John	CT	1968	0	29	101	0	0	0	0	0	0
1964	Fela, Joseph	NJ	1965	0	24	738	35	19	11	4	1	0
1975	Swearingen, Paul (taped)	KS	2008	0	23	889	126	64	0	17	0	0
1967	Floden, Eric	ONT	1970	0	16	93	65	61	0	3	0	0
1964	Heinen, Wayne	NY	2006	0	14	472	21	14	5	2	0	0
1964	Whatmough, Dave	ON	1999	0	13	1014	15	6	3	1	6	0
1968	White, Thomas	VA	2005	0	12	255	12	11	0	1	0	1
1962	Davisson, Tim	OH	1962	0	11	474	38	21	0	1	0	0
1977	Wolfish, Niel	ON	1977	0	11	397	20	14	2	4	0	0
1968	Bytheway, Phil	WA	1982	0	9	457	20	0	0	0	0	0
1962	Edmunds, R. J. (paper)	NJ	1998	0	7	266	13	10	0	3	0	0

77												
1973	Mount, Paul	NJ	1995	0	6	230	25	22	0	2	0	0
1964	Edmunds, R. J	NY	1999	0	3	76	1	1	0	0	0	0
1975	Bartek, Daniel, Jr.	NE	1976	0	2	23	0	0	0	0	0	0

This IDXA is tabulated by European veries/tapes, with total veries as the tie-breaker. Thanks to Shawn Axelrod for sending in an update. Although non-renewing members are routinely deleted from this list, if you've rejoined and don't see YOUR name in the listing above, send in your totals so we see YOU here next time!

Feel free to send in your updated totals in time for the next IDXA; you probably have a month or more. Remember, only taped or paper veries are counted, and mainland U. S. and Canadian catches should not be included in NA totals for either U. S. or Canadian DX'ers. Include your best catch from each continent and all other totals when reporting. And please update only from what you see above. Our next column will feature South American totals.

# Domestic DX Achievements

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Domestic DX totals listed periodically in different categories

Name and location								
Geary, Kermit-e PA								
Malicky, John-Pittsburgh, PA								<u>СН</u>
Forth, Karl-vic Chicagō, IL   1970   Nov-78   1077   48   10   1088   48   0   √   √   √   Wilkins, John-Wheat Ridge, CO   1981   May-08   970   40   6   1985   41   6   1470   40   6   6   Francis, Steve-nr Knoxville, TN   1970   Oct-07   885   45   5   2754   48   9   37   36   0   √   √   ✓   Edmunds, R. Jn NIJ/c PA   1962   Seep-99   806   41   8   2001   47   9   263   42   6   √   √   ✓   ✓   Francis, Steve-nr Knoxville, TN   1970   Dec-07   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   45   7   788   44   7   788   45   7   7   7   7   7   7   7   7   7	Geary, Kermit-e PA					10		$\sqrt{}$
Wilkins, John-Wheat Ridge, CO  1981 May-08  97	Malicky, John-Pittsburgh, PA		Jan-08	1335			,	$\sqrt{}$
Francis, Steve-nr Knoxville, TN   1970   Oct-07   885   45   5   5   2754   48   9   37   36   0   √   √ √ Swearingen, Paul-e KS   1975   Dec-07   788   44   7   788   44   7   2   2   2   0   √ √ √ Swearingen, Paul-e KS   1975   Dec-07   788   44   7   788   44   7   72   2   2   0   ✓ √ ✓ Pimper, Dennis-NE, UT   1939   Dec-06   651   40   5   2540   47   7   425   45   6   ✓ ✓ ✓ Heinen, Wayne-CO   1975   Dec-07   592   36   6   1519   42   5   1172   42   5   V ✓ Flax, Discription, ONT   1978   Feb-39   402   39   1354   41   9   185   30   3   ✓ ✓ ✓ Flax, Doseph-cent. NJ   1978   Feb-39   402   39   6   1255   43   10   493   43   10   ✓ ✓ ✓ Flax, Doseph-cent. NJ   1961   Oct-78   400   44   9   1000   49   10   270   48   7   ✓ ✓ ✓ Flax, Doseph-cent. NJ   1961   Oct-78   400   40   7   1861   49   10   1045   48   8   7   ✓ ✓ ✓ ✓ Flax, Doseph-cent. NJ   1973   Feb-86   199   26   5   489   37   36   6   7   224   33   6   ✓ ✓ ✓ ✓ Flax, Discription, Paul-ne NJ   1973   Feb-86   199   26   5   489   37   37   36   5   7   20   37   37   37   37   37   37   37   3	Forth, Karl-vic Chicago, IL	1970	Nov-78	1077	48	10	1771 48 10 1088 48 10 $\sqrt{}$	$\sqrt{}$
Edmunds, R. Jn. NJ/e PA	Wilkins, John-Wheat Ridge, CO	1981	May-08	970	40	6	1958 41 6 1470 40 6	
Swearingen, Paule KS         1975         Déc-07         788         44         7         788         44         7         22         2         0         ✓         V           Pimper, Dennis-NE, UT         1939         Dec-06         651         40         5         2540         47         7         425         45         6           Heinen, Wayne-CO         1975         Dec-07         592         36         6         1519         42         5         1772         42         5           Wolfish, Niel-Toronto, ONT         1975         Dec-07         8         40         40         7         1861         49         10         1045         48         7         ✓         ✓         Foxworth, Robert-Long Island, NY         1971         Poc-78         400         40         7         1861         49         10         1045         48         9         ✓         ✓         ✓         Fel-86         400         40         4         1250         48         8106         48         80         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓         ✓ <td< td=""><td></td><td>1970</td><td>Oct-07</td><td>885</td><td>45</td><td>5</td><td>2754 48 9 37 36 0 √ √</td><td><math>\sqrt{}</math></td></td<>		1970	Oct-07	885	45	5	2754 48 9 37 36 0 √ √	$\sqrt{}$
Swearingen, Paul-e KS   1975   Déc-07   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   44   7   788   45   7   788   44   7   788   45   7   7   788   46   788   78	Edmunds, R. Jn NJ/e PA	1962	Sep-99	806	41	8	$2001 \ 47 \ 9 \ 263 \ 42 \ 6 \ \sqrt{\ } \sqrt{\ }$	$\sqrt{}$
Pimper Dennis-NE, UT		1975		788	44	7	788 44 7 2 2 0 √	$\sqrt{}$
Hayée, Harry Jne PA		1939	Dec-06		40	5		
Hefinen, Wayne-CO 1975   Dec-07   592   36   6   1519   42   5   1172   42   5   5   Volfish, Niel-Toronto, ONT 1978   Feb-93   402   39   6   1285   43   10   493   43   10   √   √   Foxworth, Robert-Long Island, NY 1957   Nov-78   400   44   9   1000   49   10   270   48   7   √   √   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   7   1861   49   10   1045   48   9   √   √   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   7   1861   49   10   1045   48   9   ✓   ✓   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   7   1861   49   10   1045   48   9   ✓   ✓   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   7   1861   49   10   1045   48   9   ✓   ✓   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   40   7   1861   49   10   1045   48   9   ✓   ✓   Fela, Joseph-cent. NJ 1961   Oct-78   400   40   40   40   40   40   40			Jul-98					$\sqrt{}$
Wolfish, Niél-Toronto, ONT   1978   Feb-93   402   39   6   1285   43   10   493   43   10   √   √   Foxworth, Robert-Long Island, NY   1957   Nov-78   400   40   7   1861   49   10   1045   48   7   √   √   ✓   Schmidt, Dave-se PA/n DE   1965   Nov-79   400   40   4   1250   48   8   1006   48   8   Taylor, Pete-Taccoma, WA   1981   Mar-00   39   33   0   468   33   3   70   14   7   7   7   7   7   7   7   7   7	Heinen, Wayne-CO		,					
Foxworth, Robert-Long Island, NY 1957   Nov-78   400   44   9   100   49   10   270   48   7   √   √   Fela, Joseph-cent. NJ   1961   Oct-78   400   40   40   7   1861   49   10   1045   48   8   7   √   √   ✓   Fela, Joseph-cent. NJ   1961   Nov-79   400   40   40   7   1861   49   10   1045   48   8   7   ✓   ✓   ✓   Fela, Joseph-cent. NJ   1960   Nov-79   400   40   40   7   1861   49   10   1045   48   8   ✓   ✓   ✓   ✓   Fela, Joseph-cent. NJ   1960   Nov-79   400   40   40   7   1861   49   10   1045   48   8   ✓   ✓   ✓   ✓   Mount, Paul-ne NJ   1973   Feb-86   199   26   5   489   36   7   224   33   6   ✓   ✓   ✓   ✓   Mount, Paul-ne NJ   1973   Feb-86   199   26   5   489   36   7   224   33   6   ✓   ✓   ✓   ✓   Mount, Paul-ne NJ   1975   Oct-78   1970   35   5   5935   46   6   20   17   3   3   ✓   ✓   ✓   Wolfish, Niel-Winnipeg, MAN   1985   Feb-93   113   10   4   8   113   37   9   1269   47   9   ✓   ✓   Mount, Paul-authord, CT   1962   Jan-07   108   28   3   1400   47   9   1269   47   9   ✓   ✓   Mount, Paul-se On NJ   1982   Jun-06   78   16   5   817   36   5   7   7   0   0   0   0   0   0   0   0								$\sqrt{}$
Fela, Joseph-cent, NJ								√
Schmidt, Dave-se PÁ/n DE         1965         Nov-79         400         40         4         1250         48         8         1006         48         8           Taylor, Pete-Tacoma, WA         1981         Mar-00         399         33         0         468         33         3         70         14         7           Mount, Paul-ne NJ         1973         Feb-86         199         26         5         488         36         7         224         33         6         √         √         ✓         ✓         ✓         ✓         Karchevski, Bob-San Francisco, CA         1969         Oct-78         197         35         5         249         36         5         198         36         5         7         7         0         ✓ <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>√</td></t<>								√
Taylor, Pete-Tacoma, WA    Mar-No    398   Mar-No    399   33   0   468   33   3   70   14   7     Mount, Paul-ne NJ   1973   Feb-86   199   35   5   249   36   5   198   36   5     Truax, Dick- vic. Louisville, KY   1972   Dec-78   197   35   5   249   36   5   198   36   5     Truax, Dick- vic. Louisville, KY   1972   Dec-78   113   10   4   813   37   9   25   10   4     Wolfish, Niel-Winnipeg, MAN   1985   Feb-93   113   10   4   813   37   9   1269   47   9   √     Wolfish, Niel-Winnipeg, MAN   1985   Feb-93   113   10   4   813   37   9   1269   47   9   √     Smolarek, Bob n NJ   1982   Jun-06   78   16   5   817   36   5   7   7   7   0     Taylor, Pete-San Francisco   1958   Mar-00   70   6   1   450   32   7   329   31   7     Renfrew, Jim-Rochester, NY   1976   Oct-06   68   35   8   1709   47   10   449   45   10   √     Mount, Paul-se OH   1978   Feb-86   60   25   1   390   36   3   3   3   0   √     Mount, Wyne-NY   1962   Oct-78   50   10   2   785   43   8   0   0   0   √     Heinen, Wayne-NY   1964   Jan-06   30   14   0   480   44   9   √   √     Vervoort, John-Brooklyn, NY   2000   Nov-06   25   9   2   274   31   5   4   4   0   √   √     Vervoort, John-Brooklyn, NY   2000   Nov-06   25   9   2   274   31   5   4   4   0   √   √     Vervoort, John-Murray, KY   2003   Jan-07   7   7   0   1239   45   10   1   0   0   √     Vervoort, John-Murray, KY   2003   Jan-07   7   0   1239   45   10   1   0   0   √     Winsor, Roger - Valparaiso, IN   1964   Aug-07   0   0   0   3154   50   10   1234   50   8   0   √     Whatmough, Dave-Hamilton, ONT   1951   Jan-00   0   0   0   2061   49   10   1030   49   10   √   ✓     Kreipny, Ed-nr Cleveland, OH   1960   Nov-78   0   0   0   2162   49   10   1030   49   10   √   ✓     Falconer, Jeff-Clinton, ON   1964   Jan-06   0   0   0   2162   49   10   1070   49   10   √   ✓     Falconer, Jeff-Clinton, ON   1964   Jan-06   0   0   0   2162   49   9   98   81   0   √   ✓   ✓     Chatterton, Ken-n NY   1945   Nov-78   0   0   0   2184   50   10   10   0   √								•
Móunt, Paul-ne NJ         1973         Feb-86         199         26         5         489         36         7         224         33         6         V         V           Karchevski, Bob-San Francisco, CA 1969         Oct-78         197         35         5         249         36         5         198         36         5           Truax, Dick- vic, Louisville, KY         1972         Dec-78         120         35         5         935         46         6         20         17         3         V           Wolfish, Niel-Winnipeg, MAN         1985         Feb-93         113         10         4         813         37         9         25         10         4           Musco, Ron-nr Hartford, CT         1962         Jan-07         108         28         3         1400         47         9         1269         47         9         √           Smolarek, Bob n NJ         1982         Jun-06         68         35         8         1709         47         10         44         40         4         4         40         4         4         40         4         4         4         4         9         42         4         9         4<								
Karchevski, Bob-San Francisco, CA         1969         Oct-78         197         35         5         249         36         5         198         36         5           Truax, Dick- vic. Louisville, KY         1972         Dec-78         120         35         5         935         46         6         20         17         3         ✓         ✓           Wolfish, Niel-Winnipeg, MAN         1985         Feb-93         113         10         4         813         37         9         25         10         4           Musco, Ron-nr Hartford, CT         1962         Jan-07         108         28         3         1400         47         9         √         ✓           Smolarek, Bob n NJ         1982         Jun-06         78         16         5         817         30         31         7         0         √           Fenfrew, Jim-Rochester, NY         1976         Oct-06         68         35         8         1709         47         10         49         45         10         √         ✓           Benfrew, Jim-Brochester, NY         1962         Oct-78         50         10         2         785         43         8         0         0<								<b>√</b>
Truax, Dick-vic, Louisville, KY         1972         Dec-78         120         35         5         935         46         6         20         17         3         ✓         ✓         Wolfish, Niel-Winnipeg, MAN         1985         Feb-93         113         10         4         813         37         9         25         10         4         V         ✓         ✓         ✓         ✓         V         Smolarek, Boh nNJ         1982         Jun-06         78         16         5         817         36         5         7         7         0         ✓ <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>V</td>								V
Wolfish, Niel-Winnipeg, MAN 1985 Feb-93 113 10 4 813 37 9 25 10 4 Musco, Ron-nr Hartford, CT 1962 Jan-07 108 28 3 1400 47 9 1269 47 9 \$\forall \$\forall \$\text{Musco, Ron-nr Hartford, CT}\$ 1962 Jun-06 78 16 5 817 36 5 7 7 0 \$\forall \$\forall \$\text{Taylor, Pete-San Francisco}\$ 1958 Mar-00 70 6 1 4 450 32 7 329 31 7 \$\forall \$\text{Renfrew, Jim-Rochester, NY}\$ 1976 Oct-06 68 35 8 1709 47 10 449 45 10 \$\forall \$\forall \$\text{Musurl, Paul-se OH}\$ 1978 Feb-86 60 25 1 390 36 3 3 3 3 0 \$\forall \$\forall \$\text{Mount, Paul-se OH}\$ 1978 Feb-86 60 25 1 390 36 3 8 0 0 0 \$\forall \$\forall \$\text{Mount, Paul-se OH}\$ 1978 Feb-86 50 10 2 785 43 8 0 0 0 \$\forall \$\forall \$\text{Veryoort, John-Brooklyn, NY}\$ 1964 Jan-06 30 14 0 480 44 9 429 44 9 \$\forall \$\forall \$\forall \$\text{Veryoort, John-Brooklyn, NY}\$ 2000 Nov-06 25 9 2 274 31 5 4 4 0 \$\forall \$\								./
Musco, Ron-nr Hartford, CT         1962         Jan-07         108         28         3         1400         47         9         \$         \$           Smolarek, Bob n NJ         1982         Jun-06         78         16         5         817         36         5         7         7         0         \$           Taylor, Pete-San Francisco         1958         Mar-00         70         6         1         450         32         7         329         31         7           Renfrew, Jim-Rochester, NY         1976         Oct-06         68         35         8         1709         47         10         449         45         10         \$         \$           Bond, Jerry-Rochester, NY         1962         Oct-78         50         10         2         785         43         8         0         0         0         \$         \$         Veryocht, John-Brooklyn, NY         2000         Nov-06         25         9         2         274         31         5         4         4         0         \$         \$         Veryoort, John-Brooklyn, NY         2003         Jan-07         7         7         0         152         29         2         0         0	Wolfish Niel Winning MAN							V
Smolarek, Bob n NJ         1982         Jun-06         78         16         5         817         36         5         7         7         0           Taylor, Pete-San Francisco         1958         Mar-00         70         6         1         450         32         7         329         31         7           Renfrew, Jim-Rochester, NY         1976         Oct-06         68         35         8         1709         47         10         449         45         10         ✓           Mount, Paul-se OH         1978         Feb-86         60         25         1         390         36         3         3         3         0         ✓           Bond, Jerry-Rochester, NY         1962         Oct-78         50         10         2         785         43         8         0         0         0         ✓           Heinen, Wayne-NY         1964         Jan-06         30         14         0         480         44         9         429         44         9         V         V           Vervoort, John-Burray, KY         2003         Jan-07         7         7         0         152         29         2         0         0								. [
Taylor, Pete-San Francisco 1958 Mar-00 70 6 1 450 32 7 329 31 7 Renfrew, Jim-Rochester, NY 1976 Oct-06 68 35 8 1709 47 10 449 45 10 √ Mount, Paul-se OH 1978 Feb-86 60 25 1 390 36 3 3 3 0 √ Mount, Paul-se OH 1978 Feb-86 60 25 1 390 36 3 3 3 0 √ Mount, Paul-se OH 1964 Jan-06 30 14 0 480 44 9 429 44 9 √ √ Wervoort, John-Brooklyn, NY 2000 Nov-06 25 9 2 274 31 5 4 4 0 0 √ √ Wervoort, John-Brooklyn, NY 2000 Nov-06 25 9 2 274 31 5 4 4 0 0 √ √ Wervoort, John-Murray, KY 2003 Jan-07 7 7 7 0 152 29 2 0 0 0 0 0 √ Wervoort, John-Murray, KY 2003 Jan-07 7 7 7 0 152 9 2 0 0 0 0 0 √ Winsor, Roger - Valparaiso, IN 1964 Aug-07 0 0 0 1239 45 10 1 0 0 0 √ ✓ Whatmough, Dave-Hamilton, ONT 1951 Jan-00 0 0 0 2061 49 10 1030 49 10 √ ✓ Winsor, Roger - Valparaiso, IN 1964 Aug-07 0 0 0 0 2162 46 10 342 41 7 √ ✓ Winsor, John-Murray, MD 1961 Jan-00 0 0 0 2261 49 10 1030 49 10 √ ✓ Winsor, John-Murray, MD 1961 Jan-00 0 0 0 2261 49 10 1030 49 10 √ ✓ Winsor, John-Murray, MD 1961 Jan-00 0 0 0 2261 49 10 1030 49 10 √ ✓ Winsor, John-Murray, MD 1961 Jan-00 0 0 0 2261 49 10 1030 49 10 √ ✓ Winsor, John-Murray, MD 1969 Jul-00 0 0 0 2261 49 10 1030 49 10 √ ✓ Winsor, John-Murray, MD 1969 Jul-00 0 0 0 2269 49 10 2729 49 10 √ ✓ Winsor, John-Murray, MD 1969 Jul-00 0 0 0 2269 49 10 1070 49 10 √ ✓ Winsor, John-Murray, MD 1969 Jul-00 0 0 0 2269 49 10 1070 49 10 √ ✓ Winsor, John-Murray, MD 1968 Feb-06 0 0 0 2474 49 9 1967 49 9 √ ✓ Winsor, Shawn Ms MAN 1986 Feb-06 0 0 0 2474 49 9 1967 49 9 √ ✓ Winsor, Roger-Arlington, MD 1938 Jan-06 0 0 0 1249 50 10 10 0 0 0 √ ✓ Winsor, Roger-Arlington, MD 1938 Jan-06 0 0 0 1249 50 10 10 0 0 0 √ ✓ Wilkins, John-W. DesMoines, IA 1962 Nov-06 0 0 0 1307 45 7 489 44 7 ✓ ✓ ✓ Wilkins, John-W. DesMoines, IA 1962 Nov-06 0 0 0 0 799 43 7 243 38 7 ✓ ✓ Wilkins, John-W. DesMoines, IA 1962 Nov-06 0 0 0 0 799 43 7 243 38 7 ✓ ✓ Willian, John-W. DesMoines, IA 1968 Jan-92 0 0 0 0 799 43 7 243 38 7 ✓ ✓ Willian, John-W. DesMoines, IA 1969 Oct-78 0 0 0 0 799 43 7 243 38 7 ✓ ✓ Willian, John-W. DesMoines, IA 1969 Oct-78 0 0 0 0 799 43 7 243 38 7 ✓			•					ν Γ
Renfrew, Jim-Rochester, NY 1976 Oct-06 68 35 8 1709 47 10 449 45 10 \$\forall \text{ Mount, Paul-se OH} 1978 Feb-86 60 25 1 390 36 3 3 3 0 \$\forall \text{ Mount, Paul-se OH} 1978 Feb-86 60 25 1 390 36 3 3 3 0 \$\forall \text{ Mount, Paul-se OH} 1962 Oct-78 50 10 2 785 43 8 0 0 0 \$\forall \text{ Mount, Paul-se OH} 1964 Jan-06 30 14 0 480 44 9 429 44 9 \$\forall \text{ VEYOOT, John-Brooklyn, NY} 2000 Nov-06 25 9 2 274 31 5 4 4 0 \$\forall \text{ VEYOOT, John-Brooklyn, NY} 2000 Nov-06 25 9 2 274 31 5 4 4 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 7 0 152 29 2 0 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 7 0 0 0 1239 45 10 1 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 1 0 0 0 1239 45 10 1 0 0 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 0 0 0 0 3154 50 10 1224 50 8 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 0 0 0 0 2061 49 10 1030 49 10 \$\forall \text{ VEYOOT, John-Murray, KY} 2003 Jan-07 0 0 0 2061 49 10 1030 49 10 \$\forall \text{ VEXTAGALLY STANDAY} 40 \$\forall  VEXTAGALLY STAND								V
Mount, Paul-se OH         1978         Feb-86         60         25         1         390         36         3         3         0         V           Bond, Jerry-Rochester, NY         1962         Oct-78         50         10         2         785         43         8         0         0         0         V           Heinen, Wayne-NY         1964         Jan-06         30         14         0         480         44         9         429         44         9         V         V           Vervoort, John-Brooklyn, NY         2000         Nov-06         25         9         2         274         31         5         4         4         0         V         V           Ponder, Stephen-Shreveport, LA         1975         Aug-89         10         4         4         769         39         5         721         39         5         ✓         V           Vervoort, John-Murray, KY         2003         Jan-07         7         7         0         152         29         2         0         0         0         0         0         1239         45         10         1         0         0         V         Whatmough, Dave-Hamilton, ONT								Г
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Taylor, Pete-Durham, NC	1952	Mar-00	0	0	0		<b>1</b> 0 6		38	6	$\sqrt{}$	$\sqrt{}$
Sampson, John-Omaha, NE	1954	Dec-78	0	0	0	912 4	<b>1</b> 5 6	912	45	6	$\sqrt{}$	$\sqrt{}$
Sampson, John-New York, NY	1965	Dec-78	0	0	0	181 3	33 6	181	33	6	$\sqrt{}$	$\sqrt{}$
Sampson, John-Hutchinson, MN	1960	Oct-78	0	0	0	336 4	12 6	336	42	6		
Reed, John-Ponca City, OK	1995	Jan-06	0	0	0	656 4	10 6	0	0	0		
Onyschuk, Ken-Homewood, IL	1967	Aug-06	0	0	0	1064   4	13 6	16	13	0		$\sqrt{}$
Jeter, Karl-Atlanta, GA	1969	Mar-84	0	0	0	1574 4	14 6	1193	44	6	$\sqrt{}$	$\sqrt{}$
Hardison, Greg-Atlanta, GA	1964	Nov-78	0	0	0	900 3	36 6	42	19	5		
Edmunds, R. Jne ME	1994	Sep-99	0	0	0	172 2	20 6	0	0	0		
Boersma, Philip-w MI	1973	Oct-78	0	0	0	520 4	11 6	50	24	3		
Alves, Paul Hnr Boston, MA	1948	Feb-99	0	0	0	352 3	32 6	145	25	5	$\sqrt{}$	$\sqrt{}$
Winkelman, Bruce-Tulsa, OK	1979	Nov-06	0	0	0	705 3	36 5	0	0	0		
Vervoort, John-Bronx, NY	2003	Nov-06	0	0	0		22 5		0	0		$\sqrt{}$
Turner, Říck-Bemidji, MN	2005	Jan-06	0	0	0		27 5		0	0		
Tudenham, John-Joplin, MO	1990	Oct-97	0	0	0	444 3	36 5	0	0	0		
Hardy, Nancy-coastal WA	1969	Dec-84	0	0	0	778 4	10 5	3	2	0		
Bailey, Ron-Shelby, NC	1992	Jan-07	0	0	0	1545 3	37 5		4	1		$\sqrt{}$
Jones, David B Springfield, TN	1996	Åpr-06	0	0	0	464 3	34 4		30	4		$\sqrt{}$
Houdek, Gary, KS	1975	Feb-06	0	0	0	374 3	37 4	54	26	1		
Hopkins, Eric, MA	2007	Feb-08	0	0	0	224 - 2	<u>2</u> 7 4	. 0	0	0		$\sqrt{}$
Taylor, Pete-Coral Gables, FL	1945	Mar-00	0	0	0	221 2	<u> 2</u> 9 3	132	30	2	$\sqrt{}$	$\sqrt{}$
Sampson, John-Cupertino, CA	1966	Oct-78	0	0	0	258 1	17 3	258	17	3		
Crabill, Perry - VA	1990	Jan-06	0	0	0		35		0	0		$\sqrt{}$
Vervoort, John-Madisonville, KY	2004	Jun-07	0	0	0	303 3	32 2	. 0	0	0		$\sqrt{}$
Thompson, Blaine-Toledo, OH	2003	Feb-06	0	0	0		22 2		0	0		
Sampson, John-Winston-Salem, No		Oct-78	Õ	Ö	Ö		30 1	-	30	ĺ		$\sqrt{}$
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Legend:

District of Columbia heard, taped, and/or veried

TDH, TDT, TDV Total Domestic Heard, Taped, Verified

SH, ST, SV States Heard, Taped, Verified

PH, PT, PV Provinces Heard, Taped, Verified

Thanks to Shawn Axelrod and John Wilkins for updates for this column, which is arranged by **Total Domestics Taped** and then **States Taped** and finally **Provinces Heard** as the tiebreaker. We'll run various priorities at different times. Domestics of course include the contiguous 48 states and Canada; Alaska, Hawaii, Puerto Rico, etc., are counted as foreigns. We'll only delete listings of those who are no longer NRC members, so should you drop out and rejoin, you'll need to resubmit your totals. How about making it a priority for next time of filling in the blanks above, at least in the year started and last update column? Some of the listings are estimates, and that's just fine, but don't forget to update accurately when you can. Please join us -73.

# Musings of the Members

Dave Schmidt NRCMusings@aol.com P. O. Box 126 New Freedom, PA 17349-0126 45

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

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

## AndrewOoms < oomspine@msn.com>

Hello, NRC members: Below is an answer to me from KNBR, 680, San Francisco, CA in response to a message that I sent them on April 10 this year. My original message to them follows. I compliment KNBR for responding to me, but I find their answer quite humorous. I left AZ in April to work in a state park in Maryland this summer, so I don't know how KNBR is sounding in Pine, AZ just now. I have since deduced that KNBR's signal issue is due to night-time IBOC, as I noticed after my message to them that their signal was also good at about 675 KHz. 680 was mostly only a whistle. Here are the messages:

Dear Andy,

Thanks for the heads up on the signal! Those AM signals are strong, stronger that FM, but going all the way AZ they do tend to drift. We are glad that you still can pick us up, no matter where we are on the dial! Thanks again, and keep it on The Sports Leader!

Regards,

**KNBR** 

---- Original Message -----

From: "ANDREW OOMS" < <a href="mailto:oomspine@msn.com">oomspine@msn.com</a>>

To: <<u>sports@knbr.com</u>>

Sent: Thursday, April 10 2008 04:10:20 AM

Subject: you might like to know

Here in Pine, AZ, I enjoy KNBR frequently, especially Giants and Warriors games.

I think you might like to know, if you don't already, that many nights your signal is off frequency. 680 may be basically unlistenable, but up frequency will be quite good. Tonight, 684.7 is good.

Thanks for your play-by-plays.

Andy Ooms Pine, AZ

On another subject, listening to my Sangean ATS 909 one night last February in Pine, I heard the Anaheim Ducks versus Minnesota Wild hockey game on KLAA, 830, Orange, CA. Turning my radio I received the same game on the same frequency except that the announcers were different as I was then listening to WCCO, Minneapolis, MN. Kind of a unique event in radio sports history as I know it.

# John R. Malicky - 995 Shadycrest Rd. - Pittsburgh, PA 15216-3046

Hello, all. Welcome to summer, almost for all of us in the northern hemisphere with about 2.1/2months before Pittsburgh 2008. I wish I could bring some of the gas prices down, here now at \$3.99/ gallon, so that many of you can attend. To update, my speaker(s) have been confirmed, "Dr. Knowledge" and "Miss Information", aka Charles and Audrey Reichblum, who host a weekend trivia show, Saturday and Sunday nights midnight to 3 am, on KDKA-1020. The show is quite popular locally for us "night-owls". Also, we may have both studio and transmitter tours of KDKA, as I'm also working on a KQV transmitter tour. With the official date of November 25, 1758 listed as the founding of the city, a "Pittsburgh Innovators" demonstration will commence that month, also. The series would include a description of Dr. Conrad's testing and first broadcasts of 8XK and KDKA but would be after our convention. There is a website for any who wish to log on, www.imaginepittsburgh.com. This month, there will be 2 events to celebrate the anniversary, a "parade of champions" sports exhibit at the Heinz History Center and a "Tour of Pennsylvania" cyclists ride from Philadelphia to Pittsburgh. As for the Pirate game August 31, there are 20 tickets left under the group rate, so please, if you can, send your money to me (\$14) with the registration, separate of possible, payable to "The National Radio Club". Or, the \$14 payable to me and the \$45 payable to the NRC! Meanwhile, within a Pennsylvania Tour Guide booklet from "AAA", there is a listing for Mel Check, Sr.'s radio museum with about 800 radios up in Armstrong County. More on that, and other items will hopefully be announced in upcoming DXN's. In local radio news, classic rock and Steeler station WDVE-102.5 is number one in the ratings overall with KDKA second and has been for over a year. Also, I apologize not to have written this sooner, but on February 27, 2008 legendary 1250 AM and Steeler color voice Myron Cope passed away after a long illness. On the air from 1970 or early 1970's up to about 3 years ago, Myron also had a talk show on then WTAE-1250 and used his own lingo, like "double yoi"! to describe many events and the Steelers. However, his most famous creation was "The Terrible Towel", a black-and-gold-lettered towel that was used to empower the NFL team and ward off the "evil demons" or other NFL foes. The man who has since filled in Myron's spot in the afternoons, 3-7 pm, on WEAE-1250, the self-proclaimed genius with a 160 I. Q., Mark Madden, has said one too many distasteful remarks and was permanently removed from the air by ESPN HQ. With WEAE now labeling itself as "ESPN 1250", Mark made an unkind comment about Senator Ted Kennedy's most recent illness on May 21, apologized that same day under local management, then was removed a week later by ESPN. I must admit that I was an "MF'er", a "Madden Follower", because of some of his, at times, satirical criticisms of local sports or anything in general, but his one went over "the waterfall". His ratings were very strong for some years, but an opinion poll in the Post-Gazette said 52% were glad he's off the air, for now. Mark was a huge fan of our NHL Penguins who surprisingly made the Stanley Cup finals versus the Detroit Red Wings; go, Pens! As for veries, thanks to Saul Chernos who recently sent a well-designed QSL card of CFFX-960 ON to go along with this year's other replies from WCKB-780 NC, WWOL-780 NC, WBAJ-890 VA, WVTS-950 WV, and WLNO-1060 LA. Verie signers and info to be sent along. And finally, contrats to Paul Swearingen for his 20 years of services as DXN publisher. Thank you for all you've done for the club, Paul! (You're most welcome, John -pls.) Long live the NRC and DXAS! 73's.



# IT'S PITTSBURGH IN 2008!

Friday, August 29 - 31, 2008

Our 75th Anniversary - National Radio Club, founded in 1933

What better way to celebrate our Diamond Anniversary than to get back together in the familiar surroundings of the birthplace of modern broadcasting. And can you believe it? The city of Pittsburgh is celebrating its 250 anniversary this year, too!

Our host will be John Malicky, one of our most experienced convention leaders. Just look at what he's arranging for us. The Pirates baseball team will play for us on Sunday afternoon against Milwaukee - very appropriate for our 75th diamond anniversary - weather permitting.

Plan to arrive early enough on Friday to take part in studio tour that afternoon, with a pizza dinner being served in the meeting room that night. The grand opening will be held at 7 p.m. on Friday with a presentation about the history of Pittsburgh

rounding out the evening.

Saturday morning will feature a tour of the Heinz History Center at 9 a.m., and you are invited to buy lunch at the Sports Rock Café if you wish. There will be transmitter tours in the afternoon for those who wish to get out and see what broadcasting in Pittsburgh is all about, and then, at 5 p.m., the annual group photograph at the hotel. And, of course, there will be lots of time to sit and chat about DX'ing with other club members in the Hospitality Room.

The banquet this year will be in the Greenery Restaurant right there at the hotel. A business meeting will follow, and then the world-famous auction will round out the

evening.

Sunday will open with the annual NRC DX Examination, and then, at 11 a.m., we'll depart for a boat ride to PNC Park, home field of the Pittsburgh Pirates, via the Gateway Clipper Fleet. The game that afternoon is against the Milwaukee Brewers at 1:35; tickets are \$14 each, and please reserve yours by letting John know that you plan to attend. Seats will be behind home plate on the 3rd level.

Back at the hotel, the Hospitality Room will re-open around 5 o'clock -- WNRC should be on the air by then and we'll sit and chat until everyone is talked out. The con-

vention will end on Sunday evening.

Now, here's what to do:

1. Reserve your room at the Greentree Holiday Inn, 401 Holiday Drive, Pittsburgh PA 15220: Call: 1-412-922-8100. Be sure to tell them you want the "NRC Rate" @ \$75 per room (up to 3 occupants) ... and be sure to tell them by August 15.

2. Convention Registration is \$45 and that includes the pizza party, the banquet, soft drinks and munchies during the three days in the Hospitality Room and, weather

permitting, a trip to the history center.

3. Send all auction and "free" distribution items to John (PLEASE mark free items prominently so that they don't end up in the auction!): 995 Shadycrest Rd - Pittsburgh, PA 15216-3046.

4. Send your registration check, payable to "National Radio Club" to: National Radio Club - PO Box 5192 - Sun City Center, FL 33571-5192. You can also register

online using Pay Pal at: www.nrcdxas.org

5. Local Transportation: If you fly into Pittsburgh International Airport ("PIT"), there is a free complimentary shuttle service to the hotel. The train station in Pittsburgh is only 4 miles away from the hotel; the taxi fee is \$25.



# National Radio Club Founded in September, 1933, the National Radio Club is a non-profit

rounded in September, 1923, the National Radio Citib is a non-pront organization devoted to the medium wave DX hobby. It is operated solely by uncompensated volunteers. Subscription costs cover printing, postage, and operational costs and are subject to change without prior notice. The opinions expressed in this magazine are those of the individual writer and do not necessarily reflect those of the Publisher or the Board of Directors of the National Radio Club, Inc. Any reproduction of material contained in DX Newsle-DXN without permission of the National Radio Club or the author is prohibited. All published material in DX Newsle-DXN may be reprinted by the National Radio Club at a later date. DX Newsle-DXN published material reprinted in other publications should include an attribution naming the author and DX Newsle-DXN as the original source. Construction projects described herein may be hazardous and are to be undertaken at the assembler's risk; the NRC, its officers, and author(s) will not be responsible for any injuries or losses arising during these projects. Tool usage and electricity can be dangerous.

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  - DX News Publisher/Editor Paul Swearingen (plsBCBDXER@aol.com) 2840 SE Illinois Ave. Topeka, KS 66605-4711; 785-224-6907 [voice mail], 785-266-5707 [prepaid] (Contributions to DX News or DDXA/IDXA only; subscription payments and sample requests go to Wayne Heiran)

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