



# DX NEWS

*the magazine of the  
National Radio Club*

— SINCE 1933 —

Volume 47, Number 29 Monday, August 11, 1980

## STATIC FROM HQ

This issue of DX News comes to you through the efforts of the LPD (that's NOT the Louisville Police Dept. but the Louisville Publishing Duo). Yes, our once proud ranks have now officially dwindled to two actives: Gary Atkins and yours truly Dick Truax. As announced two issues ago, Pat Hartlage has resigned effective Oct. 1. With recent job pressures Pat has now resigned effective this issue instead of Oct. 1, so all Club correspondence of other than that of a strictly personal nature should now be directed to Gary or myself here at HQ. We salute Pat in his tireless efforts for the Club and know he will enjoy waiting to read the bulletin each week when it arrives via the mail instead of when it is being put together.

Accordingly as Gary has assumed the position of Acting Editor, I will become the Acting Secretary/Treasurer. Really—a couple of bad actors are now putting this together for you!!! Please bear with the few mistakes and different typetypes in use as each will be using a different typewriter and will strive to do as much as we can in advance of a pub session. With the lack of our "professional perfectionist proofreader" former Secretary, we shall try to continue publishing a professional bulletin in appearance.

On a very sad note, we have learned of the passing of member Ross Hansch on June 22. Ross was a member of the NRC for many years and also active on the NRC ham net in recent years. His presence this coming season will be sadly missed by all.

Pete Taylor advises that he is going to Norway, Sweden, Denmark and England this month, expecting to depart by August 15th. So if this reaches anyone that has specific questions about stations in those countries, contact Pete prior to his departure date. Peter Taylor, 2614 Jackson St., San Francisco, CA. 94115. Announcer Rob Allen of CISL-940 Richmond, B.C. writes advising they are on with 2500 watts as of May 1 and he is soliciting reports. Address: CISL Radio, #20-11151 Horshoeway, Richmond, B.C. V7A 4S5 Canada.

The Ontario DX Association is holding a DX Open House August 23 from 10AM to 10PM at the North York Memorial Community Hall in Toronto. Further details available from Harold Sellers, 3 Camrose Crescent, Scarborough, Ont. M1L 2B5 Canada.

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Pat, Gary nor myself will be able to make the LA thing but know that those of you who are fortunate enough to attend will have a great time.	

**THE WORLD'S OLDEST AND LARGEST ALL MEDIUM-WAVE DX CLUB**

# STATIC FROM HQ CONTINUED

Thierry Vautrin of the Radio DX Club De France and MW editor of Danish Shortwave Clubs Int. advises he will be in the States from July 27-Sept. 15 and will attend both the IRCA and NRC Conventions.

The recent query and subsequent statement concerning the "KIX-101.5" ID's has brought response from both Steve Paradies and Tom Arey of N.J. indicating WKXV (formerly WBUD) Trenton, N.J. has been ID'ing as "KIX-101 1/2 since they simulcast their FM outlet on 101.5. Thanks fellas for clearing the confusion on this unidentified station.

The July issue of Consumer Reports has a rating of 7 table model and 6 portable shortwave radios that may be of interest for those contemplating equipment for that use.

Anyone needing manuals for virtually any surplus government radio equipment might want to contact Col. Wayne D. Russell, 9410 Walhampton, Louisville, Ky. 40222. Gary recently discovered this local source and obtained a manual for his R-392 and a hard-to-find connector. Send a SASE for complete listing of his offerings.

Lastly, the material for the newly revised Pattern Book has arrived in N.J. per Russ Edmunds. Final lettering and proofing should take 4-6 weeks before it goes to the printer. We will advise when the Publication Center is ready to accept advance orders shortly.

To late to help anyone, we were alerted to a Test from WKNT-1520 Kent, Ohio on July 23 0100-0130 by Dave Arbogast. Perhaps someone heard it by accident.

As of today (8/3) we are aware of THREE bids for the 1981 NRC Convention: Northern N.J. by Russ Edmunds, St. Louis by Rich Eddy and Terry Klasek and at the request of the bidder, a third location in the Southeast (deep South) which will be announced at the Convention in Los Angeles.

Attention Editors and Contributors: Volume 47 will finish with issues dated 9/8 and 9/22. The first 10 masthead dates for Volume 48 will be as follows: 10/6, 10/20, 11/3, 11/10, 11/17, 11/24, 12/1, 12/8, 12/15 and 12/22. Deadlines for columns reaching HQ will still be no later than 10 days BEFORE masthead date.

Received just under the wire was info on another get-together, this time in Nebraska hosted by Neil Zank from Noon Sat. Aug. 30 to Noon Mon. Sept. 1. GTG location will be at Neil's lake cottage 40 miles from Lincoln, so it is imperative that all who take part be at Neil's home location before Noon on Sat. so that all may caravan to the GTG site. Contact Neil at (402) 489 0272 or write Neil Zank, 623 Lyncrest Dr., Lincoln, Nebraska 68510.

We have a new editor for GY DX Achievements. Bill Bergadano has agreed to take over that column from departing Bill Hale. All info for the future updaters should be sent to: Bill Bergadano, 39 Marble St., Staten Island, N.Y. 10314. Bill's column will appear 6 times thru the volume year plus a seventh column summarizing all results at the yearend. So get your updated info to Bill now- Bill will advise deadlines in the next issue.

IRCA plans to put out a revised "IRCA Almanac" this September. If any NRC members know of any errors that need to be corrected, please write to Bill Hardy, 2301 Pacific Ave., Aberdeen, Wash. 98520 at once. Bill also wants to remind everyone to send any corrections to the 1978 NRC Log to John Callarman, c/o WMIX, Box 1238, Mount Vernon, IL 62864, because John will be working on a revised NRC Log in the next few weeks as well!

Bob Karchevski, 2712 Flores St., Apt. #207, San Mateo, CA. has acquired several issues of Broadcast Engineering and Management (BEM) and Broadcast Engineering (BE) available to anyone who will pick them up for themselves or for an auction item for the Convention. They weigh 54 lbs. so shipping might be expensive... can anyone help in moving these to LA? Call Bob at (415) 345 2197 7-11PM weeknights or all day Sunday if you are interested or can take them to LA.

# DOMESTIC DX DIGEST

DAVE SCHMIDT  
42 CHELWYNNE ROAD  
CASTLE HILLS  
NEW CASTLE, DE 19720

We've got a nice sized turn-out for this time of the year, thanks to all who sent in their tips. When sending items in, PLEASE double space your items, one side of the paper, ELT., etc. Here goes:

### SPECIAL:

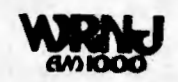
- 600 WCAO MD BALTIMORE - 7/21 0033 250 hertz and 1500 hertz TT noted, evidently PoP in progress. (WPT-DC)
- 980 WRC DC WASHINGTON - 7/17 1745 knocked off air by thunderstorm, back by 1927, nothing heard due to static. (WPT-DC) Don't you wish SNOWSTORMS would do this-hi! (DS)
- 1330 WASA MD HAVRE DE GRACE - Frequently noted running 15-20 minutes past usual s/off time w/baseball or WHDG-FM programs. Believe they have 500 watt nite authority but haven't officially used it - and hope they don't! (MT-MD) Mike, I heard them last year past 0100 w/baseball, I believe it's in use. (DS)



### WPIC

### FREQUENCY CHECKS:

- 1st Mon....WORV-1580 0003-0015+ w/organ mx, NEW TIME. (EH-IL) KFGQ-1260 0200-0215 tentative w/TT. (EH-IL)
- 1st Fri....WHBG-1360 w/TT, per list, Loud. (EH-IL)
- 2nd Wed....WIDG-940 not heard, per updater. (EH-IL) KTYN-1430 not heard, per updater. (EH-IL) WFLI-1070 w/mx, ID's after every record, loud. (EH-IL)
- 4th Mon....WVFC-1530 w/TT, jingle ID's. (RWK-IL)
- 4th Tue....WCHE-1520 w/TT, ID's. (DWS-DE, couldn't let that slip by!)
- 4th Wed....WSMI-1540 w/TT, verified. (EH-IL)
- 4th Fri....KTLQ-1350 tentative w/TT only. (EH-IL)



### MIDDAY - MIDNIGHT:

- 790 WSIG VA MT. JACKSON - 7/6 2044 clear at s/off w/ISSB. (JWB-PA)
- 910 WFPB OH MIDDLETOWN - 6/30 2240 briefly atop w/Ohio State maps spot, jx, then faded, still just 100 watts ND? (EH)
- 930 WLLL VA LYNCHBURG - 7/7 2045 fair in WFMD null w/s/off by female, mention of WGOL-FM 98.3, no SSB. (WPT-DC)
- 940 WKGM VA SMITHFIELD - 7/6 2032 s/off w/male announc'r, mention of Christian programming, ex-WEOO. (WPT-DC)
- 950 WNCC PA BARNESBORO - 7/6 2046 s/off by male announc'r, mention of "serving coal country", fair u/WPEN. (WPT-DC)
- 1060 WQIO OH CANTON - 7/6 2059 Top 40 mx w/female DJ, s/off w/no SSB, fair in KYW null. (WPT-DC)
- 1080 WUFO NY AMHERST - 7/6 2101 end of religious program, s/off w/ no SSB, fair in WTIC null. (WPT-DC) 7/16 2100 s/off, July only month Western NY outlasts Western PA at s/off time. (JWB-PA)
- 1100 WJES SC JOHNSTON - 6/30 2045 best signal noted yet at s/off. (JWB)
- 1100 WGPA PA BETHLEHEM - 7/6 2031 s/off by female, mention of 250 watts, no SSB, good signal, #4 on 1100. (WPT-DC) That's about all that's on this frequency, eh? (DS)
- 1110 CBD NB ST. JOHNS - 7/15 2353 w/classical mx, then s/off 0012 in WBT null, good signal. (BB-NY)
- 1190 KDAO IA MARSHALLTOWN - 2145 6/30 fair at s/off u/WOWO, asking for listeners comments, new station. (EH-IL)
- 1230 WINF CT MANCHESTER - 7/15 2127-2129 w/Yankee baseball, poor. (BB)
- 1300 WKCY VA HARRISONBURG - 7/15 2034 booming in but fady, o/u local WFBR w/CW mx, local ads. (MT-MD)
- 1310 WEEL VA FAIRFAX - 7/18 2322 ID noted in din, poor. (SAP-NJ)
- 1370 KDTH IA DUBUQUE - 6/26 2250 Poor w/wx, ID, u/WSPD. (EH-IL)
- 1400 WBAT IN MARION - 2154 6/25 loud w/Cubs BB promo then gone. (EH)
- 1410 WGRD MI GRAND RAPIDS - 6/25 2105 atop w/concert promo. (EH-IL)
- 1420 WKPR MI KALAMAZOO - 6/25 2115 atop w/s/off, FM mention. (EH-IL)
- 1460 WWEG WI RACINE - 6/27 1515 finally in the daytime o/WIXN/WRTL/WCEV splash w/soft mx, wx. (EH-IL)
- 1470 WBTX VA BROADWAY - 7/15 2044-2045 w/s/off, loud next to semi local WJIT. (BB-NY)
- 1480 WISL PA SHAMOKIN - 7/14 2202-2203 good w/Phillies baseball, no sign of WDAS. (SAP-NJ)
- WMAX MI GRAND RAPIDS - 6/29 2129 s/off, w/mention of 5000 watts, address, etc. (EH-IL)

4  
 1550 WEVR WI RIVERFALLS - 6/23 2145 o/WWQM w/s/off, mentioning FM-106, fair. (EH-IL)  
 WKBA VA VINTON - 7/6 2043 religion then s/off, quite regular here lately. (MT-MD) Here, too. (DS)  
 1560 WFSP WV KINGWOOD - 7/19 2029 ID noted u/WQXR, weak. (SAP-NJ)  
 1600 WAYC PA BEDFORD - 7/5 2045 s/off w/Porky Pig, "That's All Folks." (MT-MD)

**MIDNIGHT - MIDDAY:**

600 CFCF PQ MONTREAL - 6/30 0137 caught end of sports report and promo for Expos/Phillies game, gone to WIP splash. (GW)  
 620 WLBZ ME BANGOR - 6/29 0048 #3 from Maine, 9th state on the frequency, gone quickly to WHEN. (GW-PA)  
 850 WYDE AL BIRMINGHAM - 6/30 0450 fair in KOA null w/WKBZ off w/CW mx, ID & time check. (EH-IL)  
 910 WRNL VA RICHMOND - 7/21 0247-0248 good w/mx, ID, "91-RNL". (SAP)  
 930 WGNT WV HUNTINGTON - 7/21 0259-0300 good w/tele-talk, legal ID, then NBC nx. (SAP-NJ)  
 950 UNID 7/21 0300-0303 somebody at good level u/WPEN w/Fleetwood Mac mx, wiped out by WPEN mx before ID, any ideas? (SAP-NJ) It could be either WBBF/WKAZ/WLOP/WSPA, all heard here at one time or another u/WPEN. (DS)  
 960 WFIR VA ROANOKE - 7/21 0255-0257 strong w/mx, ID, probably easier at times than WRVA for VA. (SAP-NJ) True (DS)  
 1110 KBND OR BEND - 7/1 1000 noted w/ID, then CBS nx. (JEC-CA)  
 KPIP CA ROSEVILLE, 7/9 0759 spanish, ex-KPOP. (JEC-CA)  
 1150 CKOC ON HAMILTON - 7/21 0310 poor w/mx, ID. (SAP-NJ)  
 KPRZ CA LOS ANGELES - 7/6 0710 w/ID, ex-KIIS. (JEC-CA)  
 1230 WUBE OH CINCINNATI - 7/7 0140 positively loud o/WQUA in WJOB SP, w/CW mx, "Country UBE" ID's. (EH-IL)  
 1240 WINN KY LOUISVILLE - 7/7 0216 good in Chicago SS station null w/CW mx, ID. (EH-IL)  
 1250 WTAE PA PITTSBURGH - 6/30 0315 ET w/siren like tones. (RWK-OH)  
 CHWO ON OAKVILLE - 6/30 0315 ET w/SID's, interesting mix w/WTAE. (RWK-OH)  
 1260 WKXW NJ TRENTON - 7/20 0200-0300 after one hour steady on this spot, ID noted 0300, w/WWDC/WNDR/WNDE. (JWB-PA)  
 WNDR NY SYRACUSE - 7/7 0205 loud w/Musicradio ID, pop mx. (EH)  
 1280 CJMS PQ MONTREAL - 6/30 0401 o/u WGBF/CJJD w/WMRO off w/pop mx, FF ID. (EH-IL)  
 1290 CFRW MB WINNIPEG - 6/30 0319 caught nice clear ID thru din, a nice surprise this MM. (RWK-OH)  
 1300 KPTL NV CARSON CITY - 7/21 0859 noted w/s/on. (JEC-CA)  
 1310 WTTL KY MADISONVILLE - 6/15 0058 tentative in din w/CW mx. (RWK)  
 WISE NC ASHEVILLE - 6/26 0240 good w/TT and ID. Tape recorder decided to mess this one up on playback. (RWK-OH)  
 1350 WZIX PA YORK - 7/21 0356 good w/end of mx, ID, request line mention. (SAP-NJ)  
 1390 WCSC SC CHARLESTON - 7/21 0350 good w/ID, wx. (SAP-NJ)  
 CKKC BC NELSON - 7/5 0040 noted w/CBC nx. (JEC-CA)  
 1400 WJHO AL OPELIKA - 6/30 0125 w/many promo's, ID, CW mx. (RWK-OH)  
 WLSB TN COPPER HILL - 7/7 0023-0028 w/oldies, ID, loud. (BB-NY)  
 WABY NY ALBANY - 7/14 0004-0006 w/Mets BB, Nx, belted by WHMP, poor. (BB-NY)  
 WROZ IN EVANSVILLE - 7/9 0120 fair w/racing promo, ID. (EH-IL)  
 1410 WGGM VA CHESTER - 6/29 0110 noted on ET w/TT, ID. (GW-PA)  
 1420 CKPT ON PETERBOURGH - 7/14 0109 ID only, quickly gobbled up by WHK. (BB-NY)  
 1440 WHIS WV BLUEFIELD - 6/29 0103 second time heard w/time/temp. check, then quickly gone. (GW-PA)  
 WHHY AL MONTGOMERY - 6/22 0320 good w/ID, Top 40 mx. (RWK-OH)  
 WRBE MS LUCEDALE - 6/22 0323 good signal w/OE/TT/ID while on ET. (RWK-OH)  
 1450 WOL DC WASHINGTON - 7/21 0335-0339 good, atop freq. w/mx, ID, my first graveyard. (SAP-NJ) How 'bout WSNJ-1240?(DS)  
 1480 CKAN ON NEW MARKET - 7/4 0003 VERY loud w/local nx, wx, temp., ID. New station. (EH-IL)  
 UNID 7/21 0321-0401 strong signal w/Powerline program, don't think WDAS, any ideas? (SAP-NJ) How 'bout WLEE? (DS)  
 1490 WDXB TN CHATTANOOGA - 6/30 0115 great w/Bicycle Bonanza promo. (RWK-OH)

**CFOR 1570**

241 WEST STREET, NORTH • ORILLIA, ONTARIO L3V 5C9



5000 WATTS 590 KHZ

5  
 1510 WLKR OH NORWALK - 7/20 0715 nice signal for several minutes, often heard. (JWB-PA)  
 CJRS PQ SHERBROOKE - 7/7 0243 finally ID w/FF, SID, mx, u/WLAC. (EH)  
 1520 WSVL IN SHELBYVILLE - 6/30 0612 weak/atop w/promo/ID. (EH-IL)  
 1530 WBCW PA JEANETTE - 7/21 0115 noted on ET w/mx, long jx IDE. (DS)  
 UNID 6/30 OC noted on AN, anyone ID this? (RWK-OH)....YAD said it might be WDDY/KDDY/CDDY/4DDY.....or maybe YOUR local WCKY? (DS)  
 1540 WMLM MI ST. LOUIS - 6/30 0640 faint in KXEL null w/farm nx, ID, new station. (EH-IL)  
 1550 WOKJ MS JACKSON - 6/30 0430 topping KQWB w/s/on. (EH-IL) I thought this guy was NSP or AN MM w/gospel. (DS)  
 WCTW IN NEW CASTLE - 6/30 0210 ID and promo noted for car winner, log sez should be off at this time, am I in the twilight zone? (SAP-PA) I thought you were in Easton, George. They've been heard here in the past running AN for no apparent reason. (DS)  
 1590 WOKI NC HIGH POINT - 6/26 0020 fair u/WAKR w/ID/OC on ET. (EH-IL)  
 WEHH NY ELMIRA HEIGHTS - 7/15 0120 strong on ET w/TT. (JWB-PA)  
 WQIQ PA CHESTER - For those interested, sked. is 0600-0000, except Sunday when s/on is 0500! (DS)  
 1560 KKA SD ABERDEEN - 7/7 0215 unneeded but loud w/ET, TT, ID. (EH)  
 1600 WINX MD ROCKVILLE - 6/23 0121-0128 loud on ET, WRRL off. (BB-NY)

**DON'T BLAME ME, BLAME THESE GUYS FOR ALL THIS:**

JWB-PA	Joe Braunner, Punxsey, PA	A2515, Loop
SAP-NJ	Steve Paradies, Millville, NJ	DX160, TRF, LW
JEC-CA	Jim Critchett, Red Bluff, CA	SPR4, Sanserino Loop
BB-NY	Bill Bergadano, Staten Island, NY	RF1150, TRF
EH-IL	Earl Higgins, Riverside, IL	HQ140X, Superadio, SM1
MT-MD	Mike Tuggle, Bel Air, MD	Lynodyne Ital, LW
WPT-DC	William P. Townshend, Washington, DC	TRF
RWK-OH	Rick Kenneally, Shinshantea, OH	DX160, SM2
GW-PA	George Walton, Easton, PA	RF2200, Sanserino Loop
DWS-DE	Lil' Abner Schmidt, New Castle, DE	HQ180, TRF, Barpick

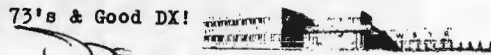
**RAN-DUMBS:**

To set the record straight, WKXW-1260 is AN-7, NSP w/Top 40. They are running their FM, WKXW-FM 101.5, which ID's as "Kicks one-oh-one and a half," can't figure how WCRT would come up on that one! WZZD is still that as of 7/25, WTHD was granted WAFL but I don't know if they're on it yet or not.

Blow the dust out of the set, get ready for another DX season which is just around the corner. And when you hear something, send it in!

73's & Good DX!

**WFLN**



WYSR • RADIO-TELEVISION CENTER  
 SYRACUSE, N. Y. 13203

Welcome to the following new members. Please muse soon and introduce yourself

Al Resnick K3PXR, 832 W. Gunnison St. Apt. 3N, Chicago, Ill. 60640  
 John A. Alcock, 8501 8th St. North, St. Petersburg, Fla. 33702  
 Omar S. Jonsson, Box 1029, 121 Reykjavik, Iceland  
 Aaron Reed, 23 Mystic St., Brockton, Mass. 02402  
 Gene R. Walega, 5266 Olentangy Circle, New Middletown, Ohio 44442  
 Tom Mooningham, MEMQ5807, Camp Lejeune, N.C. 28542  
 Martin Lange, 42925 Jones Rd., R.D. 2, Wellington, Ohio 44090  
 Christian Dehaes, 935 Papineau, Chicoutimi, PQ G7H 2N3. Canada  
 Allen E. Clingman, 3235 Quesnel Dr., Vancouver, B.C. V6S 1Z7 Canada  
 W.T. Stannard, 714 Ashland Ave., River Forest, Ill. 60305  
 Michael E. Myers, 5309 Ridgebend Dr., Flint, Mich. 48507  
 Mike Csorbay, R.R.#1, Canfield, Ontario N0A 1C0 Canada  
 Robert Rush, Pequot Rd., Southampton, Mass. 01073

Recent renewals include: Robert McCoy, Fred Langeneckert, Robert Eddy, Carlos Walters Jr., Rod O'Connor, John Walters, Paul Mount, David Wurl, Tom Fawcett, Jack Staff, John Waha, David Margritz, Gerry Thomas, Wayne Murphy, Robert Kulow, Albert Lehr, John Kosinski Jr., Thomas Messer, Elwood Borowski, W.A. Jeffrey, and Steven Paradies.

# INTERNATIONAL DX DIGEST

CHUCK HUTTON  
P.O. BOX 2087  
DECATUR, GA 30030  
(404) 633-1198  
BEFORE 2300 ELT

Times are GMT. For ELT subtract 4 hours. Deadlines are usually Monday.

- 567 NEW ZEALAND 2YA Wellington heard on 6/6, 12, 13, and 14. (Wilkinson)
- 576 AUSTRALIA 2FC Sydney heard on 6/8. (Wilkinson)
- 574 AUSTRALIA 3WV heard on 6/8 and 6/15. (Wilkinson)
- 610 COLOMBIA HJKL Bogota w/WIOD and mention of "El Banco de Colombia" (I'll keep my dollars in American banks) 0123 6/22. (Kazaross)
- 657 NEW ZEALAND 2YC Wellington heard on 6/8, 11, 12, 13, and 16. (HJW)
- 700 VENEZUELA Maracaibo YVMH fair-good w/R. Popular ID 0035 6/22, often noted before Sutatenza fade-in. (Kazaross)
- 702 AUSTRALIA 2BL Sydney heard on 6/6, 8, 12, 13, 14, 15 and 16. (HJW)
- 720 CUBA R. Reloj outlet noted here weakly w/other LA's. The Colon Rebelde tx was off at the time 0540 6/23. At 0625 Colon was back on //780 and way on top of this weak Reloj. The 860 and 940 Reloj's were stronger. Do you have any details? (Kazaross) Nope, haven't heard anything and haven't had the radio on-CH
- 720 NEW ZEALAND 4YZ Invercargill heard on 6/15. (Wilkinson)
- 735x ECUADOR HCGC1 R. Melodia noted to very good peak w/mellow SS mx 0543 6/23. This is often the best from Ecuador. (Kazaross)
- 756 NEW ZEALAND 1YA Auckland heard on 6/6, 8, 12, 13, 14, 15, and 16. (Wilkinson)
- 774 AUSTRALIA 3LO Melbourne heard on 6/6, 12, 13, and 14. (Wilkinson)
- 776 UNID someone here hetting 775. This on 5/30 at 0110. (Thomas)
- 783 NEW ZEALAND 2YB Wellington finally heard and logged for a good report on 6/12 from 1147 to 1202. (Wilkinson)
- 792 AUSTRALIA 4QG Brisbane heard on 6/14. (Wilkinson)
- 823 CUBA Habana R. Ciudad de la Habana wandering around here (822.7-823.7) late May and early June. (Thomas)
- 828 AUSTRALIA 3GI Sale heard on 6/14. (Wilkinson)
- 830 DOMINICAN REPUBLIC HIJB Santo Domingo noted w/superb signal at 0512 w/call ID, still xint at 0602 s/off 6/22. (Kaz) Late s/off-CH
- 830 UNID LA noted u/HJDM after HIJB s/off 0602 6/22. Could this be Honduras? (Kazaross) I'm not sure, Honduras is on late but I'm not sure if they are AN-CH
- 837 AUSTRALIA/NEW ZEALAND 1YX-1YK/4RK Whangarei/Rockhampton mixing it on 6/8 and 6/14. (Wilkinson)
- 846 AUSTRALIA 2CY Canberra heard on 6/14. (Wilkinson)
- 860 NICARAGUA Managua YNOV poor at s/off 0554 w/the short Nicaraguan NA 6/22 mixed w/Cuba and other LA's. (Kazaross)
- 882 AUSTRALIA/NEW ZEALAND 4BH Brisbane/1YC Auckland mixing it (baking turns) on 6/14. (Wilkinson)
- 940 CUBA R. Reloj poor-fair on top at 0049 6/22. (Kazaross)
- 995 ECUADOR HCEW2 Guayaquil noted fair w/romantic SS mx 0624 6/23. (Kazaross)
- 1008 NEW ZEALAND 1ZD Tauranga in at good volume on 6/16. (Wilkinson)
- 1035 NEW ZEALAND 2ZB Wellington heard on 6/6, 15, and 16. Was at arm chair level on 6/15. (Wilkinson)
- 1044 NEW ZEALAND 4ZE D, nedin in very well on 6/15 and 16. (Wilkinson)
- 1000 COLOMBIA HJAR Cartagena dominates this channel, good ID 0035 6/22. (Kazaross)
- 1098 UNID strong OC-likely from the Czech 0210 6/10. (Kazaross)
- 1110 COLOMBIA Cali R. Reloj here w/slow LA mx and many ID's 0514-0517 6/22. (Kazaross) Extremely potent 0550 6/9 w/a variety of LA mx types and many ID's. (Thomas)
- 1161 FRANCE to good peaks w/fast string mx 0207 6/10. (Kazaross)
- 1197 UNID DU, either 4GC or 2ZW. Can not determine which one as yet-lots of EE accent on 6/15. Will pursue. (Wilkinson)
- 1206 AUSTRALIA 2CC/2GF Canberra/Grafton heard on 6/15. Programming of rock type mx points to 2CC. Will follow up on this. (Wilkinson)
- 1206 UNID strong OC clobbering Cayman, was likely France 0215 6/10. (Kaz)

- 1210 DOMINICA likely the one w/WCAU; FF anncr and T40 and disco mx 0022 6/22. (Kaz)
- 1215 NEW ZEALAND 1ZE Kaikohe logged from 1132 to 1155 on 6/15 for a new one. (Wilkinson)
- 1224 UNID an easily intelligible SS male here at fair level w/moderate LA mx, but no hints regarding ID. Thought this must be TIPJ wandering (nom 1220, reported on 1224) until anncr gave freq as 1225. Noted on 1223.8 5/20. (Thomas) TIPJ is actually stable on 1224.4-CH
- 1255 UNID okay, who's this guy? A stn using R. Latina ID's and frequent "alta" and "alto" shouts is here nearly nightly. SS male continually talks over songs which are LA and EE type rock (e.g. Pink Floyd, Queen) and gonging bells mark top of the hour. S/off is 0400-ish with no NA but a "LV de 'oon-kah" ID. Is this LV de Tulcan, HCEM1? (Thomas) Beats me, sure doesn't sound like the "average" LA stn I have been hearing on 1255 that signs off at 0400 with LV de Rio ?? ID's. As noted before, there are two stns on 1255 as evidenced by an audible het-CH
- 1269 WEST GERMANY Neumunster logged w/typical lite instrumental mx making it through 1270 slop 0218 6/10. (Kazaross)
- 1295 UNID very poor SS male here w/Andean-like flute mx 0315 6/4. A couple HC's possible but seemed to loop Caribbean. (Thomas) And to throw something else into the hat, R. Plata in Nicaragua is apparently still here-CH
- 1302.7 UNID SS male here 0253 5/28 u/1300 slop. Looped N-S. No ideas. (Thomas)
- 1310 CUBA a R. Rebelde noted 0134 5/20 but none listed in WRTH or RFS list. (Thomas)
- 1315 DOMINICAN REPUBLIC R. Bani poor 0311 6/4 w/mx. (Thomas)
- 1325 HAITI Port-au-Prince xint w/some really nice jazz (Hubert Laws, Bob James, etc.) 0310 6/2. Also audible on the Lyonodyne crystal set. (Thomas)
- 1325 UNID SS taped 0430 6/23 w/mostly a discussion format w/2 males. Fuzzling mentions of programma de "La voz de la Joya" then Washington DC. Joya means jewel in SS. Is this Haiti still here ??? Would they have an SS pgm? Gone after 0500 6/23. This was occasionally good but faded into slop like at s/off. (Kaz) Yes Haiti has SS, every night. They were gone after 0550 because they s/off then. And // to what? They have no // I know-CH
- 1340 CUBA same story as 1310, a R. Rebelde here 0135 5/20. (Thomas)
- 1375 ST. PIERRE very strong w/cl mx and piano mx w/FF anncr. At entertainment level 0103-0127 6/10. (Kaz)
- 1412.2 UNID weak carrier 0221 6/10. (Kazaross)
- 1415.8 UNID poor in QRN w/repetitious male chanting and drums. Voice ID impossible but HIOS presumed. This 0140 5/20. (Thomas)
- 1424a UNID two stns, one on 1423.8 and the other on 1424.5 noted hetting each other 0230 6/4. An HC is listed on 1425 but is only .5 kw. Similarly unbelievable is the Uruguayan listed on 1424 at 5 kw. Next in line is a, ahem, 1 kw Paraguayan listed on 1427. I think I'm going to have to keep monitoring before I get my hopes up. Incidentally, snatches of audio did appear so there is hope. (Thomas)
- 1440 UNID SS u/domestics 0014 and 0028 6/23. Could this be a domestic w/SS pgm? (Kazaross)
- 1475.7 HAITI Port-au-Prince 4VEA likely the one here 0147 5/20 w/Island mx and soft-spoken male in what sounded like FF. Loop also said Hispaniola. (Thomas)
- 1476 NEW ZEALAND 1XA Auckland heard on 6/6. (Wilkinson)
- 1483.3 UNID a LA here w/male vocals 0205 6/4. Audio in and out and bearing roughly YV/HJ so HJHQ listed on 1483 a possibility. (Thomas)
- 1505 ANGUILLA quite poor w/mx in slop 2357 6/22. (Kaz)
- 1505 UNID an undermodulated SS male w/very laid-back LA mx here 0200 5/20. HCVC3 suggested by loop so I checked its SW // on 4890 but found R. Lux dominating. Nonetheless HCVC3 most likely candidate. (Thomas)
- 1511.2 UNID someone strongly hetting WLAC-1510 at 0330 6/7 but not seperable. (Thomas)
- 1520 UNID SS u/domestics 2356 6/22. (Kazaross)
- 1530 DOMINICAN REPUBLIC Santiago R. Accion good w/mix of LA and EE pop mx. WCKY off at the time 0500-0530 6/9. (Thomas)
- 1548 AUSTRALIA 4QD Emerald heard on 6/6. (HJW)

- 1548 UNID w/audio patches garbled by CBE slop 0156-0201 6/10. (Kaz)  
 1557 AUSTRALIA/NEW ZEALAND 2RE Taree/2ZH Hawera mixing it quite well on 6/12. (Wilkinson)  
 1557 MALTA poor-fair w/DW GG nx 0305 6/10. OC from Nice noted too ab 0317. Malta comes on w/DW GG at 0300 and switches to AA at 0400. (Kaz)  
 1566 AUSTRALIA 3NE Wangaratta possibly the DU heard here on 6/12. Will follow up on this. (Wilkinson)  
 1593 NEW ZEALAND 1XP Auckland finally logged for a good report on 6/12 from 1216 to 1227. Heard again 6/13 and 15. (Wilkinson)  
 1593 WEST GERMANY the best TA of the nite w/light GG mx 0154 6/10. (Kaz)

And to add to the 1425 mystery:

- 1425 UNID SS heard Wed AM 6/25 0453-0530, several mentions of "LV Tropical" or "Canal Trppical" or "Radio Tropical". Music sounded Cuban to me. Much announcing and even some cheering. I tuned out at 0530 and came back at 0557 hoping to catch the 0600 ID but they had signed off somewhere between 0530 and 0557. Their signal was strong but fadey with no slop from either 1420 or 1430. (Cooper)

Ernie Cooper-Provincetown, Mass. R390A; 4' loop  
 Neil Kazaross-Pawtucket, RI (TA's) R390A, Sanserino loop, 80' LW  
 -Narragansett, RI (LA's) R390A, SM2, 1300' Beverage  
 Gerry Thomas-Pensacola, Fla. mod FRG7, 4' loop, 600' Beverage  
 Hank Wilkinson-Santa Rosa, Ca. SP600, Sanserino loop

This column was received two days too late for the July 14th issue, so it's a bit dated. Chuck just phoned to say the column for this issue was in process and would be Air Expressed direct to the printer on 8/4. So..... if it shows check the last 3 pages of this issue. Ed.

## LABOR DAY IN L.A.!

Yes, folks- time for another holiday outing. May we suggest, LABOR DAY weekend at the NRC CONVENTION in LOS ANGELES!! Looks like our turnout will be great, including a very strong showing of our Midwesterners, among them: WALT BREVILLE, ERNIE WESOLOWSKI & STEVE McINTIRE. Also, WARREN GREENBERG from Massachusetts, and to top it off, FRANCE will be represented by THIERRY VAUTRIN, who as BCB editor for Danish Short Wave Clubs International, receives our exchange bulletin for that club. Technical and general Q & A sessions with RANDY SEAVER, GRANT MANNING, and RON SCHATZ are on the agenda, as well as tours, the annual banquet and auction, old friends, new friends, and five days of Southern California sun and fun.

The convention will be at the Hacienda Hotel, located near L.A. International Airport. To assure accommodations at the Hacienda it is best to dial the hotel directly at (800) 421-5900 - please note the corrected phone number. In California, dial (800) 262-1314. Remember, the hour is drawing near, so fill out your registration forms and mail immediately, if not sooner, to: H. JOHN CLEMENTS 9010 TOBIAS #258 PANORAMA CITY, CA 91402. Further info is available from HJC at (213) 893-4778 between 1 & 2 AM ELT, or from myself, Greg Hardison at (213) 993-0716 between 8 & 9 PM ELT.

DO NOT MISS THE WEST COAST'S GREATEST CONVENTION EVER!  
 NRC - LOS ANGELES  
 AUGUST 28, 29, 30, 31 & SEPT. 1, 1980

BE THERE OR BE SQUARE!!!

## THE NRC LOG

The NRC Log this year will be a bit later than I had originally planned. There isn't as much time as there used to be. I cannot give a specific date. Best I can do is "Sometime this fall." I hope to get finished pages done by Labor Day, and then it's up to the printer and out of my hands.

I'm trying to make it as thorough and accurate as possible, and am receiving a lot of good assistance. Most recent notable items include a 16-page effort from John Clemmer reflecting formats he's detected in his travels (including confirmations of presently-listed formats), some thorough detail from Bill Hardy, more travel-gathered information from John Robertson, and another grave-yard channel sweep from David Lewis.

## IT'S TIME NOW

... for everyone to make a band sweep and a few telephone calls to gather some hard-to-come-by information about your semi-locals. Please start now, and spend a couple of hours off and on for a few days until we get your locals and semi-locals cleared up. Here's what we need:

NETWORKS: UPI Audio and Associated Press Radio are reluctant to send out lists of subscribers, because of competitive reasons. The last list received from UPI Audio came out in 1975, before APR was established. Please identify stations using UPI and APR feeds.

Mutual has recently become harder to get information from, but WMIX owner Russ Withers is treasurer of the new Mutual Affiliates Association, and so has a mailing list, which helps. Pending requests for lists are expected to be filled by the other networks within the next week or two, but there are a couple of potential hangups.

ABC's official lists never show stations that are in a certain category (abbreviated P.S.P.) that carry ABC News programs. WILY-1210 Ai and WCIL-1020 Ae have had those affiliations for at least 10 years, but they've never shown up in the ABC lists, to cite two examples.

CBS has apparently loosened its affiliation requirements and is growing rapidly. So monitoring to give us current network affiliation status actually heard would be vitally needed.

Standard Radio Rates and Data Service has given us permission to use network information, station addresses, etc. from their Spot Radio Rates and Data, so we're in good shape as far as regional and state networks are concerned. One question to club members in the Dakotas and Montana -- Does the Northern Broadcasting System still exist? It's no longer listed in SRDS.

ADDRESSES: Preferred, for space purposes, are Box numbers. But addresses are constantly changing, particularly for those stations whose ownership changes. A little time to phone the stations in your immediate area and get their mailing addresses would be most appreciated. If you determine that the current log-listed address is correct, a note to that effect would be helpful, too.

POWER INCREASES: Some of the hardest information to come by is whether or not a power increase that's been approved by the FCC has actually been implemented. Of course, if it's a daytimer that becomes a full timer, that's easy ... or a frequency change too. If you have a local or semi local that has a pending power increase, please check with them to see if it has been implemented.

SCHEDULES: We will, of course, need sign-on and sign-off times for stations that have gone from daytime to fulltime ... but it would be very valuable to check with your locals and get accurate schedule information as it presently exists. While it's safe to assume that most daytimers sign on at 0600 local time and sign off at local sunset, some will sign on earlier in the summer (when LSR is earlier) and others will sign off before LSS in the summer. Others sign on later on Sundays. We'd like to have a more complete listing of these sign-on and sign-off times. Listings could be as simple as E:0600-LSS or as complex as C:LSR or 0700(0800 LSS or 1900(1700)

**FORMAT:** Armed with the format code from your 1978 log, listen to your locals and semi-locals and determine what their music format is. The format code should give the listener an easier way to determine the format rather than depending upon the station, with the many different concepts of what "Middle of the Road" really is!

**NEWSCAST TIMES:** The indication on Page 4 of the 1978-79 log is self-explanatory. If you can get the basic newscast times designated for your locals, it would help, too.

**NOTE:** The key reason for publishing the NRC LOG is to help other DX'ers identify the stations they hear. We have members in all geographical locations who can normally hear virtually any station in the U.S. and Canada. Something that you hear routinely may be a key element to help someone identify a rare station as far as his location is concerned. PLEASE SHARE YOUR INFORMATION!!!

## IN THE FUTURE

As we've already noted, this year's log will be the last one I'll be typing, though I do plan to remain active in updaters and keeping raw copy up to date. The hope at headquarters is to get information computerized and computer correctible. This certainly will make updating subsequent issues of the log much easier and hopefully will allow the log to be produced annually instead of every other year as it is now.

If the information presented is to be the most accurate possible, it would be better to have as efficiently organized a volunteer effort as possible. Your log editor would like to be able to have regional information gatherers providing information to specifically designated regional editors, who would in turn get the information to the editor for updaters and to the computer programmer.

Needless to say, the establishment of a genuinely organized effort for this year's log is impossible, but for future efforts, the club should be able to develop a pattern for volunteers to provide information ... perhaps tied into the evergrowing numbers of regional DX organizations that are springing up in many metropolitan areas in the country.

**ADDENDA:** Lists for ABC and NBC networks were very quickly forthcoming, but the ABC nets were as of December 1st, 1979, and there was no effort made to answer my request for P.S.P. affiliate information. Please check for affiliates of the four A nets in your area particularly.

**DO IT NOW:** Obviously, between the time you read this and the time your editor hopes to get the log masters completed, there isn't much time. If half the club members read this and say "I will do it now," we'll get the log to you with the most accurate information ever.

John A. Callarman  
c/o WMIX  
Box 1238  
Mt. Vernon IL 62864

Apparently my recent plea for support has been rewarded, hi, as here we are again, right on schedule (that's pronounced "shed-yule" for you non-Anglicised folks out there, hi). I'll have to plead guilty to introducing Continental (or is it Empirical (hi) spelling to DXN as publisher back in '75. At any rate, each may spell things as is their wont, and hopefully those on the other side won't look upon it with too much disfavour, hi again. Let's not start up a tempest in a teapot (again) over that! Onward!

### FOR SALE, RECEIVERS

DRAKE SPR-4 w/ MS-4 spkr. \$300. (Edward L. Cummins, 1514 Pemberton Dr., Columbus, OH 43221)

KENWOOD R-1000, w/ 2.7 kHz. filter in AM narrow pos., 7 months old, clean & shiny, great audio, sensitive, selective. \$350 (Dan Sheedy, Box 31, Encinitas, CA 02924)

YAESU FRG-7, w/ 2.9 kHz. Collins filter in wide pos., 2) 1.9 kHz. filters in narrow position, variable RF gain, VLF converter, 4 digit digital readout, (Radio West DD1 4D) w/ 455 kHz. "cal" & front panel switchable antenna, etc. Write for further details if desired. \$700 and worth every penny. (Sheedy)

YAESU FRG-7 w/ 2.9 kHz. mech. filter & 4 kHz. ceramic filter & 3-digit readout. \$480. (Joe Krueger, 773 Chase, Corpus Christi, TX 78412; (512) 992-6016)

### FOR SALE, ANTENNAS

SANSERINO ECB loop antenna. Complete w/ stand & DF compass. Has vernier type dial, FET amp., and table pads on stand. All in exc. cx. \$80 plus shipping. Has many refinements new loops do not have. (Albert S. Lobel, P.O. Box 26762, San Diego, CA 92126 or (714) 484-0604 or 566-0092 eves, weakened or MMs. No collect calls, please)

RADIO WEST MW LOOP. \$85. Will ship UPS COD. (Krueger)

DYMEK DA-5, \$145. (Cummins, whose phone I forgot above - (614) 457-5888)

### FOR SALE, HAM GEAR

HEATH SB-102, 5-band SSB transceiver w/ matching spkr/pwr. supply & D-104 mike. \$400 plus shipping. (Glenn Jacobs, K3WEI, RD#1, Box 354-A, Moscow, PA 18444, (717) 842-8245)

### FOR SALE, TEST EQUIPMENT, ETC.

SKL VARIABLE HI/LO PASS AUDIO COMB FILTER, Ideal for cleaning tapes, hets, noise, etc. Complete w/ manual, asking \$100. (Jacobs)

BC-221 Frequency meter, complete w/ manual & all charts. Exc. cx. \$60. (Jacobs)

DUMONT 304 SCOPE. Rack-mount w/ P7 phosphor. Ideal for SAH. \$50. (Jacobs)

HEWLETT-PACKARD HP-524 Frequency Counter, 10-sec. gate time for measurement to 0.1 kHz. Manual incl. \$125. (Jacobs)

### WANTED, BOOKS

Any edition of Radio Spectrum Handbook by James M. Moore. Write stating cx & price via UPS or USPS. (Mike Hardester, 574 Deer Springs Rd., San Marcos, CA 92069)

Recent edition of Broadcasting Yearbook. Write stating cx (no pages missing) & price via UPS or USPS. (Hardester)

COPIES OF DX NEWS, Volumes 39 and prior; for Library Collection. (editor)

### FOR SALE, BOOKS

COLLEGE BROADCASTING TEXTS, circa 1967. Hard- and soft-covers, for study, reference, collection, or whatever. Send SASE for list. Prices 25% off existing list for those who have same already. (editor)

WANTED, MISCELLANEOUS

HAM OPS INFO for NRC Ham List to be published October 1980. (editor)

FOR SALE, HAM GEAR, again

STANDARD SR-C826-MA, 12-channel, 10 watt xtal rig w/ 17 pr. rocks, 2 mics & Standard spkr/pwr. supply. \$150. (editor)

Well, guess that's it for this time. Next deadline is set for about 9/15/80. Get your ads in now. If you wish to rerun ads from this or a recent prior edition, a simple postcard (including changes if any) will do!

73'g

Added at HQ.:

R-390A/URR receiver, 5-32 mhz. coverage late model (1967) unmodified extra clean (almost mint). A real DX machine with complete photocopy of manual. \$475. (Dick Truax, 3003 Gleason Ln. Louisville, Ky. 40299; (502) 491-2871 On weekends only)

BC-221N Frequency meter, with all charts and photocopy manual. Excellent condition. \$45. (Truax as above)

YAESU FRG-7, w/2.9 khz. mech. filter in addition to standard filter & DD-1 3 digit readout, mint condition w/manual. (John Reed c/o Truax as above)

JOHN KROMKA  
P.O. BOX 86  
MONTVILLE, N.J. 07045

# CONTESTS

It is a pleasure for me to announce the winner of the NRC '79-80 Contest Program: RICK CARR. Congratulations Rick, you deserve it! Ray Arruda came up a close second, and Robert Kramer finished the season in the show position. Rick is now entitled a free one-year subscription to DX News.

Well, we have reached the conclusion of another Contest season, and my second year as its editor. It's been a lot of fun for me to manage the Contests and you can be damn sure I'll be back next month to launch a brand new Contest season. I have to admit that it is getting a little difficult to think up new Contests so I invite everyone to send me your best ideas. If it's good, you can be sure I'll use it. Sorry for the different typer, hope you'll excuse it, hi. See you soon-----

ID	Bonnors Ferry	1450	4951	11627
	Burley	1230	4233	11346
	Caldwell	1490	4338	11650
	Coeur D'Alene	1240	4746	11649
	Grangeville	1230	4617	11648
	Halley	1340	4331	11414
	Jerome	1400	4232	11429
	McCall	1240	4446	11612
	Montpelier	1450	4215	11121
	Moscow	1400	4632	11701
	Mountain Home	1240	4305	11550
	Nampa	1340	4334	11630
	Payette	1450	4402	11659
	Pocatello	1240	4255	11236
	Preston	1340	4202	11149
	Rexburg	1230	4342	11200
	St. Anthony	1400	4356	11146
	St. Maries	1490	4726	11639
	Sandpoint	1400	4828	11638
	Twin Falls	1450	4229	11429
IL	Bloomington	1230	4029	8856
	Cairo	1490	3703	8913
	Champaign	1400	4003	8816
	Chicago	1240	4147	8743
	Cicero	1450	4146	8749
	Danville	1490	4013	8735
	Decatur	1340	3950	8852
	East St. Louis	1490	3834	9010
	Galesburg	1400	4056	9026
	Harrisburg	1240	3749	8833
	Herrin	1340	3748	8900
	Joliet	1340	4131	8810
	Kewanee	1450	4112	8957
	Moline	1230	4119	9038
	Oak Park	1490	4147	8746
	Princeton	1490	4119	8932
	Sparta	1230	3807	8949
	Springfield	1240, 1450	3951	8941
	Sterling	1240	4152	8940
IN	Anderson	1240	4007	8537
	Bedford	1340	3850	8626
	Elkhart	1340	4141	8559
	Evansville	1400	3802	8732
	Ft. Wayne	1450	4059	8511
	Hammond	1230	4137	8725
	Jeffersonville	1450	3816	8534
	Lafayette	1450	4025	8656
	Logansport	1230	4043	8623
	Marion	1400	3745	8901
	Muncie	1340	4014	8524
	Richmond	1490	3945	8451
	South Bend	1490	4146	8619
	Tell City	1230	3750	8645
	Terre Haute	1230	3927	8718
	Vincennes	1450	3841	8733
IA	Burlington	1490	4049	9107
	Cedar Rapids	1450	4153	9142
	Centerville	1400	4150	9255
	Clinton	1340	4149	9020
	Decorah	1240	4317	9144
	Dubuque	1490	4224	9043
	Ft. Dodge	1400	4233	9411
	Indianola	1490	4120	9330
	Marshalltown	1230	4206	9255
	Mason City	1490	4309	9320
	Ottumwa	1240	4106	9227
	Spencer	1240	4310	9511
KS	Emporia	1400	3820	9611
	Garden City	1240	3756	10044
	Hays	1400	3851	9916
	Hutchinson	1450	3804	9752
	Kansas City	1340	3907	9436
	Phillipsburg	1490	3944	9919
	Pittsburg	1340	3726	9444
	Topeka	1490	3908	9533
	Wichita	1240	3732	2726

KY	Ashland	1340	3833	8244
	Bowling Green	1340	3658	8625
	Campbellsville	1450	3720	8530
	Cythiana	1400	3819	8422
	Danville	1230	3747	8452
	Elizabethtown	1400	3746	8554
	Frankfort	1490	3811	8454
	Glasgow	1490	3702	8557
	Hindman	1340	3724	8302
	Hopkinsville	1230	3648	8725
	London	1400	3705	8405
	Louisville	1240	3806	8535
	Manchester	1450	3705	8405
	Maysville	1240	3238	9318
	Murray	1340	3635	8816
	Owensboro	1490	3745	8710
	Paducah	1450	3703	8846
	Paintsville	1490	3750	8251
	Pikeville	1240	3724	8242
	Pineville	1230	3546	8339
	Richmond	1340	3753	8422
	Somersett	1240	3703	8437
	West Liberty	1450	3757	8310
LA	Bastrop	1340	3245	9153
	Bogalusa	1490	3051	8941
	Crowley	1450	3014	9229
	Eunice	1490	3019	9238
	Hammond	1400	3031	9025
	Houma	1490	2934	9040
	Lake Charles	1400	3008	9313
	Many	1400	3134	9332
	Minden	1240	3238	9318
	Monroe	1230, 1490	3231	9202
	Natchitoches	1450	3144	9306
	New Iberia	1240	2959	9149
	New Orleans	1230, 1450	3000	9015
	Opelousas	1230	3024	9208
	Ruston	1490	3228	9236
	Shreveport	1340	3246	9349
ME	Augusta	1340, 1400	4419	6948
	Belfast	1230	4425	6901
	Biddeford	1400	4328	7028
	Calais	1230	4511	6718
	Dover-Foxcroft	1340	4510	6911
	Ft. Kent	1340	4713	6832
	Houlton	1340	4607	6748
	Lewiston	1240	4401	7011
	Lincoln	1450	4525	6835
	Machais	1400	4439	6726
	Madawaska	1230	4724	6831
	Millinocket	1240	4539	6844
	Portland	1490	4339	7018
	Rockland	1450	4404	6906
	South Paris	1450	4403	7017
	Waterville	1490	4432	6940
MD	Baltimore	1230, 1400	3911	7640
	Cambridge	1240	3832	7602
	Cumberland	1230, 1450	3937	7846
	Hagerstown	1240, 1490	3942	7744
	Thurmont	1450	3940	7723
MA	Fall River	1400	4145	7107
	Gardner	1340	4233	7201
	Greenfield	1240	4238	7235
	Haverhill	1490	4237	7102
	Lowell	1400	4240	7117
	Milford	1490	4208	7132
	New Bedford	1340	4141	7058
	North Adams	1230	4241	7314
	Northampton	1400	4217	7235
	Pittsfield	1340	4226	7318
	Salem	1230	4229	7051
	Springfield	1450	4212	7232
	West Springfield	1490	4206	7233
	West Yarmouth	1240	4140	7012
	Worcester	1230	4216	7152

MI	Adrian	1490	4152	8404
	Alpena	1450	4505	8333
	Bad Axe	1340	4347	8259
	Battle Creek	1400	4218	8515
	Cadillac	1240	4417	8525
	Cheboygan	1240	4543	8442
	Grand Rapids	1230, 1340	4247	8530
	Hillsdale	1340	4156	8136
	Holland	1450	4248	8609
	Houghton	1400	4715	8841
	Iron Mountain	1450	4549	8807
	Iron River	1230	4609	8906
	Ishpeming	1240	4638	8721
	Jackson	1450	4216	8428
	Lansing	1240	4243	8442
	Lapeer	1230	4259	8338
	Ludington	1450	4357	8625
	Manistee	1340	4416	8614
	Manistique	1490	4558	8613
	Menominee	1340	4511	8739
	Midland	1490	4337	8417
	Munising	1400	4631	8647
	Newberry	1450	4618	8528
	Petosky	1340	4527	8500
	Port Huron	1450	4254	8231
	Royal Oak	1340	4231	8326
	Saginaw	1400	4332	8404
	St. Joseph	1400	4206	8626
	Sault Ste. Marie	1230	4625	8419
	Sturgis	1230	4149	8526
	Traverse City	1400	4440	8533
	Whitehall	1490	4325	8616
MN	Albert Lea	1450	4341	9222
	Alexandria	1490	4552	9524
	Bemidji	1450	4731	9456
	Brainerd	1340	4624	9408
	Breckenridge	1450	4617	9620
	Cloquet	1230	4642	9230
	Detroit Lakes	1340	4650	9553
	Ely	1450	4749	9150
	Eveleth	1340	4726	9230
	Grand Rapids	1490	4713	9331
	Hibbing	1240	4718	9242
	International Falls	1230	4834	9324
	Long Prairie	1400	4600	9453
	Mankato	1230	4413	9355
	Marshall	1400	4427	9549
	Morris	1230	4534	9558
	Redwood Falls	1490	4433	9505
	Rochester	1340	4355	9230
	St. Cloud	1240, 1450	4533	9404
	St. Paul	1400	4456	9304
	Thief River Falls	1230	4804	9611
	Virginia	1400	4743	9244
	Willmar	1340	4507	9505
	Winona	1230	4405	9142
MS	Aberdeen	1240	3352	8843
	Biloxi	1490	3025	8855
	Boonsville	1400	3442	8838
	Brookhaven	1340	3135	9027
	Clarksdale	1450	3417	9031
	Cleveland	1490	3352	9046
	Columbia	1450	3113	8944
	Corinth	1230	3455	8836
	Greenwood	1240	3330	9005
	Grenada	1400	3354	8854
	Gulfport	1240	3024	8904
	Hattiesburg	1230, 1400	3116	8915
	Jackson	1400, 1450	3230	9010
	Kosciusko	1340	3305	8932
	Laurel	1340	3140	8910
	Meridian	1450	3222	8848
	Natchez	1240, 1450	3137	9118
	Philadelphia	1490	3251	8904
	Starkville	1230	3327	8840
	Tupelo	1490	3413	8848
	Vicksburg	1490	3214	9056



MS	(Continued)			
	West Point	1450	3328	8823
	Yazoo City	1230	3249	9041
MO	Carthage	1490	3711	9422
	Columbia	1400	3849	9213
	Festus	1400	3812	9023
	Flat River	1240	3739	9032
	Fredericktown	1450	3728	9017
	Jefferson City	1240	3836	9210
	Joplin	1230, 1450	3709	9430
	Kirksville	1450	4008	9235
	Lebonon	1230	3739	9239
	Mexico	1340	3911	9156
	Moberly	1230	3928	9226
	Nevada	1240	3751	9418
	Poplar Bluff	1340	3640	9019
	Rolla	1490	3808	9146
	Salem	1340	3744	9134
	Sedalia	1490	3842	9311
	Sikeston	1400	3653	8934
	Springfield	1340, 1400	3715	9323
	Warrensburg	1450	3843	9321
	West Plains	1450	3638	9156
MT	Billings	1240	4548	70832
	Bozeman	1230, 1450	4547	11109
	Deer Lodge	1400	4618	11257
	Millon	1490	4515	11233
	Glasgow	1240	4813	10637
	Glendive	1400	4708	10448
	Great Falls	1400, 1450	4729	11122
	Hamilton	1240	4612	11421
	Hardin	1230	4546	10733
	Helena	1240, 1340	4636	11200
	Laurel	1490	4541	10840
	Lewistown	1230	4703	10928
	Libbey	1230	4826	11533
	Livingston	1340	4502	11026
	Miles City	1340	4623	10557
	Missoula	1340, 1450	4655	11405
	Red Lodge	1450	4507	10903
	Whitefish	1450	4828	11411
	Wolf Point	1450	4806	10536
NE	Ainsworth	1400	4235	9959
	Alliance	1400	4203	10248
	Beatrice	1450	4018	9645
	Falls City	1230	4004	9538
	Fremont	1340	4126	9631
	Hastings	1230	4036	9826
	Kearney	1340	4044	9900
	Lincoln	1240, 1400	4051	9646
	North Platte	1240	4103	10045
	Omaha	1490	4110	9543
	Sidney	1340	4106	10259
NV	Elko	1240	4049	71547
	Ely	1230	3918	11451
	Henderson	1400	3530	10514
	Las Vegas	1230, 1340	3605	11509
	Reno	1230, 1340, 1450	3940	11953
	Winnemucca	1400	4054	11748
NH	Berlin	1230, 1400	4434	7111
	Claremont	1230	4322	7218
	Concord	1450	4312	7130
	Franklin	1240	4326	7143
	Hanover	1340, 1400	4342	7211
	Laconia	1490	4334	7125
	Littleton	1400	4426	7140
NJ	Atlantic City	1340, 1450, 1490	3922	7427
	Bridgeton	1240	3927	7514
	New Brunswick	1450	4028	7430
	Pleasantville	1400	3923	7432
	Wildwood	1230	3901	7451
NM	Alamogordo	1230	3251	70559
	Artec	1340	3653	10800
	Carlsbad	1240	3215	10414
	Clayton	1450	3633	10309
	Clovis	1240	3426	10305
	Deming	1230	3215	10743

NM	(Continued)			
	Gallup	1230		3529 10852
	Las Cruces	1450		3217 10655
	Las Vegas	1230		3539 10509
	Los Alamos	1490		3551 10608
	Portales	1450		3411 10322
	Raton	1490		3657 10429
	Roswell	1230		3318 10432
	Santa Fe	1400		3537 10605
	Silver City	1340		3247 10808
	Taos	1340		3628 10541
	Truth or Consequences	1400		3314 10716
	Tucumcari	1400		3511 10336
NY	Albany	1400		4245 7348
	Amsterdam	1490		4256 7409
	Auburn	1340		4255 7643
	Batavia	1490		4257 7814
	Buffalo	1400		4255 7837
	Cheektowaga	1230		4256 7844
	Corning	1450		4207 7710
	Elmira	1230		4210 7654
	Freeport	1240		4036 7338
	Geneva	1240		4246 7659
	Glenns Falls	1450		4320 7337
	Gloversville	1340		4258 7421
	Gouverneur	1230		4421 7531
	Hudson	1230		4209 7350
	Jamestown	1240, 1340		4211 7907
	Kingston	1490		4155 7401
	Liberty	1240		4145 7447
	Little Falls	1230		4255 7456
	Lockport	1340		4304 7852
	Malone	1490		4429 7422
	Massena	1340		4455 7443
	Middletown	1340		4121 7427
	Ogdensburg	1400		4441 7524
	Olean	1450		4214 7823
	Plattsburg	1340		4448 7325
	Port Jervis	1490		4123 7449
	Poughkeepsie	1450		4137 7353
	Rome	1450		4314 7524
	Saranac Lake	1240		4423 7412
	Schenectady	1240		4251 7356
	Syracuse	1490		4307 7606
	Watertown	1240		4359 7601
	White Plains	1230		4058 7350
NC	Asheville	1230		3526 8232
	Beaufort	1400		3229 8043
	Boone	1450		3611 8120
	Brevard	1240		3510 8253
	Charlotte	1240		3513 8056
	Durham	1490		3552 7847
	Eden	1490		3626 7939
	Elizabeth City	1240		3616 7610
	Fayetteville	1230, 1490		3459 7853
	Gastonia	1450		3512 8109
	Greensboro	1400		3606 7957
	Greenville	1340		3534 7721
	Henderson	1450		3618 7822
	High Point	1230		3600 7959
	Jacksonville	1240		3442 7728
	Kinston	1230		4140 7349
	Lenoir	1340		3556 8140
	Lumberton	1340		3436 7903
	New Bern	1450, 1490		3504 7703
	Oxford	1340		3619 7839
	Raeford	1400		3456 7916
	Raleigh	1240		3553 7847
	Roanoke Rapids	1230		3619 7738
	Rocky Mount	1490		3558 7748
	Salisbury	1490		3540 8030
	Spring Lake	1450		3500 7851
	Statesville	1400		3551 8055
	Valdese	1490		3544 8144
	Wallace	1400		3440 7759
	Waynesville	1400		3532 8300
	Weldon	1400		3635 7743
	Wikesboro	1240		3609 8112

NC	(Continued)				
	Wilmington	1340, 1490	3416	7754	
	Winston-Salem	1340	3609	8012	
ND	Bowman	1340	4611	10325	
	Devil's Lake	1240	4807	9854	
	Dickinson	1230	4648	10248	
	Grafton	1340	4822	9723	
	Hettinger	1490	4601	10239	
	Jamestown	1400	4656	9841	
	Rugby	1450	4823	10001	
	Valley City	1490	4652	9807	
OH	Ashland	1340	4058	8215	
	Athens	1340	3918	8209	
	Chillicothe	1490	3926	8301	
	Cincinnati	1230	3910	8424	
	Cleveland Heights	1490	4125	8151	
	Columbus	1230	3959	8255	
	Dover	1450	4031	8130	
	East Liverpool	1490	4041	8038	
	Hamilton	1450	3915	8425	
	Ironton	1230	3832	8240	
	Mansfield	1400	3847	8303	
	Marietta	1490	3928	8126	
	Marion	1490	4037	8304	
	Portsmouth	1400	3847	8303	
	Sandusky	1450	4126	8239	
	Springfield	1340	3950	8350	
	Steubenville	1340	4022	8038	
	Toledo	1230	4135	8348	
	Youngstown	1240	4115	8041	
	Zanesville	1240	3957	8154	
OK	Ada	1230	3448	9640	
	Altus	1450	3440	9916	
	Ardmore	1240	3418	9701	
	Bartlesville	1400	3650	9601	
	Elk City	1240	3526	9924	
	Guthrie	1490	3627	9724	
	Hugo	1340	3359	9532	
	Idabel	1240	3354	9451	
	Okalester	1400	3453	9547	
	Muskogee	1490	3536	9517	
	Norman	1400	3514	9729	
	Oklahoma City	1340	3526	9746	
	Oklmulgee	1240	3540	9557	
	Ponca City	1230	3644	9706	
	Sand Springs	1340	3607	9607	
	Shawnee	1450	3541	9657	
	Woodward	1450	3632	9222	
OR	Astoria	1230	4610	12353	
	Baker	1490	4450	11749	
	Burns	1230	4337	11900	
	Coos Bay	1230	4325	12414	
	Corvallis	1240, 1340	4430	12317	
	Cottage Grove	1400	4340	12307	
	Enterprise	1340	4529	11713	
	Eugene	1450	4407	12313	
	Gresham	1230	4525	12215	
	Hood River	1340	4541	12139	
	John Day	1400	4426	11857	
	Klamath Falls	1450	4209	12143	
	La Grande	1450	4518	11801	
	Lakeview	1230	4209	12013	
	Medford	1230	4222	12252	
	North Bend	1340	4325	12415	
	Pendleton	1240	4542	11850	
	Portland	1450	4935	12236	
	Redmond	1240	4415	12118	
	Roseburg	1240, 1490	4314	12321	
	Salem	1490	4458	12306	
	Toledo	1230	4434	12400	
PA	Altoona	1240	4018	7818	
	Beaver Falls	1230	4046	8024	
	Bradford	1490	4148	7838	
	Connellsville	1340	3958	7939	
	Easton	1230, 1400	4037	7520	
	Erle	1450	4205	8011	

PA	(Continued)				
	Franklin	1450	4126	7951	
	Grove City	1340	4110	8001	
	Harrisburg	1230, 1400	4013	7648	
	Hazleton	1490	4059	7600	
	Indiana	1450	4038	7906	
	Johnstown	1230, 1490	4019	7850	
	Lancaster	1490	4007	7618	
	Levittown	1490	3958	7510	
	Lewistown	1490	4037	7735	
	Lock Haven	1230	4110	7744	
	Lobetto	1400	4031	7837	
	Meadville	1490	4140	8006	
	Oil City	1340	4124	7938	
	Philadelphia	1340	3952	7515	
	Pottsville	1450	4037	7614	
	Reading	1240, 1340	4023	7558	
	St. Marys	1400	4128	7835	
	Scranton	1400	4124	7548	
	Selinsgrove	1240	4047	7653	
	South Williamsport	1450	4115	7655	
	State College	1450	4041	7753	
	Titusville	1230	4141	7942	
	Tyrone	1340	4046	7820	
	Washington	1450	4008	8017	
	Wellsboro	1490	4148	7726	
	Wilkes-Barre	1240, 1340	4120	7543	
	Williamsport	1340, 1400	4115	7655	
RI	Westerly	1230	4121	7148	
	West Warwick	1450	4142	7136	
	Woonsocket	1240	4158	7128	
SC	Anderson	1230	4007	8537	
	Charleston	1340, 1450	3254	8002	
	Chester	1490	3441	8111	
	Columbia	1230, 1400	3356	8107	
	Florence	1230	3411	7943	
	Georgetown	1400	3319	7919	
	Greenville	1490	3451	8240	
	Hartsville	1450, 1490	3424	8007	
	Myrtle Beach	1450	3341	7856	
	Newberry	1240	3421	8140	
	Rock Hill	1340	3458	8102	
	Spartanburg	1400	3455	8158	
	Sumter	1240, 1340	3400	8022	
SD	Belle Fourche	1450	4437	10355	
	Huron	1340	4423	9814	
	Lemmon	1400	4555	10206	
	Mitchell	1490	4346	9802	
	Pierre	1240	4423	10017	
	Rapid City	1340	4403	10304	
	Sioux Falls	1230	4335	9644	
	Yankton	1450	4255	9723	
TN	Athens	1450	3635	8442	
	Bristol	1490	3629	8224	
	Chattanooga	1450, 1490	3458	8509	
	Cleveland	1340	3511	8454	
	Clarksville	1400	3637	8725	
	Columbia	1340	3536	8701	
	Cookeville	1400	3611	8529	
	Copper Hill	1400	3501	8426	
	Crossville	1490	3557	8505	
	Dyersburg	1450	3600	8924	
	Elizabethton	1240	3619	8216	
	Fayetteville	1240	3459	7853	
	Greeneville	1340, 1450	3611	8249	
	Hohenwald	1230	3521	8737	
	Kingsport	1400	3635	8350	
	Knoxville	1240, 1340, 1490	3554	8354	
	La Follette	1450	3626	8405	
	Lewisburg	1490	3530	8648	
	Lexington	1490	3528	8821	
	McMinnville	1230	3524	8434	
	Maryville	1400	3558	8400	
	Memphis	1340	3503	8959	
	Murfreesboro	1450	3554	8626	
	Nashville	1240	3608	8641	
	Shelbyville	1400	3534	8621	

State	City	Population	Area	Population	Area
TN	(Continued)				
	Soddy-Daisy	1240		3510	8509
TX	Union City	1240		3617	8859
	Winchester	1340		3513	8606
TX	Abilene	1340		3225	9941
	Alpine	1240		3019	10341
TX	Austin	1490		3018	9742
	Ballinger	1400		3145	9995
TX	Beaumont	1450		2957	9401
	Beeville	1490		2822	7740
TX	Big Spring	1400, 1490		3223	10129
	Borger	1490		3548	10123
TX	Brady	1490		3107	9921
	Brownwood	1240		3148	9857
TX	Bryan	1240		3036	9613
	Burnet	1340		3044	9814
TX	Carrizo Springs	1450		2836	9956
	Corpus Christi	1230, 1400		2742	9717
TX	Corsicana	1340		3201	9623
	Del Rio	1230, 1490		2922	10055
TX	El Paso	1340		3148	10623
	Galveston	1400		2920	9445
TX	Gonzales	1450		2940	9755
	Greenville	1400		3302	9605
TX	Houston	1230		2959	9521
	Huntsville	1490		3045	9535
TX	Jacksonville	1400		3153	9511
	Junction	1450		3036	9949
TX	Kerrville	1230		2959	9905
	Kilgore	1240		3214	9438
TX	Lampasas	1450		3111	9808
	Laredo	1490		2733	9928
TX	Levelland	1230		3336	10213
	Littlefield	1490		3356	10231
TX	Lubbock	1340		3340	10149
	Lufkin	1340		3110	9443
TX	Marshall	1450		3233	9405
	Nacogdoches	1230		3138	9444
TX	Odessa	1230		3155	10213
	Palestine	1450		3147	9542
TX	Pampa	1230, 1340		3537	10059
	Paris	1490		3332	9526
TX	Pecos	1400		3055	10255
	Perrytown	1400		3625	10044
TX	Plainview	1400		3405	10147
	Port Arthur	1340		2856	9400
TX	Raymondville	1240		2638	9751
	San Angelo	1340		3122	10027
TX	Seymour	1230		3342	9917
	Snyder	1450		3242	10056
TX	Stamford	1400		3258	9950
	Sulphur Springs	1230		3312	9532
TX	Sweetwater	1240		3228	9532
	Temple	1400		3109	9724
TX	Texarkana	1400		3327	9359
	Tyler	1490		3225	9528
TX	Uvalde	1400		2917	9947
	Vernon	1490		3415	9915
TX	Victoria	1340		2851	9655
	Waco	1230		3137	9714
UT	Manti	1340		3909	11143
	Moab	1450		3845	10945
UT	Murray	1230		4043	11155
	Ogden	1490		4112	11201
UT	Price	1230		3922	11053
	Provo	1450		4013	11143
VT	St. George	1450		3705	11335
	Barre	1450		4410	7230
VT	Brattleboro	1450, 1490		4244	7238
	Burlington	1230, 1400		4428	7309
VT	Middlebury	1490		4402	7308
	Montpelier	1240		4413	7234
VT	Newport	1490		4453	7214
	St. Johnsbury	1340		4427	7159
VT	Wells River	1490		4411	7203

State	City	Population	Area	Population	Area
VA	Abingdon	1230		3642	8159
	Brookneal	1230		3657	7856
VA	Charlottesville	1400		3758	7832
	Clifton Forge	1230		3747	7953
VA	Covington	1340		3741	8009
	Culpepper	1490		3832	7759
VA	Farmville	1490		3721	7826
	Fredericksburg	1230		3818	7723
VA	Front Royal	1450		3905	7612
	Hampton	1490		3705	7621
VA	Highland Springs	1450		3730	7719
	Hillsville	1400		3649	8050
VA	Hopewell	1340		3718	7713
	Lexington	1450		3735	7938
VA	Martinsville	1450		3638	8001
	Norfolk	1230		3645	7612
VA	Orange	1340		3810	7806
	Petersburg	1240		3711	7731
VA	Portsmouth	1400		3652	7616
	Roanoke	1240		3719	7959
VA	South Boston	1400		3643	7857
	Staunton	1240		3810	7907
VA	Suffolk	1450		3641	7636
	Waynesboro	1490		3802	7853
VA	Winchester	1400		3910	7812
	Aberdeen	1450		4652	12404
WA	Anacortes	1340		4836	12247
	Bremerton	1490		4730	12246
WA	Chelan	1230		4747	12002
	Colfax	1450		4648	11721
WA	Ellensburg	1240		4701	12027
	Everett	1230		4708	12230
WA	Forks	1490		4753	12424
	Grand Coulee	1490		4755	11900
WA	Kelso	1490		4607	12254
	Kennewick	1340		4616	11907
WA	Longview	1400		4608	12251
	Olympia	1240		4658	12254
WA	Othello	1400		4646	11905
	Port Angeles	1450		4808	12325
WA	Puyallup	1450		4715	12220
	Raymond	1340		4644	12350
WA	Spokane	1230		4737	11732
	Sunnyside	1230		4626	12000
WA	Tacoma	1400		4709	12229
	Toppenish	1490		4624	12020
WA	Walla Walla	1490		4606	11817
	Wenatchee	1340		4724	12012
WV	Bluefield	1240		3718	8111
	Charleston	1240, 1490		3821	8146
WV	Clarksburg	1340		3915	8016
	Elkins	1240		3855	8006
WV	Logan	1230		3916	8131
	Martinsburg	1340		3923	7751
WV	Montgomery	1340		3807	8124
	Parkersburg	1230, 1450		3926	8122
WV	Princeton	1490		3726	8107
	Spencer	1400		3847	8127
WV	Sutton	1490		3839	8053
	Welch	1340		3725	8139
WV	Wheeling	1400		4002	8043
	Williamson	1400		3739	8220
WI	Appleton	1230		4416	8827
	Ashland	1400		4633	9055
WI	Beloit	1490		4225	8858
	Eau Claire	1400		4452	9129
WI	Fond du Lac	1450		4346	8829
	Green Bay	1400		4433	8812
WI	Janesville	1230		4240	8903
	La Crosse	1490		4353	9115
WI	Ladysmith	1340		4526	9109
	Manitowoc	1240		4408	8741
WI	Marshfield	1450		4438	9011
	Medford	1490		4506	9018
WI	Milwaukee	1340		4257	8753
	Oshkosh	1490		4359	8833
WI	Poynette	1240		4331	8946

WI	(Continued)			
	Racine	1400	4245	8749
	Reedsburg	1400	4332	8959
	Rhineland	1240	4538	8928
	Rice Lake	1240	4529	9143
	Richland Center	1450	4317	9018
	Wausau	1230, 1400	4456	8938
WY	Buffalo	1450	4423	10613
	Casper	1230, 1400	4305	10616
	Cheyenne	1240	4109	10449
	Cody	1400	4437	10858
	Evanston	1240	4711	11100
	Green River	1490	4130	10915
	Jackson	1340	4336	11044
	Laramie	1490	4120	10543
	Newcastle	1240	4353	10418
	Rawlins	1240	4149	10713
	Riverton	1450	4304	10827
	Thermopolis	1240, 1490	4334	10824
	Torrington	1490	4202	10410
	Wheatland	1340	4201	10459
	Worland	1340	4358	10700
ADDS				
AL	Camden	1450	3200	8718
	Floral	1230	3103	8619

For any one who has owned that great relic from the U.S. Government better known as the R-390A/URR, sooner or later the 3TF7 tube goes kaput and you are immobilized during that great DX opening. The 3TF7 is a rare tube to locate, but now there's a way to solve that problem once and for all. The following was found in a R-390 manual recently acquired.

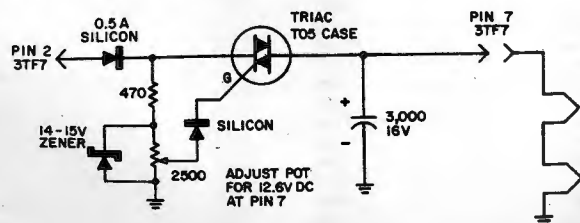
### THREE METHODS OF REPLACING THE 3TF7 IN THE R390 AND R390A RECEIVERS

#### R 390

1. Replace V508 and V701 (PTO and BFO Tubes) with 12BA6's. Short pins 2 and 7 on 3TF7 Tube socket with a short piece of wire.
2. Leave 6BA6's in PTO and BFO Sockets and put a 42 ohm resistor (5 Watt) across pins 2 and 7 on the 3TF7.
3. Below is a Triac regulator circuit which can be plugged into pins 2 and 7 on the 3TF7 socket. Ground to one of tube mounting screws.

#### R 390A

1. Replace V505 and V701 PTO and BFO Tubes with 12BA6's and short pins 2 and 7 on 3TF7 socket.
2. Same as 2 for R 390.
3. Same as 3 for R 390.



# NRD-515 receiver

by Bob Foxworth, New York, N. Y.

## Christmas in June.

It's not often that Christmas comes in summertime but it seemed that way when I got a loan of a new receiver from Perry Ferrell at Gilfer Associates, for evaluation on medium wave operation.

My main interest was in checking out the radio on ECB reception but I spent a lot of time with it on LW & SW as well (all are bands DXed here) and am very pleased with the results, so much so that I now own the radio! Since this is an unusual set in some respects, it warrants a lengthy review as there is a lot to tell about it and surely many DXers will want to know if the price tag of the set is justified. So we'll report our findings here and give the reader a better opportunity to evaluate what this new set can do.



**Specifications.** The receiver is the Japan Radio Corp. type NRD-515 which is handled in the U.S. by Gilfer Associates, Inc. of P.O. Box 239, Park Ridge, N.J. 07656. It measures 34 x 14 cm front by 30 cm deep and weighs  $7\frac{1}{2}$  kg. It is completely synthesized and tunes from 100 kHz to 30 MHz continuously, in steps of, and with resolution to 100 Hz. In practice, signals to below 50 kHz can be copied satisfactorily (with reduced gain) if a proper antenna is provided. The set copies AM, CW, Single Sideband (L and U) and RTTY. It is a double superhetrodyne with first IF at 70.455 MHz and second IF at 455 kHz. Sensitivity is rated less than 6  $\mu$ V from 100 to 1600 kHz and less than 2  $\mu$ V from 1.6 to 30 MHz for an AM signal at 10 db S/N. Those figures are less than 2 and less than 0.5  $\mu$ V for a CW signal. Selectivity is offered as 6 and 2.4 kHz bandwidths, with a 0.6 kHz option available, and a fourth switch position permits a second option which can be a 300 Hz filter, or some other user-supplied filter, operating at 455 kHz. Specs are given as, for the 6 kHz position, more than 4 kHz wide at 6 db down and less than 10 kHz wide at 60 db down. In the 2.4 kHz position, more than 2 kHz wide at 6 db down and less than 6 kHz wide at 60 db down, and 0.5 and 3 kHz at 6 and 60 db for the 600 Hz mechanical filter option. (The 2.4 kHz is also a mechanical filter of Kokusai manufacture). Image and IF feedthrough suppression is better than 70 db in each case. Frequency stability is better than 50 Hz/hour after warm-up. Antenna connection is a single SO-239 jack and is rated 50 to 75 ohms unbalanced. Speaker and headphone outputs are both 4 ohms and line and recording outputs of 1 milliwatt at 600 ohms unbalanced are provided for audio work. The 455 kHz filtered IF output is provided at 50 mV across 75 ohms. VFO signals are available. A 0-10-20 db antenna attenuator, fast/slow AGC, passband tuning and delta-F tuning (or, clarifier, if you will) each cover  $\pm$  2 kHz. Power is 110 or 220 VAC at 50/50 Hz and consumption is 50 volt-amps.

**Operation.** The receiver is tuned by a large front panel knob driving what is called a "shaft encoder" with a notched or etched disc that breaks a beam of light hitting a photocell. Every break of the light beam generates a pulse that steps the synthesizer higher or lower, depending on the direction of rotation. This changes the receiver tuning by exactly 100 Hz per step and the 6 digit reads accordingly, with leading-zero blanking for tens and units megahertz when needed. The 0.1 kHz digit is always on. The knob provides a single tuning rate of 10 kHz per revolution, completely linear and effective on all 30 ranges, which are selected by a detent-stop rotary switch in a 0 to 29 range. In addition, the edge of the knob itself is marked in 1 and  $\frac{1}{2}$  kHz steps to provide an "analog" feel for the operator who may be searching for signals. Each 1 kHz interval on the knob rim is a distance of about 20 mm; the knob is 60 mm diameter. As with any receiver, measurement of frequencies to the 100 Hz accuracy imputed by the readout requires use of the BFO which must first be carefully zeroed with a known accurate signal; the unknown is then carefully tuned to the closest interval to zero beat and the dial read. Past up and down tuning is also provided by a toggle switch that provides a pulse train that rapidly steps the synthesizer at a rate of about 100 kHz/second. Tuning with the knob is effortless as the knob does not drive any mechanical linkages, or rotating indicators or other parts which might cause friction. A finger hole is provided, and the knob can be spun quite rapidly when the user wants to "get there" in a hurry. CW operators will notice what hams call a "bagpipe" effect as the set is tuned in CW mode; the beat note jumps in precise 100 Hz steps. However this effect is not noticeable when tuning AM signals except when tuning very rapidly across a very strong signal when a slight "whir" momentarily modulates the audio and stops when tuning ceases.

The NRD-515 is improved over earlier designs, in addition to the ease and precision of synthesized tuning, in the ability to tune across a megahertz band-end or from one 1-MHz range to the next one. Put another way, some sets tune the "kHz" in a single sweep from 000 to 999 with stops at both ends. The "MHz" is selected separately by a knob, just as the NRD-515 does. (Note though, the MHz change knob in the NRD-515 switches only DC and not RF, for greater reliability). Now to tune, for example from 4970 to 5020 kHz it is necessary on other type sets to crank the mechanically driven oscillator knob all the

way from "970" to "020" and then adjust the "MHz" from 4 to 5 -- consuming a fair amount of time. The NRD-515 however tunes smoothly across each interval, going directly from 4970 to 5020 without interruption. In actuality there is a 20 ms break in audio while the synthesizer reloads from 999 to 000; a scarcely noticeable mild click as the set is tuned across that point. The readout automatically increments the change in MHz even before the MHz change knob is turned from 4 to 5. At that point, changing the MHz knob from 4 to 5 doesn't affect the readout; any further change of the knob then switches MHz ranges as desired. This automatic "overrange" effect makes the set tune as easily as any analog set would.

Stability is excellent. The synthesizer stability is derived from a crystal oscillator and upconversion is also stable as no thermally sensitive L-C circuits are involved in tuning. It is possible to tune in a frequency anywhere in the receiver's range upon initial power-on and it will still be there hours later. Naturally, no crystal calibrator need be provided with this set. I would suggest, however, if RTTY unattended reception is contemplated, the receiver be left on continuously to allow the BFO to stabilize, due to the extreme frequency tolerance needed. For AM signal reception this is not necessary. This is tremendously useful for "remote taping" (unattended by the DXer) of programs as drift problems are practically speaking, nonexistent. The set even has a "dial lock" switch that disables the tuning knob to guard against bumping or tampering, and to allow calibration of the 1 kHz tuning scale on the knob with the digital readout.

As a change from the NRD-505 type, the internal "Collins" type analog scale has been replaced by the knob-rim scale just mentioned. It ought to be noted that, when the set is first turned on, the kHz readout will be 000.0 and the set will come to life tuned to the very bottom of whatever MHz range had been selected; it will not "remember" the last frequency tuned if power has been off more than a few hours. The readout will absolutely not "bobble" on a 9 to 0 transition, as a counter tied to an infinitely-variable analog receiver would. For reading frequencies by zerobeating, I note that the low-frequency audio response is excellent and beat notes below 50 Hz are easily heard in my Sennheiser HD-414 phones (wired for mono) but audio definitely is not boomy or muddy on the low end. On the BCB the user will note that the preselector we're about to describe is ganged to the BFO knob, and on the BCB it's preferable to check frequencies in LSB or USB mode, in which the BFO does not vary as the BFO knob is tuned. Audio quality is very satisfactory.

RF Circuitry. The receiver has no separate preselector tuning knob on HF reception, nor on Longwave. It is an improvement over the NRD-505 in that a preselector function has been added on BCB reception only, to help eliminate problems noted in high RF density areas. The preselect is varactor tuned and operates only on the range from 600.0 to 1599.9 kHz and it is automatically switched in by relays using signals derived from the synthesizer. That is, whenever the receiver is tuned to the BCB, the preselector kicks in by itself. The preselect tune operates in a manner I'd call "comfortably but not critically" sharp over the BCB and is about as "active" or "peaky" as a tuned high-Q loop antenna is, so good front end selectivity is available when a loop is used on the NRD-515. There is about roughly 10 db insertion loss on BCB due to this filtering but it is not noticeable if adequate signal input is provided.

The antenna input, as mentioned at the outset, is a single SO-239 coax jack. Performance of the 515 is quite good on SW using a 40 foot untuned outdoor wire. A length of only 5 to 6 feet of wire was tried, untuned, but is too reactive to give much signal transfer to the receiver; signals were very weak and obviously the input is not intended for short whip type antennas. The 40 foot wire gives fair results on the BCB and poor on longwave, when run directly into the jack. Average non-local nighttime domestic BCB signals are in the s-4 to s-9 range, generally, and only strong longwave signals are heard at s-1 to 3 except for local beacons. (s-9 is half scale on the meter). It is important to note that this receiver requires a low impedance current source type antenna to transfer power to the set. Performance is very good with such an antenna which can be an amplified loop, or a longwire run through a coupler or what a ham would call a transmatch. This is more important at the lower frequencies. Use of a Radio West ferrite loop with preamp gave readings of s-9 on signals that read s-2 with the untuned wire. Similar gains in signal level are apparent on BCB reception when using a loop with coax-fed preamp output. Use of a link-coupled matching network consisting of 2 ferrite rods and 2 variable capacitors gives approximately 4 S-unit, or greater, signal gain on BCB, when inserted into the long wire leadin. (This network was described in NRC DX News in 1968). Although not tried by me, the NRD-515 should be well suited for use with an active antenna system with a whip, powered preamp box and coax feedline arrangement - but as I said, not a "bare" whip. On HF the untuned 40 foot longwire works as well as it does with my Hammarlund HQ-150. Use of a tuned impedance matcher can only help with gain, though the effect may be less noticeable on HF than at MF. No powered preselector type devices seem necessary here. If signal levels at HF are weak, improving the antenna itself is the only cure. (A preselector will just amplify the noise along with the signal). Finally, a bandpass filter such as the McKay-Dymek DP-40 may be considered. Normally it should not become necessary to use, but if the NRD-515 is used in close proximity to a BC station, a ham or a land-mobile base station such as police or fire where overload could be suspected, it will help greatly in such a case. (The DP-40's greatest use is eliminating 910 kHz images from single-con version receivers such as my HQ-150 where for example it totally eliminates the RCI signal on 5055 kHz). I cannot find any instance where the DP-40 helped the NRD-515 at my home.

Finally let me just reiterate - an impedance matcher or coupler is strongly suggested for the NRD-515 on HF bands, not so much for front-end selectivity as for signal gain, though it will help in both aspects. Other antenna gadgets seem unnecessary. I can find no evidence of crossmodulation, or images in the receiver. (I do hear a few harmonics, which are radiated and received through the air to me). In high signal areas, the user might try disconnecting the antenna protection diodes (see book). I did not have to do so.

Bandpass Filters. Not counting IF filtering, the RF section provides two 35 MHz lowpass filters. A 1600 kHz highpass filter comprising 9 capacitors and 4 inductors is switched in automatically whenever the set is tuned above that frequency. A 600 kHz lowpass filter is switched in whenever the set is tuned below that frequency. Similarly, bandpass filters for 600-1600 kHz, 1.6 - 3 MHz, 3 to 5 MHz, 5 to 9 MHz and the 9 to 17 and 17 to 30 MHz ranges are switched in automatically when the set is so tuned. Each filter has at least 10 and some much more, L and C components.

Functions. Some discussion of the controls was made earlier. It is worth noting that the set has been designed for the user, with the often-adjusted audio, delta tune, bandwidth and mode switches on the right hand side. Note that the mode and bandwidth switches are totally separate. No SPR-4 type cut shaft modifications needed. Note that in addition to CW and sideband reception, a RTTY position is provided (BFO fixed at 452.79 kHz) for proper audio tones to drive the TU or demod without retuning the main dial. The S-meter reads s-9 at half scale and about "60 over 9" at full scale. S-1 is the minimum reading and weak signals can be copied that are too weak to indicate on the meter. No signals "pin" the meter, a local daytimer on 1520 comes close; powerhouses WNBC and WCBS are about 3/4 full scale. No crowding is noted and pointer action is good on rapidly fading signals (polar flutter on SW; jumbled regional channels on the BCB) and peaking loops is indicated easily. The 0-10-20 db attenuator has an appropriate effect on the reading.

NDH-515 Auxiliary Memory Unit. The receiver is impressive enough by itself. But it also boasts what may turn out to be a fixture on future-day receivers ...but is unique today.

The NRD-505 pioneered the use of frequency memory in HF receivers that were known to the general DXing public. This memory was self contained in the receiver and featured provisions to store 4 frequencies (via a plug in card inside the set). This is somewhat analogous to a public service band scanner in concept, except no actual scanning takes place. The NRD-515 has expanded on this idea by making the memory available as a separately enclosed option which can be seen atop the receiver itself on the first page illustration. It provides 24 selectable positions. Any given frequency - anywhere in the tuning range of the NRD-515 - may be loaded into and stored in any one of the 24 memory positions by pressing the "memory" button. (I would have called this "load" or "store" however). The rotary switch on the NDH selects the position wanted and a 2 digit LED indicator verifies the position chosen. The option of whether the radio is manually tunable or is having its frequency determined by the information previously stored in the memory is chosen by operating the "manual-preset" button - a 2 position locking switch. The radio tunes normally when it is out. When pressed in ("preset") the NRD-515 immediately tunes to whatever frequency the memory has stored at the position selected by the 24-position switch. This is to 100 Hz accuracy, and there is no noticeable gap or settling time. Whatever RF relays are required to switch, do, and the readout immediately indicates the frequency chosen. (Preselector tuning on the BCB remains to be done, as it normally would, though). The user can go in and out of memory mode on any position, or select from different positions by "tuning" the radio with the 24 channel switch, as easily as if he were switching audio.

The fantastic assist this offers the DXer and SWL both, must be seen to be appreciated. I must confess when I received the set, I didn't even hook up the memory until the third day of check-out, as the receiver itself was so engrossing. (The memory takes power from the receiver, via a 28-conductor cable that plugs into the NRD-515 rear chassis). The memory contains 3 AA 1.5 volt batteries and stores selected information when the receiver is turned off and/or the memory unplugged from the receiver.

The DXer will soon find several ways in which the memory can help. Checking parallels is the obvious first thought. Tune by hand to one frequency and call up a memory location for the other; an instantaneous A-B check can be made, even across many megahertz' tuning. Another idea is the concept of, say, tuning for Papua New Guinea on the 90 or 120 meter band. Your favorite 12 or 15 frequencies can be stored just as fast as it takes to tune the NRD-515 to each of them once and turn the selector and hit the store button. It can even be done the night before. When the band (finally?) opens up, just hit the "preset" button and rotate the selector to call up all frequencies of interest, for rapid spot checking and possibly taking logs on several stations at once. (They said it couldn't be done. Now, who knows?...) If desired several locations on the NDH can be used to store WWV frequencies, or CHU or VNG etc. can be checked to see how propagation is doing. If you are into listening, RCI, EBC, Radio Nederland or even WHN 1050 Country can be loaded into memory if you want a break from DXing. I have AFRTS along with 2370.0 loaded into my unit as well, the latter in case Falklands comes in again, I'll have less of an opportunity to miss it. That's a good example of a frequency which is too much trouble to constantly keep re-tuning by hand. In case of a good opening in which several frequencies develop of interest, this gadget can really earn its keep. The MW DXer logging several testers or Special DX Tests will find it just as useful.

The NRD and NDH combination deserve special attention to the handicapped listener, due to the ease of tuning by others who may not be DXers themselves such as caretakers. The individual's favorite stations can be easily called up on the selector switch at a given time and the program heard. It might be worth mentioning; a blind operator might be able to successfully use the set by virtue of the uniform tuning rate of the knob, and the slight "click" at band ends would serve as an audible milepost. Another potentially useful feature deserves mention. Since the memory stores a digital "word" for each frequency, the 4 line parallel information at TTL level for each of the 6 digits is available at the receiver rear deck memory plug. This could quite possibly be tapped off and used to drive a device known as a "talking frequency counter" which has been experimentally written up in the Amateur Radio Press (Ham Radio magazine) in the past year. This concept uses a large IC in which patterns are etched storing a digital representation of the waveform of spoken numbers. A signal can be sent through each junction of the IC in sequence and the information read out at the proper rate, the output is then an electrical analogue of the signal generated by a person speaking into a microphone. In practice, the information inside the receiver showing the frequency the receiver is tuned to can be converted to electrical analogues of a man speaking those numbers, and the output listened to on a speaker or headphones. At this point these devices are experimental and have to be hand-constructed but they are possible to implement now, and the reason this is worthy of mention in a NRD-515 review is that, from what I can tell, the information necessary is available to the user without making myriad connections deep inside the receiver.

The memory unit contains six 24 pin ICs marked HM435101VLP which are probably CMOS RAMs (of Japanese mfr), six 74126 and two 7447 chips, both low-power Schottky types, and two 4049 chips, along with the discrete parts expected, resistors and capacitors etc.

The receiver has extensive provisions for interfacing with a companion Amateur transmitter such as automatic muting, VFO slaving etc. This is covered in the manual and not here.

It is worth mentioning that a signal suitable for driving the Heath SB-620 spectrum analyzer is available at test point 13, next to a large metal shield can in the middle of the receiver circuit board, accessible from the top of the set with the cover off. An isolating buffer would be recommended, tho a direct tap (through 470 pf) worked reasonably well. Incidentally the receiver is built on several large boards, the receiver board is accessed from above. The synthesizer board, from below. It is a sea of several dozen ICs and fully as large as the receiver board itself. The front panel parts and power supply are also stand-alone with connecting cables. Many circuit test points are provided. The manual has a block diagram and several pages of schematics (perhaps the block diagram will appear at the end of the article) but no detailed servicing notes; the manual is 30 pages and is comprehensive though some of the English is stilted, and is obviously literally translated from the Japanese.

**Problems.** The receiver is not designed for portable (battery) operation, and is supplied with only an AC power cord. The user desiring portable operation has three options. 1. A gasoline generator. 2. A DC operated power generator. This is NOT the commonly found "inverter" which is really a switching supply with a somewhat noisy square wave output. That can be a source of hash at RF frequencies, making weak signal reception difficult. Instead consider the type of supply with a low level pure sine wave generator (at 60 Hz) followed by a high power linear amplifier to boost the output to 115 volts. Really, a decent hi-fi amp circuit is all you need. Popular Electronics had such a circuit several years ago, for a circuit that could handle 90 to 100 watts, drawing about 15 amps from a 12 volt car battery. This would be by far the easiest way to power this kind of receiver in the field. Another possibility would be to use two batteries in series and drop the 24 VDC through several regulators to secure the voltages needed by the receiver, to wit: two +15 V busses, one of them for audio, a +10 volt buss for the memory and a +5 volt buss. A combination regulator assembly using several 7800 series 3-terminal devices could be made up, and would likely run the receiver without difficulty. I haven't tried this though.

A weak signal is audible on 500 kHz, originating from the synthesizer circuitry. It is maybe  $s-\frac{1}{2}$  at the most, but is stronger if a loop close to the receiver itself is used as the antenna. Signals on 1000, 1500 and higher are barely noticeable, only when the antenna is disconnected. The BFO detuning when using CW mode on the BCB has been discussed, with adjusting delta F or using USB/LSB two remedies. The passband tuning works only on CW and sideband modes, and there is no notch filter; selectivity shapes of the filter response curves makes it necessary to tune an interfering heterodyne off one edge of the passband. The 2.4 kHz position is needed for this as the .6 is too narrow for good voice recovery and the 6 too broad to get a moderately pitched heterodyne tuned out. This is my only serious complaint about the receiver but with a 455 kHz IF a notch could be added without too much trouble, so that is certainly no reason to reject the receiver.

**So, How Does the Set Stack Up?** There have been several reviews of 4 and 5 hundred dollar radios in the DX press lately. There aren't too many \$1000 plus radios around, so the reader is justified in wondering if a set like this is worth the added freight. I've tried to help you make that decision. The next step past this level is the rarified atmosphere of Racal and Watkins-Johnson. I would make a guess that a receiver like the NRD would offer the user 90 to 95% of what the pro models would, at about 25% of the cost. Part of

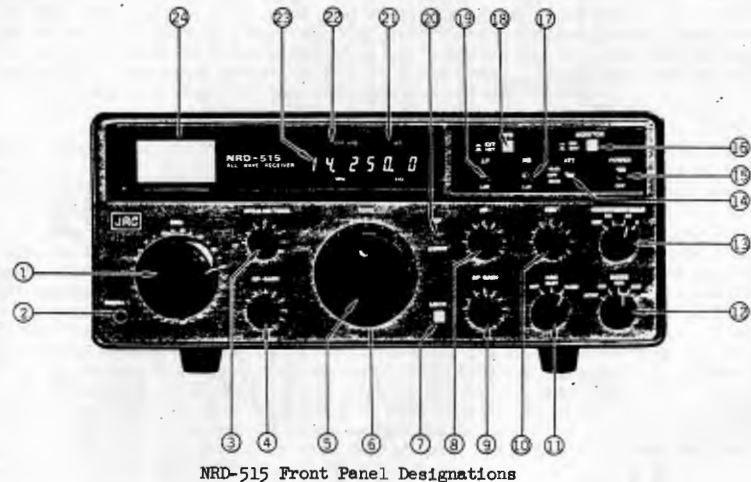
the big-league price tags the professional-user suppliers get for their merchandise is engendered by complicated circuitry enabling remote-control (by wire line or radio link) of all receiver functions. Imagine a chap sitting just outside London tuning a receiver ...the receiver and its antenna are located in Austria but the tuning knob and loudspeaker are in England. Well, that's one way to get rid of your locals. But it's expensive.

The Watkins-Johnson 8718 General Purpose HF receiver offers 5 bandwidths, of 0.3, 1.0, 3.2, 6 and 12 kHz. Well, there are times the 3.2 might be nice to have for SWling. That could be made up as the option for the fourth slot in the NRD-515. The W-J has the ability to detect the signals the NRD will, plus FM and independent sideband (with module added for that mode). Since there's not much FM on HF, at least by design, that's an option we can live without. The W-J tunes to, and reads out to, ten Hz resolution, with 1 Hz resolution as an option. This presupposes the set has stability to match. This is necessary for rigorous point-to-point service, but it could be considered "overkill" for DXing since there is no way you can separate signals that close in order to copy them. The W-J offers 4 tuning rates (per given knob rotation) vs one rate plus switch for the NRD. This begs the question, how much is your time (necessary to tune the set) worth? In addition the W-J tunes down to 5 kHz (upper limit same as the NRD), has an S-meter that can be switched to measure audio output level (The NRD meter is an S-meter only) and finally the W-J fits in a rack where the NRD is in an enclosed cabinet. (I believe I forgot to mention .. the shielding on the NRD is excellent. With the antenna disconnected, you cannot hear anything leaking into the set itself, a very desirable condition). Finally the W-J has no memory that I am aware of, no panel preselect adjustment at all, and no separate MHz change knob. So in my opinion the NRD, for me at least no notch, does a professional job.

The price is not cheap, but it is within reach of many us who don't want to spend the price of a 1980 automobile on a receiver. At this writing the cost of the NRD-515 is in the \$1400 price class, and the memory is in the \$250 price class. Representatives of JRC have informed Gilfer that the set will be priced out in Yen, and any adverse fluctuation of the dollar vs. the yen will engender a corresponding increase in price, aside from any other increase that may be warranted by purely Japanese economic considerations. Anyone interested in this receiver who believes that the dollar will decline against the yen in the future is recommended to enquire early. Any enquiries should be made to Gilfer at their Park Ridge, N.J. address.

Observations and comments herein are solely my own, and are presented as a service to DX and SWL listeners. This material is not copyright and may be used by others providing the author, and club in which it originally appeared, is cited.

written by Robert Foxworth, GPO Box A-866, New York, N. Y. 10116 \* \* July 1980



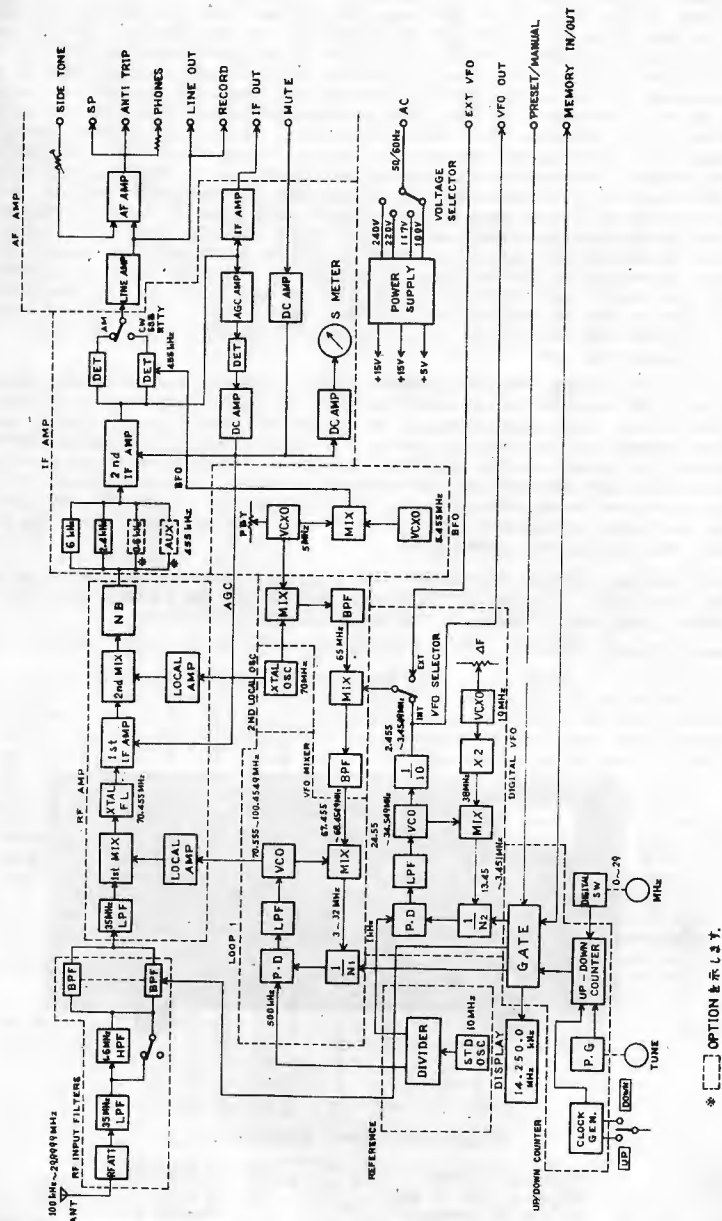
NRD-515 Front Panel Designations

- |   |                            |
|---|----------------------------|
| 1. Megahertz change                     | 13. IF bandwidth           |
| 2. Earphone jack 4 ohm                  | 14. RF atten 0-10-20 db    |
| 3. BFO and BC preselect                 | 15. Power off-on           |
| 4. RF Gain                              | 16. Monitor (for xmtr use) |
| 5. Tuning knob                          | 17. Noise blanker          |
| 6. Tuning 1 and $\frac{1}{2}$ kHz scale | 18. VFO int-ext (for xmtr) |
| 7. Dial lock                            | 19. delta F in-out         |
| 8. delta F (clarifier)                  | 20. Up-down rapid tune     |
| 9. AF gain                              | 21. delta F status light   |
| 10. Passband tuning                     | 22. Ext VFO status light   |
| 11. AGC off-slow-fast                   | 23. Frequency readout      |
| 12. Mode switch (AM-CW-SSB)             | 24. S-meter                |

## MUSINGS

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The opinions expressed in this column are those of the individual members, and do not necessarily reflect those of the editors, publishers or NRC.



付图1 NRD-515 全波受信機 系統圖

APPENDIX 1 NRD-515 ALL-WAVE RECEIVER FUNCTIONAL BLOCK DIAGRAM

### MORRIS IS "LEAPING" LEAF RAPIDS

MORRIS SORENSEN - Box 704 - Leaf Rapids, Manitoba - ROB IWO

As I write this Musing the air around Leaf Rapids is heavy from the smoke from some of the 78 forest fires currently burning in the province. The town itself is in no immediate danger, however. DX has been sparse here as it usually is at this time of year when it is still reasonably light out as late as 11 p.m. local time. My only new loggings were back in May as follows; MM 5/5 - KWDA-730 TEST heard weakly but no go on KVSH-940 which was blocked by CJGX. MM 5/19 (a holiday in Canada); A DX session between 4-6am yielded KCJJ-1560 & CJVB-1470 plus a possible CJCI-620 with CKCK off but no definite ID. Verifications have come from CJVB and KCJJ. This will probably be my last report from Leaf Rapids as I plan on moving this Summer, possibly to Saskatoon. NEIL ZANK, ERNIE COOPER and other members who need Canadian stamps for return postage, I will be glad to trade some for an equivalent amount of U.S. stamps. Anyone wishing to contact me this Summer should do so to my parents' address; 53 Duncan Avenue, Kirkland Lake, Ontario, P2N 1K9 and please be patient please as I will be doing a lot of travelling. I do not expect to be established at a permanent location again until last August or September. 73.

### ERIC TELLS IT LIKE IT IS

ERIC C. LOY - 604 East Locust - Mahomet, Illinois - 61853 217-586-3255 1-10pm, ELF)

During a trip in Southern Illinois, I had the pleasure of meeting JOHN CALLAMAN and seeing some of his varies and pictures of NRCers. Thanks, John, for the hospitality! My varies are up to 63 now, with four countries (U.S., Canada, Belize, & Cuba). The last two QSLs received are R. Moscow-600 v/q, and Voice of Cuba-600(1) v/q and letter. The last new station was WINN, Louisville. I am very sorry to see BILL HALE leave Illinois. Seeing the June 30 issue of DX NEWS prompted me to muse on the situation. It seems as if the NRC, with the rate of support it's getting, should publish less bulletins instead of more. The inactive members of NRC should look at the last few bulletins, and realize that the NRC needs a veritable groundswell of reports to stay "alive", and that they have to support the various columns (DDXD, IDXD, Musings, and such), to achieve this goal. I think most members realize that non-support stopped the Domestic Supremacy list. As the front page of the June 30 issue stated, we need a new publishing committee. If the NRC is to survive, a group of NRCers in one city MUST step forward and assume this position. This Club is quickly approaching an emergency as the state of the LPC (two people) suggest. Do you realize you lose money if the NRC has to close down? Contribute, and the NRC lives. Don't, and it dies. After 50 years of survival, IT'S UP TO YOU!

### GEORGE IS GOING TO HIS FIRST NRC CONVENTION

GEORGE A. SANTULLI - 589 McCLOUD AVENUE - THOUSAND OAKS, CALIFORNIA - 91360

It has been a while since I have contributed anything to the column, so guilt has forced me to respond. Actually, though it has been a crazy work sked that has prevented me from DXing and subsequently reporting. Perhaps a short re-intro would be in order. I am 33, married, and have been a member since 1978, although I was also a member from 1964 to 1970 when college and military took me away. I am a freelance cameraman working on TV commercials in "Gollywood" at present, thus the crazy work schedule. Hopefully, next DX season I will be able to listen more and report more often. I am looking forward to the Convention this year. It will be my first one. I almost made the one to Atlanta when I was living in Memphis, but moved just before the Labor Day weekend. I don't think I will be moving before the Los Angeles one, though. It will be something to finally put names and faces together after reading about the trials and tribulations of some of the Club members. It almost seems as if the major airlines have lowered their New York-Los Angeles airfare to accommodate the NRC with the \$129 fare between the coasts up to and including Sept. 2. It might be cheaper for some members to drive to New York and fly out here just to take advantage of the fare. That's it for now. Have a good Summer, and see you in September - h'mm, sounds like a good title for a song.

### WE WELCOME WITH PLEASURE A NEW BAY STATER

ROBERT RUSH - Pequot Road - Southampton, Massachusetts - 01073

7/12/80

Hi! Happily, I announce that I've rejoined the NRC. You can't DX the AM band properly without belonging to the Club. I sent out for the SM-2 antenna last week. The Realistic TRF will be modified for SM-2 use. This combination should bring in some interesting DX. Yesterday, I received my first varie, from WHEB-750. I plan on receiving one varie from all 50 states. This quota might be impossible today with the ANers, NSPers, etc. Take care and stay cool.

### A HOT TIP FOR THE HOT WEATHER

BARRY WASYLK - 53 West Lake - Winnipeg, Manitoba - R3Y 4T3

In the way of a DX tip, watch 1530 for a new Manitoba station in Morden - C1SV (I think the second letter is 'I' but not positive) which should begin testing soon.

MARK MARKS DOWN A LONG ISLAND BANDSCAN

MARK CONNELLY - at "Summer DX HQ" - 7 Trowbridge Path - West Yarmouth, Mass. 02673 6/26/80
As Eastern Long Island is a popular Summer tourist area & beach resort, I thought a daytime bandscan would be of value to DXers bound for that area this Summer. This is a groundwave bandscan I made on a trip to Montauk Point at the Easternmost end of L.I. The car RX & a TRF were used. Numbers in parenthesis are signal strengths on a relative (1) weak to (10) very strong scale. WLLX-540 (2); WGNB-550 (4); WHYN-560 (5); WMCA-570 (5); WTAG-580 (4); WBEI-590 (4) o/weak unid; WICC-600 (7); WSNB-610 (1); WVNJ-620 (3); WPRO-630 (7); QNBC-660 (8); WRKO-680 (5); WADS-690 (5); WOR-710 (7); WACE-730 (6); WGSN-740 (4); WBBB-750 (1); WABC-770 (8); WGAN-790 (6) o/WJAR (2); WLAD-800 (4) o/WCCM/WTMR (2); WGY-810 (4); WRYM-840 (5); WHDE-850 (4); WTEL/WBSB-860 (2); WCBZ-880 (7); WJWL/others-900 (2); WRQC-910 (6); WJAR-920 (6); WPAT-930 (5); WIRE-940 (3); WROL-950 (4); WELI-960 (7); WDDJ-970 (4); WSUB-980 (6); WLEW-990 (5); o/WNYT (3); WINS-1010 (6); WBEZ-1030 (6); WHEW-1050 (5); WCTR-1060 (2); WTRC-1080 (7); WILD-1090 (2); WLLI-1100 (3); WHIM-1110 (5); WHEW-1130 (4); WCXN-1150 (4) o/WBUE (3); WELW/WKZZ/WJMQ-1170 (2); WLIB-1190 (4) o/WKXK (1); WCAU-1210 (1); WOMN-1220 (4) o/WBIB (2); WERI-1230 (7); WOCB-1240 (5); WARE/WMTX unid-1250 (3); WMMJ-1260 (5) o/WEEZ (4); WSPR-1270 (4); WADO-1280 (3); o/WBIM (2); WCCC-1290 (4) o/WICE/WGLI (2); WATZ-1300 (6); WICE-1310 (6); WATR/WARA-1320 (2); WFTD-1330 (1); WHCC-1410 (6) o/WIID/WNBH (3); WMLK-1350 (5) o/WINY/WHWH/others (3); WDRC-1360 (5); WALK-1370 (4); WNYR-1380 (3) o/WBNK/others (2); WRIV-1390 (4); WALE/WOHD/WILI/others-1400 (5); WPOP-1410 (5); WLLS-1420 (7) o/WBSM (5); WKKS-1430 (2) o/WNUR/WTTT (1); WBSI-1440 (3) o/WFTQ (1); WLAB-1450 (5); o/WIIN/WKHI others (4); WYOL-1460 (3) o/WBET/others (2); WNNM-1470 (4); WSAW-1480 (5); WUSS/others-1490 (2); WPIF-1500 (5); WNLG-1510 (9); WDJZ-1530 (5); WADK-1540 (7) o/WPTX (2); WMLB-1550 (3); WQXR-1560 (1); WRCN-1570 (4); WYFA-1580 (2); WARY-1590 (5) o/WQOW/WETT (1); WLNQ-1600 (5) o/WIKY (2). Connecticut coast stations were the strongest. Reception of Southerly stations (Delmarva, South Jersey) was not as good as it is from South-side Cape Cod sites such as Dennisport. I hope all of you have a good Summer. 73.

HOW ABOUT A LAKESIDE GET-TOGETHER?

DAVE ARBOGAST - 3851 Porter Road - Rootstown, Ohio - 44272 216-325-2807 8008.27
Hello DX fans, back again with a DX-ridden Muse despite the MANI (which is very small here due to very few power lines & such), so why not go right to it. These are with the shack downstairs again using the DX-160 w/a mobile CB antenna. 6/23, 11:41pm, WMMN-920 w/Pirates BB net, end of game, post-game gab being aired. I left the tape deck running on 920 & ran up to get some chips & a sandwich & a glass of milk, came back down, & logged WFIR-960 @ 11:49 with jocktalk (I have a verie but it was before I kept a log & I never logged them). Next down to 1010 & I got CFBP, described as "typical" under the "comments" column in the log, meaning low-level modulation & elevator mx, 11:51. Moving along, 6/24, midnight, CHOL-1070 came in as usual, but WITH an ID! At 12:05am 6/24, WERE was logged w/end of AI NX, ID, spot, & Larry King. (Never before was logged as WFAR splash on 1310 is horrible. I live 11 miles from their XR.) 12:09 came & so did WPTQ-1320 w/a nice SID. I stopped to ID WSIR (which was very weak) as I never before listened to them at home, CWM is not for me, but usually are armchair on a car RX. (12:41am, 1370 was good for a newie by way of WSPD-1370, doing dedications & mentions of Dayton. And now, the second miracle in 30 minutes, 2:26am, frequency 1430, station & program content: CFBP with an ID! (How's that for a let-down, hi) I never before heard a Canadian give an ID, less two do it within 1/2 hour. Now to Wed, AM-XERF (who else is SS on 1570?) w/SS chatter & T-40 mx u/o CKLM, 11:12pm 6/24. And to wrap up the DX section, WLLZ-1360 in fair o/WSAI with Waterford race results & SID @ 11:25. I think STEVEN PARADISE came up with some good things to use in DX talk in the DX NEWS of 6/16. & I also think we should use them. This is very preliminary - I was going to try to get my grand-dad's lake for the weekend for a GTG if Grandpa agrees & enough people are interested. There is room for a beverage of 1,000' or better & a lake to swim in (90 acres) & a cottage w/ five sets of bunks (hold ten people). Mind you, this is in planning stage & may not even take place till next year, but I would like to hear from all interested parties. Support DX NEWS & all columns during the Summer & have a safe & relaxed vacation wherever you may be. So drop me a line or mention it in a Muse (I'll know faster if you write, I don't get around to reading all the Musings till two or three weeks later, so that way works better. 94s & DX.

LET'S WELCOME AN IRCÁ-er TO THE NRC

JOHN ZONDLO - 1802 North Hookwell - Apt. 107 - Bethany, Oklahoma - 73008
Greetings. Since I've never reported to Musings, I figure now is as good a time as ever. Many of you folk know me already, but here's an intro just in case - I'm 26, single, and work at EJLL-104.9 Bethany, a division of the Jimmy Swaggart Evangelistic Association. I moved from NW Indiana to here in November to work at EJLL. I've been DXing for ten years now. I'm circulation manager for WYFDA, and assistant editor of CB Magazine. Other club memberships include RCMA, IRCA and NASWA. For CBX I use a Realistic TRF. I used an FRG-7 till March, when it and my FM tuner and other items were taken in a break-in. I still have faith that all the items will be recovered. DXing here is a bit different, with many more Mexicans to contend with. At least I'll have a better shot at the West Coast from here, hi. I doubt very much that I'll make it to L.A. this year for the NRC Convention, or any convention for that matter, after attending all four major conventions last year. Well, that about wraps it up from the great Southwest. Oklahoma City '81? A capital idea! (Is that a firm bid, John? If so, please get it to the LPC boys pronto! -ERC)

THE NEXT DEADLINES FOR MUSINGS ARE MONDAYS, AUGUST 25 and SEPTEMBER 8. THERE IS NO SPECIAL THEME FOR THESE LAST ISSUES OF VOLUME 47 - IT'S JUST FOR THOSE MEMBERS WHO WANT TO HELP KEEP THE N.R.C. TOPS IN ITS FIELD. WE'D LIKE TO URGE THOSE WHO HAVE MUSED ONCE AND NOT AGAIN TO CONSIDER DOING SO FOR THESE ISSUES, AND PERHAPS THEY'LL FORM A HABIT! JOIN THE LIVING NRC!

MEET THE GRADUATE!

PAUL MOUNT - 471 Emerson Avenue - Teaneck, New Jersey - 07666 201-836-1137 7/1/80
This Muse comes to you at a transition time, as I've graduated from school (A.A.S. in Electronics Engineering Technology) but have not yet started working, so you're left hanging till the next Muse of the IRCA Convention in Louisville, hi. Very little DX activity in the Spring due to other interests. What there was; KLI1-1560 ETing 3/26 while on the phone w/ERC, he noted the soul/pop mx, I noted the ID @ 2:04am. Home over break just before that, & renewed my loan of GE Superadio, and finally heard WMMJ & WBNR-1260 in the daytime on it. MM 4/21 I added WMPT & WMAJ both 1450, Pa. @ 2:19 & 2:00. 4/19 - Out five miles SW of Logan, these not noted in Nelsonville; 1600 WELY & WFSB, what is the city of license for WFSB? (Nothing here on a WFSB -ERC) WTMS & REL on 1560, GOS on 1500. MM 5/19 - Tester on 860 unid w/tr, tones, CC, 1:30-2:30. WINK-md. The loud tester on 1600 IDed @ 1:56. WIGN-1510 PoP was 6/11, I tried calling several but only ERC answered. I had asked for advance notification from the CE, but the only way I found out about it was being in the studio Tuesday when some of the guys there mentioned "Jerry's coming in to do the proof tonight," despite seeing the CE two days before. From the XR logs, I found that WIGN was on the air three different nights, sometimes 1/2 hour around 3am. I don't know if WOOB's was run on 6/4 as mentioned at YAD. Speaking of which, I drove sometimes DXer & promo item colbater and also "good friend" Darlene Glick plus FM DXer Randy Clark of Parkersburg, whom I'd talked into going the day before up to Churchill to be correct & left him off while we put window stickers on the IR window of the car. But when we got back almost everyone was gone so we joined John Sally for a dinner at Taco Bell, then came back for the DX Quiz, which had questions like "Your locals are on 570, 680, 790, 1110, 1330, 1390, 1500, 1570. What town are you in?" This time prizes were awarded on merit. Then a great slide show with pix of N.M. stations the size of a tool shed & tower sites. Nice to meet "New Musings Editor" (hi) DAVE YOCIS and the other Michigan guys. Group hearts playing at my instigation may overcome DXing as our favorite pastime when we're together. In fact Sunday night after the meeting room closed I invited whomever wanted to, to come over & play till all hours; Messrs. WALTON, SIEGEL, GREENE, & MERRILL appeared. We played a six-way game & mx tapes, so the people next door didn't have to apologize for the noise they made banging on the wall; we made some ourselves, hi. I enjoyed our tour of WSRD/WHOT w/unid Bob Pops. It was also nice to meet JIM WALLACE and go to McDonald's, another trip not to be forgotten, or can I? I hope to see a Muse from GEORGE GREENE about the Winter/Summer WX at Starr's cookout. And thank JERRY STARR for the great time. Louisville is likely & other conventions doubtful. Call me evenngs, re FM DX.

HE'LL RETURN TO MORROW 'TOMORROW'.

STEPHEN H. PONDER - Box 1712 - Matthews, North Carolina - 28105 7/17/80
Hello to all from sunny, hot, and muggy Metrolina! The temperature outside as I type this is hovering at 100°, the hottest on record since 1887 in this part of the state! On the Fourth of July, I took a trip to Morrow Mountain State Park, near Albemarle, N.C. to hear what I could hear on my HUTTON-modified TRF. I didn't stay long, since it was too crowded and too noisy to really DX like I wanted to, but I did do a partial bandscan up to 1110 kHz. Here goes: WETC-540, WYNN-540, WDEM-558, WIS-560, WNNC-570, WLEB-570, WAGR-580, WESK-580, WCAB-590, WGTM-590, WSUS-600, WAYS-610, WDNC-620, WELZ-620, WIRC-630, WBSC-660, WPTF-680, WZAP-690, WZOO-710, WORS-730, WPAQ-740, WBBQ-780, WTNC-790, WHTN-800, WCEC-810, WKIX-850, WQIZ-860, WFKO-860, WGTI-870, WRRZ-880, WHNC-890, WKJL-900, WJCW-910, WDRD-910, WBBB-920, WSCC-930, WFNC-940, WSPA-950, WRET-950, WAAK-960, WWIT-970, WAAA-980, WBEZ-980, WEEB-990, WSPF-1000, WWRX-1010, WLOK-1050, WMAP-1060, WGS-1070, WNEW-1080, WKGX-1080, WBT-1110. When the weather cools off some & I get another full day off, I'll return to Morrow Mountain to complete the bandscan. A note to those who would like to build directional loops: If you know where I can buy through mail-order some 365 pf variable capacitors (tuning capacitors), please let me know their address. I've tried all the electronics parts houses here in Charlotte with no luck - United Electronics, Dixie Electronics, Southeastern Radio Supply, and most of the local Radio Shacks! I even went to the city's surplus house, only to find a big box of variable caps with no numbers or stated values! Thanks for the help. Good DX and good luck to all from muggy Metrolina!

THE AUSSIES AND ZEDDERS ARE ROLLING IN

HANK WILKINSON - 5028 Maiden Lane - Santa Rosa, California - 95405 7/12/80
The period of mid-February & end of May was quite poor in regards to TP reception except for several mornings when Asians broke through nicely. I had hoped that the above period would be a "repeat" of the same period in 1979 that was utterly fantastic with over 55 new TP veries (mostly Aussies & Zedders). Well, it was a big disappointment. Then I was contacted by a DXer on the Northern coast of Oregon who convinced me I should DX for "Down Unders" this Summer during June & July. Well, the "DU's" really boomed during the entire month of June. In fact, it has been quite good so far the first ten days of July. I have been DXing from 4:30 to 6am PDT. This is approximately 45 minutes before & after sunrise. On some mornings there were 25 to 30 Aussies & Zedders on the dials. I have been able to report to 14 new DU stations since 6/3 - here are some of the new catches: 27E-783, 1XP-1593, 1ZE-1215 4AT-720, 2CC-1206, 1ZH-1296, F1J1-927, 2ZW-1197, 2XW-891, 1XI-1332, 200-1575, 3ZE-873, 1ZO-1413 & 1YZ-819. Veries received from 1ZH, 1XI, 2ZW & 200 already. The purpose of this Musing is to show other WC DXers what good TP "DU" DX is available during our Summer months. My reason for the enthusiasm is that I've never tried "SummertimeDX" before. I usually DX until the end of April or early May & return around the middle of August or early September. However, without PAT MARTIN's assistance I would have missed out on this Summertime DXing which is one of the advantages of living & DXing on the West Coast. Try it, fellows - you might like it! LET'S HAVE THOSE MUSINGS FOR THE NEXT ISSUE BY AUGUST 25th. REMEMBER THE 30-LINE LIMIT.



CONGRATULATIONS ARE IN ORDER!

KONSTANTINE RYCHALSKY - Box 87 - Beacon Falls, Connecticut - 06403
The union DXer is still alive and well. My most recent important and valued catch this past DX season came Christmas Eve & was verified 6/21/80 - my wife, Helen. Although she's not a DXer she does at times become strong on her f/ups to get me on the ball. ALL TAKE NOTE: new address! The new apartment is QRW-infested with TVs & fish tank heaters but no one cares. On our honeymoon we trekked to Niagara, did some signal monitoring on the way by tuning into a signal & sticking with it till it faded. All reports included map of my 10-20. Results: On Route 17 North; WVOG-1240 N.Y. 6/23 10:28am in Roscoe, N.Y., faded at Hale Eddy; WDLA-1270 N.Y. 10:44am from Hale Eddy & still strong in Deposit; WKOP-1360 11:4am between Deposit till junction of Routes 17 & 390; WJNR-680 @ 1:09pm between Chemung and Elmira fade on Route 390; WLSV-790 2:35pm between Elmira and Danesville. On 6/25 coming back home WNEP-1290 N.Y. @ 7:38pm between Elmira and Exit 80 & 86 on R. 17. Then, while in Florida; 6/30 @ 4:25, Cypress Gardens Radio-1180. 7/2- 7:30, Merritt Island National Wildlife Refuge Radio-1510. 7/4- At 4:28pm WIRF-1290 Daytona Beach DXed from N. Miami. 7/3-WNDB-1150 @ 3:54pm monitored from Daytona till as far as Route 520 junction on 95-S; & finally @ 4:40pm Kennedy Space Center Radio-1510 while on 95-S. 3/20 marked ten years of DXing for me. I've thought of a perfect means of keeping myself active in Musings, DXing & corresponding - I'd like to begin an AM History Book listing by frequency stations & their stories, dates of signing on or off the air; call letter changes; power changes, etc. To make it interesting I'd like to find the first and last v/q holders - name credits definite. I'm aware of the number of stations in existence and you'll think I'm nuts but it should be an enjoyment hearing from you and keeping you up to date in this column. Mothball Memories are a major help - keep them coming. To start off I'd appreciate any copies of QSLs, Mothball Memories, info on changes, etc. for stations between 540 and 590. For example, I remember when WJCA went all-talk in September of 1970 - can anyone tell me the exact date? Or can anyone tell me the year or month or date they first signed on? Or can I locate the earliest known v/q from them? Of each design? Your help is appreciated in advance. Results next time. In the case of a station that ceased to operate or changed call letters or frequency - then last known QSL in existence is requested. Old Timers please write. 73e.

A BEACH HAVEN, N.J., BANDSCAN

TONY FITZHERBERT - 116 Devon Road - Chalfont, Pennsylvania - 18914 7/7/80
Well, I'm back from Beach Haven, on the Jersey Shore for a brief vacation, and a quickie bandscan, which follows. But first, sorry, Ernie, the 1430 station with the very cordial v/1 was actually WBSM-1420. Also, on this trip and a 6/30 trip up I-95 was found the following notes - WHLI-1100 joins the "Music of Your Life" club; WMBE-1070 is now "Stirling Country"; WB10's four-tower array is silent (anyone wanna buy a radio station?); WMMB-1250 has become a more lively MoR outlet, WFIF is still rocking away on the shore of Long Island Sound, & WJZ is a very high quality BBD NOS station. With Summer haze & a cheapie portable, here is a Beach Haven, N.J. bandscan. 540-WLIX, 560-WFLL, 570-EMCA, 580-WBP, 600-WICC (at local strength), 610-WTP, 630-WMAL, 660-WBNC, 690-WTIS, 710-WOR, 730-WPIR, 740-WVCH/WGSM, 770-WABC, 790-WYAR, 800-WYMR, 830-WNYC, 840-WRYM, 860-WTEL, 880-WCBS, 900-WFLN/WJWL, 910-WSPA, 920-WTMM, 930-WPAT, 940-WINE (very weak) (8% by volume?? -ERC) 950-WPEN, 960-WELI/WBOC, 970-WWDJ, 980 to 1000-WZZD, 1010-WINS, 1030-WBZ, 1050-WHN, 1060-WYN, 1080-WTIC, 1100-WHLI (at local strength), 1130-WHEW, 1150-WDEL, 1170-WHLW, 1190-WANN WLIB, 1210-WCAU, 1230-WCMC, 1240-WGBB/WBNJ, 1250-WMTR, 1260-WKKS (Kix Radio), 1270-WSPR (weak), 1280-WADO, 1290-WGLL, 1300-WING/WFER, 1310-WJLK/WCAM, 1320-WKAP, 1330-WPQW/NEVD, 1340-WMID, 1350-WHWE, 1370-WALK, 1380-WANZ/WBNX, 1400-WOHD, 1420-WCOJ, 1430-WWJR, 1450-WIIN, 1460-WJZZ, 1480-WJIT, 1490-WUSS, 1510-WRAN/WJIC, 1520-WIBG, 1540-WHCF/WADK (equal strength), 1560-WQXR (weak), 1570-WBUX, 1580-WRDI/WYFA, 1590-WFTT/WQW, 1600-WKEN/WVLL/WLWG. Also I went up to Maine over the Fourth of July. WDCI-1590 is very directional, at least to the East, cannot get them N. of Gray or S. of Kenebunk on the Turnpike. WLOB is the classic grabbag station - onto the turntable goes what is nearest to the operator without his leaving his chair. I believe that WRXV is still running lkw, with minimum input from announcer, & all-FX format 7-9am, with heavy NBC feed, & MoR all day. WCOU is ultra hype, & WJAM still 7-40. All wise seems to be the same up home. I enjoyed the notes on original meanings of call letters, & will send some more in for the next issue, then for the following, more DX surprises. Best regards!

GERRY'S GOT SOME INFO ON NEW RECEIVERS

GERRY THOMAS - Box 2036 - (3635 Chastain Way) - Pensacola, Florida - 32503
Summer static is in full swing now so serious DXing has been largely replaced by quick band checks of propagation CI and off-frequency LA's. Early June, however, saw extremely low noise levels in this part of the country, so low, in fact, that midday groundwave reception was typical of Winter CX. I recently spent a few days at a conference in Cazenovia N.Y. just outside Syracuse, & tried to give IRCAN & NRCer BILL REGAN a call, but alas, another unlisted number. By the way, I noticed WERT-920, Cartland, N.Y. just to keep DXers on their toes, IDs as "92-IRT." As the new DX season approaches, I find myself afflicted with my yearly itch to buy a new piece of radio gear. The Drake R7/DR7 is a possibility but I'm troubled by the fact that a lot of people seem to be unloading them after only a few weeks' use. I wonder why? Has anyone had any experience with the Collins 51S-1? Or what about the Worcester MW-1 RX7? I'd like to get my hands on one of those but you never see them for sale. I had a chance a couple weeks ago to briefly try the new DX-302 (in the store, but hooked up to an external, mast-mounted CB antenna). Sensitivity was good, selectivity in the narrow mode seemed to be really excellent, but signal handling ability still seemed questionable because locals were audible outside the CB (& I don't mean harmonics). For example, WBSR-1450 was LAC on 450, 2450, & 3450 kHz if the pre-selector wasn't properly tuned. I just found out the new Sony CRF -1 is being imported & will cost about \$1700 (gulp) & the popular ICF-5900W is not discontinued.

WHERE TO EAT IN CONVENTIONVILLE

ROBERT HLIVAK - Box 22863 - Honolulu, Hawaii - 96822
Until last February, I used to live about two miles South of the NEC 1980 Convention site, the Hacienda Hotel. Although I can't finagle my way back to LOS ANGELES this Labor Day, I hope I can help make the NRC's visit there enjoyable by sharing my favorite spots to eat with you all. Manhattan Beach offers the best of both extremes in Mexican food. A truly fine place, with food as classy as its decor, is Pancho's, 545-6670, located where Rosecrans intersects Highland, almost on the ocean. At the other end of the spectrum is my favorite hole-in-the-wall, where one loves the food as much as he ignores how it got there, beats the heat with brew, and learns to face the street to catch the view. The place is LaVilla's, located at 1411 Manhattan Avenue, just North of where Manhattan Beach Boulevard turns into Manhattan Beach Pier. Go at lunch and take a walk to inspect the tans down on the beach near the pier. The Kettle, nearby on MB Boulevard, is one of the few all-night eateries in the area. The ultimate for conventional surf and turf fare is Castagnola's, at two locations in Redondo Beach, my favorite for atmosphere being the one in the King Harbor Marina. For hot-style Chinese food, try Chen Sen Low, located near the movie theaters just SW of Artesis on Hawthorne Blvd. As for other things to do, I'd rather go see the mouse in Anaheim than visit tinsel-town, but to each his own. Don't forget that L.A.'s aerospace industry has begat a plethora (did a really say that?) of surplus electronics shops. Most are up in the San Fernando Valley; one of the largest is Apex. No, I don't know if they have more junk than DON ERICKSON. Enjoy yourselves! I'll be happy to rush a reply to any specific questions on the area, but I'll bet the Convention crew has got things pretty well covered. Aloha.

MEANINGS OF SOME CANADIAN CALLS

BRIAN VERNON - General Delivery - Elsa, Yukon Territory 7/15/80
Not much news here, but I hope it's of interest. Juneau, Alaska, is now on Yukon Time, while the Yukon Territory is now on Pacific Local Time year 'round, exactly the same as B.C. I'm not sure though if Juneau will be staying in the Yukon time zone - it appears to be causing a few headaches there at present. CFWR-570 and its repeaters are now 24 hours NSP w/piped ax from Vancouver 1-6am LT. CKEY-590 will present the "John Gilbert Night Talk Show" 11pm-1am EDT beginning Aug. 4th Mon-Fri; he was a daytime talk host on CKFH-1430 and before that on CHUM-1050. I enjoy hearing about those old calls, and how they came about. Try these: VOOM; Voice of the Common Man; VOAR - Voice of Adventist Radio; CPBB - Rogers Batteryless (radios); CKDC - (Nanaimo, B.C.) - Direct Current, owned by Sparks Holstead, who sold batteries (what else?). He later put a pirate, CRW, on the air. Also CFTP (Edmonton, Alta.) Taylor and Pearson. CJOR - (believed to be) Christ Jesus Our Redeemer; CPPL - Free Press London; CHNS - Halifax, Nova Scotia; CKLW - London, Windsor; CENC - National Carbon Co., also CKGW - Gooderham and Worts, both long gone, but not CKFH - Foster Hewitt (famous hockey broadcaster). ERC will know the most famous one though, CKTE - Canadians Know Their Beer. 73's. (Ha, Brian - that's a new one on me! -ERC)

BACK HOME AGAIN

MARK STRICKERT - 5900 North Washtenaw - Chicago, Illinois - 60659 7/21/80
So far this has been my least active MW DX year since 1971 (I started in '72), so I'm making a public promise to spend more time tracking down new stations this next season. Being back in Chi-Town should help, as I expect to move back August 14th, staying just long enough to unpack, then re-pack for a trip to Louisville for the IRCA Convention. I have been very active travelling this Summer, from Miami to Boston to Ottawa to Toronto to Cleveland, Chicago, Grinnell Ia., Minneapolis St. Paul, Seattle, Eugene, San Francisco, San Jose, so far, slightly over 10,000 miles/16,000 km so far. (You'd make a good airline steward, Mark! -ERC) Most of the Summer was spent at a 7-11 in Seattle, one managed by ex-NRCer (and soon to return?) Ed Ryan. Gracias for very good response to my plea for radio station stickers - all are appreciated. As for DX in Seattle, best place I've found was inside the walk-in cooler at 7-11 - is this due to simulated Winter CX or what? (No jokes! 'Twas the only place in the store to hear Vancouver in the daytime). More once I get settled in Clear Channel City (hi). 73 & good DX (mostly FM & TV 'round this time) de MAS.

THE MAN WITH TWO COUNTRIES

RICHARD CLARK - Apartado 113 - Puerto Plata, Dominican Republic
Hi everybody, here is another report from Puerto Plata. H1VP-970 is now fulltime & back to "R. Varidades" again, their FM station R. Metro H1VP-FM-90.7 has moved to Santo Cerro & bought HING-FM-96.7 studios & antenna site. HING-FM moved back to Moca. R. Santiago HIAZ-810, ex-820 in which I am really not sure if this is a frequency change or what? With R. Sutatenza & WKVM quite strong it is a very poor frequency, unless they're going to be a new station in the middle part of the 800's. The new Dominican station on 1260 is still a question? Many commercials of this country but poor level with QRM HT, Visión, THEIR ID may be "La Voz de Cibao"??, city unknown. You know, since I lived in two countries in which I have two houses, I would love to meet DXers from Dominican Republic and El Paso/Juarez area. You can write me at my Puerto Plata address in this country or El Paso Texas. Both addresses are O.K. Here in Dominican Republic I have some very good friends even though most of them don't speak EE, but that is really no problem. I hope this will clear up any questions of why I have two addresses all the time. I may make the NRC Convention in L.A. since it is only 700 miles away from El Paso, I hope! On Aug. 7 I will be in Fort Lauderdale for a few days & I hope to see KEN SIMON in West Palm Beach, another DXer. For now, 73e.
LAST CALL, TROOPS, FOR LOS ANGELES, AND THE N.R.C. 1980 CONVENTION! IT'LL RUN FROM THURS. AUGUST 28 through MON. SEPT. 1! Come to the Hacienda Hotel and have a pile of fun!

NEWS ABOUT LOCAL RADIO - OR, FORMATS, FORMATS, FORMATS

STEVEN PARADIES - 18 Cornwall Avenue - Millville, New Jersey - 08332 7/22/80

Hello once again from merry old Millville. Not much has been happening around here, as CX are unusually bad. I'm into FMing for the most part. However I have a few good ones. 7/14 WISL-1480 Pa. @ 10:02pm w/Phillies BB ID. 7/18. WEEL-1310 Va. @ 11:22pm w/ID in slop. 7/19. WFSP-1560 W.Va. w/WOXR @ 8:29pm. Then something I haven't done often enough this last season, MM DXing. 7/21, with beautiful CX, hardly any static, WRNL-910 Va., WGNF-990 W.Va., KCOC-1150 Ont., my FIRST graveyard WOL-1450 D.C., WCSC-1390 S.C., & WZIX-1350 Pa. all made appearances between 2:47 and 4 a.m. Reports off to WZIX & WOL. Now as mentioned above, some news for y'all. WJWL-900 Del. is now C&W/17, MoR-CW, Mutual 30 (5), or thereabouts. Actually I'm not as exactly sure how to term it but that is close enough. WCAU-1210 Pa. is now BX TLX w/lots of phone-ins and interviews. WKEN-1600 Del. is 60(5) in the BX column. WSHJ-1240 N.J. & WCMC-1230 N.J. are 30(5) w Mutual. Also, WREY-1440 N.J. doesn't s/off in English, or ID on the hour in EE, for that matter. Is this legal? (No, not unless there's a new relaxing regulation -ERC) I wonder. In the next few weeks, while trying to beat the heat, I'll look into some more of my locals and see if the log needs updating. A couple of days ago, I was in Philly, TRF in hand, of course, & I did a quick bandscan. Here it is, from Franklin Court: 560-WFIL, 580-WHP weak, 610-WIP, 660-WBEC weak, 690-WYIS, 740-WVCH, 800-WYMR, 860-WTEL, 880-WCBS weak, 900-WFLM, 920-WTMM weak, 950-WPBN, 990-WZZD, 1050-KYW, 1110-WNAR weak, 1150-WDEL, 1210-WCAU, 1340-WHEAT, 1380-WAMS weak, 1480-WDAS, 1540-WRCP. That's it. I guess some of the weaker ones and the ones that should be there but weren't, were because of the buildings, etc. Oh yes, ERC, I meant WJDY-1470 at the end of my bandscan last Mue. Now, before closing, Thanks to DAVE ARBOGAST for his letter and tape. Good luck at ERC/LOS ANGELES. I wish I could come, maybe next year if it's in the East. Auf Wiedersehen and 94's, hi!

DESCRIBES HIS SCANDANAVIAN NO-DX TOUR

BILL TOWNSHEND - 4500 Connecticut Avenue N.W. #901 - Washington, D.C. - 20008 202-966-8046 7/18/80
Greetings once again from Abscoatown. I'm kicking off Musing #26 by saying that we had a taste of the Sunbelt's heatwave (shades of July 1954) with 103°F/39°C the day before yesterday (Wed. 7/16) and 102° yesterday before a T-storm roared through town around 5pm knocking the temperature down to size (76°F/24°C) by 6pm, knocking WRC-980 off the air (lightning struck the antenna mast) and putting WHUR-FM-96.3 out for a couple of hours. I couldn't take advantage of WRC's SP because of very heavy QRM. I did several bandscans on MW & LF during the Scandanavia trip, using the Belair BX I bought in England in 1966, but nothing worth reporting. Boy do those Nordic people go in for long words, especially the Finns (I don't mean Mickey Finn, hi). There are no prepositions in their language. When I was very little (four or five years old) I browsed through my late Mom's dictionary looking for the longest words; the longest I found was 26 letters, modest by Finnish standards (also GG). I still am a long word fiend. In the Viking Museum in Denmark I saw 35 letters, part of a Greenlandic Eskimo language explanation of the ships and people; that language is also exotic. I saw snowbanks by the hotel at a Norwegian ski resort and had several smorgasbord meals (sandwich board in Swedish) on an all-you-can-eat basis (my kind of eating; 90 minutes non-stop) with the best such meal on the sweet young thing (not a sexy female, hi) of a ship called the Wellamo, an eight-deck Silja Line Steamer which sails the Baltic Sea. It was weird to see the sky light all night, especially on the steamer on the Baltic en route to Finland. I flew over the pack ice and glaciers of Greenland (boy were they incredible), crossing the Arctic Circle twice (67° N was the Northernmost) en route home. I did log five newies since my return from Scandanavia, all on SSS and four in one night. Who says DX is dead in the Summer, hi? 73 de WPT.

DOUG BAGGED A COUPLE OF NEWIES

DOUG BEARD - RR 1 - Springville, Iowa - 52336 7/4/80
In a recent issue, someone asked about FM DA's. My near-local ESUI-91.7 w/TL (?? KR??)-ERC near West Branch employs one with a null to the North (toward me) to protect KLSB-91.7 Rushford, Minn. (Both have been heard here, Doug! -ERC) Their signal is noticeably weaker here than would be expected for their power & antenna height although they are still fairly strong. KBUR-1490 is 24 hours, SP MM, 1-6am ELI. I repeat; does JOHN CALLARMAN peruse the Muses or should we also send log stuff to him? We visited KLEA-1370 in June. They have a four-tower DS five mib s East of town, remarkable for such a small station. Most of their power goes West. They had been using 250w until shortly before my visit, but are now using their authorized 500 watts. The format is a mix of C&W, T-40 & oldies. My only DX of note was on 5/30. 9:47pm, KNAV-1520 w Twins BB & spot mentioning Devils Lake, N.D. At 11:35pm WBBC-680 w/ID & SX, w/emphasis on Tigers BB. Now the good part; both were newies & both were heard on a nearly-completed four-tube homebrew regenerative receiver. I was grinning for hours. Total heard - 677.

THE BIG MOVE IN PROVIDENCE IS IMMINENT

CRAIG HEALY - Box 182 - Cumberland, Rhode Island - 02864 (Recreated from telephone)
The big upheaval in Providence radio will take place on or about August 11. First, WJAR-920 will leave the BCB and become an FM-only outlet, taking over the present frequency of WRML, Taunton, Mass., 95.3. WHIM-1110 will then move onto 920 and take over WJAR's 5kw & fulltime permit. They will change calls to WBJJ. The 1110 frequency will be given over to apethnic group, and will operate as WHIM did, 1,000 D-1. WBJJ will use WHIM's mailing address. WRML-95.3 will cease to exist. (I hope I have that straight, Craig - if not, please let me know & we'll correct it in the next issue -ERC) (Craig is now CE for WBRU-95.5, Providence -ERC).

WE HAVE A GREAT NOSTALGIA SECTION FOR YOU THIS TIME, SO LET'S TURN IT OVER TO THE MEMBERS! RICHARD IS REALLY RADIO-ACTIVE!

DICK TRUAX - 3003 Glessen Lane - Louisville, Kentucky - 40299
DXing began for me in 1957, when I had just discovered (besides girls) rockroll. Only one station in Columbus, O. played the stuff & I discovered at night I could hear more songs from all over Eastern USA. Alan Freed on WABC, Murray the K on WINS, & even good old John R. on WIAC with that R & B sound. I even stumbled onto Jean Shepherd with his unique brand of humor on WOR. About the same time I got my ham license and an HQ-140X, but with that nifty receiver I spent almost all my time on the BCB instead of the ham bands. Back in those days there were few NSPERS and MM's were unbelievable on the GY channels. In 1967 I discovered there was a club devoted exclusively to the BCB & I joined the NRC. A whole new world opened up with the completion of my first loop - I wonder how I ever DXed before! Since then part of the hobby for me has been to try out all the equipment I could get my hands on. If I liked it I kept it; if not, I sold it. To date I have owned or at least had extended use of; HQ-140X, 2 HQ-150's, HQ-160, 4 HQ-180's, SP-600, R-388, R-392, three R-390A's, SPR-4, two FRG-7's. I've settled on an HQ-180A and R-390A as my permanent equipment. Now if I could string up a 1500' beverage and CX improved I'd be all set for some memorable DXing, hi. After 23 years I'd have to say DXing is in my blood, though it runs in hot & cold cycles as far as activity goes. With the arrival of Fall I'll get renewed enthusiasm once more.

KARL STARTED IN THE MID-60'S

KARL V. JETER - 3590-C Clubhouse Circle - East Decatur, Georgia - 30032
My first experiences with DXing - or something resembling it - were when I was growing up in St. Louis in the mid-60's. Back then, I used to sit in front of my father's big stereo table radio & tune the AM band to see how many cities (not stations), I could hear. This carried through living in Pittsfield, Mass. in 1967-68 & Comover, N.C. in 1969. It was in N.C. that I began tuning around for signals, not for DXing, but for something to listen to. We had no locals at night in the area, so I used to listen to such things as WYKC-1100 & WABC-770. I can also remember listening to the "Subterranean Circus" on WCFM-1000 around that time, a program of real 60's "underground" rr. Cousin Bruce and Chuck Leonard on WABC were listened to almost nightly with a good, constant signal. But it was in 1969 that a friend of mine sent a QSL card from a station, and told me about writing to stations and sending in program information in order to obtain veries, and this where it all began in earnest for me. I started out using a 1968 year model RCA AM/FM portable, then a Realistic DX-120, and then the current HQ-150 & TRF. How did I come to join the NRC? Like so many other novice DXers obtaining veries, a report to WDEL-1150 yielded a v/1 from JOSEPH W. JONES telling me to write to Mr. RAY MOORE in Walpole, Mass. for info on joining the NRC. Interestingly enough, that was in 1970, but I didn't join until 1973, when the first issue of DX NEWS I received was also the first from the NRC! Later, in 1977, I joined the IRCA, and I've been in both ever since. As I did not begin serious DXing until the early 70's, I can honestly say that CX haven't gotten all that worse for me - if I had been DXing in the 60's I wouldn't be saying that, hi. It's harder to hear CA now, and the GYs are even worse than then, & even though I gripe about Larry King everywhere, who can forget Dolly Holiday? (even worse, in my opinion). Almost no DX lately, mainly due to equipment problems - the HQ-150, loop, & SM-2 are all ailing. So the TRF has been getting some use, but not much success to report. I'm running over- I hope to see others' "DX beginnings." 73's.

TERRY DIES THE BOB, BUT 'TIS SECOND TO SW

TERRY A. KLAISEK - 9720 Vickie Place - St. Louis, Missouri - 63136 WIS-2M0
Greetings to all NRC members everywhere! My lethargy has finally lifted, & I now submit my second Mue. My advent into BCB DXing came out of SW DX. When I founded the St. Louis Internationale DXers in June of 1979 one RICHARD T. EDDIE was our first member. Rich has heard some 1300 MW stations, and proceeded to subject me to a rather lengthy discourse on BCB DX! I was fascinated to say the least so I started using my DX-160 and 250' outdoor wire for both SW & BCB DX. SW is still predominant, but I have heard about 130 BCB stations with 70% thus far varied. My best is a TA - Radio Barcelona from Spain. I have in story form my story of how I got into SW DX. This has to be the most unique, and sometimes hysterical way of getting into the hobby ever printed. I have these available for 75¢ in stamps or coin which will be mailed first class to any NRC member. For good cheap reading you have to get this. Till next Mue - good DX (in Summer!) & 73 73's.

RICK TELLS OF HIS FIRST BIG DX NIGHT

RICK KENNEDY - 8132 Ashgrove Drive - Cincinnati, Ohio - 45244
Nostalgia? My DXing started way back in March of '78 when I got my new stereo. I was tuning around looking for any far away places when I ran upon some loud EE preaching. I knew of stations in La., Ill., & Tenn. that made it to Ohio, but that was all. Finally the preacher finished up, and the station I'ded "with studio and transmitter over- looking the beautiful island of Bonaire, this is Trans World Radio." I dove for my World Atlas and stared in disbelief at the tiny island. Now things started happening. I bought a copy of Communications World magazine and started keeping a log. I toyed with the idea of writing for veries, but I had no address listing, and by the time I received my NRC Log, I had logged over 300 stations. I finally decided that tapes would be MUCH cheaper. Every DXer has a night or two that he remembers above all others. My night came on August 13, 1979. It started uneventfully enough with a WKAN log at s/off and another WYFA ET. Then things started to change. Though I don't count call changes, I do log them, & I had yet to log KQNK (ex-KNBI). I sat on 1530 when a carrier came on at about the strength of WCKY. KQNK was at an unbelievable level. I tuned down to see if any of the Eastern clears were

(Kenneally, Con'd.) There were stations on all of the usual channels; 750, 760, 770, 780. I did note a split on 765 & thought it to be YSKLD. Then I realized that the folks in El Salvador don't listen to much Arabic chanting. It was Dakar at a weak but steady level. I noticed that WABC's sloop wasn't as bad as usual so I tuned up to listen. There was WABC At 7-7 or 8 level playing o/w mx. Something was wrong. The song ended and the station IDed as KOB. Though I had already logged KOB, it had never been in at this level. I knew then just what was happening. I had just read a Mothball Memory where BILL BERGADANO recalled the night he logged Arizona and Oregon so I was all in the mood for Western DX. I ran up to 1190 to see if WOWO was off. Sure enough, all that was on the channel was a strong OC, WOWO no doubt. As the time approached 3:00am EST, the OC IDed as KKLIF, Dallas, Texas. I couldn't believe my luck. The two dominant stations on 1190, WOWO & KKLIF, were both off or testing & KJLA was nowhere to be found. Yet I still heard voices, EE voices, in the static. At 3am one voice rose out of the hash, said "KRDS, Tolleson", and faded away. I was in a state of shock, and yet there were still more voices out there somewhere. End of Part ONE - Part TWO, next issue.

#### DICK SALUTES TODAY'S MODERN N.R.C. MEMBERS

DICK COOPER - Box 223 - Kittanning, Pennsylvania - 16201  
----- It was 1925 when my father took me to a neighbor's home, and I was introduced to radio. I suppose it was the magic of far distant places, the endless variety of those first programs, a personal awareness of geography, and many things that made me a DX fan. KDKA was only a few miles from my town, but travel was not easy in those days. It was depression time in the early 30's when I discovered that others with an interest in DX were collecting cards and letters from the stations they heard. My first was a hand-written card from WNBC, Canton, Ohio, 100 watts. My first foreign card soon after came from TGW, Guatemala City, who also sent a pound of coffee. Then followed dozens of exciting cards & letters from such far distant places as El Centro, California (KXO was my first 100 watt from California). It's hard to explain that we often heard those good catches but didn't have the stamps to write for verification. And postage was only 3¢ for a first class letter! The early programs were different. WMSG, Madison Square Garden's station broadcast the events from that famous auditorium, and we heard boxing matches from that station 'way over here in Pennsylvania. Variety shows were exciting! I recall my father getting me up early one morning to hear a musical saw; another time to hear musical water glasses! Log books, especially RADEX, were big helps to me. I recall reading that a DX program from CPOO, Chatham, Ont. brought a bathtub full of DX reports, the most distant from a ship at sea. Since there were only 600 to 700 stations in the USA, my goal was to verify all USA stations. I guess I came within 12 or 14 of that goal at one time. Some of our other members got it whittled down to two or three. And there was a time during WWII when we used to catch the new stations as they came on the air. That was prior to all-night operations and at a time when many stations conducted a monthly frequency check. It's hardly fair for us old men, who have lost our hearing and our seeing, and many other physical attributes, to occupy these pages with our rhetoric. Most of the members are young people! Today and tomorrow is every bit as good - yes, in many ways much better - than the past. I like to read about what you fabulous young people are doing today! 73.

#### CARL WAS HELPED IN THE HOBBY BY TWO FELLOW OMAHANS

CARL W. DABELSTEIN - 8209 West 78th Street - Overland Park, Kansas - 66204  
----- Not much DXing is being done here during the hot Summer months, but a few veries have come in. V/ls from KGHM-1470, WMCL-1060, KTRC-1400, KOKL-1240, & KESY-1120 (Thanks, DAVE MARGRITZ). V/r's from WADE-1210, KZLA-1540. V/q's from KWLS-1290, WKX1-1300. Totals are now at 2,060. The KESY verie now gives me Nebraska at 100% again and KWLS leaves only KRZJ-1190 to have all Kansas AM stations verified. With many of the other members telling about their introduction to DXing and the NRC, I thought I'd get my 2¢ worth in. Back in 1958, at age 12, I attended a ham radio novice class program at World Radio Labs in Council Bluffs, Iowa. While there, I met two other fellow Omahans, a MURRAY MANN and an ERNIE WESOLOWSKI. A couple of months after we received our novice licenses I happened to run into these two fellows on the air. As fate would have it, about six months later, my family moved - right across the street from Murray and a couple of blocks from Ernie. While visiting their Radio Rooms I saw their folders of BCB verifications. I was surprised that people collected these the way hams collect QSLs. Just for the heck of it, I sent out a few BCB reports. As many young, inexperienced DXers, these were on postcards with no return postage. Ernie & Murray, some 4-6 years older than I, sort of took me under their wing and showed me the ropes. Soon, I had my first BCB verie, a Mtr from KCMO-810, dated 4/14/59 (verie #2,000 was dated 4/13/79). This also turned out to be a fortunate time to start DXing because the NRC Convention was held in my home town of Omaha that same year. Thus, a hobby I have had for 20 years began. Both Ernie & Murray are still members of the NRC. Ernie & I have had many good times together. He taught former NRCer Ed Bents & me how to drive a car when we became old enough to do so (I am sure he had more patience than my father). Ernie & I have also taken several trips together, visiting radio stations or attending conventions. He still lives at home with his parents Roy & Rose, & I doubt whether anyone could begin to count the number of DXers they have invited into their home. It is this spirit of friendliness and hospitality that has permitted the NRC to continue as the best DX Club. During the last 20 years in Omaha & Lincoln & more recently Overland Park I have met a lot of DXers who have joined & left the NRC - Marv & Phil Robbins, John Drauss, Jim Lee, Ed Bents, Dave Fisher and Bruce Reynolds. Perhaps some day they'll catch the BCB DX bug and once again become active.

WE'LL TAKE MORE NOSTALGIC MUSINGS - IF MORE OF YOU HAVE SOME TO SEND! DEADLINE, AUGUST 25.

#### TELLS OF HIS OLD-TIME RADIOS

MILES BREEDVOLD - 1281 Lakeview Avenue - Mendota Heights, Minnesota - 55120 7/17/80  
----- Another Nostalgia Musing for 7/25. I first seriously became interested in radio in 1930, when an uncle, also a radio fan, lent me a single circuit crystal set which was tuned by two sliders moving on rods to vary the number of coil turns in the circuit. Unfortunately, that was not much of a DX machine. Next, I bought for a dollar or so in a Goodwill store, a factory-built one-tube regenerative set which really started me in BCB DX. At night it would regularly receive WJW, WNAS, KMOX, KGA, and many Chicago stations from our Minneapolis home. It used a dry battery tube, a UX-12, (a WD-11 with a UX base). It had no variable condensers, but instead had a variometer for tuning, and another for regeneration control, plus a rheostat for the filament, and a high & low band switch. A variometer consists of two coils in series, one of which can be turned within the other to change the inductance. Later I built a one-tube set using a UX-201A, employing a three-circuit tuner, that had primary and secondary tuned by condensers, with a rotating tickler coil for regeneration. I next added a two-stage audio amplifier and graduated to a loudspeaker, a magnetic one; I continued by building two stages of radio frequency amplification (each with a separate panel) so that I could bring in Chicago stations on the speaker. With that set I DXed regularly, picking up WJR, KDKA, & stations in Baton Rouge, Schenectady, and Fort Wayne. Afterwards I bought my first communications receiver, a second series Hallioncrafters Sky Buddy (the S-19R). While I still have it, it was followed by a Hallioncrafters Super Defiant (SL-25) an original National HRO (2.5 volt tubes), a couple of goodperforming Stromberg-Carlsons, and the present Hammarlund Super Pro and HQ-180, and the ubiquitous TRF. I shall be looking forward to reading the musings of the other older members, as well as all the contributions to this interesting department.

#### MORT'S DXED ON EACH COAST

MORTON D. MEEHAN - 7682 North Star Avenue - Twentynine Palms, California - 92277 7/9/80  
----- With Summer station killing DX here on the desert I've used my radio time with my new Bearcat scanner. Even FM skip hasn't appeared here although now is the peak time for this unusual reception. A Fourth of July visit from CARLETON LORD and his lovely wife was all too brief and much of our conversation was about the DX and DXers from the '30s. I was a much younger DXer then & Carleton was Editor of RADEX in those happy DX days. This being the Nostalgia issue I had better jump into that. My DXing started in 1932 in the city of my birth, Elizabeth, N.J. Using a five tube Freshman parlor radio I heard stations within the next few years from such places as New Zealand, Hawaii, Argentina, Newfoundland, and France. But my main interest was hearing 100 watt stations from over 1,000 miles away. With early morning clear channels and good Winter CX it was very good to hear small stations from coast to coast. While the family were listening to prime time radio programs I would switch between programs for a Station ID & thus worked my way into the hobby of DX. I can remember stations like WOWO & WNYA coming in together on the same frequency with the same CBS programs. And there were many frequencies where as many as four stations shared time and some even shared the same transmitter. I got up early one morning & heard a small Pennsylvania station asking for postcard reports on a test. So I sent one & soon received my first verie. It was a few years later before I discovered DX clubs. My second receiver was a Philco 16B in 1935 & I added SWling to my hobby. Next receiver was in 1937, a Hallioncrafters SL-11. Many have followed since and every time I got a new radio I started a new log of stations heard. Later after serving in War II I moved to California and lived in about 20 different cities always starting new logs with each move. Today I have found very few of these logs and I've just about given up verifying due to the postage rates. I've been DXing 48 years & now at the age of 63 I'm retired in a good DX location with over a dozen receivers.

#### PETE KNEW MANY OF THE OLD-TIMERS NOW GONE

PETE CIARIUS - 1583 Castleton Avenue - Staten Island, New York - 10302  
----- Well it's been a long time since I sent in a report so here goes. My BCB log is now at 1,904 with 1,443 verified. I have not verified any stations for about five or six years as I have so much radio stuff that I was rummaging out of room. I only DX at twilight & mornings from about 4am on and one of my favorites is listening to country music programs such as WHK WBT WNYA KREL WSPD WSAY WSM WMAQ WRAP WWL etc. My first radio station logged was WJBI-1210, 100w, then located in Red Bank, N.J. & my first verie was from WPOE, then located in Patohogue, L.I. & owned by the Patohogue Order of Elks. This was reported to me in 1931 & was logged on the family highboy nine tube Zenith. I first heard of any radio club after hearing an NRC DX program on WREU in Reading, Pa. & through this I learned of another DXer on Staten Island, namely a great guy & dear friend who has since gone to his reward, BERNIE DUFFY, and then one time had a GTG at my home & one of those attending was MORT MEEHAN who at that time wrote a DX column for the Elizabeth Daily Journal. I went to a few NRC Conventions such as Buffalo & White Plains, N.Y. and Boston, and one in New Jersey which was the last one Bernie & I attended. I first met Bernie in 1931 & we had a very close radio relationship but were far apart politically & religiously as two people could be but these seemed to cement our friendship even stronger. I also follow weather reports quite closely & enjoy them on many of the CW stations who give the weather for the truckers. I would like to go to the Los Angeles Convention but I have a fear of flying so I guess that leaves me out. Yes, Mort, I too remember RAY EDGE, BILL WHEATLEY, CHARLIE MORRISON, INV POTTS, RAY GELLER, ARTE JOHNSON, and the R-9 Listening League.

WE'LL TAKE MORE NOSTALGIA MUSINGS FOR THE NEXT ISSUE IF THERE'S STILL SOMEONE WHO HASN'T YET EXPRESSED HIMSELF HERE. THIS MEANS ANYBODY - YOU DON'T HAVE TO BE A SENIOR CITIZEN!

REMEMBER PLEASE; ONE MUSING PER ISSUE PER MEMBER - PLEASE OBSERVE THE DEADLINE DATES!

GEORGE IS GETTING SET FOR HIS CONVENTION TOUR

GEORGE GREENE - 1527 Sunset Avenue - Akron, Ohio - 44301  
----- 8007.23 and time for the "nostalgia" issue Miss, as I get ready to head for Oregon tomorrow & the GWDXA Convention. I will also be attending the IRCA's in Louisville but L.A. looks doubtful. My start in DXing mainly came after discovering WNGM-1050 (now WHN) & its rock music during a Winter evening. Then, considering the kind of signal that station had/has here, all sorts of other interesting stuff came in to interfere with my reception of them, like CJIC, KYW, WNOE, CHUM, XEG, etc. This got me to wondering what else I could get (I was already aware of WLS, WABC, etc. a while beforehand), so the DXing idea was born. Then I sent away for an NRC sample bulletin, & joined shortly thereafter. My first varie, by the way, was WNEW. I don't really have much BCB DX to mention, only the WMLB-1550-DX TEST, heard on 6/22, but in N.J. (as PAUL MOUNT & I were returning from a visit to JOE FEIA's), so it's an "unaccountable", hi. I have been doing a fair amount of FM DXing, w/some interesting catches made. Locally, WHLO has asked for nights w'500w. Wanting 500w at night also, along w/a move to 1070 KHz, is WQIO-1060-Canton; apparently their pattern will go SE, as they plan to move their XR site about seven or eight miles NW of Canton. Over in Kent, WKNT-1520 will be "live" c/w, as of 8/4, with their FM keeping the present adult contemporary format. I hope some of you heard the WKNT-1520 test last night (actually earlier today), per a tip from DAVE ARBOGAST. As for some more distant radio news; WTKO-1260 Miami is dropping c/w for all-SS as WHTT, w/their new GM the NRC's own DAVID GLEASON; WADY-1320 has been sold to the owners of WKQS-Boca Raton, but who knows when they'll return to the air; WAMB-1170 has asked for another increase, this time to 50kw; WYND-1280 Sarasota gets WZZZ, to go w/their new adult contemporary format (a switch from c/w). I still am raiding stations (and the WLS Annual Stories van) for stickers & other promo items, so those wanting to trade - write! 73 de GCG. (I was in Brooklyn 7/3-7/7, George - ERC)

SIDNEY STARTED IN THE LATE FORTIES

SIDNEY E. MARSHALL - 7224 Pam Drive - Millington, Tennessee - 38053 7/20/80  
----- Another day of 100°+ temperature! Many high temperature records have been broken for this area during the past couple of weeks with no relief in sight. In spite of high static levels & other poor CX I have managed to log several new ones since my last Muse, as follows; On 6/28 @ 7:30am WMIL-940 Ill. was in strong for several minutes with end of local BX, WX for Southern Ill. & spot for sponsor of "94-News" in downtown Mt. Vernon. Later, on this morning, @ 11:2, KXRI-1600, Ark., came in with spot for Gibson's Pharmacy, mx, & ID heard. This is ex-WEDL, formerly located in Miss. On 6/29 @ 9:30pm KEOR-1110, Okla. was in like a local with ID, mx, TC, & station slogan. Full s/off was also heard @ 9:45pm. On 6/30 @ 2:30am KCMC-740, Tex. was in w/mx, station promo for "Mother Earth News on KCMC", temperature, & more mx. On 7/1 @ 10:59am full legal ID of KYOG-1130, Mo., was heard. Also on 7/1 @ 9:20pm KAWW-1370, Ark., was in w/mx & ID. Then on 7/5 at 9:30pm s/off of KHAM-1000, Ark. was heard. SRS on 7/6 the s/on of WMLC-1270 Miss. was heard @ 7am. Nothing else new until SSS on 7/18 when the s/off of WVKO-580, O. was heard @ 9pm. With these newies my station total now stands at 779. As this Musing should make the "Nostalgia" issue my first exposure to DXing came during my high school years in the late 40's when I did some DXing on a battery-operated Silvertone RX for about a year. Then my interest in DXing faded until mid-1952 when I was stationed overseas at Thule, Greenland. There I had access to a Collins 75-A receiver & spent many happy hours of DXing until I returned to the States in 1953. A couple of years later upon getting married, raising a family, and work pressures pushed DXing out until April of 1979 when I re-entered the world of DXing and joined the NRC and later the IRCA. I'm here to stay and am looking forward to many years of DXing and belonging to both of these fine clubs!

BOB GOES BACK A LONG WAY!

BOB CURTIS - 17 Cobbleview Drive - Colchester, Vermont - 05446 7/16/80  
----- I thought I would send along a "Nostalgia" Musing. That's a great idea for a Musings subject. I probably qualify as an 'old timer', as I did my first BCB DXing in 1923; so I have been at it 57 years. I just never seem to get over the fun of listening to 'far away places' and trying to identify stations. I came across one of my early QSL's the other day, & thought the write-up on it might be of some interest. The QSL is from WCAX in Burlington, Vt. WCAX has long since become the call sign of our local TV station, Ch. 3. At the time of my reception of WCAX on March 13, 1925, I was living in Quinoy, Mass. Anyway, here is what was on the QSL: "Radio Station WCAX, 'The Voice of the Green Mountains'. Thank you for your report on our program March 13th. "WCAX" is a one-hundred watt broadcasting station operating on 252 meters. The antenna is 85 feet high and 160 feet long. This station broadcasts regularly every Friday evening from 7 to 8 o'clock, EST, with a program given largely by members of the resident teaching, research and extension faculties, by individuals and organizations of the student body and Friends of the University." Of course, the University is University of Vermont. Wouldn't it be nice nowadays, if more stations were only 100 watts and just broadcast every Friday evening from 7 to 8 p.m. ERNIE does a great job with "Musings" and is to be commended for doing so much for NRC and the hobby. 73. 'Thanks, Bob! -ERC)

DXING CAN BE A ROMANTIC HOBBY!

CHARLES J. MARTIN - 323 East Walnut Street - Long Beach, New York - 11561  
----- Hi! I am one of the Old Timers. I became 70 on 4/8/80. We were visiting friends. He built a crystal set & we heard WGY on it - that was in 1924. I started DXing in 1930-1, & I used a GE H.51, in Springfield Gardens, N.Y. It was a great set for DX. You could hear KFI by 9pm in the Winter and 2YA & 2BL etc. around 6am. I had an antenna about 200' long. We swore by RADEX then, a fine log. My first varie was WJAG-1060, Norfolk, Neb. I married his daughter after not seeing her for 36 years, 7/16/1976! 73.

COME TO BERMUDA AND VISIT!

CHARLES A. TAYLOR - Box 1226 - Naval Air Station Bermuda - PPO New York, N.Y. 09560 809-293-1435  
----- Having missed the issue dedicated to NRCers who have gold tooth fillings (I don't), the one dedicated to those who live on streets having a name ending in "Z", and the one dedicated to NRCers who have at least one end of a longwire tied to a spruce tree, I will attempt to make the issue dedicated to nostalgia buffs - apt, because I like to reminisce back to that last time that I Mused. I got started on a little Admiral AC/DC type set that could pick up WQWO-1190, WLM-700, and WSM-650 (on a good night) from Indianapolis, Ind. Since then, I've used everything from crystal and regenerative sets to an HRO-500 & an R-390A URR. Present set is an SPR-4 and an SM-2 (I like to call it the "Space Maggot", one of the best MW loops built). Please note the address change from Ground Elm Electronics or Communications at the U.S. Naval Air Station Annex. I may revert to that address in eight to 12 months. In the meantime, I remain a civil service employee of the U.S. Navy. At the Naval Air Station, I'm involved in the maintenance of Navy HF, VHF, & UHF receivers & transceivers of SSB, AM, & FM mod. We provide the communications for all incoming and outgoing aircraft, both military (USN, USAF, ANG, Canadian Forces and other NATO) and civil (EA, AA, Delta, British, Air Canada), as well as navigational aids. BDA is a rather busy airport with the touristic traffic in and out. I also maintain antennas & feedlines, and expect to get into the Navy's Antisubmarine Warfare Operations Center (ASWOC) later. I am still running/jogging. I now am running to and from work daily; a round trip of 16 miles. It saves gas (\$1.60/gal.) and takes me through some beautiful territory. On occasional business/pleasure trips, to the Annex, I usually run/jog one way, which is 13 miles (also a scenic route). DX is non-existent, for a variety of reasons. We may move in the next few months, which would take me out of this nest of dimmers and color TVs (I hope). NOTE: If you plan a trip to Bermuda, keep me in mind and on your list. Only one NRCer that I know visited here, that's ED GEHRINGER, who stopped over for a chat, dinner, and DX. The phone number is above and I'm usually home around 2200Z (6pm ELT). 73 de Charlie.

GEORGE WILL VACATION IN BEAUTIFUL TOLEDO

GEORGE WALTON - 344 High Street - Easton, Pennsylvania - 18042 7/19/80  
----- Hello members. The Summertime DX continues to roll in. Recent new catches are WWIN, Baltimore; WDON, Wheaton, Md.; WOND, Pleasantville, N.J.; WOGM, Chester, Va.; WIEZ, Bangor, Me.; WJUL, Niagara Falls; WARE, Ware, Mass.; & WLDW, Westfield, Mass. Recent MM DX logged WCTW, New Castle, Ind. on late. My reception report was answered very quickly by Mr. Lee Freshwater, who stated that during their car giveaway promotions, they stay on late. He also stated that he has been an avid BCB Dier since 1955. Since I could not find his name on the list of members, I sent him a copy of DX NEWS & the pamphlet "Broadcasters Guide to DXing". I hope that he either joins the NRC or agrees to a TEST. Locally, WSAN has switched to all c/w mx. Now to the subject of how I got started in DXing. My first experience came in 1959. While staying at my grandmother's house, I began to tune around the dial of her clock radio. Around 700 I picked up a station in Nevada. No one believed me so I didn't give it much thought. Years later, approximately 1978, I was talking to JOHN BUEHLER about his new hobby - DXing. I quickly became hooked and have been at it ever since. My biggest mistake was not to start verifying right away. I wish I had. I am now and find it very interesting. Our vacation this year is going to be spent in beautiful Toledo, at the home of JOHN BUEHLER. Wherever I hope to see the finer art of TV DXing. I'll probably get hooked on that, too. John states that he is having a 60' tower put up for his TV DX. AM DXing will be done also as I am anxious to try his FRG-7. Well, that should do it for now. Good DX to all. Also, to ERC my apologies for all the typos in this Muse. Usually my wife types, but this time I had to. (No problem, George! -ERC)

DX WAS GOOD IN DES MOINES IN THE 60'S

STEPHEN J. McINTIRE - 2225 Searle Street - Des Moines, Iowa - 50317  
----- Hi all. Nothing new here on BCB, but FM has been fine, especially one opening to the EC on 7/17 when I logged six newies from Philadelphia to W.C. in the space of 1 1/2 hours including one FM "graveyarder". Much thanks to PAUL MOUNT whose long distance call alerted me to the opening. (If it weren't for the call, I probably would have just watched Reagan's speech, hi). Now for nostalgia. I was introduced to DXing in January 1965 by a friend, Bob Dickson, who I later convinced to join the NRC. I must admit our early efforts were rather uninformed; I didn't find out about varies until I picked up a predecessor of Communications World, the same place I found out about the NRC, which I quickly joined. My first RX was an old five-tube Philco, certainly no great shakes, but I well remember hearing KOLE-1340 Port Arthur, Tex. on it one AM that Summer. In my ignorance, I thought that it was a rather routine reception! After attending the NRC Convention in Cedar Rapids that year, I settled down to my first real season of DX. I soon had a new RX, a Lafayette HA-2D. It overloaded badly when locals KSO & KRNT were on the air; luckily, neither was AN back then. In fact, the only locals that were AN were WHO & KCBC & both had regular SM SPs. The old timers back then grumped about the rise in AN broadcasting, which was really taking off, but most of the ANs, including almost all of the clears, had regular SPs, generally on MM. As a result, WC regionals such as KENO & KDON-1460 were rather common on WME, even on the EC. One problem we had then but not now was the CBC AN program. The entire CBCnet was on AN w/wall to wall "good mx" w/BX & IDs on the hour. This show netted me one of my best catches ever, CBLE-1090 (now CJEC1) a 40w LPRT. My other great catch that season was KORL-650. Next season brought KFQD-750 & my one & only TA, Dakar-764. Just a couple of weeks till the big bash in Ellay; I'll be in Vegas before it & San Francisco after it. Midwesterners not going might listen to KAAY for the annual "Hog Wild" madness before the Arkansas-Texas game (and after it if the Razorbacks win); it's not an NRC auction, but it's almost as crazy! Bye, all. THE NEXT ISSUE IS IN FOUR WEEKS, DEADLINE IN PROVINCETOWN IS MONDAY, AUGUST 25. DOUBLE SPACE!

STEVE RECALLS WHEN DAYTIME BROADCASTING BEGAN

STEVE BEZILLA - 307 Second Avenue - Osceola Mills, Pennsylvania - 16866 7/22/80
Best I muse with the Ole Timers since my 70th year is coming up and I've been DXing since 1924, when a salesman installed a Westinghouse three tube set, on a trial basis for the family. I remember the first call letters heard: WBEM, Chicago. Way out from Chicago, voices, music, coming to get trapped on the 100' long aerial. It wasn't called antenna. KDKA Pittsburgh was not heard on this set, I may have missed it as broadcasting was only for an hour or so in the evening. With three dials to set for every station was awkward. If not set properly there would be squeals, hums, and whatnot. The family soon got another set called "Osarka" - I don't know who made it. It was a very big set like a small trunk. Dials almost as big as saucers. A better radio, five tubes, reached out to the West Coast for the 50 watters and most any station in the USA and Canada. I sure got the DX bug from the time I heard WBEM. About 1925 WVIC Hartford Conn. was trying daytime broadcasting. KDKA and others soon did the same - not the whole day, just an hour around noon to begin with. I got a KPPL 15 watt verie on a DX TEST, in Greenville, Texas. I remember NRC being born. It was 1966 when I joined. I enjoy every bulletin. Thanks to the crew that do the work for us quiet ones. By the way, I DXed in every year more or less since 1924. 73s.

GEORGE LEARNED ABOUT TRANSISTOR RADIOS

GEORGE B. SHERMAN - Box 2,284 - Minneapolis, Minnesota - 55402
I started DXing in 1965 when my brother gave me a six transistor pocket RX. I don't know if I was trying to see what it would do (how it worked) or just looking for a (local) rook station. Anyway, I heard rr around the 7, so I stayed tuned and it IDed as WEB, Kansas City. I couldn't believe it, such clear reception for 400 miles! Before long I was tuning into other distant stations, mostly clears, & writing down what was heard - CBL, WSB, WJR, WABC - what a thrill to hear the EC at good volume on a pocket RX! In the last few months of 1966, I still needed the WC. At one time I bought a 14 transistor pocket RX because I was sure it was the number of transistors that determined what would be heard. A larger eight transistor portable got stations under the store roof, but the 14 transistor did not. Still I was "certain" the 14 transistor was superior. I was pleased to note it got KGMA at 700 miles. I got a present of a borderline pocket RX with less than 14 transistors & I heard KSL, KFI, & KMBR so there went my "the more transistors the better" theory. In early 1967 I had a logbook of 144 stwtions & noted approximate s/off times. I didn't know I was called a DXer or that anybody else did this. A friend showed me "Radio TV Experimenter" w/the White's Log of MW FM/SW stations. So I got a four band portable, & heard FM from New Orleans & SW from South Africa! But SW was frustrating w/mostly foreign language & not knowing frequencies, so I tried MW once more. I got my first split frequency & Central American, YND-675. Now I was really excited! I saw an article on "Easy TA's" in a newsstand magazine and couldn't understand why I didn't hear any (1,000 miles inland on a cheap portable!) I got a Star Roamer & soon found myself trying SW more. I still hadn't heard about reception reports & QSLs, or DX Clubs, until articles in Radio-TV Experimenter. So I sent for sample bulletins and joined NRC with over 300 stations heard in 8/68. About this time I discovered the TRF & really started serious DXing. More on that next time. 73.

"MISTER X" TELLS OF HIS DX BEGINNINGS

NO NAME OR ADDRESS - ERIC LOY OR PAT MASON, I think. 1-217-566-2139 11am-11pm EDT.
'Tis time to Muse once again. Calls always appreciated.
Things have been looking up since last Muse, so I got the cast off of my broken thumb a week early, & I am golfing again. However, during my handicapped days, I logged some good DX. A trip through the ole 'resting place' frequencies netted KAKE & WJNN-1240, WAJF, KBUR & WESL-1490, & the Paducah local on 1450. (I don't know the calls; but I thought WJAD. However, is that on 1560?) WJAD & WDXR switched channels a while back -ERC) Also WKBX-630 surfaced a week or so ago. FM-TV DX continues to be sensational w/23 new FMs in two weeks, & two new TVs. Reports sent out to WNEK-FM Gallatin, Tenn., WERG-FM Cincinnati, WCMY-1430, KIOA-940, WMLX-940, WGRA-1090, WSB-750, WCFL-1000. Recent veries are from WCMY-1430 (arrived in town three days after I received them, but I had to pay 13¢ postage due; I got it a couple days later), a v/f w/CM, station info & 1980-81 calendar. WGRA-1090 v/f, KIOA-940 a form card & WCFL-1000 which came with four bumper stickers & eight window decals. Eric Loy got his verie plus 11 decals and four stickers. So if you like stickers, try WCFL before they change. They are probably ridding themselves of all extras, as they won't be any use to them after they get new calls, at least that's why I believe they are being so generous. I have a letter ready to send out to KRDS-1190, a copy of my 2/11/80 report that was returned by the P.O. five months ago. Verie wait from WERQ & WNEK-FM, WSB & WMLX. I have given up on Belize for now. Totals stand at: AM-627, FM-277, TV-187, for a total of 1,091. Veries: AM-44, FM-1, TV-1 & SW-12, for a total of 58. I started DXing AM in April 1975, thanks to a school weekly reader section named "Radio Bingo". Pictured is a map of the U.S. with selected cities. Beside them are small boxes, to put the call letters of the stations. On the left are 30 clear channel outlets, to match up with the cities listed after picking up the station. I have 29 out of 30, KEX being elusive. I did most of my DX on an old console radio, which did OK for the time being. Later I used a hi-fi, a multi-band, & other portables. Christmas '78 brought the TRF, & the Select-a-Tenna arrived in March '79. I used no reference until 1978, when I purchased the North American Radio-TV Guide, 12th Edition. (A friend had a Guide from '74, & I found it useful). I logged all of my stations on one sheet of paper - it soon was crammed full. So in 8/77 I bought a spiral notebook & logged my AM-FM-TV stations there. (I am close to making another one as this book is crammed too, especially AM). I learned about the NRC through Communications World & I joined in 12/79 & here I am. Every minute has been enjoyable & rewarding. Call me on way to the Conventions

HE HAD AN OLD ATWATER-KENT

CURTIS D. ENGBERG - 80 Concord Road - Wayland, Massachusetts - 01778
I'm afraid it's been an incredibly long time since I have been in the Muirings. My apologies to you, ERNIE, who never takes a vacation from your faithful duties, & to all the rest of you out there that have made each issue so great. I did catch Belize on 4/4 a little before their 11:55pm s/off when they were on 828. Also, thank the Lord for new radio stations, since they seem to be the only new ones possible around here any more. I caught WGFJ-940 on 5/1 about 7:30pm for my first new ID of 1980! Then on 7/14 @ 1:15am I finally got KAAA-560 on an ET. I'm probably the last one in the country to get them, but it seems every other time I've tried, all I hear is SS. We visited my son in Dunedin, Fla. in last April. I heard one midnight s/off while there that I haven't been able to decipher. It clearly IDed as WERQ-1600 to my ears. Any ideas will be appreciated. (I show a new call for Reidsville, N.C. as WKXQ -ERC) I have a few memories from the good old days since I started DXing in the 30's. All of those distant sounds that came in on the Atwater Kent TRF were thrills to me. One of my best remembered was KFUN-240 Las Vegas, N.M. which came in early one morning sounding completely alone and much like a local. I was DXing from Eastern Minnesota in those tender days. But for sheer ecstasy, my thrill at hearing KIRO-710 fairly regularly in the early morning as I was getting up to go to school, and having them not only send me my first verie, but also give me a personal long acknowledgement over the air was really it. I wasn't sure I should even mention it at school, but I had to tell people. Of course I was right, nobody could understand what kind of a young nut I was! Well, 3,693 stations later, I'm still at it and almost as nuts as I ever was. I hope it never stops. Maybe some day I'll review my early logs and supply some highlights. Unfortunately most of them are just marks in old issues of Radio Guide, many of which have been disposed of in earlier moves, and a few copies of Stevenson's Radio Bulletin from the 40's & 50's. I didn't start keeping a chronological log until after we moved to Massachusetts in 1954, and I even lost the first part of that when we moved again two years later.

HE LOGGED WHAS IN NEW JERSEY IN 1922

ERIC W. CRUSER - 1 Lake Shore - Lakehurst, New Jersey - 08733 7/23/80
Although my 17th birthday was just celebrated this past February 29th I feel comfortable being included among the older members. BCB listening began 9/18/22 with a one tube (WD11) receiver. WJZ was the first station heard. DXing began five days later (9/23/22) when WHAS was received with a very good signal. (The WHAS Profile in Mothball Memories by PETE KEMP was of especial interest.) Particularly enjoyable listening, in that period, was the Wanamaker Grand Organ from WOO in Philadelphia. The WOO call still exists but is now used by A T & T in their ship/shore service. Philadelphia stores were well represented in those days with WOO, WIP, WFI & WLIT. Today only the WIP call survives in the BCB. Other calls that ring a bell with fond recollections are: WOC, WDAF, WOS, WSB, CKAC, WSMR, WJAX, PWX, OKW, WOR, WPG, KFI, KOA, KHJ, KMX, WIOD, WQAM, KPFX, WMAP, FBZ, KDKA, WGY, WBT, KWKH, WBAF, KYW and many many more that are listed in the old log. My most intensive period of MW DXing began with WHAS and continued to 1930. Interest continued although there were diversions such as experimental television with Hipkow disc equipment in 1920-31 folo by obtaining a ham license in 1932 with subsequent building, operating, experimenting, etc. Since retiring from full time employment and joining the NRC six years ago my interest in DXing the BC & LF bands has been rekindled. Listening these days is generally done with an SX-42, a TRF, or a Drake 2B with a solid state converter. The thrill of logging a "good one" still exists but whether it matches hearing WHAS with the single WD11 is not debatable. That one was once in a lifetime. 73, Eric, W2DTR

PAUL STARTED IN THE 50'S BUT WAS OUT 'FOR A SPELL'

PAUL SWEARINGEN - Box 500 - Moran, Kansas - 66755 316-237-4584 7/15/80
As far as DXing goes, TV was great here in June, with several Canadians & Mexicans skipping in. Not much is happening on the MW, (BCB? -ERC) as I am plagued by line noise. I'd trade the heat and relative low noise level for a few T-storms. The average high temperature for the past three weeks has been 110°, with the high on July 12 being 117°. Walking outdoors is like walking on shredded wheat. Oh yes, we have no air conditioning, but a wet towel around the neck helps. My 2¢ worth in the spelling controversy... Ernie's comments notwithstanding, to each his own preference, if they're in the dictionary. But this English teacher is gonna throw a hissy the next time he sees the atrocity "seperate" in DX NEWS! (We teachers get the blame, you know, for allowing these errors to happen). Enough paranoia. I built a small (2) box loop recently, and glory be, it works! Not enough null, though, so I'm thinking about another. I also plan to stretch a beverage to the NW along a convenient line of trees when it cools off. A belated thank-you to Bonnie and Jerry for their extreme hospitality at YAD. I hope we can make it back next year. I think I started twiddling the dials when I was about eight or nine in an effort to get a station which carried the "Big John and Sparky" show, but I really don't remember when I became hooked. I do remember writing down spads of call letters in an indexed notebook until I discovered White's Radio Log. I started keeping a log in about 1958 & taping in 1975, but I never have solicited veries. Too expensive and time-consuming for me; I prefer the tape "verie". My first radio was the only one in the house, a venerable table-model Radiola five-tuber which I still have. Many Winter evenings I spent wrapped in a blanket in an unheated bedroom, listening to exotic DX (for me). Had I known that RAB was located in Guatemala, I would have gone plumb crazy with excitement over the odd ditty-bop sounds at the top of the dial. I figured how to hook a longwire to the Radiola one Summer - I wonder how I avoided being electrocuted or frying the radio, now that I think of it. College intervened & I lost interest until 1975, when in early January I was out of work and had nothing to do. I did have a beat-up Hallionrafters S-120, so I started DXing again. And here I am. Furthermore, as they all say, I wish I'd joined the NRC sooner! (I take the blame for 'seperate', Paul, hi -ERC)

HARRY SEES MANY CHANGES IN THIS PAST DECADE

HARRY HAYES - 9 Henry Street - Wilkes-Barre, Pennsylvania - 18702

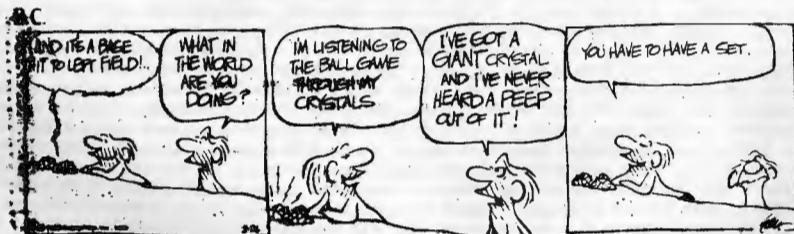
EDT

Summer is here & I can't say I've been doing much on the AM band, although I should be with FM DX as poor as it is this year. I turned the RX on the evening of 6/8 & heard old Wintertime friend WBIC-1380 N.C. coming in. Also a WJBT of WJVT on 1590. I don't know who that was. ('Tis ex-WWBK-1560, Brockport, Harry - ERC) An excursion of the Graveyards on the morning of 6/14 revealed only WITH-1230 Md., WKBO-1230, & WHAP-1340. With WBAX's XR across the river around Edwardsville they are weak enough to permit easy picking on 1230. On the morning of 6/23 I was listening to WKBW when WPOE-1520 showed up just after midnight with an ET which featured old Chiffons mx. They were cheerfully added to the log. I loved the Nostalgia issue. That old DX is really interesting. I suppose there was no one who DXed around this area who could denote the local radio scene. Since we are still doing nostalgia I would like to note that the band has sure changed since 1970 when I started counting stations. Back in '70 and '71 Monday mornings were still worth staying up for. The Fall of 1971 marked my freshman year in college. My schedule was arranged so that my first class did not start until 2:25 in the afternoon on Mondays, so you can bet I spent a lot of Mins DXing. It seems to me that back then that when one came upon a TT he was almost assured of an ID. Not any more though. My only regret is that I didn't have any antenna except the built-in one in the radio in those early days. One nice thing heard was the WAMB-1190-TEST. On another subject, I will be officially back DXing the MW by mid-September. September, October, and November are the best months for DX in my humble opinion. Now that I have wasted my allotted space with useless gabble I will s/off until better CX.

FORTY-SEVEN YEARS OF FUN

ERNEST R. COOPER - 5 Anthony Street - Provincetown, Massachusetts - 02657 617-487-9337  
 Ah yes, nostalgia. (I used to think 'nostalgia' was a head cold, believe it or not!) WBEB, WBBC, WJTH, WFOI, WBSH, WARD, WCGU, WVPW, WBYN, WMIL, WMBQ, WCNW - what did these stations all have in common? They were ALL Brooklyn, N.Y. stations, sharing time with one another and with others. As most of you know, I started DXing in December 1932, & my first verie was from WFJN-940 in Hopkinsville, Ky., now WAVE, Louisville. #2 came from old "pest", the 50-watt WEXL-1310, Royal Oak, Mich. which was on till 4 a.m. in those early days and was considered as "ruining" that graveyard frequency! There were virtually no ANs then. The stations didn't s/on so early, either - the first ones on in N.Y.C. weekdays were WEAF-660 and WOR-710 who came on at 6:45 a.m., the former with a Hawaiian xylophonist, and WOR with setting-up exorcises. Whichever Brooklyn station was designated to be first on on 1400 ko/s. came on at 7, and the two other big N.Y.C. outlets, WJZ-760 (now WABC) and WABC-860 (now WCBS) opened up at 7:30 a.m. They all went off at 1 a.m., and all had live half-hour programs of dance music on the networks from various hotels in the big cities for the 11:30 to 1 a.m. period. The first deviation from ALL-LIVE programming on NBC was when they allowed a repeat broadcast of the tragic explosion of the Hindenberg zeppelin which you have probably all heard at one time or another as it is one of radio's all-time classic events. I was 14 in 1932, but prior to that, my father, who died when I was 12, let me stay up with him of a Sunday morning for a DX session on our old Stewart-Warner six-tube set. It didn't have much power - there was absolutely no background noise on it - and he never lived to realize his ambition of hearing California on that set. His best was XEW, Mexico City. But, I DXed informally from time to time until I found out about verifications and so I consider 12/32 as my beginning, although I had tuned quite a bit before that. Only a couple of months after my dad died, 10 and behold, one morning, in rolled KFI-640 with a house-filling signal which would really have thrilled him! When we moved & inherited a long straight wire which was attached to our window but which was used on its other end by the folks in that house, I hooked onto it, and with that, I logged quite a few 5kw and 1lw Cal. stations, in those days before ANs and before the directional antenna was born. Had we had today's receiving equipment then, we would have heard the whole world! Maybe even Mars. But though vastly different now, the BCB is still fun after all these years. I also enjoy FM & I am glad to see so many of you also are tuning the FM band during the Summer. C U N B, & in Louisville. Get your tix to LOS ANGELES, and take in our big NRC Convention out there.

- 543.2 NICARAGUA Managua R. Corporacion noted off-freq 6/22 but was back on freq 6/26. Incidentally, s/off is at 0445 w/new NA (i.e. not the one on the anthem tape). (Thomas)
- 549 ALGERIA Oran poor w/AA vocals 0358 6/28. (Connelly)
- 567 NEW ZEALAND heard on 6/20 and 6/30. (Wilkinson)
- 575 COSTA RICA San Jose TIRN good w/lush orchestral mx 0526 6/28. (Connelly)
- 576t ALGERIA Bechar suspected w/AA mx poor in QRN; het from equally weak LA on 575 present, 0427 6/28. (Connelly)
- 576 AUSTRALIA 2FC Sydney heard on 6/30. (Wilkinson)
- 576 UNID fair carrier hetting Costa Rica 0145 6/24. Not seperable. (Thomas)
- 585 SPAIN Madrid fair w/nx by man in SS, some WEEI slop present, 0403 6/28. (Connelly)
- 594 AUSTRALIA Horsham 3WV heard on 6/22 and 6/30. (Wilkinson)
- 600 CUBA good w/EE promotional announcement for the daily Olympic report from Moscow's North American Service 0436 6/29. (Connelly)
- 612t MOROCCO het on domestics 0439 6/29. (Connelly)
- 621 AUSTRALIA 3AR Melbourne finally heard and logged on 6/30 from 1223 to 1246. (Wilkinson)
- 621 UNID maybe Canary Islands, weak SS audio 0535 6/2. (Fowworth)
- 639 AUSTRALIA 5CK Crystal Brook logged on 6/30 from 1251 to 1302 on a KFI fade-out. (Wilkinson)
- 639.8 UNID het on low side of Cuba and fragments of SS talk; this is probably HJBJ Santa Marta noted here on other occasions, 0405 6/28. (Connelly)
- 657 NEW ZEALAND 2YC Wellington heard on 6/23, 6/28, and 6/30. (Wilksn)
- 666 UNID weak LA mx masked by severe QRN noted 0150 6/24. Not noted since so apparently a drifter. (Thomas)
- 670 VENEZUELA Caracas YVKL heard w/fast SS talk, R. Rumbos ID, mostly u/the Cuban; no WMAQ 0349 6/29. (Connelly)
- 690 COLOMBIA LV de Colombia heard to 0500 (0500 s/off) 6/2 under CBF OC with Enciclopedia looped. Trying for HCJB which was not heard. Fair signal. (Foxworth)
- 700 COLOMBIA HJGX Cali fair w/Colombian national nx report o/u WLV 0353 6/28. (Connelly)
- 702 AUSTRALIA 2BL Sydney heard on 6/20, 6/22, 6/24, 6/25, 6/26, and 6/30. (Wilkinson)
- 720 CUBA CMGN Colon rolling o/HJAN/YVOE/other LA's; WGN not noted; Cuban chimes good at 0402 6/29. (Connelly)
- 725 SURINAM Paramaribo fair w/African-influenced Caribbean mx 0142 6/29. (Connelly)
- 730 COLOMBIA Bogota HJCU mixing w/CKAC; accordion mx, SS talk, boisterous R. Melodia ID 0353 6/29. (Connelly)
- 747 AUSTRALIA 4QS Toowoomba heard on 6/30. (Wilkinson)
- 750 NICARAGUA YNX Managua stop growl w/R. Sandino ID, mention of "revolucion popular de Nicaragua", then group vocal march mx 0503 6/28. (Connelly)
- 756 NEWZEALAND 1YA Auckland heard 6/20, 22, 23, 24, 25, 26, 28, 29, and 30. (Wilkinson)
- 760 COLOMBIA HJAJ Barranquilla fair w/LV de Barranquilla mention o/ other LA's w/WJR nulled 0456 6/28. (Connelly)
- 765 NEW ZEALAND 2ZK Hastings heard on 6/23. (Wilkinson)
- 765 EL SALVADOR Somsonate R. Universal in for the first time in months w/male monologue and usual "Cadena Central" and "KL" ID's. This at 0315 6/28. (Thomas)
- 774 AUSTRALIA 3LO Melbourne heard on 6/22, 23, 24, and 30. (Wilkinson)
- 780 CUBA CMJN Camaguey bombing in w/SS vocal stop ZBV1/WBBM.0146 6/29. (Connelly)
- 783 NEW ZEALAND 2YB Wellington heard on 6/26. (Wilkinson)



800 NETHERLANDS ANTILLES Bonaire PJB like a local w/Latin American nx in EE 0506 6/28. (Connelly)

810 COLOMBIA HJCY Bogota loud w/Radio Sutatenza ID, then LA mx resembling the pop hit "Una Paloma Blanca"; atop WGY/WKVM/CJVA/Bahamas mess 0333 6/29. (Connelly)

810 NEW ZEALAND 4YA Dunedin heard on 6/22 with KGO off. (Wilkinson)

819t MOROCCO het, female AA vocal 0357 6/28. (Connelly)

820 COLOMBIA HJED Cali alone on channel w/Colombian nx 0510 6/28. (Con)

825 PANAMA Macaracas HOR56 R. Peninsula good w/typical rustic LA folk mx w/Colombian-style accordions; audio very bassy 0335 6/29. (Con)

828 AUSTRALIA 3GI Sale heard on 6/20, 21, 22, and 30. (Wilkinson)

830 DOMINICAN REPUBLIC HIJB Santo Domingo clearly dominant w/SS talk, ID by call letters, upbeat LA programming 0404 6/29. (Connelly)

834 BELIZE Belize City good w/US soul mx 0451 6/28. (Connelly)

835 UNID weak carrier putting a 1 KHz het on Belize at 0253 6/26. No hope for audio but HCCE1 presumed. (Thomas)

837 AUSTRALIA 4RK Rockhampton heard on 6/20, 25, and 30. (Wilkinson)

840 COLOMBIA HJBI Santa Marta Ondas del Caribe weak at s/off in WHAS SP 0455 6/30. (Kenneally)

840 PANAMA Panama City HOL80 R. Libertad here weak but clear w/many mentions of Panama 0634 6/30. Channel wide open but conditions lousy. (Kenneally)

840 UNID someone sneaking in with Panama, very weak. Not even sure of language. Who's on? (Kenneally) No real candidates-CH

840 UNID Brazil? PP talk briefly surfacing through WHAS, soon lost, 0524 6/29. (Connelly)

846 AUSTRALIA 2GY Cranberra heard on 6/23 and 6/30. (Wilkinson)

860 CUBA Habana R. Metropolitana good at 0500 s/off 6/28. MoR mx preceded s/off. (Thomas)

860 DOMINICAN REPUBLIC HILR Santo Domingo heard w/Radio Clarin ID, SS talk o/hodgepodge of other LA's plus CBH/CJBC 0412 6/29. (Con)

873 AUSTRALIA 2GB Sydney heard on 6/24, 25, and 30. (Wilkinson)

882 AUSTRALIA Brisbane heard on 6/20, 23, 25, 26, and 30. (Wilkinson)

882 NEW ZEALAND 1YC Auckland heard on 6/17. (Wilkinson)

885 MONTERRAT Plymouth noted on w/LA mx until 0400 s/off on 6/28. S/off was in EE as usual but included special messages to student tourists (like which bars were still open-CH). These guys used to s/off at 0200. (Thomas)

890 HONDURAS Tegucigalpa R. Honduras ruling the frequency 0310 w/soft LA ballads and frequent ID's, 6/28. (Thomas)

890 COLOMBIA Bogota LV de Bogota xlint 0500 6/28 w/ID. Now with the Todelar net. (Thomas)

890 PANAMA David apparently the Panamanian here around 0500 w/R. Nacional ID's and numerous mentions of Panama. Apparent s/off at 0512 on 6/28 w/"LV de ???". (Thomas)

891 AUSTRALIA 5AN Adelaide heard on 6/23 and 6/25. (Wilkinson)

891 FIJILautoka heard on 6/21. (Wilkinson)

891 NEW ZEALAND 2XW Wellington heard on 6/20 and 21. (Wilkinson)

940 CUBA R. Reloj outlet good through CBM's OC, usual nx format 0512 6/28. (Connelly)

1000 COLOMBIA HJAR Cartagena o/other SS LA and WCFL; RCN mention, SS talk 0602 6/29. (Connelly)

1008 NEW ZEALAND 1ZD Tauranga heard on 6/20, 26 and 30. (Wilkinson)

1020 VENEZUELA YVRS La Asuncion blasting in w/several Mindial Margarita ID's, festive mx; demolishing KDKA 0421 6/29. (Connelly)

1035 NEW ZEALAND Wellington heard on 6/20, 21, 22, 23, 24, 25, 26, 28, 29, and 30. (Wilkinson)

1044 NEW ZEALAND 4ZB Dunedin heard on 6/20, 21, 24, and 26. (Wilkinson)

1070 VENEZUELA YVMA Maracaibo superloud w/Mundial Zulia ID, LA mx 0515 6/28. (Connelly)

1100 COLOMBIA Barranquilla HJAT good w/R. Reloj ID's 0518 6/28. (Con)

1146 UNID weak male in unid lang singing calypso-like songs 0215 6/28. Haiti probable. (Thomas)

1165 ANTIGUA CRL in w/huge OC 0208 6/29. (Connelly)

1170 COLOMBIA HJNW Cartagena heard w/LV de Heroica ID in battle w/pest WVA; mean low het present 0455 6/29. (Connelly)

1197 NEW ZEALAND 2ZW Whangnu heard on 6/22. (Wilkinson)

1200 DOMINICAN REPUBLIC (probably HIMR) announcement "Radio ---- en la republica Dominicana"; station name hacked by QRN burst. A sporting event came on after the ID, signal was barely atop a graveyard-type jumble 0214 6/29. (Connelly)

1205 CAYMAN ISLANDS poor-fair w/pop mx 0220 6/29. (Connelly)

1255 HONDURAS El Paraiso. I think I finally got this mystery solved. This previously unid'ed stn is almost positively HRIC from 1250 KHz and not HCCE1 (nominal 1255 KHz). Additional info from recent loggings indicates that the mystery stn: (a) is on GMT-6 (as is Honduras; Ecuador is on GMT-5); (b) ID's as R. Latina (which I previously thought was a generic reference); (c) uses bells from "the cathedral in Danli" (a town just north of El Paraiso) to mark the top of the hour; and (d) signs off at 0400 (HRIC's listed s/off; HCCE1's s/off is listed as 0500). Incidentally, programming from 0300-0400 is a request format with a mix of EE rock and LA pop. S/off is quick with no NA. (Thomas)

1265 ST. KITTS Basseterre R. Paradise loud w/southern US preacher 0219 6/29. (Connelly)

1296 NEW ZEALAND 1ZH Hamilton heard on 6/21. (Wilkinson)

1325 HAITI fair w/woman in FF 0222 6/29. (Connelly)

1332 NEW ZEALAND 1XI Auckland heard on 6/21. (Wilkinson)

1390 MEXICO XEV Chihuahua good in AU cx w/R. Tiempa or similar ID 0635 7/2. (Kenneally)

1390 MEXICO KEOR Reynosa great o/XEV w/calls and R. Gallito ID 0710 7/2. Good Mexican cx this AM. (Kenneally)

1425 UNID SS talk, LA mx poor in QRN 0420 6/28. (Connelly)

1425 UNID poor carrier here 0540 6/28 w/occasional bongo-sounding drums, no voice, (Thomas)

1425 UNID weak and fading fast but clearing mush on occasional peaks w/Latin drums and strings. No ID 0420 6/28. Who? (Kenneally)

1505t ANGUILLA The Valley presumed the one with accented EE and looped Caribbean 0100 7/24. Prgm presumed to be religious. Supposed to s/off at 0230 but on well past 0300. (Thomas)

1511.2 DOMINICAN REPUBLIC HIBL Santo Domingo off-freq and finally ID'ed. Fair thru WLAC slop 0250 7/24 w/Santo Domingo mention and R. Pueblo ID. Mostly male dialogue from 0230-0250. (Thomas)

1548 AUSTRALIA 4QD Emerald heard on 6/24. (Wilkinson)

1555 CAYMAN ISLANDS good w/"Don't Bring Me Down" by ELO 0225 6/29. (Connelly)

1575 AUSTRALIA 200 Wollongong heard on 6/24. (Wilkinson)

Mark Connelly	W. Yarmouth, Mass.	HQ180A, 2 37 m. phased longwires
Bob Foxworth	Mineola, NY	NRD515, LW
Rick Kenneally	Cincinnati, Ohio	DX160, SM2
Gerry Thomas	Pensacola, Fla.	modified FRG7, box loop, 600' LW
Hank Wilkinson	Santa Rosa, Ca.	SP600, Sanserino loop

Pete Taylor is making another one of his gargantuan world trips, this time to Norway, Sweden, Denmark and England. Departure time is August and Pete is wondering whether there are any special DX questions that the members have. Write Pete soon if you have a burning question.

News from Bob Foxworth: Transkei 594 Umtata has moved here ex 602 to avoid nighttime QRM with Herschel on that freq. Zaire 693-the powerful transmitter at Kinshasa is reported to have been silent for three years now. In case of reactivation, check parallel freq of 9768 from 0400 to 0700. Bophutatswana since 6/28 Bophutatswana Commercial Radio is on the air 24 hours a day in English. Studios are 25 km north of Pretoria. Another stn here is R. Bophutatswana on 1098 KHz. In addition Trans World Radio is looking for a frequency for 50 kw here. Comoro (now the Federal Islamic Republic of the Comores) s/off has moved up to 2000 ex 2100. Parallel is 3331 which is being heard in the 0300-0315 period in the US. Benin Cotonou is reported to s/on at 0400 (ex 0415) and they are not heard on 4870 parallel by Ginbey. (The above African items from Richard Ginbey on DX Jukebox) New Zealand 4ZW 1395 is to start in Omasu with 2 kw on July 6. Also there will be a relay of 4XD Otago 1206 on 531, no power known. (Info via DX Party Line) Barbados CBC 900 has been reported all night by Tony Jones in Paraguay. (Info from Don Jensen) Australia 3RPH (Radio Print Handicapped) tested in April on 1705 KHz and is to start RS in June with 500 watts. Studio is on Alfred Street in Melbourne, shares a tower with 3CR in Collingwood. (via DX Party Line)

# NRC 1980 LOS ANGELES CONVENTION

The 1980 National Radio Club Convention will be held over Labor Day weekend (August 28, 29, 30, 31 and Sept. 1) at the Hacienda Hotel near Los Angeles Airport. The hotel is approximately 5 miles from the airport, which is close enough to have courtesy limousine service but far enough to have affordable rates. In addition to the usual hotel offerings, the hotel is located 1½ miles from the ocean.

This is the first West Coast convention in nearly a decade and the Los Angeles location is within easy driving and flying distance of the 10 western states. Here you'll have an opportunity to meet a good number of Eastern DXers. East coasters will have a chance to meet the top DXers on the West Coast and to take a really great vacation. The last West Coast convention was a success and because the club has grown tremendously since then, we expect to have an even greater turnout.

## HOW TO GET THERE

**By Air:** Los Angeles International Airport is served by virtually every large carrier, including Pan Am, TWA, Western, Delta, Northwest Orient, and United. Call the hotel from the airport for courtesy limousine at 322-1212.

**By car:** The hotel is located to the west of the San Diego (I-405) freeway. Take the Imperial Highway exit towards the west to Sepulveda Blvd. and then turn left. In about 3 blocks, the hotel will be on the right side. There is a large parking lot just before the motel free guest parking.

## CONVENTION ACTIVITIES

We have a great number of activities planned for the convention. In addition to the usual station tours, we have some unusual ones planned such as tours of Beverly Hills, the movie star city, and the Collins mechanical filter plant. While LA is not lacking in places to tour, many are available only on weekdays. This is why the convention is starting on Thursday, so come early!

The Banquet will be held at the hotel on Saturday night at 6 p.m. and will be followed by the annual business meeting.

Of course, the yearly rip-roaring auction will be held at the hotel after the business meeting, so send all your auction items to John Clements.

On Sunday will be the technical sessions. Grant Manning will host a session on loop antennas and Randy Seaver will speak on propagation.

Your hosts this year are Greg Hardison (213) 993-0716 and H. John Clements (213) 893-4778 (after 10-11 p.m. on weekdays). We are looking forward to showing you one of the best conventions ever.

BE THERE — JOIN US  
FOR A GREAT TIME

# NRC CONVENTION REGISTRATION

MAIL TO: H. John Clements, 9010 Tobias, #258, Panorama City, CA 91402

Please complete all items and mail as soon as possible as it will make things easier for the Convention Committee if we have an indication of the number of persons to expect.

Name \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_

ZIP/Postal Code \_\_\_\_\_

The registration fee is \$25 which includes the banquet. The fee may be paid in advance or at the door.

### ACCOMMODATIONS DESIRED

\_\_\_\_\_ None (I will not be staying at the hotel)

\_\_\_\_\_ 1-person - \$32/night-main building, \$37/night in new South Tower

\_\_\_\_\_ 2-persons - \$36/night-main building, \$41/night in new South Tower.

I will be arriving on (date/time) \_\_\_\_\_

I will be departing on (date/time) \_\_\_\_\_

Mode of transportation \_\_\_\_\_

It is extremely important that you reserve motel rooms as soon as possible because the airport area is very busy, especially around holidays. The room rates we have are 40% less than those of other nearby hotels, so register early. It is best to reserve rooms directly with the hotel through their toll free numbers:

(800) 421-5900 in California call (800) 262-1314.

**Note corrected number!**

When making reservations you must mention NRC to get the special rates.

CLIP AND MAIL TODAY