CPC Tests ... WADDN-1120 Concord, MA will conduct a DX Test on January 8, 1990 from 2:00 am ELT to 2:30 am ELT. Test will be conducted using 5000 watts Directional (basically west). Programming will consist of 1 kHz test tones, Morse Code ID's and vocal ID's by both male and female announcers. Correct reports will be verified by Mr. Michael Klein NVIL, WADD Radio, Damon Hill Square, Concord, MA 01742 (or report via NVIL QSL Bureau). Arranged by Michael Kline with assistance from Peter George and the Colorado CPC Machine for the NRC.

WILD-1050 Boston, MA will conduct a DX Test on January 22, 1990 from 2:00 am ELT to 2:30 am ELT. Test will be conducted using 5000 watts non-directional. Programming will consist of 1 kHz test tones, Morse Code ID's and vocal ID's by both male and female announcers. Correct reports will be verified by Mr. Michael Klein NVIL, P.O. BOX 2181, Lynn, MA 01903 (or report via NVIL QSL Bureau). Arranged by Michael Kline with assistance from Peter George and the Colorado CPC Machine for the NRC.

WKMT-1220, P.O. BOX 1220, Kings Mountain, NC 28086 will be conducting annual Proof of Performance tests on Saturday morning, January 6, 1990 from 0100-0200. The test will run at both 1000w and 105w non-directional. The program will consist of audio tones between 100 Hz and 10,000 Hz, white noise, music and both voice and Morse code ID's. The tests will be completed by 0300, and the station will be on automatic operation with interspersed Morse code ID's until 0600 when regular programs will resume with Southern Gospel Music. Direct all reports to Mr. Don Holtringer, CE. Don would appreciate info on signal strength, band conditions and fading, co-channel and adjacent channel interference, and if you have C-QUAM Stereo whether or not the stereo light lights up! Arranged by Tim Hall and the Colorado CPC Machine for the National Radio Club.

WCIL Radio 1020, P.O. BOX 700, Carbondale, IL 62903 will conduct a Special DX TEST Broadcast on Monday, February 5, 1990 from 0630 to 0700 ELT. The test will consist of a special test announcement, Morse Code ID's and music. Reception Reports are requested. All reports should be sent to Mr. Paul H. McRoy, General Manager. Arranged by the Colorado CPC Machine for the National Radio Club.

WKEN-1600 Dover, DE will test Monday morning January 15, 1990 from 0200-0400 ELT with tones, music, many ID's, with 5000-watt day pattern. Pre-paid phone calls accepted at (302) 674-1234. Reports to Dave Schmidt WKEN - P.O. Box 553 - Dover, DE 19903 (arranged by Dave).

DX Time Machine

From the pages of DX News

Twenty-five years ago ... from the Dec. 12, 1964 DXN: The American Shortwave Listeners Club announced that they were dropping their BCB section and would recommend the NRC to all inquirers about BCB clubs ... high school student David Nuger, Bronx, NY, reported recent loggings of CKAC-730, WOOD-610, CFQ-1570, KVQ-1410, WMVO-440, WRX-1150, CKE-940, WBBM-780, WMAQ-670, WPBR-630, WIND-560, and R. America-1160.

Ten years ago ... from the Jan. 7, 1980 DXN: Ernie Cooper recommended Steve Bohne, Fairview, NJ for Hammarlunds and 8-900A/UKR recoveries. Wayne Cordell of Blue Ridge Communications, Weaverville, NC offered his services in repairing Hammarlunds; postcards could be mailed for $0.50, first-class letters for 15¢; Wayne Heiner's first Verification Game columns appeared; Ernie reported his #4,127 vert; from WCON-1130 ... and Pete Kemp reported on radio news from New York.

THE WORLD'S OLDEST AND LARGEST ALL MEDIUM-WAVE DX CLUB
CALL LETTER CHANGES

Old call: New call: Old call: New call:
1100 KVEE CO Grand Junction JKFJ 1400 WKBV WTV at least inv 1400 WKBV WTV
1220 WCHP TN Ewok VDKX 1500 WKJY 1500 WKJY 21st Ave
1280 KJOF CA Stockton JKJ 1500 WKJY 1500 WKJY 21st Ave
1290 WPVA VA Colonial Heights WSX 1700 WBBU 1700 WBBU
1360 WBBU WI Menomonee WBBU 1900 KVSX A. Trapp
1440 WGBD MI LeSueur WGBD 1900 ESBM H. Engler
1490 WISS OR Wester WISS

Call note: WBBU-1750 was WBBN (Money Radio) for less than two weeks due to their listener's overwhelming negative response to this change from one of the country's oldest sustained jazz formats. To fulfill contractual commitments they are now programming 16 minutes of music on Money Radio and 64 minutes of jazz per hour and as of 11-22-80 have returned to being the call WBBU. Those who logged them as WBBN have a rare treasure in their books.

APPLICATIONS FOR NEW STATIONS:

1400 MI South St. Radio: "SYMPOSIUM III"

APPLICATIONS FOR EXISTING FACILITIES:

1600 KQGT TX Orange: 

GRANTS TO EXISTING FACILITIES:

820 WARL VA Claverdale: antenna to UI
1340 WTPC DC Washington: relocate WTPC

OTHERNEWS:

1290 WSKY VA Colonial Heights: silent as WPVA on air
1390 KLMH NM Hobbs: this silent station has been sold, new owners expect it to return to the air soon
1600 WQBR FL Atlantic Beach: silent station is back ON THE AIR

THANKS

to the following NERIs who sent in contributions on this issue: KEN ONYSHUK, DICK TRUAX and GORDON SHIMAY.

73 and Good DX, Jerry Starr and Buffalo K. Foonman

CITY QUIZ

John S. Booker, Valparaiso, IN

Only one city in the United States has a station at the five dial positions shown below. Of course, there may be other stations in this city too! Can you spot the city?

(500) (505) (508) (509) (501)

Answer follows on the next page.

Here is a hint: it is one of these: Atlanta, GA; Portland, OR; Baltimore, MD. (The answer will appear at the end of the next City Quiz in DX News.)

The answer to City Quiz # 42 Buffalo

MEDIUM WAVE RAMBLINGS

- The time has finally arrived when that jolly old elf will be visiting soon. So, no matter how you celebrate, may you and yours be blessed with the spirit of the season. Merry Christmas, and happy holidays to you next year!!!
- Reindeer, Chris needs your scene. Chuck needs your International stuff. Tony needs your update. All need your understanding. Way needs your DX (Mountain Time Zone & those want or there), as well as stints for CQ. Let's get involved. We're the only NW Radio Club you'll ever ever need.

SPECIAL

TIME 599 WJZD MI KALAMAZOO - 11/23 2300 out of BRN-CBS NY; now BMN day & night (RV-IN)
1370 KQCY ON LEAKINGTON - 1/10 AM fea from Music radio net and Standard Broadcast Ny @ 1971 APE appears AM SP in NY now just a summary (Mi-OH)
1010 KBJS AR LITTLE ROCK - 11/19 1800 with ID and into BMN NY; now BMN RV-IN)
1390 WNTL NJ INDIAN HEAD - 11/17 1700 sign-off with new "BMN" zones ax (RN-IN)
1052 WJTB ON NORTH RIDGEVILLE - 11/18 noted on this frequency from 0715 sign-on 'til 1715 sign-off; signal very strong, comparable to what they usually put out or 1040 (which was dead), but quite distorted; programming during the day was B. B. & B. K. T. & K. B.
1220 WKLX IL WENTWORTH - on with T. S. Snyder of Chicago Radio magazine (RN-IN)
1230 WMPC MI LAFAYETTE - 11/5 AM with EZL ax & soft-spoken DJ mentioning now on 24 hr/day. We need NSP (CR-ON)
1370 KFOM TX AUSTIN - now using these CMS & IDing as All-talk 1970, R/Phone, K. F. O. M. Austin flips all-instrumental format for EZL/cheat-chat in am drive, and ARC Talkradio segments rest of day including all-nighter (Wex, TX)
1390 WNOE IN LOUISIANA - 11/20 1800 with ID & female DJ; probably NSP now (CR-ON)
1430 WTVZ IN INDIANAPOLIS - 11/19 2000 with ID IDL; now with 12-1400 non-ID (RN-IN)
1510 WXXV PA MONROEVILLE - 11/17 2007 with sign-off more than 3 hours after their LBS, by the way FCC rules read, should return to the air soon
1390 WNOE IN LOUISIANA - 11/20 2000 with ID IDL; now with 12-1400 non-ID (RN-IN)

UNIDS and UNIDS 104

1310 UNID ?? - 11/10 1700 fair with sign-off with mention of SKUNK; was actually signing off at sunrise! Didn't know that happened anywhere (LAC-NY)

TIS & OTHER

1560 WNHQ OK TYLER - 11/20 1420-1425 with 2-minute loop ID. This is WNLH (2, The Essential Radio Systems Network and Into the future exit into (SPX-TP)
1610 WMAK TX HOUSTON NORTH - 11/10 1315-1320 with 3-minute loop. ID. This is WMAK 1315, Hobby Radio. Information Radio (SPX-TP)

MIDNIGHT TO MIDDAY

540 WSBR GA COLUMBUS - 11/20 0154 giving call ID as South-100, WSBR AM & PM. List of winners in the South-100 Dollar Rollers contest followed by ad for the American Will Kit-16 in a row on South-106; Log shows a MM SP but appears to be NSP; good with CBER nullled and no sign of WGNR (CR-OX)
Wayne Heinen
4151 S. Andes Way
Aurora, CO 80013
(303) 699-6935 (prepaid only)

Domestic DX Digest - West

I thought I’d take this opportunity to thank all the contributors for their fine support for DDXD-W. My BEST WISHES to all for a happy Holiday season.

SPECIAL

1130 KJAX CA Stockton
11/21 1500 "The new newstalk for the valley KJAX" and МА11A1 Ns. Slogan heard during ABC Talkradio breaks "Talk of the Town" and "Newstalk Radio 12-20" (ex-KJOY) (RT-CA)

MIDNIGHT TO MIDDAY

720 KUAI HI "Bealee"
11/20 0559 Fair w/ S/on & State anthem "Hawai'i Pono'i" in back round MBS Ns, local Ns w/ GM Bill Dohle. (DP-HI)

1120 KPNW OR Eugene
11/20 0545 Poor w/ AC Mx & female DJ. Slogan "Radio 11-20 KPNW", 0059 ID: "Eugene’s most powerful AM radio station, 11-20, KPNW, serving Eugene and Springfield" then Ad Ns. (DP-HI)

1160 KSL UT Salt Lake City
11/20 0601 Poor w/ CIBS Ns & MST spots, not // KJGU-760, 0059 promo "The Morning Meeting Show on AM 11-60 KSL everyday"; back to the "Best of King" on 2 hr delay, not // KXTH-990. (DP-HI)

1210 CHSM MB Steinbach
11/27 0155 Spot for Winnipeg furn store; slogan "Radio Southern Manitoba" then CLA Mx pgrm "Classics til Dawn". Have brd same on CJOY but no // CJOY noted this AM. (WW-CO)

1250 KIRF MN Fergus Falls
11/27 0525 Fair w/CBSM w/local Ns (NW-CO)

1260 KPOW WY Powell
11/27 0200 S/Off amst by male. (WW-CO)

1260 CFNN AB Edmonton
11/27 0047 w/new Vocal Mx, promo live NHL hockey on CFNN, "The Voice of the Oilers". Fair, Coned to North quite good this AM. (WW-CO)

1300 KKSS MN Waukegan
11/28 0058 Had Call. ID for KKSS and also "KYYY" probably their FM, w/ Electronic Zap Sounds. In the GMF. MN #15. (WW-CO)

1360 KLCN UT Logan
11/27 0155 Had Call thru KJUY/KENN/KKSS/etc, then spot local car dealer. Finally logged this call change from KBLQ. (WW-CO)

1560 KQXH MO Joplin
11/26 0800 "Sunday Morning Trivia Trip" synd pgrm on American Radio Net 0858 spot for furniture store in Nazoob; 0859 ID: "this is KQXH, Joplin MO on top all the time" 0900 CNN Ns. Fair w/KKCA (WW-CO)

MIDNIGHT TO MIDNIGHT

55-WDRV

720 KQNG HI Lahue
11/26 1701 Fair w/KSSK-590 stop w/ID "Kauai's Kong is AM 57, KQNG Lahue" ending w/ jingle singers singing "KONG"; into American Top 40, (but DJ forgot to air songs #7 & #8). (DP-HI)

620 KIP1 HI Kahului-Ka'ahole
11/27 1754 Fair w/usual KQMO-630/KJU-760 mixing product co channel w/ "Mele Kalikimaka" t by Bing Crosby & The Andrews Sisters; SMH Stardust DJ Don Lucky w/ TC & NOS, Xmr located across Hwy from Ka'ahole Airport. ID Probably means the other relay xmr near Na'alehu is on, meaning at night. I can't tell if I'm listening to the main XMT1. (DP-HI)

920 KQLO NV Reno
11/20 1555 TLK pgrm, "NEWS 92 KQLO" slogan w/ legal ID at the hour as KQLO NBC Ns. C/B from C&W format. (RT-CA)

1130 KDSD CA San Diego
11/23 1452 SX ID "San Diego's News Station, KDSD" into ads, o/c CWX. Usually Dimuba is dominant. (RT-CA)

1150 KKEY CA Portland
11/24 1030 cell ID into REL, on top of jumble BRN Mx w/ probably KEZX soon faded, rare here. (RT-CA)

1210 KFMS NV North Las Vegas
11/20 1402 C&W Mx, "KFMs 102" w/ Ricky Shetton, o/KCAL & KERN briefly, tried for this forever. Next day at same time KFMS was dominant (RT-CA)

1360 KNRB TX Ft. Worth

CONTRIBUTORS!

(0W-CO) John Wilkins - Wheat Jern, CO
R-1000, 2nd loop

(RT-CA) Rich Toole - Pleasanton CA
ICF-2010, Sony SRFM40W

(DP-HI) Dale Park - Honolulu, HI
Sangean ATS-805

International DX Digest

Chuck Hutton
983 St. Charles Ave., #1
Atlanta, GA 30306
(404) 892-6211, before 2300 ELT

Foreign DX Catches. Times are UTC; for ELT: subtract 5 hours

600 CUBA Santa Clara CMB 11/23 0221 Creedence Clearwater and Beatles songs for last 45 minutes. Radio Progress. Good. (Townshend)

660 MEXICO EJ Tampa, "La Mexicana" rancheritas mx, full slow ID most evenings at 0031. Logged 11/27, no sign of R. intantilli from Mexico DF - are they gone? (Swearingen) I don't know for sure but I don't remember them being reported recently - Chuck

690 CUBA Cienfuegos CMRF 11/23 0222 same as above // CMB 660 R. Progress. Good. (Townshend)

700 JAMAICA R. One, Montego Bay 0059 1/2 international mx, tropical depression warning, 0015 "DBC Radio One", into World Of Sports "from home and abroad". Dominant. (Swearingen)

720 CUBA Cienfuegos CMRF 11/20 2353 mx in SS by man // CMRF 710. Good. (Townshend)

740 CUBA CMHS Camaguey 11/23 0223 same as CMB 660, fair w/R. Progress. (Townshend)

810 BANAMAS Freeport SNNS 11/22 2324 sports, Radio Shack spot, good o/ & JCT. (Townshend)

810 COLOMBIA Bogota HXY 11/22 2324 LA mx, SS talk fair u/ & ZNS. (Townshend)

840 COLOMBIA HXXK 11/19 0452 mention of Dobbs (7 CH), ranchero mx, good. (Townshend)

1030 HAITI Cap Haitien 0461 11/20 2141 gospel pgrm, sermon by man, xmt o/#. (Townshend)

1188 SOUTH KOREA FESB HXXK noted in EE on 11/25 at 1120-1130 with religious program "Words of Hope". ID as "this is HXXK Radio at eleven eighty-eight on your dial". Address given as FESB, Seoul 121707. (Hardeste)

FM Station Address Book, 3rd Edition

ONLY $9.95 (Canada, US$10.50 to the Pub Center) Foreign orders, please write for price

• Listed by state, city • Includes Canadian Stations • 8.5x11 inches, 3-hole punched • Full-size type
Verification Signers
Wayne Heinen
313 S. Andes Way
Aurora, CO 80013
(303) 899-6335

A listing of verification letter signers, contributed by NRC members.

<table>
<thead>
<tr>
<th>Freq.</th>
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<td>K5NNb</td>
<td>Jerry A. Miller CE</td>
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Making the UnID an ID... by R. J. Edmunds

(End of Part Four)

Often, when working on an unID station, we hear local advertisements, PA's, newscasts or promotions. Each of these contains information which can help to narrow down the possibilities or to ultimately determine the identity of the station. In earlier segments of this article, we discussed using information such as the exact times, co-channeling and schedules, but often ID's as tools in the process. In many cases, however, we may not have any of those, or we may have only fragments.

Since, with the exception of shared-time operations, two stations on the same frequency will not be serving the same market, the locally-specific data in the broadcast is of potentially large value. Names, addresses, and phone numbers are all subject to varying degrees of investigation and verification. Areas codes for, example, narrow down the area the station services, but on local channels, or when dealing with day-to-day operations, location and recipient's channels, that's going to be very useful. The phone exchange (the three digits after the area code) can usually pinpoint the area within the station's main listening area. Sometimes the name of an advertiser itself contains the station of a specific location or geographical feature. Two or more may be very valuable. If you obtain enough detail, this can usually tell you what station you have, even without an ID.

This information can be verified by using telephone directory assistance, other resources, amateur contacts (if you are an amateur), or, if you're really interested enough to spend the money, a telephone call to the number mentioned. All of this is valuable material for a reception report. Announcer's names may be just what you're after, too, here.

Once you've checked out this information, and combined it with the format, schedules, and any partial ID's, you may have enough to make a decision. At that point, you may have what you've heard, but you may still wish to count it without the full legal ID or without the verifying to back it up. Again, that's your choice.

The key to identifying unID stations is to get as much information as possible, and to have the reference sources with which to check it out. All too often, the failure to get to the cross-index columns for unID stations is either too little or to general to be of much help to someone else. Remember that there is little likelihood that another DX'er was listening to the same signal at that same time, or that in the unlikely event that happened, you may both have heard equally little of use. Try to keep those thoughts in your mind when preparing your unID reports, where you can be as specific as possible, so that others have enough to go on to be of assistance.

Join the verification game!

Now you can help out with station tests. Here's how: Send Wayne Heine, 131 S. Andes Way, Aurora, CO 80013 two five stamp per station, and Wayne and Jeff Tyner will print an error feedback and test request letter for you. You can either specify station and time, or just take pot luck. Increase your veries and help other NRC'ers at the same time... join the verification game!

Join the Target DX revolution!

What's the best time to hear that elusive station... can you actually still hear a station from the opposite coast... if you hear one station in a city, can you expect to hear another? Help yourself by making requests for information... help others by sharing your experiences through Jim Rentfrow's Target DX columns. There's strength in numbers and shared information... and what better way to DX than by DXing Smart? Send your requests and tips to Jim at 83 Willow St, Rochester, NY 14644-3733.

The Challenging Crystal Set

For hobbysts demanding the ultimate DX challenge, Ray Cole's publication detailing step-by-step procedures in building a crystal set is for you! Only $3.00... order from the Publications Center, or use your Visa/Mastercard by phoning (608) 423-4159. Overseas customers, please write.
Hello, again. It’s time for another Answerman. Since this column will probably appear in December, I’d like to thank those who have provided answers in questions posed in the column over the past 6 months. My thanks to the following (in no particular order): Alan Merriman, Dallas Lankford, Perry Croft, Wes Boyd, and Ed Janisz for their support!

**QUESTION:** Where can I obtain comprehensive listings of T.I.S.H.A.R. stations? Of carrier current stations?

**ANSWER:** NRC published such a list for the T-I.S.H.A.R. stations about a year ago, edited by Chris Cuomo. I do not know whether or not an update is in the works, so I can’t tell you where you can buy a list of the stations published in the T-I.S.H.A.R. Reference Manual. Any carrier current station can publish a list of school-affiliated carrier current stations, and they may still, although the yearbook is quite costly. Any further suggestions?

**QUESTION:** Reappraising the Model 102-525 by both popular and die a good job. Is there anyone to ask you to get theay ii to begin production?

**ANSWER:** I’m not aware of anyone, and, given the changes in AM and FM radio in the years since, I strongly doubt that an AM-only portable would be marketable today. Its successor was AM/FM, and the AM on it was inferior.

**QUESTION:** Is there any way to hook up an AM receiver with one antenna terminal, through coaxes to an outside antenna?

**ANSWER:** Yes. Actually, there’s more than just one way. In a typical communications receiver, there are either two or three terminals on the receiver. The antenna terminal block. If there are only two, one is for the antenna, and the other for ground. If there are three, the terminal closest to the antenna is for the antenna, and the other two terminals are used to provide a shield for the antenna. The terminal not used for the antenna is for the ground connection.

You may run your outside antenna into the center conductor of the coax, and direct to your receiver’s antenna terminal. You may use the shield to run your receiver’s ground, and tie the receiver’s end to the ground. Or, you may use the shielded coax along with the ground. In either case, you do not have to run a ground wire inside to a ground source. Only� continues to be a ground connection which, when properly wired, is supposed to protect against lightning.

**QUESTION:** Using a Sony 100, with a radio output cable. "Great Little Loop" for medium wave DXing. I have some strong stations which prevent my listening to other stations on the same frequencies. Sometimes, it’s impossible to null the audio. Would I be able to enhance my listening and remove the station from the channel by inserting an audio filter between my antenna and receiver? I’d remove part of the problem if I inserted something like receiver’s new "Minimizer Plus" between my antenna and receiver.

**ANSWER:** First of all, the type of receiver makes no difference here. The type of loop does. To address your first question, an audio filter will do absolutely nothing to enhance your ability to hear weaker stations on the same channel as your locals. An audio filter’s primary benefit to the DXer is the attenuation (reduction) of specific segments of audio frequencies, such as electrical hum, circuit noise, or heterodynes from adjacent frequency stations. In addition, an audio filter’s principal benefit to the DXer is excellent automatic gain control. The audio filter is placed either within the receiver’s audio section itself, or, if a separate unit, between the receiver and the speaker, headset or tape recorder.

To address your second question, I’m not familiar with the Grove Mini-duo, however, if it’s either an antenna tuner or a preselector, it probably won’t do anything for you. An antenna tuner is designed for use with long-wave, and not with loops, which have their own tuning networks. Furthermore, tuning an antenna will have no positive effect on weaker stations on the same frequency. A preselector, while it may help with hum, will also have no positive effect in this case, either, because it serves to enhance the desired signal and reduce interference from the adjacent channel.

Now, I’ll answer the question you asked, but didn’t ask it. To achieve a greater degree of attenuation of strong local signals, you will need either a larger diameter air core loop (refer to the NRC-antenna Reference Manual, Vol. 1, 1 or some sort of a vertical array is used to create receiving patterns) using either phased verticals, or a short-sense array, using a loop and a fixed vertical antenna. These latter creations are difficult to build, expensive, hard to operate, and not effective in all cases or at all times. Since I’m not familiar with the Radio West loop in question, I’ve taken the liberty to assume it’s name, that it’s not a large diameter air core loop.

**ANONYMOUS:** I do have additional questions on hand -- one is too long for this column. I have a current station that I’m going to need an "air loop" for. How do I get one to appear in DX? Also, I’m running about 2 or 3 editions ahead of what we have in DX NOW. As this is typed, there is a more column somewhere between computer and your mailbag, because I’m trying to work as fast as I can in the second edition of this column season, we got the contrast problem which plagued the first one corrected. Now, in this, the fourth of the season, I think I’ve gotten the margin problem fixed, as well. So we, perhaps, Paul and I will start out with version of the format conversion problem. I’m back with 800-80-80. Hi. In the meantime, keep your questions and answers coming. 73’s

---

**Contests**

Stephen George Sherman
104 Pinecone Circle
Apple Valley, MN 55124

Promotion of the DX hobby through competitive listening.

- Contest Logbook as of 12/20/79
- [PDF]

- Robert Kramer, Chicago, IL: 2300 1976 186 1 10 0 0 0 0
- Mike Paul, Oakland, CA: 2300 1976 21 6 54 0 0 0 0 0
- Bob Voss, St. Paul, MN: 1952 927 12 6 21 0 0 0 0 0
- Dave Johnson, Palm Springs, CA: 915 573 0 1 44 0 0 0 0 0
- Dave Hovell, Fortville, IN: 905 580 7 7 22 0 0 0 0 0
- Harry Barber, Livingston, IL: 545 505 0 2 0 0 0 0 0 0
- Bill Hainy, St. Louis, MO: 273 220 1 1 4 0 0 0 0 0
- Dale Park, Kansas City, MO: 42 22 1 1 0 0 0 0 0 0
- Alvin King, Bemidji, MN: 0 0 0 0 0 0 0 0 0 0

- As usual, entries must be received by January 1, 1980. Entries must be postmarked by December 31, 1979.
- Entries must be received by January 1, 1980. Entries must be postmarked by December 31, 1979.

**The Broadcasters Guide to DX**

A tri-fold guide for use with reception reports explaining DX terminology. The NRC was formed, and the importance of QSL's to DXers was emphasized. Version also available in Spanish and French. US$1.50 for 24. Available from the Pub Center.
FCC RULE PRIMER

JOHN D. BONNER, 14 CANOE ROAD, PRINCETON, NJ 08540

In this DX NOW series we are discussing specific FCC Rules of Interest to the
readers. If you have any specific questions or areas of interest, let the NRC
Headquarters know.

II

FCC RULE SECTION 73.21

CLASSES OF AM BROADCAST CHANNELS AND STATIONS

A. Classes of Channels:

Clear Channel

"A channel on which the dominant station or stations render service over wide areas, and which are cleared of objectionable interference from
their primary service areas and over all or a substantial portion of their secondary service areas." Regional Channel

"A channel on which several stations may operate with powers set out in Rule Section 73.21(b). The service area of the station operating on a
regional channel may be limited to a given field strength of 100 microvolts
per meter at 1 kilometer."

Local Channel

"A channel on which several stations operate unlimited time with powers no
greater than 1 kW daytime or nighttime. The primary service area of a station
operating on a local channel may be reduced as a consequence of interference." 

B. Classes of Stations:

Class I

"A dominant station operating on a clear channel and designed to render primary
and secondary service over an extended area and at relatively long distances. Its
primary service area is isolated from objectionable interference from other stations
on the same and adjacent channels, and its secondary service area is free from interference
except from stations on adjacent channels. The station is assigned areas on the
channel in accordance with the channel designations in Rule Sections 73.23 and 73.182. The opera-
ting power shall not be less than 10 kilowatts or more than 50 kilowatts. (We will discuss
these referenced FCC Rule Sections in a future column in this series.)"

Class II

"A secondary channel which operates on a clear channel and is designed to
render service over a primary service area which is limited by subject to such
interference as may be received from Class I stations. Whenever necessary, a Class II
station shall use a directional antenna or other means to avoid interference with Class
I stations and with other Class II stations. Class II stations are divided into five
groups. (Note: We will discuss the five groups in a future column in this series.)"

Class III

"A station operating with unlimited time on a regional channel designed to
render service primarily to a principal center of population and in the rural area
contiguous thereto. Except in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands,
a Class III station operates with a power not more than 5 kilowatts and not less than 0.25 kw
provided that an unlimited time station that operates on a regional channel during
nighttime hours with a power of less than 0.25 kw will nevertheless be classified as
Class III if its peak field strength is 141 millivolts or more at 1 kilometer."

Class IV

"A station operating on a local channel and designed to render service
primarily to a community and the suburban and rural areas contiguous thereto. The
power of a station in this class shall not be less than 0.25 kw nor more than 1 kw, and its
primary service area is subject to interference in accordance with Rule Section 73.182.
Stations which are licensed to operate with 0.1 kw may continue to do so."

We will continue this series on classes of AM broadcast stations in future columns.

Target DX

Jim Renfrew
61 Wilcox Street
Rochester, NY 14606-3632

DXing 'smart', with shared tips and requests by NRC members

Do all those new unlimited operations bring chaos or opportunity? This
month's testimony is from Greg Harwood of Mission Hills, California, who
fills us in on his impressions and targets in the after-math of wading through
them.

"For example, in twenty years of living on-and-off in Los Angeles, I was
never able to hear KDH-1250, due to a dominant daytime signal from
KTH-1250 and inordinate skip from local KGL-1260. Thanks to KDH's new 100 watt night
operation, 'I've logged them several times in the past year, usually at levels
equal to KTH's night signal.'"

"DXers here in the Southwest should pay close attention to former daytimers
in Mexico, many of which have expanded to full-time operation, much as U.S.
daytimers have. I've noted loud nighttime signals from XEMF-960 (Mexico),
which may dial-tweakers could mistake for KEX (KEXF's power is believed to be 1
kw, U-1). XENF-760 Nogales has been
noted on late some nights, alto for XEDU-760 Mexical. Other XEs have been
heard on 680, 710, 720, 890, 1260, and 1320 kHz, which aren't anyone's guesses."

"On the other end of the scale, XEHEF-1060 was identified in IDA (DXN
57-7) as Chihuahua, with 1000 watts. I've noticed this one from San Diego
myself, Greg."

Greg observes that now NAB standards for AM extra-radiation have helped
his DXing efforts.

"Our own KABC-790 used to slip over onto 790 and 890 with little mercy.
Since the NRB-1 standards were implemented here about two years ago, I can
sit in Mission Hills (20 miles north of KABC) and hear KXOD-860 all day long.
On the other hand, XEHEF-1060 is rather weak right now. Before, I could barely
hear KEXFZ in KABC's null. I've noticed some effects on locals KFI-640,
KFW-920, KFXE-960, KXN-1070, KUS-1150, KGL-1260 and KBBN-1320. Sadly, my
other locals seem to have done nothing toward implementing NRB. Regressing,
it's sure nice to hear WBMP-650 again!"

Maybe its worth our rochecking those adjacent local frequencies that seemed
so hopeless when we last looked several years ago.

Greg concludes with some advice about Caribbean and South American targets:

"West Coasters should regularly monitor 890, 1040 and 1160 for those Cuban
monsters, the likes of which I grew up with in Georgia in the '60s. They
usually run around 890 and 1040 here at night, with WCOX/WHQ and WKB/CABY
wallowing underneath. On 1160, the CM always gives KSTR a true run for her
money, here in LA. Two other easy Caribbean targets out here: Anguilla-1610
and Cayman Islands-1020. On 1290, conversely, Belize-890 and Turks & Caicos-1570 have
been no-shows for me, even on DXPollutions into nowhere!"

"My two all-time great catches both occurred in late summer, 1971, on 1180
kHz, from Granada Hills (about 3 miles north of my current location). The
first, at around 0030 UTC was Radio Globo from Rio. The other, around 0430
UTC, as I recall, was R. Diego Portales from Santiago de Chile, with a signal
so loud I thought it was a new XE, until a little listening told me that,
though it was a rather lengthy script, which was definitely not Mexican in
style, it was definitely not Spanish, and I had no luck picking it up both,
from here and Georgia, for the past 18 years, to no avail. Locally, I
now pick up sporadic KERF-900 kW signals (with KDFS nulling up) at
nighttime around 0100 UTC. Even then, 1180 is just too many to
pick out any South Americans that may be lurking. I haven't even been able to
log anything else there, either, besides KERF, just a jumble."

580 radio
wibw

The Voices of WWV and WWVH...

The Voices of Time Signal Station WWV and WWVH

The new microwave is that of Lee Rodgers, and the new voice is that
of Susan Kennedy. Both are staff members of KGO-AM in San Francisco
(CapCityNews-ABC). The reason for the change was, as was
pointed out, the old voicemak machine was on its last legs. The above
announcer read a rather lengthy script, which was definitely not Mexican in
style, it was definitely not Spanish, and I had no luck picking it up both,
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log anything else there, either, besides KERF, just a jumble."

Information courtesy of Bruce Shirmer, KGO Engineering
In my case, Greg, deregulation has stifled my hopes for tuning in Argentine-970, with WHDU now U-b in Ithaca, New York. A few years ago I heard what was almost certainly their time slots in the middle of the night, with WLXQ's QM 100.1 (FM) in the background, but no ID's; however, I never found them again. Two DX's now have been heard, but no ID's have been heard for the last few years.

New, some tips about DXing Hawaii and New Zealand, from Greg and Wayne Heinzen.

Says Greg, "As for Hawaii, try KLHT-1040, after local sunrise in California. I recently spent a couple of days camping at Waimanalo (for FM DX), but a spin with the FM-7700 and a Radio West loop brought KLHT in after about 0940 PT. KK1-830 came in second, but nowhere near the levels of KLHT, for some reason. Another Hawaiian which I expect to see reported toward the heartland is KPMG-670, a true sleeper, which always gives KGBI quite a challenge in coastal localities."

Wayne's biggest success story is his verification from IVA-75. 'Stations from Down Under are best heard around either equinoxes. Beginning in March, 1986, I listened to 75C almost every morning. By consulting world-wide sunrise/sunset data, I was able to determine the predawn hours that were applicable to my listening location. The times that produced a darkness path between Wellington, New Zealand and Aurora, CO, were calculated. If I was able to detect a carrier on the channel, I would continue to monitor the channel with the tape recorder running. Success was achieved after about 50 sessions on June 21, 1986. A tape with enough identifiable material and a few clear IDs was obtained. Because conditions had to be just right in order for IVA to put a good wumph signal into my location for a reported persistence at the appropriate times was reported to be a "chance" reception. This reception was made using an AM of an unamplified loop with an unmodified R-9500 URR receiver. The World Sunspot/Equinox maps that Wayne mentions are an essential tool for DXers, and can be obtained through the NRC publications center.

Our thanks to Greg and Wayne for these insights, tips, and experiences. We welcome the contributions of all other members. As a reminder, the purpose of "Target DX" is to share the strategies that DXers have developed in the pursuit of tough DX targets in recent years. How did you actually go about hearing those rare spots? Whether it was strategy or luck, we'd be very interested in hearing how it happened. Or perhaps you are like me, with a long list of what are the ones that you've been trying for without success we'd like to know as some readers may have a tip for you. Again, thanks for your support!

From the Editor. All right, I got kicked off the front page. So, with a little more effort, you can kick me off of this page, too, still.

They joined: John Brown, Altus, OK; Jeff Klose, Charlotteville, VA; and Thomas Collo, North Suburban, IL.

Hollow State Repairs. Our first list of repairmen who will work on tube-type communications receivers is a little small, but I have a feeling that it will grow.

Steve Bohac of New Jersey phoned but did not forward specific information as to what receivers he preferred to work on, but I do know that he has performed magic on NRC members' R900 URR receivers. I'd suggest sending him an SASE with your letter describing the problems: Route 6, Box 750A - Brandonville, NJ 07266.

Wayne Heinzen will work on R390A's and has technical data to help out. Write or call the same address/phone as listed elsewhere in this issue.

Dave Schmidt has started restoring R900/3900's and does some work on H2-80's. Contact him at (302) 323-0338 or P. O. Box 11502 - Wilmington, DE 19850.

Dave Schneider will work on R390A and Johnson and Viking equipment. Contact him at Box 35-B, HIC - Beth Sholom, PA 18902.

Charles A Taylor will work on R-385R, R-390R, R390A's, and 8-929's and will consider other tube-type or solid-state receivers. He'll also consider pickup and delivery within a 200-mile of Greenville, SC and will provide an estimate correct to $20 from the owner's description of symptoms.

QST carried an ad recently for Hammond typewriter service by former service manager Wayne Cordell K4HCS of Blue Ridge Communications - 770 New Stock Road - Waynesville, N.C. 28786 (704) 740-4700.

Finally, a fine quarterly (or less) publication is Hollow State Newsletter, edited by Dallas Lankford. Four issues are $5, an issue $1.25 each. Make checks payable to publisher Chris Hansen - P. O. Box 1226 - New York, NY 10159.

And from the editor to all, may you have the finest holiday season imaginable, and thanks for your continuing support of DX News and the NRC.

Arkansas
Paragould
Arkansas
KKIP 1440
New Jersey
Vineland
WHHN 1270
California
Bakersfield
KKMC 1560
New Mexico
Albuquerque
KANW 89.1
Los Angeles
KONG 1190
New York (FM)
WMH 89.1
San Diego
KSWD 1000
Amsterdam
WKOI 1570
Florida
Orlando
WUSI 1400
New York City
WLIR 1100
Atlanta
WXXR 900
Ohio
Rhine/Utica
WHN 1350
Georgia
Savannah
WWTX 900
Pennsylvania
KOCV 1190
Columbus
WHTD 1270
Pittsburgh
WBVP 1230
Maine
Portland
WIDE 1400
Erie
WPNR 1450
Massachusetts
Boston
WMAR 1490
South Carolina
Charleston
WARR 1250
Tennessee
KTVK 1480
Nashville
KWKH 1480
Texas
Halifax
WOCO 1080
Salt Lake City
KUOZ 800
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Utah
KUNK 950
Virginia
Bristol
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Washington
KSYX 950

Sparky
Sparky Visits One of His "Locals"
WHPO Happy Day

Yes, Young Man, What Can I Do For You?

OffiCe Of the General Manager

Well, Sir, I was wondering when your next silent period... I mean the next time you're going off the air.

That's an Odd Request!

But I have some good news for you! We're going to have a very long silent period.

We're going out of business.

Logsheets - By Frequency

110 sheets, 25 entries possible per sheet with space available to add your own columns. Punched for three-ring binders, full-size 8.5 x 11 inches, on heavy paper. US $5.00 (25 sheets for US $12.50). Order from the Pub Center.
Music machine radio mentality chills personalities

By Allen Katz

Watching suburban radio was a favorite New York pastime in the summer of 1982. The reason was as invention of the disc jockey on Top 40 radio stations WCAQ. Feelings about the new DJ were formed almost immediately. Murray would say, "keeping a little sing-song, a little more than your average run-of-the-mill DJ." The personality was a sensation, and the station's ratings soared.

"Something else for all the suburban airwaves," Flair Board, N.Y., stated.

Meanwhile, on the AM dial in WABC, Don Imus was busy acquiring a reputation as a tough-talking disc jockey. His programming style was brash and in-your-face. Imus was often described as a hell-raiser, and his show featured a lot of music, but it was also full of talk. Imus spoke faster with more energy, a bit more raunchy than Murray.

Compare with Don Imus and Murray. The most of Denver's rockjocks sound serious and frown. There is nothing to do about the corporate mentality that rules radio today.

The disc jockey today is totally controlled by whatever the program director dictates. It's not uncommon to hear a very usual Denver disc jockey currently with KFAN.

"More than just instinct, program directors depend on research to shape policy."

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Radio Station's Future On Hold

By Francis Meola

Wish for radio station KDDB in Denver has signed off indefinitely. The station's general manager, Rick Flackbarth of Mayville, has left the station.

"We're looking at a number of options," Flackbarth said. "We're considering several options, including selling the KFAN to another party.

"I have to consider several factors," he said. "We're considering selling the station to another party."

KDDB's studios, located at 16th and Blake streets in Denver, have been abandoned. The station was once a popular news/talk format, but has struggled in recent years.

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Musings of the Member

Support of NARC members grows by leaps and bounds, and I am grateful for that! It gives me more work to do in my spare time, hi!

DOUG SMITH, W9NW, 80 Craig Avenue, Madison, WI 53705-1273

Once it's time to retire to another shore from Dairiland...I've been distracted from DXing more than I'd like to be this DX season: excellent conditions on the 8 and 10 meter bands are to be had, but DX is not helping! I received two QSL cards today, one reporting an improvement on AM of a mere few hundred KHz above, one from Albert (K9ID) of San Ysidro, who reported on

1

orange modulation on US stations in a state of low signal strength, and another from a land that does not exist in New Jersey, and he suggested that the Commission standardize on QAM, and that

2

"quality control" rules on radios. He also didn't like the bit shifting of clear channel stations on AM modulation. This is a complication of the AM modulation that I have not heard of, but it's something else to consider. (Dx mod)

io was probably over-devoted, W1T audio being an auditory modulated, thereby resulting in the sound of audio, making the sound distorted. The average modulation on a TV audio carrier should be around 10 to 15 dBm. Unfortunately, it's really difficult to quantify the "quality" in the

3

modulation level, this level can be adjusted to regulate the sound of AM modulation. Maybe someday, radio station operators (both AM and FM) will find a way to increase AM modulation levels by increasing the input power, rather than by increasing the output power. The average modulation on an AM audio carrier is, however, not unique to AM stations, as it's also common in television and radio stations. If you don't

4

understand this, it's just that I'm reluctant to endorse that system. Certain AM stations have a high level of AM modulation, as

5

they have to. A few brave AM stations are beginning to do this already and hopefully some AMs will do more, even in the immediate future, to get a lot more in their audio signals. I suggest the following standards for receivers:

6

- Sensitivity: 20 microvolts/meter (200 KHz above 1 kHz)
- Noise figure: 50 microvolts/meter (200 KHz above 1 kHz)
- Distortion: 30 microvolts/meter (200 KHz above 1 kHz)

All of these outputs are tested with the same audio signal, which is not easy to do. One 2.5 kHz audio signal is all that's necessary. All of these outputs are tested with the same audio signal, which is not easy to do. One 2.5 kHz audio signal is all that's necessary.

8

The problem is that AM stations, as other clear channel stations, as other QAM stations, can sound fine in mono, but the system is properly implemented, and it almost never happens, and due to near infinite interference between adjacent channels, a clear channel is only good for about 200 kHz. The reason some AM stations may sound distorted on some receivers is that you have to compare the same receiver and some other

9

receiver. It has to do with one audio channel being out of phase and causing harmonic when mixed in the mono receiver's TPA sense,

10

One problem is that AM modulation is not a function of the method of modulation such as--QAM. Unfortunately, at the present time, there's no other audio signal. The author also suggested that FM modulation levels are the lowest. The result is that there's no clear channel to compare against, and that's why you should probably. Hopefully, one of the "radio only" bills currently in Congress will add this.

11

The TPA sense is enormous, enormous bandwidth, is a serious problem. I recently built a simple SSB, AM, CW, FM transmitter for use in my car. I can transmit 10 kHz to

12

20 kHz. There are no active audio stages to move the frequency response, but the audio output is also a carrier to the point of cancellation. This is not possible with any audio below 200 kHz or above 1 kHz. (QAM, please correct me.)

13

This sort of frequency response is indicative of filtering or clipping of the audio. If you modulate your audio carrier, you're increasing the overall output power, but it's not clear how much you're doing, and I'm not sure if there's any way you can do it in the car without a lot of hassle. My.

14

problems with his QRM exists, for example. The problem is not to be too loud, but to be too quiet. It's not just a question of power levels, but also the power.
The opinion about the lack of modulation is that there is no "mediocre" power to the DX station when there is something mentioned about DX. This is the opinion of most DXers, and should be an issue that we try to improve. The power.

15

The advantage of having a DX station is that we can't do it with less power. One nice feature of the W9NWW system is that it can be used to improve the DX stations.

16

I rarely have problems with VHF stations, but when I do, they're usually weak and far away. The opinion about the lack of modulation is that there is no "mediocre" power to the DX station when there is something mentioned about DX. This is the opinion of most DXers, and should be an issue that we try to improve. The power.

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22
of the matter is that our educational standards in this country have deteriorated to the point where not all the students are getting the same level of education. It's not happening in every state, but it is a problem. I believe this is one reason why we have seen a decrease in standardized test scores. It's important that we address this issue and ensure that all students have access to a quality education.

5
We need your help with Station Addresses
We are in need of the following station addresses. Look through your latest CD, phone book, or any other resource for their address. Then you've done all that's necessary.

<table>
<thead>
<tr>
<th>RRQ Coffee Mug Design</th>
<th>Design Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nine-ounce size, white glass</td>
<td>Includes NRC logo and emblem</td>
</tr>
<tr>
<td>Price: $8.50 CDN</td>
<td>Purchase details not provided</td>
</tr>
</tbody>
</table>

Check or money orders should be made out to: National Radio Club