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"Reality is a fuchsia,"  
(Gravis Muschnik, Intercourse, Pa.)

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NEW MEMBERS...

- \* R. J. Franey, Binghamton, N. Y.
- \* R. Clem, Panorama City, Calif.
- \* New Member, Anytown, U. S. A.

Welcome to the club, lads. Why not send a Musing to ERC introducing yourselves to the membership.

Nelson has once again fled to St. Louis, therefore we are alone holding down the fort. Edmunds' column late due to the wondrous U. S. Postal Service, we'll have to hold it for No. 25. ~~...Now I think I'll hold it over head...~~

NEW TREASURER ANNOUNCED FROM HQ (ANOTHER NRC FIRST)...

Ray Moore is the new NRC Treasurer. Best of luck to Tom Holmes, the old Treasurer, who spent many long hours hard at work keeping the NRC books straight. Tom, as some of you already know, has moved to N. C. where he will be working. Our thanks to Tom for his many hours of time given to the NRC.

See page 77 for ANARC Convention Questionnaire...

► RK, BGK, CDP and Lynne

BASEBALL NETWORKS

MILWAUKEE BREWERS

- 550 W S A U Wausau, Wis.
- 580 W K T Y Ia Crosse, Wis.
- 620 W T M J Milwaukee
- 710 W D S M Superior
- 740d W B C O Baraboo
- 910d W H S M Hayward
- 920 K D H L Faribault, Minn.
- 960 W T C H Shawano, Wis.
- 980 W P R E Prairie du Chien
- 1230 W C L O Jamesville
- 1240 W O M T Manitowoc
- W O B T Rhinelander
- W J M C Rice Lake
- 1260 W W I S Black River Falls  
(Sunday only)
- d W O C O Oconto
- 1280 W N A M Neenah
- 1290 W C O W Sparta
- 1300 W L O T Marinette
- 1340 W L D Y Ladysmith
- 1350 W P D R Portage
- 1320 K M A Q Nequoketa, Iowa
- 1380 W B E L Beloit, Wis.
- 1400 W B I Z Eau Claire
- 1450 W R C O Richland Center
- 1470 W B K V West Bend
- 1430d W E E F Highland Park, Ill.
- 1490 W I G M Medford, Wis.
- 1590 W S W W Platteville
- W I X K New Richmond

KANSAS CITY ROYALS

- 660d K O W H Omaha, Neb.
- 690 K G G F Coffeyville, Kans.
- 960 K M A Shenandoah, Ia.
- 980 K M B Z Kansas City, Mo.
- 1010d K I N D Independence, Mo.
- 1230 K T N C Falls City, Neb.
- 1240 K I U L Garden City, Kans.
- K A K E Wichita, Kans.
- K N E M Nevada, Mo.
- 1260 K W H K Hutchinson, Minn.
- 1280d K D K D Clinton, Mo.
- 1290 K W N S Pratt, Kans.
- 1300d K M M O Marshall, Mo.
- d K B R L McCook, Neb.
- 1310d K F L A Scott City, Kansas
- 1340 K S E K Pittsburg, Kans.
- 1360d K O Y Y El Dorado, Kans.
- 1370 K G N O Dodge City, Kans.
- 1390d K A M O Rogers, Ark.
- d K N C K Concordia, Kans.
- 1400 K V O E Emporia, Kans.
- K A Y S Hays, Kansas
- 1450 K O K O Warrensburg, Mo.
- 1470 K A R E Atchison, Kans.
- 1490 K T O P Topeka, Kans.
- K D M O Carthage, Mo.
- K D R O Sedalia, Mo.
- 1560d K A B I Abilene, Kans.
- 1570d K L E X Lexington, Mo.
- 1590 K V G B Great Bend, Kans.

DETROIT TIGERS (see next column)

DETROIT TIGERS FEEDER LINE NETWORK

- 590 W K Z O Kalamazoo, Mich
- 680 W D B S Escanaba
- 760 W J R Detroit
- 790 W S G W Saginaw
- 900d W A T C Gaylord
- 1060d W H F B Benton Harbor
- 1090d W M U S Muskegon
- 1150 W C E N Mount Pleasant
- 1230 W J E F Grand Rapids
- W S T R Sturgis
- W S O O Sault Ste. Marie
- 1240 W C B T Cheboygan
- 1290 W H G R Houghton Lake
- 1340 W M T E Manistee
- W M B N Petoskey
- 1370 W W A M Cadillac
- 1380 W P L B Greenville
- 1400 W T C M Traverse City
- 1450 W H T C Holland
- W K L A Ludington
- W A T Z Alpena
- 1460 W B R N Big Rapids
- 1480d W I O S Tawas City
- 1490 W T I Q Manistee
- 1590 W T V B Coldwater
- 1340 W A G N Menominee, who will feed:
- 920 W M P L Hancock, who will feed:
- 1230 W I K B Iron River, who will feed:
- 1240 W J P D Ishpeming, who will feed:
- 1320 W D M J Marquette, who will feed:
- 1450 W M I Q Iron Mountain.

HOUSTON ASTROS

- LOUISIANA
- 580 K A L B Alexandria
- 1060 W N O E New Orleans
- 1130 K W K H Shreveport
- 1150 W J B O Baton Rouge
- 1400 K A O K Lake Charles
- 1420 K P E L Lafayette
- 1440 K M L B Monroe
- 1490 W I K C Bogalusa

910 K A N D Garden

IN SPANISH

- 1330 K I N E Kingsville, Texas  
(continued on next page)

ALL THESE SUBMITTED BY KEN ONYSCHUK, HOMEWOOD, ILLINOIS, NRC.

HOUSTON ASTROS (con'd)  
TEXAS

- 560 K L V I Beaumont
- 600 K T B B Tuler
- 620 K W F T Wichita Falls
- 710 K G N C Amarillo
- 790 K F Y O Lubbock
- K O S T Texarkana
- 920 K B Z B Odessa
- 950 K P R C Houston
- 1050d K L E N Killeen
- 1150d W T A W College Station
- 1200 W O A I San Antonio
- 1230 K W T X Waco
- 1270 K I O X Bay City
- 1290 K R G V Waslaco
- 1310 W R R Dallas
- 1380 K B W D Brownwood
- K T S M El Paso
- 1410 K N A L Victoria
- 1420 K L U F Galveston
- 1490 K B S T Big Spring
- 1500d K A N I Wharton

MONTREAL EXPOS FF NETWORK

- 550 C H L N Trois Rivières
- 630 C H L T Sherbrooke
- 730 C K A C Montréal
- 710 C K V M Ville Marie
- 900 C J B R Rimouski
- C K J L St. Jérôme
- C K V D Val d'Or
- C K C V Quebec
- 1230 C J A F Cabano
- 1240 C K L S Ia Sarre
- C F G T Alma
- 1270 C J S O Sorel
- 1340 C H A D Amos
- C K V T Temiscalingue
- 1350 C J L M Joliette
- 1370 C F L V Valleyfield
- 1380 C F D A Victoriaville
- 1400 C J F P Riviere du Loup
- C K R N Rouyn
- 1420 C J M T Rimouski
- 1450 C H E F Granby
- C H R T St. Eleuthere
- 970 C K C H Hull

MONTREAL EXPOS CANADIAN EE NETWORK

- 600 C F C F Montreal
- 800 C J B Q Belleville
- 1350 C K L B Oshawa
- C H O V Pembroke
- 1410 C K S L London

THESE ARE ALL FROM KEN ONYSCHUK.

MINNESOTA TWINS  
MINNESOTA

- 610 K D A L Duluth
- 920 K W A D Wadena
- 1230 K M R S Morris
- K T R F Tjief River Falls
- 1240 K P R M Park Rapids
- 1250 K B R F Fergus Falls
- 1260 K R O X Vrookston
- 1280 K V O X Moorhead
- 1340 K D L M Detroit Lakes
- K V B R Brainerd
- 1410 K R W B Roseau
- 1450 K B U N Bemidji
- 1480d K E H G Fosston
- 1490 K X R A Alexandria
- K O Z Y Grand Rapids
- 1580 K W N O Winona
- 1590 K R A D East Grand Forks

PLUS:

- 570 W N A X Yankton, S. D.
- 600 K S J B Jamestown, N. D.
- 1040 W H O Des Moines, Iowa
- 1070d K I L R Estherville, Iowa
- 1140 K S O O Sioux Falls, S. D.
- 1240 K D L R Devils Lake, N. D.
- 1300 K G L O Mason City, Iowa
- 1340 K G P C Grafton, N. D.
- 1350 K B M R Bismarck, N. D.
- 1390 K L P M Minot, N. D.
- 1400 K B I Z Eau Claire, Wis.
- 1450 K V C K Wolf Point, Mont.
- K B W W Wahpeton, N. D.
- 1480 K G C X Sidney, Mont.
- 1520d K M A W Mayville, N. D.

We would appreciate other members sending in their lists of other baseball broadcasts - do NOT include FM & TV stations - this is not an ad for the ball clubs, but rather a DX tip for us!

DX SPECIAL

Mon. June 19 or 26 WIVV-1370, Vieques, Puerto Rico, 5 kw, starting at 12:30am, AST, which is the same as EDT. This is for NRC, although we read about it in DX Monitor, with no notification received here from Tom McCormack. A similar test as conducted on either March 20 or 27. Details in a later issue.

Sat., April 1, WLIZ-1380, Lake Worth, Fla., 1:00-4:00 a.m., 1,000 D-1. Flash Alert had this tip for you who sent cards to Carl Junker. This was a PoP test, and the date could not be changed to a Monday. Reports were to go to Mr. Arthur N. Davis, Chief Engineer, WLIZ, Box 71, Lake Worth, Florida, 33460. WES BOYD.

Mon. April 9 WTOR-610, Torrington, Conn., 1,000/500 U-4, starting at 1:00 a.m. They were NOT on at the earlier listed date due to some sort of trouble, but this is their new date/time. They will use cycle tones, band music, and maybe some Morse Code IDs, and many voice IDs. Send your reports to Mr. Stuart Leland, Chief Engineer, WTOR, Box 657, Torrington, Connecticut, 06790. RUSS EDMUNDS (via phone)

HEARD SINCE LAST ISSUE  
880 K R V N Ex-1010, started here 3/6. 1450 C H E F Now 10,000/25,000 U-5  
1360 K R R R Ruidoso, N.M. ex-1340.  
"AN" SITUATION  
710 C J R N NSP (ex-1600 kc/s.) 1130 K W K H AN-6 - c/w.

ERNEST R. COOPER - 438 East 21 St. - CARRIER ROUTE 56 - Brooklyn, N. Y. - 11226  
Whee, three veries came in here - KIWA-TEST WNIO-TEST and WHEL-920. Those are #66 from Iowa; #106 from Ohio, and #173 from the State of Schatz. Nothing new on MM3/20, but here's the way we dialed 'em: 1:47, WOKO-1460 on ET/TT. At 1:57, I discovered WINS-1010 had gone to bed, & the usual CFRB S-9 w/CFB in back @ 2am IDs. I noted WHEL-590 @ 2:12 on RS w/TK. I heard "God Save the Queen" (or it could have been "America") on 580 @ 2:14am, unIDed, I presume it was a Canadian s/ff. WHN is spurring on 578 now, very distorted. On 1260, unusual, but umm, WWD-1260 atop @ 2:30am. On 1090, there was a weakie testing who IDed after music @ 3:58, but not loud enough. Anybody catch this one? Finally, that twilight, I got enough on the two I've been chasing there - WBFM N.J. & CFML Ont. (FF) so reports are off to both. 3/21- Whilst trying for ZIZ-555 I noted WCA has a sort of "parenthesis" signal both 12k above & below their norm - or, on 558 and 582k. Only the OC on 555 noted, but 3/23 they were in fairly well around 6:45pm. Anyone in this area who needs WISA-1450, Brattleboro, Vt., try in the early evening - they're often in and out and on top from time to time then! Ditto WENT-1340, Gloversville, N.Y. and WABY-1400, Albany, N.Y., and WHUC-1230, Hudson, N.Y. And so we reach the end of the weeklies, and we'll see you all again in a fortnight. C U N 14.

RICHARD CLARK - Largo 498 La Punta - Callao, Peru  
I am reporting to you from DX Central of South America. I am sure getting a lot of interesting stations I never heard of before. Argentina, Chile, Colombia & Ecuador are mostly all over the dial. From the U.S. side, I get only WGBS WQBA WLAC WSM KFJ WCKY & WLW, but all quite weak, I must say. I now have my ISVA Loop built and I can do some better DXing now. I wish I had my SX62A here! There are a lot of split frequency stations here. So far no TA or TP as of yet. Chao, 75s, from Peru.

TWO MORE FOR "AN" SITUATION  
OFF - 1420 W B S M ON- 590 W E E I Apparently now NSP-Talk, on MM

THE NEXT SEVERAL DEADLINE DATES FOR MUSINGS OF THE MEMBERS IN BROOKLYN ARE: APRIL 6 APRIL 20, MAY 4, MAY 25, JUNE 15, JULY 13, AUGUST 17, and SEPTEMBER 7. THE JUNE & AUGUST DATE COULD CHANGE HERE WHEN I GET MY VACATION DATES CHOSEN, ALSO THAT LAST ONE WHEN I'LL BE GOING TO THE N.R.C. CONVENTION, AND PROBABLY TRAVELLING AROUND FLORIDA FOR A FEW DAYS THEREAFTER. WE HOPE OUR EPC FRIENDS AT HQ HAVE RECOVERED FROM THAT DISASTROUS FIRE, AND WE WISH EVERYONE HAPPY EASTER AND/OR PASSOVER. -BRC

# MUSINGS OF THE MEMBERS



ERNEST R. COOPER  
438 EAST 21st STREET  
CARRIER ROUTE 56  
BROOKLYN, NY 11226

THOMAS R. SUNDSTROM - Box 205 - Willingboro, New Jersey - 08046  
I am very sorry to hear about the recent disaster suffered by GPN in losing his home to fire. I was speaking to Russ Edmunds via phone on 3/14 and he told me of the loss. Aside from furniture etc. within the house, it's a shame that all the electronic equipment & verifications were lost. Insurance just doesn't reflect the DXer's "value" attached to used or home-brew equipment. But the important thing is that no one was injured, excepting one cat, I understand. I was on Long Island while attending a three-day seminar on Management Information Systems at Hofstra University on 3/8-9-10. Before leaving for home, my wife and child & I stopped at Bob Foxworth's place of abode. We saw a very diff rent HQ-150, than the stock one here, tied into one heck of a loop, able to null WTHE-1520 right down the street. We were treated to a brief display of the NRC Altiz Loop at work; it is quite impressive. An enjoyable visit, but too short as 20-month-old Candice was getting very grumpy (she was tired!) & I didn't get a chance to listen to any tapes except CFCB-570 taken on a recent MM w/ WACA off. Bob tipped me off to ZIZ-555 on a move from 585 where it was last season; or a check this evening, sure enough, I found it with decent signals at s/off 10pm through the WFIL-560 sidebands, on 3/10. That ZIZ logging prompted me to finish working on the B&W #370 sideband adaptor. Finally, this weekend, I put a tape jack into that ahead of the volume control (up to now, I had to run the speaker to take advantage of the adaptor's selectivity), a fuse block to protect the inwards, a front panel light to tell me when dthe adaptor's on, and a "stand-by" switch in the B-Plus line to save tubes when using it interchangeably with the RX. In closing, a KLUC-1140 verie was received in about ten days, & lastly, the "S-9 check" ERC questioned, is a paycheck from the magazine \$9 for my monthly DX news column DX KORNER. I invite all DXers, ECBor SW in particular, to send me reports for use (the column is somewhat similar to Hank Bennett's column that used to appear in Popular Electronics. 73.

MICHAEL J. MACKEN - 64 Court Road - W9nthrop, Massachusetts - 02152  
Just a note to let the NRCers know that the 1972 ANARC Convention is going to be held in Beantown itself! Hosts for this convention are Jerry Berg, Steven d'Adolf, Chris Lobdell and Mike Macken. The latter three are dues-paying members of the NRC, which is a nice way of saying we haven't been reporting. Things are in the planning stages presently. It will be held the second half of July. More details will follow later on and hopefully we'll have a survey form to aid in the planning. This will be a convention of DXers of all types from SW to TV DXers to ECB DXers. This will be your big chance to tell the EPC your problems, complaints, meet Glotz in person perhaps, become part of the slave gang in assiting the EPC, etc. etc. So make your plans for Boston now. More later on.

BOB CUROLE - Box 594 - Golden Meadow, Louisiana - 70357  
I really had a field day Sat. AM 3/11 between 12 & 4am. CX were perfect & I logged the following with very good copy: KCAD-1560 Abilene, Tex. conducting annual PoP, KPMC-1560 Bakersfield, Ca. after KCAD s/off. RJR-770, Mandeville, Jamaica; KCKL-960, San Angelo, Tex., WOW-590, Omaha; CHML-900 Hamil'on, CFRB-1010 Toronto, & KSTP-1500 St. Paul. I hadn't seen CX like that in months. A turn of the dials on 3/9 brought in much-wanted WWA-1170 @ SSS for State #30. The month of March is going pretty good so far w/25 new stations logged in seven days of DXing. I would very much appreciate hearing from members who own SP-600s. Please write & give me the pros & cons on it as I am contemplating getting one in the near future. Did anyone notice the new heading on the last few issues of DX NEWS? Very impressive! The way this Club is progressing, it wouldn't surprise me if DX NEWS is printed in color soon hi. What does the large letter on the front cover mean? I notice it's different from issue to issue. 73 & good DX to all.

BOB SHAW - 234 Columbus Street - Elyria, Ohio - 44035

CFWH-570 answered my query as to whether I might have heard them MM 2/21 this week: "It is quite possible - as we are on till lam local time daily with music." Great, except: a) I was on the frequency for a good ten minutes and heard no music with S-strength nearly as good as the mystery ID; b) I see from Musings and DDXD that several members were monitoring 570 at that time and didn't hear it; c) since writing them I have found a source (FEIS) which says Whitehorse is on PST, not YST. So I'm partially confused and partially pretty sure I didn't hear them. I still can't figure out who ??W? would be, however. More concrete DX is all from MM 3/6: WOCB TEST logged w/great signal; though I was unaware at the time that it was a Special I had a sneaking hunch it might be because of the frequency of the CW IDs, and the location. KHOS-940 finally heard w/Johnny Nash rollin' in @ 1:50. KIWA TEST heard s/on weakly. KJET-1380 ET w/ either Osmonds or Jacksons rr, AM & FM, 4:22, u/WICY OC. WPRE-960 4:35 ID for ET/TF o/CHNS; for FM too. JBC-750 finally w/4:45 s/on w/IS & hymns through WJR slop. CKBC-1360 5:05-5:15 w/CBC NX & local spots killing WSAI before suddenly fading away. I was in a goo spot for the PSA s/ons, logging WINH-1470, 6am, no SSB; WMB-1460, 6am, don't know if SSB; WEAG-1470, 6 02, w/SSB. 73.

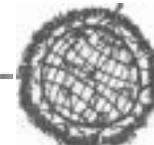
DAVE WHAMOUGH - 284 Main Street West = Hamilton 12, Ontario

Well, it's time again for my semi-annual report. Not much DXing this season. 11/1- WYDK-1480 w/WLEE, good signal, no sign of WAMB-1190. WNEU-1600 EIMing for call change from WHLL. 11/10- r/c from WOHN-1440, call change from WHRN. 12/6- WKTJ-1380 TEST w/difficulty, very weak signal mixed w/KUDL. Incidentally the CV heard many mornings on 1380 is not CKPC. This carrier comes in between S-7-9 and is SW of here. CKPC puts in 45 o/S-9 here. I would think it might be either KWK or WKJG. 1/17- WHEX-1580 Pa. like a local. 1/21- No sign of WMBG-740. 2/14- I tried for WBNW to find WWA back AN again. 2/16- While waiting for CJRN to make the big move, I heard WDE4 fighting w/WOR. Daytime signal from CJRN is unbelievably strong now compared to when they first went on. 2/21- I found WKEN off, and spent over an hour trying to get a sensible log on CFCB & KVI. CFCB w/c/w mx, KVI w/MoR, a third station w/talk, KIAC or KLUJ? No specials heard due to ANers. 2/25- WQOK-1440 all alone @ 12:30. 2/29- SSS, WNIO s/off w/WIFM/WKYK & others, no KXEL for a change. 3/6- KIWA-1550 Iowa in good. 3/10- SSS brought WMCR-1600 o/WBLY/WNEU/WWRL/WLNX mess. A weak station heard daytime on 1600, u/ noise level, either WNEU or WAQI. Verles so far this season: v/q- WHEX WIXZ KLOU WGST KFRE. v/CM- WDAI. v/1- WHAQ CKPR CFCB WCER CJCH WNEU WYDK WIKO WDSM WQOK. v/f- WBIG WKTJ. Totals - 1,678/880, states 49/49, provinces 10/10, countries 28/11

VAIT BREVILLE - 9127 Coral Drive - St. Louis, Missouri - 63123

Ernie's pleadings for Musings and the shock of actually seeing two recent Muses from Jerry Bond spurred me to report. Jerry is the first ECB DXer & NRCer I ever met. It happened back in 1964 in Watertown, N.Y. while I was stationed there in the Air Force. In 12/64 I got out & returned home to the above address & was pretty active through 1968. I have made many friends through my eight years of NRC membership, which has helped me make up for the aggravations of this hobby. My totals have been stuck at around 870/270, 43/40, 22/10 for three years, the last time I logged a new station or received a verie was back in 12/70, so this is my first Musing in over a year for that reason. I just can't seem to find the time or enthusiasm to dig out any new ones from the ANers, NSPers, & QRN. However, I recently returned from a trip through the SW, where I enjoyed tuning the altogether different dial. Here is a sample of what I heard on the car radio in the evening hours: Tucuman, N.M.: 770 is all KOB, KHOW-630 Denver, WOKJ-1550 Miss. both strong. Las Vegas, Nev.: WLS doing fading cycles from zero to strong, titanic seesaw battles between KMOX/KPNW, CKWX/KWKH. WMAQ way u/KBOI. Lake Havasu City, Ariz.: CFCN hogging 1060, not a peep from KYW/WNOE. At Denison, Texas (NE part) there was KTWO-1030 w/still o sign of WBE, fighting KFDI on 1070, KATZ-1600 St. Louis outdoing KMOX. PJB almost even w/XELO. As on previous trips W into Col. & N.M. as far as evening reception on a car radio was concerned I could no longer hear anything E of Chicago or Nashville. As always it was fascinating hearing scores of stations that are very rarely or never heard in the Midwest.

**IDXD** MONITOR REPORTS



BOB FOXWORTH  
GPO BOX 2111  
NEW YORK, NY 10001

All times in IDXD are GMT. Receptions:

- 655 unID believed to be YSS hrd 3/13 0715-0737 with man and woman in Spanish and several U.S. records. Poor with much fading and QRM from occasional WSM TT and English on 650 which may have been KORL. (Hardester, Cal.)
- 728 EL Germany. S/on anmt taped nicely 3/14 at 0300; altho they are on 24h, they have anmt then, with anthem - they mentioned 5 LW and MW outlets though only 4 are listed in WRTVH. The 4 I caught were Wobbelin-Schwerin, Wachenbrunn, Burg and Berlin and my German was too poor to make out 1 other outlet. They then went into another long list of freqs, apparently FM outlets. Apparently the MWA now is behind us but the geomag field is almost continually disturbed. (Moore, Mass) (Ray, that last outlet just may have been a new LW outlet on 180 that was mentioned in Arctic recently. Of course with the DIDS alerting xmtr expected to be operational this summer, this may no longer be easy. Xmtr is to be 50 kw on 179 kHz and operate from Edgewood Arsenal, Md. -ed.)
- 990 Mexico. Radio Mundo hrd 3/14 0539-0601 with many IDs as "XEBM - Radio Mundo. Poor sig and a severe het here. KKIS should be dominant at 90 miles but only traces of an English station hrd. Several U.S. pop tunes hrd, e.g. Desiderata in Spanish. Logs list XEBM, Radio Exitos on 920 in San Luis Potosi. ¿Que pasa? (Hardester, Cal.)
- \* 1193 Dom. Rep. HICG, Radio Villa Tapia, shown in new HI list, msd on 1192.857' and logged at 0304 s/off 23rd, i.e. evening 3/22 here. (Schatz, Fla.)
- 1290 Cuba. CMKS, Guantanamo is still announcing Radio Guantanamo and not Radio Guanta, at least so hrd here. Most of the time they use the call CMKS. They were msd on 1289.983. (Schatz, Fla.)
- 1463.8 Colombia. HJIW is no longer hrd here. I did note Hauser's comment about the station being located in Turbo. (Schatz, Fla. fone tip as were last 2)
- 1580 Thailand. After several years of trying, finally picked up Voice of Free Asia, Ban Phachi, Thailand 3/13 from 1215 to 1300. They were in strong in Lao until about 1258 when they IDed in English as the Voice of Free Asia and that the program had come from the United States. Also, gave the location of the station. KDAY s/on 1300 killed any chance after that. (Gary Jackson, Sacto, Cal.) (VERY nice, Gary. WPAC kills "em here, hi-ed)

#### Back of the File

News item today (3/23) indicates that the West German Parliament is putting on the pressure to have licences for Radio Free Europe (includes the 719 outlet) and Radio Liberty cancelled; participation by the Eastern Bloc in the Munich 72 Olympics is in question over this. At any rate, Congressional funding of the stations in the future is also in-the-air at the moment.

#### FCC News

Final Action - KHAI Honolulu (has been hrd WCNA on 1080 -ed) granted license covering changes; transmitter location redescribed as 111 Ahui Street, studio location and remote control point 677 Ala Moana Blvd. Action 3/6/72.

Final Action - WWOZ, Carolina, P.R. - Broadcast Bureau granted CP to increase daytime power to 1 kw, remote control permitted. Action 3/7.

Actions on Motions - Hearing examiner in Fajardo, P.R. and Frederiksted, V.I. ...set hearing for May 2. (Dockets 19386, -7.) (applicants for 1090 -ed)

There's no fuel like DX

# PRECISION FREQUENCY MEASUREMENT

→ → → For less than three bills.....

by Ronald F. Schatz

There are several reasons why a DX'er would want to know the frequency of a station to the nearest Hertz: The scientifically minded DX'er may want to study the frequency "habits" of individual stations, noting their stability, direction and rate of drift if unstable, and normal exact frequencies otherwise. Such knowledge is quite useful when using the EBU TA list, and even more so for keeping track of LA's just straddling the main channels. DX'ers directly connected with the engineering side of the broadcasting industry can use such precise information to help eliminate interfering heterodynes and inter-station flutter that reduce their station's coverage areas. Otherwise, knowing exact frequencies may serve little more than to satisfy the curiosity that makes DX'ing such an enjoyable hobby in the first place. Finally, there's the usual egotistical reason - outdoing the guy who keeps boasting about the frequency readout of his expensive R-390 (to the kHz, directly), or being among the very few DX'ers in the world who can determine frequencies to the nearest Hz. But so much for that.

DX'ers have found several methods useful for determining frequencies to given accuracies: Interpolating between two known frequencies using the logging scale of the receiver bandspread is accurate for getting to the nearest kiloHertz, but is subject to error caused by non-linearities in the tuning capacitors. Matching heterodynes against musical pitches of known frequency gets one to the nearest 0.1 kHz on the average, with accuracy decreasing with higher pitches. Frequency meters are extremely accurate (to 1/10 Hertz or better) but are ghastly expensive, often limited in the range of frequencies they cover, and must be used indirectly with an accompanying table. The military surplus models that some DX'ers can afford may only be accurate to within 10 Hz, which is not the precision we seek here.

What we have left, then, is a method of frequency measurement that falls within the financial means of most serious DX'ers yet is accurate to the nearest Hertz! This is the zero-beat method using a frequency counter for readout.

Frequency counters used to be miserably expensive instruments that would visibly count and hold and count and hold until its user got a migraine headache, but not any more. The count-up readout is gone, a steady numerical figure being held in view for two seconds after which the count is up-dated instantly, then held for two seconds more, etc. Time and progress in the field have reduced the prices of counters considerably also. For our recommendations we call your attention to two fine instruments from Heathkit: The IB-101 reads from 1 Hz to about 15 MHz with an accuracy of  $\pm 1$  Hz and sells in kit form for about \$220. The new IB-1101 is identical, except it's range is extended to over 100 MHz. The latter is also

a kit, selling for \$295.

At this point the reader may pose the question: "How do I connect the counter to my receiver?" For precision frequency measurements, you don't: First of all, the RF signal of the station in the receiver is rarely strong enough to trigger the counter, though the TRF may be an exception. As you don't want to monitor the steady 455 kHz of the IF, of course, all that is left that the counter can use is the local-oscillator frequency, which is the station's frequency + 455 kHz. This is fine and pretty accurate readout (to within 0.1 kHz at times) as long as one doesn't mind constantly subtracting 455 kHz from the reading on the counter! But in any case there is still no accurate reference available for finding your way exactly on frequency (The shallow "tuned-in" sound is not an accurate reference by any means, nor are BFO's ever stable enough to serve such a purpose).

Thus we must turn to an indirect method of measuring frequencies, and this involves the use of a signal generator, which, unlike counters, are very cheap to own, running \$50 or less. At present the author is using a Heathkit IG-102, with an output ranging from 100 kHz to 220 MHz in six bands and switchable modulation of about 400 Hz, useful for finding its signal among others on the receiver. It sells for \$39.50 in kit form.

The signal generator is the weakest link and the "problem child" in this method of frequency determination. Cheaper units are noticeably unstable and will "jump" with the slightest tap or jar. Few adjust smoothly enough for easy arrival at the desired frequency, there being a tendency to bind at such precise levels of tuning, then to overshoot the mark with the force needed to break the bind. There is also a problem controlling the amount of signal reaching the receiver, since the latter will pick up the stray radiation emanating from the circuitry before the attenuation controls of the generator.

In an effort to "beat the bind" of the signal generator, most users will grasp the tip of the indicator in their fingers and hold it on frequency with a steady hand while they read the counter. We suggest investigating what effect the attenuator control has on the generator's frequency. In the case of the IG-102 moving the fine attenuation control can vary the output frequency over 25 Hz, thus making it an outstanding "fine tuner"! As our experience has shown us that most signal generators possess this idiosyncrasy to an extent, we are employing it in our instructions below. Otherwise, grab and hold the tuning indicator by the tip, unless you've found a better way.

Now to get to the actual procedure for measuring frequencies to the nearest Hertz using receiver, signal generator, and frequency counter. First, the preliminary set-up:

- 1) Be certain that the frequency counter has been calibrated against the signal from WWV following a 30-minute (at least) warm-up.
- 2) Place the signal generator within "reception" distance of the receiver, no closer than a meter apart. The actual distance will vary with convenience, signal strength, and other factors.
- 3) Connect the output of the signal generator directly to the input of the frequency counter. This is the only direct inter-unit connexion that will be made.
- 4) Warm up everything for at least 30 minutes. This is espec-

ially important for the signal generator.

5) After the minimal warm-up, place the signal-generator attenuation control midway between maximum position (i.e., greatest signal) and the minimum signal that will trigger the frequency counter.

Now you are ready to measure the frequency of your choice:

- a) Tune the receiver to the signal to be measured - of course.
- b) Tune the signal generator to that frequency so that the heterodyne tone drops and disappears on the receiver. For weak signals you may have to increase the distance between the signal generator and the receiver; for strong signals it will be helpful to touch the generator-counter cable to increase radiation to the receiver, among other methods. It is best for both signals to be roughly equal in strength.

c) Carefully adjust the tuning dial of the signal generator until the S-meter on the receiver can be seen to vibrate or wiggle. Gentle tapping with the finger will help to overcome the "bind".

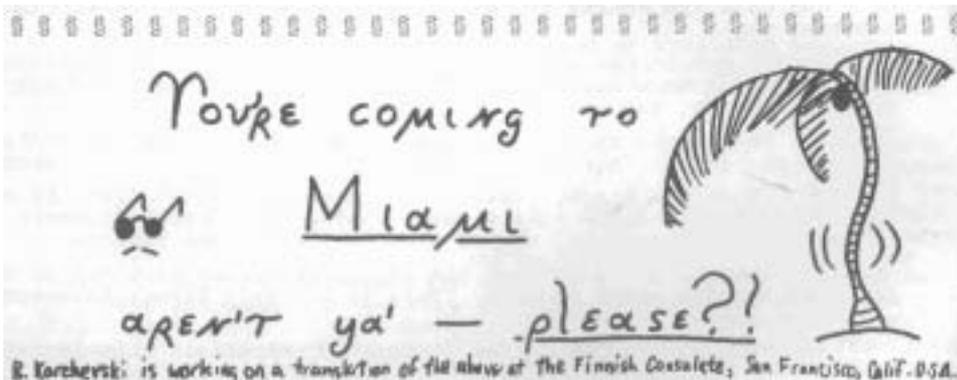
d) Now adjust the attenuation control to slow down and finally stop the meter vibration. For good accuracy, the meter indicator should not dip more than once every four or five seconds, but it should be fairly easy nonetheless to hold things still for a minute or more with this method of tuning.

e) Observe several 2-second readouts on the frequency counter (for as long as the zero-beat hold out), then record the average reading. That is the frequency of the station to the Hertz!

In cases where the receiver lacks an S-meter, listen for flutter, then slow down its rate to zero.

When reporting frequencies of this accuracy to the club bulletin, be sure to include the date, and preferably the time, that the measurement was made, as many frequencies change from day to day, or even from hour to hour, even in the case of domestic stations. As a case in point, WFUN in South Miami has been observed shifting from 789995 Hz to 790012 Hz in the space of five hours, while ECS4 in the Canaries has been rock-steady on 1097080 Hz for weeks! Sometimes it is preferable to report unstable frequencies in reduced form, such as CMHK on 1306.5 kHz, a more precise measurement would not last the night!

-30-



# The Networks

and How They Operate...

- by MIKE COLLINS -

In 1957 the networks seemed to be doomed as obsolete, and it was very doubtful they would all live out the decade. Fifteen years later the four radio networks are alive and well, offering mostly news and information features to some 2,300 affiliated stations. One of them, ABC, has split itself into four networks, which have a combined total of more than eleven hundred affiliates.

The networks are extremely useful to the DXer. When a network newscast or program is heard on a given frequency, it usually greatly reduces the number of possibilities in helping identify the station. This can be an especially great aid on the regional and graveyard channels, and even some of the clears.

The networks are most easily distinguished by the logos (news sounder or musical news intro). NBC, CBS and MBS all have their own, and ABC has a different one for each of its four networks (Contemporary, Entertainment, Information and FM.) Very often these logos are also utilized by the affiliated station for its local newscasts also. All of the networks offer news once an hour, and MBS offers it twice each hour.

There are varying reasons why stations affiliate with a network, but the two most common are for money in the very large markets (large cities), and for professional coverage of world and national news in medium and small markets.

A network can be a valuable source of revenue for large city and 50,000 watt stations. For example, in 1967 ABC compensations for the year amounted to \$119,750 for WCKY-1530, \$100,951 for WHAS-840, \$92,573 for WGAR-1220, \$91,622 for WHAM-1180 and \$70,887 for WFIL-560. In 1968 MBS paid WHN-1050 \$200,000 and WCFL \$125,000 for the year. As can be seen, both city size and signal determine the amount. A striking illustration of this is Rochester, NY where as stated 50,000 watt clear channel WHAM obtained over \$90,000 in 1967, but ABC paid its new affiliate WHEC-1460, only 5,000 watts on a regional channel, just \$7,100 for the following year, 1968.

Stations in small towns are quite frequently not compensated at all. Networks offer these stations complete worldwide facilities and well known newscasters, giving them first rate coverage of international and domestic events which they would never be able to do on their own.

The networks offer their stations two types of programs, commercially sponsored programs and newscasts, which almost always must be carried in their entirety by the affiliate (there are exceptions), and unsponsored or "austaining" programs (public service and some music shows) whose carriage by the affiliate is optional. Most large and medium stations carry only what they have to, so as to keep their schedules uncluttered, while stations in smaller may clear most or all network programming. It might be noted that some affiliates of the ABC/Contemporary network do not carry the newscasts and features of the network, but insert the network commercials from these programs into their own programming. KAAY-1090, KJR-950 Seattle, WPOP-1410 Hartford, and WAVZ-1300 New Haven do it this way, to name some. Similarly, WHN-1050 does not carry most of the MBS lineup, but integrates the commercials from the network newscast into its programming each hour. The only MBS programs carried by WHN are several sportscasts on the weekend.

Canadian affiliates of the American networks never carry any newscasts or programs, only the commercials and sometimes reports from network correspondents into their own newscasts. This is true of CFRB-1010 which is with NBC. CFRC-600 Montreal, a CBS affiliate, uses that network's logo and sounders on its own features, besides carrying the commercials and news inserts.

When the network is not carrying programs for broadcast, it offers the stations inserts and reports to be used on the stations' own newscasts.

The networks, by having these affiliated stations across the country, have at their disposal the correspondents of all these stations, giving them in effect a news staff of hundreds of reporters, covering every major city and many smaller towns across the nation.

NBC, The National Broadcasting Company, was the first network, established in 1926 by the Radio Corporation of America, with WEAJ-660 (now WNBC) as its flagship station in New York. RCA also formed another network with WJZ-760 (now WABC-770) at its head. The WEAJ network became known as the NBC Red Network, and the WJZ chain became the NBC Blue Network, and is now ABC.

At present, NBC offers its stations 5 1/2 minute newscasts every hour on the hour from 6am to 1am ELT, eight "Emphasis" features (five minute reports on serious and light subjects each hour during the day, weekends), and on weekends, "Monitor". This is a program of Contemporary/MOR music and features with various personalities, offered to stations Saturdays 9am-Noon, 3-6pm and 7-10pm, and on Sundays 2-6pm and 7-10pm. NBC stations are no longer required to carry this program in its entirety, but may integrate the sponsored features in to the local format. This is what WNBC-660 in New York does (only WNBC-FM carries "Monitor" in its entirety in the City.) Sustaining and public service programs are offered, including "Eternal Light" and "Meet The Press" on Sundays.

NBC came into its present form around 1960, after a number of major affiliates decided it was out of step with the times with its serials and drama programs. In 1956 Westinghouse decided network radio had had its day, and all its stations became independent, taking KDKA-1020, WBZ-1030 and KYW-1100 (now WKYC) Cleveland from the NBC lineup. In 1958 NBC suffered another blow when KOMA-1520 and WKBW-1520 decided the network was incompatible with their new rock formats, and they both dropped NBC. The following year, 1959, saw WHAM-1180 terminating its NBC affiliation because it did not want to clear the heavy schedule of serials in the day any longer. Things got so bad that NBC had to buy a station (WJAS-1320) to obtain an affiliate in Pittsburgh.

(Just a side observation, until 1958 NBC appeared to have had New York state really sewed up with the best signal station in each city as its affiliate, WKBW Buffalo, WHAM Rochester, WSYR-570 Syracuse, WGY-810 in the capital city district, and WNBC-660 in New York City.)

By 1960, virtually all of the so-called block programming (serials, drama and entertainment shows, now found on TV only) had disappeared from the networks' schedule. The network has shown an annual profit in recent years, although it is an open secret that the NBC radio network is up for sale, as are all of the NBC OWNed and operated radio stations. So far, WKYC-1100 has been sold. NBC, which has long had a policy of accepting only fulltime stations as affiliates, has had to settle for daytimers in Buffalo, Norfolk and Philadelphia in recent years, where WWOL-1120, WVAB-1550 and WFLN-900 are the respective affiliates at present.

CBS, the Columbia Broadcasting System, was established in 1928 to give listeners an alternative to NBC, and the two have been in fierce competition in radio and television ever since. The flagship station of the CBS network was WABC-860 (now WCBS-880).

CBS, long noted for its excellent news coverage, was the slowest of the four networks to change, and such programs as "Gunsmoke" and "Johnny Dollar" survived well into the early 1960's, and the daytime serials were on as late as 1960. Just this past year CBS dropped the last of the live remote broadcasts of orchestras from New York hotels, and Arthur Godfrey finally brought his long-running half hour show to an end on March 31 of this year.

CBS at present offers its stations six minute newscasts every hour on the hour from 6 am to 1am E.L.T. In addition there are hourly four minute features. Some are light, such as "Dear Abby"; others include reports by Walter Cronkite and other noted CBS newscasters. There are two fifteen minute roundups at 8 am and 6 pm, and Lowell Thomas still holds forth nightly at 7 pm. On weekends there are additional sports features and special weekend reports. CBS also offers a number of sustaining and public service programs, including "Face The Nation", "Capital Cloakroom", "The Salt Lake Tabernacle Choir", and others.

Many stations left CBS in the late 1950's because of the programming which had to be carried. However, a major exodus occurred in 1959 when CBS to offset declining revenues, established a compensation plan which meant less money for the affiliates. KBAT-680, WJR-760, WHAS-840, and WKWH-1130 said they would not go along, and quit CBS. WJR went independent, while KBAT, WHAS and WKWH went with ABC in the early 1960's. WRVA-1140 left for NBC, and WGAR-1220 also dropped CBS and went with ABC in the early 1960's. WGAR was briefly with NBC after quitting CBS and before going to ABC. 1963 saw KAAJ-1090 dropping CBS with the introduction of its new rock format, and WWVA-1170 left for ABC the same year. KGA-1510 left CBS to take ABC soon after. In addition, WGBS-710 Miami had quit CBS in 1960, and in many cities, CBS found itself with daytime-only affiliates (such as Cincinnati, Birmingham, Louisville Pittsburgh and others), and in some cases, such as Detroit and Cleveland, none at all for a period. WJR did take one program during those years from CBS, Lowell Thomas, who is part owner of the station.

By the mid 1960's however, things began to look up. CBS had since dropped its compensation plan objectionable to many stations, and the serials and dramas were gone, though the CBS affiliate had to spend more time with the network than affiliates of other networks. WJR-760 rejoined in 1964. KRMG-740 Tulsa took CBS on about this time for awhile (it is now independent again). 1968 saw WHAS-840 and WKWH-1130 becoming CBS again when they dropped ABC because it had split into four networks. WCKY-1530 had dropped ABC in 1968 for the same reasons and joined CBS in 1970. KFBK-1530 also joined CBS in the late sixties. CBS was able to obtain many fulltime regional stations in many other major cities, which helped the network's position extensively.

Today, CBS is reputed to be the most profitable of the four networks, and its heavy schedule of news and information is ideal for the all-news or information oriented format, although its affiliates include stations of varying formats, MoR, rock, and even country.

MBS, the Mutual Broadcasting System, came into existence in 1934, with WOR-710, WGN-720, WLW-700 and WXYZ Detroit as its original affiliates.

At present, MBS offers its affiliates commercially sponsored newscasts on the half hour 6:30 am to 10:30 pm ELT, except at 8:30 am and 5:30 pm when sports reports are broadcast. At 6:35 pm, "The World Today" is aired, a daily twenty-five minute roundup of the day's news. In addition there are fifteen minute commentaries by Fulton Lewis at 7 pm and George Hamilton Combs at 7:15, Bob Consodine has a five minute commentary at 7:30pm and there is an

additional sportscast at 7:35 pm, and other additional sportscasts on weekends. MBS also offers sustaining unsponsored newscasts every hour on the hour from 6 am to 10 pm ELT, which the affiliate does not have to carry, or may sell to local advertisers if it so desires. **Other sustaining programs include the "Northwestern University Reviewing Stand", "Bandstand", a weekly hour spotlight on an artist broadcast Saturday evenings, and other programs.**

It is important to note that many MBS affiliates tape and delay the newscasts and programs, and rebroadcast them at a later time. For example, some MBS stations have carried the half-hour newscasts at :45.

MBS was owned by RKO General until 1957 when it was sold and had several different ownerships in the late 1950's. The network became entangled in scandal which involved acceptance of \$750,000 from Rafael Trujillo of the Dominican Republic in return for giving his dictatorship favorable coverage. The network went bankrupt and almost went out of existence, until it was rescued by the Minnesota Mining and Manufacturing Company (3M), which purchased it in 1961 and appointed the energetic Robert Hurleigh as its president. The network had lost all of the RKO General stations as affiliates which had formed the backbone of MBS, including WOR-710, CKLW-800, WNAC-680 (now WRKO), KHJ-930, and KFRC-610. In addition, WGN-720 had quit in 1956, and MBS had only a daytimer, WAIT-820, as its Chicago affiliate until 1964 when WCFL was finally signed. Hurleigh was able to obtain 50 kilowatt affiliates in four major cities for MBS, including WINS-1010 in 1961, then WHN-1050 in 1962 when Westinghouse purchased WINS, WCKY-1530 was added in 1961, WGBS-710 in 1962, and WCFL in April of 1964. (Later, WCKY was lost to ABC, and WGBS to ABC/Information in 1968.) From 1964 to 1967, MBS had the only daily rock dj show ever broadcast over a network, with WCFL personality Dick Biondi, 2-4pm ELT Monday thru Saturday. In addition, Hy Gardiner had a nightly interview program from Miami 9-10 pm ELT back then. In 1968, 3M, which had turned MBS into a profitable network, sold it to a group of businessmen for three times what they had paid for it. Because of its unstable history, MBS has literally bounced around like a ping-pong ball in most major cities. For example, after KHJ dropped MBS in Los Angeles, KPOL-1540 took it for a while, then KIIS-1150, and now KBBQ-1500 is the affiliate there. In San Francisco, KKHI-1550 replaced KFRC-610, and then KSA Y took it for a while, and now, KEST-1450 is the MBS affiliate.

ABC, the American Broadcasting Company, came into existence when NBC was required to sell the Blue Network mentioned earlier, in 1943. The FCC ruled that the ownership of more than one network constituted a monopoly.

At present, ABC operates four separate networks. This does not violate the FCC monopoly ruling, as long as no two programs are broadcast simultaneously, which is why each network has its newscasts at different times.

The ABC/Contemporary network offers its affiliates five minute commercial newscasts at :55. There is an abbreviated version of the news (with the commercial) lasting two minutes, at :50. Some affiliates incorporate this short report into their regular news report, or, as mentioned earlier, just take the commercial. Howard Cosell's five minute reports are aired at 8:25 am and 5:25 pm, and WABC personality Chuck Leonard does two reports on music at 8:25 and 10:25 pm. As on the other three, there are some public service programs made available on Sundays to Contemporary affiliates.

The ABC/Entertainment network has newscasts on the half hour, plus a number of five minute commentaries, sportscasts and stock market reports each day. Also a feature of the network is Paul Harvey's five minute report at 8:30 am, and a fifteen minute report at 12:30 pm. (Harvey's report is not always on the ABC Entertainment station in every city; for example, in New York he is on WMCA, the Information affiliate.)

The ABC/Information network has news on the hour, plus a number of commentaries with the noted Harry Reasoner and Howard K. Smith and others. There is an Information block of news, commentary and sports from 6-6:30 pm, ELT.

The ABC/FM network simply has news at :15 and is the only network which does not compensate any of its affiliates.

ABC was the first network to drop the soap operas, dramas and old type entertainment programming, in a major revamping of the network in 1957. New music shows with Herb Oscar Anderson and Merv Griffin were introduced. However, this failed to help the financial picture for the network, and ABC had seriously considered closing down its radio network in 1959. It had never had very many of the large 50,000 watt stations as affiliates, and had lost WOWO and KEX when Westinghouse dropped networks in 1956. The network elected instead to stay with radio and began a major campaign to win affiliates, with stunning success in the early 1960's. In a one year period, ten 50,000 watt stations joined ABC, including KBAT-680, WHAS-840, KWKH-1130, WWVA-1170, WGAR-1220, and later, KGA-1510 all of which had left CBS. WHAM-1180, ex-NBC was signed, and WCKY came to ABC from MBS. Independents KRAK-1140 and WPTR-1540 also went to ABC.

In 1967 the ABC network announced its plans to split into four networks, which surprised many people, and gained FCC approval. The plan went into effect on January 1, 1968. It was adopted for two reasons. The network was still not showing a clear profit. WABC and WLS had exerted pressure to drop the long running "Breakfast Club" with Don Mc Neil 10-11 am weekdays because it disrupted their rock formats. Under the new plan, they would not have to carry it since the Mc Neil show could be run on another network. The plan also served to alienate many of the affiliates. WHAS and KWKH immediately went back to CBS. WCKY likewise dropped ABC and, two years later, went back to CBS. Other stations like WFIL-560, KBAT and KRAK went independent. Others went independent initially, and after a wait-and-see period, hooked on to one of the four networks. This group included WHAM, WPTR, and WGAR which would eventually join the Information, Contemporary and Entertainment networks respectively. WWVA, which could not work out an acceptable agreement with CBS, reluctantly went to Information. After a very cool reception initially, the four network concept gained increasing acceptance, and as noted earlier, ABC has more than 1100 stations with all four networks now.

The original concept of the four network system was that each one catered to a different type of radio format. Contemporary was designed for rockers, Entertainment for personality/MoR stations, Information for stations which were heavy on news/public affairs. Today there is little correlation between the format and the network. There are MoR stations with Contemporary, rockers with Entertainment, and so on.

There are, in addition, a number of regional networks which cover several states and offer news programs and features of a regional nature to their affiliates. Two of the largest are the Tobacco Network in the Carolinas, and the Intermountain network covering the Rocky Mountain states.

One of the most notable was the Yankee Network which had some thirty affiliates in the six New England states. It was operated by RKO General until its flagship station, WNAC-680 went to the Drake rock format in 1967 and changed its call letters to WRKO. The Yankee Network operated from 1928 until 1967 and was showing a profit at the time it folded. In recent years, the network offered ten minute newscasts at 7, 8, 9 and 11 am, and 1, 3, 6, 7, 9 and 11 pm, weather at 7:30 am and public service programs on weekends.

RKO General also operated the Don Lee Network covering the Pacific Coast states in conjunction with MBS, and closed it down when it sold MBS in 1957.

ABC also operated ABC West with special features for its western affiliates. This was closed down in 1967.

Besides regular networks, very often special networks are set up to broadcast special or seasonal events. Each winter a nationwide network is set up to broadcast the Saturday afternoon Metropolitan Opera live, sponsored by Texaco. Most professional baseball, football, basketball and hockey teams form seasonal networks to broadcast their games, as well as some college teams.

Almost all network programs, regional or national, are carried to the affiliated stations over rented telephone lines. At various times, when and where it is feasible, some stations have picked up network programming directly off the air from an FM station carrying the network, to save the expense of utilizing the lines.

Finally, it might be noted that at one time, programs for the networks originated from many different affiliates. With the changing times and changing nature of network radio, today virtually all network programs and newscasts originate in New York, or in Los Angeles, Chicago or Washington newsrooms. Perhaps the only exceptions are the weekly "Salt Lake Tabernacle Choir" on CBS, which originates from KSL-1160, and "Northwestern University Reviewing Stand" on Mutual, emanating from WGN-720, which, ironically, is no longer an MBS station.

DOMESTIC CONTEST STANDINGS as of March 15, 1972

Rank	Name	Score
1st	Robert NEAL	117,908
2nd	Ken ONYSCHUK	92,434
3rd	Jim RENFREW	68,640
4th	Charles Gill	47,575
5th	Keith Birlingmair	46,530
6th	Frank Wheeler	32,560
7th	Dave Simko	25,230
8th	Mahon Stillwell	21,438
9th	Dave Christensen	17,164
10th	Jack Hathaway	13,570
11th	Harold Cox	9,900
12th	Cary Pall	3,290
13th	Lynne Pall	8
LAST	Donald Erikson	6

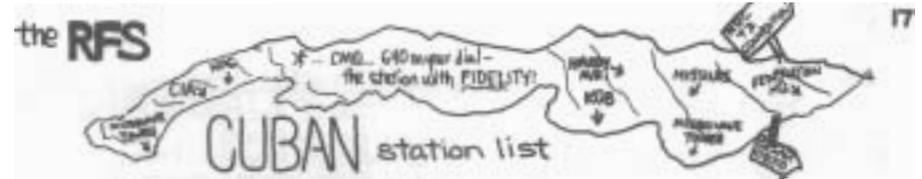
\*\*\*REMEMBER that your final forms must be in within 2 weeks after the close of the contest on May 16, 1972--- Good luck!.....BGK or KGB or LL.

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Tenth Annual Edition § Corrected to March 1972

Compiled by Ronald F. Schatz

This list of Cuban medium-wave broadcasting stations is the result of the monitoring activities of the compiler modifying basic data obtained through the Instituto Cubano de Radiodifusión; 23 y L, Vedado; Habana 4, Cuba. Estimated accuracy - 97%. Exploitation by World Radio-TV Handbook Company strictly prohibited.

kHz	Call	Location	kW	Identification
550	CMAN	Pinar del Río	30	Radio Rebelde/V. de Cuba
570	CMHI	Santa Clara	10	Radio Rebelde
580	CMJM	Ciego de Avila	.5	Radio Rebelde
590	CMW	La Habana	150	Radio Rebelde/V. de Cuba
600	CMKV	San Germán	150	Radio Rebelde/V. de Cuba
610	CMHV	Trinidad	1	Radio Rebelde
630	CMHQ	Santa Clara	50	Radio Liberación/V. de Cuba
640	CMQ	La Habana	50	Radio Liberación/V. de Cuba
650	CMKU	Santiago de Cuba	2	Radio Liberación
660	CMHG	Santa Clara	10	Radio Progreso/R. Enciclopedia
670	CMAT	Pinar del Río	10	Radio Progreso/R. Enciclopedia
	CMKP	S. Pedro de Cacocum	50	Radio Progreso
680	CMHN	Cienfuegos	5	Radio Progreso
	CMDB	Santiago de Cuba	1	Radio Progreso/R. Enciclopedia
690	CMBC	La Habana	50	Radio Progreso
700	CMJT	Ciego de Avila	1	Radio Progreso
720	CMGN	Colón	30	Radio Rebelde/V. de Cuba
730	CMAQ	Pinar del Río	1	Radio Liberación
	CMKJ	Holguín	10	Radio Liberación
740	CMJL	Camagüey	10	Radio Liberación/V. de Cuba
760	CMCI	La Habana	10	Radio Reloj Nacional
770	CMKB	Las Mercedes	5	Radio Revolución
780	CMJN	Camagüey	60	Radio Rebelde
790	CMCH	La Habana	10	Radio Cadena Habana
810	CMJE	Camagüey	5	Radio Progreso/R. Enciclopedia
830	CMCA	La Habana	10	Radio Cordón de la Habana
840	CMHW	Santa Clara	10	W, La Frecuencia del Azúcar
850	CMKC	Santiago de Cuba	2	Radio Revolución/V. de Cuba
851	CMDC	Holguín	5	Radio Revolución
860	CMJY	Ciego de Avila	1	Radio Cadena Agramonte
870	CMBL	La Habana	1	Radio Internacional
	CMND	Guantánamo	10	Radio Rebelde/V. de Cuba
890	CMHD	Santa Clara	1	CMBF, Radio Musical Nacional
	CMDZ	Santiago de Cuba	1	CMBF, Radio Musical Nacional
900	CMJV	Ciego de Avila	1	Radio Liberación/V. de Cuba
910	CMJB	Camagüey	1	CMBF, Radio Musical Nacional
930	CMGJ	Matanzas	1	CMBF, Radio Musical Nacional
940	CMHE	Fomento	1	W, La Frecuencia del Azúcar
950	CMBF	La Habana	10	CMBF, Radio Musical Nacional
	CMDJ	Guantánamo	1	Radio Revolución
960	CMGL	Matanzas	.25	Radio Reloj Nacional
	CMHB	Sancti-Spíritus	1	Radio Progreso
980	CMCK	La Habana	5	COCO, El Periódico del Aire

kHz	Call	Location	kW	Identification
990	CMHT	Sancti-Spiritus	1	Radio Sancti-Spiritus
1000	CMAP	Guane	.25	Radio Guamá
1010	CMAS	Pinar del Río	1	Radio Guamá
1011	CMKM	Holguín	5	CMBF, Radio Musical Nacional
1019	CMAC	San Cristóbal	5	Radio Guamá
1030	CMFA	Camagüey	1	Radio Cadena Agramonte
1040	CMEN	Isla de la Juventud	1	Radio Caribe
1059	CMKG	Baracoa	1	Radio Revolución/V. de Cuba
1060	CMBQ	La Habana	5	Radio Enciclopedia Nacional
1080	CMBM	Isla de la Juventud	1	Radio Caribe
1100	CMHU	Cienfuegos	1	Radio Ciudad del Mar
1120	CMDL	Holguín	1	Radio Angulo
1130	CMHA	Santa Clara	1	Onda Musical
	CMKL	Santiago de Cuba	2	Radio Reloj Nacional
1140	CMJK	Camagüey	1	Radio Camagüey
1150	CMDO	Banes	.25	Radio Banes
1160	CMAD	Artemisa	1	Radio Artemisa
1190	CMJP	Ciego de Avila	1	Radio Surcos
1210	CMJX	Morón	.25	Radio Morón
1211	CMKD	Holguín	1	Radio Reloj Nacional
1220	CMGY	Perico	5	Radio Veintiséis
1230	CMGM	Jagüey Grande	1	Radio Veintiséis
1240	CMGW	Matanzas	1	Radio Veintiséis
	CMKE	Victoria - Tunas	.25	Radio Revolución
1250	CMHP	Placetas	.25	W, La Frecuencia del Azúcar
	CMKA	Guantánamo	.25	Radio Reloj Nacional
1260	CMAG	Consolación del Sur	1	Radio Reloj Nacional
	CMDE	Bayamo	.25	Radio Reloj Nacional
1269	CMJG	Camagüey	1	Radio Reloj Nacional
1280	CMHM	Santa Clara	1	Radio Reloj Nacional
	CMDP	Victoria - Tunas	.25	Radio Reloj Nacional
1290	CMKS	Guantánamo	1	Radio Guantánamo
1300	CMJQ	Nuevitas	1	Radio Nuevitas
1301	CMJD	Ciego de Avila	.5	CMBF, Radio Musical Nacional
1306	CMHK	Cruces	1	Radio Reloj Nacional
1310	CMDD	Bayamo	1	Radio Revolución
1330	CMJS	Ciego de Avila	1	Radio Reloj Nacional
1340	CMGU	Los Arábo	.25	Radio Reloj Nacional
	....	Guantánamo Bay N.B.	1	A.F.C.N. (U.S. Navy)
1350	CMKY	Puerto Padre	.25	Radio Puerto Padre
1360	CMBG	La Habana	1	Radio Popular
1370	CMKW	Santiago de Cuba	1	Radio Siboney
1390	CMKX	Bayamo	1	Radio Bayamo
1400	CMJI	Florida	.25	Radio Centro de Florida
1420	CMDX	Baracoa	1	La Voz de Baracoa
1430	CMKZ	Palma Soriano	.25	Radio Baragua
1450	CMJW	Santa Cruz del Sur	.25	Radio Maboá
1460	CMCG	Marianao	1	Radio Marianao
1470	CMGE	Cárdenas	1	Radio Ciudad Bandera
1520	CMKT	Victoria - Tunas	1	Radio Victoria
1550	CMDV	Santiago de Cuba	.25	Radio Santiago
1560	CMGB	Cárdenas	.25	Radio Reloj Nacional
1590	CMDF	Manzanillo	.25	Radio Manzanillo

Address all correspondence to:

Ronald F. Schatz § P.O. Box 2814, AMF § Miami, FL 33159

# HARRASSING DXERS FOR FUN & PROFIT!

E. M. Cramer

Harrassing your fellow DX'ers is not only a right, its your duty! So now your probably asking, "OK Mr. Smartypants College Communist Hippie, just how does one go about doing the Harrassment thing". Well dear friends, you won't believe me when I tell you that I've got a Harrassment Package that will drive your victim to drink, or at least he'll stock up on Dr. Scholl's Zeno Pads before he spins the dial on his HQ-12<sup>9</sup>X again! A technique that almost always works is the ole 1964 forum report trick. This plan consists of copying verbatim a insipid report and resubmitting it under a false name at a later date. Then there is the "False Member" trick, these people live in either Ringoes, NJ, or Anaheim Calif., and tend to be rather gay blades. Of course you could always say you got married in a muzzling, which is a pretty weird place to get married let me tell you. "We wish you many years of folding and coallatting bliss". Keep one finger on the staple! Or worse yet, you could always introduce yourself in a musing.

### LEGAL NOTICES

NOTICE is hereby given that the Federal Communications Commission has scheduled a date for hearing for publication of Midwest

WNYC, Minneapolis, Minnesota, operating unlicensed time on shore with some power, to change its transmitter site and install a Franklin antenna system with the application of the City of New York Municipal Broadcasting System (WNYC), operating on 830kc, to change its transmitter site, increase its emitting power from a low D.A. to 50 kw, D.A., to operate from 6 a.m. to 10 p.m. (6-11) and (1) to operate on a regular basis with 1 kw of power from 6 a.m. to 10 p.m. (6-11) and (2) in addition to its currently licensed hours of operation from Buffalo New York to extend to Minneapolis.

The several applications have been designated for hearing, at a time and place to be specified, to determine primarily, the facts and losses in service and interference to existing service from the several proposals and other service available to the affected areas; the overall efficiency of the proposed nighttime operation of WNYC; any adverse effect upon future allocations on 830-kc. of the WNYC proposal; increased coverage of service by WNYC's proposal and WDSM, Superior, Wisconsin; whether WNYC's proposal is a menace to air navigation; the capability of WNYC's new site, especially as regards distorted radiation; ability of WNYC to select and maintain the radiation pattern it proposes; the nature of WNYC's and WNYC's program service; and whether WNYC's programming would serve special or temporary needs; whether WNYC has adequately ascertained the needs of the area. It is proposed to advise whether WNYC's FM station can meet the present and post sunset needs of the area to be served by its pending proposals; and, finally, whether any of the proposals would produce a fair and efficient distribution of service, would serve the public interest and should be granted.

A copy of the WNYC applications and related material are on file for public inspection at 234 Municipal Building, New York, N. Y.

Sheldon Hoffman  
Acting Director, WNYC

-2-MAR-72

So you think your bulletins are late?

A missing mail car loaded with mail has been found "on an obscure, seldom-used siding in Perryville, Md." after a two-year search, postal officials said. They added the Central railroad had, and has to date, no explanation of how the car got on the siding from the 90-m.p.h. passenger train that was pulling it. The Penn Central "will be fined a substantial sum," the officials added.

# WHERE IS CAPTAIN GLOTZ?

linguishing in caves of methane ice a thousand miles deep under Cranberry Beach, Ontario!

21 REPORT FROM THE SOUTH PACIFIC! - Peter V. Taylor

In December, I vacationed in Tahiti and Sydney. The receiver was a Nordmende Globetrotter, which is not the strongest. However, a few interesting things were heard.

TAHITI

Radio Tahiti's schedule conforms with that listed in WRH. When it isn't on, no signals are heard during the daytime on AM or FM. I visited the studios, and was told by an engineer, mostly through sign language (he spoke as much English as I do French) that they are 20kw on 740kHz and have no plans of going to 50kw, which was listed in several publications. They use a microwave of very low power to a receiver on a mountaintop and then it is retransmitted on FM, about 92 MHz, 40w, and picked up at the AM transmitter, about 6 miles ENE of downtown Papeete. The FM was heard at the hotel. At night, the first identified station was KFBK-1530. Others heard were Cook Islands-600 (not exactly a powerhouse) KFI, KNX, WBAP plus a whole lot of westcoasters and all Hawaiians except 790, 850, and 970. Of these, KCCN-1420 was the best, except for the fact that 2AP hetted it severely.

SYDNEY

I vacationed here in 1970 as well, and no changes were noted with the exception of the addition of a new station during the daytime, 2GO-1320 Gosford, NSW. Locals and semi-locals in Sydney are:

- 610 2FC government; mostly classical and talk
- 740 2BL government; MoR, pop; jazz 10pm-midnight local time
- 870 2GB mostly news and telephone talk; has older demographics in ratings
- 950 2UE rock/MoR
- 1020 2KY religion, race results, MoR, foreign language
- 1110 2UW rock; tower downtown, with calls on it
- 1170 2CH MoR; less rock than others
- 1270 2SM rock; Drake jingles

Out-of-towners heard days: 2KA-780 Katoomba; 2HD-1140 Newcastle; 2NC-1230 Newcastle; 2GO 1320 Gosford; 2NX-1360 Newcastle; 2KO-1410 Newcastle; 2WL-1430 Wollongong; 2NC-1510 Newcastle; 2WN-1580 Wollongong. A few others were heard, but the above were at easy listening levels.

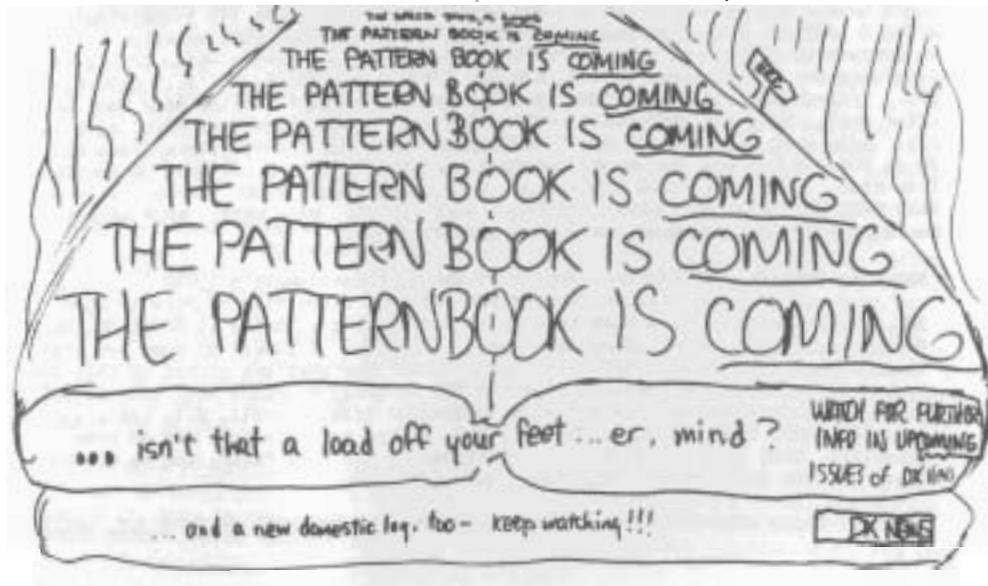
Meanwhile, at night until midnight, all frequencies had something on them. The following, heard between 2-3am Friday morning December 31 Sydney time, were of consequence (subtract 9 hours for GMT; Sydney was on DST):

- 570 2YA AN//760,690,780
- 690 4KQ Brisbane, and 3YA
- 760 1YA//570 (Auckland)
- 780 4YA//570 (Dunedin)
- 790 UNID
- 820 4ZA Invercargill
- 930 3UZ Melbourne, possibly Fiji under?
- 970 5DN Adelaide
- 980 2ZB Wellington//1100
- 1000 UNID
- 1040 4ZB Dunedin//1 00
- 1050 2CA Canberra
- 1090 UNID, //2UE-950, 2KO-1410
- 1100 3ZB Ch'ch //980, 1040
- 1140 2HD Newcastle
- 1180 3KZ Melbourne
- 1200 5KA Adelaide
- 1210 UNID

- 1220 4AK Darling Downs (Oakey?)//1300
- 1300 4BK Brisbane
- 1310 5AD Adelaide
- 1320 3BA Ballarat
- 1360 2NX Newcastle
- 1390 4BH Brisbane
- 1410 2KO Newcastle//950 2UE and ?-1090
- 1420 3XY Melbourne
- 1440 UNID
- 1500 3AK Melbourne
- 1570 UNIT TT
- 1580 Thailand/USSR? (see below)
- 1590 1XI, New Zealand
- 1600 OC

This list does not include the Sydney stations, which are AN, except 2FC/2BL. I was able to make a tape of the 1580 signal; it appears to have both "Moscow Bells" and "Columbia the Gem of the Ocean" on it. I hope to send a dub to GPN shortly. Basically there are three networks in Australia. In the capital cities, there are two stations--one ABC network each. In other cities where there is only one ABC, the programming is composite. A noticeable exception was Canberra; 2CY-850 and 2CN-1540 would change networks. The McQuarie Broadcasting System originates "MBS News" which is heard in many stations in NSW. As opposed to spots, many Australian stations sell quarter-hours of time, enabling you to get three or four commercials in 15 minutes for one advertiser.

Only the 2UW and some TV towers were noted in Sydney. Color TV starts in 1957, and some of their TV stations are on our FM band, with no projected date for FM. Outside of some exciting flash floods I got caught in near Bangendore (20mi from Canberra) I would like to mention that 2CH-1170 has the worst 5kw signal in Sydney. And as you may have noticed, only Sydney/Melbourne commercial stations may have 5kw; others, 2kw.



CHRIS LUCAS - 407 Elmwood Avenue - Ithaca, New York - 14850

It seems that Musings I write Tuesday evening or Wednesday morning never make the Brooklyn deadline, so I'll try writing this Monday night & see what happens. (Rec'd Thurs. 3/16 -ERC) New loggings since last Muse: 2/23- WOMB-1460 Pa. @ 7:30pm. This one dominates the frequency evenings. 2/27- WPOW-1330 N.Y. @ 8pm. 3/2- WJW-850 Ohio @ 1:05am/ WYSL-1400 N.Y. @ 1:30pm. 3/4- WCDL-1440 Pa. @ 6:14pm, CKPM-1440 Ont. @ 6:47, WBUD-1260 @ 7:30pm. WRZE usually dominates at night here w/a very evident WNDR underneath. 3/5- WOND-1400 @ 12:36am for N.J. #11. 3/9- This was apparently an Auroral evening. No skip at all noted until an unID s/off noted on 1560 WQXR @ 6:40pm. Any ideas on who? Unn WTHM-1530 noted w/s/off @ 6:44, for the second skip station to be noted that night, more than half an hour AFTER local SSS. WYCU-1550 @ 6:45pm s/off for Fla. #3, ZNS1-1540 @ 6:53, WAPL-1570 Wis. @ 7pm s/off, plugging FM on 105.7, WTQX-1570 Ala. @ 7pm s/off. WESY-1580 Miss. s/off @ 7:15 & WSYB-1380 Vt. @ 7:57pm. 3/11- WAKY-790 Ky. @ 1:10am. CFRS-1560 Ont. @ 6:14pm, WVKO-1580 O. @ 6:38pm NN, WAKU-1580 Ky. s/off @ 6:44. CBJ made a very belated appearance this date. 3/12- CJRN-710 Ont. finally noted u/WOR @ 12:51am, CKLM-1570 Que. @ 1:44am, this one heard before but not IDed positively. WAMY-1580 Miss. strong on ET w/a couple minutes of continuous IDs @ 1:40am following 15 minutes or more of big band mx, KMPC-1560 Cal. finally positively IDed @ 2am through static from local thunderstorm. CHRS-1090 Que. @ 5:43pm. With pest CJRN-1600 gone, I sat on 1600 @ SSS & heard the following: WJNG-1600 @ 7:30 for NY #81 with old friend and new NRCer Paul Sidney at the mike, unns WTYM & WWRL noted, WNEU-1600 W. Va. @ 6:10, WHOL-1600 Pa. @ 6:15 s/off, never heard in Conn. Later, WFAW-1330 @ 7. 3/13- CHNO-550 Ont. @ 12:10am, WQNE-980 O. @ 12:24, KAAV-1090 @ 12:31, WANB-1560 Pa. strong on TT @ 1:01am. A strong unID noted on 1590 w/Pop, variable TTs between 1 & 1:45, & when they finally IDed @ 1:45, I was deeply engrossed in a book about flying saucers & such, & missed the calls & location, although I got power a: 5,000w. (WCBG, Chris -ERC) Total loggings now 361. WTKO has 3 1/2 out of 4 towers up so watch for tests, they'll probably be on until at least 1am as WVER-FM, where I work, is AN-6 & WTKO'll want to steal our audience. They won't succeed! 73.

JEFF KADET - Box 726 - Denton Hall - U. of Md. - College Park, Maryland - 20742

DX: MM 3/6- WOCB-1240 (#35 on frequency) from 1:34 & on. I didn't know this was a TEST but they were barreling in & couldn't be missed. KIWA-1550 TEST also heard from 3:04-3:13. UnID underground mx on 1580k between 3-4:10am including what sounded like an entire Neil Young album. No ID given @ 4am that I could hear - who was this? On the 8th, CJRN finally heard on 710 surprisingly well @ 1:46am. I visited their new antenna farm over Christmas vacation: it is an impressive sight. On the 9th, WSNE-1170 s/on-Dixie @ 6:45am while trying unsuccessfully for the stations in N.J. & N.Y. 3/10- WLIQ-1360 r/c-DT 2:15-2:30am, Ala. #65. 3/11- WTRQ-1560 @ 3:03am, just caught end of ID & I think they went off after that. MM 3/13- WMOB-840 f/c-DT 1:07-1:13am in the clear but weak' must be an r/c. 3/15 gave us WJZM-1400 r/v-TT 1-1:15am. WBRV-900 f/c-TT 1:42am (domestic # 25 on 900), & two new Miss.: WTYL-1290 & WHOC-1490 r/c/s. I now have 30 stations from Miss. 3/18- WRAR-1000 6:36-6:42am RS u/o semi-local W100. Veries: v/1- KLUC KRBB WORV WDOG WHII WCVS WOCB (real fast reply). v/q- WHEX. WPuF said I heard r/c-TT w/Van Nostrand, third MM, 12:20-12:35am.

PETER A. ROMEIKA - 17 Old Oaks Road - Rosemont, Pennsylvania - 19010

This is my first Musing, I hope there will be more to come. DX, has been kind of irregular because of school, I'm a junior at Mount St. Mary's College. I did a lot of DXing ovdr semester break. I picked up some new stations, seems like joining NRC brings good luck. New stations picked up this season were, WAPE-690 Jacksonville @ 5:14pm EST on 1/21, KSL-1160 Salt Lake City 2:20 am on 1/14, ZNS-1540 on 1/29 @ 6:45pm, WHHO-1320 2/14, Hornell, N.Y. test, also test WPKC-1560 1/28 @ 1:02am, Chardon, O.) I have to close now, and do some studying. Good luck to all & 73s. (Welcome to the NRC, Peter, and we too hope there will be many more Musings from you! (ERC)

THE NEXT ISSUE WILL BE IN TWO WEEKS, BROOKLYN DEADLINE WILL BE THURSDAY, APRIL 6.

ROGER GIANNINI - 1111 Forest Hills Drive - Belleville, Illinois - 62221

3/13 PM- WATV-900 @ 7:02 s/off, fair. WDDT w/rr @ 7:09. Unn KHOZ 7:16 s/off & unnn KALT, 7:25. 3/14 PM- 7:26, KOLS-1570 s/off w/KBRF looped. Some TA reception noted for the first time ever in March in three years of TA activity, Nice-II-1554 poor, WDR-1586 fair @ 7:30. WDR was in for about three hours until fadeout @ 10:39 approximately. Others included R. One-1214 barely audible @ 7:40. RME-773 poor. Some daytime DX on 3/13 AM. 10:30, WBA-920 w/ local WGNU partially looped out. 10:25, WITZ-990 w/semi-local WCAZ looped. 11, WXLW w/KLIK looped. 10:45, WIRJ-740 w/WVIN looped. I would like for somebody to answer this question concerning the Beverage antenna. In the original article it stated if you had a very long Beverage, say seven miles, extremely quiet & stable reception can be experienced. I was wondering that if one had such an antenna strung up in Maine & terminated in the ocean, how good would reception be? Could one count on TA activity during the daytime? I figure that the cost of putting one up may be \$5,000 or more depending upon the thickness of the wire being used.

GEORGE B. SHERMAN - 104 Pinewood Circle - Rosemount, Minnesota - 55068

KRVN-880 is now on RS w/fair groundwave signal at 425 miles, w/ WCBS nights, if audible, so DA must work. KQA-850 is AN-6-rr oldies "Golden Beacon", ex-HI. I rate that a major improvement. DX continues to show up despite 1,000 ANs. 2/27- KXON-1420 Ark. showed w/s/off u/semi-local KTOE @ 7pm, also TGN-730 noted w/ID & religion all in EE @ 8 w/XEX QRN making things difficult. MM 2/8 started out w/KGIW-1450 r/c @ 2:14; Col. #29 @ 0/800 miles thanks to those extra 750w; KMMO-1300 TEST @ 5:25 mostly o/QRM but I was too mad at new NSPers WHAS/KYW to send a report. Fortunately WHAS/KYW both chickened out & went back AN-6. A big thank you to whomever sent the bomb threats, hi. HJAE-920 must've been the one w/two mentions of Colombia @ 5:30, actually penetrating NSP test WOKY! My morning was then made complete w/WCHO-1250 O. s/on @ 6 w/no sign of WEMP - must've been a mini-Aurora o/Milwaukee, hi. 3/5- #30 Col. & #39 1240, namely KRDO w/ID @ 1 MM 3/6 I discovered CJRN-710 Ont. will be MM pest now that WHB is off MMs; KPOL-1540 Cal. was doing ZXR TEST @ 3:30, but barely detectable in null of ZNS, if you could call it that. ZNS is almost as bad as KYEL! I couldn't even positively ID the WNIO TEST. WGR-550 N.Y. & CHLN Que. both messing up semi-local NSP WSAU @ 4:11 3/11 SSS was profitable w/most-wanted WTKM-1540 Wis. strangely atop WSMI w/no sign of KXFL @ 6:35; many spots for Oconomowoc, Atlas Helpful; WJRC-1510 Ill. fought KSTP slop during s/off @ 7 only seconds after pest WAUK s/off. SM 3/12 I did not note any IDable DX from 550-1600, but 540 made up for that w/YNOW @ 6:20 & WYLO Wis @ 7:30, weak & alone. I did have one interesting unID that SM on 7. SSB was noted @ 6:15am, WCAS WGSW WVCH WMBL or WMBG? If some ECer could check for me which of these s/on @ ISR SM w/instrumental SSB it'd be much appreciated. CBL is off RS till 7 SMs but their OC & KCBS RS prevented my getting an ID. Some of you may be wondering if the gain of an unamplified loop is good enough to make building one worthwhile, so I'll tell you. Using my \$27.95 Realistic TRF & loop I heard Brazil-1040 @ 5,500 miles very well; a 1040 carrier barely detectable w/built-in antenna. Also KOEL-650 now good MMs.

WILLIAM D. SWIGER - Route 1 - Box 142-A - Bridgeport, West Virginia - 26330

Hi you all. Well, here I am again for my second Muse. After four years I am finally out of the U.S. Navy. I get out 4/3. So it looks like I won't make it to YAD-II as I had planned. I was hoping to get out the first of March but the Navy wants to keep me just one more month, hi. The above address is my new one in West-BY GOD-Virginia. I hope to finally meet Harley DeLeurere. No DX lately due to the antenna being down and my gear all packed and ready to go. I would like to buy some late 1950 & 1960 copies of PE and EI magazines. Has anyone got a verie out of WHNC-890? I. so, what is the secret? Best of luck to all. 73 & have fun at TAD II!

ATTENTION - ATTENTION - ATTENTION! WE'VE GOT SOMETHING WE REALLY MUST MENTION! TO MOST OF YOUSE GUYS - IT'S NO BIG SURPRISE - IT'S JUST NRC'S A NUAL CONVENTION! Remember, it's in the Miami area this year, and the dates are September 1-2-3-4. MAKE THOSE AIRLINE RESERVATIONS now, for that is a popular vacation spot, you know.

JIM CRITCHETT - 1504 Glenwood Drive - San Diego, California - 92103  
 Another good third MM session prompts me to report what other SW U.S.A. DXers might hear, with better RXes & good luck. From 2/15 to 3/20 reception reports were sent to KERR-1300, Ruidoso, N.M. for s/on 9am SM 3/5. They have moved from 1340, & KGB was off, for which I am grateful. On 3/11 a report went to KBCW-550 heard fairly well w/KOY on their AN program. The third & last report went to KRWN-880 for their 7am s/on for SM 3/12. Apparently they s/on at 6 weekdays - strong here. Verifications have been received from KULF-790 v/f, CJIC-1050 v/q on f/up, & CHUM-1050 v/q, saying "cards all sent out once a year", so if you have reported since 3/13, expect a v/q by 3/15/73! All Canadians to whom I have reported have verified. The report which I sent in via Air Mail on 2/14 was published on 2/26, received 2/29, so for prompt publication WC members should use Air Mail, & get the DX NEWS also by air mail. For Eric DiRicco and Blake Lawrence's information, the 1972 Broadcasting Yearbook gives the program format for a majority of the U.S. stations, so that book should assist in your DX-tras Format listings. My BYB arrived 3/4; the 1972 WRTH came on 2/24. Both are helpful. I agree with Jerry Starr that AN operation is probably necessary, but I suggest this operation be limited to from one to possibly five stations, depending on the size of the city, & these to operate on only certain frequencies, preferably the already cluttered "graveyards", thereby freeing the rest of the band for world-wide DXing. Just drawing, Jerry. Updater to Randy Seaver's CX of Frequencies for SW U.S.A.: XEGM-950 NSP; XEEX-1420 off 4am & XEBG-1550 off 6am MMs. Best. (Jim, Len Kruse does the CX of Frequencies List -ERC)

GREG HARDISON - 17600 Orna Drive - Granada Hills, California - 91344  
 I finally got fed up w th trying to battle that electrical buzz, so I pulled out some plugs & moved my RX - all the way across the room. Now that I'm away from that wall, I have no problem at all with that buzz & I can actually DX (anomaly permitting), except for one thing - On 3/7 I found another buzz which was much worse, & this wasn't just mine. That night I traced it to the end of the street & back (one-sixth mile). Then I found out Phil Finkle in Northridge had the same mess. So on 3/18 I called the power company who decided they should send someone out to see about it. I'm just hoping they make it out before Easter vacation, when I have a solid week of DX time. Phil had said it might be a bad insulator on a power line & there is a major line running right through the middle of Granada Hills. So if they make it out here, then hopefully I'll have some MM 3/27 DX to report. For now 73s from the interference capitol of the Universe.

JOHN H. SHANNON - 478 East High Street - Kittanning, Pennsylvania - 16201  
 Well, I am back again, mainly to clear up any possible misinterpretations from my last Musing, & to ask another question. When I said we should not expect stations to have a silent period for us DXers, I meant only we would not feel the station has an obligation to do so, & curse them if they do not. I am not against writing to stations & requesting them to stand by for a TEST broadcast, or to conduct a TEST of their own. If they do so, great, but if not, please don't be angry with them & blast them in the Club bulletins, or even worse, in a letter to them. Now, I am looking for a triple gang capacitor with about 365 pf. per section. Does anyone have one around th: shack that he wants to sell? Or, can anyone tell me where I can get one? The best I can find in any catalog is a two-gang job. I am going to build a new front end for my RX. It presently has separate oscillator, RF, & mixer tuning which is great for peaking up a specific signal but becomes tiring when scanning the band. This time I will gang the three tuned circuits w/trimmers on the RF Mixer for fine peaking. Some DX of late: In reverse order, 3/13- 3:54am, KRKO-1380 Wash. at last; 3:57, WKFE-1550 P.R. s/on EE & SS, 4:58am ZIZ-555 St. Kitts s/on w/good carrier but very poor modulation in sharp contrast to 3/11 when their s/on was almost up to semi-local WKBN both in signal strength & modulation. 6pm, WPAC-1580 NY. s/off, 6:30, WILA-1580 Va. s/off, 7:15pm WBBA-1580 Ill. s/off, 7:17 KPCA-1580 Ark. s/off, #41 on 1580, 11:04pm WTTN-1340 Vt. s/off. 3/6- 3am, KIWA-1550 Ia. TEST in so strong before I got the ID I thought it was WLOA testing, hi. A good indication of why we must have daytime only stations. More DX but no room. Up to 1,628/49/9/67 now. CJRN is definitely on 710 & has been since at least 2/27 @12:30pm, a regular daytimer here. WESA-940 is still WESA, 3/19.

BLAKE LAWRENCE - Box 803 - Canon City, Colorado - 81212  
 Greetings. DX is slowing up, due in part to my totals being in the mid-900s, and the stations just don't get easier; and partly due to some blah CX. QRN is back (was it ever gone?) and the beginning of Spring is taking its toll of DX. Catches of note follow. MM 3/6- KIWA-1550 TEST in easily @ 3:58am w/ instrumental mx; KTRC-850 very strong w/rr @ 4:12 (were they 10kw?), WMEE-1380 Ind poor-fair at s/on @ 5:01, then Drake rr, & CJOI-1440 w/automated MOR @ 5:35. 3/8 WJBO-1150 s/off @ 1:06 w/SSB. MM 3/13- KJET-1380 Tex. w.ET/RR @ 5:24am, KSFO-550 way u/KLZ w/WX @ 5:06, KUNO-1400 Tex. w/EE & SS IDs @ 6, & finally CBF-690 in FF from 6:06-6:11am. Totals now at 954 stations, 40 states, seven provinces, and 18 countries. \$1,000 will hopefully be heard by early next season. KRWN-880 began RS on 3/6. New sked is 6am-1:05am ELT, & they play mostly MOR. Signal not too great for 50kw - I can hear WCBS under them. Because of this signal situation, & since they're not AN, they're not much of a pest here. However, one of my pests here (and my part-time employer, hi), KRIN-1400, which now s/off @ 9pm ELT, will soon extend their sked to midnight or 1am ELT, making them a "peskier pest" hi. Denver is getting a new 50kw daytimer on 1090 which will be on by September. I hear their format will cater to minority groups, indicating SS & Soul programs. Denver already has enough rotten stations without another one being added. KLZ-560 has brightened up the radio scene a little bit by switching to a format called "Number 1 Music" - mx from the past & present that has reached #1. However, in so doing, they cut out their AN hard rock show - I was one of this program's biggest fans. (How big ARE you, Blake, hi -ERC) Is it true that Eric DiRicco won the Captain Clotz dress-alike contest? 73, good DX, and report to DXtras!

Bob Foxworth - GPO Box 2,111 - New York, New York - 10001  
 I tried for some juicy DX during the N.H. Primary aftermath, but evidently the tallies were completed before midnight. None of the hoped-for N.H. graveyarders was noted here. Only notable DX on 3/13 was WPTP-1250 ending ET @ 2:50, about even with another ANer, likely WTAE. 3/20 saw WJDA-1300 atop WFBR for tape ID around 1:50 but generally they were not too readable. A weak RS station on 1460 may have been Yakima, Wash. but it was wiped out by WOKO who had been on W2OC until then. A choral SSB s/off at tune-in @ 3:01 on 1090 and could this have been KING? 1090 is rough here w/WINS/WHN spur a good S-6 but WINS was silent for a while. WPTN silent too. A TTR on 790, very loud, off/on around 2:35, who? WKBN quite weak on 570 & someone with varying pitch TT on 570 @ 3:22 but no ID heard. I'm dreaming of a K-call here. Carrousel-660 heard, not too strong in contrast to 655 where they should have stayed. Forget KPAR etc. with all the IAs here now. I see in Broadcasting that KOFO-1220 is advertising for a CE so what became of Bob Davis, NRCer, there? Also I saw your ad, Bill Coleman, so why not go to Ottawa, hi. The only verie in since Tarawa, last Fall, was KIWA-1550 in on 3/20. WAYT WNIO & CFCB are still outstanding. CFCB the only one I really would like, I can do with or without the others. I see that at least eight DXers heard CFCB on 2/7 so I guess they were swamped with reports. You fellows who report everything you hear must be funded by the Ford Foundation. (I use the Federal Reserve, Bob -ERC) My own opinion is that, while I agree with Ben D. & ERC in principle, the economic realities are such that verifying is much more selective than it could be. I am becoming partial to tape "claims" more & more. 73.

STAN MORSE - Route 3 - Bradford, Massachusetts - 01830  
 Here's another who would like to get his veries - and book "When Pirates Ruled the Waves" on the British off-shore stations, back from HQ - it's two years yet! My thanks to Cesar Objio for his updating the D.R. list. I have nice tape on R. Villa Tapia - but I had no location - so now, report is off. Villa Tapia is not on my map. Season's best veries are WCCB-TEST XEVIP WMSG CHIR Nouakchott-1349 & WMM. WMM completes active Conn. stations - the only state complete. I still need line in Me., Mass. & Vt., & R.I. WHOU WMRC & WFAD (reported) & WSVP, four in N.H. and three in Del. I also have reports out to (among others) LR-1 YSIG R. Villa Tapia-1190 EAK2 CHVD & CKRS-590 Jonquiery who was on to 2:30am 3/6. CHVD is now using fast musical IDs on its AN show.

THE NEXT THREE ISSUES WILL BE TWO WEEKS APART, STARTING TWO WEEKS FROM THIS ONE.

## THERE'S NO FOOL LIKE AN APRIL FOOL

You've heard of the Monday morning Quarterback? Well - meet the Sunday morning Nickelback!

We read "in that other DX publication" that one of their members was planning to tour ten Western states. We didn't know there ARE ten Western states!

Some of our members seem to have an affinity for "Pirates." We don't want to say anything, but two guys came in at the recent Jersey get-together with patches over their eyes and shouting something about "Avast, you lubbers."

They can have their Pirates. When we were kids, we played Cops and Robbers - with REAL COPS!

It's got us terribly confused. Lagattuta lives near the Orioles, Edmunds lives near the Mets and Yankees, but both of 'em root for the Pirates!

We knew it - one of our ace DXers recently logged WOOF-560, "Radio Dalmatian", heard with many spots.

We read recently in a Musing that WBCA-1110 has series-fed towers. We'd like to see these, but please tell us first what time they eat.

We've been doing a lot of reading. Again, in "that other publication" they are talking, some of them, about splitting up Canada's North-West Territories into three provinces. Shucks, that's OK with us, but why not split up Texas into North Texas and South Texas?

Why not, really? Isn't there a North Carolina and a South Carolina? And a North Dakota and a South Dakota? So, there's precedent!

Come to think of it, we could split up Texas into North-East Texas, North-West Texas, South-East Texas, and South-West Texas - and they'd all still be bigger than virtually any other state.

Some want to give the District of Columbia state status. Well, why not? We could call it "The State of the Union."

One of our members has been having some problems, which have sent him to a psychiatrist. It seems he's starting to understand some of Ron Schatz' Musings, and he's becoming very worried.

We caught daytimer WINE-940 recently during the wee hours of the morning. We inquired as to what they were doing on the air at that time, and they replied they were conducting a breath test.

WJAB-1440 is known as "Big Jab Radio." Isn't it good their slogan writer doesn't work for WDIC-1430?

The Dolly Holiday "Holiday Inn Nighttime" show is fast fading from the channels. Instead of singing "Hello Dolly," Barbara Streisand is now warbling "Good-Bye Dolly".

DX NEWS is famous (infamous?) for its oodles of abbreviations. How about some of favorite song titles, like "TX for Two", or the recent rock hit, "MM MM"? Then there's "You Gotta Be a FB Hero" or "I Could have Danced AN"?

We just learned that Glenn Hauser is going to appear on the TV show "Double or Nothing."

We all know of Dr. Richard Wood, of WRC. The writer has known him quite a while - in fact, we knew when Dr. Richard Wouldn't! And a Happy All Fools' Day to all.

The 1972 Association of North American Radio Clubs Convention will be held in the Boston area. The exact dates and location will be announced shortly by the Convention Committee, whose new chairman is Jerry Berg, 38 Eastern Avenue, Lexington, MA 02173. Additional information on the convention will appear in DX News as it is announced in the ANARC Newsletter. Meanwhile...

This questionnaire is being sent out to all DX Club members with their bulletins. It is intended to help us plan the convention around the interests of those attending. Please fill out this form, remove it from the bulletin, fold it over, put it in an envelope, attach an 8¢ stamp and drop it in the mail. What could be easier? (Please- if you belong to more than one club, send in only one form. )

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Do you plan to attend the convention, to be held some time in the second half of July, 1972? It will be a Friday night, all day Saturday and Sunday morning affair, with an expected registration fee of around ten dollars, including Saturday dinner and Sunday breakfast, but not motel room.

DEFINITELY \_\_\_\_\_ MAYBE \_\_\_\_\_ DOUBTFUL \_\_\_\_\_

How do you plan to come?

PLANE \_\_\_\_\_ TRAIN \_\_\_\_\_ CAR \_\_\_\_\_ OTHER \_\_\_\_\_

What areas of the hobby would you like to see emphasized?

SWBC \_\_\_\_\_ BCB \_\_\_\_\_ Utilities \_\_\_\_\_ Ham \_\_\_\_\_ FM \_\_\_\_\_ TV \_\_\_\_\_ Other \_\_\_\_\_

Do you have any specific suggestions for the program?

Please mail this questionnaire to Steven P. D'Adolf, 16 Westgate Drive, Apt. 201, Woburn, Massachusetts 01801 Thankyou!