

DX News

• Serving DXers since 1933 •

Volume 61, No. 27 - June 20, 1994 (ISSN 0737-1659)



Inside...

2 .. AM Switch
4 .. DDXD
11 .. Now and Then
12 .. IDXD
16 .. FM DXD

19 .. Eclipse DX
21 .. First 50+ TA's
34 .. Pro Sports Nets
42 .. Radio Roundup
43 .. Musings of the Members
47 .. Come to New Hampshire!

From the Publisher ... Here are additions and corrections to the E-mail list in #26: Alex Calabrese (2nd): ALEX08310@aol.com; Ed Gehringer: efg@ncsu.edu; Gerry Bishop (2nd): GerryB4991; Mark Hattam: mark@dxradio.demon.co.uk; Tom Reiser: ReiserT@AOL.com; Fred Vobbe: (corrected) Fred.vobbe@f16.n234.z1.Fidonet.org; Bruce Winkelman: bwink@cris.com or 76646.2231@compuserve.com; Brent Taylor: btaylor@mailserv.nbnet.nb.ca; Mike Jeziorski: mj@icbr.ifas.ufl.edu, and the publisher's, which was in the heading but not the text: plsBCBDXER@AOL.com. The NRC E-mail list will now be available through NRC publications, and you may continue to send your updates to the publisher's E-mail address.

John R. Ghrist-984 Bruce Drive-Elgin, IL 60120 is working on a book on early radio (all bands) around the Chicago suburban radio and would appreciate any help NRC'ers can offer. For example, he's looking for info on an early experimental FM station in Riverside, IL in the '40's by Joe Novy from his house, plus information on hams from the very early years through the 1920's.

Press releases from Grove: the first edition of *Satellite Times* is just around the corner; a U. S. charter subscription is \$16.95; for more information, call (800) 438-8155 (international: 01-704-837-9200); the fifth annual MT convention will be October 21-23 at the Atlanta Airport Hilton; registration is \$50. For more information, call the above number.

On to the west coast... *Emergency radio! Scanning News As It Happens* is just off the press from Index publishing and author Norm Schrein. It's available for \$14.95 plus \$3.00 S/H at 3368 Governor Dr. - Ste. 273 - San Diego, CA 92122; credit cards (800) 546-6707 ... I'm going to hold off recommending the August SCADS convention until they (1) send me the cup I ordered months ago, and (2) settle on a definite date and convention site. I have press releases detailing two different dates, two different convention hotels, and even two different prices for the mug.

New member Jerry Slegh is interested in knowing where WEL0 was in 1947; he thinks that they

were located on either 1450, 1460, or 1470 "somewhere in the midwest". Send the answer to the publisher, and we'll print the answer(s).

DXChange ... your publisher would like to trade a Panasonic RF 2200 for a Sony ICF5900W, or possibly an ICF6500W, or possibly another portable. The 2200 is in excellent condition except for a slight bend in the antenna about 4" from the tip. See the back page for the address ... Frank Merrill - P.O. Box 669 - Macomb, IL 61455-0669 is searching for radio station (and other) collections of 45's, especially non-hit promo items which are in danger of being thrown out. He'll pay well for them, he says!

Welcome to these new members ... Michael J. Millett, Cincinnati, OH; J. Hofweber, Smithers, BC; Tom Kulis, Ft. Collins, CO; William Andres, Frackville, PA (rejoins); David Erickson, McMinnville, OR; Edward Kaczmarek, Sayreville, NJ; Eric Cooper, Lake Forest, CA; Ronald Cianci, Rye, NY; Michael T. Washburn, Commerce City, CO; Mark Zechar, Cincinnati, OH; Neal A. Perdue, Madison, AL (rejoins); Paul Sontag, Richmond, BC; Brent Taylor, Doaktown, NB (rejoins); Jerry L. Slegh, Prairie City, IA; and Helen Landers, Director of Activities, the Ohio Masonic Home, Springfield, OH.

Remaining DXN Schedule, Volume 61

#	Deadline/Pub. Date	29. Aug. 5	Aug. 15
28.	July 8 - July 18	30. Sept. 9	Sept. 19

DX Time Machine

From the pages of DX News:

50 years ago ... from the June 17, 1944 DXN: The FCC report showed 19 applications for new stations, and the frequency changes of WMIS from 1490 to 1240 and KXO from 1490 to 1230 kcs. In Canada, CJCS-1240 increased power from 50 w to 250 2w.

25 years ago ... from the June 7, 1969 DXN: Isaac Eaves, Houston, TX reported hearing YSEB-580 through "terrific" QRN on April 11.

10 years ago ... from the June 11, 1984 DXN: Neil Kazaross, Ogunquit, ME pulled in Grench Guyana on 1070 April 30.

AM Switch

Jerry Starr
c/o WHOT Radio
4040 Simon Road
Youngstown, OH 44512-1320

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

CALL LETTER CHANGES

Old call	New call	Old call	New call
610 WAQS NC Charlotte	WRFX	1330 WFWC NY Springville	WSPQ
810 KKGD CO Rifle	KRGS	1340 WLAV MI Grand Rapids	WBBL
940 KDEO HI Waipahu	KJPN	1400 WOAD MS Jackson	WKXI*
980 WLMX GA Rossville	WCVT	1470 KBCW MN Brooklyn Park	WLLO
1080 KOAK IA Red Oak	KCSI	1490 KJOE UT Ogden	KYFO
1130 WWWW MI Detroit	WDFN	1510 KJLA MO Independence	KCTE
WAMG TN Gallatin	WYXE	1550 KKHI CA San Francisco	KPIX
		1600 KLLR MN Walker	KLLZ

*Notes: WOAD change to WKXI on 1400 was typo'd as WXXI last issue.

APPLICATIONS/GRANTS FOR NEW STATIONS None

APPLICATIONS FROM EXISTING FACILITIES

550	WAYR	FL	Orange Park: city of license to Doctor's Inlet, FL
900	WCER	OH	Canton: reduce night power to 75 watts
	WCBX	VA	Bassett: modify CP powers to 1100/180
940	WINE	CT	Brookfield: reduce power to 680 watts
950	KJR	WA	Seattle: powers to 50000/50000
1350	WCRM	FL	Fort Myers: CP day power to 2000 watts
1460	WEEN	TN	Lafayette: reduce powers to 860/119

GRANTS TO EXISTING FACILITIES

800	KAGH	AR	Crossett: reduce power to 240 watts
1520	KPXX	OR	Oregon City: night power to 15000 watts
1580	KRLL	NM	Albuquerque: reduce power to 5000 watts

OTHERNESS

580	KJBX	TX	Lubbock: station is SILENT
630	WDGY	MN	St. Paul: station is SILENT, antenna system has been dismantled, station's future is unknown.
650	WKKQ	MN	Nashwauk: CP for 10000/1000 U2 is on.
750	CJWW	SK	Saskatoon: station has application for 92.9 FM and will delete AM facility if granted
790	WQSV	TN	Ashland City: station is SILENT
830	KABN	AK	Long Island: station has requested to have the expired CP to move to 840 kHz reinstated so it would appear that KABN is still licensed to 830 kHz and KSDP is still on 840 kHz, although both are still SILENT. Change your Log to show KABN on 830 and KSDP on 840 until further notice.
880	WPIP	NC	Winston-Salem: this new station was reported by several sources as being on the air; however, we hear from a reporter in W-S that they were only on two days for tests in late 1993 and have never returned to the air, they are NOT on the air as of June 1994.
910	WTLM	AL	Pepperell: silent station is ON THE AIR
1030	KEVT	AZ	Cortaro: new station is ON THE AIR (Spanish format)
1090	WMFL	FL	Monticello: station is SILENT
1100	KZPM	CA	Bakersfield: powers to 4200/800 U4 (CP, not on)
1140	CFXL	AB	Calgary: has application to move to 96.5 FM and will delete AM facility if granted
1150	WLOC	KY	Mumfordsville: station is SILENT (again)



1200	CHMG	AB	St. Albert: has application for 104.9 FM and will delete AM facility if granted
1220	KRGO	CA	Fowler: expired CP for move to 1210 kHz has been reinstated (see last issue)
1230	WGGG	FL	Gainesville: last issue under call changes we listed this station in GA but FL is correct
	WWSO	FL	Quincy: silent station is ON THE AIR
	WHSY	MS	Hattiesburg: station is SILENT
1250	WLEM	PA	Emporium: requests reinstatement of their expired CP to move to 650 kHz (5000 D1) so this move MAY not be dead.
1280	KRZE	NM	Farmington: silent station is ON THE AIR
1290	WQIN	PA	Lykens: this silent station is completely gone; all equipment has been sold, and no trace remains to indicate that it ever existed. You can probably safely delete this one from your Log.
1340	WPBR	FL	Lantana: CP for 810/810 U1 is on
	WBBL	MI	Grand Rapids: silent as WLAV, station is ON THE AIR
	WYCK	PA	Wilkes-Barre: station is SILENT, lease on tower site was not renewed, antenna has been taken down, station may return if a new site can be found.
1350	CKEG	BC	Nanaimo: station will apply for a move to 1570 kHz if CHUB moves to FM (see 1570 below)
1360	KSRX	KS	El Dorado: station is SILENT
1400	WULF	GA	Alma: station is SILENT
1460	KULA	HI	Honolulu: station is SILENT (pending sale)
1490	WGMF	NY	Watkins Glen: silent station is ON THE AIR
1540	KMBY	CA	Capitola: station is SILENT
1560	WSQR	IL	Sycamore: silent station is ON THE AIR
1570	CHUB	BC	Nanaimo: applies to move to 102.3 FM and will delete AM facility if granted

THANKS: Wayne Heinen, Dave Schmidt, Shawn Axelrod, Ed Krejny, John D. Bowker, Dick Truax, Al Merriman, Ron Lafinbil, MSJ

73 and Good DX,

Jerry Starr

Jerry Starr & Buffalo K. Foonman

DO YOU REMEMBER THE ISWLC? At the 1969 NRC Convention in St. Louis somebody had a collection of bulletins from the short-lived Iowa Short Wave Listeners Club. I can't remember who these bulletins belonged to but if that person is still a member and reading this please contact me. If you would be willing to part with your ISWLC file I'd like to have them long enough to make copies and return them if you want. Thanks!

Salmon River News, via Ken Chatterton

22% Of U.S. Stations Program Country

NEW YORK—Of the United States' 11,894 radio stations, 22% program country music, according to a format study compiled by the editors of the M Street Journal.

That format is well ahead of the rest of the pack, including second-place finisher mainstream AC, which is programmed by 11.1% of stations. That AC figure is upped considerably, however, when it is combined with soft AC's 2.8% and hot AC's 1.9%, giving the format a total of 15.8% of all stations.

Rounding out the top nine most-programmed formats are NT (9%), religious (6.5%), oldies (6%), variety (3.9%), adult standards (3.3%), Spanish (3.6%), and top 40 (3.5%). Finishing in 10th place is the "silent" category since a total of 887 licensed stations (or 3.8% of all U.S. stations) are currently off the air.

The study also groups formats into seven categories. Of those, the most programmed is "popular hits," which includes all permutations of AC, as well as oldies, standards, and

top 40. That category accounts for 29% of the total.

The second most-programmed category is Christian, under which the M Street study groups the religious, contemporary Christian, Southern gospel, black gospel, and mainstream gospel formats. That category accounts for 11.6% of all programming.

The NT category, which includes N/T, sports, and all-news, comprises 9.7% of stations.

The rock category, which is made up of alternative and modern rock as well as album rock and classic rock, is programmed by 8.4% of stations.

The easy listening category, which includes that format as well as classical, jazz, and adult alternative, is programmed by 4.5% of stations.

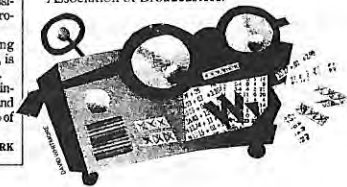
The ethnic category, including Spanish and other ethnic stations, is programmed by 4.1% of all stations.

The R&B category, including mainstream R&B, as well as R&B adult and R&B oldies, is programmed by 3.1% of stations, according to the study.

PHYLLIS STARK

Radio gets smart

What's it like to switch on your radio and see song titles, artists' names, and weather and traffic reports? Stations in select cities are testing Radio Broadcast Data System encoders, which transmit text. The catch: To see the data, you need to buy a 64-character-display tuner (starting at \$299, going up to \$999 with a compact disc player) — or, for your car, an eight-character display tuner (\$200-\$400). Advertisers will love this, because the tuners are equipped to carry brief commercials as well. RBDS technology was developed by a committee made up of members of the Electronic Industries Association and the National Association of Broadcasters.



Billboard, via Eric Cooper

UNIDs and UNID HELP

- 1530 UNID ?? - 5/2 2200-2230 - Someone testing with intermittent tones, making it hard to hear Cincinnati's Legal ID. Could be any number of daytimers on this frequency. (JE-MN) [This corrects the time of this unID from last issue - Ed.]

DX AND EQUIPMENT TESTS

- 690 HCJB-EQA Quito - 5/29 2200-2205 - Not heard. XETRA Extra Sports 690 very strong and steady. Nothing else. (BK-CA)

TIS & OTHER STUFF

- 1610 TIS MT Fort Peck - 5/23 0517 - Fair with loop jammed with repeating partial message. (SA-MB)

MIDNIGHT TO 0800 HOURS ELT

- 580 WILL IL Urbana - 5/8 0016 - Poor with BBC Newshour. (TR-IL)
 790 WTAR VA Norfolk - 5/8 0008 - Fair, with WBBM splash, with talk on the NBA. (TR-IL)
 840 KVEG NV North Las Vegas - 5/23 0630+ - Loud and clear with audio feed from KNBC-TV Los Angeles!! Promos, ads, traffic reports, many TV CL announcements. These satellite feeds are getting out of control. [Ed.-ID]
 850 KOA CO Denver - 5/8 0017 - Excellent with Colorado Rockies vs San Diego Padres baseball. (TR-IL)
 880 WRFD OH Columbus-Worthington - 5/19 0658 - With sponsor list and VID. Blasted by KGHT-AR at their sign-on at 0700. (DE-MO)
 1020 WCIL ILCarbondale - 5/24 0658 - NOS, then VID. Alone until WPEO's sign-on at 0700. (DE-MO)
 1110 WBT NC Charlotte - 5/8 0020 - Fair with talk on weight training programs. (TR-IL)
 1130 KWKH LA Shreveport - 5/8 0024 - Poor with C&W music. WBBR QRM. (TR-IL)
 WBBR NY New York - 5/8 0023 - Fair, with KWKH QRM, with talk about Rwandan peacekeepers. (TR-IL)
 1150 KSAL KS Salina - 6/1 0719 - Farm news program and VID. Over KRMS. (DE-MO)
 1210 WGMP PA Philadelphia - 5/1 0000 - Fair with WGMP Philadelphia SID into CBS News. New. (SA-MB)
 1250 WKBL TN Covington - 5/13 0711 - Ads for Covington restaurant, farm equipment. VID. (DE-MO)
 1330 WVHI INEvansville - 5/18 0659 - VID stating religious programming. (DE-MO)
 1400 KGVL TX Greenville - 5/8 0610 - Fair with 93.5 FM ID, C&W music, KICK-FM ID. // KIKT?? New!! (SA-MB) [And a new record to boot - Ed.]
 KEYE TX Perryton - 5/8 0629 - Fair with Hit Country 1400 ID, C&W music. (SA-MB) [Shawn - it's Perryton, not town - Ed.]
 KVRP TX Stamford - 5/8 0650 - Poor with KVRP Stamford / KVRP Haskell ID. New!! Third Texas station on 1400 in 40 minutes. (SA-MB)
 1450 WDXR KY Paducah - 5/8 0600 - Fair with South Illinois and Western Kentucky's most reliable news is on CNN, AM 1450, WDXR Paducah. New!! (SA-MB) [And another, ho-hum, record - Ed.]
 1490 KQDS MN Duluth - 4/24 0510 - With AOR & The New 95 - KQDS slogan. Over others in mess. New for me. (JJR-WT)
 1580 KFDF AR Van Buren - 5/2 0700 - Sign-on info, then Southern GOS music. (DE-MO)

0800 TO 1600 HOURS ELT

- 740 KBOE IA Oskaloosa - 5/12 1329 - C&W music, then VID. (DE-MO)
 1360 KHAK IA Cedar Rapids - 5/10 1253 - C&W music. Near peak of solar eclipse. I was located in direct path. (DE-MO)
 1390 KAMO AR Rogers - 5/10 1238 - Another eclipse special. Faded in, then C&W music & VID. (DE-MO)
 1500 WPME ILVandalia - 5/10 1308 - Solar eclipse reception. Over KSTP & KDFN. Ads for Vandalia businesses. Heard only for a few minutes. (DE-MO)
 1600 KUSH OK Cushing - 5/10 1230 - About 20 minutes before peak of eclipse, with AC music. (DE-MO)

1600 TO 2400 HOURS ELT

- 550 KSD MO St. Louis - 5/27 2143 - Poor with CNN audio. (TR-IL)

- 870 WWL LA New Orleans - 5/27 2148 - Fair with the Crescent City Connection on New Orleans Film Festival. (TR-IL)
 1010 CFRB ON Toronto - 5/27 2149 - Fair with ads for 1-800-ONTARIO and Browns Clothing. (TR-IL)
 1020 KDKA PA Pittsburgh - 5/13 1800+ - Loud and clear with local news, traffic, biznews, weather, etc. Pirates baseball later. WOW! Is this great, or what? [Ed.-ID] [Oh, I better mention that due to a satellite receiver fluke, KLVJ-1240 had this feed going in place of their regular talk show fare. Had you going for a minute, huh?]
 1070 CHOK OH Sarnia - 5/27 2151 - Fair with Blue Jays game. (TR-IL)
 1530 WSAI OH Cincinnati - 5/27 2154 - Good with standards and 1530 WSAI slogan. (TR-IL)

GRAVEYARD DX UPDATE

* indicates North American record

1230 kHz:

WJNO	FL	West Palm Beach	Marc DeLorenzo	Hyannis, MA	*1170
WENY	NY	Elmira	Marc DeLorenzo	Hyannis	336
WHUC		Hudson	Marc DeLorenzo	Hyannis	184

1240 kHz:

WMMB	FL	Melbourne	Marc DeLorenzo	Hyannis, MA	*1102
WIST	NC	Charlotte	Marc DeLorenzo	Hyannis	722

1400 kHz:

WFTL	FL	Fort Lauderdale	Marc DeLorenzo	Hyannis, MA	1209
WJET	PA	Erie	Marc DeLorenzo	Hyannis	*504
KGVL	TX	Greenville	Shawn Axelrod	Winnipeg, MB	1141

1450 kHz:

WRKD	ME	Rockland	Marc DeLorenzo	Hyannis, MA	*179
WTHU	MD	Thurmont	Marc DeLorenzo	Hyannis	398
WWGO	PA	Erie	Marc DeLorenzo	Hyannis	504
WFRA		Franklin	Marc DeLorenzo	Hyannis	*493
WWRI	RI	West Warwick	Marc DeLorenzo	Hyannis	*64
WMYB	SC	Myrtle Beach	Marc DeLorenzo	Hyannis	721
WDXR	KY	Paducah	Shawn Axelrod	Winnipeg, MB	970
WILY	VA	Highland Springs	Marc DeLorenzo	Hyannis	470
CHUC	ON	Port Hope	Marc DeLorenzo	Hyannis	*437

1490 kHz:

WMBM	FL	Miami Beach	Marc DeLorenzo	Hyannis, MA	1232
WFLB	NC	Fayetteville	Marc DeLorenzo	Hyannis	650

Totals:		1230	1240	1340	1400	1450	1490	Total
Marc DeLorenzo	Hyannis, MA	20	19	13	16	23	20	111

ABBREVIATIONS AND SPECIAL SYMBOLS USED IN DDXD

/;:parallel to :00: on the hour AC:Adult contemporary AP:Associated Press BBD:big band BRN: Business Radio Net C&W:country & western CCR:contemporary Christian radio CHR: contemporary hit radio CID:code ID CL:call letter EZL:easy listening EE:English FF:French GOS:gospel IRN:Interstate Radio Net LSR:local sunrise LSS:local sunset MLB:Major League Baseball NPR:National Public Radio OC:open carrier POL: political PSRA:pre-sunrise authority PSSA:post-sunset authority QRM: man-made interference QRN:natural interference QTH:location REL:religious ROK:rock 'n' roll RS: regular schedule \$:stereo SID:singing ID SRS:sunrise skip SS:Spanish SSB:Star Spangled Banner SSS:sunset skip TC:time check TT:test tones UC:urban contemporary UPI:United Press International

What a Time-saver - the County Cross Reference

A complete list of counties, parishes, and similar political divisions in the U. S. and Canada. Two lists are included: alpha by county, and by state. Compiled by Bill Hale and designed and produced by Wayne and Joan Helnen. \$4.95 for members, \$8.95, non-member. Order Item CCR from the NRC Publications center; NY residents, please include sales tax.

DDXD-E NEWS AND VIEWS

Welcome to new member and first time reporter Al Hemmalin, who updates us on happenings in the Rhode Island area. Also received a report from Bill Andres, a former NRC'er who is once again back in the fold. Bill says when he was last a member Dave Schmidt was still doing DDXD! And good to hear from Robert Tiara, who says he hasn't reported since Bill Hale was in San Marcos, TX! Thank you all!

We have some midday "Eclipse DX" from the reporters this time, I have included it under the 0800-1600 heading as there were no other logs received for that period. And Joe Kureth sent along logs from recent expeditions north of the normal BCB, I have included those related to BCB stations in *Other Stuff*. I hope I interpreted all your notes correctly, Joe!

Summer deadlines: July 1, July 29 and September 2.

WMSX 1410
Metro South Broadcasting
288 Linwood Street
Brockton, MA 02401

SPECIAL

- 590 WROW NY Albany - As of 6/1 will be all news. (BH-ID through Doug Smith, TN via CompuServe)
- 610 WREX NC Charlotte - Heard with these call letters at :00 as part of legal ID - ex-WAQS. Using "Fox 610 Sports" as a slogan. Format is still all sports and is affiliated with SEN. Carries Braves and Charlotte Knights baseball. (RT-NC)
- 960 WPRT KY Prestonsburg - Heard several nights running // WXXKZ-FM 105.5 with Oldies. (RT-NC) (I wonder if that whole network is now doing that? - db)
- 1060 WAMT FL Titusville - 4/30 2116-2145 - CW music, ads for *K9 Clips* and *Milt Gross Muffler* in Titusville. As they gave number for requests, I called collect (we need a code number to call otherwise, and have to wait for first months billing to apply for it). New address is P.O. Box 1060, Titusville. Did not get zip code, but DJ promised reply. (DT-JAM)
- 1070 WANM FL Tallahassee - 5/1 0500-0522 - OLD, *And the Angels Sing*, ads for "John Deere Tractors at Al's Motors" and *Oplochee Foot Center*, poor with UNID Spanish interference. Evidently not all news. (DT-JAM)
- 1110 WHIM RI East Providence - Operates on a 24-hour schedule with a CW format. (AH-RI)
- 1140 WRVA VA Richmond - The "50,000 watt voice of Virginia" drops "Big John Tremball's Trucker Show" after many years. No more "live radio 1140" for listeners to enjoy at night, just talk shows. (JK-VA)
- 1230 WJNO FL West Palm Beach - Verie from them indicates that they and satellite in Pompano Beach are each running 600 watts. (DT-JAM)
- 1290 WRCP RI Providence - Operates on a 24-hour schedule with a foreign language format. (AH-RI)
- 1350 WINY CT Putnam - 5/24 2354 - 80's pop (Spandau Ballet, Air Supply) and announcements of "now 24 hours" and "Stereo 1350". Guess they got a good tax refund. Only readable station on 1350 for half an hour. (BA-PA)
- 1410 WLTV AL Mobile - P.O. returned letter, not at 1257 Springhill Avenue, anyone have new address? (DT-JAM)
- 1480 WIST NC Charlotte - 5/21 1000 - Returned to the air at this time as WIST with a NOS format. (BH-ID via FidoNet)
- 1540 WPTR NY Albany - 5/24 2332 - Mets game and network, IDed also as "and WROW 590". (BA-PA)
- WPTR NY Albany - As of 6/1 is to be all talk. (BH-ID through Doug Smith, TN via CompuServe) (Based on these reports on WPTR and WROW, it looks like after 6/1 they will not be // - db)
- 1590 WERA NJ Plainfield - 5/18 - Now 24 hours, NOS days, CW overnight, classic country Sunday nights. CNN at :00 and :30 IDing as "WE-R-A" pronounced like "Toys-R-Us". (JH-NJ) (I-Can't-Hear-Em - db)

0000 to 0800 ELT

- 610 WZZK AL Birmingham - 4/25 0530-0550 - CW, "WZZK" mention, poor under WIOD. (DT-JAM)
- 940 WECO TN Wartburg - 5/1 0650 - Good with ID "The best in southern gospel WECO", GOS music. New. (MB-IN)
- 950 WJPC IL Chicago - 4/4 0140 - Tentative with a UC sex talk show. (JK-VA) (Could this be what I heard during the WHVW test on 2/7? Is it locally produced or a nationwide show? - db)

- WWJ MI Detroit - 4/4 0149 - Good with news and "WWJ news time is 1:49". Rare here. (JK-VA)
- 960 WBMC TN McMinnville - 5/7 0510 - Poor with local news, ID, GOS music. New. (MB-IN)
- 1040 WMTX FL Pinellas Park - 4/9 0135 - Popping up once in a while with OLD/ROK - *REO Speedwagon*, etc. No sign of the usual auroral station *Friday 1040*. New here. (JK-VA)
- WQBB TN Powell - 4/9 0130 - Burning the midnight oil over WWO with "Relax and enjoy Q-104" then oldies. New. (JK-VA) (Another one forgetting to flip the switch - db)
- 1080 WFIV FL Kissimmee - 5/1 0539-0606 - REL to 0600, GOS after, ID in part as "...most powerful station WFIV, Kissimmee, Orlando...". Poor with interference from UNID Spanish. (DT-JAM)
- 1110 WTIS FL Tampa - 5/1 0657-0707 - Woman giving ID, man with REL talk, ID as "...station WTIS St. Petersburg", fair to 0707 then power cut and CMKO took over. (DT-JAM) (Power cut or pattern change? - db)
- 1140 WBXR AL Hazel Green - 5/7 0545 - Fair at sign-on with SSB, ID, inspirational message. Lost at 0600 when other stations came on. (MB-IN) (Mark, are your times Eastern local or Central? - db)
- 1170 WAVS FL Davie - 5/2 0545-0619 - Caribbean talk show, call from Broward County, poor with UNID interference, VOA splash. (DT-JAM)
- 1180 WHJM TN Knoxville - 4/4 0127 - Loud, mostly over WHAM/Radio Taino with "Southern Gospel" IDs. Definitely not on 1 watt power. (JK-VA)
- 1370 WCOA FL Ocala - 4/21 0250-0305 - MBS, *Jim Bohannon Show*, local weather, poor over/under WCOA. (DT-JAM)
- 1390 WROA MS Gulfport - 4/21 0308-0406 - Older EZL, *Window Washer Man*, no talk, ID at 0400 barely readable, poor with UNID interference. (DT-JAM)
- 1460 WXOK LA Baton Rouge - 4/13 0343-0400 - UC, ID as "Request rock, all the best on WXOK". Medium-poor, UNID Spanish interference. (DT-JAM)

0800 to 1600 ELT

- 810 WGY NY Schenectady - 5/10 1302 - Fair-poor with interview with Albany optometrist talking about possible eye damage from watching eclipse. (MB-ON)
- 850 WYLF NY Penn Yan - 5/10 1303 - Poor with CIBC slop with local news, item mentioning Watkins Glen school board. Last heard in 1983 as WOZO. (MB-ON)
- 870 WHCU NY Ithaca - 5/10 1307 - Poor with CIBC slop with local weather. (MB-ON)
- 1030 WYSL NY Avon - 5/10 1309 - Fair-good with "WYSL Radio 1030" ID into local weather. (MB-ON)
- 1100 WWWE OH Cleveland - 5/10 1330 - Very good with sports talk. (MB-ON)
- 1110 CKTY ON Sarnia - 5/10 1327 - Good with CW music, didn't wait for ID but presumed as Sarnia is in path of eclipse. (MB-ON)
- 1200 WCHB MI Taylor - 5/10 1335 - Good with talk on where to get welder's goggles for watching eclipse. (MB-ON)
- 1320 WHHO NY Hornell - 5/10 1333 - Up good with *Rush Limbaugh* and car dealer ad for place in Dansville. Scranton 1320 is long off. (HJH-PA)
- 1360 CFTR ON Toronto - 5/10 1310 - Second harmonic (2x680) noted, but probably not eclipse-related. Fix that !@#\$ transmitter! (MB-ON)
- 1420 WACK NY Newark - 5/10 1355 - Fading up to good from weak level with ID and talk show. (HJH-PA)
- 1430 WVAM PA Altoona - 5/10 1346 - Fading up well at eclipse peak with sports promo. (HJH-PA)
- 1480 WLEA NY Hornell - 5/10 1325 - Strong with deep fades with oldies soft rock. (HJH-PA)
- 1500 WTOP DC Washington - 5/10 1315-1400 - Poor but quite readable with news format during eclipse. (JH-NJ)
- WTOP DC Washington - 5/10 1350 - Normally inaudible here in daytime. Fair-fadey signal at eclipse peak. (HJH-PA)
- 1520 WWKB NY Buffalo - 5/10 1323-1415 - Very strong at 1323 with *G. Gordon Liddy Show*. Became very fadey by 1415. Normally inaudible in daytime. (HJH-PA)
- 1570 WBUG NY Amsterdam - 5/10 1337 - Fair with CW music with female announcer. Also "101-FM" IDs. This along with others over WPGM-Danville. (HJH-PA)
- WFLR NY Dundee - 5/10 1258 - Poor with mention that "Mutual news is next on Finger Lakes radio". (MB-ON)

1600 TO 2400 ELT

- 1030 KCTA TX Corpus Christi - 4/30 1857-1901 - End of local REL program, sign-off with owners name, power, frequency, no SSB. Good. (DT-JAM)
- 1150 KSAL KS Salina - 5/2 2005 - Good-fair after WGGH sign-off with local weather, ID "News Radio 1150 KSAL" then *Talknet*. Some WIMA QRM. (MB-IN)
- 1160 WODY VA Fieldale - 5/29 2345 - Heard with REL, first timer and apparently running full power. (RT-NC)
- 1180 WLDS IL Jacksonville - 5/1 1805 - Good with ID, weather forecast, AC music. New. (MB-IN)
- WHAM NY Rochester - 4/2 2321 - Off air, rare silent period. (JK-VA)
- 1190 WANN MD Annapolis - 5/24 2005 - Still daylight, CW music with "Country By the Bay" image-phrase. Weak but steady here all day. (BA-PA)
- 1240 WDDO GA Macon - 4/17 1911-2000 - Syndicated REL talk show, 1930 GOS music, poor under 2 UNIDs. (DT-JAM)
- 1250 WPRZ VA Warrenton - 5/28 2014 - While trying to ID CW station, heard WPRZ sign-off under the CW. First time heard here. (DB-DE)
- 1280 WONW OH Defiance - 5/1 2000 - Good with ID, news, CW music. WWOK normally dominant here. (MB-IN)
- 1350 WZQR NC Black Mountain - 4/19 2003-2036 - CW and GOS, ID as "Country Radio WZQR", poor with interference from WSMB. (DT-JAM)
- 1460 WZNZ FL Jacksonville - 4/22 2140-2200 - Atlanta Braves-Pittsburgh Pirates baseball play-by-play, ID as "1460, WZNZ", poor. (DT-JAM)
- 1480 WABB AL Mobile - 4/23 1954-2009 - CNN news, ID as "...news time on WABB", poor with interference from 2 UNIDs. (DT-JAM)
- 1490 WMOG GA Brunswick - 4/23 1917-1931 - OLD, Glen Miller's *Sunrise Serenade*, ID as "1490 WMOG", medium-poor and rising above them all at times, all on 600 watts. (DT-JAM)
- WBCBPA Levittown - 5/24 2032 - Popped in for "Pick-a-Phillie" contest promo, then gone in SSS conditions. Address is as in NRC Log. (BA-PA)
- 1570 WFLR NY Dundee - 5/21 2333 - CW music, "Real Country" ID. This, WBUG and WBUX have been the most consistent on 1570 since CFOR went off. Still looking for CHLO. (DB-DE)
- 1590 WARV RI Warwick - 5/24 2259 - Just caught 2 calls, one the legal ID, then back into the regional gurgle. (BA-PA)
- 1600 WBLY OH Springfield - 4/2 2243 - Heard with *Cleveland Cavaliers*, *Northern Ohio Chevy Dealers* commercials. New. Log says 34 watts. What's up? (JK-VA) (Probably that high-priced help forgetting how to flip the switch! - db)

OTHER STUFF

- 530 KNJS865 MD Ocean City - 5/19 1201 - Traffic and events information for Ocean City on the "Maryland State Highway Administration Travelers Advisory Radio System" heard while in Rehoboth Beach, DE. Hadn't been noted before. (DB-DE)
- 590 WPBJ222? MD Montgomery Co. - 5/25 1245 - *Montgomery County Transportation Management Center* TIS noted for the first time with general road/transportation info for Montgomery Co., MD. Fair signal, QTH not known but probably around Rockville. (AM-VA)
- 2190 WNAK PA Nanticoke - Harmonic heard, 3x730. (JEK-MD)
- 2280 WRVA VA Richmond - Harmonic heard, 2x1140. (JEK-MD)
- 2560 WBAL/WTTR MD - WBAL-1090 + WTTR-1470 produced mixing signal here. (JEK-MD)
- 2900 WTHU MD Thurmont - Local harmonic heard sporadically, 2x1450. (JEK-MD)
- 2920 WBPA KY Elkhorn City - Harmonic heard, relaying WPKE, 2x1460. (JEK-MD)
- 2940 WTTR MD Westminster - Local harmonic heard, 2x1470. (JEK-MD)
- 3080 WECZ PA Punxsutawney - Regular harmonic heard, 2x1540. QSL received. (JEK-MD)
- 3200 WJQI VA Chesapeake - Harmonic heard // FM "The new Q, 94.9", 2x1600. (JEK-MD)

REPORTERS

- BA-PA Bill Andres, Minersville, PA: GE Superadio II
- MB-ON Mike Brooker, Toronto, ON: Panasonic RFB-45
- MB-IN Mark Burns, Terre Haute, IN: Drake R-8, Quantum loop, 80' longwire
- BH-ID Bill Hale, Meridian, ID:
- JH-NJ John Hanz, Old Bridge, NJ: Sony 2010, Alpha-delta sloper



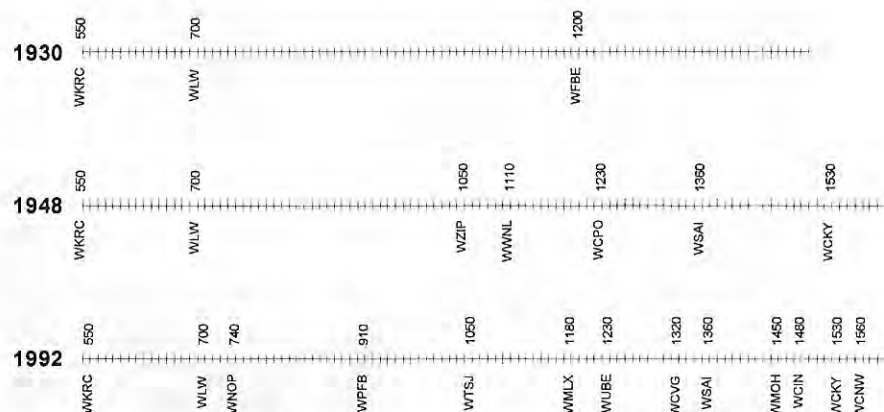
- HJH-PA Harry J. Hayes, Wilkes-Barre, PA: GE Superadio
- AH-RI Al Hemmalin, Middletown, RI:
- AM-VA Alan Merriman, Annandale, VA: *Love*
- JK-VA Jeff Kitz, Charlottesville, VA:
- JEK-MD Joe Kureth, Uniontown, MD:
- RT-NC Robert Tiara, Hendersonville, NC:
- DT-JAM Don Trelford, St. Anns Bay, Jamaica: (Don, your letter postmarked 4/29 was received here on 5/16 - db)
- DB-DE Dave Braun, Wyoming, DE: R-5000, Quantum loop

WPOP
NEWS/TALK RADIO
1410AM

Now and Then John D. Bowker

Dial changes in AM markets, from 1930 to 1948 to 1992

CINCINNATI MARKET



A DX'ers TECHNICAL GUIDE

Now in its 2nd edition, this 120-page book answers questions on receiver and antenna theory (how to improve their performance), how audio filters and loop antennas can improve DX (and hints on their construction), how to build a beverage and phasing unit, and much more. Only \$5.50 for NRC/IRCA members, \$6.50 for non-members (overseas airmail add \$2.50). Order your copy today from IRCA Bookstore - 9705 Mary Ave. NW - Seattle, WA 98117.

IRCA Mexican Log, 3rd Edition, Now Available!

After months of preparation, IRCA has published the 1994 edition of the IRCA Mexican Log. The log lists all AM stations in Mexico by frequency, giving call letters, state, city, day power, night power, slogans, schedule in UTC/GMT, formats, networks, and notes. Stations that have changed frequency since 1990 are cross-referenced on the old frequency.

The call letter index gives call, frequency, city and state. The city index (listed by state, then city) gives frequency, call, day and night power. There is even a guide to the Spanish alphabet and numbers.

The log has been completely updated from the 1990 edition and carefully cross-checked by IRCA members in Mexico and the U.S. This will be an indispensable reference for anyone who hears Mexican radio stations.

The price, payable to IRCA in U.S. funds: IRCA/NRC Member: \$6 U.S./Canada/Mexico/seamail, \$7 rest of the Americas airmail, \$7.50 Europe/Asia airmail, \$8 Australia/New Zealand airmail. Non-Member: \$8 U.S./Canada/Mexico/seamail, \$9 rest of the Americas airmail, \$9.50 Europe/Asia airmail, \$10 Australia/New Zealand airmail.

Order from Phil Bytheway - IRCA Bookstore - 9705 Mary N.W. - Seattle, WA 98117.

12
**International
DX Digest**

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

Jim Renfrew
61 Wilcox Street
Rochester, NY 14607-3832

Well, no sign of the HCJB test here, but Conti, Tiara and Connelly report receptions. I hope they try this again, perhaps in October - always a good DX month for me!

Jack Woods wonders whether reports of Hawaii stations should go to IDXD or DDXD. I suggest, send them to DDXD if they are regular loggings for you, here if rare DX. Paul, what do you think? (I believe Hawaiian, Alaskan, and Puerto Rican station reports have traditionally gone to IDXD if logged outside of those DX "countries". But no sweat if it works better another way -pls.)

Also a special report from former IDXD editor Chuck Hutton, with observations from a recent trip to Guatemala.

Jim

PAN-AMERICAN DX

- 535 TURKS & CAICOS, MAY 29 1437 - Radio Vision Cristiana is audible ALL DAY (!) on Cape Cod. Neil Kazaross mentioned that I should try for groundwave reception of this from the Harwich site and, sure enough, it's viable here at about 1350 miles / 2172 km. Residual (down the street) light-dimmer buzz was nulled by phasing the 50 m & 160 m wires. The RVC-535 signal level was approximately S-5 coming off the phased wires through LH0033CG-based preamplifiers. A Spanish male religious vocal was noted for this log at 1437 UTC. Adjacent channel QRM from WLIX/WDMV, 540 was not much of a problem. MAY 29 0248 - local-like on darkness reception; SS religious mx. [Connelly*MA]
- 595 DOMINICA Hillsborough, APR 4 0054-0110 - Casey Casem rock show. ID by Casem as "only on 595 AM and 88.1 FM", poor. [Trelford-JAM]
- 600 NICARAGUA Managua, APR 4 0115-0147 - Pop LA music, ID as "Radio Ya", poor, interference from unID SS station. [Trelford-JAM]
- 640 CUBA CMBC Guanabacoa MAY 7 0412 - Lite SS rock. [Reiser-IL]
- 640 CUBA, MAY 29 0236 - Cuban news in SS slightly over a big jumble of others & stiff Spain, 639 het. [Connelly*MA]
- 650 COLOMBIA Bogotá HJKH, MAY 29 0233 - RCN Antena Dos ID, festive SS music; LOUD, well over CKGA/WSM. [Connelly*MA]
- 670 VENEZUELA Caracas YVLL, MAY 29 0410 - doorbells, Rumbos mentions mixed with WMAQ/others; fair in WRKO slop. [Connelly*MA]
- 690 COLOMBIA Bogotá HJ CZ, MAY 29 0455 - this one came up well with a CARACOL net ID while I was waiting for the HCJB test to start. [Connelly*MA]
- 690 ECUADOR Quito HCJB, MAY 29 0515-0519 - The HCJB test came through best during this time segment thanks to the code ID's. The code ID's "HCJB 690 kHz" (at 0515 and 0518) cut through the other 3 co-channel stations (CBF, HJ CZ, and Anguilla) like a hot knife through butter. Andean flute-type music came through sporadically around 0516. Most of the rest of the test was in heavy QRM. There was someone on channel with English talk at 0525 mentioning a church in Los Angeles and a 1-800-338-3030 phone number. That was probably Anguilla which had been heard (tentatively) earlier with preaching. Also someone played parts of an Allman Bros. song and David Lee Roth's "Just a Gigolo". I'm not sure if that was a domestic or part of the test. I had to keep CBF nulled by periodic phasing unit adjustments. HJ CZ Bogotá showed up in the 690 mess at times with "CARACOL" ID's. [Connelly*MA] MAY 29 0100-0117 - Four (4) periods of code heard. First was very good and complete cutting through the mess. Others were partials only. Nothing heard after 0517. QRM from WJOX-AL, CBF-PQ and Cuban. A welcome surprise!! [Tiara-NC] Useless cx to South America -- no hint of it here. Thanks to Richard McVicar for setting up the test, nevertheless! [Burnell-NF] (Bruce Conti also reported a reception of the test, but I managed to lose his e-mail message. Sorry, Bruce. (See Musings for a complete report from Bruce -pls.) Only CBF and Anguilla noted here - Jim)
- 730 MEXICO XEQ Mexico City, MAY 7 0410 - Religious program in SS, fair with WGN. [Reiser-IL]
- 740 VENEZUELA (Puerto Ordaz or Maracaibo), MAY 29 0401 - Venezuelan national anthem at s/off; under CBL. [Connelly*MA]
- 740 PUERTO RICO San Juan WIAC, MAY 29 0649 - SS talk, WIAC callsign ID; atop the channel. [Connelly*MA]
- 800 NETHERLANDS ANTILLES Bonaire PJB, MAY 29 0225 - EE religion program with host who talked about the letters received from many countries. Atop WCCM/CJAD/CHRC/others. [Connelly*MA]

- 820 MEXICO XEBA Guadalajara, APR 6 0658-0706 - Pop LA music, ID as "XE?? Radio Moreta (?)", poor. [Trelford-JAM]
- 830 ST. KITTS & NEVIS Basseterre, MAY 29 0556 - EE preaching; way over CFJR. [Connelly*MA]
- 850 GUATEMALA TGX Guatemala City, APR 16 0744-0802 - LA music, ranchera, poor over/under JBC and unID EE station. [Trelford-JAM]
- 920 DOMINICAN REPUBLIC HIH Santo Domingo, APR 9 0029-0100 - Pop LA music, singing IDs at 0100, ID as "Radio HIH, Santo Domingo, Republica Dominicana", fair. [Trelford-JAM]
- 940 MEXICO XEX Mexico City, MAY 17 0407 - SS soccer game, good. [Reiser-IL]
- 950 DOMINICAN REPUBLIC HIG Santo Domingo, APR 30 0809-0839 - Pop LA music, ID as "Radio Popular" at 0839, fair. [Trelford-JAM]
- 960 COLOMBIA HJOP Barranquilla, APR 30 0840-0900 - Pop LA music, lots of "Tijuana Brass" type orchestra, ID in part as "CARACOL", fair, light interference from R. Reloj. [Trelford-JAM]
- 990 MEXICO XET Monterrey, APR 30 0908-0927 - LA pop music, ranchera, poor to fair, light interference from unID EE station. [Trelford-JAM]
- 1240 BAHAMAS ZNS2 Nassau, APR 14 2122-2222 - Talk show, ID as "Radio Bahamas, 1540 AM", ad for aluminum company, poor to fair. [Trelford-JAM]
- 1240 CUBA CMGW Bolandron, APR 16 2313-2400 - Pop LA music, poor under WDDO. [Trelford-JAM]
- 1280 MEXICO XEAW Monterrey, APR 17 0905-0924 - Pop LA music, ranchera, poor over/under WQUE and unID SS station. [Trelford-JAM]
- 1320 UNID APR 18 0147-0258 - Talk show, spots in SS, at 2100 play-by-play of football game. Mention of "Radio Cristi" and "Radio Sambria". Sounds of crowds during the game. Thought I heard Puerto Rico mentioned, could this be WUNO? [Trelford-JAM] (Could be the names of network affiliates - including FM for which I have no listings of slogans - Jim)
- 1360 CUBA CMFA Rodolfo Ramirez Esquivel, MAR 27 0117-0130 - Pop LA music and some EE music, ID as "Radio cadena Agramonte". [Trelford-JAM]
- 1420 UNID APR 22 0831-0900 - Pop LA music, ranchera and romantica, ID as "Radio Latina" and at 0900 as "Radio Marina", think it might be Cadena, making it YVRW, but not sure. [Trelford-JAM]
- 1420 DOMINICAN REPUBLIC HIED Cotiu, APR 22-23 2345-0010 - Pop LA music, ID in part as "Radio Oro", poor with interference from unID SS station. [Trelford-JAM]
- 1480 MEXICO XENS Navajoa, MAR 29 0940-1000 - LA pop music, ads including singing one, ID as "XENS", over/under WABB. [Trelford-JAM]
- 1500 MEXICO XEAI Mexico City, APR 24 0138-0237 - Old LA pop music, ID in part as "Radio ??? Mexico", poor to fair, but knocked out by WTOP by 0200. [Trelford-JAM]
- 1500 VENEZUELA R. 2000 (YVRZ), Cumana, May 21, 2335 - "La loteria de Caracas por Dos Mil" then lottery numbers. Seemed right on freq! SIO 344 with WTOP phased. [Burnell-NF] (This one is planning a shortwave operation - Jim)
- 1501.0 unID, May 29, 0011 - SS stn weak but lots of ads, perhaps mentioned of CARACOL but not sure. Faded away by 0028. I think Mark had one near here in Jan or Feb of this year ... was it ever ID'ed? Listened to USB to kill WTOP then notched the het from 1503. SIO 232 [Burnell-NF]
- 1530 CUBA CMIX Moron, APR 24 2345-2353 - Pop LA music, ID in part as "Radio Moron", fair. [Trelford-JAM]
- 1560 NICARAGUA YNCN Managua, APR 2 2310-0204 - Talk show, 0200 Nic. National Anthem (I think), and then gone, over/under WQEW, XEFAJ. [Trelford-JAM]
- 1560 MEXICO XEFAJ Mexico City, APR 25 0105-0118 - Pop LA music, ranchera, ID in part as "Radio Consentida", poor. [Trelford-JAM]
- 1580 BELIZE VOA Punta Gorda, APR 2 0428-0448 - VOA Express music and talk, woman announcer, ID as "You are listening to VOA", poor to fair. [Trelford-JAM]

TRANS-ATLANTIC DX

- 531 ALGERIA Ain-El-Beida, MAY 30 0335 - AA mmusic // 549; over others. [Connelly*MA]
- 549 ALGERIA Les Trembles, MAY 29 0247 - AA chant, slopped by CFNB. MAY 30 0334 - AA vocal; strong. [Connelly*MA]
- 603 SPAIN Sevilla / Palencia, MAY 30 0333 - SS group vocal; poor. [Connelly*MA]
- 621 CANARY ISLANDS Santa Cruz, Tenerife, MAY 30 0331 - SS pop music; poor with WZON/WSKQ QRM. [Connelly*MA]
- 639 SPAIN La Coruna et al., MAY 30 0342 - SS operatic vocal; good. [Connelly*MA]
- 666 PORTUGAL (t), MAY 30 0341 - classical mx.; fair. [Connelly*MA]
- 684 SPAIN Sevilla, MAY 30 0329 - man in SS; poor in WRKO slop. [Connelly*MA]

- 729 SPAIN RNE1 synchros, MAY 30 0340 - bits of SS talk sneaking past CKAC/WJTO, 730. [Connelly*MA]
- 747 NETHERLANDS Flevoland, May 22, 0057 - Dutch phone-in program with chat about Yugoslavia, EE song called "I Want You". SIO 232 [Burnell-NF]
- 747 CANARY ISLANDS // SPAIN, MAY 30 0339 - SS program just slightly over a pack of others. [Connelly*MA]
- 774 SPAIN, MAY 30 0338 - SS talk in bad WABC splash. [Connelly*MA]
- 837 CANARY ISLANDS // SPAIN, MAY 30 0337 - SS talk over others. [Connelly*MA]
- 855 SPAIN / unID, MAY 30 0327 - choral music mixed with second audio with SAH about 5 Hz. The unID might have been the Romanian recently heard in PA by Dangerfield. [Connelly*MA]
- 891 ALGERIA Algiers, MAY 30 0336 - AA music // 531, 549; fair. [Connelly*MA]
- 990 SPAIN Bilbao and Cadiz, May 29, 0102 - SER net news under NF stn (CBY). Echoing signal indicated both transmitters were being received. SIO 322 [Burnell-NF]
- 1035 PORTUGAL Lisboa, MAY 29 0447 - mellow PP male vocal; to good peaks with fast fades. [Connelly*MA]
- 1044 MOROCCO Sebba-Aioun, MAY 29 0028 - AA music & talk; poor in WEVD slop. [Connelly*MA]
- 1071 SPAIN Bilbao, May 29, 0051 - Euskadi Irratia program in Basque with Irish- sounding music but with lyrics in Basque. SIO 344 [Burnell-NF]
- 1098 CANARY ISLANDS // SPAIN, MAY 29 0031 - SS talk in WBAL-1090 slop after WHLI-1100 s/off. MAY 29 0208 - presumed this with old-time pop orchestra music, piano version of "Beyond the Sea" and other continuous music with no announcements. Signal at cruncher level, destroying WWWE/ZDK, 1100. [Connelly*MA]
- 1152 SPAIN, MAY 29 0207 - SS talk in WMEX slop. [Connelly*MA]
- 1215 ENGLAND / others, MAY 30 0324 - Virgin R. slightly atop with rock music; at least 2 others (Spain, Russia, Albania ?) were a bit behind. [Connelly*MA]
- 1224 SPAIN (t), MAY 30 0322 - SS-sounding talk in bad slop. [Connelly*MA]
- 1251 LIBYA Tripoli, MAY 29 0034 - mostly a big het against WARE/WMTR/WTAE, 1250. Some slop present from local WUOK-1240. [Connelly*MA]
- 1269 SPAIN, MAY 29 0203 - SS talk & het against strong WTSN-1270. [Connelly*MA]
- 1305 SPAIN, MAY 29 0202 - poor with SS music. [Connelly*MA]
- 1341 NORTHERN IRELAND BBC Ulster, Lisnagarvey, May 21, 2325 - Weather report for all parts of the UK, news at 2330. Slop from 1340 phased, but still SS QRM, SIO 333 [Burnell-NF]
- 1359 SPAIN Arganda, MAY 29 0036 - SS talk & potent het against WLYN/WDR-1360. These guys seem to have found the high-power switch again as they're back up to the huge signal levels they had more than a year ago. MAY 29 0201 - SS news by man; LOUD, mashing 1360 to a pulp. MAY 30 0246 - good with man in SS. [Connelly*MA]
- 1375 ST. PIERRE & MIQUELON, MAY 29 0200 - mx., FF talk; choppy fades & slop from WCQL/WKDM, 1380 & WDEA/WFEA, 1370. [Connelly*MA]
- 1422 GERMANY Saarlandischer Rundfunk, Heusweiler, May 21, 2339- EE pops but then German DJ introed old tune by the Carpenters. SIO 243 [Burnell-NF] MAY 30 0247 - rock music to very strong peaks, but very deep & fast fades. Such fading is typical of high-latitude stations in late spring & early summer. Signals from farther south (e. g. Spain) are much steadier in short-term strength variation. [Connelly*MA]
- 1458 unID (UK or ALBANIA likely), MAY 30 0249 - music wallowing in CKRB slop. [Connelly*MA]
- 1494 unID, MAY 29 0031 - maybe Russia here with talk buried in the slop. [Connelly*MA]
- 1503 SPAIN, MAY 30 0316 - SS talk in WTOP/WSSH slop; poor. [Connelly*MA]
- 1521 SPAIN / SAUDI ARABIA, MAY 30 0318 - bits of SS & AA talk; poor with WWKB slop hard to keep nulled. At 0230, the Saudi pre-sign/on open carrier was massive, but approaching daylight vastly reduced the strength by 0300. [Connelly*MA]
- 1530 VATICAN, MAY 30 0253 - Slavic religious talk by woman often over WSAI. The Vatican IS at 0300 totally dominated; WSAI & Sao Tome were way behind. [Connelly*MA]
- 1530 SAO TOME & PRINCIPE, MAY 30 0313 - This briefly popped up over Vatican & WSAI with the VOA's Daybreak Africa news program (// 7405) with talk about UN forces in Rwanda. Most of the time this was poorly audible behind the other two stations. Vatican faded some around 0330, giving somewhat better Sao Tome reception by then. [Connelly*MA]
- 1539 unID (GERMANY or SPAIN), MAY 30 0241 - classical music in bad WPTR slop. [Connelly*MA]
- 1548 ENGLAND BBC R. Bristol, May 29, 0007 - BBC World Service news. I think this is the only BBC station here, but no local ID heard. SIO 233 [Burnell-NF]
- 1548 unID, MAY 30 0315 - het, not much audio; UK most likely. [Connelly*MA]

- 1566 AZORES Vila do Porto, MAY 29 0040 - PP talk in bad WQEW slop. [Connelly*MA]
- 1575 SPAIN, MAY 29 0241 - SS talk // 1584; poor. [Connelly*MA]
- 1575 SPAIN / ITALY, MAY 30 0317 - SER Spaniards with SS talk just about even with Genoa with II mx. [Connelly*MA]
- 1584 SPAIN, MAY 29 0241 - SS talk // 1575; fair. [Connelly*MA]
- 1602 SPAIN, MAY 30 0225 - man in SS with SER news // 1575 & 1584. To fair peaks in WUNR/WWRL slop. [Connelly*MA]

TRANS-PACIFIC DX

- 756 UNID APR 11 1343 - Fair to poor with EZL, probably 1YA New Zealand. [Woods-OR]
- 774 AUSTRALIA 3LO Melbourne, APR 11 1355 - Fair with news commentary. ID on the hour. Into world news, man and woman talking. [Wood-OR]

STATION NEWS

- AUSTRIA: ORF 1 1476 s/ on 1700, s/off 2300. [Steve Whitt in MWN 2/94]
- BOTSWANA: VOA 909 has just started tests on their new 500 kW transmitter on this frequency, 1600-2200. The 50 kW 621 transmitter continues its transmissions. [BE in ARC MAY 17, 1994]
- CAYMAN ISLANDS: R. Cayman (presumed) 1555 heard by Jim Bailey (Spain) JAN 11 0344. [MWN FEB 94] (1205 is still on, hadn't heard about this one - Jim)
- CUBA: The Radio Rebelde DX program "Para Los DXista" has not started to air as of March because management is pushing for a more general talk show instead. [E. Perdomo (Cul-) in PLAY-DX 787]
- FINLAND: R. Finland MW schedule for 558 and 963: 0630-0700, 0745-0800, 1845- 1900, 1930-2000, 2030-2100, 2110-2130, 2230-2330 until MAR 26. [via Tony Champion in MWN FEB 94]
- HUNGARY: on 1593 kHz two 100 kW transmitters are jamming transmissions from Romania, a buzzing sound is often heard. [MV-EKO in MWN FEB 94]
- MOROCCO: RTM 1593 new // 774 and 702. [R. Cotroneo in Morocco in PLAY-DX 787]
- OMAN: Have you ever wondered why the signal from BBC Marsirah Island is apparently intermittent; sometimes inaudible yet other times clearly coming in? Well the antenna has a switchable directional pattern that can beam to the Middle East or to the Indian subcontinent. [Steve Whitt, Medium Wave News MAY/JUNE 1994]
- RUSSIA: The Kaliningrad (Bolshakovo) 1386 transmitter is on only from 0300- 2200, so reports of them on at 0157 are incorrect. GPR-2 Verification Service (for St. Petersburg and Kaliningrad transmitting centers), ul. Akademika Pavlova 13A, St. Petersburg 197376 Russia (enclose 2 IRCs). [GPR-2 schedule (MAR 24), Olle Alm].
- SAN ANDRES: Barry Davies heard HJMY 910 with RCN promos and a local ID "910 HJMY", then RCN IDs and news on the hour MAR 27 0158. [Medium Wave News MAY/JUNE 1994]
- TOGO: R. Kara 1502 now signs off 2300 // 3322. [R. Cotroneo in Morocco in PLAY-DX #787]
- VENEZUELA: Caracas station RQ-910 has a new format, now broadcasts folk music 24 hours a day with new slogan "La Voz de Venezuela". The station is the key station for Aragüena 650, Super Criolla 1390, Radio Oriente 720, Radio Andina 1310 and Radio Marabina 1420. [Manuel Rodriguez Lanza via Bruce Winkelman's e-mail]

QSL INFORMATION

- COSTA RICA: TIRN 590, Licda Iris Zamora Zambado, Manager, address in WRTH, in 2 months, included post cards. [Trelford-JAM]

SPECIAL REPORT FROM GUATEMALA

- Chuck Hutton found himself in Guatemala City this January with a Sony 7600, and scribbled down the following notes:
- 550 According to my radio, TGRV is here, not 560, as listed in the 1993 WRTH.
- 580 No sign at all of TGY.
- 610 The only ID heard was R. Alianza or R. ALianza 610, not R. Senorial 610 as listed in the WRTH.
- 640 Would you believe no sign of TGW?
- 670 The only ID heard was "Emisoras Unidas de Guatemala", not R. Fabulosa as listed.
- 760 No sign of TGHNB Nueva R. Super.
- 790 No sign of TGO R. Festival
- 910 TGKI IDs as "Emisora de Los Exitos" or "Radio 910", but I never heard the R. Emperador slogan.
- 1000 No sign of TGWC, the TGW repeater that is listed in WRTH.

- 1060 The station here is a repeater of TGT R. Sonora 1180 but it is weak and not in Guatemala City, so not just a replacement of the station listed for 1060 in Guatemala City.
- 1090 No sign of R. Mil Noventa
- 1150 No sign of R. Fiesta
- 1300 No sign of R. Tropical
- 1360 TGLK (assumed) IDed as R. Tic Tac, Emisora Tiempo and R. de Jesus Cristo, but never as R. 9-80 as listed in WRTH.
- 1390 No sign of TGYC R. Estrella.
- 1420 No sign of TGRP R. Capital.
- 1450 No sign of TGLG R. Epoca.
- 1600 No sign of TGW as listed in WRTH.

**RADIO
EMISORA MINERIA**
C.P. 213 ONDA CORTA Y C.P. 212 ONDA MEDIA

CONTRIBUTORS

- Chuck Hutton, DXing in Guatemala City (living for a few months more in Madrid, Spain)
- Tom Reiser, DXing in Monteno IL
- Don Trelford, St. Ann's Bay, Jamaica.
- Robert J. Tiara, Hendersonville, NC (via Dave Braun)
- Jean Burnell, St. John's NF, Icom R-71A and attic wire.
- Mark Connelly WA1ION, DXing from Harwich, Cape Cod MA; Sony ICF-2010 with Gerry Thomas filter mod, 160 m / 525 ft. wire at 160 degrees (South America / Caribbean) and 50 m / 164 ft. wire at 70 degrees (southern Europe / North Africa). The two wires were phased with the MWDX-6 Phasing Unit.
- Jack Woods, Waldport OR; ICF-2010, Martens Loop

FM DX

Digest

Mike Hawk, NØOSY

10212 P St.

Omaha, NE 68127-2130

DX on the FM band, from April through September

Well, I finally received a few DX reports. There were HUGE sporadic-E openings on 4/30 and 5/14, along with a few other small openings. On 5/14, very short skip was the order, with several catches under 700 miles. In fact, I can't find a record, aside from Es backscatter, of any shorter Es catch than the WSIU reception. Also, it looks like a hot/humid summer ahead for the central USA, so hopefully tropo will be back to par.

I received a question from a reader concerning translators on FM. These are low powered (usually under 250 watts) stations used to rebroadcast another station. Many use directional antennas. Occasionally, a station which should theoretically have a coverage area of a given distance doesn't, due to mountains, hills, or whatever. The translators provide coverage for the station in these areas. This is one of the reasons so many translators are located out west.

Eric Bueneman, Hazelwood, MO Equipment: Realistic STA-90 w/ RS VU-110 antenna at 33 feet

KRJY 96.3 St Louis dropped oldies for hits of the 70's and "96 FM K-Hits". New calls are KIHT.

KNJZ 100.3 Alton, IL noted with these calls and cont jazz format April 7 Tr 2300-2346 To Springfield, Carbondale and Cape Girardeau April 8 Tr 0000 97.1 KXOK MO Florissant - on open carrier until 0600 0116 105.3 WTPC IL Elsau - noted w/CHR, change from alternative/rap (10 w) 0020 105.3 KZNN MO Rolla - good to poor w/CWM, calls, ads, w/WTPC 0133 92.9 WSEI IL Olney - Not CWM, o/KGRC 0134 92.7 WQLZ IL Taylorville - AOR, Solid Rock 92.7 WQLZ promo 0138 93.3 WJLI IL Ramsey - light ContChr from Moody 0142 90.3 WUSI IL Olney - CLA//WSIU-91.9 w/KWUR 0144 92.9 KGRC MO Hannibal - AC/CHR, Variety 93 0147 99.5 WQCY IL Quincy - fair w/CHR, "99Q" 0200 95.3 WRXX IL Centralia - fair w/ID, CNN, "95X", and AC/OLD April 15 Tr 0055 89.9 KGNV MO Washington - underwriting announcements, USA nx, heard after WLCA signed off at midnight April 16 Tr (at St Louis GTG w/Gil Morgans Carver TX-11a and FM loop) 2130 100.5 WYMG IL Jacksonville - good w/AOR, ads, CL's, no splash from 100.3 2135 106.9 KTTY MO Jefferson City - fair w/Classic rock, calls and ads 2138 107.1 WEA1 IL Lynnville - fair w/Cardinals baseball, lcl ads April 30 Tr 2025 92.3 WIL MO St Louis - off air until 2200 2030 92.5 WKIO IL Urbana - "Oldies 92", 155 miles May 12 Tr 0145 95.1 WDZQ IL Decatur - hot C&W, 95-Q 0200 93.3 WKZW IL Peoria - classic rock, KZ93 May 13 Es 1700 87.75 WRGB NY Schnectady - Ch 6 audio, lcl news in WPSD null 1800 93.1 WHYX MA Springfield -

CHR, o/KBDZ 1802 97.5 WALK NY Patchouge - AC, o/WBBA, 880 miles [WALK is one of my biggest pests - I've got 14 different ID's of them on tape - mrh] May 14 Es 1308 93.1 KAMZ TX El Paso - Classic rock, morning show promo 1348 93.1 KEYV NV Las Vegas - lcl ads, legal ID, first PTZ FM! 1359 93.3 KDKB AZ Mesa - lcl ad, morning show promo, AOR 1404 94.5 KOOL AZ Phoenix - "Cool FM", OLD, splash from KSHE-94.7 1426 94.1 WMEZ FL Pensacola - "Your soft music station", soft AC, 560 miles 1453 93.3 KBAT TX Midland - wx, lcl ads, "Pure Rock 93, KBAT" 1545 93.9 KINT TX El Paso - Oldies/Tejano mix, "La Kint en El Paso", "La Caliente", and "El Paso's official Tejano Music Station" //1150 KHz 1559 95.1 KSQY SD Deadwood - lcl ad, AOR, "K-Sky", legal ID mentioning K285CC-104.9 1630 94.9 KWYK NM Aztec - Digital 94.9 Quick Radio; AC/CHR, KSHE splash 1652 93.1 KQIX CO Grand Junction - lcl ads, "CO's #1 Hit Music Stn, Q-93", CHR, legal ID at 1702 1730 87.75 KPVI ID Pocatello - lcl ads (including KZBQ-93.7), ID with KJVI-2 Jackson, WY, ABC World News Saturday

Eric notes how much his new "Archerator" helps in making full use of his antennas directional capabilities. He goes on to say "FM conditions were fair at best at the St. Louis GTG. I was particularly impressed with how Gil Morgan's receiver did in an urban area, using his homebrew FM/TV loop. Last November it did well at the Rolla GTG. Super skip openings on May 13 and 14, with upstate NY and New England heard on May 13. May 14 was even better, with KEYV being my first Pacific Time Zone station, with a possible KRRO underneath." Eric had an unID on 101.3 with Braves baseball at 1420, too.

Rick Dau, Iowa City, IA

May 13 Es 1930 96.1 KKT TX Kilgore - knocking out KMXG with ads that mentioned Longview, Tyler, and "Classic Rock 96.1" 1935 94.5 KLDE TX Houston - ID as "All oldies 94.5 KLDE" 1939 92.9 KKQB TX Pasadena - ad for Ron Carter Ford in Alvin; also mention of Crosby, TX in prev. ad. 2000 95.5 KVRP TX Haskell - jingle ID as "Voice...Plains, KVRP" between C&W songs 2012 95.5 KLAQ TX El Paso - caught brief ID between fades. I'd been tracking this frequency for the better part of a half-hour and came up w/KVRP and 2 others - one w/rock (Nirvana, Led Zeppelin), the other w/Latin flavored jazz and EE announcer May 24 Tr 0935 95.5 WIFC WI Wausau - ad for shops at the Wausau Center 1009 103.3 KIKR IA Asbury - ID as "25000 watts of raw country power, we're the kicker, KIKR". Had no idea where this was from until two days later, when I heard ads for places in and around Dubuque. This is a new station. [Note city of license, Rick - mrh] May 27 Tr 1008 102.5 KMFN MN Lake City - legal ID as "Lake City - Rochester" and went on to mention seemingly every SE MN town 2123 105.3 WRLO WI Antigo - w/8th inning Brewers baseball w/Pat Hughes doing play-by-play. May 29 Tr 2300 106.5 KKCC MO Liberty - ID as "CJ-106, short on wind and long on Kansas City's country hits". Obviously a call change from KXXR. [Note new calls and city of license - mrh]

Rick also says his unID from last year (WLMD) is the Bushnell, IL station on 104.7. Apparently, they had applied for a call change, it was granted, but never used by the station. The 14th Ed. of the FM Atlas listed the "new" calls, instead of WLMD, and that's where the confusion came from.

Joseph Fela - South Plainfield, NJ Receiver - McIntosh MR-78. Antennas - A pair of C.M. Stereo Probe 9's, a single Stereo probe 9 on a separate mast, w/separate rotors, feeding a Bolin phase box.

April 30 Es 1151 96.7 KWCL LA Oak Grove - CL's 1206 96.5 KVKI LA Shreveport - CL's, C&W 1227 100.5 KZHE AR Stamps - S. AR wx, CL's 1248 106.5 KOOI TX Jacksonville - CL's, ad, beautiful mx 1251 98.9 KTUX TX Carthage - TUX-99 ID, Fox 33 ad, rock 1325 93.3 KBOK AR Malvern - ID, C&W, WMMR phased 1328 101.7 KRCH MN Rochester - ad for business in Rochester 1331 96.7 KBEL OK Idabel - CL's, C&W 1334 91.3 KUAF AR Fayetteville - CL's, soliciting calls about programming 1336 93.5 WKBL TN Covington - ad, ID, Exchange Corner 1344 94.1 KHLT AR Little Rock - "K-Lite 94", WYSP phased 1351 93.9 KOYN TX Paris - CL's, asking for donations for tornado victims, WNYC phased 1359 91.5 KALR AR Hot Springs - ID w/93.5 Little Rock (translator?). WNYE phased 1400 88.3 KABF AR Little Rock - ID, jazz, WBGO phased 1401 95.3 KMTB AR Murfreesboro - legal ID 1404 98.5 KURB AR Little Rock - legal AM/FM ID, wx, rock 1406 106.5 KMIS MO New Madrid - CL's, country 1416 101.7 KVOM AR Morrilton - wx, CL's, funeral home ad 1421 100.1 WASL TN Dyersburg - lcl ads and wx, "SL-100" jingle May 13 Es 1750 92.7 KILS KS Minneapolis - CL's, country 1752 89.5 KHCD KS Salina - "Radio Kansas", WSOU phased 1912 98.5 KSAJ KS Abilene - Good Time Oldies 98.5 1919 98.1 KUDL KS Kansas City - ads, CL's 1923 107.7 KMAJ KS Topeka - wx, jingle 1938 100.9 KCLY KS CLay Center - ID, into Royals pregame show 1949 92.5 KQMA KS Phillipsburg - CL's, wx, "Nostalgia Hour" May 17 Es 1815 92.9 CBTR NF Roddickton - CBC, "As it Happens" 1825 92.9 ??? - WMZQ-98.7 Washington ID's and programming noted several times. See note below. May 23 Es 2009 94.3 KRIG OK Nowata - Bartlesville PSA, call + "Kay-Rig", country. WJLK phased 2025 92.9 KZOC KS Osage City - KZ93, country 2038 98.5 KVOO OK Tulsa - CL's, wx, ad 2042

95.3 KCLI OK Clinton - CL's, best hits of 70s/80s/90s 2045 100.9 KGLC OK Miami - TENTATIVE (sounded like KCLC), uses slogan "The Kings Vision", Christian format. Is this KGLC? [Last time I heard them, I think they were EZL. The only Christian station I can find in that area is KTCN-Eureka Springs, AR. Can anyone else help?] 2047 100.5 KSFJ NM Roswell - KSFJ call twice, plus "Rock of NM", ads, DOUBLE HOP? 1738 miles, NM#1 2054 97.3 KWEY OK Weatherford - ID, WX, country 2059 96.5 KECO OK Elk City - C&W, legal ID mentioning Clinton, Weatherford and Sayre

Does anyone know if CBTR-92.9 gets its feed off the air from CBYM-98.7? That's about the only way I can think of to explain WMZQ-98.7 being heard on 92.9. If they were relayed by CBTR, it would be one of my more unusual receptions. Bill Nienjadly in Clifton also heard this. Good tropo so far this year has been nil. Poor to fair tropo has been close to non-existent, thus nothing to note in that department. 73-Joe

Me - Omaha, NE Equipment: Kenwood KT-815 tuner IF mod, var. attenuator, FM-10 at 33 feet

Only new Es loggings and tropo beyond 250 miles printed May 13 Es 1356 Phoenix on 94.5 and 88.1 1408 93.1 KJOK AZ Yuma - K-Jock May 14 Es 1530 98.7 WISK GA Americus 1531 102.5 WBGA GA Waycross 1532 107.9 WPEZ GA Macon 1534 100.3 WOBG GA Tifton - The new B-100 1535 102.3 WKZR GA Milledgeville 1537 100.9 WPGATGA Perry - ad for Ft Valley St College 1539 99.1 WAYS GA Macon - Oldies 99.1 1543 107.9 unID - Kicks 108 ID 1546 100.9 WLYU GA Lyons 1549 96.5 unID - The Home of Quality Rock and Roll 1553 103.3 WVEE GA Atlanta - ad for Fox 36, WATL 1554 107.1 unID - Memories 107 1555 106.5 WSKZ TN Chatanooga - KZ-106 1557 106.3 WQBZ GA Ft Valley - Q106 1559 107.5 WYHY TN Lebanon - Y107; 630 miles 1600 91.9 WSIU IL Carbondale - ID //WUSI; 437 miles!! 1601 88.9 WMBW TN Chatanooga 1603 99.7 WNNX GA Atlanta 1605 94.3 WJMM TN Lewisburg 1606 94.7 WGSQ TN Cookeville - The Giant 1610 99.3 WCON GA Cornelia - lcl ads 1614 96.5 WXJB TN Harrogate - area ads 1631 93.7 KKIK TX Lubbock - 616 miles 1634 95.5 KVRP TX Haskell 1637 107.9 KEYJ TX Abilene - Rock 108 1643 96.3 KLLL TX Lubbock unID PQ stations heard at 1800 6/2 Es 2008 92.1 WMMZ FL Destin - K92; C&W 2021 92.9 WTUG AL Tuscaloosa - lcl ads 2028 95.5 WTVY AL Dothan - ads 2100 89.9 WJCT FL Jacksonville - legal ID 2101 91.1 WEGE AL Auburn 2101 91.1 WABR GA Tifton - Peach State Pub Radio 2106 99.3 WKCN GA Lumpkin - Kissin 99.3 2108 96.5 WMJJ AL Birmingham - legal ID 2133 88.7 WDWI AL Dadeville - legal ID

There were 2 or 3 other small/short Es openings, too. Tropo has improved over last year, but still nothing beyond 400 miles yet this year. Most tropo loggings are simply new stations on the air (KIKN-100.5-SD, KBJJ-MN now on 107.5 from 107.1, etc).

The Challenging Crystal Set

For hobbyists demanding the ultimate DX challenge, Ray Cole's publication detailing step-by-step procedures in building a crystal set is for you! Only \$3.50 ... order from NRC Publications. (NY residents, add sales tax)

NRC Letter Opener

\$1.75 each! Sturdy yellow plastic ... opens letters, cuts string, package wrapping, and more! Order from NRC Publications - NY orders, please add sales tax.

IRCA AM-FM Almanac - 1991 Edition Reprint

IRCA has reprinted a limited number of copies of the 5th Edition of the *IRCA AM-FM Almanac*. Several DX'ers have expressed interest in obtaining the most recent *Almanac* edition from 1991, rather than waiting for the next complete *Almanac* in 1994.

◆ 1991 Edition - this is the edition sent to the press in October, 1990. Information is from 1988 thru 1990. Much of the information is still useful today.

◆ Be sure to state your preference for Looseleaf or Comb Binding. This edition is available looseleaf, ready to hole-punch and place in a binder, allowing for easy updates. Comb binding is available at no extra charge if you request it. The price for this reprint is the same as in 1991:

IRCA/NRC member: U. S. - \$13.00 Canada - \$14.00 Overseas Sea Mail - \$14.00 Overseas Air-Mail - \$17.00
Non-member: U. S. - \$15.00 Canada - \$16.00 Overseas Sea Mail - \$16.00 Overseas Air-Mail - \$19.00

Send check or money order, payable to "IRCA" in U. S. funds, to Phil Bytheway, IRCA Bookstore, 9705 Mary N. W., Seattle, WA 98117. Thank you!

Tracking the 1994 Solar Eclipse by Radio... by Ken Chatterton

The sole purpose of this little experiment was to "just see what happens", rather than explore any particular scientific theory, during the May 10 solar eclipse at my location in northern New York just east of Lake Ontario.

In preparation, I sought to find four frequencies on which I did not have a strong local, yet one on which there was one normally weak signal. Why four frequencies? No, four is not some magic number other than that was the number of radios I had available, and also the number of loop antennas available. I was also able to roundup three reliable tape recorders, leaving one radio to monitor directly and also tape with an unreliable recorder.

I steered away from the graveyard channels because the vast multitude of signals would have made it very difficult to ID what was being heard. I also needed frequencies with two or more stations to my northeast, that is, in VT, NH, ME, QUE, and the Maritimes of Canada. This proved to be the hardest part of all.

The frequencies chosen and equipment used was as follows: 550 kHz and a Collins R-390 with NRC-designed four-foot loop; 1220 kHz and a Realistic DX-160 with Space Magnet 2; 1330 kHz and a Zenith M660 all-band set with only its own internal ferrite rod; and 1360 kHz and a Hallicrafters SX-26 with Space Magnet 1 antenna. By using loop antennas, I hoped to have directional pickup both ways along the line of the eclipse.

I began monitoring at 12 noon eastern time and ended monitoring at 3 P.M. eastern time on Tuesday, May 10. The eclipse reached maximum at approximately 1:30 EDT. at this location. In the breakdown that follows, I have not listed exact times, referring instead to the state of eclipse: beginning, 1/2 into, nearly complete, complete, coming out of, 1/2 out, and nearly over. Not truly scientific perhaps, but it serves the purpose. All four receivers were pre-tuned, the antennas arraigned as nearly parallel as possible, and the tape recorders timed so as not to need changing all at the same moment. A timer was set up to alert me when the first tape should be nearly out. Now to the results:

550 kHz. Start: WGR Buffalo, NY weak, clearly audible and alone. As time progressed something appeared under WGR with TALK. Minutes later a second talker appeared. About halfway in, one talker was ID'ed as WLWA Cincinnati, OH, and the second talker disappeared (KSD St. Louis possible on that alignment but not ID'ed). Buffalo still well atop. At maximum: Buffalo strong atop with Cincinnati strong underneath, and running a poor third, one with AC music. As the peak passed, Cincinnati faded quickly and vanished, Buffalo faded, and WDEV Waterbury, VT rose to equal, then gradually surpassed Buffalo. Waterbury was the station with AC music. With the eclipse about half over, Buffalo faded, and while I think was still there was not discernable. A French speaker was noted very weakly under WDEV. CHLN Trois-Rivieres, Quebec would be the most likely but no ID was ever made. A third signal was present briefly, and I think I heard a CFNB ID. If so, it was Fredericton, NB. Within the next seven minutes all traces of the latter two disappeared, leaving WDEV alone but rapidly weakening. With the eclipse still some 15 minutes short of ending, WDEV faded away and a weak Buffalo was once again alone.

1220 kHz. Start: CHSC St. Catharines, Ont. very weak but ID'able with an extremely weak someone (likely CJSS Cornwall, Ont.) underneath. As things progressed, CHSC improved, CJSS vanished and oldies music faded in weakly. There was USR network news. Minutes later canned Religion was fading in and gradually came up equal to CHSC. The oldies station gave one ID and it may have ended with Q. KCGQ Cape Girardeau, MO is possible as it is on the right alignment. The religion station never ID'ed, but in one promo mentioned to tune in "here on Radio Ridge". Log says WSLM Salem, IN uses this slogan. As maximum approached, the religion faded and was replaced by WKNR Cleveland. At peak darkness (actually dimness) WKNR and CHSC were even with CJSS a poor third. Over the next 20 minutes, WKNR faded out and CJSS rose to equal, then was gradually gone. CJSS dominated with a talk station and a French speaker underneath. The French speaker mentioned Quebec several times, and I caught a partial ID, "KSM" ID'ing this as CKSM Shawinigan Falls, Que. The talker, now running third, may have mentioned the Connecticut Valley, making WKBK Keene, NH a possible for that one. There was briefly a Canadian-accented English speaker way under. CKCW Moncton, NB would be the only English-speaking Canadian left in a northeast direction on this frequency. Then just into the last quarter of the eclipse, within about 5 minutes everyone but CJSS faded. Before the eclipse ended CHSC was back weakly but now under a not-quite-as-weak CJSS.

1330 kHz. Start: WFVC Springville, NY very weak and barely ID'able. A quarter of the way into the eclipse, WFVC getting stronger but still weak with Gospel music underneath. No ID but did catch a mention of Southern Indiana (WVHI Evansville would be in right alignment); the gospel slowly gave way to country music, still well under Springville. The only remotely ID'able

item heard was a phone number ending with 3000. The NRC Log says WTRE Greensburg, IN has such a phone number so maybe them. As maximum approached, WFIN Findley, OH faded up briefly atop with ID and ads, then someone with what seemed to be all sports. WFIN faded shortly leaving sports (format fits Campbell, OH) and a rapidly rising WEYZ Erie, OH. Erie quickly rose to dominate, and while no ID was heard, there were numerous mentions of Erie and of western Pennsylvania. At peak WEYZ and WFWC were about equal with a French speaker coming up under them. Over the next half-hour WEYZ and WFWC slowly weakened as the French speaker improved. I did not hear any ID's, or anything else my limited French could understand, but CKLD remained until well into the last quarter of the eclipse gradually fading all the while. As CKLD faded out there was nothing at all audible. No Springville even. I checked about 1 hour after the eclipse ended and Springville was back then at its usual, very weak.

1360 kHz. Start: Very weak WMNS Olean, NY. A usually present WKOP Binghamton, NY is nulled by the antenna's SW/NE aiming. Nothing else noted until nearly halfway into the eclipse, when Religion could be heard very weakly for some five minutes before being replaced with C/W music, which also never got strong enough to ID. At one point there were ads on but nothing to indicate a location. A couple minutes later I thought I heard, "here in southern Illinois" and "down in Evansville". WYER Mount Carmel is possible as it is in southern Illinois, near the Indiana border about 25 miles north of Evansville, IN. Within minutes, the country music was gone, replaced by talk, which was mostly sports. The sports/talk proved to be Cincinnati, OH. As peak approached, Cincinnati was dominate at fair strength with WMNS just underneath with someone with country music running a poor third. WWOW Conneaut, OH was one of the stations I expected to hear and per the NRC log they run C/W. As the peak passed here, a French speaker began fading in as Cincinnati faded out. Within a half-hour after peak, the French speaker was dominate and totally covered any others that might have been there. The French speaker had some nice identifiable ads and promos and several clear CKRB ID's (CKRB - 1460 St.-George-de-Beauce) so clearly I had CJVL Ste.-Marie-de-Beauce, Quebec which is listed as relaying CKRB daytimes. By the halfway point out of eclipse, someone with a mix of country and adult standards was noted very weakly. I am fairly sure that at one point they said "the bay's best music". In any case the only station shown on the 1360 map farther northeast is CKBC Bathurst, NB. These two were just beginning to fade down when monitoring on this channel came to an abrupt halt as the Hallicrafter's power transformer began to overheat. This development was not unexpected as this receiver can seldom be operated more than two to two-and-a-half hours at one time before producing a burning smell, the main reason it now is used very little.

At the peak of the eclipse, the conditions here similar to sunrise/sunset, that is no darkness, more of a dimness. All four frequencies seemed about equal with 550 kHz reaching from OH (possibly MO) to Quebec (possibly NB); 1220 reached from MO to NB (counting possibles); 1330 reached from IN to Quebec; and 1360 from IL to NB. Give or take a little, this is about what one could expect here at sunset or sunrise. Nothing spectacular was heard. In fact all the stations identified have been logged here at some time in the past with the exception of CJVL Ste.-Marie-de-Beauce. A report is off to CJVL. Of the possible or tentative stations, only KCGQ-1220 Cape Girardeau, MO would be new here. Too bad that one wasn't a tad better, but then I did land one new station, so I guess one shouldn't be greedy. All in all a very enjoyable three hours that may not have proved anything except that DX'ing is fun. If anyone else tried something similar during this time, I would like to hear from you.

Broadcasters' Guides to DX *Four different tri-fold guides for use with reception reports explaining DX'ing, how the NRC was formed, and the importance of QSL's to DX'ers. AM editions in English, Spanish, and French; FM edition in English. US\$1.50 for 20. From NRC Publications. (NY residents, add sales tax)*



AM Station Map Book

2nd ed. \$8.00, postpaid.

Edited by DDXD editor Bill Hale, this book of station location maps is a companion to the *AM Radio Log*. Now easier to read than ever, the 170-page book is three-hole punched for a ring binder. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

Your First 50 Trans-Atlantic Countries (and then some) . . . Mark Connelly, WA1ION

This article updates a previous one (Top 40 TA Countries) issued in October of 1982. Anyone who has been following the news over the past twelve years will realize the great degree of change to the political landscape of Europe, largely related to the break-up of the former Soviet Union, the continuing turmoil within the former "Eastern Bloc" countries, and the re-unification of Germany. Africa, too, has been changing. These changes have had a profound influence on broadcasting. Technology, including increased use of FM and digital broadcasting techniques, is shaking things up on the old medium-wave AM band as well. Large stations like Langenberg, Germany (1593) leaving AM in favor of FM may be providing better audio locally, but they do a disservice to more distant listeners. FM can seldom provide nationwide coverage, let alone continent-wide or global reception.

The intention of this article is to prepare the Trans-Atlantic (TA) DXer with an updated list of countries in approximate order of reception ease, along with information about best reception frequencies and times. Propagation analysis strategies are also brought into play. Much has been learned from the 1991 and 1993 Newfoundland DXpeditions and from continued monitoring by DXers in eastern Canada (Burnell), New England (Conti, Connelly), New Jersey (Straus), Pennsylvania (Dangerfield), and many others. The South Florida DX Club (Seiden, Crawford, Scotka et al) has provided insights to MW DX from that TA-viable area. All these new loggings build upon a bedrock of DX knowledge running back to the work of Nelson, Bailey, and others in the 1960's and earlier.

As most TA DX is reported by those living in the northeastern USA and eastern Canada, the reception notes have been formulated with this area in mind. Midwestern (Great Lakes Area), Southern (FL, GA, TX, etc.), and Northwestern (OR, WA, BC, etc.) DXers also hear the TAs. Many of the reception notes may be of use to listeners in these areas, but differences do exist, especially with regard to East Coast sunset DXing information not applicable to those farther west. Of course, Brian Vernon's loggings from Yukon and the Northwest Territories up near the North Pole are a separate TA (more correctly, Trans-Polar) DX case. A strategy for these far-northern Canadian sites would bear little resemblance to that for any DXer in the lower 48 United States, except (perhaps) the Pacific Northwest where auroral "doughnut hole" receptions of high-latitude Russians and Scandinavians can occur with Beverage aerials under prime conditions.

As a preface, the prospective TA DXer should have access to worldwide sunrise / sunset tables, a copy of the latest World Radio-TV Handbook (WRTH), and a suitable receiver. The receiver and antenna required to hear TA's is dictated largely by the listener's location. Armed with no more than a car radio with whip antenna or an unaided Sony '2010 or Realistic TRF, a DXer will have no trouble pulling scores of TA's if he's at Waterfront Park in Boston at sunset in autumn and winter. Even if it's auroral, some of the high-powered Africans should be audible. For those not lucky enough to be at a perfect site with ocean towards Europe / Africa and obstruction towards most domestics, better receivers and antennas will be required. A good communications receiver with tight filters (e.g. R390A, Drake R8, NRD 535, HQ-180A) and an amplified high-Q tuned air core or ferrite loop, possibly augmented by phased longwires or Beverages, will definitely help you haul in more TA's, regardless of your location. Lesser receivers can be "perked up" by using a regenerative preselector such as the MWT-3 or by using a loop such as the Kiwa or Martens having regeneration capabilities built in. Memories, accurate read-out, and synchronous AM detection / ECSS are tipping the scales towards a preference for modern equipment over the tube dinosaurs - especially now that the newer receivers have gotten good enough to compete in hand-to-hand combat with the old Hammarlund, Collins, National, and Hallicrafters sets in basic reception quality (sensitivity, selectivity, and freedom from spurious responses). During a good opening, and especially on a Beverage DXpedition, frequency-hopping agility and the ability to blast through stored parallel channels and propagation-indicator stations can make a big difference. It is unlikely that we would have logged 92 countries on MW from Newfoundland over a long weekend if the team was limited to using 1950's-technology receivers.

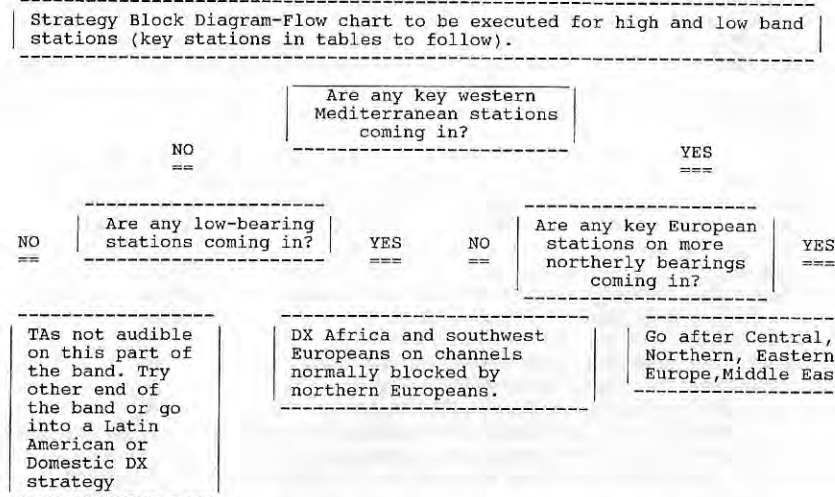
The reader is advised to consult the NRC reprints lists for excellent receiver reviews and tests by Gerry Thomas, Dallas Lankford and others. The Fine Tuning shortwave organization run by John Bryant in Oklahoma publishes a series of "Proceedings" which also feature in-depth receiver reviews. Larry Magne is a noted reviewer of receivers; his work has appeared in the World Radio-TV Handbook.

Inexperienced DXers should carefully hone their split station tuning skills by practicing on powerful Pan-American splits such as Turks & Caicos - 535 and St. Kitts / Nevis - 895. Keep tables of TV "birdie" frequencies and Latin American splits at hand. Not all non-10 kHz channel

signals are from across the Atlantic.

The quickest way to ascertain whether TA DX possibilities exist is to check several frequencies known to have strong signals under even mediocre, let alone good, conditions. The stations checked should be distributed evenly between low- and high-band frequencies, and between lower and higher latitude bearings. Actual stations checked may differ as a function of time.

A working TA DX strategy is outlined by the following block diagram and tables of key stations:



When using the above TA-hunting strategy, you must keep station operating schedules in mind. Consult the WRTH and the country-by-country breakdown to follow. The concepts presented in the previous strategy may someday find application when computer-controllable receivers (with programs making decisions based upon signals found and not found) become common.

Most experienced TA DXers have evolved one or more working schemes, possibly similar to the above. Occasionally, a departure from standard TA hunting schemes in favor of a complete bandscan, or search for split frequency station caused heterodynes from the bottom of the dial to the top, is advisable.

Key stations to use in the "decision blocks" of the strategy diagram:

Low Band (500-1000 kHz)

Western Mediterranean region:


Algeria - 549, 891, 981
Spain - 585, 639, 684, 738, 774, 873, 954, 999
Portugal - 666
Morocco - 612, 711
France - 675, 945
Italy - 846

Low-bearing African:

Canary Islands - 621, 837
Senegal - 765

Higher-bearing European:

UK - 693, 882, 909
Germany - 756
Holland - 747
Switzerland - 765



SPECTRUM RADIO
SPECTRUM INTERNATIONAL 558/990 MW
The only radio station to provide programmes to London's International people
24 hours a day, every day of the year

Every morning from 9.00 am to 11.00 am tune in for the AFRO-CARIBBEAN EXPERIENCE WITH PATRIC WALKER and GAMMO SPENG and Sundays with STEDROY RYAN on SPECTRUM INTERNATIONAL 558 and 990 Medium Wave - its hot!

REGULAR FEATURES INCLUDE


BLACK BUSINESS ADVICE WITH KENNY WILLIAMSON OF AKIRA LTD. - MONDAYS

AFRICA TODAY - THIS REGULAR AFRICAN UPDATE - THURSDAYS

ON SATURDAY CATCH GAMMO SPENG'S SPECIAL WITH SPORTS PERSONALITIES, NEWS AND FASHION FEATURES

SUNDAYS IS WITH STEDROY RYAN WHO PRESENTS BLACK CLASSICS - THE GREATEST VINTAGE AND 60'S GOSPEL SOUNDS IN AFRO-CARIBBEAN MUSIC

SPECTRUM RADIO PO BOX 5555 LONDON NW2 1JT
For advertising enquiries BARBARA PHILLIPS on - 905 5000 ext. 363



High Band (1000 - 1700 kHz)

Western Mediterranean region:

Algeria - 1422, 1544
Spain - 1107, 1134, 1359, 1584
Portugal - 1035
Morocco - 1044, 1053
Albania - 1395
France (Monaco) - 1467
Malta / France - 1557
Tunisia / Azores - 1566
Vatican - 1530
Italy - 1332

Low-bearing African:

Canary Islands - 1008, 1098, 1179
Mauritania - 1349
Angola - 1088, 1115, 1367
Lesotho - 1197
São Tome - 1530

Higher-bearing European and Middle East:

Norway - 1314
UK - 1053, 1089, 1215, 1548
Germany - 1017, 1269, 1422, 1539
Saudi Arabia - 1512, 1521
Slovakia - 1098
Denmark - 1062
Russia - 1386
Sweden - 1179
Egypt - 1107
Turkey - 1017

Radio World, via Eric Cooper

AM, FM upgrades feel FCC freeze

One side effect of the FCC's freeze on comparative hearings appears to be a freeze on permits for AM and FM upgrades, communications lawyers complained last week.

As part of the freeze, the FCC said it would not issue cutoff lists or adopt FM filing windows. That decision effectively has barred all AM upgrades. It also has frozen all FM upgrades that were filed before the FCC adopted the one-step application process last year. Under the one-step process, construction permits for FM stations are awarded on a first-come, first-served basis.

When AM radio stations apply to upgrade their signal, the FCC allows other stations or potential stations 30 days in which to challenge the application. In some cases, a challenge to an FM or AM upgrade can be resolved by finding a vacant frequency for the challenger. If a vacant frequency is identified, a comparative hearing may be scheduled for that channel.

Since there is a freeze on hearings, the FCC is delaying all upgrades until the comparative issues are resolved. —CS



Check WWV (2.5, 5, 10, 15, or 20 MHz) at 18 minutes past the hour from time to time to keep abreast of the A and K index information. Some DXers have found that keeping track of these numbers has helped to give their DX activities a sense of direction and also helped them correlate these indices of geomagnetic activity with real life TA DX propagation patterns. The A index (Afr: A index, Fredericksburg, VA) is that most commonly mentioned in DX circles. It ranges from 0 to over 100. Favorable high latitude TA DX conditions are associated with several consecutive days of low geomagnetic activity (A indices less than 6). Disturbed conditions are indicated by somewhat higher A numbers. Often such conditions produce short skip and/or semi-auroral conditions with low-band receptions limited to the western Mediterranean region of Europe (Spain, Portugal, southern France) and Africa. Higher latitude stations may still get through on frequencies above 1400 kHz. Such stations (e.g. 1539) often exhibit fast flutter type fading. Really auroral conditions occur with high geomagnetic activity (caused by solar disturbances) when the A index soars above 20. The only TA's likely to be heard are Africans well to the south of the Mediterranean coast countries, so check those listed above as "low bearing Africans".

During a heavy aurora, it's best to concentrate on Caribbean and South American DX. The really choice Africans are generally only heard with Beverages at the beach, preferably from outer Cape Cod or Maritime Canada. Such aeriels should be over 400 meters long, aimed at 105 degrees plus or minus 10 degrees bearing away from the DX shack. There are some exceptions: Lesotho - 1197 (one of the few high-band far-south Africans running serious power) is often loggable on a ferrite loop during a good aurora from the Granite Pier DXpedition site in Rockport, MA. São Tome - 1530 and certain Angolans are loop-receivable at that site as well.

I have found that a loose correspondence between the A indices and real life propagation exists and obtaining these numbers provides an interesting supplement to DX information. However, you should always check key stations using TA strategy similar to that outlined earlier in this article. Never write off a potential DX session before checking actual MW conditions, just because the WWV propagation alert sounds discouraging.

Autumn and winter provide the best TA DX, but some TA's can be heard year-round. Morocco - 1044, Algeria - 891, and numerous Spaniards come to mind. Spring and summer can provide unique opportunities, especially with regard to high-band Iberian peninsula stations. These stations remain in darkness well after the summer sun has risen at co-channel transmitter sites in

more northerly countries, such as Germany. Sub-equatorial Africans have been received in May, a month not generally considered good for DX. Historically, late August through early April has been thought of as the TA DX season. Late September through early January is usually the best part, as the "midwinter anomaly" (thought to be related to the effects of lower ionospheric temperatures) slows things down a bit in the latter part of winter. Around the winter solstice and Christmas, one can profit from the fact that darkness lingers longer in northern Europe than in the Mediterranean, as Algeria - 549 enters daylight and fades, the German on that channel is left in the clear long enough to get reception report details or a good tape recording. A brief sunrise / sunset chart is included as an appendix to this article. More elaborate forms (both map and tabular) are available as NRC reprints.

ID'ing Stations

Stations broadcasting in English, of course, present no problem. Unfortunately, such stations represent a very small piece of the Trans-Atlantic DX pie. In regards to non-English language stations, the frequency and the language certainly get you a long way, at least toward a tentative ID. Use shortwave broadcasts to get accustomed to the sound and some of the rudimentary vocabulary of a number of languages from the three major European groups: Germanic, Romance, and Balto-Slavic. If the station is the only one on the channel listed with the language heard, if it has been reported by other DXers in your area, and you hear other stations close in terms of frequency and location to the station in question, you can pretty much log the catch with about 90% certainty. That other 10% of doubt can be removed with reception of a formal ID (generally heard at the top of the hour). These can be an interval signal (some are very distinctive), or in the case of rare commercial stations, advertisements mentioning local cities or brand names peculiar to one country. One must dig for as much identification material as possible, especially if you can't recognize the language being used or if several different countries are on the channel with the same language or similar sounding languages. Stations such as Vatican City, the Albanians, and Radio Sweden may run many different languages within a short time span. Furthermore, what one heard on one of these outlets at a given time one evening may be replaced by programming in a different language at the same time the following night. Format (e.g. rock music or religion), or cities and people mentioned on news broadcasts are supplementary pieces of information which may help to resolve an ID. Parallel frequencies, both medium-wave and shortwave, are great ways to nail down a conclusive ID. The Newfoundland DXpedition reports and regular international column loggings provide much information on parallel frequencies.

Other DXers may be able to dissect information from a tape that, to the original recipient of the signal, sounds like gobbledygook. Tape can be run through analog and digital audio filtering / processing to separate "the wheat from the chaff". Taping of RF (a swath of the band) using a video recorder, a method pioneered by Craig Healy, should emerge as a DX tool of immense benefit if the bugs can be worked out. Imagine scooping up the band as received on a beach Beverage pointed at Africa during a high aurora and having unlimited time to scan over the (4 or 6) hour tape later with your VCR output connected through a tunable preselector to your receiver input! The increasing availability of moderate-cost high-speed digitizers and high-volume disk drives may allow storage of an appreciable-length record of the entire MW band. This could later be digitally-processed to reduce pest-station slop, etc. before returning the stored signals to the analog (RF or detected-audio) world for the DXer.

In the early '70s, a peak period in terms of scientific DXing, DX bulletins published the EBU List with precise frequency measurements and drift data on TA stations. Precision Frequency Measurements (PFM) and Sub-Audible Heterodyne (SAH) analysis techniques were briefly in vogue as additional tools to ID TA's. Gordon Nelson, Ron Schatz, and others went into great detail on such methods. Broadcasters have, in general, made improvements to frequency control that lessen the degree of characteristic frequency "signatures". PFM and SAH analysis as identification tools have, therefore, largely fallen by the wayside. Loop direction-finding may also help, once a DXer has accurately prepared a bearing chart by using both a compass (and/or solar position) and nulls of known TA, LA, and domestic stations locations on a number of frequencies throughout the band. The known-station nulls calibrate out errors due to loop imbalance, nearby metal objects, power-line / wire-antenna re-radiation and the like.

TA stations heard, even routine ones, should be reported to the two principal international DX columns. What somebody in Massachusetts or on Long Island thinks of as routine, is probably a good catch in the Midwest. To stimulate DX from sections of the U.S. and Canada away from the prime East Coast sites and to aid in the study of propagation patterns, report all TA's. For those "into" propagation study, the emergence of the home computer has helped to take much of the dirty work out of such studies.

In the list to follow it should be noted that station schedules change, so sign-on and sign-off

times are only occasionally given. All times given are in UTC (GMT). Recent DX bulletins, the latest WRTH, local sunset, and European/African sunrise charts should be consulted to determine likely times of fade-in, sign-on, sign-off, and fade-out for specific stations.

This list represents fifty selected Trans-Atlantic countries, in approximate order of ease of reception (from Massachusetts). It is based on frequent listening at times evenly distributed between local sunset and transmitter sunrise. (Frequent listening means a daily average of 30 minutes DXing time.)

Note: St. Pierre and Miquelon-1375 is not considered a TA for the purposes of this article.

CATEGORY A: VERY EASY

1. SPAIN Spain is on a southerly bearing and is, therefore, less subject to auroral blanketing than stations from northern Europe. Spain has many high-powered, largely split-frequency stations for the new DXer to hear with unsophisticated gear. These stations (mostly government RTVE-RNE outlets) help to tip off experienced DXers to the possibility of receiving the scores of lower-powered private stations in Spain. The high-power channels include 585, 603, 639, 684, 729, 738, 774, 792, 855, 954, 999, 1107, 1134, 1152, and 1359 kHz. Several others are also good, especially at shore sites just after sunset. Local channels, especially 1314, 1413, 1476, 1485, 1503, 1539, 1575, 1584, and 1602 kHz have also provided good DX opportunities. All stations program in Spanish, and music may be either pop or classical. Most are 24-hour operations.

2. ALGERIA Algiers on 891 kHz is often the strongest TA signal heard in the northeastern states. It is present even during mediocre openings. Therefore, it's a good propagation beacon. Best reception is from one-half hour before local sunset to an hour after sunset. Domestic QRM is at a minimum during this period. Even later in the evening, this station gives WLS a run for its money, heterodyning strongly with it, and on better nights, completely swamping it out. In this case, WLS becomes the het. In such cases, a portable or car radio does fine. Programming on 891 is primarily Arabic music and talk. A few times French has been noted. Other Algerians are frequently noted on 531 and 549 (often parallel to 891). 576, 981, 1422, and others are also occasionally reported. The Algerians are usually heard running all night schedules. The clandestine station on 1544, once thought to be in the West Sahara area south of Morocco, is in Tindouf, Algeria according to the EBU monitors. It is very strong at sunset along the immediate coastline from Florida to Newfoundland, but doesn't seem to have much thrust inland.

3. MOROCCO Sebaa-Aioum on 1044 kHz with mostly Arabic (but sometimes French) programming is reported fairly often, occasionally mixing with co-channel Spain and others. Parallel 1053 can come in well, giving BBC a challenge on that channel. Arabic talk and music often boom through on 612, 702, 711, 819, and 828 kHz. Moroccans are heard best at sunset from coastal sites in the northeastern states and the Canadian Maritimes; those in interior areas will do better around 0500 UTC "dawnenhancement". I've logged 1044 from El Paso, TX on a Sony ICF-2010 and small loop and Neil Kazaross has heard it in California. Moroccans noted less frequently are 594, 864, 936, 1080, 1188, 1197, 1233, and 1325 kHz.

4. CANARY ISLANDS Santa Cruz de Tenerife on 621 kHz is present most nights. Its southerly route allows reception even when Spain and Portugal are "aurora'ed out". Other Canaries stations on 837 (mixed with Azores), 882 (mixed with UK), 1008 (with Holland and Spain), 1098 (with the Slovak Republic station), and 1179 (usually atop Sweden) are all solid possibilities. These are consistent performers here in the Boston area around sunset; many also do well at transmitter-site dawn. Theoretically, reception is possible during the entire period of mutual receiver / transmitter darkness; domestic interference considerations, however, point to sunset at the North American receiving site as the best reception time. Conditions conducive to African stations from Senegal (765) and Burkina Faso (747) should bring the Canaries stations in with little competition from Europeans. All of the other Canary Islands stations listed in the WRTH (e.g. 720, 747, 1269) should be possible under these conditions as this path is relatively low-loss.

5. SENEGAL Dakar on 765 kHz is among the most consistent TA signals, largely due to its very southerly TA bearing (104 degrees from Massachusetts). Auroral conditions that totally wipe out European reception and severely attenuate Mediterranean-area North African stations frequently leave Dakar unscathed. In fact, a moderate aurora sometimes provides enhancement of 765, in terms of real strength as well as in terms of improved readability due to reduced QRM. This station is generally off the air from 0100 to 0600, although this may vary somewhat. The local sunset period is especially good at coast allocations. The transmitter sunrise period is of possible use to those inland (as well as on the coast) because of higher incoming skip arrival angles although domestic slop is worse than at sunset. This station has been heard in California around 0700 UTC in late autumn / early winter. Dakar - 765 runs French, Arabic, and a variety of local African languages. Music is quite diverse. You may hear Arabic-Islamic chanting, flutes, violins, soul / reggae, or exotic central African folk melodies. The other Senegal stations such as 810, 963,

1224, 1287, 1305, 1323, 1368, 1503, and 1539 are much more difficult, but might be found on a Beverage during aurora.

6. SAUDI ARABIA Super-powered Duba - 1521 makes this rather-distant Trans-Atlantic country a regular in the autumn and winter from east coast sunset to 2300 and then again at 0300 sign-on. Programming is Arabic music and talk, mostly of an Islamic religious nature. This station really gets out and reception of it from Texas (with KOMA nulled) is not uncommon. The same program is broadcast on several shortwave frequencies. Consult the WRTM for these parallels. Less frequently reported are outlets on 648 and 1512 kHz. Al Qurayyat (Guriat) on 900 has been noted sometimes dominating co-channel Italy at DXpedition sites in the Azores and Newfoundland and I logged it from the Boston waterfront (over Italy and CKDH) once. Other big Saudi stations such as 549, 585, 594, and 1440 can occasionally compete with the generally-stronger co-channel European stations.

7. FRANCE As one of Europe's larger countries (in terms of land area, population, and industrial output), France, not surprisingly, has many powerful transmitters. Many do not operate on a 24-hour schedule, so they are best heard before 2300 and after 0500. Schedules vary, so check recent DX bulletins and the WRTM. French talk (including drama) and a wide variety of music may be heard on 675, 711, 837, 864, 945, 1071, 1161, 1206, 1377, 1494, and 1557 kHz. Programs often feature alternating male and female announcers. Parallel frequencies, as well as programs generally in French, help identify these stations. Although longwave is beyond the scope of this article, the super-powered outlet at Allouis on 162 kHz should be mentioned as a TA propagation beacon of sorts. A high-powered transmitter on 1467 kHz, used by Trans World Radio, is located in Roumoules. It is next to Monaco and some count it as Monaco rather than France. Numerous languages, including English, are transmitted on 1467. Consult WRTM for current scheduling. The signal from this station is not as consistent as it had been in the '60s and '70s when on 1466. The antennas may have been directionalized to put less signal towards the USA.

8. NORWAY Kvitsoy-1314 is quite good on higher-latitude evenings. A variety of music, including American and British oldies and recent hits, is featured along with Norwegian talk. The 0300 to transmitter site dawn period yields the strongest signal; earlier in the evening co-channel Spain presents more interference. Few TA's are heard from farther-north sites on a regular basis. Other Norwegian stations are orders-of-magnitude more rare. Westerners may have more luck with northern Norwegian stations than DXers in the East; such stations may skip in the auroral "doughnut hole" and thereby propagate well into the Pacific Northwest and western Canada.

9. ENGLAND There are many stations in England running high power. Virgin Radio on 1215 is heard well when it's not being QRM'ed by Spain. BBC Foreign Service transmitters on 648 and 1296 kHz, which sometimes run foreign languages, are less consistent in strength than the BBC's English-language domestic channels. Here in the Boston area, 693, 882, 909, 1053, and 1089 have the best signals. Schedules on some outlets have jumped back and forth between 24-hour operation and with a silent period, the latter due to budgetary restrictions. Best reception is during the late autumn and early winter from local sunset to 0000 and then from 0500 to transmitter dawn. The British locals on channels such as 1458, 1485, and 1548 offer interesting challenges quite like domestic "graveyard" DXing.

10. PORTUGAL Projecting out on the western end of the Iberian Peninsula, Portugal has a relatively low loss path to the USA. Local east coast sunset provides the best opportunity to log Portuguese stations. There are fewer high-powered stations on from Portugal now than there were a few years ago, but the country is still relatively easy to hear. The best frequencies are 1035 and 666. The rocker on 783 has an inconsistent signal: some nights good, but more often wallowing in slop from CFDR, WBBM, and R. Coro (Venezuela). 963 does fairly well and occasionally Vilamoura sneaks in on 891 as the powerhouse Algerian is fading with oncoming daylight. Similarly, there's a Portuguese station that shares 981 with the big Algerian there. I don't know how these guys get out of their own backyards when competing with those North African juggernauts. Some Portuguese stations sign off between 0100 and 0500. When they return to the air around 0500 to 0600, QRM from both co-channel Europeans and stateside stations is generally worse than it is during openings prior to 0100. Those who like even-channel (10 kHz multiple) TA's may find that Radio Comercial on 1170 is one of the easier stations to hear. After daytimers such as WKPE and WDIS go off, WWVA is the major pest. It can be eliminated at most northeast USA / eastern Canada locations by using two-wire, or loop-versus-wire, phasing techniques that set up a cardioid pattern with a null to the southwest. Formerly 720 was a good "even" channel for Portugal, but CHTN has done away with that. For some inexplicable reason (colossally-bad frequency management?), there are some channels that have co-channel Spaniards and Portuguese (capable of being heard from North American sites) battling each other for dominance. What they must do to each other in their local areas boggles the mind. Portuguese is a somewhat nasal language, intermediate between Spanish and French in sound. Look for high-band lower-

power stations such as 1251 and 1377 during the spring and summer around transmitter sunrise when farther-north Europeans are already well into daylight. These unique openings are the "Iberian high-band conditions" popular with numerous DXers on Cape Cod and Long Island.

CATEGORY B: MODERATELY EASY

11. GERMANY Although on a less-favorable northern route (bearing 52 degrees from MA), Germany is commonly heard because of the large number of high-powered transmitters there. Langenberg has vacated 1593, but there are still a goodly number of targets for the DXer. Currently 756, 1017, 1269, 1422, and 1539 are the best bets. Germany now includes the former East Germany: the Radio Moscow relay there (in Nauen) on 1323 has English at times. The other stations typically have German talk and varied music including classical, big-bands, show-tunes, and rock. Hard rock with German announcements may be heard on 1422. 1539 may be separated from WPTR with a good receiver on better nights; 549 occasionally overtakes the generally stronger co-channel Algerian. The AFN / VOA stations (873, 1107, 1197) have English, but their signals are mediocre at best and, more often, they're hopelessly buried by co-channel Spaniards. Other Germans on 666, 936, 972, and 1044 are occasionally heard, but they too are at a competitive disadvantage to the various Iberians and North Africans found there. German stations compete more favorably with the lower latitude TA's during the hour preceding German dawn, rather than at US sunset.

12. DENMARK Try 1062 kHz when mid-band British and Germans are strong. This station has gotten to be a better performer during the 1990's; perhaps its facilities have been upgraded. The removal of a strong Portuguese station from that channel has also helped. It generally dominates over co-channel Italy. Danish talk and a variety of popular music is featured.

13. AZORES At East Coast sunset, stations on 693, 837, and 1566 are often heard. Programming is in Portuguese. 648, 828, 909, and 1394 are somewhat less common. As the Azores are well to the west of much of the other TA action, listening just before Azores sunrise is very productive. Most of the competition has been lost to daylight by then. Listening to 837 after 0700 UTC in winter is instructive: Canary Islands may be initially dominating, but as time passes, the Azores station rises to complete dominance well before its own fade-out. Lower-powered 828 may be heard best at that time (with Morocco and Spain QRM stripped away). An old-frequency plan straggler on 1259 hets WEZE/CIHI/Spain - 1260 on occasion. A very interesting target is the American Forces station at Lajes on 1503. This flea-powered (100 watt) operation has been positively logged at the "DX Inn" site in Cappahayden, NF and tentatively logged at the Granite Pier site in Rockport, MA.

14. VATICAN Radio Vatican on 1530 kHz is often logged in the Canadian Maritimes, New England, New York, New Jersey, and eastern Pennsylvania. It mixes with WCKY, sometimes overtaking it, on above-average TA nights. Several languages are used in the religious format of this station. Music played is usually "very soothing" soft instrumentals and classical music. Check shortwave parallels on 5882 and 6245.

15. LIBYA Tripoli on 1251 kHz now seems to be the most reliable Libyan signal in North America. The heterodyne against the 1250 domestics is strong on many nights, but pulling up readable audio is tricky. When it does surface, the DXer will find Arabic chanting and talking. Co-channel stations on 1251 include Portugal and Hungary. There are other Libyan possibilities on 711, 828, 1053, and 1080: make sure you don't confuse these with co-channel Moroccans. Less common are 675, 792, 909, 1125, 1404, 1449, and 648 (which can be confused with co-channel Saudi Arabia). The best time to listen is from sunset at the listener's location to 2300 UTC and from 0400 until transmitter dawn.

16. HOLLAND Flevoland - 747 can be a powerhouse when the auroral absorption zone moves sufficiently out of the way. Another Dutch station on 1008 is reported infrequently. Canary Islands / Spain co-channel QRM and WINS slop make this one rough. There's also 675 if you don't have WRKO - 680 as a problem. Holland has a number of pirate stations just above the top of the band. The British club Medium Wave Circle gives these quite a bit of column space. Some of these can span the Atlantic: Jean Burnell in Newfoundland has received several of them.

17. EGYPT The 1107 kHz transmitter at Batra is noted with Arabic programming at North American sunset in autumn and winter. The signal peaks up again as dawn approaches around 0300 - 0330 UTC. As the incoming skip angle is low, a seaside receiving site is advantageous, especially for sunset reception. The presence of Egypt atop Spain on 1107 points the way to other DX targets in that area (such as Turkey, Jordan, Syria, Israel, and Lebanon). Arabic programming heard behind Spain - 774 may be either Morocco or Egypt, so be careful to get positive identification material such as parallel frequencies, interval signal, characteristic time pips on the hour, or a spoken ID. Egyptians on 819 and 864 can also be confused with co-channel

Moroccans. Matruh - 1593 has gotten easier now that Germany has vacated the channel.

18. MALTA The Deutsche Welle relay at Cyclops on 1557 kHz, with programming in Arabic and German is commonly heard after 0300, often mixing with Nice, France. Look for the Deutsche Welle interval signal of shortwave fame heard at 0400, a change from Arabic to German announcements, or the shortwave parallel on 6025.

19. SWITZERLAND The only really viable channel now is Sottens on 765. This runs French programming and classical music and is often heard well after 0100 when Dakar goes off. Sarnen on 1566 kHz is supposedly testing although it's officially de-activated.

20. ALBANIA This country's broadcasting organization has been affected drastically by the demise of communism's iron grip. In a move once thought unthinkable, the big transmitter on 1395 is being used by religious organizations including Trans-World Radio. The evening programs, including English, actually get out better than those from the France (/ Monaco) transmitter on 1467. The US / Canada sunset period in winter (2000 - 2300 UTC) yields best reception. Other frequencies such as 648, 1089, 1215, and 1458 have substantial interference from stations in Britain, Spain, and elsewhere. 1395 is your best bet.

21. SLOVAK REPUBLIC This spin-off country from old Czechoslovakia is much easier to hear than its relative, the Czech Republic. Nitra on 1098 runs big power (1.5 megawatts) and it can roll over co-channel Canary Islands / Spain when northerly propagation paths are active. The Slavic talk comes in well when the major high-band Germans are strong. 702 and 1287 are other channels worth watching.

22. MAURITANIA Nouakchott is a long-time straggler on the old-plan channel of 1349 kHz. It can be received at sunset during auroras that kill off most other TA's. Sign-off is at 2400 (0000). During auroral conditions favoring reception, the signal is far stronger at the seashore than it is just a few miles inland. Programming includes Islamic cultural content, African and Arabic music, and talk in French and Arabic. Check for the shortwave parallel on 4845 kHz.

23. ITALY There are several Italian MW frequencies commonly reported by North American DXers. For those not in the splash zone of WHDH - 850, Rome on 846 kHz may be your best bet. This high-powered 24-hour station runs the early morning (Italian time) "Notturmo Italiano" program featuring blocks of music and talk in several languages including English. 900 can occasionally make it in at coastal sites. A shortwave parallel to both 846 and 900 can be heard on 6060. The synchronized stations on 1035, 1062, and 1116 (in parallel) sign-on at 0500. Italy on 1062 has been logged in eastern Massachusetts, despite QRM from co-channel Denmark and slop from WBIV, CJRP, and KYW. 1575 and 1332 are good high-band Italian channels to check and 1116 may be noted mixing with Spain, at least during above-average conditions. If you're lucky, you may be able to slice the 1449 Italian away from the 1450 "graveyard" jumble.

24. IRELAND (SOUTHERN) RTE Athlone - 612 and Tullamore - 567 are your best bets. Best reception is in late autumn and early winter around 0600 to 0700. The outlet on 612 plays pop-rock music; 567 features more discussion programs and traditional folk music. Although Ireland is the closest European country (with a high-power MW station) to North America (the Azores and Iceland are closer, but neither has a MW station in the 100 kW or greater class), the stations on 567 and 612 don't get out as well as many other low-band Europeans. Partly this is due to a high bearing (52 degrees from Massachusetts), but mostly it is because the transmitter sites are in the center of the country in a low valley surrounded by mountains in all directions. If these stations were moved to the west coast of Ireland, say Clifden or Bundoran, the signals would be at least 10 dB stronger here. 567 suffers some co-channel Spain / Portugal QRM and 612 is heavily pestered by Morocco. English is the primary language used, although Gaelic is occasionally noted. If the two main stations are being heard, check lower-powered outlets on 729 and 1278. The Radio na Gaeltachta (all Gaelic language) outlets with their superb folk music programming are unfortunately low-powered. The 963 outlet near Dingle Peninsula is the most likely RNG station to be heard in North America because of its advantageous location. You have to work around potential QRM from Portugal, Tunisia, and Finland - among others. There have been a number of pirate operations in Ireland, though far fewer than in Holland.

25. BELGIUM Wolveterm - 1512 is good (usually over co-channel Saudi Arabia) at sunset (2000 - 2300 UTC) if you aren't near a "megapest" like WSSH - 1510. They have programming in blocks of languages including English and German. Check the WRTH for details. Also, try 1512 around 0600 in winter. 927 can be heard under good TA conditions before 2400 (0000) sign-off and after 0500 sign-on. Programming is usually in Dutch, with pop music often played.

26. TUNISIA Sfax on 1566 kHz often puts in a powerhouse signal from just before local sunset to 2330 sign-off. Listen for Arabic talk and music. The audio level tends to be low, however, and QRM from co-channel Azores can be heavy at times. Other channels to check are 585 (with Spain), 630 (with Portugal/CFCY/WPRO), and 963 (with Portugal and Finland).

CATEGORY C: MODERATELY DIFFICULT

27. CROATIA The parallel outlets on 1125 and 1134 kHz make it in with Slavic talk around transmitter site dawn under good autumn / winter high-latitude openings. A former transmitter on 1143 appears to be inactive. If neighboring Albania on 1395 kHz is unusually loud and the high-band Germans are also strong, give these former - Yugoslavs a try.

28. SWEDEN Solvesborg on 1179 is noted during the better winter sunset openings atop Canary Islands / Spain stations. Using a phasing system to throw a cardioid null at WHAM can often make all the difference in digging this one out successfully from northeastern USA receiving sites. Look for a variety of programs and languages during the 2000 - 2300 period, including English.

29. NORTHERN IRELAND The heterodyne from BBC Lisnagarvey on 1341 kHz will show up against the 1340 kHz "graveyarders" many nights from 0600 to transmitter dawn during winter if the English BBC stations are present above 1000 kHz. Slicing audio from the 1340 brouhaha can be tough, though. A strong 1341 signal and a good receiver are necessary. Programming may, at times, be parallel to other BBC outlets. This, and the fact that little else on 1341 can be heard in English, will help you ID this. Sunset period reception of Lisnagarvey (before 2400) is also possible, but sunset often favors lower-latitude propagation to the co-channel Spaniards on 1341. Another Northern Ireland station remotely possible is Belfast on 1026 kHz around transmitter dawn.

30. RUSSIA (KALININGRAD) Bolshakovo on 1386 kHz and on 1143 kHz make it in a few times each winter, usually between East coast sunset and sign-off at 2300. When it's in, it's loud. But the southern edge of the auroral zone has to move quite far to the north. If the middle- and high-band German and British stations are strong, these stations are worth a try. Transmitter dawn openings are also possible. Foreign-service programming, including English, is broadcast in the evening.

31. YUGOSLAVIA (SERBIA) Beograd on 684 (behind Spain, usually) and Pristina on 1413 are your low- and high-band choices respectively. Look for these if big-gun eastern Europeans such as 1098 are in. The status of this country and the other Yugoslav spin-off "countries" such as Croatia, Montenegro, Macedonia, etc. remains in a state of flux.

32. HUNGARY The parallel transmitters on 1188, 1251, and 1341 are worth chasing. I would rate 1188 the best, as it suffers less co-channel QRM than the others. It does reasonably well in the Boston area with WOWO phased. 540 is a dark-horse possibility, if you can get through a pile of domestics and, conceivably, other TA's. If uncommon low-band Germans are conquering co-channel routine Spaniards, then a distinctly above-average opening is in the works and 540 is indeed possible. Hungarian sounds notably different from the Slavic languages spoken nearby. Listen to Hungarian on a shortwave outlet to gain the ability to identify it.

33. POLAND Stargard / Stettin-1503 should be checked after 0400 sign-on if the high band Germans are strong. An interval signal (on the hour) using Chopin piano music is a characteristic identifier. Consult the WRTH for the schedule of languages used. This is an overseas service transmitter. Harder to hear Polish stations have been noted on 819, 1206 (with France off), and on 1368 kHz.

34. AUSTRIA ORF Wien on 1476 is the best channel for Austria, but it has greatly reduced its transmission schedule. Look for it around 2000 to 2200 (North American winter sunset) period. Programs are in German and music is quite varied, including electronic and "modern classical" styles. Co-channel interference from stations in Spain is sometimes a problem. There's also an Austrian on 1026 occasionally heard in the USA.

35. SUDAN If Egypt - 1107 is doing well, try for Rebia, Sudan - 1296 at their 0300 sign-on. The signal can be quite massive when the dawn "greyline" is near the transmitter. An interval signal parallel to 7200 shortwave is used. Arabic talk and Koran recitation (chanting) follows. QRM is largely from Spain, although England and Bulgaria may be rattling around in there as well.

36. CEUTA This Spanish settlement in northern Morocco stays viable IF it manages to stay on its "oddball" 1585.2 channel. If somebody fixes the frequency control and merges the station back into the pack of Spaniards on 1584 (running largely-parallel programming), then kiss this one goodbye. Look for fast-paced SS talk usually parallel to 1584.

CATEGORY D: DIFFICULT

37. ANGOLA Look for Portuguese programs and African music (also American / European pop) on the distinctive "old plan" channels of 944, 1088, 1115, 1313, 1367, 1502, and 1586. Auroral conditions, Beverage aeriels, and a coastal location will help greatly. The best frequency will be largely determined by the DXer's local pests. In eastern Massachusetts, 1088 and 1367 are best, followed by 1115.

38. **TURKEY** During good TA DX conditions, Istanbul (Mundanya) - 1017 can be heard, often mixing with co-channel Germany and Spain. Most receptions have been during the late autumn, between 0230 and 0330 with Turkish language programming and music intermediate in style between Greek and Arabic music. Look for this when Egypt - 1107 is rolling over more-common Spain. If this station is strong, consider the propagation door to the Middle East to be open. Have fun going after more exotic catches. Diyarbakir on 1062 has occasionally been reported by North American Beverage users, but it has a lot of co-channel competition from Denmark and Italy, for starters. Other high-powered Turks are listed for 558, 594, 630,702, 765, 891, 927, and 954, but in every case there's something considerably stronger on each channel from western Europe and North Africa.

39. **SÃO TOME AND PRINCIPE** The new Voice of America (VOA) outlet on 1530 can do surprisingly well at 0300 sign-on through WCKY and the Vatican. The low-latitude path, high frequency, and high power all help when conditions get auroral enough to weaken the channel's other two major players. It's been logged in the Boston area several times during its first year of operation. Sometimes test tones are run around 0245 - 0255 prior to sign-on. This could be a tip-off to subsequent reception. At 0300 there is news in English, generally followed by a pop music show at 0310. Check 7405 kHz for the VOA African Service parallel. São Tome also has a station on 945 (in Portuguese) which could be mistaken for an Angolan. I haven't seen it logged; it might be inactive (or just hopelessly buried by others).

40. **LESOTHO** Relay stations of the big international broadcasters have certainly helped put some formerly-rare countries within reach of North American DXers. Besides Sri Lanka and São Tome, Lesotho comes immediately to mind. The BBC relay on 1197 from this nation surrounded by South Africa can provide some real long-haul DX (7000+ miles) for us. It has been logged in Newfoundland, Massachusetts, and Florida as of the end of 1993. As more DXers find out about this one, other loggings will likely follow. Best reception has been during moderate aurora about an hour after receiver sunset. Look for BBC English programming parallel to 5975 and 6175 shortwave (Sackville, NB) and 1160 medium-wave (Bermuda).

41. **GABON** Melene has sporadically been heard on 1554 kHz (an old-plan channel). This runs parallel to 4777 kHz shortwave, so checking this may be beneficial. Most reports of 1554 mention 2300 as a good reception time. Drum-oriented African music is the usual format. If this moves to 1557, reception will be much less likely, due to WQEW slop and France / Malta co-channel interference. Reception of Gabon seems to be as common in the southeast (Florida and Georgia) as in New England. Moderate aurora will help reception. There are Gabon outlets also listed for 549, 990, and 1575 in the 15 kW - 20 kW range, but hearing these would definitely require the optimum Beverage - beach - aurora combination.

42. **MADEIRA** Portuguese language outlets on 531, 603, and 1530 have been logged in New England and Maritime Canada. All face substantial QRM on their respective channels. The right combinations of aurora, sunset or sunrise line placement, and directivity of the antenna / receiving location set-up can help pull these out. One should be advised that Portuguese heard on 1530 at sunset can be from WDJZ, a daytimer in Connecticut. Listen carefully before putting this one in the book. The 531 and 603 stations run 24 hours; Madeira- 1530 signs off at 0000 (0100 Saturday) and signs on at 0600. Other Madeira outlets on 1017, 1332, and 1485 are low-power relays not likely to be heard over stronger co-channel TA's.

43. **UKRAINE** Over the years, Mykolayiv on 972 has been logged by Kazaross (ME), Bailey (MA), Dangerfield (PA), and Hakiel (NY); their locations are apparently conducive to eastern European DX. Ukrainians on 1242, 1377, 1404, and 1431 were heard well along with 972 from Cappahayden, NF during the October 1993 DXpedition. The report from that DXpedition is a valuable reference for TA DX in general, but especially for the eastern Europeans that are heard much less frequently on this side of the Atlantic than the routine Spaniards, Moroccans, etc. Sunset (2000 - 2200) reception from the shore and later (approx. 0300) general reception periods are suggested for stations in the Ukraine, Russia, and neighboring areas.

44. **ROMANIA** During a good opening to eastern Europe, Romanians can compete with the more common TA's on 558, 756, 855, 1053, 1152, and 1179. Most of these frequencies were logged on the 1993 Newfoundland DXpedition and some have reached the USA. Best reception tends to be during the 0400 - 0500 dawn-enhancement slot in late autumn and early winter.

45. **BULGARIA** Every year a few Bulgarians are reported, usually by Beverage users. Some of these are on 576, 594, 747, 774, 828, 864, 1161, 1224, and 1296 kHz. Try for these on top-notch TA nights when other high-latitude Europeans are loud. It's wise to consult the WRTH for both the times of Bulgarian station operation and the times when the stronger western European and North African stations sharing channels which share channels with the Bulgarians are off. Although sunset (2000 - 2200) reception is possible at coastal sites, you'll usually do better around 0300 - 0400. The 1224 outlet has been heard at 2300 relaying the VOA ... how times change!

46. **LUXEMBOURG** Marnach on 1440 kHz became tougher to hear than it had been back in the

"old days" on 1439, but up till a few years ago, it was periodically heard in the northeastern USA - usually on dawn enhancement around 0500. Recently it has cut out English language programs and it has gone to a schedule with sign-off at 2400 (0000) and sign-on well after transmitter-site dawn. So now, with reception limited to the immediate post-sunset period and with heavy co-channel domestic QRM, it is MUCH harder to log from the USA. Even at the best shore sites at sunset in November and December, it's moderately difficult. At least receiver selectivity isn't too necessary, just lucky propagation. Italian and German programs are those most likely to be heard at the admittedly-limited times of possible North American reception. If Germans on 1017, 1269, 1422, and 1539 are strong, getting Luxembourg seems likely.

47. **SCOTLAND** The BBC outlet on 810 can be parallel-checked to several BBC England channels. 810, unfortunately, is often a stew of QRM including, but not limited to, co-channel CJVA, WGY, Colombia, Puerto Rico, Bahamas, Venezuela, Brazil, and Spain! That's a lot of crud with which to contend. Really solid openings to the UK around transmitter-site dawn in late autumn / early winter might bring this catch as well as other stations from Scotland on 1035, 1152, and 1449.

48. **OMAN** Look for BBC programming from Masirah Island on 1413 during the sunset period and at dawn enhancement around 0300. QRM from Spain and Serbia can be rough (not to mention slop-bruising by CIGO, WPOP, and others on 1410). BBC on 702 is not as often heard. There is also an Arabic-language station on 1242 best heard around 2100 with programs parallel to 6085 shortwave. Bruce Conti found this one on the '93 Newfoundland DXpedition. If you're getting any kind of signal from these long-haul Persian Gulf stations, then conditions just might be good enough for juicy catches from Iran, Iraq, Qatar, UAE, India, and Sri Lanka.

49. **BENIN** Cotonou is still on old-plan 1475 kHz and it can be split away from Spain and the others on 1476. Its signal isn't too strong. Auroral conditions certainly help: its signal level would be maintained while 1476 European competition would be removed. From local sunset to 2400 (0000) and from 0400 to Benin dawn are the working times of interest. 4870 kHz may be useful as a shortwave parallel.

50. **BURKINA FASO** Ouagadougou on 747 kHz is your only real shot at this country unless you're running Beverages from Newfoundland during auroral conditions. Sunset is definitely the best time to bag 747. Look for a strong signal from Senegal on 765 compared to a weaker signal from Spain on 774 (signalling slightly auroral conditions conducive to good African reception with reduced interference from Europeans). If Senegal is blasting in, then you'll have a good chance of hearing Ouagadougou on 747. Hit this early in the evening, as domestic skip / slop and increased atmospheric / storm noise tend to diminish reception possibilities later. You may hear African music and talk in French and local languages at an apparently low modulation level. As with all local sunset period DX, especially below 1000 kHz, the receiving site should be as close as possible to salt water in the direction of DX for optimum results. Shortwave parallels to 747 are on 4815 and 7230. There is a 10 kW station on 1008 that might make it in during aurora.

The next countries to hear from across the Atlantic, after those listed so far, may be some on the following list. Note that the order is alphabetical, not ranked on difficulty. Some may find a few of these to be easier than some of the first 50 countries enumerated above - ease of reception is, after all, influenced by many factors.

ADDITIONAL TA DX TARGETS

Afghanistan	1107 1206
Armenia	864 1314
Ascension Island	1485 1602
Azerbaijan	801 1296
Bahrain	612 801
Balearic Islands	909
Bangladesh	693
Belarus	549 1566
Bophuthatswana	540 1098
Bosnia - Hercegovina	612 945
Botswana	621 648 972
Cameroon	899 972 999 1106 1152 1286 1448
Central African Rep.	1440
Chad	840
Channel Islands	1116
China	1521
Comoros	1089

Congo Republic	863 1476
Cyprus	963 1233 1323
Czech Republic	639 954 1287
Djibouti	1170 1539
Estonia	1035 1215 (?)
Ethiopia	855 873 945
Faroe Islands	531
Finland	558 963
Gambia	648 747 909.8
Gibraltar	1458.2
Greece	729 792 981 1179 1260
Greenland	700 720
Guinea	603 1386 (1404 inactive)
Guinea-Bissau	1034
Iceland	666 738 1400 1485 (all low power)
India	1071 1134 1566
Iran	1404 1449 1566
Iraq	1530 (clandestine) 1035? 1197
Isle of Man	1368
Israel	738
Ivory Coast (Cote d'Ivoire)	1493 1578
Jordan	801 1494
Kazakhstan	549
Kenya	540 612 702 746 846 900 954 981
Kuwait	540 1134 1341
Kyrgyzstan	882
Latvia	1350
Lebanon	837 873 953
Liberia	558
Lithuania	666 1557
Macedonia	810
Madagascar	630
Malawi	594 675 756
Mali	1431
Mauritius	684 819
Mayotte	1458
Melilla	972
Moldova	594 999 1449 1467
Monaco	702 (see France for 1467)
Montenegro	882
Mozambique	737 872 1008 1295
Namibia	594 747
Niger	1125
Nigeria	593 657 909 918 1170 1395 others
Qatar	954
Reunion	666 729
Russia, European	810 1089 1116 1494
Somalia	962
Spanish Morocco (Sahara Rep.)	990 1355
Saint Helena	1548
Seychelles	1368
Sierra Leone	1206
Slovenia	918
South Africa	558 576 603 702 846 1035
Sri Lanka	1548
Swaziland	954 1170 1377
Syria	783 918 1125
Tanzania	603 621 648 657 711 1215
Togo	1394 1502
Uganda	576 639 729 999
United Arab Emirates	729 1251 1314 1476 1575
Wales	1125

Yemen	792 1008 1188
Zaire	1160
Zambia	549 630 818 828 1071 others

Surprisingly, many of these HAVE actually been heard by MW DXers in Canada and the United States.

The following countries are propagationally-possible, but do not have medium-wave operation at the present time: Andorra, Burundi, Cape Verde, Equatorial Guinea, Ghana, Rwanda, Tristan da Cunha, Zimbabwe

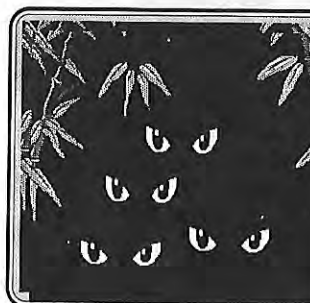
APPENDIX: Table of sunset and sunrise times of interest to TA DXers. (Times listed, in UTC (GMT), are for the middle of the month listed)

SUNSET: NORTH AMERICA (receiving end of path)

Month	Denver	Chicago	Miami	Washington	Boston	St. Johns, NF
====	=====	=====	=====	=====	=====	=====
JAN	2340	2228	2239	2155	2120	1949
FEB	0013	2303	2257	2226	2156	2032
MAR	0049	2342	2317	2301	2235	2120
APR	0129	0025	2339	2340	2319	2213
MAY	0202	0100	2357	0011	2355	2257
JUN	0222	0121	0008	0030	0017	2323
JUL	0215	0114	0004	0023	0009	2134
AUG	0146	0043	2349	2356	2338	2236
SEP	0109	0003	2328	2320	2257	2146
OCT	0030	2321	2306	2242	2214	2055
NOV	2353	2242	2246	2207	2134	2006
DEC	2333	2220	2235	2148	2112	1939

SUNRISE: EUROPE/NORTH AFRICA/NEAR EAST (transmitting end of path)

Month	Senegal	Portugal	England	Germany	Italy	Turkey	Saudi Arabia
====	=====	=====	=====	=====	=====	=====	=====
JAN	0733	0748	0759	0701	0632	0514	0336
FEB	0724	0717	0708	0617	0558	0442	0319
MAR	0712	0643	0613	0528	0519	0406	0259
APR	0700	0604	0512	0434	0436	0325	0237
MAY	0650	0532	0421	0350	0400	0252	0219
JUN	0644	0514	0349	0323	0339	0233	0209
JUL	0646	0521	0401	0333	0347	0240	0213
AUG	0654	0547	0446	0411	0417	0308	0228
SEP	0706	0623	0543	0502	0457	0345	0248
OCT	0718	0701	0642	0554	0540	0425	0310
NOV	0730	0736	0739	0644	0619	0501	0329
DEC	0735	0755	0811	0711	0640	0521	0340



From NRC's DX Audio Service ...

'After Dark 4'

Four C-90 tapes in a holder now available for only \$9.50 postpaid. Listen to interviews with Wolfman Jack, Leonard Kahn, Bob Olm, and Mike Dukan, and a Lima, OH Marketcope and a Georgia bandscan... and more! "After Dark #3" is also still available at the same price. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

Barry S. Finkel
10314 S. Oakley
Chicago, IL 60643-2409

Network listings for team sports stations

First, some Hockey updates.

From Robert A. Karchevski - San Jose Sharks 1540 KMBY formerly was KLAU. (This clarifies one of my notes.) From Chris Cuomo - Pittsburgh Penguins - Doug McLeod (replacing Lange) and Paul Steigerwald are the broadcasters. The new flagship is 1250 WTAE-PA, which will defer broadcasting duties to 96.1 WVTY-PA when WTAE broadcasts any University of Pittsburgh sports event. As for the FM stations listed without frequencies - delete WEEL, WLMI is at 103.9, WPQR is at 99.3, and add 98.3 WESA-PA. (I now have the "FM Atlas", so I can easily locate FM stations.)

Now for Major/Minor League Baseball. Here is flagship information from Bob Galerstein (major league) and Tom Sanders (minor league). Following the flagship lists are all of the network lists that I have. I do not have lists for these teams:

Atlanta Braves	Boston Red Sox
Montreal Expos	Detroit Tigers
New York Mets	Kansas City Royals
Saint Louis Cardinals	New York Yankees
San Diego Padres	Texas Rangers

WNGO / 94.7 FM
1320 AM
WXID
P.O. BOX 679
MAYFIELD, KENTUCKY 42068

If you have any of these lists, please send them to me. You can send them via e-mail to BSFINKEL@ANL.GOV; you can also send information on an IBM-compatible floppy diskette (5.25", 3.5" 720K, or 3.5" 1.44M). If you are going to send me a printout of a list that you have typed on your PC, it is a waste of time to enter the data, send me a printout, and then have me re-key the information again.

1994 Major League Baseball Flagship Stations, Network Sizes
(American League only), and Announcers (via Bob Galerstein)

Atlanta Braves	640 WGST-GA	Pete Van Wieren, Skip Caray, Don Sutton, Joe Simpson
	105.7 WGST-GA	
	94.9 WPCH-GA	
Chicago Cubs	720 WGN -IL	Harry Caray, Thom Brennaman, Ron Santo
Cincinnati Redlegs	700 WLW -OH	Marty Brennaman, Joe Nuxhall
Colorado Rockies	850 KOA -CO EE	Wayne Hagin, Jeff Kingery
	1150 WCUV-CO SS	Francisco Gamez, TBA
Florida Marlins	560 WQAM-FL EE	Joe Angel, Dave O'Brien
	1210 WCMQ-FL SS	Felo Ramirez, Manolo Alvarez
Houston Astros	950 KPRC-TX EE	Milo Hamilton, Larry Dierker, Vince Cotroneo
	1320 KXYZ-TX SS	Francisco Ernesto Ruiz, TBA
Los Angeles Dodgers	790 KABC-CA EE	Vin Scully, Don Drysdale, Ross Porter
	1330 KWKW-CA SS	Jaime Jarrin, Rene Cardinas
Montreal Expos	600 CIQC-PQ EE	Dave Van Horne, Ken Singleton, Elliott Price, Rich Griffin
	730 CKAC-PQ FF	Jacques Doucet, Rodger Broulette, Alain Chantelois
New York Mets	660 WFAN-NY EE	Bob Murphy, Gary Cohen
	620 WSKQ-NY SS	Juan Alicea, Renato Morffi
Philadelphia Phillies	1210 WOGL-PA	Harry Kalas, Chris Wheeler, Andy Messer, Richie Ashburn
Pittsburgh Pirates	1020 KDKA-PA	Lanny Frattare, Greg Brown, Steve Blass
Saint Louis Cardinals	1120 KMOX-MO	Mike Shannon, Jack Buck, Joe Buck
San Diego Padres	760 KFMB-CA EE	Ted Leitner, Bob Chandler, Jerry Coleman
	1420 XEXX-BC SS	Eduardo Ortega, Marlo Thomas Zaplain, Matias Santos
San Francisco Giants	680 KNBR-CA EE	Ted Robinson, Hank Greenwald
	1170 KLOK-CA SS	Tito Fuentes, Carlos Rivera
Baltimore Orioles	1090 WBAL-MD	25 Jon Miller, Chuck Thompson, Fred Manfra

Boston Red Sox	680 WRKO-MA EE	65 Joe Castiglione, Jerry Trupiano
	?	SS ? Bobby Serrano
California Angels	710 KMPC-CA EE	23 Bob Starr, Billy Sample
Chicago White Sox	670 WMAQ-IL EE	25 John Rooney, Ed Farmer
	560 WIND-IL SS	0 Chico Carrasquel, Hector Molina
Cleveland Indians	1220 WKNR-OH	30 Herb Score, Tom Hamilton
Detroit Tigers	760 WJR -MI	35 Rick Rizzos, Bob Rathbun
Kansas City Royals	580 WIBW-KS	115 Denny Mathews, Fred White
Milwaukee Brewers	620 WTMJ-WI	50 Bob Uecker, Pat Hughes
Minnesota Twins	830 WCCO-MN	80 Herb Carneal, John Gordon
New York Yankees	770 WABC-NY	18 John Sterling, Michael Kay
Oakland Athletics	610 KFRC-CA EE	22 Ray Fosse, Bill King, Lon Simmons
	1430 KNTA-CA SS	0 TBA
Seattle Mariners	710 KIRO-WA	30 Ron Fairly, Dave Niehaus, Chip Carey
		Ken Levine
Texas Rangers	820 WBAP-TX EE	25 Mark Holtz, Eric Nadel
	910 KXEB-TX SS	10 Luis Mayoral, Mario Diaz
Toronto Blue Jays	1430 CJCL-ON	65 Tom Cheek, Jerry Howarth

Minor League Baseball from "94 Baseball America Directory" (via Tom Sanders)

American Association (AAA)

Buffalo Bisons - 550 WGR-NY; Pete Weber
Indianapolis Indians - 1260 WNDE-IN, 100.9 WIRE-IN; Howard Kellman, Tim Akens
Iowa Cubs (Des Moines) - 940 KIOA-IA; Deene Ehrlis
Louisville Redbirds - 970 WAVG-KY; Jim Kelch
Nashville Sounds - 99.7 WWTN-TN; Steve Carroll
New Orleans Zephyrs - 1280 WMSB-LA, 870 WWL-LA; Ken Trahan
Oklahoma City 89ers - 1340 KXXY-OK; Brian Barnhart
Omaha Royals - 1490 KEZO-NB; Frank Adkisson, Kevin McNabb

International League (AAA)

Charlotte (NC) Knights - TBA; Pat McConnell, Terry Gannon
Columbus (OH) Clippers - 1460 WBNS-OH; Terry Smith
Norfolk Tides - 790 WTAR-VA; Rob Evans, Jack Anderson
Ottawa Lynx - Radio information is not available.
Pawtucket Red Sox - 1320 WARA-MA; Jack LeFavre
Richmond Braves - 910 WRNL-VA; Steve Stewart, Bill Roth
Rochester Red Wings - TBA; Josh Lewin, Glenn Geffner
Scranton/Wilkes Barre Red Barons - 980 WILK-PA; Kent Westling
Syracuse Chiefs - 620 WHEN-NY; Doug Sherman, Joel Marieness
Toledo Mud Hens - 96.1 WMTR-OH; Jim Weber, Frank Gilhooley

Pacific Coast League (AAA)

Albuquerque Dukes - 770 KOB-NM; Mike Roberts, Jim Lawwill
Calgary Cannons - no radio broadcasts
Colorado Springs Sky Sox - 1240 KRDO-CO, 590 KCSJ-CO; Dan Karcher, Dick Chase
Edmonton Trappers - TBA; Al Coates
Las Vegas Stars - 920 KORK-NV; Ken Korach, Jon Sandler
Phoenix Firebirds - 1310 KXAM-AZ; Russ Langer
Salt Lake Buzz - 570 KISN-UT; Steve Klauke
Tacoma Tigers - 1180 KLAY-NB; Bob Robertson, George Foster
Tucson Toros - TBA; Mario Impemba
Vancouver Canadians - 850 CFVR-BC; Brook Ward

Eastern League (AA)

Albany-Colonie Yankees - 980 WTRY-NY; John Thomas
Binghamton Mets - 1430 WMRV-NY; Don Orsillo
Bowie (MD) Baysox - TBA; Dave Collins, Rick Furr
Canton-Akron Indians - 990 WTIG-OH; Jim Clark, Todd Bell
Harrisburg Senators - 1400 WTCY-PA; Mark Mattern



New Britain Red Sox - 1150 WCXN-CN; Don Wardlow, Jim Lucas
 New Haven Ravens - 1300 WAVZ-CT; TBA
 Portland Sea Dogs - 1490 WPOR-ME; Michael Thornton
 Reading Phillies - 1340 WRAW-PA; Steve Degler
 Trenton Thunder - 920 WTTM-NJ; Nick Simonetta, Tom McCarthy

Southern League (AA)

Birmingham Barons - 1070 WAPI-AB; Curt Bloom [the team with Michael Jordan]
 Carolina Mudcats (Zebulon, NC) - 850 WYLT-NC; Bob Licht
 Chattanooga Lookouts - TBA; Larry Ward
 Greenville (SC) Braves - 98.1 WBFM-SC; Mark Hauser, Doug Holliday
 Huntsville Stars - 1450 WTKI-AB; Steve Selby
 Jacksonville Suns - 1320 WQIK-FL; Dan Vaughan
 Knoxville Smokies - 98.7 WXVO-TN; Garry Griffith
 Memphis Chicks - 600 WREC-TN; Tom Stocker
 Nashville Xpress - Radio information is unavailable.
 Orlando Cubs - 1520 WTLN-FL; Andrew Monaco

Texas League (AA)

Arkansas (Little Rock) Travellers - 920 KARN-AR; Bob Harrison
 El Paso Diablos - 690 KHEY-TX; Matt Vasgersian, Bernie Ricono
 Jackson (MS) Generals - 620 WJDS-MS; Bill Walberg
 Midland Angels - 550 KCRS-TX; Bob Hards
 San Antonio Missions - 680 KKYX-TX; Roy Acuff
 Shreveport Captains - 710 KEEL-LA; Dave Nitz, Brady Boyd
 Tulsa Drillers - 1300 KAKC-OK; Bruce Howard
 Wichita Wranglers - 1330 KFH-KS; Scott Masteller

California League (A)

Bakersfield Dodgers - no radio broadcasts
 Central Valley Rockies (Visalia, CA) - no radio broadcasts
 High Desert Mavericks (Victorville/Apple Valley) - 1550 KAPL-CA; Chuck Valenches
 Modesto A's - 1340 KFIV-CA; Steve Patras, Robert Moore
 Rancho Cucamonga Quakes - 1600 KMNY; Joe Castellano
 Riverside Pilots - no radio broadcasts
 San Bernardino Spirit - no radio broadcasts
 San Jose Giants - 90.7 KSJS; Andre Polizzi, Bob Javinsky
 Stockton Ports - 860 KTRB-CA; Johnny Milford

Carolina League (A)

Durham Bulls - 620 WDNC-NC; Steve Barnes
 Frederick Keys - 820 WQSI-MD; Matt Hicks, Matt Noble
 Kinston Indians - Radio information is unavailable.
 Lynchburg Red Sox - 930 WLLL-VA; Shawn Holliday, John Miller
 Prince William Cannons (Woodbridge, VA) - TBA; Kevin Helbronner
 Salem Buccaneers - 1240 WROV-VA; Stu Paul
 Wilmington (DE) Blue Rocks - 1290 WJBR-DE; Jim Rosenhaus
 Winston-Salem Spirits - no radio broadcasts

Florida State League (A)

Brevard County Manitees (Melbourne, FL) - no radio broadcasts
 Charlotte Rangers - no radio broadcasts
 Clearwater Phillies - no radio broadcasts
 Daytona Cubs - 1350 WROD-FL; Gary Saunders
 Dunedin Blue Jays - no radio broadcasts
 Fort Myers Miracle - Radio information is not available.
 St. Lucie Mets - 1590 WPSL-FL; Andy Freed
 St. Petersburg Cardinals - 820 WRFA-FL; Mark Fain, Russell Creed
 Sarasota Red Sox - no radio broadcasts
 Tampa Yankees - no radio broadcasts
 Vero Beach Dodgers - 1370 WAXE-FL; Mike Saeger
 West Palm Beach Expos - no radio broadcasts



Midwest League (A)

Appleton Foxes - no radio broadcasts
 Beloit Brewers - 1490 WGEZ-WI; Brett Dolan
 Burlington (IA) Bees - no radio broadcasts
 Cedar Rapids Kernels - 104.5 KTOF-IA; John Doskow
 Clinton Lumber Kings - 97.7 KCLN-IA; Patrick Kinast
 Fort Wayne Wizards - 1380 WQHK-IN; Tom Nichols
 Kane County Cougars (Geneva, IL) - 95.9 WKKD-IL; David Wills
 Madison Hatters - Radio information is unavailable.
 Peoria Chiefs - 1350 WXCL-IL; Bob Socci
 Quad City River Bandits (Davenport, IA) - 1170 KJOC-IA; Mike Minshall
 Rockford Royals - 1150 WNIA-IL; TBA
 South Bend Silver Hawks - 960 WSBT-IN; Jack Jorri, Tom Dennin
 Waterloo Diamonds - 1250/96.1 KCFI-IA; Kelly Neff
 West Michigan Whitecaps (Grand Rapids) - 1300 WOOD-MI; Rick Berkley, Jay Allen

South Atlantic League (A)

Albany (GA) Polecats - 106.1 WKMK-GA; Brad Sparesus
 Asheville Tourists - no radio broadcasts
 Augusta (GA) Greenjackets - Radio information is unavailable.
 Capital City Bombers (Columbia, SC) - 560 WVOC-SC; Matt Hogue; Jim Powell
 Charleston (SC) Riverdogs - 1340 WOKE-SC; Brooks Melchoir
 Charleston (WV) Wheelers - no radio broadcasts
 Columbus (GA) Redstixx - 540 WSTH-GA; Dave Wilson, Mark Littleton
 Fayetteville Generals - 1230 WFAI-NC; Jim Olson
 Greensboro Bats - 1320 WGLD-SC, 830 WWMO-SC; Bill Wardle
 Hagerstown Suns - 1240 WJEJ-MD; David Shinsky
 Hickory (NC) Crawdads - 92.1 WMNC-NC; Matt Swierad
 Macon Braves - 940 WMAZ-GA; Brad Bibb, Bobby Pope
 Savannah Cardinals - Radio information is unavailable.
 Spartanburg Phillies - Radio information is unavailable.

New York - Penn League (short season A) [June 16 - September 2]

Auburn Astros - Radio information is unavailable.
 Batavia Clippers - 1490 WBTA-NY; Bob Brown
 Elmira Pioneers - TBA; Marc Sanders
 Hudson Valley Renegades (Beacon, NY) - Radio information is unavailable.
 Jamestown Jammers - 1240 WJTN-NY; Pete Hubbell, Skip Pierce
 New Jersey Cardinals (Augusta, NJ) - 1360 or 103.7 WNNJ-NJ;
 Mike Curci, Sparky Lyle, Phil Pepe
 Oneonta Yankees - no radio broadcasts
 Pittsfield Mets - Radio information is unavailable.
 St. Catharines Blue Jays - 1220 CHSE-ON, 710 CJRN-ON; A.J. McKay, Chris Jeanneret
 Utica Blue Sox - Radio information is unavailable.
 Vermont Expos (Burlington) - no radio broadcasts
 Watertown Indians - 790 WTNV-IN; Pete Mirabito, Dan Ryan
 Welland Pirates - no radio broadcasts
 Williamsport Cubs - 1340 WPPA-PA; TBA



Northwest League (short season A) [June 16 - September 2]

Bellingham Mariners - 790 KGMI-WA; Dick Bartolovic, Rick Turner
 Bend Rockies - 940 KGRL-OR; Rick Burk
 Boise Hawks - 1340 KANR-ID; Dave Hahn, Ron Berkowitz
 Eugene Emeralds - 1120 KPNW-OR; Dennis Higgins
 Everett Giants - KRKO-WA; Mark Aucutt
 Southern Oregon Athletics (Medford) - 610 KYJC-OR; Nico Pemantie
 Spokane Indians - 1510 KGA-WA; Craig West
 Yakima Bears - 980 KUTI-WA; Larry Weir

Appalachian League (Rookie)

Bluefield Orioles - no radio broadcasts
 Bristol (VA) Tigers - no radio broadcasts
 Burlington (NC) Indians - 920 WBBB-NC; Andy Young
 Danville (TN) Braves - no radio broadcasts
 Elizabethton (TN) Twins - 1240 WBEJ-TN; Frank Santore
 Huntington (WV) Cubs - TBA; Mike Tussey
 Johnson City Cardinals - 910 WJCW-TN; Chip Kessler, Paul Overbay
 Kingsport Mets - 1400 WKPT-TN; Thom Throop, Scott Gray
 Martinsville (VA) Phillies - no radio broadcasts
 Princeton (WV) Reds - 1050 WAMN-WV; Jim Stanek

Pioneer League (rookie)

Billings Mustangs - 970 KCTR-MT; TBA
 Butte Copper Kings - 1370 KXTL-MT; TBA
 Great Falls Dodgers - 1450 KMSL-MT; Gene Black
 Helena Brewers - 950 KMTX-MT; TBA
 Idaho Falls Braves - 980 KUPI-ID; Jim Garshow, John Baiginy
 Lethbridge Mounties - 1220 CJOC-AB; TBA
 Medicine Hat Blue Jays - no radio broadcasts
 Ogden ?? - Radio information is unavailable.



82 Q AM WZYQ, WZYQ BLDG
 8633 MOUNT PHILLIP ROAD
 FREDERICK, MD 21701-5997

 Here are some Major League Baseball Networks. They came from Bob Galerstein, Tom Sanders, and Mike Brooker. The footnotes follow the entire collection of network lists. Note that there are stations that carry more than one team; in these cases I do not know which team has precedence when both teams are playing games at the same time.

Chicago Cubs 1994 Harry Caray, Thom Brennaman, Ron Santo

570	WNAX-SD	1410	WGRD-MI	1550	KAPE-MO	98.5	WXXQ-IL
720	WGN-IL *	1440	WGEM-IL	1560	WRIN-IN	102.3	WRHL-IL h
910	WAKO-IL	1450	WFMB-IL	1570	WFRL-IL h	103.1	WAKO-IL
920	WMOK-IL	1460	WKAM-IN		WIFF-IN	104.9	WGEN-IL h
930	WHON-IN	1310	WGH-VA	1590	KWBG-IA		WAXI-IN
960	WSBT-IN	1320	WNGO-KY	1470	WQSN-MI	105.5	KTWA-IA
1020	WCIL-IL	1330	WRAM-IL h	1480	WRSW-IN	1600	KCRG-IA
1050	WDZ-IL	1350	KRNT-IA	1490	WDAN-IL		WCWC-WI
1050	WTCA-IN h	1370	KDTH-IA	1500	WGEN-IL h		
1060	WRHL-IL	1380	WCIM-IA	1510	WINU-IL	94.1	WGL-IN
1150	KCKY-AZ j	1400	KADR-IA	1540	WBNI-IN	96.9	WLBH-IL
1170	WLBH-IL		WDWS-IL	1550	KTWA-IA	97.7	WFRX-IL h
1250	KCFI-IA		WBAT-IN		WJIL-IN h		WMOI-IL h

Cincinnati Redlegs 1994 Marty Brennaman, Joe Nuxhall

560	WJLS-WV	1240	WHIZ-OH	1440	WPGW-IN	92.7	WCMI-KY	102.3	WFPC-IN
580	WCHS-WV	1250	WOFR-OH		WMDJ-KY		WPMW-WV		WUGO-KY
610	WTVN-OH	1260	WNDE-IN	1490	WKBV-IN	94.1	WAXS-WV	103.9	WIMC-IN
620	WDNC-NC	1270	WXVW-IN		WFKY-KY	94.3	WRCR-IN		WRBI-IN
680	WCIT-KY	1290	WHIO-OH		WOMI-KY		WKKI-OH		WKKQ-KY
700	WLW-OH *		WVOW-WV		WSIP-KY	95.3	WNDI-IN	104.1	WPAY-OH
740	WLWLAB	1300	WLXG-KY		WBEX-OH	95.9	WFIM-KY	104.9	WWWY-IN
740	WRNR-WV	1320	WLOH-OH		WMOA-OH	96.7	WKOV-OH		WKYV-KY
920	WTCW-KY	1330	WTRB-IN		WJOC-TN	97.4	WLBC-IN		WWKC-OH
930	WTKZ-WV		WKOV-OH	1520	WOOO-IN	97.7	WBVI-OH	105.5	WSWV-VA
970	WATH-OH	1340	WLBC-IN	1550	WCVL-IN	99.5	WBKW-WV	105.9	WHAY-KY
990	WJEH-OH		WBGH-KY		WNDI-IN	100.1	WMDJ-KY	106.1	WRZZ-WV
1050	WGAT-VA	1370	WGOH-KY	1570	WSWV-VA	100.9	WPGW-IN	106.7	WSRW-OH
1150	WIMA-OH	1390	WBLL-OH l	1590	WSRW-OH		WJAW-OH	107.3	WCIT-KY
1230	WIRO-OH	1400	WPAY-OH	1600	WBLY-OH	101.5	WGTR-OH	107.5	WZLK-KY
1240	WFTM-KY		WBTH-WV			101.7	WMCQ-KY		
1240	WSFC-KY		WVRC-WV	92.1	WMPO-OH	101.9	WVOW-WV		

Colorado Rockies 1994 (EE) Wayne Hagin, Jeff Kingery

580	KZMX-SD	930	KROE-WY	1240	KEVA-WY	1350	KGHF-CO	1450	KVOW-WY b
610	KCSR-NE	940	KGRL-OR		KFBC-WY	1400	KTUC-AZ m	1490	KUGR-WY
610	KVNU-UT	950	KMER-WY		KTHE-WY b		KPAG-CO		
690	KOQA-NE	1030	KBUF-KS	1250	KIKC-MT b		KCOW-NE	92.7	KVCK-MT b
730	KLOE-KS		KTWO-WY	1290	KOWB-WY	1410	KCOL-CO	98.3	KDBM-MT b
740	KRTC-CO	1150	KCKY-AZ j	1300	KVOR-CO	1450	KVCK-MT b	101.3	KIQX-CO
790	KUTA-UT		KIMM-SD	1310	KFKA-CO		KBFS-SD	102.3	KSPK-CO
850	KOA-CO *	1230	KBOV-NM	1330	KFCA-AR		KSGI-UT	107.9	KBKL-CO
920	KLMR-CO	1240	KAMY-MT b	1340	KWOR-WY b		KBBS-WY b		

Florida Marlins 1994 (EE) Joe Angel, Dave O'Brien

540	WETO-FL	600	WOKV-FL	1230	WTKX-FL	1350	WLMA-SC	99.3	WLRQ-FL
540	WGTO-FL	1150	WSPZ-AB	1250	WQHL-FL	1440	WQBQ-FL		
560	WQAM-FL *	1200	WDCQ-FL	1330	WEBY-FL	1500	WKIZ-FL		
590	WGNE-FL	1230	WJNO-FL		WJNX-FL				

Los Angeles Dodgers 1994 (EE) Vin Scully, Don Drysdale, Ross Porter

610	KAVL-CA	920	KVEC-CA	1240	KJAA-AZ	1340	WSTA-VI s	1450	KVEN-CA
720	KDWN-NV	950	KNFT-NM s		KLOA-CA	1350	KCKC-CA c		KMSL-MT
760	KGU-HI s	990	KTKT-AZ		KSMA-CA f	1360	KNNS-AZ sk	1560	KNZR-CA
790	KABC-CA *	1140	KCMJ-CA	1250	KTMS-CA	1370	WAXE-FL s	1570	KUAW-HI s
800	KSOS-UT	1230	KBOV-CA	1300	KROP-CA	1400	KEYX-CA		
910	KVVQ-CA		KYVA-NM s	1310	KIQQ-CA	1440	KUHL-CA g		

Los Angeles Dodgers 1994 (SS) Jaime Jarrin, Rene Cardinas

910	KOXR-CA	1280	KDOL-NV	1330	KWKW-CA *	1490	KICO-CA		
-----	---------	------	---------	------	-----------	------	---------	--	--

Philadelphia Phillies 1994 Harry Kalas, Chris Wheeler, Andy Messer, Richie Ashburn

580	WHP-PA	1150	WDEL-DE	1250	WOYK-PA	1390	WKLP-WV		
590	WARM-PA	1210	WOGL-PA *	1270	WLBR-PA	1400	WOND-NJ	95.3	WDNO-DE
790	WAEB-PA	1230	WCMC-DE	1320	WGET-PA		WRAK-PA	105.5	WCHX-PA
850	WEEU-PA		WBZP-PA	1360	WPPA-PA	1420	WCOJ-PA		
960	WPMR-PA	1240	WYGL-PA	1390	WRSC-PA	1490	WLPA-PA o		

Pittsburgh Pirates 1994 Lanny Frattare, Greg Brown, Steve Blass

590	WMBS-PA			1400	WKWK-WV	1490	WOHI-OH	92.3	WXIE-MD
600	WFRM-PA			1420	WBRD-FL		WESB-PA	93.5	WBNV-OH
940	WESA-PA			1430	WVAM-PA		WMGW-PA	94.7	WELK-WV
990	WVSC-PA				WEIR-WV		WNJT-PA	100.9	WOOX-PA
1000	WIOO-PA i	1330	WFLP-PA	1440	WAJR-WV		WTCS-WV	102.1	WOWQ-PA
1020	KDKA-PA *		WETZ-WV	1450	WFRPA-PA	1540	WECZ-PA	103.1	WANB-PA
1050	WMSG-MD	1340	WCVI-PA		WJPA-PA	1570	WANR-OH	105.5	WPXZ-PA
1050	WADC-WV		WTRN-PA		WMAJ-PA	1580	WANB-PA	107.1	WEXC-PA
1160	WCCS-PA		WHAR-WV	1460	WMBAP-PA	1590	WCBG-PA		
1230	WBVP-PA	1350	WOYK-PA	1470	WZGO-PA	1600	WPDC-PA		
1230	WTIV-PA	1400	WLBI-PA	1480	WCNS-PA				

San Francisco Giants 1994 (EE) Ted Robinson, Hank Greenwald

600	KNRO-CA	1150	KBAL-CA	1330	KYNO-CA	1490	KOWL-CA		
620	KWSD-CA		KAGO-OR	1340	KATA-CA	1540	KMBY-CA		
670	KPIA-HI	1230	KGEO-CA	1360	KNNS-AZ	1560	KIQS-CA		
680	KNBR-CA *	1270	KJUG-CA		KFIV-CA				
880	KTMT-OR		KPLY-NV	1380	KSMJ-CA	92.7	KMFB-CA		

Baltimore Orioles 1994 Jon Miller, Chuck Thompson, Fred Manfra

800	WCHA-MD	1000	WIOO-MD i	1340	WEPN-WV	1490	WARK-MD	106.3	WCEN-MD
910	WSBA-MD	1090	WBAL-MD *	1400	WINC-VA		WLPA-PA o		
930	WFMD-MD	1200	WAGE-VA	1430	WNAV-MD	1500	WTOP-DC		
960	WLWV-MD	1260	WRNK-DE	1450	WTBO-MD	1590	WETT-MD		
970	WAMD-MD	1280	WHVR-MD	1470	WTTR-MD				

California Angels 1994 Bob Starr, Billy Sample

710	KMPC-CA *	1230	KPRI-CA	1340	KIKO-AZ	1360	KNNS-AZ k	1430	KAMP-CA
840	KVEG-NV	1280	KKAL-CA		KIST-CA	1380	KHJJ-CA q	1450	KSPA-CA
1080	KWAI-HI	1290	KMEN-CA	1350	KBID-CA	1400	KTUC-AZ m		

Chicago White Sox 1994 John Rooney, Ed Farmer

670	WMAQ-IL *	1240	WTAX-IL	1570	WFRL-IL h	97.7	WMOI-IL h	105.5	WDND-IL
860	WGOM-IN	1270	WEIC-IL		WTAY-IL		WLOJ-IN	107.7	WMRS-IL
880	WINU-IL	1320	WKAN-IL	1570	WIFF-IN	98.1	WIBN-IN		
930	WTAD-IL	1330	WRAM-IL h	1580	WIWO-IN	98.3	WBYS-IL		
980	WITY-IL	1490	WZOE-IL			101.7	WTAY-IL		
1050	WTCA-IN h	1500	WGEN-IL h	95.1	WZZT-IL	102.3	WRHJ-IL h		
1220	WQSA-FL	1550	WJIL-IL h	97.7	WFRX-IL h	104.9	WGEN-IL h		

Cleveland Indians (as of 1/17/94) Herb Score, Tom Hamilton

910	WBRJ-OH	1260	WRIE-PA	1430	WCLT-OH	1490	WMRN-OH	95.3	WLKR-OH
920	WMNI-OH	1340	WSTV-OH		WFOB-OH	1520	WQCT-OH	100.9	WBNO-OH
930	WEOL-OH	1370	WSPD-OH	1450	WJER-OH	1540	WBTC-OH	104.5	WQKT-OH
960	WKVX-OH		WWCB-PA		WLEC-OH	1550	WDLR-OH	107.1	WDOH-OH
970	WFUN-OH	1390	WBLL-OH 1	1460	WBCK-OH	1590	WAKR-OH	107.3	WYBZ-OH
1220	WKNR-OH *	1400	WMAN-OH	1470	WRQQ-PA				
1240	WBBW-OH	1410	WDOE-NY	1480	WHBC-OH	92.7	WQEL-OH		

Milwaukee Brewers 1994 Bob Uecker, Pat Hughes

550	WSAU-WI			1340	WLDY-WI	1590	WTOQ-WI	97.1	WCOW-WI
570	WMAM-WI			1380	WBEL-WI			98.3	WCQM-WI
580	WKTY-WI			1400	WATW-WI	92.1	WRJC-WI	99.1	WKIB-MI
590	WJMS-MI				WBIZ-WI		WRLS-WI	99.3	WIGM-WI
620	WTMJ-WI *	1240	WJMC-WI		WDUZ-WI	92.3	WJPD-MI		WOWN-WI
680	WDBC-MI		WOBT-WI		WRDB-WI	92.7	WDUX-WI	100.1	WDDC-WI
910	WDOR-WI		WOMT-WI	1430	WBEV-WI		WLDY-WI	100.9	WRCO-WI
940	WFAW-WI	1260	WEKZ-WI		WRDN-WI	93.7	WEKZ-WI	102.3	WISS-WI
960	WTCH-WI		WWIS-WI	1450	KFIZ-WI	93.9	WDOR-WI	105.3	WRLO-WI
970	WKTP-WI	1270	WRJC-WI		WDLB-WI	94.3	WPRE-WI	106.3	WEVR-WI
980	WPRE-WI	1290	WCOW-WI		WRCO-WI	94.5	WRJO-WI		
1010	WSPO-WI	1310	WIBA-WI	1490	WIGM-WI	95.9	WRDN-WI		
1050	WLIP-WI	1320	WFHR-WI	1550	WEVR-WI	96.3	WJMC-WI		
1090	WISS-WI	1330	WHBL-WI		WMIR-WI	96.7	WATW-WI		

Minnesota Twins 1994 Herb Carneal, John Gordon

610	KDAL-MN	1140	KSOO-SD	1340	KROC-MN	1450	KBUN-MN	93.5	KSCR-MN
660	KEYZ-ND	1190	KWMB-MN		KWLM-MN		WELY-MN	94.3	KDOM-MN
730	KWOA-MN	1210	KOKK-SD		KXPO-ND		KBMW-ND		KMSR-MN
790	KFGO-ND	1220	KDDR-ND		KTOQ-SD	1460	KLTC-ND	96.5	KJJK-MN
800	KQAD-MN	1230	KGHS-MN	1350	WCMP-MN	1470	KWSL-IA	101.7	KOLV-MN
830	WCCO-MN		KTRF-MN	1370	KSUM-MN	1480	KAUS-MN	103.1	KFIL-MN
860	KNJ-MN		KWNO-MN	1380	KLIZ-MN	1490	KNDC-ND	105.5	KMGM-MN
910	KJJD-SD	1240	WJON-MN	1390	KRRZ-ND		KOVC-ND		KMAV-ND
920	KWAD-MN		KDLR-ND	1400	KVFD-IA	1520	KMAV-ND	105.9	KMIT-SD
930	KKIN-MN	1260	KROX-MN		KEYL-MN	1570	KOSZ-SD	106.3	KRJB-MN
930	KSDN-SD	1270	KLXX-ND		KMHL-MN	1580	KDOM-MN		KQLX-ND
950	KWAT-SD	1290	KSCR-MN		WHLB-MN	1600	KLLR-MN		
980	KDSJ-SD	1300	KGLO-MN	1410	KRWB-MN				
1050	WEIO-WI a	1310	KNOX-ND		KHOL-ND	92.1	KRUE-MN		
1060	KFIL-MN	1320	KOZY-MN	1420	KTOE-MN		WYRQ-MN		
1060	KGFX-SD	1340	KDLM-MN	1450	KATE-MN	92.5	KKWQ-MN		

Oakland Athletics 1994 (EE) Ray Fosse, Bill King, Lon Simmons

570	KCNO-CA			1340	KKTR-CA	1410	KMYC-CA	1490	KBLF-CA
610	KFRC-CA *			1360	KNNS-AZ	1450	KTIP-CA		KRKC-CA
950	KAHI-CA			1400	KIID-CA		KVML-CA	%%%	
970	KBEE-CA	1300	KPMO-CA		KQMS-CA		KOZZ-NV		
980	KINS-CA	1320	KCTC-CA		KUKI-CA	1480	KYOS-CA		

Seattle Mariners (3/14/94) Ron Fairly, Dave Niehaus, Chip Carey, Ken Levine

550	KENI-AK w	920	KXLY-WA	1240	KXLE-WA	1450	KONP-WA	96.7	KREW-WA
680	KOMW-WA w	990	KRKT-OR	1280	KIT-WA	1470	KELA-WA	97.1	KNSN-WA
710	KIRO-WA *	1030	KMAS-WA	1320	KXRO-WA	1490	KLOG-WA	106.7	KZPH-WA p
730	KULE-WA	1110	KAQI-HI	1340	KIHR-OR s		KVAC-WA		
790	KKON-HI	1150	KQQQ-WA		KLKI-WA	1550	KVAN-WA		
800	KINY-AK s	1170	KPUG-WA	1360	KUIK-OR				
870	KORD-WA	1240	KGW-WA	1370	KAST-OR w	95.9	KULE-WA		

Toronto Blue Jays 1994 Tom Cheek, Jerry Howarth

560	CFOS-ON	900	CHML-ON	1220	CJSS-ON	1430	CJCL-ON *	100.9	CFBG-ON
560	CJKL-ON	910	CKLY-ON	1240	CJCS-ON	1450	CHUC-ON	101.1	CFMO-ON
570	CKGL-ON e	920	CJCH-NS d		CJNH-ON r	1480	CKDX-ON		CHEQ-ON d
580	CKPR-ON		CKNX-ON d		CJRW-PE	1490	CFPS-ON r	101.7	CKNX-ON e
680	CJOB-MB	930	CKNS-ON	1250	CHWO-ON	1570	CKMW-MB	101.9	CKAT-ON
710	CJRN-ON	960	CFFX-ON	1270	CJTN-ON	1600	CHNR-ON	104.1	CICZ-ON
730	CJNR-ON r	980	CKRU-ON	1280	CJSL-SK			104.3	CJQM-ON
750	CKGB-ON	1070	CHOK-ON	1340	CKNR-ON	93.1	CFNO-ON	105.9	CICX-ON
790	CIGM-ON	1130	CKWX-BC	1350	CKEG-BC	94.9	CKPE-NS		
800	CKLW-ON e	1140	CFXL-AB		CKDO-ON	96.7	KGCL-ON d		
880	CKIQ-MB	1190	CFSL-SK	1410	CKSL-ON	97.3	CJEZ-ON **		

* flagship This station

** alternate flagship when primary is unavailable

a recent call change from WISM

b Northern Sports Network

c The Dodgers' list has typo KNNS.

d This station is in the Blue Jays' media guide, not on pocket schedule.

e This station is on the Blue Jays' pocket schedule, not in Media Guide.

f This station is on the TS list, but not on the BG list.

g This station is on the BG list, but not on the TS list.

h This station broadcasts both White Sox & Cubs.

i This station broadcasts both Orioles & Pirates.

j This station broadcasts both Rockies & Cubs.

k This station broadcasts both Angels & Dodgers.

l This station broadcasts both Redlegs & Indians.

m This station broadcasts both Angels & Rockies.

o This station broadcasts both Orioles & Phillies.

p The Mariners' list has 108.7.

q The Angels' list has typo "KHJ".

r repeater station

s selected games only

w weekend games only



Are you expiring?
 We hope not! To avoid expiration, mail your remittance to the DX News Membership Center early. Allow at least three weeks after mailing your check or money order for new renewal data to appear on your mailing label. Please provide full nine-digit ZIP numbers, too.

Facts About NRC's DX Audio Service
 The DX Audio Service provides the ONLY monthly broadcast news cassette service to the DX community. Available to anyone, anywhere, it is designed to inform the radio listener in a pleasing and informative manner. Many of the announcers on the service are professional broadcasters giving their free time to give the listener the finest service available. DXAS was started to provide broadcast information, both AM and FM, to the visually-handicapped DX listener. It has evolved into a service which provides useful material to all types of listeners. Many subscribers listen to the tape to and from their place of work while driving. Features include not only news about DX, but also airchecks from radio markets, dialscans, frequency scans, and other items.
 A one-year subscription is only \$25. Sample 45-minute copy: \$2.00; back issues of DXAS: \$3.
 Cassettes are mailed by First Class mail, on or about the 20th of the month. For information, subscriptions, renewals, back and sample copies: write to DX Audio Service - P. O. Box 164 - Mannsville, NY 13661-0164

Radio Roundup

News of the radio industry, of interest to DX'ers

Greetings all ... The Curtis and Lisa Sliwa morning duo on WABC-770 is over. The two announced their divorce a number of weeks ago. Their slot to be taken over by a newcomer to station named Lionel ... WTOP-1500 has dropped Metro Traffic in favor of Shadow Traffic Reports. Shadow Traffic enjoys a nice working relationship with its affiliates, as they provide their service to the stations for free, in return for running two commercial spots before and after their reports. Thus the station provides a service to their listeners and it doesn't cost them a cent ... Paul Swearingen and Todd Brandenburg report that KNHN seems to be enjoying its new super station status in Kansas. On October 21st, KNHN began a two year experiment expanding its signal coverage from 25 miles to 200 miles using a system of fiber optics and satellites and specially group crystals, the station is synchronizing its transmissions from three different transmitter sites in Kansas City, Amoret and Pittsburgh, Kansas. The station has spent nearly \$300,000 developing this new system ... Ken Chatterton reports that DJ Pat Murtagh on WICY sure is glad that someone is listening to him. While on the air his speech started to slur, he wasn't making sense and then dead air. Betsey Nichols was listening and contacted her husband, a village police officer, immediately requesting assistance as she suspected that the DJ was having a diabetic reaction. The officers arrived at the station, followed closely by Murtagh's parents with some sugar cubes and saved the day. A tip of the collective NRC hat to all concerned ... NRCer George Holland reports that WMVI-1160 in Mechanicsville has been sold and expected to change programming from Big Band to Oldies. Trivia addicts may be interested to note that the new owner is Joseph Motta. Who is he, you may ask? His on air name was Boom Boom Branigan when he ruled the airwaves at WPTR ... From the offbeat file, U.S. Route 58 will become a Talking Highway and is looking for a "voice." The Executive Director of the Virginia Museum of Natural History is

Pete Kemp (KZ1Z)

P. O. Box 73

Bethel, CT 06801-0073

looking for a narrator to record the loops, which will play along the highways endlessly over a TIS system with 25 transmitters, to cover 508 miles of this scenic highway which runs from the Cumberland Gap to Virginia Beach ... Tom Bryant reports that WQSE-1030 in White Bluff has switched formats from gospel to country and will be increasing its power to 10,000 watts. The station will be using a self-developed Phantom Radio format, drawing from a playlist of 1,500 unknown country artists ... In St. Louis KSD-550 is moving its station to 3100 Market Street. ... Dave Braun reports that WLOL-1450's Armstrong Williams is making solid inroads with his "The Right Side" program. Black Conservative Talkshow Hosts are not the most common ... Gregory Henson checked in noting that Bob Chandler's retirement was short lived as he has returned to the radio jungle as interim manager of WWRC. He has previously been with their sister station WGAY-FM ... WTEM, the Team, is going the satellite route, making its all sports programming available to others starting March 1st ... WOL's morning personality Cathy Hughes is moving to the afternoon drive spot after ten years of wake ups. She believes that the move may put her in a better position for possible west coast syndication ... Keith Henderson is out at WMZQ-1390. His partner Sandy Weaver remains with the station ... Also in the Washington, D.C., over at WMAL Karen Leggett and Bill Mauhugh have been shown the door ... Looking for kids programming? Try out WDKL-1050, WKDV-1460 or WKDB-1570. Their programming is aimed clearly at the under 12 set ...

If you would like to contribute to this column, I may be reached at the address above, via CompuServe 72376,2557, Prodigy PFVK52D, InterNet PeteKZ1Z@AOL.COM, the FIDO system in the Shortwave, Ham or Broadcasting echo areas, or amateur radio packet, KZ1Z @ K1UOL.CT. So much for now.

Musings of the Members

Dave Schmidt

P. O. Box 11502

Wilmington, DE 19850-1502

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.

AL PRETE - 508 HYMAN AVENUE - W. ISLIP, NY 11795-3706

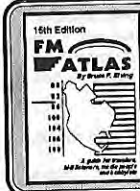
----- Hi everybody! I've been a member of the NRC since Sept., but I've been interested in DX since high school. I'm 39 years old & a life-time LI'er. This is my 1st MUSE! I had the good fortune to take 2 trips recently, and the even better fortune to incorporate radio activities into both trips! In March, I took a FL vacation with my family. Cypress Gardens, much to my surprise, has a wonderful exhibit of antique radios! In April, my business took me to San Antonio, where I got a chance to look up frequent NRC contributor JIM BOEHM. Jim welcomed me into his home to show me his shack and to try my DX440 on his 'famous' downspot antenna. Jim's shack contains an R71A connected to an MFJ audio enhancer, an ICF 2010 & a Superadio II. His landlord does not permit rooftop antennas so he made a downspout on his apartment into an impedance matched antenna that works quite well! This shows what a clever radio hobbyist can do when faced with such a challenge. Thank you JIM & MARY for your hospitality! Good DX & 73! (Welcome to MUSINGS, AL, we'll look forward to your future reports from WLNG 1and!-DWS)

TOM BRYANT -849 TODD PRIES DRIVE - NASHVILLE, TN 37221

----- Since I've fallen behind on filing reception reports with BILL HALE, I thought I'd at least keep my foot in the door by way of a MUSE! The past DX season was excellent here, and I've almost doubled my total (now 853) in the last 15 months. A great deal of success is due to the Kiwa loop I purchased last June. Great piece of gear! A few best catches include CKLQ, KYGO, a Honduran on 740, and the graveyard CPC test of KXXY. On the subject of CPC tests, I managed to hear about 2/3rds of those tried for. Many thanks to all involved. There has been comment recently regarding how much or how little should be reported about content of tests, the apparent goal being to put the brakes on those who might be inclined to fake a reception report. For what it's worth, my opinion is that regardless of what is printed, cheaters will continue to cheat. I don't like people who deliberately falsify reports, stats, or anything else, but since no cash or prizes are involved, no one really gets hurt by a cheater. The only one that suffers is the cheater himself....when they get caught! Any credibility or reputation that person might have had instantly goes down the dumper. This is not to condemn those who make errors in judgement and claim loggings they really didn't get, I suppose almost everyone does that from time to time (I know I have). Simply put, there is no practical way to curb cheating. For the benefit of the 99.9% of club members who are honest, let's continue to print full data so each individual can compare what he heard with the reports of others. Finally, I notice occasional requests for info about TV & FM DXing and I would like to volunteer to respond in behalf of the Worldwide TV-FM DXers Assoc. If anyone who reads this does have an interest in TV/FM, please let me know and I'll see that you get a sample copy of the WTFDA publication. Oops...I think I'm fading out....so 73's...before the signal's gone! (Tom...I think that enough detail is given just by the content heard, not exact times that each item was heard, or during the period the person listened. I'd be happy with just 'heard' & 'not heard'!-DWS)

BRUCE CONTI - 46 RIDGEFIELD ROAD - NASHUA, NH 03062-1174

----- A remote site was selected especially for the HCJB TEST on 5/29. The site was the athletic fields of Nashua High School. I began setting up the receiver position in the bleachers of the softball field, enjoying a mix of modern & classical march music (hi ERC!) as the Nashua High Panthers marching band practiced in the adjacent football field. As the band departed at sunset, I proceeded to string up the antenna wires, while Killdeer & Robins swept over the field looking for a bedtime snack. Darkness fell around 0130 UTC when I pounded the last stake in the ground. The main antenna stretched about 1000' to the SW. Another antenna wire ran about 500' W, both were unterminated. The plan was to use the shorter antenna as a junker, to phase out CBF/WRKO and any other noise problems. In the dark waiting for 0504 UTC Test Time, only the distant twinkling of the high school lights and the 3 WSMN towers kept me company, along with the occasional blink of a firefly. The setup included the Sony ICF2010 receiver, MWDX5 phasing unit, & CTR66 cassette recorder. While the usuals like Jamaica-700 & Saudi Arabia-1521 could be heard, I was forced to wait until midnight when WSMN signed off before attempting any real DX. The main antenna was aimed directly at their towers, causing to much overload interference. JBC Radio One was logged at 0409 UTC on 750, parallel 700, with raggae music, a surprise and new Nasagua logging. A check of 690 in preparation for the test resulted in an ID of Radio Barquisimeto-Venezuela, another newie, weak in CBF null with selsa at 0413UTC. The synchronous tuning of the 2010 was required to eliminate WRKO interference. Other UNID's were in



Bruce Elving's FM Atlas ...15th Edition

The world-famous guide which has served FM DX'ers for over 20 years is available from NRC Publications at the special price of \$16.00. NY orders, please add sales tax.

there as well. Couldn't find anything parallel to Radio Progreso-Cuba though, something I half expected to hear on 690. Phasing out of CBF was difficult to maintain due to the varying angle of reception. In the end, the effort was worth it, as HCJB-690 was heard with code IDs during the test period, adding a new exotic country to the log! By the end of the test, I was cold & tired, decided not to continue DXing and packed up the equipment. Thus concludes another DX adventure. See you at the 1994 NRC Convention, Nashua-Manchester, NH! '73's. (Nice Bruce Reynolds-DWS)

BRUCE REYNOLDS - 917 GOODWIN AVENUE - SAN JOSE, CA 95128
 - - - - - The de-Anglicization of the local radio dial continues! KBLX-1400 has gone from paralleling their FM to Asian programming and the call KTVO (The Voice of the Orient), first noted in Korean on 5/19 for my 500th logging. Also, the already substantial ranks of the Spanish language stations will apparently expand, too. KMBY-1540 is currently silent and the local paper reported that it would be purchased by the owners of KLOK-1170 & go Spanish. When that occurs, of the 12 stations regularly heard daytime between 1400-1600 khz, only 5 will be broadcasting in English! KKHI-1550 has dropped their all-night show but will apparently continue to broadcast until successor KPIX is ready to launch all-news operations in mid-June. In another interesting development, Herb Caen reported this week in the SF CHRONICLE that KGO-810 had won out in the competition with KNBR-680 to buy KSPQ-560. No indication of what they plan to do with it. By the way, the phone number for the new KKSJ-1370 is 408-575-1370 and the mailing address is PO BOX 5516, San Jose 95150. If anyone is thinking about buying the 'Green Plug' device advertised to save on your refrigerators electricity consumption, think twice! It may cut you electric bill, but it is a BODACIOUS generator of AM radio NOISE! I have already pulled the plug on mine and hope that the neighbors don't buy any! '73

HARRY J. HAYES - 9 HENRY STREET - WILKES-BARRE, PA 18702
 - - - - - The confusing situation locally on the AM band has been explained in a column in the local paper "The Citizens Voice" called "Radio Days" by Sue Henry. The situation I speak of is basically this, WBAX-1240 is going off at 10PM and, the other day, when I drove past the 1340 tower, it was missing! It dawned on me a few minutes later that it was gone, so used to seeing it am I! According to the article, WBAX as well as WYOS-92.1 are going off at this early time because the pair was sold recently to the owners of WEZX-107.1 & WEUL-630, and the license has yet to be transferred so the stations are being kept on the minimum amount the time required by the FCC to help the current operators save money. Now the 1340 situation, according to the owner, WYCK-1340 has been off since 4/27 due to transmitter problems. Yes, I would say no tower is a problem! Anyway, he says they are seeking a new site in the area for relocating the tower. The tower was only a 1/2 mile from me so any relocation has to be better from my standpoint (Unless its closer!-DWS). As far as formats, WBAX may be simulcasting WEJL, but that is just a rumor. WYCK is slated to come back on with the same format about 7/4 (What YEAR???-DWS) The article further states that complaints are being received by WYCK from listeners who can't hear Yankee baseball, not the 'music for adults' format. Now for another confusing situation - that taking place in Cincinnati. Why would WCKY give up a good frequency like 1530 to go to 550? I have WSAI-1530 tuned in now and they have satellite 'Music of your life' type format (AM Only-DWS). The situation presents problems for DXers as to whether to count these as new stations. If you count call changes as new stations, you could count these changes. For example, I feel perfectly justified in counting WAMB three times as it occupied 1190, 1170 & 1160 during the years I've been DXing. I feel funny counting 1530 in Cincinnati as another new station since WSAI moved from 1360 to 1530 when it is really the same old 1530 facility. Problems, problems! Have a nice summer everyone! (Read on, Harry, MIKE COLLINS explains further-DWS)

MICHEAL COLLINS - 2021 MAIN STREET - STRATFORD, CT 06497-6338
 - - - - - I see in Radio Business Report that under the new FCC AM rules, if WOWO-1190 changes its nighttime pattern, to start protecting WLIB-1190, it would have to send more of its signal to the N, and null its signal to the S & SE somewhat, as well as to the E to protect new fulltime stations on 1180 or 1200. To go fulltime, WLIB should've simply bought WMCA-570, WHN-1050, or WBBR-1130 when the became available in recent years. Jacor now owns WLW-700 & also 550, now named WCKY. A friendly competitor owns 1530 and its marketing/sales are managed by Jacor. 1530 has the "AM Only" nostalgia format. Another station that switched to Stardust is WLKW-790, which dropped beautiful music. As far as I know, this is the last of the recent era beautiful music stations to drop the format. WROW-590 & WPHY-560 did a while back. Also on Stardust are WMMW-1470, WMAS-1450 (an original Music of Your Life station) & WCMC-1230 (add WCZN-1590 to that list-DWS) Also on AM Only is WKAP-1320. I was on the S shore of LI the 1st week of May and saltwater path AM coverage always fascinates me. On the S shore, the NJ stations are always very strong. WUSS-1490, which is quite weak here in Stratford now, was very weak at this excellent Atlantic City locations such as Southampton, Patchogue & Babylon. Also their volume was very low. They

have live DJs with black/urban music. WFPG-1450 is now live mornings with a show called Shore Talk, and Pat Buchanan live at 12 noon from Mutual (also on WVIP-1310). WOND-1400 has an excellent sounding morning host, Don Williams, and a Radio Marketplace bargain show at 10AM. In the village of Babylon, WJBR-1290 is surprisingly strong all day on water path, it's almost hard to believe there was once a local station there on 1290, WGLI, which operated for 3 decades but is now deleted. WNEW morning man Ted Brown, there for many years, is now on WRIV-1390 afternoons, and occasionally filling in Sunday afternoons on WHLI-1100. WJLK-1310 is now running a satellite CW format. And at the beginning of this month, WRHD-1570 dropped its satellite CW format and began simulcasting WRCN-103.9 with its hard rock format. It's interesting that the NJ shore stations dominate along LI's S shore and are so loud there, and then just a few miles N, mid-island & on the N shore, CT & RI stations take over, such as WERT-1230, WNHC-1340, WSTC-1400, WCUM-1450 & WGCH-1490. There is NO trace of the NJ stations in those areas. I never realized that longtime AP tech ELTON BYINGTON is a longtime NRC'er living near the WQEW array in Queens. I visited him recently in Manhattan. That's it! '73's

ANDY RUGG - 375 IVAN CRESCENT - CORNWALL, ON K6H 7C7
 - - - - - I've been absent from these pages for over a year, mainly due to job overload. During brief vacation breaks, I attended the 1993 Enfield NRC convention and the 1994 SWL "Winterfest". A last minute job crisis kept me away from RAY's get-together in Nov. Maybe this year! Heres a recap of the last 15 months of DX from Cornwall. There were 3 big events for me...firstly, I finally hit the 70 country mark with Turks & Caicos on 1020. It was logged on my HQ150 around New Years. Next, at the convention, I acquired an HQ180 from DICK TRUAX, it's in better shape than my 2 HQ180A's. However, I could only use it occasionally due to work overload. 3rdly, I received my 1st Mexican verie since 1963 when XEW-900 * XEW-940 finally verified! There was one disappointment. 3 years after moving from Montreal, I finally uncatered my 2 R390A's and found one barely working, and the 2nd didn't work at all. In May, I planned to drop one of them off to DAVE SCHMIDT for repairs, during a long vacation weekend. Another work emergency cancelled that trip, which I hope to make in June. The 93/94 DX season yielded 8 new catches, which were TESTS from WJIB-740, WNEZ-910, WADV-940, WNRK-1260 & WSER-1550, in addition to CCR-1020, WMVP-1000 & WFLP-1390. The best of the bunch was WNRK-1260, heard surprisingly well on a tough channel. Most have verified, with holdouts being WNEZ & WFLP. After 34 years of on/off CCB DXing, my totals are 1768 logged & 1688 verified, for a 95.5% return. I now have 2 ham callsigns, VE2EM in PQ, VA3TEE in ON. Hope to see you at Nashua! '73

BILL ANDRES - 719 W. JOHN STREET - FRACKVILLE, PA 17931
 - - - - - This'd be about my 5th re-up with the club, what with the itinerant restlessness and the broadcast industry (both of which are, hopefully, behind me). Originally joined about 1964, one of a quartet of DXers near Kennedy Airport who each amassed the usual 1200/250 totals or so during the critical peer years when all this mattered amid relentless fervor; Javetski, Lamerson, & Cavaseno being peers of a sort with better radios and more assiduous and/or imaginative interpretation of the dials offerings. Names from that era also include Bugaj & Peterson (CT), Tilbrook (PA), Starr, Boyd, & Edmunds &, of course, former Musings editor & DX Hall of Fame inductee ERNIE COOPER, who at the time DXed from the teeming borough of Brooklyn. I recall a rookie named SCHMIDT breaking into the majors after electrifying minor league stats while with the NRC's AAA Wilmington organization. Station jingle & record surveys were almost as big a charge for me as actual DX and I can still be found perusing the occasional yard sale or flea market for old PAMS tapes while Linda shops for more frivolous things. At present, I'm working on restoring a pile of rubble, charitably zoned as a "dwelling", in the NW suburbs of Frackville, about 35 miles W of Allentown. With all the free time spent readying this lifelong ambition of a veritable DX retreat, naturally, not too much in the way of actual DX gets done except for the occasional wistful sigh & itched ear evoked by the car radio to & from the site. There is one authentic local, WMBT-1530, which can be nulled with just a hard glare. For the program oriented, they're some sort of smiling, generic, satellite oldies from some distant origin, which made for wide-spread tuneout during the 3/13 blizzrd and ensures similar allegiance during future uprisings. WPPA-1360 is a semi-local, with a form of middle-of-the-chicken-rock road pop and heavy local news as underpinnings, along with Phillies games, Limbaugh, all night sports of a decoded network nature, and enough accomodating nulls, in deference to WDRC & WA02, to make 1360 livable. WPAM-1450 is the last semi local, another with "Good Time Oldies" coming off some bit of metal hurtling around the stratosphere, often overmodulating for up to half a day, and signing off anthemless at midnight. Recent "DX" has been WWSM-1510, just before sunset 5/4, I put the noun in quotes because I have NO idea of their location (The old WAHT, Bill, Annville-Cleona near Lebanon). They seem hesitant to disclose their origin, much like local WMGH 105.5 and its legal commitment to the unspeakably common "Tamagua"-Warren, their ID, their entire image, coming off as a sanitized white-wine A/C hot tub hiding the city of license in a homogenized travel itinerary designed to include references more 'familiar', 'comfortable' and/or researched for minimizations of any negativisms. AM equipment remains a dusty 6 tube Zenith circa 1954, a slop-scarred Lafayette HA600 of 1970 vintage, a GE Superadio, and an

SP600 currently in a pawn shop. Antennae, as always, consist of an accoustic NRC 4 foot loop, various wires of hazardous stature and erratic efficiency, and a CP for a 150' LW. Recent sendaways for the latest available NRC log and other accelerated cram notes will make future MUSES for lucid! (And a welcome back to the fold greeting to you, BILL, we'll look forward to you reports!-DWS)

ATSUSHI MASAMUNE - 275 W ROY #315 - SEATTLE, WA 98119
 - - - - - Greetings from NW Seattle! This is my 2nd MUSING since I joined the NRC about a year ago. I have lived in Seattle for a year & DXing has turned out not too good, not too bad. I have received 400 stations and have sent nearly 300 reception reports. To my disappointment, the response rate is only 40-50% and I can agree with recent MUSINGS complaining about low return rates. For reports to religious or non-commercial stations, I sometimes enclose my checks as donations. But half of them are never answered, even though they are cashed! I had a short vacation to Maui Island in March. The Sony ICF7600D & Panasonic loop antenna RD9170 were, of course, in my bag & I could enjoy DXing very much. I could catch stations in Western Samoa, Tonga, Fiji, Kiribati, French Polynesia, Marshall Islands, Australia & New Zealand as well as many Japanese & Korean, Chinese & Russian stations. Talking of NA stations, most 50000 watt stations from the W coast were audible, and much more. The most N station was KSDP-AK & the most E, KV00-OK. If you have a chance to visit HA, never forget to bring your radio. Before closing, I wish to ask, do TV stations in this country issue verifications? In Japan, most TV stations issue cards for verification and it is really enjoyable to collect them. Happy DXing!

DAVE SCHMIDT - P O BOX 11502 - WILMINGTON, DE 19850
 - - - - - Lots going on at this end, gladly, with a 3 day, 2000 mile trip to NC/SC/GA, to meet FRANK MERRILL. The highlight was finding some mid 40 reports from a station in GA, one that was brought back was from 1945 & STAN MORSS, he still writes the same! Another gathered was from 1949 & HANK HOLBROOK! Also a page from a column called "Frequency Prolics", from a 12/1/45 DX NEWS! And a thank you card sent to the station from the late Ralphie from 1947! Radio history I guess! Regretfully, I also found a post card reception report from a DXer from 3/6/47 so it was happening then. To those FMers who are hearing WLF91.7 again, that one was restored back to full power in early May, another of our recent client additions. We attended the NJ/DE/DC/MD Broadcasters convention engineering sessions in Atlantic City on 6/7, and it really looks like digital radio is going to happen. There is already equipment on the market for digital audio for remotes, audio processing, studio-transmitter links, automation systems, and transmitters! Lots of notes going to MR. TONY! Welcome back to BILL ANDRES & NEAL PERDUE, 2 past NRCers that have come back to the fold! Once its in you, its in you, lets face it! If your new to the NRC, please send along a report and we'll get your name in print. Who knows what would be next, lights/film/editing! Remember, our deadline is 7 days prior to the deadline given by PLS, even though we held this over to get it out with everything received through 6/8. Have a safe summer! 73's&CUN30

When will we have enough of Big Brother, eh? Not fed up yet?

By JEANNINE AVERSA, Associated Press Writer
via Bill Hale

WASHINGTON, April 23 (AP) -- Three years in the making, a new weapon is part of the radio police's arsenal in combatting pirates of the airways. The Federal Communications Commission on Friday showed off a car equipped with two computers, a color printer and a satellite receiver in the trunk. Driven through cities and neighborhoods, it can detect unlicensed radio signals and signals that may cause interference.

"This will give us a lot of advantages against the bad guys, no doubt about it," FCC Chairman Reed Hundt said, standing next to a dusty blue Chevrolet Caprice.

By June the FCC will have 10 such cars, each installed with \$75,000 worth of equipment. The commission would not say which of its 35 field offices will be the first to receive them.

The goal is to eventually give each field office at least two cars. How soon that happens, Hundt said, depends on Congress' appropriations to the agency.

The FCC finds about two or three pirated radio signals a month, ranging from people trying to operate low power FM radio stations to taxi cab dispatchers. Businesses and boat operators, however, are the biggest culprits, said commission spokesman Steve Svab.

Inside each car is a control station between the driver and passenger seats. It features a mobile phone, a computer keyboard and two small screens: one for computer commands and the other for display maps and other information. With the equipment, an FCC agent can pick up a radio signal, delve into a data base to learn if it is authorized and pinpoint the location of the transmitter, said Jim Higgins, an FCC engineer who helped design the system.

Field agents now must rely on less sophisticated equipment inside their offices to track down unlicensed signals and interference problems, Svab said.

1994 National Radio Club Convention September 2 - 5, Labor Day Weekend Nashua-Manchester, NH

New Hampshire, *The Granite State*, welcomes the National Radio Club for its annual Labor Day weekend convention. The convention site is central to all that New England has to offer. The mountains, seacoast, and historic Boston are all within an hour's drive.

Program of Events

The convention program has something for everyone. Upon arrival on Friday night, convention goers will receive a souvenir packet loaded with information on how to get the most out of your stay in New Hampshire, including maps and radio station information. The hotel's *Presidential Suite* will be open for NRCers to renew old acquaintances and make new ones.

Radio station tours are scheduled for Saturday morning, to include the WKBR-1250 studio and transmitter site, and the "mini-WLW" WFEA-1370 transmitter site.

Saturday afternoon, a group will be assembled for a tour of the Anheuser-Busch brewery and Clydesdale hamlet. The entire process is explained on the tour, from grain storage to beechwood aging to bottling. Participants are then invited to a beer-tasting. Following the brewery tour, it's a short walk through beautiful flower gardens to the Clydesdale hamlet, to see the workhorses that have become a Budweiser trademark.

Saturday night is reserved for the traditional banquet and auction. Banquet guest of honor Mr. Bob Bittner, WJIB/WKBR/WNEB owner and manager, will speak about his experiences in AM radio. Don't forget to bring your bumperstickers, hit lists, coffee mugs, T-shirts, and other radio related items, along with DX gear, to donate to the auction and support your NRC! If you would like to donate items to the auction, but will be unable to attend, you may send them to the convention host. Door prizes, including a *Superadio III*, will also be awarded.

John Bowker has arranged for some informative seminars on Sunday with topics of discussion to include reception reporting, phasing techniques, and Beverage construction along with the NRC Quiz. A trip to the seacoast for some TA DXing may also be on tap, as NRCers will be free to step out on their own and discover New England. Shopping in New Hampshire is tax-free; there's no sales tax.

Convention Hotel/Reservations

The convention will be held at the **Ramada Hotel** at Merrimack. The hotel is located at Exit 11 of the F.E. Everett Turnpike, just north of downtown Nashua. The hotel features the *Sporting Club* restaurant and lounge for breakfast, lunch, and dinner, with room service available. For exercise, try the indoor swimming pool or take a quiet walk along the trails in the Merrimack Forest. The entire hotel is handicapped accessible.

A block of 50 rooms are set aside at special rates of \$45.00 single/double and \$55.00 triple/quad, not including 8% tax. Rates and rooms are guaranteed available until August 26. The hotel is now accepting reservations at (800)922-3477 or (603)424-6181. Be sure to mention the National Radio Club convention for special rates.

Transportation

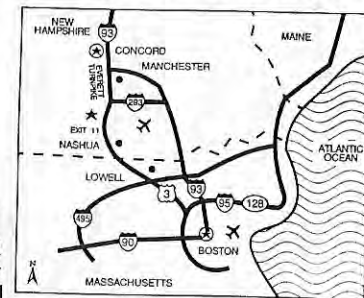
Air service is available from two convenient points - nearby Manchester Airport, and Boston's Logan Int'l Airport, one hour's drive away via U.S. Route 3. The hotel offers complimentary van service to and from Manchester Airport M-F 8am-10pm, given 48 hours notice. Several independent shuttle services operate to and from Manchester, Logan, and Boston's Amtrak train station. Make reservations directly with one of the following, or consult your travel agent.

- * M and L Transportation (617)665-7791 Logan hourly service.
- * Minuteman Airport Service (508)649-9829 Manchester, Logan, and Amtrak.
- * Hudson Bus Lines (603)883-4807 Logan Airport service.

Individuals are responsible for their own room reservations and transportation to and from the hotel. The NRC will not be involved in room sharing and airport transportation arrangements.

Convention Registration

A registration fee of forty dollars (U\$40.00) per person (spouse U\$25.00, children under 12 U\$16.00), which includes the banquet, is payable in advance. Checks payable to the *National Radio Club* may be sent to NRC Convention, c/o Bruce Conti, 46 Ridgfield Drive, Nashua, NH 03062-1174 before August 26. Please register before August 26, to insure seating for the banquet. Specify whether you prefer chicken or beef. For further info, send a SASE with your specific inquiries to the same address. Hope to see you for the New Hampshire 1994 NRC Convention! 73s



National Radio Club

Founded in September, 1935, the National Radio Club is a non-profit 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.

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.

Any reproduction of material contained in *DX News* without permission of the National Radio Club is prohibited. All material submitted for publication becomes the property of the National Radio Club, Inc., unless otherwise agreed upon in advance in writing. Material quoted in *DX News* from other sources is subject to the requirements of the originator.

NRC Board of Directors: Ken Chatterton, Chairman; Wayne Heinzen, Ron Musco, Dick Truax, Jerry Starr.

DX News - Publisher/Editor: Paul Sweatingen, 2840 S. E. Illinois Ave. - Topeka, KS 66605-1427 (915) 266-5707 [prepaid] (What to send: Contributions to *DX News*; requests for replacement copies of *DXN*; first-class stamp for sample *DXN*; *DXN* changes of address)

DX Audio Service - Fred Vobbe, Publisher/Producer - 706 Mac Kenzie - Lima, OH 45805-1835 (recordings for the Audio Service; \$ for subscriptions; changes of DXAs addresses)

NRC Treasurer - Dick Truax - P. O. Box 39451 - Louisville, KY 40233-9451
NRC Publications - Ken Chatterton, Manager - P. O. Box 164, Mammville, NY 13661-0164 (\$ for Publications/Reprint Orders, *NRC Information Catalog* [29¢ stamp]; back copies of *DX Audio Service* tapes)

DX News Subscription Center - Ron Musco, Manager - P. O. Box 118 - Poquonock, CT 06064-0118 (\$ for renewals, new subscriptions; inquiries)

Yearly Subscription (30 Issues) to *DX News* (send new and renewal subscriptions to Subscription Center): U. S. Address: New Subscriber - U\$24.00. Renewals - U\$22.00. Canadian Address: New Subscriber - U\$25.00. Renewals - U\$23.00. Mexican and Caribbean Addresses: New Subscriber - U\$29.00. Renewals - U\$27.00. All Other Countries: New Subscriber - U\$36.00. Renewals - U\$34.00



National Radio Club, Inc.

DX News

P. O. Box 5711

Topeka, KS 66605-0711

DX Audio Service Yearly Subscription (twelve 90-minute tapes, mailed on or about the 20th of each month): Fred Vobbe, Publisher/Producer - 706 Mac Kenzie - Lima, OH 45805-1835: U\$25.00 One-year First Class Mail subscription to *DX Audio Service* to USA, Canadian addresses; U\$32.00 One-year Air Mail subscription to Latin American addresses; U\$35.00 One-year Air Mail subscription to European addresses; U\$38.00 One-year Air Mail subscription to all other addresses.

Note: all checks and money orders should be made out to:

National Radio Club.

DX News is printed by Hall Directory, Inc.
1935 N. W. Topeka Ave. - Topeka, KS

First Class
U. S. Postage
PAID
Topeka, KS
Permit #598

ZIP + 4

9/1/94 THREE ISSUES LEFT - PLEASE RENEW

JERRY STARR

161 FOX ST

HUBBARD OH 44425-2122