
"DX NEWS is a publication that surely must be one of a kind, and one that the NJPC and the editors can be fustly proud of." (Ken Chatterton, NY)

## ON THE INSIDE

- Verie Signers - Ernie Cooper
- Domestic Supremacy Ratings - Bob Karchevski
- How to Catch a Pirate - Ron Musco
- NEBE-2 - Carl Dabelstein et al.
- The Loop Sense Cardioid Array - 1 - Ron Schatz


## NEW MEMBERS

-- J. R. Bruner, 419 Nottaway Dr., Nicholasville, KY 40356 (re-joins)

* Francis Bujak, 69 Bel-Aire Cir., Windsor Locks, CT 06096
* Daniel Spitzer, 79 Irma Dr., Oceanside, NY 11572
* Willian W. Tinsley, 48 Midland Ct., Springfield, IL 62702
* James Hopkins, 29 Grandview Ave., Pitman, NJ 08071
* Harry Adelmann, 7 Acadeny St., Belleville, NJ 07109
- Paül Swearingen, Route 1, LeHarpe, KS 66751
* Donald Milnes, 45 Templeton Crt., Toronto, Ontario, CANADA I⿴囗 203


## RENEWALS

J. Schmelzer, G. Goodwater, R. Penner, J. Cieslewicz, C. Clayton, C. Bailey, FLASH TIPS \& SUCHLIKE
By the time you read this, WPEN-950 will be back on the air. In fact it is as I write it, hi. $\mathrm{M} 3 / 3$ on 950 yielded littie but WKAZ-WJJ and a WPEN ET. $3 / 1$ SSS will be determined by a remote tape. WLYN-1360 TEST $3 / 3 \mathrm{hrd}$ by RJE w/TTs, Code \& voice IDs, bluegrass mx, and some special stuff. Hrd also on 400 watts. TAUB-1590 TEST 2/24 hrd by Yusco. Schmidt, Burns, Boyd report that $W M B G-7)_{4} O$ finally did appear around $0300-0330$ on $2 / 17$, so we'll re-list their test for $3 / 17$ as well.

## NOTES \&c FROM NJPC

Bob Ammons (47l Katth, Misooula, MT 59801) is interested in VIF propagation and invites any members similarly inclined to contact him. Likewise any members having equipment suitable for VLF which they mizht want to get rid of should contact him. (VLF $=15-150 \mathrm{kHz}$.)

We anticipate completion of the Receiver Reference Mamal by the end of larch. More info later on this.

We have processed some 5000 sheets of reprints in the past 2 months, which has to be some sert of record. Orders delayed during that time were due to the necessary replenishment of stock. All outstanding orders were fully or partially shipped on $3 / 3$, as were all outstanding Log orders. Anyone who has not received same by the time you receive this issue, please let us know.
C. P. C. TEST SCEMRDUIE

| MONDAY |  | 10 | * | 0130-0200 | * WIGM-1490 | * | Medford, WI | 1000/250 U | NNRC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | * | 0145-021.5 | * WHAZ-1330 | * | Troy, NY | 1000 D | NRC |
|  |  | * | 0300-0400 | * KHLB-1340 | \# | Burnet, TX | 1000/250 U | NRC |
| TUESDAY |  |  | 11 | * | 0000-0010 | * WADD-1560 | * | Brockport, NY | 1000 D | IRCA |
| MONDAY |  |  | 17 | * | 0000-0100 | * WBJW-1/40 | $\stackrel{ }{*}$ | Winter Park, F | L 5000/1000 U | NNPC |
|  |  | * |  | 0130-0200 | * WIBU-1240 | * | Poynette, WI | 1000/250 U | NTRC |
|  |  | * |  | 0200-0430 | * WIMS-1420 | $\stackrel{ }{*}$ | Michigan City, | IN 5000/500 U | U NIRC |
|  |  | * |  | 0200-0300 | * WSAU - 550 | $\stackrel{+}{*}$ | Wausau, WI | 5000 U | MNRC |
|  |  | * |  | 0200- | * WISN-1130 | * | Milwakee, WI | 50000 U | NNRC |
|  |  | 24 | * | 0230 | * WOTT-1410 | * | Watertown, NY | 5000/1000 U | NNRC |
| IUESDAY |  | 25 | * | 0200- | * KGVO-1290 | $*$ | Missoula. MT | 5000 U | NNRC |
| MONDAY | MAY | 05 | * | 0000~ | * WIXE-1190 | $\pm$ | Monroe, NC | 500 D | NRC |
|  |  | 26 | $\stackrel{*}{*}$ | 0300-0500 | * KRIZ-1230 | * | Phoenix, $A Z$ | 1000/250 U | NRC |
| Montur | MAE, | 17 | * | 0300- | * WFBG-740 | * | Williamsburg, | VA 500 D N | C/IRCA |

PLEASE REMEMBER THAT WE ARE NOW ON DAYLIGHT SAVINGS TIME. THOSE WHO HAVE SUBMTT TED TESTS LISTED OR ARRANGED IN EST SHOULD RE-CHECK WITH THE STATIONS AND, IF NECESSARY, CORRECT THE TIME LISTED HERE.

## DETAILS:

KHLB -- C\& W mx, 1 kHz TT \& code IDs. V/s: Harry Kaindl, M; Box 398, 78611. Arr. Skip Dabelstein
WHAZ - Code \& voice IDs, c\&w mx, some gospel mx. Calls (prepaid only) welcome at (518)-272-1010. V/s: Gary Koster, CE; Box 784, 12181. Arr. Joe Loverro.

WIGM -- No program details. V/s: Ray Bohnert, CE; Lock Box 59, 54451. Arr. Victor Loberger.
WADD - No program details. Prepaid calls accepted at (716) 637-3930. WQXR is ON at this time. V/s: unavailable. Address: Box 337, 14420. Arr. James Hopkins.

WISN - Re-sked of $1 / 13$ no-show. No program details. $\mathrm{V} / \mathrm{s}$ : Robert P. Johnson, CE; 759 No. 19th St., 53201. Arr. Victor Loberger.

WSAU - No program details. V/s: Jack Dovison, PD; Box 1088, 5hlol. Arr. Victor Loberger.

WMS = Rersked of previous no-show. Contemp. instr. mx, frequent IDs, $400 \& 1000 \mathrm{~Hz}$. TT; will use 5000 day facilities. V/s: T. Charles Smith, ACE; Old Chicago Rd., 46360. Arr. Eugene Vonderembse.
WIBU - No program details. V/s: John Schmelzer, CE; R.R. 2; WIBU Rd., 53955. Arr. Victor Loberger.

WBJW - No program details. V/s: Don Anglin, CE; 222 Hazard St., 32804. Arr. Charles Dite.
Whan - No program details. Address: Box 180; 23185. Arr. Paul Mount.

* Phone 703-354-2135 Before 2200 EDT * All Tlmes Are art * Deadlines Are Friday *

Column still a bit slim this week. Only 6 reports. A couple of comments indicate that condx have improved a bit, but apparently most of jou aren't hearing anything. Here is what we have . . . . .

525 -COSTA RICA TICAL Cartago, Badio Rmbos. "Pumbos, la mejor masica on la mejor frequencian heard w/pop mand ID at 0300 on 2/17. (Objio)
540 -COLOMBIA Station here is altul Harlspite, Bogota, not Ro Popular as per IDXD 2/3. Heard ID at 0259 on 2 (1Te (onja)
-NICARAGUA FNO Managua, Fidio Corporacion. $2 / 22$ 1005-1030. In very good w/ many IDs and TCs. First time heard trix to tip irom Seaver's reports. This makes country \#16 heard. Mried to hear then on 750 also but too much interference from KCBS and KFIB! (Iobel)

- PUERTO RICO WKAQ San Jran. Wayne Murphy told me this was an easy one to try for. I got it on 2/10. At 0806 singing ID in SS for WKAQ. (Anderson) - colombia fo Ciudad do Cail, heard
ogan from $\mathrm{R}_{0}$ Tricolor? (Objic) $\mathrm{w} / \mathrm{pop}$ nic and ID at 0427 on 2/17, change of -VENERJESA R. Vision, Maracay, at 0307 on $2 / 17$, pop mx. (Objio)
650 -NEW ZRALAND 2TC Wollington, $2 / 251040-1100 \mathrm{w} /$ Iite orchestra max $1100-1113 \mathrm{w} /$ orch 耳ix then s/off w/mentions of some programs tomorrow, etc.; off 1114 orch me than s/off $w /$ mentions of some prograns tomorrow, etc.; off 1114
leaving an aussie $w /$ tr organ mx, couple of $n x$ items 1115 then disappeared.

COLOMBIA R Macional do Colombin, Zambrano, a/off at 0426 on $2 / 17$, ID w/all tx and freqs. (Objio)
-AUSTRALIA 2NR Grafton, MSW logged $2 / 11$ and $12 \mathrm{w} /$ religion 1250 , max 1255, had aports $2 / 221248$, noted incredibly clear of late just before $\mathrm{s} / \mathrm{off}$ at 1301. little ma heard though, this w/CKLG off for once! (Vernon, last 2) your ${ }^{\prime \prime} R_{0}$ Fco" could wall be "Fcos de Pasto". (Obj10)
COSTA RICA Station heard announcing operation on 775 kcs . and ID as "Eata es ...." several times, but could not hear the complete ID, heard at 0330 on 2/17. Probably R City. (Objio)
tioned
-IUSTRALJA 4RK Rockhampton, Quld., 2/24, heard only in patches, w/bellad ex 1346, rel 1351, ABC Ix clearly 1355, anthen 1401. (Vernon)
-FANAMA R. Iibertad, not Iibertado as mentioned by Hardy in IDID 2/3. Heard ID at 0449 on $2 / 17$, also announcing that "SER, Sistema nstatal de Padiodifusion" was to start operation shortly, quite probably a network comprising all atations in the country. (Objio) 1209 and 1211 after many anmts. (Vernon
-UNID Oriental language used and heard Krenlin Bells ID at 1330 on $2 / 23$. Brand new here. Any ldeas? Will follow up on this. (Wilkinson)
 fore on 920 but here now. (Objio)
950 -DOATNICAN REFPBBIC Radiodifusora HIG, Santo Domingo, announces a change of nane to "Radio Fiesta" soon. (Objio)
1005 -COLOMBIA R. Colosal, Neiva. This is the stn heard here on 2/17, ID at 0504, quite strong and clear, not a sign from whal on Hanaguan posibibly because of nearness. (Objio)
1010 -UNID $2 / 24,1035-1050$ then faded, $1057-1104$ in very clear SS w/many R. America Ims , can find only OUXHU, Peru listed but tines don't check w/WRTH 74, ID clearly though 1102 "en Iima transmite la America" or similiar. (Vernon)
1015 -UND Oriental language heard. Unable to ID. Heard w/very irregular signals at 1116 on $2 / 24$. Need some help on this one. (Wilkinson)
1020 -VENEZUELA IVRS R. Margarita, 2/25, is indeed this, seamed to s/on w/band mex 1000, then "Buenos Dias Margarita" many other IDs, ads and IA mx. Unid before this in unid language, $w /$ folk and EE rock nix, picked out Manguels (Cont)
-VENEZUELA/UNDD (Sont) french fries 0930 also male ancr "Summer Song is \#4". After "Sumner Place" inst max? YL ancr, 0910-0925, between Ex nothing close MEXICO Mpard. (Vernon) -MEXICO MMR R. Centro, Mexico DF, YRQR ID after each song. I kept on hearing a SS stn, they had a certain misical jingle before each ID 。 $\begin{aligned} & \text { de reception was }\end{aligned}$ on $2 / 17$. (Anderson) -COIOMBIA $R$. Familiar, heard IDing at 0410 on $2 / 17$ but could not get name of
location as it went down the fade soon, $I$ am not sure if it location as it went down the fade soon, I am not sure if it is in colombia either, but it is the most probable country according to DF. (Objio)
1135 -NORTH KOREA "Voice of the Revolutionary Party" station heard from 1211-1400 on $2 / 23$. Not hrd on $2 / 24$ even though tuned many times. (Wilkinson)
1140 -COLOMBIA R. Gristal, Medellin, pop mx, ID after each record "Ro Cristal esta en todos partes", at 0405 on $2 / 17$. (Objio)
1160 -DOMINICAN REPUBLIC HIBG Santiago, Radiolandia, I received this stn on 2/20. It was coming in good, measuring S7-9. KSL faded out and Radiolandia came in. SS mx ID at 0200. (Anderson) -COLOMBIA Ondas de Macondo. Did not mention location, but I am almest sure it is in Macaio, since they announced that covered "Peninsula de Guaj1ra, region de Cesar y venezuelan. It is probably a change of name from R. Perinsula. Could not hear either "Fcos de Combelma" or Valledupar, (Objio) -VENEZUELA R. Petrolera, Cliudad Ojeda, "La DInamica", heard s/off at 0355 on $2 / 17$ w/Venezuelan NA. (Objio)
-HAKA II KZoo Honolulo
1210 - HAWA II KZ00 Honolulu, $2 / 23$ 1315-1326 w/long ballad nx, unid language, extremely wavey sig. HL at 1325 , then into EE $1326 \mathrm{w} / \mathrm{ID}$, lots of CKAA-1220 splash. (Vernon)
else. Channel seemed quite crowded by this time. (Vernon) -HAITI R. Metropole, Port-au-Prince, w/ads in FE at 0359 on $2 / 17$. (Objio) WEST GEFMANY NDR Langenburg, w/super sig 2/17, orch mx $0615+$. Quite steady almost equalling ETers on 1580 and 1590 in strength. Other high band TAs noted at lesser strength. (Sundstrom)
-DONINICAN REPUBLIC (Cuba?) R. Hit Musical in IDXD $2 / 3$ is sounds strange, could this be Santiago, D.R. on this freq. Name and freq match, call letters are HIDA. (Objio)
1600 -DOMINICAN REPUBLIC R. Femina, Santo Domingo is now here from 590. (Objio)

A couple of veries . . . .
$1350-\mathrm{JAPAN}$ JOER Hiroshima City, 10 kw . Letter and card verie for report of $2 / 2$. V/s Mr. Sigern Ikeda, Director of Engineering. (Wilkinson)
1580 -COLOMBIA HJQZ R. Principe, Barranquilla. Form letter and posteard received on $3 / 1$ for oct. 74 report. Form is for HJAG-1070, HJFA-1340 and HJQZ-1580, all owned by Organizacion Radial Olimpica ltda, R. Principe specified on form. Signer is Cerente, but illegible. Address Apto. Aereo 51-266. (ED)
The reporters for this issue . . . .
Mike ANDERSON - Louisville, Kentucky DX160, 2110 Spiral loop Albert S. LOBEL - El Cajon, Callfornia DX150A, Sanserino loop Cesar OBJIO - Santo Domingo, Dominican Republic Iafayette HE-30, 4' loop Tom SUNDSTROM - willingboro, Now Jersey HQ1 $50 \mathrm{w} / \mathrm{SB}-620$, SPR-4, SK-2, \& I WIs Brian VERNON - Port Hardy, British Columbia DX150A, 2 IW 1 s Hank WILKINSON - Santa Rosa, California Sp600, Sanserino loop
Thats it. There ain't much room left, but this is cutting into ${ }^{\text {n }}$ drinking time so will leave it for headquarters, Don't bother reporting folks, I've decided its nice to have nothing to do. 73

## THE ONE AND ONLY

OMESTIC
X IGEST

## editor.. Wes Boyd

 980 W. Liberty Girard, Ohio 44420 Boyd 2165454543 Silly " 5454453it lere group,
Suggest you make notes of the phone numbers listed above, and try not to confuse mine w/ Silliman's. We got enough trouble ourself, somehow we never make it the first try at calling each other. On top of everything else "MA BELL" moved me!! (Sort of anyhow!!) I'm still the same place--960 W。 Liberty Street--the Post office, Police, City of Girard, etc. agree. But in the new phone book the street doesn't exist--tis listed as ohltom-Girard Road. Now all I gotta do is figure out where they moved W. Liberty Street.

This issue and next will be the "FUN" ones, which involves conversion to good old DAYLIGHT time. As before, those in daylight time are marked w/ DOTs. Canadian reporters, and those in states that don't convert, are requested to convert reports to DDXD to ELTT. While I'm on the DAYLIGHT TIME bit, I think ARIZONA--IDAHO--MICHIGAN--and Hawaii .....remain on STANDARD TIME!

Now a handful of 1450 loggings from KDF. those Chicago guys are cleaning up w/ WVON 1450 gone BYE-BYE!! WMOH OH 2/7 Fair o/ WKEI 1659 WAOV IN 2/5 On top 1758 w/ ID WASK IN 2/16 W/ SX promo 1852 WWXL KY $2 / 7$ O/ WXWW w/ couple IDs 0000 WROB MS 2/12 Poor u/ WXVW 0059 w/ s/off KENA AR 2/12 Fair in mess 0209 on ET WROX MS 2/15 W/ s/off \& SSB 0109 WLAY AL 2/15 Briefly w/ ID \& promo 0456
 changes
910 WOKK MS Noted s/off 0210 on $2 / 21$, anncd. s/on 0500 (Silly) 810 WEDO PA Is RR oldies \& does s/off o/ William Tell overture (includes sound effect of horses \& such). (FM)
WEKG KY Noted this has a Sunday s/on 0700 (FM)
1270 KTFI ID S/off of this may now be 0220 ( 0320 ELT!!) (NRC)
1520 WTUU OH Isn't NSP, was just NSP a few weeks in Dec. (N) CPS
1560 KPNC CA Delays Ae nx \& runs till:59\%, then IDs \& goes to CBS nx (WM) 1600 WAYC PA This is light RR format w/ Ac net (Tll) Fo'er
lat.
Lat. MM: : KCUZ 1490
15t. THU:W'CCO 1450--WSVL 1520--WKDO 1560--WLSI 900 (FM)

4th. MM: :KIEO 1480 w/ IK TT \& IDs (HWB) WCCR 1580 w/ IK TT-IDs beginning \&
end (RA) WHSC $1450 \mathrm{w} / \mathrm{TT}$ (ELK-SILLLY) WJDY $1470 \mathrm{w} / \mathrm{LK}$ TT (ELK)
TUE: WHMT $1190 \mathrm{w} / \mathrm{LK}$ TT (HWB)

4th. THU: WHIY 1530 W/ DT \& 1340 (NRC) KIML 1270 (NRC)
And now a few possible f/c things.
And now a few possible f/c things:
SAT: WQDE GA Hrd. $2 / 22 \mathrm{w} / \mathrm{K}$ TT \& anned. f/c 0002-0005, Regular? ? (WM) 1250
4th. SAT: WQDE GA Hrd. $2 / 22 \mathrm{w} / \mathrm{IK}$ TT \& anncd. f/c
3rd. SAT: WMOC TN On $2 / 12$ ended RS, did F/c w/ DT-phonetic IDs 0345, then rd. SAT: WMOC TN On $2 / 12$ en
back to RS - (KDF) 1450
3rd. SUN: WINU 1510 reported as a $f / c 0100$ (NRC)
2nd. MM: : KCIA NM (1110) Had f/c w/ TT 0215-0230--Tis regular per call to station (FM)
4th. THU: KYMO 1080 MO "NEW" r/c 0640-0650 w/ TT per Skip Dabelstein
AND NOW TO HELP FILL UP THE SPACE LEFT DOWN HERE: "CALL CHANGRS" ****** 720 KQRX NV seeks KDWN

1360 WBAY WI seeks WGFE
720 KQRX NV seeks KDWN
1390 WNUS IL granted WVON
1270 * CP* VA Buena Vista--seeks WBNV
1460 WRAC WI seeks WRKR 1540 WPTS PA granted WARD

Hith suppart like thin．．．．．．．．Gee，I feel like Alan Merrimat \＆DDM11：1：11 1380 HCTA KY $2 / 21$ Poor 1829 s／off $\mathrm{w} / \mathrm{SSB}$ o／pest WINK（WN）llow dare you call a atatioa I need a Pravill（ima）

WBFN RADIO

 they could wiah then a happy birthday（IMM）Boy，Tou sure hoar stange etuff

1580 wopg sc 2／12 Atop， $1800 \mathrm{~s} /$ off（MD）
No gang，＂e＂te ain＂t kidding around，Even delayed the entire section an extra day to make it bigger－－－－－llar De llar Har Mar．．．FLARPPI！
midnight to munriae

 $\quad /$ autousted sounding 肘（Silly）
Wrac IN $2 / 17$ Moted $m /$ ID 0104．Belisve hat TT later，（EIX）You been Into mare of your Chicago $\$ 1,25$ a gellon atuffij－lin



－WPRO RI $2 / 24$ W／ax $0501-0504 \mathrm{Fr}_{\text {，}}$ to RR on top moest of $t i \mathrm{me}$ ，but at111 veak－no Castre（ $3111 y--1 \mathrm{HBB}$ ）
－кHof CO $2 / 24$ Foted 0345 \＃／＂Adult Mop＂atuff，moetly u／wPro．Faded up 0400 for nice ID，into live nx．Thia \＆IPRO gone by 0415 ast Cuben eame buck（imp－－5i11y）
680 CFHR ON $2 / 17 \mathrm{ETT7}$／rack $0101-0115$ ，no breaks in between（PrM）Doubt itit Recall them killing freq．that $A M$／ mR in Ris，maybe youme Thad IRKD on ET－－－Mext time try to get an IDII－＝HWB

 Muttin＇mach hril，after 0400－－ 1 明
 DUNE you hear thes OFFII－－
 up fe we end FD over to pleket your hoeelt

 033J－0339．Panny I got this w／TPAT，but enn＇t get VINE（Prin） I thi．the word SAD in more $1 i \mathrm{ke}$ iti－- IMB
950 TLOF FL 2／ 7 Falr w／RR in TVI mu11 0056 （MD）FAR OUF 11


－ 1090 kTVO $172 / 24$ Thla fair，louder thall umual，in $85 \mathrm{mull} 0150-0205 \mathrm{~m} /$ talk shows（ine）

CTVIE OH $2 / 25$ Noted off 0145－0205，then $O C$ to 0215，Sowe lew level mod， W／H．Al pert etuff to 0225 then 1 K TF．Dunne when back on RS（imm）
－ 1140 上GEM ID 2／24 Fair 0145 $\mathrm{m} /$ relig．，this still on STANDARD TINE so gives an extra hour to bag it $\mathrm{NN} / \mathrm{s}$ ，if not bothered by CBI！！（HWB）
1310 ITHA WI 2／17 TEST：Hra．by：（ELK）Not even tried by：（TRS）Hey TOM，I hrd．WCAM s／off - ／SSB at 0302 that MM－－YOU LASE！！－－HFB
－ 1390 IVON IL 2／24 Fair u／CSC－WFBL $\mathbf{W /}$ R\＆B，Chicago wx，contest，etc．Lost
－ 1400 HoND at 145 to local NHW NT（KWB）
－ 1400 yand NJ 2／24 ET W／TT 0008－0017（ELK）Was the radio on or off？？－KIVB KNOR OK 2／10 Noted $w /$／ogr by female anner．OlO2．Was looking for the WGIL DX（WM） $2 / 17$ Strong $\quad$／／MUSIC－RADIO ID 0255 （KDF）MHAZZIS？？？ One MM he＇s off 0102，next in RS 0255？？？－－HELPII－－－HEB
1420 Hme VA $2 / 27$ ET W／TT \＆C\＆H Ex：（Blecchlihill）0019－0035＋，well o／good ola Thik，HUZZAHI！（Silly）

1490 wrolt in $2 / 17$ Briefly atop w／ID 0025，then lost to unld w／R8B（PrM）
1500 wery is $2 / 17$ TEST：Hrd．BY：（MD－－JF－KDF）（TRS too！）
－+1510 10esD 5 SD 2／24 Trans．\＆Equipt．tests 0212－0225．Easy o／CJRS QRM \＆ran CAI mx，All maps I＇ve seem spell city as MIBANK（ELK）New SD on EF buh，－Thats the last time I bother to call you $w /$ a TIP－－HWB

1950 UNID IT 2／10 ET Ending 0245，hrd，bention 200 Wt．，addresen na b2n3 777777ten Pike（Daytab－＝Dentau－＝2M7）：Asked for reporta，anid they mere goint to＂grr＂s thent aft（m0 thetlow Hing－fif
 id 0136 o／loud $0 \subset$ b $T T$（mw） -1590 wgoe VA $2 / 24$ Another stupid ET \＃／RR \＆silly otuff most of AM（dm－HNB） NUB NY 2／24 TEST：Hrd．poorly by：（Rould have sat this one out－－nyself inc luded ！－- 相B
On sen，as the sun sets in the north．another edition of DDXD ends．Ain＇t you हlad2\％

IERPGRTERS（Bidl it net been for these faithful DXers i eould have been out chasing fesales st getting truak］．
 MD Nerk DeLerenze Centerrille，Mu no100 is sia Cancaster，S．© IF Jeft WeIcoaer clision，On Kemmesed opsods k 510 kDF Karl Forth Villa Fark，I11． 10160 is 5 Ma RLX De Great majNY Middiebsig Its，Ohighe VM Wayne Marphy Leuferilile，ITT Holis is lnop
PrM Pasl Nouth Teaneck，MJ Panawaile Rg 4465 b bicyele

 3111 y lome John＇a Sillimen Girartald，of Zentith T0 1000
 Shauld make mention of a coaple future deadlineaz $3 / 26$ and $4 / 9$ ，There be de Aeadline the wnok betwesa，Hope to see many of you at

ane Bear in and what we anid on cover of jh about publication dates．Won typed the shove before cetting the ward fron Starr on this，se I eherged his sopy aebardingly，No DFADLDE at Editora $3 / 19-20$ ，sil no lame，hi．

Re the 1550 unID above，my best guess was Waahlinton Pike＂，but I got no semblance of anything for the town．A checi of BCB ylelded no help，so must be someone who uses a box \＃for mail in both PITB 4 DL ．All I know is it ain＇t WOGO，as I know where their XR is，h．Inlp anybody ？？？－RjE

TD RATHER GO TO
YAD IN HUSARRO，OMIS MAF $\operatorname{HB}$ $28,29 / 30$ THAN HEAK ALASKCA ．．．ALMOLT．




$\rightarrow$ Map should explain itself. Any questions, WRITE OR CALL. IF YOU GET LOIT, NUMEER
Is 216-534-1394.
$\rightarrow$ Don't arrive before 7:00 pm march 28 Th, I WILL BE AT WORK TILL THEN. YAD RREAKS UP AFTERNOON OF MAREN 30 Th. ZORCH!

CBS

A Division of CBS inc.
51 Wess 52 Stereet
New York. New York 10019
(212) 765 -4321

Dear Wes:
Jim Burns, the Chief Engineer at WBBM Chicago, has forwarded a copy of your letter to me regarding the spurs. I want you to know that I appreciate your time and effort involved in writing the letter.

I am taking immediate steps to get involved in this problem and as a first courst of action I plan to send my spectrum analyzer out to WBBM and have a good look at what's going on in the plate of that 50 kw transmitter.

It is my recollection that this problem was present in the past, but we installed a trap tuned to WGN's frequency that ended the problem at that time.

As you know, the make up of intermod products is such that WBBM's transmitter may be clean but that some other B/C station could be the culprit even though you hear the WBBM modulation on the spur.

Again thank you for your time and courtesy and be assured that it is greatly appreciated.

Cordially,

Charles B. Cohen Associate Director, Engineering CBS Radio

Mr. Wes Boyd
960 W Liberty Street
Girard, Ohio 44420


 hes been divided by the Internstional Telecomanication Union. The awnard can be applied for by nll DX'era holding verifi= cations from brosdonsting-atetione in 25 of the radiozonea. Stickern for $30,35,40,45,50,55$ and 60 wones can mlao be applied for.
The verifiestions nust be dsted sfter Kovenber 7, 2972.
All bands, 0,5 to 30 MHz , can be ased. All logeings mast have been tone within the amme oountryt
The applicstion, showing (in this arder) zone, country,
station, frequency and date on verificntion, shall be chacked and algmed by two other DX'era.
pmyst has the right to able for any particular varifiastion we would 11ke to check. The verification will be returned ne soon as it thes been checked.
Banie award, for 25 zonea, coas ane (1) us dollar, 5 Sw Cra or 7 IBCa, Stickern for higher number of sonea copt 2 IRCs each.
The applioation, togeather with the fee, shali be Bent tot"Thx Awards, P 0 Hox 274, S-7B0 24 Idkerberget, Sweden


NEW MYOUNGSTONX, OHI O" 1500 Thi
Top pattern mhowin the 500 mitt daytime patteril
Bottoe pattern in the 250 watt critieal hours pattera
Both patierna develop siailar power weat, but during eritical houre the power off the back drope quite a bit, Note that as unusl Starr geta minimum power while the loben point at me.


THESE PATTERNS ARE MOT TO SCALE DSE TH THE NIGIT PATHER BOOKII

## LSCA-1

§ Ronald F. Schatz §
The LSCA-I is a practical cardioid array. Its unique reception pattern permits it to do things that are impossible with an ordinary loop; e.g.,
a) Local station "W" lies ten kilometers due east; distant station " $K$ ", on the same frequency, lies 1000 kilometers due west. You have never heard "K", since Jour regular loop cannot null local "W" without nulling "K" as well. Voila, the InCA can null out "W", and "K" will come in loud and clear!
b) Station "K" in California is testing for the CPC this morning on 1400 kHz . You would like to try for it from your Midwest location, but dawn has hit the East Coast, and so has a barrage of fresh graveyarders with their anthems and farm reports. Use your loop? Forget it! Voila, the ISCA has such a wide null it can knock out everything to the east, and "K" can come in loud and clear!
c) From your West-Coast location, some weak carrier is coming in on 14750 kHz . Is it an LA or a TP? An ordinary loop suffers from "180 ambiguity", so one cannot tell by using it. Voilà, flick a switch on the ISCA, and it's a TP!
d) Station "K" has never been heard, because local station "W" is right smack in the way - on the same bearing. Voila, the ISCA can do that too! It's the so-called "transparent-tower effect", but it is rarely observed. However, the author regularly hears WMAZ-940 "through" super-local WINZ!
The reason behind these "miracles" is that the ISCh has a eardiold reception pattern, illustrated below:

bibe visw


The LSCA-I is the end result of years of research and experimentation into cardioid arrays. The extreme instability, delicacy and unpredictability that once discouraged their use have largely been overcome, so that the LSCA-l is intended to all but replace the ordinary loop for DX'ing purposes.

The LSCA-1 may be described as a tri-sectional combination of loop, longwire, and control unit:
I) LOOP SECTION - a 6-turn, 2-band, low-Q, altazimuth, unbalanced spiral loop. Although it is designed primarily for use in the cardioid mode, it can serve as a better-than-average figure-8 loop as well. The altazimuth feature is for use only in the figure-8 mode.
2) SENSE SECMION - a long-wire 20 to 40 meters in length with a shielded lead-in. The exact length and lay of the longwire is left to the builder's experimentation.
3) CONTROL SECTION - a commercially-available FET amplifier, such as the "BCB Super-Booster" or the BAX-1, along with those switches, capacitors, and potentiometers necessary for tuning and operation.
(WARNING: This device is not for beginners; the user must be basically familiar with loops and loop construction before attempting to build the ISCA-1. Experienced DX'ers, and especially cardioid experimenters, know all-too-well why).
Parts and components used in the LSCA-1 are all commonly available; with the possible exception of the FEM amplifier, no part need be specially ordered. In the United States, Calectro and Archer products are availabie from Heathkit, Lafayette (IRE), Radio Shack, and similar outlets in all major cities. Some Calectro part numbers are included in the following list.

## LSCA-1 Parts List

(All non-relative dimensions are in centimeters)
Wood sections:
A) $2.7 \times 2.7 \times 152 \mathrm{~cm}$. (loop cross-arm, vertical)
B) $2.7 \times 2.7 \times 150 \mathrm{~cm}$. (loop cross-arm, horizontal)
D) $2.7 \times 2.7 \times 50 \mathrm{~cm}$. . (altazimuth brace, horizontal
E) 2.7 diameter $x 100 \mathrm{~cm}$. dowel (loop axle)

Plexiglas, plastic, or plywood sections:
F) $16 \times 16 \mathrm{~cm}$. (loop center brace)
G) $7 \times 16 \mathrm{~cm}$. (control mounting board)
4) $2 \times 9 \mathrm{~cm}$. (loop-winding spacers), total of 8 needed.
I) $3 \times 8 \mathrm{~cm}$. (altazimuth holding plate)

Metallic parts:
J) $7.6 \times{ }_{n 1} \times 13.3 \mathrm{~cm} . \quad \begin{aligned} & \text { (chassis box, front section), Archer. } \\ & \text { K) }\end{aligned}$ (chassis box, rear section),

Wire and cable:
W1) "Speaker" wire, no. 14 AWG, 25 meters after splitting.
W2) "Speaker" wire, no. 16 AWG, 5 meters after splitting.
(W1 and W2 are 2-conductor: they are to be split before using).
W3) Co-ax cable, RG-58/U, loop-receiver length plus slack.
W4) Co-ax cable, RG-58/U, loop-longwire length plus slack.

W5) Insulated hook-up wire for control-box connexions.

## Hardware:

| 11) | Nut-bolt combo, . $5 \times 4 \mathrm{~cm}$. ( 6 needed) |
| :---: | :---: |
| T2) | Nut-bolt combo, . $5 \times 7 \mathrm{~cm}$. (2 needed) |
| T3) | Wingnut-bolt combo, $.5 \times 7 \mathrm{~cm}$. (2 needed) |
| T4) | Wood screw, $9 \mathrm{cm}. \mathrm{(1} \mathrm{needed)}$ |
| T5) | Machine screw, . $5 \times 1 \mathrm{cm}$. ( 25 needed) |
| T6) | Misc. hardware necessary for mounting FET amplifier and tuning capacitor (screws, spacers, nuts). |

Electrical components:
B1) Standard 9-volt transistor battery. ${ }^{\text {Bl }}$ Capacitor, tuning, air-dielectric, $10-365 \mathrm{pf}$, Al-227.
Capacitor, silver mica, 330 pf, Al-01l.
Coil, ferrite antenna, Dl-842.
R1 \& R2) Potentiometer, 10 k , Bl-683 (2 needed)
S1 \& S2) Toggle switch, miniature, DPDT, E2-118 (2 needed)
2 Toggle switch, miniature, SPST, E2-116.
9 -volt battery connector, F3-052.
$\times 2)$ Knob, calibrated 0-9, E2-729 (3 needed)
Items obtained beyond these instructions:
a) FET amplifier, commercially available, preferably of the printed-circuit board type ("BCB Super-Booster" recommended, omitting coil and tuning capacitor).
b) Loop base stand, should accomodate part E, complete with
c) Outdoor circular protractor, pointer, $20-40$ meters in length.

Have the above three items under control before beginning.

## Building the ISCA-1

1) Prepare wood sections A through E as illustrated. Drill holes just wide enough to accomodate hardware and wire indicated. Wood screw 14 is to screw into the base of $C$; take care to center its socket exactly. The two Wl holes on A should be of a size that Wl will be drawn through with notable effort but without tearing the insulation; this is designed to hold the wire in place.
2) Prepare plexiglas sections $F$ through $I$ as illustrated. On $G$, drill extra holes as necessary to mount tuning capacitor Cl and accomodate potentiometer holding tabs. Components will be mounted behind $G$ with their shafts through the holes and in front. Potentiometers are to be mounted with leads pointing downward.
3) Prepare aluminium chassis $J$ and $K$ as illustrated, including bending back corners on J. On K, drill extra holes as necessary to mount the FET amplifier board to the back inside surface.
4) Form loop cross-frame as illustrated with $A, B$, $F$, and $T 1$ hardware. Insert bolts via wood side; affix nuts on plexiglas side.

5) Lay cross-frame on the floor with $A$ on top and $B$ on the bot-
tom. Implant six (6) small machine screws $\mathbb{T} 5$ halfway into each end of $B$ as indicated.
6a) Turn cross-frame over. Likewise implant six screws into the holeless end of $A$. These screws will face in the opposite direction from those in $B$.
6b) Implant five (5) screws at $1.5-\mathrm{cm}$. intervals between WI holes at opposite end of $A$.
6) Mount chassis section $K$ onto holed end of A (opposite machine screws) with . $9-\mathrm{cm}$. hole toward center of cross-frame, inserting Tl bolts via chassis side.
7) Wind loop primary with W1 wire, 6 turns, anchoring ends through Wl holes in K via A. Tighten windings as much as possible. Adjust machine-screw heights as necessary for a neat fit.
8) Mount R1, R2, and Cl onto G, referring back to Step 2.
9) Mount $G$ onto chassis-side of $A$ so that $G$ rests flush against top side of $K$ and with component shafts toward the front. Affix with two small machine screws T 5 .
10) Mount FET amplifier on $K$ with appropriate $T 6$ hardware. Use minimal length metallic spacers to clear surface of $K$ yet ground amplifier to it. "Working/soldering" surface of amplifier, of course, should face outward so that necessary connexions may be made.
11) Mount toggle switches $S 1, S 2$, and $S 3$ on $J$ so that they flick vertically (Refer back to Step 3).
12) Use insulated hook-up wire W5 to connect opposite corner lugs of S 2 (middle switch) "criss-cross" fashion as illustrated.
13) Hook up power circuit for FET amplifier as illustrated. 9-volt transistor battery is to lie loose on the bottom of K .
14) Hook up primary winding $W 1 / / 1$ to tuning capacitor Cl. Store some slack on both sides behind amplifier; it may be needed for the InCA-2 conversion later on. (If you drilled the WI holes in $A$ and $K$ a bit too large, it may be advisable to tie knots in the wires as appropriate in order to keep the windings from loosening).
15) Hook up band-change circuit as illustrated. Use tape or "spaghetti" to insulate capacitor leads, or cut them short and use more W5. (Remaining Sl lugs are for a future LSCA-2 conversion)
16) Wind the loop secondary with w2, //ing the third primary winding from the outside. Double back ends around appropriate machine screws at the bottom of A. Attach one end to center terminal of potentiometer Rl; bring other end into the chassis box via the top corner and behind the amplifier. After drawing the winding tight, tie a holding knot where the wire exits from behind the amplifier board, then attach the end to the nearest center terminal of switch $S 2$.

17) Use either a piece of WZ or W5 to connect the RH terminal of RI to the remaining center lug of S . If WZ (recommended), connect braid to amplifier ground. (Again, leave some slack in anticipation of a future conversion to the LSCA-2).
18) Connect one "criss-cross" on S 2 with the input terminal of the FEI amplifier; connect the remaining one with amplifier ground.
19) At this point, plug antenna coil $L 2$ into the $.9-\mathrm{cm}$. hole on top of $K$ so that the alignment screw sticks above the box and the middle terminal underneath faces outward from the amplifier. (The use of Epoxy is recommended to prevent possible coil rotation when aligning the ferrite core).
20) Connect inner lead of co-ax W4 (longwire lead-in) to LH terminal of coil L 2 ; connect braid to amplifier ground.
21) Connect center terminal of L 2 with center terminal of potentiometer R2; connect RH terminal of R2 with the imput terminal of the FET amplifier.
22) Connect inner lead of co-ax W3 (receiver connexion) to the output terminal of the FEI amplifier; connect braid to amplifier ground.
23) Check over above steps carefully for errors; see that the connexions agree with the schematic diagramme below:

24) Attach 9 -volt battery to connector, then close up the chassis box with two screws provided, being careful not to pinch wires, short components, etc. All cables and wires exit via the four triangular corner holes as appropriate.
25) Turn the loop over (A-side down). Use wood screw T4 to attach end of $C$ to $B$ at center of brace, so that the holes in C run // to B.
26) Loosely attach holding plate $I$ to dowel $E$ using $T 3$ hardware.
27) Place dowel $E$ in loop-base socket, plate-end down. Attach $C$ to I side of $E$ via nearest kole to brace on $C$ and top hole on $E$ using T2 hardware.
28) Attach $D$ to $C$ with $T 2$ hardware, then feed loose end of $D$ between E and I. Tighten holding-plate assembly to hold ISCA-1 in vertical position.
29) Thread the 8 spacers through the loop windings (in and out), two per side, then twist them perpendicular to the windings so as to open theg. Aim the spacers toward the center of the loop rather than 90 to the windings.
30) Attach knobs to R1, R2 and C1.

And that completes construction of the LSCA-I. Stand back and admire your work:
One more item: If you wish to label the controls, please do so as follows:

$$
\begin{array}{ll}
\text { C1. } & \text { "LOOP TUNING" } \\
\text { L2 } & \text { "SENSE PHASING" } \\
\text { R1 } & \text { "LOOP GAIN" } \\
\text { R2 } & \text { "SENSE GAIN" }
\end{array}
$$

S1 "HIGH-BAND" / "LOW-BAND"
S2 "PATTERN REVERSE"
S3 "POWER" / "ON - OFF"


## Initial Testing

1) Attach the appropriate cables to the longwire and the receiver. The connexion to the receiver terminals must be unbalanced and grounded.
2) Initial control settings: Potentiometers fully CCW, power off.
3) Tune in a "blank spot" on the receiver.
4) Turn LSCA-1 power switch on. A sudden onrush of noise indicates that the FET amplifier is working.
5) Rotate loop-gain potentiometer (Rl) fully CW. Experiment with the LSCA-1 as a figure-8 loop, trying out different situations. Leave R2 at its full CCW setting. Play with the "pattern-reverse" (PR) switch; if it doesn't do anything, then you've got a perfect figure-8 loop, otherwise don't worry about it.
6) To use the LSCA-1 in the cardioid mode:
a) Choose a target station on the receiver.
b) With gain controls as in Step 5 above, peak the station on the figure-8 pattern.
c) Now rotate sense-gain potentiometer (R2) fully CW.
d) Position the PR switch to the weaker signal, usually as indicated on the $S$-meter.
e) Slowly and carefully turn R2 searching for a "dip" in the S-meter. If unsuccessful, return R2 fully CW, then try R1.
f) Adjust all three controls for the best null on the station.
g) Flick the PR switch; the station should now blast in.
h) Rotate the loop by hand; note the cardioid pattern.

These steps may seem complex at first, but experience and a lot of practice will simplify the procedure tremendously. It takes time to develop an instinctive feeling for the controls and to visualise the pattern at any one time, but practice makes perfect cardioids.

## -30-

## NOTES:

The BCB Super-Booster mentioned is a construction project from a prior issue of Radio-TV Experimenter Magazine. Copies are available from them.

The BAX-1 amplifiers are available from International Crystals, No. Lee Ave., Kansas City, MO.
The length of the longwire used for the LSCA-1 should be on the order of 75 feet
Number appearing in parts list such as "A1-227" or "A1-011" are the Calectro numbers mentioned earlier.

HQ cannot emphasize too strongly the author's sentiments as to the necessity of prior experience in electronics circuitry and/or loop building as a prerequisite to constructing an LSCA. THIS IS NOT A PROJECT FOR BEGINNERS.

## Can you spot this problem?

This is our 3rd column for single $D K$-locations. And ny problem is that I still need more DXer's to list their totals in the DOMESTIC DX SUPREMACY RATINGS. Also, a fev members need to up-date their totals (or at least let me know you're alive.) If you have a - please up-date before our next deadline of 25 April 1975 or you will be dropped. Those with $a^{*}$ have until June to up-date.

This column is listed by veries received; refer to DX News of 17 June 1974 page 33 for the last column to list by veries. And send those new entries and up-daters to:

DOMESTIC DX SUPREMACY RATINGS
c/o Bob Karchevski, PO Box 1171
San Carlos, California 94070
by 25 April 1975 and help solve my problem.
DOMESTTC DX SUPREMACY RATINGS for 23 Feb. 1975 (\#21)

| YR NAME AND | HEARD |  |  | TAPE |  |  | VERIES |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STD GENERAL ARGA | TDH | SH | PH | TDT | ST | PT | TDV | SV | PV |
| 23 ALINAN, Near San Francisco | 2871 | 49 | 8 | 0 | 0 | 0 | 2271 | 49 | 8 |
| 30 HHEELER, NH Penna. | 2622 | 50 | 9 | 165 | 31 |  | 1595 | 50 | 9 |
| 58 MERRIMAN, Waskington, DC | 1250 | 49 | 10 | 0 | 0 | 0 | 1250 | 49 | 10 |
| 65 STARR, near Cleveland | 1774 | 50 | 10 | 445 | 48 | 10 | 1135 | 50 | 10 |
| 60 RUGG, Montreal | 2106 | 47 | 10 | 38 | 17 | 3 | 1090 | 47 | 10 |
| 64 WHATMOUGH, near Toronto | 1637 | 49 | 10 | 0 | 0 | 0 | 917 | 49 | 10 |
| 63 BOYD , near Cleveland | 1317 | 49 | 9 | 928 | 48 | 9 | 897 | 49 | 9 |
| 70 FORTH, Chicago | 1424 | 47 | 9 | 737 | 47 | 8 | 818 | 47 |  |
| 64 DUNNING, ITYC (NJ) | 1320 | 43 | 10 | 721 | 42 | 8 | 720 | 43 | 8 |
| 59 OLDFIELD, Fdmonton, Cent. Alta | 1084 | 49 | 10 | 477 | 42 | 9 | 630 | 44 | 10 |
| 62 MUSCO, Near NYC (Conn) | 750 | 43 | 8 | 0 | 0 | 0 | 630 | 41 | 8 |
| 69 FALCONER, near Toronto | 1022 | 42 | 8 | 0 | 0 | 0 | 493 | 40 | 8 |
| 640PORTZER, Seattle | 972 | 44 | 7 | 150 | 34 |  | 467 | 38 |  |
| 61*ERICKSON, Los Angeles | 900 | 42 | 6 | 0 | 0 | 0 | 442 | 3. | 6 |
| 62*BURKET, Central Penna. | 719 | 50 | 8 | 8 | 5 | 3 | 428 | 48 | 7 |
| 63 ARRUDA, near Boston | 907 | 44 | 8 | 0 | 0 | 0 | 420 | 44 |  |
| 68 PIMPER, Salt Lake City | 1284 | 45 | 7 | 573 | 40 | 5 | 391 | 45 |  |
| 68*HARDESTER, central Calif. | 377 | 40 | 5 | 0 | 0 | 0 | 336 | 40 | 5 |
| $62 \mathrm{KERFOOT}, \mathrm{Toronto}$ | 669 | 42 | 10 | 0 | 0 | 0 | 309 | 41 | 10 |
| 58 COLEMAN, NE No. Carolina | 1126 | 47 | 6 | 0 | 0 | 0 | 271 | 47 | 5 |
| 62 ATKINS, Louisville, Ky. | 1296 | 47 | 7 | 42 | 21 | 0 | 251 | 40 | 4 |
| 74 HATHAWAY, Central Ill. | 573 | 35 | 5 | 7 | 0 | 0 | 200 | 35 | 5 |
| 69 KARCHEVSKI, near San Francisco | 249 | 35 | 5 | 197 | 3 | 5 | 198 | 36 |  |
| 73 VERNON, northern Man. | 338 | 32 | 6 | 52 | 16 | 6 | 144 | 20 | 6 |
| 72estepheins, Norfolk, Va. | 319 | 36 | 4 | 15 | 13 | 1 | 230 | 29 | 4 |
| 74 VERNON, coast of Br. Col. | 391 | 34 | 5 | - | - | - | 116 | 17 |  |
| 71 Kass, near NYC (Conn) | 146 | 35 | 5 | 0 | 0 | 0 | 114 | 35 |  |
| 67*NEAL, Northern Calif. | 550 | 42 | 5 | 341 | 39 | 5 | 101 | 42 |  |
| 60 FAIT , Cleveland | 218 | 32 | 4 | 30 | 19 |  | 71 | 29 |  |
| 73 HaNavan, San Diego, Calif. | 271 | 32 | 4 | 34 | 24 | 2 | 71 | 29 | 1 |
| 21 HANSCH, Southern Wisconsin | 1110 | 50 | 10 | 75 | 50 | 10 | 33 | 22 | 1 |
| 68 HART , Dallas/ Fto Horth | 1002 | 42 | 6 | 1000 | 42 | 6 | 13 | 6 | 0 |
| 73 MURPHY, Louisville, Ky. | 862 | 39 | 5 | 121 | 33 | 3 | 3 | 3 | 0 |
| 69 CRONIN, near Seattle | 384 | 33 | 5 | 0 | 0 | 0 | 3 | 3 | 0 |
| 73 WINKLEMAN, Southern W. Va. | 529 | 32 | 3 | 0 | 0 | 0 | 3 | 2 | 0 |
| 73 ANDEASON, Louismille, Ky. | 469 | 35 | 3 | 77 | 28 | 2 | 13 | 11 | 0 |

Carl Dabelstein KøSBV \&
Robert Mitche 11 WDXøFXQ
We have been asked by Dave Fischer to write a supplement to his recent article "NEBE--A SUPER SIGNAL SNATCHER".

Our Project NEBE (NEbraska BEverage) was set up during the Fall of 1972 at the University of Nebraska Field Laboratories, about midway between Lincoln and Omaha. We were authorized to use one square mile of land for the erection of our $B C B$ Beverage. The site, which included an unheated metal building about 8 ft . square, was approximately halfway between the towns of Ithaca and Memphis, one mile south of Nebraska Highway 63--a location totally free of manmade noise. We were roughly 22 miles from the nearest BCB transmitter, four miles from the nearest town and slightly over one mile from the nearest road. A more ideal setting for BCB DXing cannot be found.

Reaching the NEBE site required a trek of one mile over land, and the only "road" to our site was frequently impassible. This proved to be the only drawback to our location. The slightest rain or snow made ready access imposs ible. We could have made the journey on foot, but we would have been unable to carry our receivers, recorders, power and audio cables, etc. Due to this limitation we were able to spend only a few DX sessions at the NEBE site after the antenna was erected.

Comfort in sub-freezing temperatures was possible, thanks to an electric heater, a Coleman stove, heavy coats and a great quantity of hot coffee and tea.

Our Beverage was $3200^{\prime}$ (about 0.6 miles) in length, situated on a bearing ad anticipat. The antenna performed much better ther age is true. Any time of the day, the performance was fantastic. The remainde of this article will describe some of our reception observations during the day, night and transition periods.
I. Daytime Reception. Due to the bearing of our Beverage, we were somewhat handicapped in evaluating its daytime performance. The station density along a bearing of $300^{\circ}$ in this part of the country is very low. There were some definite surprises though. At our home QTH in Lincoln (some 25 miles to the south), the daytime regulars on 1350 are KRNT, Des Moines, IA, and KMAN Manhatten, KS. At NEBE there was no trace of these stations; rather, KBRX, $0^{\prime}$ Neill, NE, dominated the frequency with an S-9 signal. Other loggings included KTWO, Casper, WY, on 1030 , with an S-4 signa1, which is totally inaudible at the home QTH in the daytime. KIOA, Des Moines, IA, completely dominates 940 in Lincoln. At NEBE, this signal was fighting it out with KVSH, Valentine, NE. In five years of BCB DXing in Lincoln, Ghoti was never able to log KCSR-610, Chadron, NE; the usual pest being WDAF in Kansas City. At NEBE, KCSR was definitely audible under WDAF. Obviously, the above daytime loggings were only possible due to the signal-snatching power of the Beverage Antenna.
II. Transition Period Reception. DXing both the sunrise and sunset conditions proved to be most interesting. Evening signals from the west appeared at least one hour earlier on the Beverage than on the home equipment. As a
result of the antenna's directional characteristics, many sunset sign-offs previously unheard became regulars. The nulling of signals from the east really opened up many of the frequencies. Regular evening sign-offs included KMER-950, Kemmerer, WY, KBHB-810 Sturgis, SD, KBRJ-950, Boise, ID, KURL-730, Billings, MT, and KBLI-690, Blackfoot, ID.

Sunrise skip also was unique. Daytime signals from Wyoming, Montana and Idaho were heard nearly $3-1 / 2$ hours after our sumrise. This is long after the respective signals have disappeared at the home QTH. Stations which could regularly be heard at this time included KURL-730, KGHL-790, KSEN-1150, KGCX1480, and KOFI-1180 from Montana, and KYME-740, KBOI-670, KSEI-930, KAYT-970, KUPI-980 and KGEM-1140 from Idaho.
III. Nighttime Reception. Both the directional and the gain characteristics of the Beverage were quite apparent during the nighttime hours. Many pests at the home QTH were totally absent at the NEBE site.

Due to the limitations noted above, we were able to have only two allnight sessions at NEBE. Surprisingly, although both occurred during periods of high auroral activity, reception to the northwest was outstanding.

The most surprising station of all our NEBE loggings had to be RBMY-1240, Billings, MT. At a distance of over 700 miles, their 250 watts provided a consistent S-9 signal between midnight and 6 a.m. local time.

One has to hear the tapes of this station to appreciate the value of the Beverage. Fellow DXers Paul Hart, Dick Truax and Bill Nittler have heard some of our tapes and will readily attest to our description.

The following is a sumary of some typical after-midnight reception during the Fall of 1972 at NEBE compared to that at the home QTH:

| Frequency |
| :---: |
| 550 |
| 560 |
| 690 |
| 730 |
| 790 |
| 800 |
| 850 |
| 900 |
| 910 |
| 930 |
| 940 |
| 960 |
| 970 |
| 980 |
| 1030 |
| 1060 |
| 1080 |
| 1140 |
| 1150 |


| Lincoln Dominant |
| :--- |
| KSD,KOY |
| KWTO |
| XETRA |
| XEX |
| KULF, WAKY |
| XELO,PJB |
| KOA (MM's) |
| XEW, CHML |
| KGLC, KPOF |
| WKY |
| KIOA |
| KOOL, WERC |
| WAVE, XEJ |
| KMBZ |
| WBZ |
| KYW, WNOE |
| KRLD |
| WRVA |
| CKOC, WIMA |


| NEBE Dominant |
| :--- |
| KFYR, KBOW |
| KMON |
| CBU |
| CKDM |
| KGHL |
| CHAB |
| GIJC |
| CKBI, CJVI |
| CJDV,KISN |
| CJCA |
| GJGX |
| CFAC |
| KOOK, KREM |
| CKRM |
| KTWO |
| CFGN |
| CKSA |
| KGEM, CKXL |
| KSEN,KAGO |


| 1180 | WHAM | KOFI |
| :--- | :--- | :--- |
| 1230 | WQUA | KGEK |
| 1240 | KAKE,WINN | KBMY |
| 1260 | KVSF | CFRN |
| 1270 | KFJZ | CHAT |
| 1300 | WOOD,KCNW | KOZE |
| 1310 | WRR,WIFE | KEIN |
| 1320 | WILS | CHQM |
| 1340 | KICK | KCAP |
| 1350 | WSMB | KRLC |
| 1370 | WSPD | KXIF |
| 1380 | WAOK | KRKO |
| 1460 | KFRU | KATI |
| 1410 | WING,WIZM | CFUN |
| 1450 | KLWW | KUUI |
| 1430 | KLMS | KGCX |
| 1510 | WLAC | KGA |
| 1520 | WKBW (MM' s) | KYXI |

In conclusion, it's difficult to talk about the Beverage Antemna without using superlatives. Everyone should have an opportunity to use this remarkable piece of BCB DXing equipment. Our time spent at NEBE, as explained above, was all too limited. Plans are presently being made to construct a new Beverage "Son of NEBE" this coming summer. Now, if someone will only figure out how to make it both portable and rotatable!

## 417.LONDON

QSL BROADCASTINA

The London Broadcasting Company confirms as correct the reception report
of G.A. CALKIN BM-BOX 1926 LONDON WC1V 6XX

Date of reception 18.8 .74
Time of reception: $1550-1640$ GMT


On January 16th, Thursday night, Russ Edmunds called to inform me that a npiratem was operating on 1630 kHz . The programming was that of WDRC-FM 102.9 mHz .

After discussing his reception I suggested calling WDRC's engineer and Russ concurred. I phoned the station and the engineer on duty was interested in my reception-as $I$ was hearing the pirate at an S-7 level looping south towards Hart.ford.

The engineer on duty checked a receiver that was available at the studio. He called me back to say that he could only detect a carrier on 1630 kHz . He was going to call his boss and inform him of my call.

About five minutes later, Wayne Mulligan, the chief engineer phoned me and I suggested that he visit my home to hear the "pirate" in person as he did not have a receiver at home that tuned 1630 kHz . He was aware of the pirate but hadn't heard him yet.

Wayne arrived about $7 \mathrm{p} . \mathrm{m}$. and was very much interested in the pirate who was relaying WDRC-FM "live." He phoned his engineer who shut-down the FM Stereo transmitter (by remote control) about 7:25 pm for five seconds. Sure enough, the music stopped on my receiver-but a carrier was left the pirate was still on but with no audio.

Wayne had received a letter from a frequency monitor in Cleveland, Ohio back in December who reported a signal on 1631 kHz ID.
ing as WDRC.
Wayne phoned Russ and a conversation ensued that lasted at least 20 minutes. Russ reported that the pirate was being heard by DX' ers in New Jersey and Chris Lucas in Danbury, $C_{T}$. Russ reported that the pirate looped 35 degrees from his location which seemed to place him in the Waterbury area. The pirate looped south for me.
Wayne and I discussed DX, radio, and WDRC for about three hours. WDRC's AM transmitter ( 1360 kHz ) is in Bloomfield, CT. and the FM transmitter is on West Peak in Meriden, CT. The FM transmitter receives its signal by a studio-transmitter-link (STL) from studios at 750 Main Street in Hartford. At night, WDRC-FM programs dios at 750 Main Street

Wayne was confident that his equipment was operating correctly and that we did indeed have a pirate and he was concerned about his existence. Wayne had informed the FCC Boston office back in December of the strange signal on 1631 kHz . While talking, we noted that the pirate had left the air about $7: 45 \mathrm{pm}$.

Wayne was kept informed by me of the pirates operating hours. He had a portable Field Intensity Meter and told me that he was going out Sunday night/Monday morning (January $19 t h / 20 t h$ ) and try to locate the pirate.

Monday morning I was DX'ing and noted the pirate 1:30-4:00 am with an S-8 level, no fading, and still looping south.

Wayne phoned Monday night at 5 pm and we discussed the situation. He thought he had located the pirates location as Southington, CT. He thought he had located the pirates location as Southington,
(this seemed to agree with Russ). He also suggested that I join him in "chasing the pirate." I volunteered my services.
The weather Monday night at 7 pm was 9 degrees and clear skies with the wind chill factor bringing the temperature down to -20 degrees Fahrenheit.

Our first stop was the junction of $1-84$ and Route 10 in Southington. At our disposal was the Field Intensity Meter (FIM) and a portable AM/FM radio. This radio was used to check that we had the pirate on the FIM.
In an open parking lot in Southington the pirate was loud and clear with a strength of 100 uVolts/meter/mile. The pirate looped southeast based on three readings taken along Route 10 on hilly clearings.
We proceeded south towards Meriden (note that location). At a point west of "West Peak" the pirate looped east-towards the transmitter. Checking with the FIM, the signal was stronger near the "peak" but was not coming from it.
We drove into a housing development east of the transmitter and the FIM was reading about 3 millivolts. We monitored several locations and the pirate "seemed" to be in back of us, back towards the transmitterl
Persevering, we drove back towards West Peak and beyond, into West Meriden. The FIM showed a decrease in reading. Well, we were confused. It was 10 pm and we drove east again. Aha!' West eak again!
Well, we drove up the snowy, icy, park road, dodging 4-wheel drive jeeps to reach the 1,000 foot summit. We parked at the transmitter site which also contains WKSS-FM 95.7, WHCN-FM 105.9, a telephone microwave relay, and WATR's FM transmitter.

The FIM registered a very low signal next to the tower and even lower inside the transmitter building on 1630 kHz . A pause in our activities seemed like a good idea-we discussed the problem.

After a brief discussion we decided to re-trace our steps east of the transmitter. Several high schools and a technical school were checked out but the signal was only 6 millivolts and looped southwest of the transmitter.
A Meriden police officer caught up to us at a grade school so explanations were in order and several questions were posed to him. He straightened out our bearings and told us where we were-near the private Meriden airport near the Wallingford town line.
A glance at a road atlas shows West Peak in Meriden, the airport, and the town of Wallingford. At the airport, the pirate looped west towards a "mountain" of sorts.
Checking the FIM in a housing development led te to a long, lone1 y road on the mountain. Walking, with the FIM proved interesting ( -20 degrees gave us a brisk pace). A point on the road gave us a reading of 25 millivolts
The FIM located two houses on a very large lot. Your "brave" reporter ventured onto the property with Wayne keeping "guard"
(warm)! I concluded my walk about half-way to the rear-most house on the large lot. By this time I was cold, wet, and apprehensive about doing these things at midnight in a strange area.
Checking in with Wayne, we decided to call it a night-he would return that afternoon in daylight.
A phone call Tuesday night from Wayne, who was at the transmitter, proved enlightening. The pirate wasn't on during the day and ter, proved enlightening. The pirate wasn't on during the day ai he was on at 5pm relaying WHCN-FMI I fired up my HQ-180 and heard him again on 1630 kHz with a WHCN-FM ID.
Wayne informed me that he was going to the pirates location. It $5: 20 \mathrm{pm} m \mathrm{~m}$ receiver informed me that the pirate had gone off the air. "Ahal" I said.
A phone call from Wayne a short time later was discouraging. Half-way to the pirates location he noticed that he had left the air. Proceeding to the pirates house, the FIM showed no carrier.

Discouraged, he returned home.
The pirate was again noted January 23rd, Thursday, around 8:30 pm . Wayne was in Meriden and again proceeded to the pirates supposed location. He again noted a strong signal and while pondering the situation, a woman walked out of a nearby house. He asked her if there were any "hams" in the area. She replied: "Yes, on the next road over." She volunteered to lead Wayne to the general area.
This "area" was parallel to the road we had thought to be the pirates location. It contained a large housing development. Wayne checked the FIM at various points and consulting with persons living in the neighborhood, he narrowed his search down to two houses.
Checking the FIM in one yard gave him a reading of 1 volti A young man came out of the house and told Wayne to leave the property. Wayne told the young man to "Turn it offt"
The FCC was contacted Friday, January 24 th, and they said that they would meet with Wayne the following Monday to investigate the matter.

The pirate was noted operating all weekend-as usual.
Wayne met the gentleman from the FCC at the Holiday Inn in Meriden at 11 am Monday. The pirate was noted on the FIM in the Inn. They proceeded to the pirates location and arrived about 11:45 am.
A tape recording was made of the pirates broadcasting and a WDRC ID was recorded at noon. An investigation of the pirates yard followed and a long wire was discovered. The wire was attached to a pole whose base was attached to a small shed in the back-yard. Removing the sheds cover revealed a Heathkit DX-100 and an FM tuner. Pictures were taken of the set-up.
At this point the young man, who proved to be 23 years old, came out of the house and asked: "What's going on?" The FCC man showed his ID and introduced Wayne to the stations operator.
At first the operator denied owning the equipment. A very short time later he admitted that he wasn't a ham but did hold a current lst Class FCC Radio-telephone license.

He was then asked to: "Turn it off," He promptly complied.
We are not concerned with what the FCC's action is in this mat-ter-suffice to say, the FCC will do something to this pirate.
In the meantime Wayne will answer a reception report that he received from an $\$ R C$ member in Pennsylvania. It was an excellent report specifying 1630 kHz and WDRC-FM programming.
I think he said: "You were indeed hearing WDRC-FM programming that night in December on 1630 kHz . However...."

Wayne, Russ, and I don't necessarily mean to imply that malln pirates should be stricken from the airwaves. The pirate described in this article was a "special" case and this article is meant to show how he was located.

Thanks to Wayne Mulligan, Chief Engineer WDRC AM/FM Hartford, CT. and Russ Edmunds for ald in preparing this article.

January 29, 1975

## Mr. Ronald Musco <br> 16 Chestnut Drive <br> Windsor, Connecticut

Dear Ron:
Thanks so much for your help and moral support in the tracking down of the pirate station operator who was rebroadcasting WDRC FM.

I probably would never have found the culprit if it had not been for your aid and that of the other members of the National Radio Club.

Thanks again, Ron, and I'll be in touch.
Sincerely,
RADIO STATIONS
WDRC AM \& WDRC FM
Wayne G.7nulligan
Wayne G. Mulligan
Chief Engineer

The opinions expressed in this column are those of the indvidual members, and do
not necessarily reflect those of the editors, the publishers, or the National Racio Clut
MORRIS SORENSEN - Ieaf Rapids, Minnesota - ROB 1wO
I don't have too much DX to report but I didadd a new RX to my DX den. Perhaps I should really say an old RX, as it's an ancient tube-model Zenith Trans-Oceanic - a much larger RX than the transistorized Trans-Cceanic of today, covering BCB $\&$ six SW bands. It has a loop antenng (complete with suction cup for window mounting) called a "Zenith Wave Magnet." It seems fairly sensitive as I can pick:up many Winnipeg stetion (at 550 miles or so) plus the Lynn Lake and Rikatawagan LPRTs in the daytime. (I had cne of these prior to or just after WWII - it welghs 18 pounds: -ERRC) Since my last Muse I've added one new station - CKRD-850 A1ta. 2/6 (3 9:0lam. Re-logged for reports were: CKDM-730 Man. 1/31 @ 11:30pm. 2/3-KTRI-1470 Ia. @ 9:58pm; CJSI-1280 Sask. © 10:58. 2/4-CHOM-1320 B.C. - finally enough for a report @ 9:03am. 2/6-CKSB-1050 Man. © $10: 24 \mathrm{pm}$; GJRB-1220 Man. (© 10:48. A11 the receptions listed above were on the Trans-Oceanic which should prove to be a good back-up RX for my HQ-150. Veries have come from: v/q Nice-1554 (for April ${ }^{1} 74$ reception in W ssagnamsch, Mn.), CKDM- 730 , CTQ4-1320, CKSB-1050. V/1- CKWX-1130, CFWN-1410 \& CJSLr-1280. To Brian Vemon, yes, KRAD said I had the record for KRAD's most distant report. I guess the other must have been yours when you were in Isef Rapids. A petition is guess the other must have been yours when you were in ioar Papids. A petition is now being circulated here in leaf Rapids to try and obtain CBC
with provision for some local programming) for this area. 73.

WARREN POWIS - 3 Warrington Grove - Wellingt on 4, New Zealand
Hi folk - greetings from Windy Wellington! Recent DX in EST \&
double space: $1 / 17-2 J J-1540 @ 4: 15 \mathrm{am}$ (New ABC-rr 24 hour station at Sydney, Australia). 1/q4-KNEN-910 2:21am, KOA-850 2:39am, KAIM-870 2:24am religion, KOB-770 2:47am c/w, KGA-1510 2:5lam, W11d Card contest, WIAC-1510 3am, C/w. 2/3-KOMA-1520 o/ 1 ZU @ $1: 50 \mathrm{am}$, KVSL-1450 w/TT \& IDs 2:30-2:46am, KPOI-670, KNDI-1270 3:13am, KFBK-1530 © 3:19am. Reports sent to 2JJ-1540, KVSI-1450, KNEW-910, KGA1510. Veries received from: CFWN-1410 $\mathrm{w} / \mathrm{CM}, \mathrm{JOGB}-870 \mathrm{~W} / \mathrm{R}$. Japan data, 2BS-1500, WXLG-1220, KNDDI-1270, KAIM-870, 2JJ-1540, JOER-1350. Total now 228 veries from 19 countries. The 'standard' antenns here has now been extended and dog-legged, w/a pi coupler. I was very pleased to hear KVSL- 1450 test on $2 / 3$, maybe a CPC TEST will be heard some day! Time will tell. 73 \& $C \mathrm{CUNM}$.

MA RTY WRIGHT - 1913 Jeanette Lane - Springfield, Ilinois
Here it is for what it's worth. 2/3-WEED-1390 In fair 12:16am to 12:26 on $\mathrm{f} / \mathrm{c} \mathrm{w} / \mathrm{ID}$ every minute. KNOX-1310 w/TT 1:20 to 1:26am in here like local. I also caught by chance WDLR-1550 on air "for testing purposes only," 12:37 to 1:4ham, playing Sanford \& Son theme throughout. One of my most wanted $2 / 6$ when KGYN-1210 pushed in o/WCAU 7:19pm to 7:28. Adams plowshares spot and grain market. I tried AM of $2 / 17$ but just as I began a terrific thunderstorm roared through Sptingfield, so forget it. $2 / 18$ was better with marvelous CX KBRX-1350 in weak but very readable 1:30-1: 5am w/f/cmT. I tuned to 900 \& heard CFML very weak then O nounced all verification requests would be acknowledted. In wish they all would! nounced all verification requests would be acknowledted. I wish they all would No CPC programs heard in February yet, I believe a lot of $f / c s$ are not on now cecause lany I should be able to get have not been there. WCVS, my employer, is applying for an FM \& पy old Alma Mater, Sangamon State University, is on the a W/a 50kw FM on 91.9. I might mention a phenomena I have observed. through the years. When the weather turns warm in the Winter and we have a warm very foggy night the LAs dominate the band. Is it Aurora affecting the weather, or vice versa? It has happened too often to be co-incidence. See you ali next time.
WATCH FOR THE DATES ON THE HARTFORD CONVENITICN WHICH WILI BE ON AN AUGUST WEEKEND. WE RECOMEND THAT YOU BEEIIN THTNKING ABOUT THOSE PLANS NOW - RESEDRNE THE VACATION DATES SO THAT YOU WIIL BE ARLE TO MAKE THE TRIP TO CONNECTICUT!

Pat Hartiage - 9200 Wendell Way - Jeffers ont own, Kentucky - 40299
$2 / 20 . ~ I ~ h a v e ~ b e e n ~ s o m e w h a t ~ i n a c t i v e ~ s i n c e ~ l a s t ~ M u s e ~ b u t ~ s t i l l ~$ managed to add 45 stations since $1 / \sigma$. DX on $2 / 17$ was spoiled by walfunction of loop amplifiers. That was really bad since $I$ had the day off from work. Heard recently: $1 / 5-\mathrm{KGBS}-1020 @ 12: 50 \mathrm{am} \mathrm{w} / \mathrm{contest}$ for out-of-California listeners. Same AM © 1:15 I finally got ruy first TA, Iangenburg-1586 was heard well with mostly mx incluaing polka-type tumes. $1 / 11$ - I added WEKY -1340 which has been heard often since in early afternoon. WBIW is the only other on 1340 1ogged here. Also 1/11 I added YNOW Nicaragua @ 9:40pm w/R. Corporation ID. 1/12-Kwoa- 730 heard after regular s/off time with blizzard coverage @ 7:38pm. 1/13SSS reception brought KADI-1270 @ S:14, KWED-1580 © 6:37 \& KTIU-1580 © 6:45. $1 / 14$ brought s/off @ $6: 15$ of WATM-1590 \& KETX-1440 © ©:35pm, w/Texas Net nx. 1/16- I heard Ai NX © ©:02pm on WLSM-1270, 1ocal NX © $\operatorname{Cil} 13$ on KNBY-1280 \& s/off @ $5: 30$ of KFNV-1600. Afternoon reception 118 brought WAMB-1190, WILY-1210, WFKV-1220 \& WSLV-11io. $1 / 19$, I added WDXE-1370 © 6 pm s/off w/Dixie, same time
 WINX-1550 e $6: 30 \mathrm{w} /$ / ospel mux also heard. 1/23 was very Auroral. ZNSI-1540 © 7:20 was heard well w/newspaper type death notices. WIMG-860 ID heard @ 9:24 7:20 was heard well w/newspaper type death notices. Wimg-000 1200 heard et wa same PM. Cubans on 880 \& 1220 were added $1 / 24$ evening. The 1220 out 1et wa heard w/Russian lessons while the other was heard w/R. Progresso IDs, $1 / 27-$ KWAM/WEIS-990 added © 5:55, KWMM w/black religious program. WKYB-1000 heard
$2 / 3$ e 6 pm s/off w/theme from "Summer Place". $2 / \mathrm{C}$ - WSWF-1590 @ 8:15pm w/Milwauk2/3 © 6 pm s/off w/theme from "Summer Place". 2/ - wsWW-1590@8:15pm w/Milwauk
 W/10cal NX \& KCOR-1350 EE ID © 7:30. HJCI-810 W/R. Sutatenza ID verystronc e
8:20 same evening. With adaition of wUIT-1410 $2 / 18$ @ $6: 45$ pattern change, I now 8:20 same evening. With addition of WUNI-1410
have 702 stations in my log. Good EX to ali.
CECIL R. WEINSTEDI - Box 52-Golden City, Missouri - 54748
I thought I would drop a line end ack some quewtions so you guys out there in DX Iand can knock your brains out trying to answer them! Here goes: How much db gain do you get using an SM-2 W/a DX-150B, DX-100, etc. RX3 Will the SM-2 work OK inside a trailer house? Also, what is the cost of the SM-2? (I believe, $\$ 49.50$ plus postage - ERC) I am in the process of building a Tenna Boost which is similar to an SM-1 and gives up to 50 db to your AM radio and the estimated cost is $\$ 13$. The article that tells how to build it appeared in the 1970 Jume/July issue of Elementary mitietronics. Also, I sent the articie to IRCA and they said they might print it giving the crecit to Davis Publishing Company (Elementary Electronics). I haven't done much listening this lishing Company (Elementary Electronics). I haven $t$ done much instening this season due to the fact I have not got a BCB antenna for I live in a trailer cour
for nor, that is. Tint's why I asked about the SM-2. I hope next year or so for nou, that is. Tiat's why I asked about the SM-2. I hope next year or so
to be living out in the country, then I will try to have a longwire for an antento be living out in the country, then I will try to have a longwire for an anten-
na. Please someone help me! 73. $\%$ NO LOOP will work properly in a trailer-

Well, we seem to be closing on what has here been a feast or famine DX season. With a recent onslaught of static, I'm a fraid we're gonna be shortchanged CXWise. Thanks \& congrats to all those who make the NRC what it is (a bunch of whacked-out dial twiddiers, hi!) Minor milestone on verie \#175 moon WSBS-860 for $1 / 8$ reception. V/1 said they run r/cs MM circa 3am. The $v / \mathrm{s}$ said the new XR is fortheoming, \& he would be most happy to dedicate either f/c or new XR test to NRC. He's a ham and says he even answers inaccurate reports to advise them of such. (He didn't think any NRCers poorly reported; I hope not, either). It's so tough getting veries nowadays that we can't afford to turn off stations w/bum reports. Return percentage is 75\% this season, 82\% overall. Recent veries: WSAV-630, v/1, expressed surprise at being reported so close to WPRO's sienai. PC ( 3 ? -ERC) to WINH- 1470 \& subsequent $V / I$ said wy report is their farthest to date. WQIK-1090, $\mathrm{v} / 1$. V/q from WGN, WMBS-DX, \& WFTN-900.
 CHOW-1470 autonated rr e 2:3lam amid mess. 2/3-WNCT-1070 @ 12:50am, $\mathrm{f} / \mathrm{c}-\mathrm{TT}$ o/ mess, KFDI-1070, 1am s/off u/WNCT OC, WDIR-1550 w/a test @ 1:15am L\&C, WDAT-1380 mess, KFDI-1070, lam s/off u/WNC/ OC, WDLR-1550 w/a test e eli


 R. Tropical u/WEN QRM © 3:49. 2DK-1100 © 4:06 w/rr u/WWWE nu11. YVOT-1110 R. Carupano" good W/WEI off \& FRD-1120 good u/KMOX nul1 © 6:03am. More later re wSB.

ANGEI M. GARCIA - 137-05 Franklin Avenue - Flushing, New York - 11355 Ieisure time has been minima 1 sO $I$ donlt get much of an opportunity to [x. I did turn on $2 / 15$ and noted what seemed to be Auroral CX - WWV said. A Index of 18 e 7:18pm. At 6 pm , I noted WRHC-1550 ending "Le Entrevista del Domingo ; 6:45 Radika-540 in nicely; 7:10 R. Cordillera dominating 1190, wowo would be inaudible in any loop position at times. At $7: 30$, I taped a R. Hbdrtad ID in the 750 mess. $9: 30 \mathrm{pm}$, Pinilly brought an ID for R. Dominica on 595 - a very much wanted. UnID SSers dominated 1220, $1180,1170,730,750$ triterly between 7 \& 9 pm. It looks like it should have been an interesting AM but after Dominica, I was satisfied. 79s.
GLENN SMAIL - 18 Sagamore Way south - Jericho, New York - 11753
Hello there, I'm another new kid on the block. I joined up in November '74. This being an introductory Muse, here is an intro: I'm a Junior at Syosset High, and work as an engineer at our tenwatt FM station WKWZ-88.5. Try DXing that! My RX is a Hallicrafters S-38E that does a nice job w/very good sensitivity, good tone quality, and a onewatt audio output that helps. M antennae are an SM-1 and an LW. My main interest is in domestic DK (sorry, TA's) DX: CPC TESTs include 12/30- WVVX-1430 Highland Park, $111.2: 14 \mathrm{em} \mathrm{w} / \mathrm{TT}$ \& several voice IDs. $1 / 12-$ KHED- 1580 Seguin, Tex. lam w/TT. $2 / 17-$ WEJT- 630 Scranton, Pa. 1:16am W/TT \& voice IDs. OtherDX: 12/30- CHON-1470 Welland, Ont. 3:07am w/sev erak voice IDs. $1 / 12-$ WTMA- 1250 charleston, S.C. 2:04am w/NX \& rr. 2/2- WIOD Mentionil $12: 10 \mathrm{w} / \mathrm{WX}$ \& sports reports. $2 / 16=$ WVSM-1490 Valdese, N.c. 12 a.m. Mentioned was Valdese High school and references to $\mathrm{N} . \mathrm{C}_{\text {. }}$. $2 / 17-$ GJET- 630 Smiths Falls nt. 1:06am s/off - IDS for AM \& FM. WSRF-1580 Ft. Leuderdale, FTing, $17^{4}, 250 \mathrm{w}$ KGOS -1490 , Torringtonn wyo 3000 S . 60 th Avenue. Wr best DX would be $2 / 18$ /74, 250 w KGCS-1490, Torringtonn Wyo. $\mathrm{w} / \mathrm{rr}$ \& an ID. A1so $12 / 9 / 73, \mathrm{KFI}-640 \mathrm{w} / \mathrm{rr}$. Both of these have been confirmed by the CEs of the stations. Joining the NRC was a good investment for the CPC listings \& DDXD not to mention the articles (when they come). I invite anybody in the club to get in touch with me. I hope to Muse often, but since I use the one finger method of typing, and my finger night not hold out. 73 . (That's why you have TEN of them, Glenn! Hi, and
welcome to the NRC \& Musings! (IRC)
miciarl Levintow - 5509 Halpine Place \#102 - Rockville, Maryland - 20851 It's been a number of mouths since last Musing, so quite a few use SPR-4 accumulated which could be mentioned. First, for those DXers who improved communications RXes or Sanserino Loops, here are a couple of tips for tively poor sormance of those devices. Many DXers have complained of the relathe SPR-4 modificetion of the SPR-4 compared to other RXes. For those who made bendwidth selector, a selectivity of eparimal the mode selectar from the justing the modified bonaridth yelector 0 that the khz. xan be obtained by adwith the points for both 2.4 and ing in split frequenctes, 2.4 and . 4 khz. ing in split frequencies, with adjacent channel interference less than for 2.4 khz . selectivity. As for the Sanserino Loop tip, the gain of the looppamplifier can be greatly boosted by ruming the amp on higher voltage, say 16 to 18 volts DC, instead of 9 Volts DC. Slight instability may develop if an outboard scurce is used for the higher voltage (e.g., a Burgess 5156), which should be correctable by twisting and/or shielding the battery leads. I've had insufficient experience with the higher voltage arrangement to evaluate the possibility of damage to the transistors from runnim them with higher voltage (I don't think this should be a problem, however). WANTED: Sany TR-1300 or TFM-1600 RX in good candition. I will pay a decent price for an acceptable unit. Also, I have some extra components for MRC Loop and other preampe, such as avilill and 40468 FETs, capacitors, potentiometera, etc. If anybody is interested in any of this stuff, please write
BIII FAIT - 346 Wsiworth Drive $=$ Cleveland, Chio - 44132
Please be advised that the $\nabla / \mathrm{s}$ for WWWE-1100, John Henry Battison, has lost his job with WTWE, possibly due to a labor dispute. Also, if ERC gets this note on 2/25, watch out for High Tide: a 73. (It got here 2/26, Bill - but We have High Tide every day - in fact, twice a day! -ERC)
ECTICTIT THE N.R.C. CONVENTICN THTS YEAR WIII RE IN'AUCUST, IN HARTFORD, IN CCNNECITCUT, IN A WEFKKND, IN A HONEL OR MOTEL, INDEED 7 ,WIIS YOU TOO BE "IN "? gotten the pre－amp for mr Sanserino Loop fixed．2／11－KVGY－1490＠1：15am；KLaM－
$1330 @ 7: 06 \mathrm{~mm}$ ，\＆KSVC－980＠9：49am．2／12－KWSO－1050＠7：58pm．KGEM－1140＠12：58 am．KZUI－1380＠9：30am．KHCS－1010＠8：47pm．KRSP－1000＠8：06pm．KFAX－1100 © 8：14pm． $2 / 14=\mathrm{KGST}-1500$＠8：30pm．2／15－KISO－1150，© 1：09am．WMAQ－670 © 1：14am．2／16－KUCN－590＠5：06am．KAVI－610，＠10：58pm．2／17－KLVI－ 10 ，e 2：50 $\mathrm{KCRC-740}$ ，e 3：31am．KJR－950，5：08．KABI 960 ，5：17．WBZ－1030＠ $5: 36 . \mathrm{KKAA-}$ $1560 @ 6$ ．KYXI－1520，＠6：33am．KCRC－1390＠ $6: 51 . \mathrm{KFH}-1330$＠6：58．KMMJ－750 ＠7：31．KRED－1480，© 7：54．KVIO－1000，7：59．KFXD－580，© 8：06em．Totals now
 271 heard in 32 states，\＆ 71 verifled in 29 states．KCRIm 780 DX TEST－they
their 10kw AXR for the time．They didn＇t mention one thing about the TEST， their 10kw AXR for the time．
though． 73 and good DXing．

ALBERT S．LOBEL－ 247 North First Street－Apt． 27 －玉1 Cajon，Califormia－ 92021 714－440－2544．Seems like Rick Heald thinks he＇s the only one on the WC reporting so I thought it time I reported to MUSINGS．Fact of the mat－ ter is I do so on a fairly regular basis though not too of ten．I may as well add my conments on the recent controversy over where one should count stations heard． I persona11y do NOT count a station in 吸 totals unless I hear it at home．I feel in order to justify a report to a station one should be fair in sayjng he heasd them anywhere in his area and give the exact location the stations were heard from（his home is best）．I feel that if one moves his totals should just go on．I＇d．Iike to hear other opinions on this subject．Prepaid phone calls are welcome at the above phone number between $7 \mathrm{pm} \& 9: 15 \mathrm{pm}$ ，PIT．Tili next time， 73 s ．

WAYNE MURFHY－ 1411 Phyilis Avenue－Louisville，Kentucky＝ 40215
HI there．The third IADS get－together happened on 2／22，with near－ perfect attendance，except for NRCer John Harris，who had a case of bronchitis，\＆ couldn ${ }^{\text {t } t ~ m a k e ~ i t . ~ W e ~ h a d ~ a ~ p h o t o g r a p h y ~ s e s s i o n, ~ w / b o t h ~ i n d i v i d u a l ~ a n d ~ g r o u p ~ p i c-~}$ tures being taken with my trusty Instamatic X－15．I hope they turned out，hi． CX for the whole week of 2／16－23 were rotten，QRN levels being about as high as I＇ve seen them for any one peritad，even Surmer．WHAS picked SM $2 / 23$ to go off the air，of all times，w／thunderstorms and tornado watches up！only unID SS left，of whom about one of ten words came through the static．Tonight 2／23， temperatures are starting to nosedive，maybe the HNL will go too．The name of another potential member has been forwarded to us by RJE ，so we might have a ninth IAD soon．We re in the process now of contacting him．Unfortunately Jim Nall was ＂lost＂to the IRCA，but it is nice to have him back in action．He＇s using a bor－ rowed $\mathrm{SX}-99$ now，and at present is looking for a Hammarlund of some kind．This is already＂Hammarlund City＂with three legXes（Gary Atkins，Pat Hartlage，\＆me）\＆ Dick Truax＇s 150．I had a bit of a scare the other night，I warmed up the RX \＆ found line－of－sight local WLOU reading $S=6$ ，peaked！Distant channels were empty． Iuckily＇twas only a loose connection in the loop，which was quickly remedied $\mathrm{w} / \mathrm{a}$ little solder．I was happy to hear Columbus is the＂ 75 IRCA Convention site． I＇m sure the Lads will be well represented，possibly by as many as four or more． touisville in＇76？Who knows？ 73 ．

JIM CRIICHETT－ 1103 North Street－Yreka，Califormia－ 90097
From $2 / 4$ to $2 / 24$ reeephtion．reports have been sent to KAVR－9io for TEST 2／10；tp KCRI－780 for Special on 2／17，\＆to KIHE－1240 DX Special on 2／24． KAVR was louder than nearer KIAD on their TEST；KCRI reduced porer to $10,000 \mathrm{w} .$, \＆ KITR Was on top of 1240 from 3 to $3: 26: 50 \mathrm{~s} /$ off．Veries have come from KIAD－960 KSNN－1290 after second $f / \mathrm{up}, \mathrm{KPUB}-1480$－1EST，\＆KKAA－1560，large v／q with full de－ scription of station and equipment．Other DX notes of possible value：First Tuesday 2／4，the four f／cs fran Texas，KDDD－800，KIRT－1500，KWEI－1600 \＆KRME－1460 were not heard here；maybe not on，or my set is just too weak．At 8：05，KALE－ 960 IDed cleariy，then faded u／KARL．FIrst Wed．2／5，no TT or ID by listed f／c for KQWB－ $1550 \mathrm{u} / \mathrm{KKHI}$ ．Firgt Thu．2／6，KTCB－ 1470 had TT，but too weak for ID $\mathrm{a} / \mathrm{KNDE}$ ． Second MM，no $\mathrm{I} / \mathrm{c}-\mathrm{TT}$ from KPRK－1340 nor KEIN－1310．Second Wed．I istnened on 1250 for KIMR $\mathrm{f} / \mathrm{c}$ ，then found they were on 1360 ．Second Thu．，no KOVE－1330 as usual．10：29，KINC－600 IDed；instrumental mx，no advertisements．Third Sat．， 2／I5 KFBK－1530 said on to 5，so AN again．5：07，KCAP－1340 ID \＆faded．Third Sun．KKIS－990 has SP，no s／off or s／on heard．Third Mon $2 / 17 \mathrm{WKIG}-1580 \mathrm{r} / \mathrm{c}-\mathrm{T}$ ？ u／KDAY；KFBK -1530 silent MM．No WIBA DK．MM 2／17，12：30 KMBI－1330 on $5 \mathrm{op} . \mathrm{MM}$ $2 / 24$ no KITHS r／c－the stations are there，just keep listening patiently．Best．

MLCHAEL LEVINTON－ 5509 Halpine Place 1102 －Rockville，Maryland－ 20851
DX hasn＇t been too spectacular this season，with few openings either to the $W$ or for TAS．Some relatively recent DX：11／21－WYNK－1380 in fair－ 1y well w／local NX，WX，spots， $6: 05 \mathrm{pm}$ ．11／24－CBV－980 heard for firxt time w／FF amouncing of hockey game \＆R．Canada ID， $9: 45 \mathrm{pm}$ ．This station was never heara previously，even when the CBC ran AN \＆local WRC was off MMs（WRC was on \＆looped out at time of CBV reception）． $11 / 4=\mathrm{KNOX}-1310 \mathrm{r} / \mathrm{c}$ made it through the 1310 mess 1：15－1：30am，ID heard＠1：25．KFSA－950 in fairly well w／ID＠1：40 an its monthly r／c． 590 was semi－clear w／the Cuban off．CKRS－590 fair，mixing w／WEEI／CKEY， heard w／FF announcing \＆ID＠2：22．11／11－KDIP－540 heard tentatively w／TTs breaking through the two SSers at various times between $2: 30 \& 3 \mathrm{am}$ ，but no IDs heard．11／20－KPWB－1140 poor w／WRVA looped，heard w／c／w，s／off＠ $6: 30 \mathrm{pm}$ ．1／6－ DXing from Otter Rock，Ore．，I heard various Hawaiiens including KMVI－550 \＆KORI 650 like locals and new $\mathrm{KZOO}-1210 \& \mathrm{KCCN}-1420$ ，unheard from WC DXing in previous years．My wife \＆I took a cross country bus trip around Christmastime last De－ cember，getting us out to the WC Cor the first time in three years．Also on the same MM，séveral Orientals \＆a tentative IYC－880．A fantastic DX location for TPs，apparently．During the daytime up there，KNBR／KCAS／KGO／KKHI were at listenable levels most of the time．2／7（back in Rockville）KMIS $-1050 \mathrm{~s} / \mathrm{off}$＠ $6: 45 \mathrm{pm} \mathrm{w} / \mathrm{WHN} / \mathrm{GHM}$ ，mentioned ownership by Bedford City Broadcasting Co．\＆XR $10-$ cation on Hwy．162－E near Portageville，Mp．A second＂K＂call phonetically e－ quivalent to＂KFAM＂，anyone have any ideas on this one？2／15－WBKH－950 tenta－ tively the one $\mathrm{w} / 6: 30 \mathrm{pm} \mathrm{s} /$ off $\mathrm{w} /$ ownership given as Tri－State Broadcasting Co．， weak in 950 mess．KXJK－950 was the dominant station around this time，w／local stuff，s／off＠ $6: 45 \mathrm{pm}$ ．KIIK－950 tentatively heard with announcement of county fair to be held in Jefferson City，6：40pm．After 6：45，WKAZ－950 was weak but in the clear．Nice to hrve WPEN off for a while．73s．

ERNEST R．COOPER＂The Cape Tip DXer＂－7－A wanington Avenue－Provincetown，Niss． Anyone who sent a tentative to WCSI－1010－TEST，be warned－I got a verie from them－and I sent only a Thank You card，as I couldn ${ }^{1} t$ hear them！I also got a CM．I got a＂tentative＂verie from wy tentative report to WNNO－990． Also，V／1－CM from WMRC－1490，eat your heat out，Stan Morss！V／f \＆CM from WBFN－ 1500－TEST，\＆a thank－y ou letter arier my thank－you card from KMIN－980．Now，DX． 2／22－WBBX－1380 on after lam w／Bruins Hockey．Unn WFTR－1450 TTHng © 1：04．XINL －860，Mexico Chty college station，heard w／an oratorio to $1: 53$ ，when they IDed \＆ s／off，w／BCB \＆SW frequencies given．They got off the air © 1：57：40，leaving KONO there，HILR not there this time．Unn WBRI－1500 on TT／ET，ID heard e 3：43 They were o／WDEE here．2／24－MM，and a terrible buzz on the whole dial today It had been noted during the day on Sum． $2 / 23$ ，so I couldn＇t hear the semi－locals like WCAS－740 which I wanted to hear Sunday AM．The buzz could be somewhat nulled on some channels，and I went to 1060 to await the KAMA r／c，tuning in © $1: 53$ ，\＆ hearing cl mox from the Cuban．Then on came a loud OC which I figured was KiN， but＠2am，came an SID for WRMF，Titusville，Fla．：Then，© 2：01，in came KAMA w／r／c－TT so two new loggings back to back on 1060！UnID TTers noted an 1320 \＆ 1360 today．Looking for unn WAUB－1590－TEST brought in WGOE－1590，Richmond in the clear here．Too much buzz，so to bed early．Twas gone by daylight，so I will never know what it was that caused it．Iet＇s hope it doesn＇t come back！ There＇s a chance local WVLC－ 1170 might TEST on Sum．Apr． 6 ＠4am－I visited＇em \＆folo up w／a letter asking for that date，W／WWVA offs but no reply after three weeks－funny；they seemed very interested！Why not look－see anyhow？C U N 76
WHERE WEES YOU AL工 THIS WEEK，GANG？THIS IS A VERY SKIMPY MUSINGS SECIION，BUI EVERYTHING RECEIVED THROUGH GURGDAY $2 / 27$ IS IN．WE HAVE SEVERAL MORE WEFKIY ISSUES CCMING ALONG，BUT WE WANT TO SEE MORE ACTICN ON YOUN PART！SIT DOWN NOW AND DASH OFF A DOUBIE SPACER FOR THE NEXT DX NEWS．LEC＇S SEE SOME ACTIGN！

BRETT HANAVAN - 845 FIrst Avenue - Chula V1bta, California - 92011 DK has really picked up recentiy with 28 new logeings since I've gotten the preamp for my Sanserino Loop fixed. 2/11-KVOt-Ihgo @ 1:15am; KLCMgotten the pre-amp for my Sanserin. 2/12- KWSO-1050 e 7:50pm. KCHM-1140 @ 12:58

 1:14am. $2 / 16=$ KUGN-590 @ 5:06am. KAVI-610, e 10:58pm. 2/17-KIVI- 10 , e 2:50 KOIC-740, @ 3:31am. KJR-950, 5:08. KABL-960, 5:17. WBZ-1030 @ 5:36. KKAA1560@ 6. KYXI-1520, @ 6:33am. KCRC-1390@ 6:51. KFH-1330 @ 6:58. KMMJ-750 (2) 7:31. KRED-1480, @ 7:54。 KVIO-1000, 7:59. KFXD-580, @ 8:06am. Totals now 271 heard in 32 states, \& 71 verifled in 29 states. KCRI-780 DX TEST - they used their 10kw AXR for the time. They didn't mention one thing about the TEST, though. 73 and good DXing.

ALBERT S. LOBEI - 247 North First Street - Apt. 27 - EI Cajon, Califormia $=92021$ 714-440-2544. Seems iike Rick Heald thinks he's the oniy one on the WC reporting so I thought it time I reported to MUSINGS. Fact of the matter is I do so on a fairly regular basis though not too often. $I$ may as well add ay comments on the recent controversy over where one should count stations heard. I personally do NOT count a station in my totals unless I hear it at home. I feel in order to justify a report to a station one should be fair in saying he heard them anywhere in his area and give the exact liocation the stations were heard from (his home is best). I feel that if one moves his totals should just go on. I'd like to hear other opinions on this subject. Prepaid phone calis are welcome at the above phone number between $7 \mathrm{pm} \& 9: 15 \mathrm{pm}$, PIr. Till next time, 73 s .

WAYHE MURPHY - 1411 Phyliss Avenue - Louisville, Kentucky - 40215
Hi there. The third LADS get-together happened on $2 / 22$, with neapperfect attendance, except for NRCer John Harris, who had a case of bronchitis, \& couldn't make it. We had a photography session, w/both individual and group pio tures being taken with my trusty Instamatic X-15. I hope they turned out, hi CX for the whole week of $2 / 16-23$ were rotten, QRN levels being about as high all I've seen them for any one peritad, even Summer. WHAS picked SM $2 / 23$ to 80 of the air, of all times, w/thumderstorms and tornado watches up! only unID SS left, of whom about ane of ton words came through the static. Tonight $2 / 23$, temperatures are starting to nosedive, mayte the HNI will go too. The name of another potential member has been forwarded to us by RJE, so we might have a ninth IAD soon. We're in the process now of contacting him. Unfortumately Jim Nall was "lost" to the IRCA, but it is nice to have him back in action. He's using a bor rowed SX-99 now, and at present is looking for a Hammariund of some kind. This Is already "Hammarlund City" with three 129Xes (Gary Atkins, Pat Hartlage, \& me) \& Dick Truax's 150. I had a bit of a scare the other night, I warmed up the $R X$ \& found line-of-sight local WLOU reading $S=6$, peaked! Distant channels were empty Inckily 'twas only a loose connection in the loop, which was quickly remedied w/a little solder. I was happy to hear Columbus is the " 75 IRCA Convention site. I'm sure the IADs will be well represented, possibly by as many as four or more. toursville in '76? Who knows? 73.

JIM CEITCHEIT - 1103 North Street - Yreka, California - 95097
From $2 / 4$ to $2 / 24$ reeeppion. reports have been sent to KAVR-900 for TEST 2/10; tp KCRI-780 for Special on $2 / 17$, \& to KTHE-1240 DX Special on 2/24. KAVR was louder than nearer KIAD on their TEST; KCRL reduced porer to $10,000 \mathrm{w} .$, \& KIHB was on top of 1240 from 3 to $3: 26: 50 \mathrm{~s} /$ off. Veries have come from KIAD-960 KSNN- 1290 after second $f / u p$, KPUB-1480-TEST, \& KKAA-1560, large v/q with full description of station and equipment. Other $D X$ notes of possible value: First Tuesday 2/4, the four f/cs from Texas, KDDD-800, KIRT-1580, KVEL-1600 \& KRME-1460 were not heard here; maybe not on, or my set is just too weak. At 8:05, Kals-960
 $\mathrm{KQWB}^{2}-1550 \mathrm{u} / \mathrm{KKHI}$. Firgt Thu. $2 / 6$, KICB -1470 had TT, but too weak for ID $\mathrm{u} / \mathrm{KNT}$. Second MM, no I/c-1TI from KPRK-1340 nor KEIN--13 10 . Second Wed. I listnened on 1250 for KLYR $\mathrm{f} / \mathrm{c}$, then found they were on 1360 . Second Thu., no KOVE-1330 as usual. 10:29, KINC-600 IDed; instrumental wx, no advertisements. Third Sat., 2/15 KFBK-1530 said on to 5, so AN again. 5:07, KCAP-1340 ID \& faded. Third Sun. KKIS-990 has sP , no s/off or s/on heard. Third Mon $2 / 17 \mathrm{WKIG}-1580 \mathrm{r} / \mathrm{c}-\mathrm{T} \mathrm{I}$ $\mathrm{u} / \mathrm{KMAY}$; KFRK-1530 silent MM. No WIRA DX. M $2 / 17$, $12: 30 \mathrm{KMBI}-1330$ on top. MM
$2 / 24$ no KI'HS r/c = the stations are there, just keep listening patientiy. Best.

MCHARL LEVINTON - 5509 Halpine Place 4102 - Rockville, Maryland - 20851 DX hasn 't been too spectacular this season, with few openings either to the $W$ or for TAS. Some relatively recent $D X: 11 / 21-W H K-1380$ in fairIy well w/10ca 1 NX , WX , spots, $6: 05 \mathrm{pm}$. $11 / 24$ - CBV-980 heard for firxt time $\mathrm{w} / \mathrm{FF}$ anouncing of hockey game \& R. Canada ID, $9: 45 \mathrm{pm}$. This station was never heard previously, even when the CBC ran AN \& local WRC was off MMs (WRC was on 1 looped out at time of CBV reception). $11 / 4-\mathrm{KNOX}-1310 \mathrm{r} / \mathrm{c}$ made it through the 1310 mess 1:15-1:30am, ID heard @ 1:25. KFSA-950 in fairly well w/ID @ 1:40 an its monthiy r/c. 590 Was semi-clear w/the Cuban off. CKRS-590 fair, mixing w/WFEI/CKEY, heard w/FF announcing \& ID © 2:22. 11/11- KDET-540 heard tentatively w/TMs breaking through the two SSers at various times between $2: 30 \& 3 a m$, but no IDs heard. 11/20-KPWB-1140 poor w/WRVA looped, heard w/c/w, s/off e $6: 30 \mathrm{pm}$. 1/6DXIng from Otter Rock, Ore., I heard various Hawaiians including KMVI-550 \& KORI650 like locals and new KZOO-1210 \& KCCN-1420, unheard from WC DXing in previous years. My wife \& I took a cross country bus trip around. Christmastime last December, gettina us out to the WC for the first time in three years. Also on the same MM, séveral Orientais \& a tentative iYC-880. A fantastic DX location for TRS, apparently. During the daytime up there, KNBR/KCBS/KMO/KKHI were at 1istenable levels most of the time. $2 / 7$ (back in Rockville) KMTS-1050 s/off @ $6: 45 \mathrm{pm} \mathrm{w} / \mathrm{WHN} / \mathrm{CHIM}$, mentioned ownership by Bedford City Broadcasting Co. \& XR 10cation on Hwy. 162-E near Portagevilie, Mp. A second "K" call phonetically equivalent to "KFAM", anyone have any ideas on this one? 2/15- WBKH-950 tentatively the one $w / 6: 30 \mathrm{pm} \mathrm{s} /$ off $\mathrm{w} /$ ownership given as Tri-State Broedcasting Co., weak in 950 mess. KXIK-950 was the dominant station aromd this time, w/local stuff, s/off e $6: 45 \mathrm{pm}$. KITK-950 tentatively heard with announcement of county fair to be held in Jefferson City, 6:40pm. After 6:45, WKAZ-950 was weak but in the clear. Nice to have WPEN off for a while. 73s.

ERNHST R. COOPER "The Cape Tip DXer" - 7-A Hashington Avenue - Provincetown, Niss Aमyone who sent a tentative to WCSI-1010-TESP, be warned - I got a verie from them - and I sent only a Thank You card, as I couldn 't hear them! I also got a CM. I got a "tentative" verie from my tentative report to wno-990. Also, v/1-CM from WMRC-1490, eat your heat out, Stan Morss: V/f \& CM from WBFIN-$1500-T \mathrm{TST}, \&$ a thank-y ou letter after my thank-you card from KMIN-980. Now, DX. $2 / \approx 2-$ WBBX-1380 on after Lam w/Bruins' Hockey. Unn WFTR-1450 TMIng @ 1:04. XRNL -860 , Mexico City college station, heard w/an oratorio to $1: 53$, when they IDed \& $\mathrm{s} / \mathrm{off}, \mathrm{w} / \mathrm{BCB} \& \mathrm{SW}$ frequencies given. They got off the air $@ 1: 57: 40$, leaving KONO there, HILR not there this time. In WBRI-1500 on TT/EP, ID heard @ $3: 43$ They were o/WDEF here. 2/24-MM, and a terrible buzz on the whole dial today. It had been noted during the day on sum. 2/23, so I couldn't hear the semi-locals like WCAS-740 which I wanted to hear Sunday AM. The buzz could be somewhat nulled on some channels, and I went to 1060 to await the KAMA $r / c$, tuning in $e 1: 53$, \& hearing cl mx from the Cuban. Then on came a loud OC which I figured was KYW, but @ 2am, came an SID for WRMF, Titusville, Fla.! Then, © 2:01, in came KAMA W/r/c-IT so two new loggings back to back on 1060! UnID TTers noted on 1320 \& 1360 today. Looking for um WAUB-1590-TFST brought in WGOE-1590, Richmond, in the clear here. Too much buzz, so to bed early. Twas gone by daylight, so I will never know what it was that caused it. Let's hope it doesn't come back! There's a chance local WVLC-1170 might TEST on Sum. Apr. 6 @ 4 am - I visited 'em $\Varangle$ folo up w/a letter asking for that date, w/WWVA off, but no reply after three weeks - fumy; they seemed very interasted! Why not look-see anyhow? C U N 76
WHERE WERE YOU AIL THIS WEFK, GANG? THIIS IS A VKIY SKDMPY MUSIVGS SECIION, BUT ENERYTHING RECEIVED THROUGH THURSDAY $2 / 27$ IS IN. WE HAVE SEVERAI MORE MR MIY ISSUES COMING ALONG, BTII WE WANT TO SEEE MORE ACTICN CN YOUR PART! SIT DOWN NOW AND DASH OFF A DOUTM

