# the magazine of the National Radia Cluble 9 DECEMBER 1974 

> "Though I'm inactive of late, I've detemined that DX NEWS is a luxury I'm not yet prepared to sacrifice. DX NEWS is probably the best publication bargain in all of broadcasting." (Bill Caldwell, MA)

## ON THE INSIDE..........

- Review of the Heath SB-620 Spectrum Analyser (Conclusion) - Bob Foxworth
- Still another NRC Night Pattern Book Updater - Wes Boyd


## NEW MEMBERS

* Eric Fader, 25-35 Bell Blvd., Bayside, NY, 11360
* Nike Anderson, 10008 Normie Lane, Louisville, KY 40229
* Doug Kowalski, 2035 S. 58th St., West Allis, WI 53219
* Warren Powis, 3 Warrington Grove, Wellington L, NEW ZEALAND
* Harley E. Steward, 4220 French St., Erie, PA $1650_{4}$
* Mike Ramirez, 5218 Round Table, San Antonio, TX 78218
* Frank Oswald, Jr., 94 Harris Rd., Princeton, NJ 08540


## RENEWALS

M. DeLorenzo, C. Riddick, P. Bergen, W. Caldwell, I. Brodsky, K. Geary, S. Brainerd, R. Truax, W. Krakow, Wm. Murphy, J. Tull, J. Sloan, S. Kennedy, C. Territo, F. Nordquist, B. Pitman, H. DuRant, H. Gustafson.

## FLASH TIPS \& SUCHLIKE

KIEO-740, WCSJ-1550, WTKM-1540 hrd by Schmidt 11/11. KRM0-990 hrd by Schmidt 11/18. WREY-1290 hrd not by PT, TRS, Shaftan on 12/1. None of 11/25 TESTS hrd by Shaftan, Davenport, Starr, ELK. WFIA-900 \& WHBN- $1420 \mathrm{hrd} 12 / 2$ by RjE. WHBN also hrd by TRS. TU AM $12 / 3$ was almost a good TA nite in NJ, w/ 1586, $1602,1578,1562,1554,1502,1394,1466,1385,1376$ all yielding readable zudio. Hets noted also on 1439 , 1421 , all by RjE. PT noted several low-band Spaniards in. Could it be things are looki ng up ?? Tune in next week.....
NOTES \&c FROM NJPC
RE THE FBIS LOG, 26th ed.: "Doc" Hardester reports that apparently FBIS is preparing it, but the Supt. of Documents doesn't know it. FBIS advised him of a completion date about now, but apparently it is delayed....

ANYONE HAVE A SOURCE FOR A TUNEABLE ANTENTA COIL FOR A DX-150B ?? If so, contact Weldon Childers, Box 188, Carbon Hill, AL 35549, as he is unable to obtain one to replace his ferrite bar, which is now missing.

WE BLEN IT AGAIN DEPT.: Last issue we credited Brian Vernon with October's centerfold from the Vancouver Province. We wuz wrong, as it was Dave Bennett, to whom we will shortly return the original, hi.

Don Jensen (5204 70th St., Kenosha, WI 53140) is looking for intact copies of WRTH from 1947 to 1950. If anyone has one, please contact him. By the way, he has an extensive "DX History" collection, so if you ever need to check any old station data, check with Don.

Robert Harper (Rosengeesschen 1, RHEINFELDEN / AG, Switzerland, 4310) is look-. ing for tapes (good quality) of US Comercial R\&R or R\&B stations or MoR's. Cassette or Reel only. Contact him re exchanges, etc.

zatills:
EKTX - W111 ham TT, nx, Ils. V/as Fodr, Past, Richand Mistek, NRC


 Arr. Dinhalutein, ives.
 Dobah Clty, Ce2a6, drr. dohn Teikerd, Jr+, thml


## Radio Slan Cristobal

CARRERA 9 Ns. 自 16 - APAltado 374

 lots of materinl this tine, so we'll start right off with vhat is being heard . . .
 between neleotions, very shallow audio. Fadea around 0450 leavine only a het, hetuned in tine to hear end of s/off and NA. Carrier cut at 0506. Hust be more $t$ inn 250 vatts. (Falconer)
540 - Colekilh Very intereatine aituation here, long establinhed at Jundial in

 Hapl-fiorizonte facilities. at sury rate, on $11 / 11$ atier bill best $3 / 0$ off at oere, the doelnent Latin w/MoH modern Intin fecordings, Thide much mentions of
 de HCN, It asdio de Dolontis", ht OH17, "madio lundial presentan Hasicalees

 had more froquent arats $\mathrm{b}_{\mathrm{y}}$ beth man and woman, but could not be Med. 11 kely Traplcana, I guens. (Dallaman)
 nant over another latin, a las atn singing on w/ess and Disie at 1055 , and a
 tio progran, lots of dialogue, beginofine at 1100 . it 1130 , 2 male ancra had tio progran, loth of dialogue, beginatue at-1100. At (1130, 2 man

 nissed hourly ID, (Flowworth)
-UNID Frohably TV at $075011 / 1 \mathrm{E} \mathrm{w} / \mathrm{TO}$ for $A 57$ apoken slowly and Itttle apeech between each record, faded at hoar. Hieard later, around time of NHOS IX but no ID again, ceens his. Definitaly not sMy Cubsin formast. (Yoxuorth)
$579.5-7 \mathrm{HEXTCO}$ Het on WIB ebrilier on car radio led to checkine $11 / 16$ frow 02h3 I frea


 tern /Caraquetivy y ivinida Lopes hatecen**, ad string, woaker by uph, the A. Wariednden knom in XIFF, Giudad Metorla but this ian't on the barder; maybe a chance for X2MW, Phedras liegras? Tried subeequent nights, but coulin" ${ }^{1 t}$ Full it thru, (Hauser) full freq elven as 579.63.
580 -KL SHLYDCR Selonm reported before midnight, $11 / 16$ ranaged to mill WLib, 0359 givine pet stris on other froge: "...10a0, para la seoa orkeatal, en Sen Jlguel
 Santa Ara, is listed on this freq. 2 apaced chfrien, (Heuser)

 ht 1200, Krealin bella and CC Lalk siviliser to b山i. 3 carrier st best, wenk sualo w/HDG0 slope. So ITO on 11eted Drineee-585, (Seaver)
 fade; mostly lo-key; 0030 exactly, ID ss ladio toninica, dovotional, s/off, anstevarish anthea, 0233135 OC , Fock steady; si111 on at CO36 tho eridua11y fading. (Fauser) wa Pirally, due to minactivity past jent, logied this one on this channel w/vy shallow audso of $5711 / 16$. Cartbbean k . talk progran, $\mathrm{w} /$ lotsl nentions. (Dtrunils) 112 (D)
 readnble u/thea, loopine Fern, only Ilicely other to be heard here ao inrtatively that. (Ryunga) 124 (D1)
630 -HEXI00 XeFB Nmtervey, HI, $11 / 15$ 1226-1230 w/local rx, ads, ID at 1230 by cell lettere, then lost. Alsa $11 / 16$ same Lire and prograns, (Glesson)



640 －GUADELOUPE OITP was atop w／girl FF speaker $230011 / 15$ ，some mx at times． Never stays in very long and always heard early in the evening here．Soon lost to YVCO－CMQ．（Foxworth）
－SURINMM Radika atop the freq w／lots of company 0015 11／18（Sun evening here） w／typical Hindi program．（Foxworth）
645 －FARAGUAY ZP19， $\mathrm{R}_{0}$ Caaguazu，Coronel oviedo， $11 / 18 \mathrm{t} / \mathrm{in} 0445 \mathrm{w} / \mathrm{mos} t l y \mathrm{mx}$ ， some anmts．Splash from CMp－640 and WSN－650．Sig w／fades into noise level， at times good level．No flutter，long slow fading．Super ID w／super sig strength taped 0547 for tape file，no question about it，including mention－ ing＂oorepublica de Paraguay．．．＂and TC including＂．．．cuatro hora．o．＂More than 2 minutes anmts also taped 0558－0600．Better than brazilians on 860 \＆ 1180 and Argentina on 1030 which have been heard last season and this sea－ son．New country．Is this just 5 kw ？（Sundstroin）You may get a visit from Captain clotz for not reading your DXN．Power increase to 10 kw was reported in DXN Vol．41，\＃26．（ED）＊＊Not noted again despite several checkbacks． （ $\mathrm{Noxworth} \mathrm{)} \mathrm{You} \mathrm{obviously} \mathrm{aren't} \mathrm{checking} \mathrm{at} \mathrm{the} \mathrm{right} \mathrm{time。} \mathrm{(ED)}$
－UNDD A het of about 250 hz noted 0850 11／18；Paraguay and ？？（Hauser）
647 －UNITED KINGDOM BBS FS，Daventry noted 11／7 in passing w／electronic piano ．o．－IS 0345；nice clear sig，about 57．（Taylor）Mad to see you escaped from the basement．Did RS DD this for you？（BD）
650 －CUBA CMKU Santiago， $11 / 18$ ，tentative，only typical IS $(/ / 630,640)$ hrd 0500 ， thru WSH，no other audio．Part of Ro Liberacion network？Only Cuban listed here to my knowledge。（Sundstrom）＊＊Radio Liberacion noted here for first w／mentions of $\mathrm{I}_{\text {。oen }}$ Cuba＂ $11 / 40935$ ．（Shaftan）
－MEXICO XEZM Zamora，Mich．11／14 1245－1305．Soap opera 1245－1256，spots to 1300，then ranchera mx ．ID clearly as＂En Zanora，escuchan a X－E－Z－M＂W／ echo on the 4 call letters．At times $100 \%$ readable，totally cove ring XETNT whe is on same bearing．Mich \＃3．（Gleason）
－VENEZUEIA Radio cirardot $11 / 4$ noted here $0926 \mathrm{w} / \mathrm{AST}$ TCs w／HJJX（who Ded previously）．Also ran some IA mx．o／u Cuban．（Shaftan）
070 －VENEZUEIA 0328 11／18， $5: 26$ TC，＂hora Rumbos－la hora de Venezuela＂u／WMAQ OC． Looks like Venezuela needs a better hora－like Cagigal．（Hauser）＊＊Tentative Venezuelan noted here ripping up usual mess of tMAQ／CMKP here w／WI－SA mx
675 －COSTA RICA Radio Sonors noted here $033211 / 16$ tnx to PT tip．Ran／（Shaftan）
 Some IA MXX，irequent IDS as（casta es－kadio sonora © Bombing domestics here（cause none existed on sidebands，hi）．This is No QRM from domestics here（cause none existed on sidebands，hi）o This is
contrary to AM＇s observations in Foreign Log which says no Dis as R．Sonora contrary to AM＇s observations in Foreign Log which says no 1 Is as R．Son
heard．Here no other IDs noted．Beautiful tape．（Shaftan） 116 （ED）
600 －FUERTO RTCO WAPA San Juan noted w／a very nice ID clear atop at 0100 11／18 and Was in from about a half hour before to 15 or 20 mins after that，then nice PR opening died out．Checked quite a few other freqs，740，810， 870 ，etc．w／ negative results and likewise nothing on 780 or 1000 so seemed just a bottom of band cpening（see 550 tent）．（Foxworth）＊Poor／fair w／s／on 11／40901 w／ what sounded like s／on w／mention of their freq and the FCC．Is this their s／on time？（Forth）Thought this was $A N$ but I may be wrong．（ED）
690 －MEXICO XERG Monterrey，NL 11／23 1208－1220 w／SS rock，lots of ads and PSA＇s． XETRA off．One ad Ior＂Discotecas Estrella de Oro＂which is part of the same company．（Cleason）
700 －COSTA RTCA Radio Reloj finally definitely Med w／＂Radio Reloj en Costa Rica＂ 0852 about even w／wiw。 Good tape 11／11．（Shaftan）
－venelueia fadio Popular，ylif on top in kiw null w／up tempo mx．11／13 2315－ 2330 finally giving way to the $\mathrm{TI} \mathrm{w} / \mathrm{someone}$ else $\mathrm{u} / \mathrm{them}_{\text {．（ }}$（Falconer）
712 －SOUTH KOREA IILKA Seoul， $11 / 18$ 1027－1032，1051－1102，typical KBS program，talk at 1030，into a play or soap opera w／singing and 2 YL＇s talking to 1058；at 1100 a probable＂KBS．．．HIKA＂ID by YL，followed by KBS pips＿－＿－，then Oi talk．Faded some at ID time（Mriey＇s law），hapc was off until after 1230．
713 －CHINA Foochow，Fukien regional stn（I BELIEVE）heard very well／（Seaver） $\mathrm{w} / \mathrm{man}$ and woman alternating in speaking some strange lancuage（not CC）on $i \mathbb{M}$ 11／18 at 1005 ．Faded out at 1102 but hearci again after 1215．Have cood tape， but no definite $\mathrm{ID}_{0}$（D．Reynolds）HLKA seems likely．（EN）
725 －SURTNAir SRS $11 / 23$ 0029－0033 w／drama in what seemed to be Hindi． $100 \%$ read－ able，het from someone else on ctannel．（Gleason）
－MEXICO（Tentative）XEX Hexico，UF noted here $\mathrm{v} /$ Fiano mx ，inor inst man $11 / 4$ 0807 ．SS talk．（Jhaftan）1二厶（ED）
－IEXXCO XEZZ Guadalajara，Jal。 $11 / 23$ 1309－1315 w／ads，instrumental mx，ID as ＂Zeta＂quickly covered by KFSD，nuch XELCO also．（Gleason） Leta quickly covered by $\mathrm{K} D$, ，much XEUGO also．（Gleason）
HC morn 100 much KOB for ID．Is TIW now here？No HC＇s noted that night，so doubt Guayaquil．Also，signals probably TI＇s hrd
700 －BPTTTSH VTRGIN ISIANDS ZBVI Bondtown，Tortola 11
－BRITISH VIRGIN ISIANDS ZBVI Roratom，Fortola 11／16 at 0123；male ancr with strong NN accent during Calypso mx prgm；call 20616 for Auto Repair Service； iKobile Home Sales for St．John＇s，St．Croix，phone 773－4615，Heinicken＇s
spot：＂Penny for perny，it＇s Heinickens，\＃1 best flavour all over the VI＂o
－CUBA Radio Rebelde noted here on new freq w／IA mx，ID 0520 11／16。／（Taylor） First time have noted audio from this new outlet tho I have gotten hets against WBBM before．No sign of WBBiM tonight tho．Was bombing in at S9。
000 －liFXICO XEROK Ciudad Juarez finally noted for first time w／new／（Shaftan） call $11 / 10$ at $04 / 40$ in null of FJB／CKIN remnants during la Hora Nacional and $/ / \mathrm{XWN}$ ．Nice way to log XE＇s，hi．（Taylor）
－NETHERLANDS ANTILLES $\operatorname{li}$ Nederland noted for first time as rarely fades in before 0200．Hrd w／SS program very weak in CKIW，etc．mess 2342． 0010 ran DD $n x, 11 / 11-12$ ．Is this one directional？（Yes，ED）（Shaftan）
B10－MEXICO XEUX Tuxpen，Nayarit 11／24 1301－1307 when XEiSU signed on late．Hrd string of local ads，plus one for movie house in Vallarta，Jal．，and Bull－ fight in Mazatian，Sin。 Was completely in clear，like a local．，\＃2 from this new state．（Gleason）
－MEXICO XERSU Ciudad Obregon，Son．Address I have is Apartado Postal 75，and street address is Blvd．Rodolfo Elias Calles y Durango．Is owned by one of the newspapers．Telephone information probably had them as＂Ro Variedades＂ and not as XERSU．If you want to call，its 3－78－10．（I haven＇t gotten a verie after $4 \mathrm{f} / \mathrm{ups} \jmath_{0}$（cleason）
－UNID＇S At least one IA and probably more $u$／pest HJCY here w／IA mx．Freq sounded like a IA graveyard w／HJCY dominant in mess． 1004 11／11．（Shaftan）
220 －UNID UFO（Unid Foreign Oriental），likely PDR Korean outlet at Najin（wiRTH List），w／what sounded like 2nd net program in KK，martial mx，strident talk， etc．Seemed／／Wonsan－877．11／18 1210 and on．Severe WBAP QRM．（Seaver）
837．5－UND 11／3 het noted on this odd freq．Probably some local spur but anyone have any ideas who？0542．（Shaftan）
8．0－HAITI 4 VEF noted here for first time on mull of super pest WNYC．Had FF rel program，very strong $\mathrm{w} / \mathrm{no}$ sign of WHAS．S／off $0154 \mathrm{w} /$ Arazing Grace．Beauti－ ful tape of s／off mix．No mention of freqs like $1035 \mathrm{w} /$ off with． $11 / 10$ ． －ST LUCIA R．Caribbean Internacional noted here after 4 VEF s／off w／FF rel program，ID 0203，s／off w／what was presumed NA 0204．（Shaftan，last 2）
845 －UND 11／15 0450－0510 w／soft SS MoR vocals．Opening best seen to Honduras， Nicaragua and C．R．at time．Seemed to have nx at 0500．（Gleason）
850 －COLOMBIA HJKC Emisora Nuevo ikundo，Bogota $11 / 440140 \mathrm{w} /$ some type of live event，feeding CARACOL．Heard 2 nights previous same time w／elimination round of a beauty contest．Well o／ KOA ，some one on channel about 100 hz off．（Gleason）Stn off freq likely the TG。（FD）
656－PERU OAXLH R．Nacional del Peru，Lima fairiy well 0325 on $11 / 16 \mathrm{w} /$ woman sing－ ing native songs and long telk by man in SS．Haven＇t heard this one for a long time．Verified many years ago．（D．Reynolds）
B70－UNID SS W／a very interesting sig in the old＂GO West After Sunrise＂syndrome In fact，it was toward the end of the Mt．Vernon Critical Hours when I found ranchera mx，both slow and fast，on the channel at 1504．Heard short anmt by both man and woman，but could not dig them cut．Iooped toward Central Mexico but there wasn＇t enough of an angle to get rid of wwiL，which took over at 1516。（Callarman）
875 －UNID W／SS rock 0516－0520 11／15，heard mention of＂Costa Rica＂once，had 2 $\min$ fast CST time，plus jingle before each record．（Gleason）
890 －SOUTH KOREA HLKS Pusan well on top of JOHK at 1300 pips but then o／u w／hard to tell JJ from KKo This on MM 11／18．Other So Koreans noted this morning also．（ $\mathrm{D}_{\mathrm{o}}$ Reynolds）
910 －HAITI 4 VRIM， $\mathrm{R}_{0}$ Nouveau Yonde tentatively the one here $11 / 16$ in FF w／5 cuc－ koos，nx in FF by male ancr 2200，including frequent Haitien items．Sound like they？（Taylor）＊ $\mathrm{h} / \mathrm{DD} 0300$ 11／16 in／out $\mathrm{w} / \mathrm{Ro}_{0}$ Aeropuerto and domestics in seve re aurora．Taped，new．（Edrmands）
－UND Trying for haiti here，a girl singing at 0120 11／18，seemed cuts from an album of archaic slow ballads，commentary by deep voiced man，（cont）

910 －UNDD（Cont）a $\ddagger$ ew words about the mx between each cut．No ID noted at half hour．Ceneraliy clear and atop but by 0140 started to get some signal from $91-\mathrm{Q}$（wiCQ Conn）though sienal was stili in there at times．At CRO（who has been heard several evenings here this year）．I also had a definite Redio Canada D at 0300 11／15 here，though much weaker then．I tried 910 after talking to RJE who says that 4VRMM had been heard．I don＇t know ir I had the 4 V or CHiPL，or both，but much of the reception is on tape for analysis． cex certainly would have favored haiti at $0100-020011 / 18$ as Haiti on 840 and 1035 were very loud then．If $\mathrm{R}_{0}$ Canada nx not from CHiL，then a real nystery．
$954-$ HAITI $4 V C D$ IV by YL Carillon hrd $11 / 160034-0039 \mathrm{w} /$ fem talker in FF，sounded re－ ligion．Fair sig（ 57 ）but SB splash killed possible tapingo（Taylor）
$950-\operatorname{LNDD} A$ tantalizing one here in AA ，quite strong w／male Quoranic chanting at 2330，sig at s9 even on 11／4．Bearings skewed，so no help from DF．Help？
$960-$ MEKICO KEIC La Piedad，Hichoacan $11 / 15$ 1202－1210 w／ID as＂L－C＂／（Taylor） and into＂Mexico，creo en ti＂PSA program at 1203．Very good signal， slowly Iaded out．（Gileason）
1010 －JAPAN JONR Osaka at S6－7 level at 1118 on $11 / 25$ ．They have fine varied pro－ gramming．（Wilkinson） －UNID Iikely JONR，heard 11／11 1054－1102．ON \＆YL talk in JJ，a very quick set of tones，then 3 tones and a longer tone on the hour．Could be 2 UFO＇s and domestics and Kexicans．JONA reportedly has long tone on the hour．
1016 －TURKEY New TRT outlet finally heard here $11 / 7$ from 0230－0300 w／up tempo some Mor in Turkish；Fastern flavour to mox，very unlike AA fare hrd on Moroccans，Eeypt，etc．Ho speaking noted through the half hour，but hugh gaps of dead air between cuts．First speech came at 0300，w／female ancr and ID， $\mathrm{f} / \mathrm{ky}$ nx ．Fair tape，likewise new country，whatever that meanso（Taylor） －GUATEMIA TCOM Pajapita，＂趹 Frontera＂ $11 / 41213 \mathrm{w} /$ wake－up greeting program，
light SS rock．ist tine this season．（Gleason） light SS rock．ist tine this season。（Gleason）
－MEXICO XEXI Fatzcuaro，Nich。 $11 / 16$（Gleason） $1255-1258$ ．Good $u / K S W S$ carrier w／local spots for Patzcuaro and Uruapan，plus the ancrs opening remarks Roswell on at 1258 ended log．XEXL must s／on at about 1255 daily，rather than 1300. －VENEZUELA YVRS Radio Margarita，La Asuncion $\mathrm{w} / \mathrm{fair}$ sigs on $11 / 25$ at $0620 \mathrm{w} /$ KDKA off．Cuckoo clock IS then Rovergarita ID．IA rax．（Fogue）／（Hauser） －VENEZUEJA The stn reported last time w／0800 $\mathrm{s} / \mathrm{on}$ ，is R 。Calendario；better 11／26 $0800 \mathrm{w} /$ an unfamiliar march，which turned out to be＂El Himno del Es－ tado Zulis＂；AST TC；s／on mentioned 9520 SW ；0804，＂Amanecer Zaliano＂．
－UNID This one is driving me cuckoo．o．nothing much readable but those chirps， again 11／26 0714，0729，0744．Usually 3 at a time；KDKA carefully nulled． （Hauser）Looks like this is YVis，see above．（ E ）
1035 －HAITI 4VEC noted here w／armchair copy $102511 / 11$ playing SS rel program。 100\％readable．（Shaftan）
1045 －UNID An IA noted here $11 / 7$ at 0215 tune－in，distinct from Ias Tablas on 1047； peaked to 10 db over $S G$ to a low of in 45 second fades．Slow paced male ancr；SS male vocals e．g．＂H ernando＇s Fideaway＂ 0225 ，a Dutch vocal 0227 ； short anmt by male ancr 0228 （unreadable，sounded like DD，not SS），$f /$ by Twaterlon＂in EE 0230．Not another new FJ？？（Taylor）According to RFS in DYM Las Tahlas is now back on 1045，but don＇t lnow date they returned．（FD） －COLOMBE R Radio Santa Fe nice and atop at $072411 / 19$ ，in as well as SW／／
4965．Soon faded completely and was replaced by Ro Atlantico fairly strong． All the while 4965 stayed the same，hi。（Foxworth）
1075 －COSTA RICA TIFC San Jose $11 / 50455$ end of religious program，ID in EE by YL， weak but no QRM．（Forth）
1060 －UNID Someone noted here w／Surinam type wailing，IA mx，mentions of Bogota thru WTIC．No positive ID on $\frac{1}{2}$ hour but ran nx 0136 11／16．（Shaftan）
1C08－ENGLAND BBC Crowberough in fair at 00000100 on 11／13．At 0300 ＂Transmission to Europe on 3.952 .5 mhz is now closing．．． 1088.5 （？）is available until 0430 to gurope on
Gitto 1 Then in to classical mx．（Krakow）
1100 －COLCisbIf（Tent）R．Reloj noted here w／slow if mx and some US Mor such as ＂Stop and Smell the looses＂ $11 / 11$ 1005．Tentative ID per format．（Shaftan） － ANTIGUA ZDK was in fairly well at 2330 10／26 w／their usual rock－calypso pgn for the next hour．They were not heard at all during the period however，even though Paradise－ 12.65 was often strong．（Foxworth）

1124 －YUGCSIAVIA Positive ID on this one $11 / 70330 \mathrm{w} / \mathrm{usual}$ Is and $\varepsilon /$ on，for sur ／／1133，also potent at this time．jhast have been power increase，as listed 10 kw coulon＇t give the 1125 TI fits the way this thing was， H ．hinother weaker stn way under，but ro cilues．（Taylor）
1130 －MEXICO XEEF Campostele，Nayarit 11／24 1235－1256 w／SS boleros and tropical as well．as itariachi mx．Several local ads for＂beisbol＂games，ID as＂XeFF en su canal 113＂．Time 2 min slow．At most times 100 君 readable。 New state， \＃19．（Geason）
－MEXICC（Unid）1220－1230 w／Laboratorios Nayob program．Since this is usually on high power stne，suspect XEZL Jalapa，Ver．11／140（Gleason）
1170 －COLOMBIA Cartagena new stn first hrd $10 / 260457$ ，noted many times since w／ID mentioning freq，Cartagena，and ID that sounded like＂Li Voz de Louica＂ followed by band rxx mostly $u / K V O_{0}$（Forth）＊＊H J noted briefly atop here while checking freas at $230710 / 26$ ，ads and comnercials．Did not stay for ID kut had a strone signal．Not definitely noted since．（Foxworth）
－SOUTH KOREA HLCS Sokcho logged from 1251 to 1300 on $11 / 25$ at which time KLOK came on and spoiled it．First time．Will follow up on this one．（Wilkinson）
1160 －BiazIL ito Clobo，iiio finally w／romantic ballads and PP anmts between．Seye－ ral ho Globo SIDs noted．Strong at times 0715－0730 11／3．Also noted during Whan SP of $11 / 10$ 。（Falconer）
－ifEXICO XEYU H uatusco，Ver． $11 / 14$ 1155－1210 $\mathrm{w} /$ ranchera mX about $70 \%$ readable at best．Had about 6 local spots after each record，most done in 2 voice male－female style．kiny ads for stores in Cordova，Ver．Said on air k ：
1187 －GUATENAIA TGT＂Sonora＂is back here．．．at least it was $11 / 17$ between 0340 and 0411．Not superstrong that night，w／a lot of 1190 splash．Hasn＇t been hrd since Spring of 73 when $\pm$ t operated on 1174 for awhile，but has previously operated on 1187 ．At tune－in，there was a very rapid two－voice conversation that continued for 15 mins ，broken only by one production commercial．Infor－ mation and commercials appeared to be the programiing matter，and at 0354， the show was identified as radio Periodico en el Aire．＂After a faniare， there was an ID，but all I could pick out was＂Iiez liti Watios＂。 M，both modern popular Hor Latin and US tunes，continued，w／En Sonora＂ICs．Juch selections as＂Yo Quicro Legar Enamorado＂and The Night Chicago Died were heard。（Callarmar）＊＊＊TGT measured on 1187．2 11／15 0200．（Edmunds）
1190 －VENEZUELA（Tent）h．Barinas？Some LA hrd here w／WOWO out in aurora．Ran SS yaks，mx，had some PR like＂Carefree Highway＂mentions of YV were basis for tentative ID． 0158 11／12．Hielp？？（Shaftan）
－UND Some IA w／SS yaks u／tent YV above．No mx，just talk．Ideas？（Shaftan）
1196 －WEST GERMANY VOA Munich noted $11 / 120000 \mathrm{w} / \mathrm{s} /$ off－good signal．（IONE）
1198.4 －COSTA RICA TIBB，R．BB，San Jose noted now on this freq；first noted $11 / 10$ $0425 \mathrm{w} / \mathrm{H}$ Hadio BBn ID by fem ancr as a voice over during male vocal MoR． 0427 ＂Radio BB，San Jose＂ID by male ancr，f／by strarge promo sounding like＂B－B， Veintiseis＂，which doesn＇t make a lot of sense，at least to me．Gave phone \＃，sounded like 26－26－15，Can anyone confirm details？（Taylor）ex－1225． ＊TIBB hrd here all eve $11 / 15,16$ ．Sounds on RS．（Edmunds）
1200 －VENEZUEIA YVOZ Radio Tiempo，Caracas in w／exlnt sig $11 / 25$ at 0813．ID，TC， then US tunes．WOAI off．（Pogue）
1205A－CUBA Reloj Nacional noted here in like a bomb on new freq tnx to PT tip． Usual nx，gongs，btwn items．No ticks in background though． 0640 11／16． PT told me freq was 120406 ．$A$ lot of static though．（Shaftan）
1210 －COLOHBIA（Tent）la Voz Imiga noted here ripping up WCAU w／IA mx，f＇airly reg here during aurora．11／16 0105．（Shaftan）
1214 －ALBANIA Tirana noted $11 / 70350 \mathrm{w} /$ male ancr in usual AA，peals 10／S9．（Tayl．or） －UNITED KINGDOM Very good cofy $11 / 132321 \mathrm{w} /$ folk rock mx and male and remale ancr－together．Still noted at $0000 \mathrm{w} / \mathrm{mx}$ 。（Iong）＊＊（Tent）Noted here $\mathrm{w} /$ various iR songs．Played＂Back home Again＂by J．Denver which is rather new and I wonder if BBC would be playing it yet tho I don＇t know．Format rits and I wonder if BBC would be playine it yet the
them． $11 / 3$ 0643．Help？（Shaftan） 143 （ED）
1215A－CUBA？This is probably the het here giving vicau the rough time．Noted almost nightly from $0000-0400+$ in the past 2 weeks．No audio yet，tho．（Falconer）
1230 －BEMMOA ZDPM－1 noted here for tirst time 0527 11／9．IDed oniy by FM plug which consists of a＂corrupted＂version of the song＂Love＇s Theme＂and men－ tions of the new sound of radic or something similiar．Wote they are not NSP they run a SP SIM 0000－0700 Iocal time（GT－3 summer，-4 winter）．（Cont）

1230 －BERUNDA（Cont）Often they mun OC or TTT for the first 15 mins or so． $2 m t r$ in Devonshire．Their ground wave is pretty bad．At night one can null them and pick off number of domestice or the 10 kw YV．（Shaftan） 104 （ED）
12L1． 7 －DOMINICAN 12EPUBLIC LV de la Libertad w／nice taped IV iri clear after jingle and TC $023311 / 16$ ．Strongest ever heard．（Edmunds）
1250 －COLOMBIA R．ABC，HJOK，Barranquilla hrd $11 / 16 \mathrm{w} /$ short＂gisora ABC＂promo among local spots 0107；dominant among weaker other LAs．Common catch here during high A．（Taylor）
1259 －UNID SS stn 11／19 1140－1150 w／local ads done live，and soft semi－classical piano mx．Frobably a CA．（Gleason）
1260 －CUEA CIAX Hadio Reloj lacional hrd w／typical nx，pips and reloj ID for newie，atop channel $021511 / 16$ ．（Edmunds） 129 （Eli）
1270 －MEXICO（Harmonic）RFS＇s unid on 2540 I know not；XENXX Mazatlan，MST is only 2540 I tave hrd；like 11／23 1256 ＂ 12 ．12－70＂ID，Tres Equis ad； 13006 AM TC，Majestic，TV de Kazatian ads；some intermittent 0 fill fom coastal ringer on 2358．However，11／22 at 0050 I detected SS，max on 2540，perhaps RFS ＂ih．Caravana＂．HNL prevented further monitoring in evening．（Hauser）
1260 －MIXICO XEAW Yonterrey，NL was my unid of last week w／4 note IS after every record．ID made $11 / 241130-1150 \mathrm{w} / \mathrm{MOR}$ SS inx．（Gleason）
1330 －IEXICO XEBO Leon，Cto．11／21 1130－1150 w／program of nTX w／dedications and ＂saludos＂．Erd several＂X－E－B－0，Sensacional＂IDs，but very rough uncier assorted domestics．Agn 11／23 1133－1140 better，w／local ads．（Gleason） －Ulili XE 11／17 1132－1136 w／nortena mx．Loop towards Monterrey，Tamps，etc． Very poor w／KHAC．（GIesson＇）
1360 －vergeatia IVTI lsracaibo noted $0030 \mathrm{T1} / 10 \mathrm{w} /$ Tinntiful local spola and alone on obarmel for new logeing（Jaylor）
 been 35－6．（Wilkinson）
1385 －CANTON ISIAND WXLE was ai S7－9 level at 0548 and after on $11 / 25$ ．Best sig since last early Scptember．（Wilkinson）
 and＂13－90＂．100\％readable．（四eason）
1410 －MEXICO（Harmonic）XEAS，exceptionally strong $11 / 14$ on 2120 iiti $0405 \mathrm{w} /$ romantic
1435 －CiINA（？）11／14，fair，het heard many times came through w／male and female ancrs alternating w／itens 0921－0924，then light orchestral mx briefly。 0925 same ancrs alteriating w／definite nx items，Callahan and iockefeller names hrd clearly，language fussian．Feded O556́ and lost，never picked up since． Strange so carly，no？（Vernon）
－NETHERIANDS ANTILIES RAdio Kelkboom in briefly w／EE RR11／15 2350．Clear ID at 2357．（Long）
143 B －EL SALVADOR YSHF Cojutepegue s／on $11 / 191200 \mathrm{w} / \mathrm{call}$ letters，location and freq（1430）plus mentioned was member of E．S．Broadcasters Assn，then faded． Carrier was on at least 15 min previous to $\mathrm{s} / \mathrm{on}$ ．（Gleason）
1445 －NETHERIANDS WEST INDIES PJF1 Saba quasi－regular here，extremely fine on $11 / 6$ $0105 \mathrm{w} / \mathrm{SS}$ vocal，ferale ancr in EE at 010 w ／$\Pi$ ，s／off jmaediately．（Taylor）
$1470-1 \mathrm{FXICO}$ XE？？，Fexico，DF．Ranchera format of XXZ -1500 is now here，heard $11 / 16 \quad 130-1145$ ，no call letier mention．hay have switched calls．
tored 1500 for about 4 hours and no cali letters given．（Gleason） －CONGO／DAHONEY Brazzaville， $11 / 212221 \mathrm{w} / \mathrm{inale}$ talk in vernacular $/ / 4795,4765$ ． This talk surfaced about 6 times until co－channel Dahoney took over at 2251. In interin the 2 stns were fignting it out and resulted mostly in a bet． Dahomey still uses that march whic sounds like a Drum $\&$ bugl caution anyone tion just prior to s／off．（bailey）very，very nice！I would caution anyone looking for this combo to be aware of the haitien on the freq which would be in $F F$ and might play African style mx．（EN）
（L．Reynola －NICABAGUA YNAG Chinandega hrd at 0300 on $11 / 22 \mathrm{w} /$ romantic mand vocal IL mentioned Nicarugua and Centro Arerica．Lots of $1470 / 1480$ splasho －SABAH，MALAYSIA R．Malaysia，Kota Kinabalu has been heard $11 / 11$ and $11 / 18$
after previous $1200 \mathrm{w} / \mathrm{off}$ ．Frobably a sked change．Frogram is lok mx，some after previous $1200 \mathrm{w} / \mathrm{off}$ ．Yrobably a sked change．Frogram is Lor ma，some
in EE（e．g．J C Superstar cuts）．At $123011 / 11$ man in $\mathrm{nx} \mathrm{m} /$＂Suara lialaysia＂ in EE（e．g．J C Superstar cuts）．At $123011 / 11$ man in nx w／＂Sara lalaysia＂
ID．（Seaver）＊ias very strong and steady at 1245 on $11 / 25$ ．They play sone vy good mx at times．（Wilkinson）Hra extremely well before 1200 on $11 / 25$ which has been their usual s／on time．Tan and wornan In Tagalog plus some cl orch mx．Best ever by far．Condx very erratic．（D．Reynolds）

1500 －$\because E X I C O$ XE？？il Fiesta is now here，replacing $K$ ．Tricolor，which may have Switched the 1500－1470 frequencies w／each other．In any case，now plays tropical nx instead of Manchera．Mexico，DF．（Eoth are Grupo Oro stns， plus $600,710,97 \mathrm{C}, 1220$ ）．In tryine $11 / 18$ for a call letter ID，heard at 0108 about $\frac{1}{2}$ previous strencth．（Geason）ty for about 8 seconds，then back w／ about 2 previous strength．（Geason）kir Probably the one mivite sianchera mx here 0847，11／10．（Shattan）Xeft $\mathrm{R}_{2}$ ．Fiesta，ex－Tricolor．（Edmunds／Hauser） long list of local food and clothing prices．Gave time as ancr giving long list of local food and clothing prices．Gave time as＂7：15＂。 Tarzan
movie ad at 2324．Very strong when first tuned．Faded out movie ad at $2324_{0}$ Very strong when first tuned．Faded out at 2326 and
noted again at $2335 \mathrm{w} /$ Caribiean Hews． noted again at $2335 \mathrm{w} /$ Caribiean News．Tape replay showed barely audible radio Anguilla II．（Long）
 known to rary in Ireq． $012011 / 15$ and Intely reported on 1512 ．（Buands） ILA noted bere $11 / 16 \mathrm{w} / \mathrm{alow}$ inst ma 0050 ；beariny augesta Hi．Any help？ （Saylor，who gire irea as 1510.8 ）$+11 / 14$ 0015－0030 fade out，strong het W／bite of aurtio lapine trisi3／，Het fust ebout vipert out 1510 ，unfort het $f=1 y$ no conclusive audio．．，nover had stenal on this freq before．Derinitely 鲑 Govevor．（Gundstroa）All y Hkels HIM，which war noted w／atrope aseral．
－CHiliti Umumetij noted wifeeb
0000 on eves of $11 / 15,16,1 \%$ during severe cercier，in passing beiween $2300-$ $11 / 13$ ，iatt Zahner of NNRC cailed 2325 but beiore disturbence．（Taylor）$\%$ ． up a NA was played of NNRC cailed 2325 but beiore I could get set warmed up a NA was played and carrier off 2330．Both Zahner and I could hear （see on SB－620）a second weak carrier w，weak het on freq，definitely not and clear sy 2345 ．had it over phone．．Lahner has tape of a very strong and clear signol．liot hrd since．（Sundstrom）Fer phone call from Zahner， COSTA RICA

11／12 2300－2315。 Fair sig w／WCKY splash．（Falconer）
1540 －Whunsis 2459 noted here tentatively $005011 / 16 \mathrm{v} / \mathrm{kS} \mathrm{rel}$ progran，VFTE／vaces wiped out Ly ievere eurorn．to clenrs were audible．Bren inju，wuper pest
1550 here wat rasing it all the way up to $\$ 6$ ．Dook to nomul ly O600．（Sharten） gan w／（5（7mtative）LGD Imerald，Qeld．Converation between ran and wow

1555 －ictitioz ips returted on．Vill try again and eur21er．（olikinson？ Gasbo on beok．coed of tape of Ho Juventud－1570 $\mathrm{N} / \mathrm{o}$ tape of la Vos esel they＇re really heore，in．（schats）frequency．I guess I＇li have to believe
T560－CUM GUGB Relos Nacional，Cordenas
0900．（Fogue） O．（Togue）




$1530-M$ NICO XDOL
HOXICO XBCL Zamora，ilich． $11 / 171209-1226 \mathrm{w} /$ ranchera mx，many local ads，
most directed at famers．At 1220 ha d someone most directed at famers．At 1220 ha d someone behind him w／＂las idanani－
－MEXICO XENG－make that definite at $1220 \mathrm{w} / \mathrm{jingle}$ and call letters twice，
then fade．（Heard after 25 times relistening to tape）．New state．（Gleason）
15Bb－LWT GFikNY Iangenburg $11 / 13$ in GG．2345－0000 popular European mx， 0000
1590 bell，then nX．（Krakow）
Too poor to nick upan $11 / 15$ 1130－1148 w／old Ss rock songs（1961－1964 era）． now？Arc they on air at mx ．Ver．polished ancr cave tane？11／16 1227－1309 k／romantic and coh SS 501 and had jinele that said $15-90$ elso．Looped 5 by as＂El Fabulosa 15－ by s／on of XEB＇Ciudad Delicias，vich was a little to the east of the unid stns peak bearing．（Gleason）
16051 －imith ieak，Incy，Flline 35 d had here $0000-0100$ nnd $\mathrm{later} 11 / 15$ ．Thoueh
 On the next pare，win otary ove

Phenomena such as lightning bursts will produce unexpected patterns. Since lightning is broadband radiation, it will produce the same pip height across the entire frequency range, and since it is present on every frequency at all instants that the strike lasts, it will cause the pip to stay up as long as the strike lasts. This results in a rectangularly shaped displacement with a jagged top. The width This results in a rectangularly shaped displacement with a jagged

Pulse radiation causes a series of spikes which may appear to drift slowly across the screen depending on the PRF (pulse repition freq.), and its ratio to the SB-620 sweep speed. LORAN-A which can be heard in the Northeast U.S. on 1900 and 1950 khz makes a pattern like the teeth of a wood saw. Periodic buzzing interference from appliances with brush-commutator motors that arc does pretty much the same thing.
This distortion of the pulse shape is apparently due to shock excitation of the This distortion of the pulse shape is apparently due to shock excitation of the SB-620 crystal filter, with ringing causing pulse stretching.
Commercial spectrum analyzers have adjustable bandwidths in contrast to the fixed bandiwidth of the SB-620. Since comercial units are often used at microwave frequencies, their bandwidth can often be several megahertz, contrasting to the 0.15 kilohertz SB- 620 bandwidth. Such units will give a more accurate rendition of rapid transiert phenomena, such as noise spikes and pulses, though this is not of very great practical importance to the MW DX'er.

This is a good place to look at "images" as they can be classified as "unknown signals". Images generated in the receiver are unavoidable byproducts of the superhetrodyning process. They aren't a great problem on MW due to the wide frequency ratios in the receiver's tuned circuits, and the high-Q front-end selectivity used by DX'ers. On shortwave, this is a more serious problem due to reduced ratios between desired/undesired signals, and the wideband antennas used by most SW DX'ers. When the DX'er tunes across part of the SW band and listens, it is not epparent which of the signals he hears drifting past belong there, and which are alien. The SB-620 dramatically answers this question. Use a moderately wide sweep width ( 20 to 30 khz ) and operate "sweep width" in "variable" to give a fast sweep width ( 20 to 30 khz ) and operate sweep width in variable to give a look for pips going past in the opposite direction than the stream flowing past. These are the images (being heard at $2 \times \mathrm{IF}$ freq. or, 910 khz away from input frequency). Look also for pips which may appear to drift past in the same direction, but at half or twice the rate of the stream of plps flowing past. These are tion, but at half or twice the rate of the stream of plps flowing past. These are
also bogey signals, which may be mixes generated in the recelver itself, and which Elso bogey signals, which may be mixes generated in the receiver itself, and which a birdie or whistle as it crosses a signal pip moving the other direction, in the receiver passband. The cure is better anterna selectivity and/or set realignment.

Since it is not possible to predict what sort of unusual signals may be encountered by the reader from time to time, we can't say too much more. This is of main interest to the $\mathrm{SB}-620$ who DXes other than the MW band. The Heath instruction manual has some comments and sample drawings dealing with $A M$, CW and SSB signals as found in the amateur bands. The experienced user will soon be able to get a feel for what comprises a signal by its sound and appearance. DX'ers interested in pursuing this further nay find Hewlett-Packard Application Notes ${ }^{\text {th }}$ helpful, especially Nos. AN 150-1, AN 150-2 along with AN 150-4 and AN 150. Since this material deals almost exclusively with operation of Hewlett-Packard equipment, they are mainly of interest to the DX'er wishing to augment his technical knowledge and increase basic under standing of principles of operation. AN 150-2 (Pulsed RF analysis) helps the reader understand how a spectrum analyzer responds to impulse radiation, which we discussed above. See also the reading list at the end of the article.

List of Spurious Responses and Images encountered in Author's Unit.

1. Weak pip, travels across screen at half the speed of real signal pips as the receiver is tuned (hereafter called "half speed"). Centers on screen when rx is tuned to 575 . Pip is seen with receiver RF Gain all the way down.
2. Strong pip, travels across screen at "full speed". Appears at 700 khz . This
is obviously the 2nd harmonic of the signal in the $\mathrm{SB}-620$ IF chain getting back into the input. Ihis behaves just like a real signal pip at 700 khz , al though nothing is heard in the receiver.
3. A fairly strong pip appears to move at half-speed, centers on the SB- 620 when receiver is tuned to 802: coincides with the 800 khz pip when receiver is tuned to 795 khz. This pip remains on the screen with the RF Gain on the receiver all the way down. Like \#l, this one disappears when receiver is placed on "standby"
4. Sweep oscillator in the $5 B-620(350+455)$ appears at about 805 khz and radiates from the SB-620, and can be heard in the receiver as a "weep-weep" sound. This is more apparent if the DX'er is using a loop close to the SB-620.
5. A weak pip appears that stays stationary on the $\$ B-620$ screen as the receiver is tuned. It is only seen in the 1140 to 1170 khz range and appears slightly to the high side (to the left of center). It rises up and then fades down as the receiver is tuned through the range. It moves in and out with adjustment of the "vrbl sweep width" pot. It disappears with the antenna switched off. No audible signal in the receiver is associated with it. It appears strongest at the 1155 position on the baseline when the receiver is tuned to 1150 .
6. Seme kind as above; stays stationary as receiver is tuned. Appears 10 kc to the left (higher) as the receiver is tuned from 1240 to 1280.
7. Pip appears at center screen when receiver is tuned to 1505 khz . This is perhaps the most objectionable spur in the whole list. It travels across the SB620 screen at half-speed and is strong enough that it could be confused with weak DX. With the receiver tuned to 1496 , the spur pip appears at 1500 . With the receiver tuned to 1500, the spur appears at 1502 on the screen. Tuned to 1505, the spur appears there (center screen) and tuning the receiver up to 1515 makes the spur pip move up to 1510 .
8. A weak pip moving at "half speed" appears at center screen with the receiver is tuned to 1610; RF gain has no effect on it. It is usually buried in the noise.
9. A weak pip, barely visible, appears, moving at half speed, when receiver is tuned to 2310 and RF gain has no effect on it.
10. RF leakage at various points in the SW spectrum, and to a lesser extent, causes image energy to be created at 350 kh at the $\mathrm{SB}-620$ input. This can cause the entire baseline to lift up. Refer to Heath manual for more on this. We have found slight evidence of this when the HQ-150 is tuned to 797 khz , the height of the baseline varies with the setting of the receiver $R F$ gain control.

It is likely that a fussier alignment, and a bandpass filter in the SB-620 input would eliminate much if not sill of these problems, or reduce them to the level at which they would not be readily noticeable. Only items 2, 3 and 7 , above, have been of any real annoyance to the author. Readers who own HP- 45 calculators are invited to calculate which raixing mechanisms are responsible for the above pips. Readers whose receivers' IF differs from 455 khz will probably find their own completely new and different set of image pips.

## Connection to the Receiver.

The recommended Heath procedure is of course entirely satisfactory, and is recommended to the DX'er not thoroughly versed in electronic fundamentals. A permanent connection may be made by running a comax lead from under the receiver chassis, through the isolating capacitor supplied with the kit, installed on the mixer tube plate pin, and out the side or back of the cabinet, and to the SB-620 input. This is the procedure described in the Heath manual, as shown in Figure 15:

This is a simple procedure for single-conversion receivers with no first IF in the 2 or 3 mhz range; that is, with only a single mixer at 455 khz . There is no confusion, then, as to which tube to connect to.


Fig. 15. Assembly manual description of interconnection with the receiver.
Many DX'ers own HQ-180 series receivers, and it is possible to use the $\mathrm{SB}-620$ with this receiver, especielly if we keep our interest limited to scanning a relatively narrow band of frequencies such as 20 or 30 khz . (Preselection in the first IF of the receiver might cause roll-off of gain farther out than that). The following are comments kindly provided by Eugene Vonderembse regarding his experiences with the $H Q-180$ receiver, used with the $S B-620$ and the Heath $H D-11 Q-M$.
"Just a note to say that I'm delighted with the SB-620. With the FMS-3 to calibrate it, the Scanalyzer is a superb device for any serious DX'er. I already have located several stations that I would have never noted without it. No serious problems in construction. When I turned on the SB-620 I did find that the pilot light refused to go on in the "linear" position, but quickly discovered that reheating the proper solder joint would solve that trouble. And I found that the recommended $3 / 4$-inch screws were too long when I put the device into its cabinet. One screw shorted out the pip gain control. That quickly was corrected by using $1 / 2$ inch screws. Otherwise everything went perfectly.
"I do get a spurious pip at 805 khz , courtesy of the sweep oscillator, and I also get a whishing sound there. I'm using the SB-620 on my HQ-180A. To avoid the need of digging into the guts of the receiver, I bought a test socket and made the connection to it. That works very well. I've grounded it carefully, and I have a well-grounded shield over the tube. Actually, I used this system before in experimenting with the Q-multiplier and found it satisfactory, so anticipated that I could use it.
"There is a problem with the HQ-180A. The first 455 IF becomes a 3035 IF stage on the two highest bands, and with the SB-620 wired for 455, it did not function on those two bands. A possible answer would be to construct two pre-mixer stages for the Scanalyzer, and switch ther in and out as needed. As far as that goes, though, that's not a serious problem. I don't use the two bands very much ...for a SWL, that would be a serious difficulty. Note: A single IF can has the coils for the first IF for both stages, 455 and 3035, so both can easily be adjusted to compensate for the Scanalyzer. The low IF coil is tuned from the top, and I've made that adjustment. But since I must take the receiver out of the cabinet to get to the 3035 coil, I haven bothered to correct it yet.
(later) "I've attempted the hook-up that you suggested, but I tied into the plate circuit of the First Converter, V3. Eventually I will probably try V4 as you suggested. I decided, however, that V3 was a logical place to start my experimentation. One advantage of using the test-socket system is
that I can easily switch from tube to tube. It simply is a matter of plug ging in the socket and plugging the tube into it.
"The SB-620 now does work on all receiver bands, and I've lost a couple of unwanted pips. While it may be there, I've been unable to find the 805 pip in my preliminary examination. I did locate that pip at 1502 that you mentioned with the old system. It still is around, though it's lost some of its amplitude. And the sound of the oscillator, around 805 , seems to have gone.
"Ny tests to date suggest that the signal already has narrowed in bandwidth at V3. Tests so far seem to show much less splash from strong locals that I could see when I had the $\mathrm{SB}-620$ hooked into the V2 mixer tube. One problem I did note with the old setup was an odd sort of drift in which the signal pip moved up or down and back again. That happened with the FMS-3 and with stations. It even happened on WWV. It doesn't always happen; sometimes the pip would be rock-steady for long periods of time. At this point I'm not certain whether the drift is in the $\mathrm{SB}-620$ or in the receiver.
(later) "I've finally settled on V3, the first converter tube in the HQ-180A to make a more or less permanent connection. I've been trying out the Heathkit HD-11 Q-multiplier. And I've found it a definite aid in locating and isolating splits, most of all, used in conjunction with the Scanalyzer. Originally I connected the HD-ll to V2, the plate of the mixer. Now I have it at the plate of V 3 with the $\mathrm{SB}-620$. It works very well at both locations. But, I get somewhat better reception on the high bands with the Q-Multiplier at V3. And of course, the Q-mult is then usable on those bands.
"My set-up .. I've used a test socket 13 and a length of RG-62/U co-ax to make the connection to the receiver. The braid of the cable is grounded, with an alligator clip, to the nearby frame of the bandspread capacitor. I use a shield on the GBE 6 tube which is also grounded by a wire and clip to the capacitor frame. Then, the cable goes through the lift-hole in the receiver's cover to a small cabinet. The box provides connections to the $S B-620$ and the $H D-11$ and I have switches to switch either or both out of the circuit should I so desire. This seems to work very well now and I've found no problems with it.
"The $\mathrm{HD}-\mathrm{ll}$ adds a new dimension to the receiver. I've experimented with it before and found it very useful ; with the SB-620, that usefulness has been enhanced a hundredfold. It's fascinati ng to watch the Q-multiplier isolate a signal and clean up the garbage around it. I've been able to locate some splits just a couple of khz away from fairly strong stations, and with the HD-ll, separate them from these stations. Before I got the Scanalyzer, quite frankly, I didn't know that these splits existed. Now I can add some of them to the log, with some luck and the $Q$-multiplier.
"One more thought . . I did a realignment on the SB-620, and I was able to improve some of the unwanted pips. That at 805 has been reduced considerably, and that at about 1505 has almost disappeared. Another thing I noted - before, I could tune harmonics of 805 well into the shortwave bands and now I can't find them. So it seemed worth the effort to refine the calibration, etc. That's the story, then. I'm very pleased with the results of the equipment and think that it's worth every penny and hour that I've invested ....this system is particularly valuable to me because of my local station and noise problems. They don't solve the problem by any means but they certainly lessen it."

- Eugene Vonderembse.

Note that the slot-filter and selectivity portions of the HQ-180 come after the V3 stage, as we remarked in section (e) previously. Thus the value of adding the Q-multiplier to the $H Q-180$ should be evident. Our thanks to Gene for his detailed remarks, which should be of interest to the many HQ-180 owners in the DX community.


Fig. 15. Assembly manual description of interconnection with the receiver.
Many DX'ers own HQ-180 series receivers, and it is possible to use the $\mathrm{SB}-620$ with this receiver, especielly if we keep our interest limited to scanning a relatively narrow band of frequencies such as 20 or 30 khz . (Preselection in the first IF of the receiver might cause roll-off of gain farther out than that). The following are comments kindly provided by Eugene Vonderembse regarding his experiences with the HQ-180 receiver, used with the SB-620 and the Heath HD-11 Q-M.
"Just a note to say that I'm delighted with the SB-620. With the FMS-3 to calibrate it, the Scanalyzer is a superb device for any serious DX'er. I already have located several stations that I would have never noted without it. No serious problems in construction. When I turned on the SB-620 I aid find that the pilot light refused to go on in the "linear" position, but quickly discovered that reheating the proper solder joint would solve that trouble. And I found that the recomended $3 / 4$-inch screws were too long when I put the device into its cabinet. One screw shorted out the pip gain control. That quickly was corrected by using $1 / 2$ inch screws. Otherwise everything went perfectly.
"I do get a spurious pip at 805 khz , courtesy of the sweep oscillator, and I also get a whishing sound there. I'm using the SB-620 on my HQ-180A. To avoid the need of digging into the guts of the receiver, I bought a test socket and made the connection to it. That works very well. I've grounded it carefully, and I have a well-grounded shield over the tube. Actually, I used this system before in experimenting with the $Q$-multiplier and found it satisfactory, so anticipated that I could use it.
"There is a problem with the HQ-180A. The first 455 IF becomes a 3035 IF stage on the two highest bands, and with the SB- 620 wired for 455 , it did not function on those two bands. A possible answer would be to construct two pre-mixer stages for the Scanalyzer, and switch them in and out as needed. As far as that goes, though, that's not a serious problem. I don't use the two bands very much ...for a SWL, that would be a serious difficulty. Note: A single IF can has the coils for the first IF for both stages, 455 and 3035, so both can easily be adjusted to compensate for the Scanalyzer. The low IF coil is tuned from the top, and I've made that adjustment. But since I must take the receiver out of the cabinet to get to the 3035 coil, I haven bothered to correct it yet.
(later) "I've attempted the hook-up that you suggested, but I tied into the plate circuit of the First Converter, V3. Eventually I will probably try V4 as you suggested. I decided, however, that V3 was a logical place to start my experimentation. One advantage of using the test-socket system is
that I can easily switch from tube to tube. It simply is a matter of plugging in the socket and plugging the tube into it.
"The SB-620 now does work on all receiver bands, and I've lost a couple of unwanted pips. While it may be there, I've been unable to find the 805 pip in my preliminary examination. I did locate that pip at 1502 that you mentioned with the old system. It still is around, though it's lost some of its amplitude. And the sound of the oscillator, around 805 , seems to have gone.
"My tests to date suggest that the signal already has narrowed in bandwidth at V3. Tests so far seem to show much less splash from strong locals that I could see when I had the SB- 620 hooked into the V2 mixer tube. One problem I did note with the old setup was an odd sort of drift in which the signal pip moved up or down and back again. That happened with the FMS-3 and with stations. It even happened on WWV. It doesn't always happen; sometimes the pip would be rock-steady for long periods of time. At this point I'm not certain whether the drift is in the SB-620 or in the receiver.
(later) "I've finally settled on V3, the first converter tube in the HQ-180A to make a more or less permanent connection. I've been trying out the Heathkit HD-ll Q-multiplier. And I've found it a definite aid in locating and isolating splits, most of all, used in conjunction with the scanalyzer. Originally I connected the HD-ll to V2, the plate of the mixer. Now I have it at the plate of $V 3$ with the $S B-620$. It works very well at both locations. But, I get somewhat better reception on the high bands with the Q-Multiplier at V3. And of course, the $Q$-mult is then usable on those bands.
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-Eugene Vonderembse.
Note that the slot-filter and selectivity portions of the HQ-180 come after the V3 stage, as we remarked in section (e) previously. Thus the value of adding the Q-multiplier to the $H Q-180$ should be evident. Our thanks to Gene for his detailed remarks, which should be of interest to the many HQ-180 owners in the $D X$ community.

Figure 16 illustrates the test socket adapters we've just referred to ${ }^{13}$. These are simply extender devices with each lead brought out to a tab, for connection or measuring purposes, or troubleshooting when connections have to be accessed from the top of the chassis.


A semi-permanent hookup could involve one of these in the mixer tube socket, with all tabs snipped off except the plate pin. Check the schematic or tube basing diagram in a handbook to determine the plate pin. This reduces the hazard of shock or short-circuits. The capacitor can be soldered to the tab and the other end connec-short-circuits. The capacitor can be soldered to coax center conductor, and the braid cut short, with a wire soldered to the braid and then run to a nearby ground point.


Fig. 17. Connecting the coax lead to the test adaptor.
If you can get at the bottom of your receiver, you can make the same connection at the plate pin on the socket itself with the coax ground made close at hand. This will be a more mechanically rigid connection, with the coax lead out of sight, and does not require use of a test socket adapter. You can mount a jack on the rear deck of the chassis and thus greatly facilitate future removal of the receiver from the cabinet, as the cable can simply be unplugged from the rear, out in the open.
It must be remerabered that the extra capacity to ground of the coax cable will detune the first IF stage. This is true whether the cable is run all the way to the SB-620 input, or just terminated in a jack at the rear of the receiver. The longer the cable run is, the more the detuning that will take place. If the jack approach is used, furthermore, if the IF is aligned for the cable length in use with the SB-620, it then becomes misaligned when the cable is unplugged and the receiver operated without the SB-620. In other words, even with the jack disconnected from the SB-620 cable lead, the length of cable from the mixer to the jack will still be enough to slightly detune the first IF. The manual describes this.

An isolation stage can be added to eliminate the problem. It consists of a simple tube. A type 6 C 4 was used, and it goes between the mixer and the cable run. It is called a cathode follower, and has very high input impedance (it doesn't draw any power from the mixer) and has a gain of near unity (the output level is about $90 \%$ of the input level). With this addition, the mixer doesn't care or know if $90 \%$ of the input level. With this adition, the mixer doesn't care or anow is whether the SB-620 is connected or not. Each DX'er adding this tube will have to work out how to do the mechanical arrangement himself, depending on the type of
receiver he has. Those knowledgeable can use a transistor design to do this, with simplification of the mechanical part of the job. We used the tube because all the parts were on hand, and can be easily obtained almost anywhere.

In the $H Q-150$ we punched a $5 / 8$ inch diameter hole between the mixer and localoscillator tube. Plenty of space is available for this, above and below the chassis. Use a Greenlee socket punch for this jobl5. You will have to drill a $1 / 4$ inch starting hole for the punch.


## Put more

punch in your work.
Wita a Greenlee Chassis Punch you can punch
lean, true holes in seconds. Round, square clean true holes in seconds. Round, square
key or D In 16 -ga. metal. hard ruber, plastic
or epooxy. Available at or epoxy. Available at radio and electronics
parts dealers. Write for catalog E-730 parts dealers. Write for catalog E-730
Greenlee Tool Co, 1764 Columbia Ave., Rock d. 111.61

GREENLEE TOOL CO

You can't get in to turn the punch with an open-end wrench, most likely, so use a socket wrench, $3 / 8$ inch drive with a 6 inch extender. To punch a hole for a 7 -pin miniature tube socket, you'll need a $1 / 4$ inch predrilled pilot hole. Use a $5 / 8$ inch punch which can be driven by a $7 / 16$ inch 6 -point socket ( $\mathrm{S}-\mathrm{K} 45114$ ) which is a standard item in a socket set. To mount a 9-pin miniature tube socket, drill a $3 / 8$ inch pilot hole and use a $3 / 4$ inch punch. Sockets for 8 -pin octal tube sockets need a 1 or a $1-1 / 8$ inch punch. All three punches ( $3 / 4$, 1 and $1-1 / 8$ ) use a $3 / 8$ inch pilot hole and can be driven with a $7 / 16$ inch EIGHT-point socket (Craftsman part no. 44344 , from Sears and Roebuck). These larger punches have a square, rather than a hex head, ostensibly for use with open end wrenches to give a better grip while turning. It takes muscle to punch through steel! Liberally oil the threads of your punch, and it'll last a lifetime. Incidentally $3 / 8$ inch drills with reduced shanks to fit $1 / 4$ inch drill chucks are available in hardware stores. You won't need a $3 / 8^{\prime \prime}$-chuck drill. Once you get the socket mounted, wire the circuit as shown in Fig. 18. All parts are standard and non-critical values. Steal 6.3 vAC for the filaments and B+ from handy places in the receiver.


O $\mathrm{B}+(200-250 \mathrm{vDC})$ RFC is a 2.5 mhy choke. $\mathrm{Cl}=47$ pf disc or mice $\mathrm{C2}=01 \mathrm{mf}$ disc or paper $\mathrm{C2}=.01 \mathrm{mf}$ disc or paper $\mathrm{C3}=.01 \mathrm{mf}$ disc or pa per $\mathrm{C} 4=.05$ paper 600 V $\mathrm{R1}=1$ megohm $\frac{1}{3}$ watt R2 $=470$ ohm $\frac{1}{2}$ watt, value not too critical 6C4 requires 6.3vAC Fil's 18. 18. Cathude follower clroult to 1 molate the flyat IF stage from the coax lead capacitance, making re-peaking of the IF transformer unnecessary.
Difficulties in Operation. If your unit doesn't work ... much of the difficulty can be attributed to improper parts installation, improper hookup, improper control setting or even defective parts supplied in the kit. (Parts are NOT $100 \%$ QC checked by kit sellers on receipt from vendors).

Torn Sundstrom's unit evidently was supplied with a power transformer that had either a shorted turn, or an inter-winding short, as it did not supply rated power, and his kit did not sweep properly. Heath replaced the transformer, and the kit, which had been wired properly to begin with, now works fine. A couple of units have turned up on the resale market with incorrect wiring that had to be traced out and fixed. (Probably the cause of the original owner selling in the first place). The author's unit worked fine from initial turn-on for over 16 months unti] one of the high voltage diodes ( $\mathrm{p} / \mathrm{n} 57-44$ ) shorted. This drew heavy current and popped a winding on the transformer, resulting in no high-voltage for the the CRI and no trace. The diodes (list $\$ 1.40$ in 1972 but $\$ 2.10$ now) were replaced, and a substitute transformer run outboard to replace the open winding. A new transformer ( $\$ 6.90$ in 1972 but $\$ 13.05$ today) has been ordered. Ny substitute transformer is a Triad R3-A rated at 500 vCT at 20 ma . The CT is left floating and the sec'y ends go where the yellow and blue original leads went. If you ever lose high-voltage in your unit. this can get you back in operation. The primary runs off llovac. Also, the push-in speedup switch was erratic. That can be paralleled with another switch, but isn't the most important thing on the kit, although handy at times. Heath is very helpful in getting kits to work. If your kit doesn't work, go back to where it was bought and check with them.

Other considerations.
An interesting aspect of using the $S B-620$ in surveillance applications is in monitoring the local CB activity in one's particular area. You can set the unit up to monitor as many as a dozen adjacent CB channels in one sweep, and still be able to resolve each one. If you have a nearby CB operator using an illegal linear, putting garbage all over the MW and IV bands (as many cheap linears seem to do) you can zero in on him pretty rapidly. Once yop pinpoint the errant CB operator, bring the "Citizen's Band Alignment Aid" 24 into play and your troubles should soon end. It was this type of surveillance, locating brief Axis radio signal, that led to development of the panoramic receiver in World War II.

FM DXers in isolated ("White") areas with no FM locals would find a VHF Spectrum analyzer invaluable in detecting FM skip openings. The SB-620 can NOT be used for this application, unfortunately, but the DX'er with the scratch for a really professional-grade lab unit can have capability to sweep the entire FM band at one sweep, with a dynamic range of 70 db or greater. A FM band opening could be immediately spotted. The capabilities of visual signal detection are fascinating; we hope this article will spur further research and effort by DXers.


100 MC

115 MC

Typical FM Stations
$100 \mathrm{kc} / \mathrm{cm}$

The pictures are from Hewlett-Packard AN-63. ${ }^{12}$ They illustrate a sweep of the complete $F M B C B$ in the San Francisco area. These pictures are very similar to results obtainable from the $5 B-620$, although resolution is sharper. The pictures were retouched for greater white/black contrast, but the geometry of the trace is still apparent.

It is interesting to note that a commercially available FM Tuner, the Sequerra Model One 16 comes with a built-in spectrum analyzer for the FM band, as well as allowing the oscilloscope section to function as a multipath indicator and stereo separation monitor. Perhaps the advantages of spectrum analysis are being more apparent to more people.

One last comment. It's often difficult to see the trace in a brightly lit room. One of the most helpful things we know of is to use a goose-neck or elbow-arm artists lamp to illuminate the operating table, and run the bulb off a Variac ${ }^{r}$ or autotransformer circuit. Putting anywhere from 50 to 90 volts onto the bulb, which burns brightly at 115 v , gives a mellow light that is entirely adequate for note-taking but is not hard on the eyes during a long all-night DX session, and more importantly, does not drown out the CRT screen with backlighting, making visibility of small pips much easier. We use a small rotary autotransformer to vary the lamp brightness, and often run it way down, at about 50 volts, and it really helps reduce glare-induced eyestrain. And, the $5 B-620$ is clearly viewable without having to use excessive trace brightness. Obviously a SCR light dimmer cannot be used in this application because of the switching spike noise it causes at RF. The autotransformer is completely non-RFI generating, and quiet.

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## SUBJECT INDEX

## SPECTRUM ANALYSIS

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 Spectrum AnalysisAN 63D
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AN 136 Accurate Frequency Measurement - An Application of Spectrum Anaiysis Modern EMI Measurements Theory and Applications of Wave Analyzers Audio Frequancy Measurements with the 8556A-8552B Spectrum Analyzer Understanding and Operating the 8555 A Spectrum Analyzer and 8445B Automatic Preselector
AN 139 Stabilizing Gamma-Ray Spectrometer: Systems with the HP 5586A Spectrum Stabilizer

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"Title and Rights to Contents and Ideas Herein
License to any Third Party. © 1974. All Rights Reserved"

Footnote:
Heath is introducing an entirely new line of SB-series amateur-oriented gear, including the SB-104 HF transceiver and SB- 514 monitor oscilloscope. This brings up the question of whether the company is planning a new spectrum analyzer to be a part of this new series, which incidentally is solid-state. In the event the company does introduce a new spectrum analyzer, it would likely replace the SB-620. In that event, the definitive remarks concerning the assembly manual and procedure would no longer apply, but all the theory and basics of operation, including control functions and designations should still all remain valid and still be applicable. It is probable, in the author's opinion, that the SB-300 series kit will be offered for a while longer, alongside the newly-introduced units, and that the SB-620 thus will continue to be available in the coming months, as it is at this writing. (A parallel situation exists with their line of Digital Clocks; while an improved version is now available, the original model continues to also be offered). Nonetheless, even if the SB-620 is withdrawn from sale in future months, the resale market for completed units should expand somewhat, as amateurs trade-in for the newer equipment. Any reader of this article contemplating purchasing the SB-620 kit should not wait too long to check with the dealer - especially as the price is always subject to change.

# Workhorse Spectrum Analyzer... lOOME to 25MME 

The new Nelson Ross Model 236 is a multi-purpose, easy to use, workhorse Spectrum Analyzer with outstanding performance features and an exceptionally low price of $\$ 3275$.


- Preset 0.25 MHz quick-look scan and 0 -10 MHz adjust able scan widths
- 100 Hz resolution, automatic and adjustable modes
- $-105 \mathrm{dtm}(1.25 \mu \mathrm{~V})$ sensitivity
 atryit

1 MHz and 100 KHz intervals. Absolute level referenee



Call or write to the "Specialists"; complete specifications are yours for the asking; or, circle the reader service number.
nelson - ross
electronics
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Divasain Drise, Lake Sugrens, Ki Y, 11045


Fig. 20. Commercial equivalents of the Heath SB-620, with more versatility and with a much higher price tag

OK gang, time for another (ho-hum) NRC Pattern Book Undater. First off I'll do a rather massive updater on ALASEA:


Still more patterns...
C KLG 730 New 50Kw Pattern


K A T 21600 New $\mathbf{5 K w}$ Pattern


The patterns below are (left to right): : K K A A 1560, w D G Y 1130, $W$ I S N 1130, \& C H L O 1570. (WDGY-WISN-8CHLO are all at 900mv/m scale)


KKA A is 5 Kw U4 (DA-2) WDGY is 50 Kw U4 (DA-2)
CH L O is 10 Kw U4 (DA-2) WISN is 50 Km days/25kW nite U4 (DA-2)
***WISN never got the 50 Kw nite to work right, so went with 25 Kw instead.***

B ${ }^{*} \mathrm{CP}$ * PQ 1360 10Kw "/5Kw nite U4
Ste-Marie De Beauce
C CFDR NS 680 50Kw days/lokw nites U4 (DA-2) (Is presently on 790 Khz 5,000 watts fulltime--U3 (DA-1)
D CHEF PQ 1450 10Kw days/ 5 Ki nites U4 (DA-2)

To the few with comments on the difficult problems in adding patterns like these to the NRC Pattern Book.

Try holding the book over the new pattern. Then hold the whole mess up to a window facine the sunlizht. Now center the outlines of paOVIVCrs or craies it this point the pattern is very close and you won't be off more very close and you won't be off more
than aivout $5 \%$, if that much, in your than avo

Sugrest pat.tern is copied with pencil and then re-drawn with a felt tip pen into the pattern book.



These are for K P N W 1120 and $C H N L 610$. The K P N W pattern is at the $900 \mathrm{mv} / \mathrm{m}$ scale, while C II N L is the regular 300 mv (m scale. 1120 KPNiN OR 50KW days/ 50Kw nites U4 (DA-2) 610 CFINL BC lOKw days/ 5Kw nites U2 (DA-N)

Still got several more on hand gang, so still another updater will be in your srubby little hands shortly. Until then this should be enough to kecp most of you outta trouble.

editor．．Wes Boyd ©日O W．Liberty Girard，Ohio 44420
RRY STARR 216－534－1394
Hello there DX types．Here we go again，this edition coming to you almost live from Starr Acres，Inc． re＇s
CTOBER：
 3rd MM：KGMY－1450；KVOW－1450 both picked off tape replay，no times，

## NOVEMBER

 anybody have times for these，both unlisted（DAB）
## 2nd MM：WCAZ－990 w／1lCTT（WM） <br> and SA：WSHN－1550（Shaft）

3rd MM：WGAN－1340 w／TT；WKIG－1580 w／＂Caberet＂（DS
4th MM：WNGA－1600 $\mathrm{W} / \mathrm{TT}$ ；WJDY－1470 $\mathrm{W} / \mathrm{TT}$ ；WGOE－1590 $\mathrm{w} / \mathrm{mx}$ ；WCCR－1580（65）
KAMA－1060 w／TT（Elk）WHMS－1190 w／TT \＆phoenetic calls e／min．（JS）

## changes

AM APPLICATIONS
1170 Port Gibson，MS seeks 250 D
1170 San Jose，CA seeks 5000050000 （Application for existing facility） 1390 Redisville，GA seeks 500 D
1470 Stanton，KY GRANTTED 500 D
740 Martinsburg，WV GRANTED 250 D
1470 KAZM Sedona，AZ gtart authorized STEREO 97 FM／HADIO 74 AM

## LICENSE DELETEM：

KAVE Carlsbad，NM 1240，license forfieted，calls deleted，renewal not
CALL LETTERS：
1140 －CP－MCComb，MS granted WAKK
lO60－CP－Tallapoosa，ga granted YTLG
1240 KCYN Williams，AZ granted KNYN
g40 KATQ Texarkana，TX granted KADO

## 40 KATQ Texaricana TX granted KADO

NEW YORK 12070

## Facility changes ：

600 WCVP NC seeks to remove SHORT WAVE antenna（？）from existing ant． 640 WHLO OH seeks to change to unlimited hours， 500 watts
920 WOKY WI granted move XR／ANT／STUDIO to 12100 W ．Howard Avenue
950 KLER ID aeeks increase day power to 5000
1080 WVCG FL granted nite power boost to 10000
1190 WAMB TN seeks increase power from 250 D to 360 D Foo
OTHERNESS：
710 WQBX VA address per v／1 is Box 2288 Christiansburg，VA 24073 （IS） 1270 WTNT FL announcing 24 hours，Log change（DEF）
1430 WLCB IKY（new Buffalo）now on RS w／C8w，ID as＇阴－1－4－3＂（Truax）
7：10 KIRO WA now also running KSL Nitecap Show，another HI Net in the making？Just what we need！（JS）

## sunset \＆evening

540 WGTO FL $11 / 25$ s／off 1730 ，specifies 250 watts during CR HRS，not loKW as in Log（DS）
WDAK GA 10／28 fair to poor $1805 \mathrm{w} / \mathrm{RR}$（HJH）Now has C\＆w $0000-0600$ WYLO WI 11／5 o／WDXN／KIFNT w／C8N 1725－1730 s／off（WM）
580 WKTY WI 11／10 $\mathrm{w} / \mathrm{spot}$ for lumber yard，live polka remote 1930，into
unthern Hour（ CB ）
KAREI AR 11／14 noted s／off 1815， $\log$ sez has night power（WM）
600 KROD TX 11／10 $\mathrm{m} /$ promo for＂world＇s smallest radio＂ 1938 and
local spots（LB）Call＂dm＂the world＇s smallest head（JS）

W1T IA $11 / 5$ at last heard $w /$ state election returns and CBS feeds 2241－2310 in ：VICC null，URH from VITAC，Canada（RLi）
WIOD FL $11 / 17$ in WIP null 2130－2210 w／Oral Roberts，NBC Nx（DEF） TISGN AL 11／13 w／local spots 2143 （LB）
WiNR W $11 / 14$ o／u NETE $2156 \mathrm{w} /$ local ads，format seemed RR（HJH） VSAU GA 11／3 w／NBC i：onitor and＂world＇s most beautiful mx＂ 1715 （WM）
FTPR TN 11／3 fair o／WOR w／local nx／wx 1733－1738（VM）
WQBX VA 11／7 fair w／RR and＂7－Q＂IDs 1700－1716（WD）
GARB LA $11 / 7$ o／mess $1745+w / r e l i g i o u s ~ s t u f f ~(H M) ~$
YOHS NC $11 / 10 \mathrm{w} / \mathrm{RR}, \mathrm{AM}$ FM ID $1710+$（WM）
WOD TX $11 / 6$ fair $\mathrm{p} /$ soul mx 1821－1827＋（19M）
$\because C A L$ N $11 / 3$ a surprise $w / 1745$ s／off after WEW $s / o f f$ ，no SSB（iNM） WSVS VA 11／14 good w／RR 1648 after 汭HR s／off（DS）Angst：（JS） WFUO NO 11／5 o／WHAS slop w／nx and PSAs 1756－1805＋（WM）Too bad the DX didn＇t do as well，if it existed at all（JS）
WDHG GA $11 / 10 \mathrm{w} / \mathrm{RR}$ ，promo $1733-1738$ o／KOAM（WN）
CBH NS $11 / 25$ w／stock report，local nx and CBC $N x$ in CJBC null 1650－1702 fadeout（DS）Fust！（JS）
WHCU NY 11／23 w／Cornell FB talk，then scores 1615－1620＋（GD）11／5 $u /$ WWL $w / n x$ and features 1740－1756＋（ivM）
VGCL NC $11 / 7$ killing；：TIL w／RR 1700－1712 s／off，then Lords Prayer by Bing Crosiby（WH）
WMOP FL 11／15 noted w／s／off 1729，then prayer，weak（DS）The signal or the prayer？（JS）
HEAS GA $11 / 15$ noted $1725 \mathrm{w} / \mathrm{C}$ ：ay on the＂Bumper to Bumper Club＂ show（DS）I never saw anybody bump to C8w（JS）
ESJK NE $11 / 5$ weak w／nx，national wx to $1845 \mathrm{~s} / \mathrm{off}$ ，FM promo，no $\mathrm{SSB}(\mathrm{WM})$ KFNF IA 11／10 w／detailed wx and Csw mx 1820－1823＋（WM）
IITN INC $11 / 14$ on top $1657 \mathrm{w} / \mathrm{NC}$ Nx Net（DS）
WIV MI 11／10 dominant w／MoR 1833－1836＋，this usually blocked by pest iTKAZ who was unileard（WiA）
KMA IA $11 / 3 \mathrm{w} / \mathrm{Hour}$ of Decision 2250－2300，then ID，local $\mathrm{nx}, \mathrm{wx}$（WM） WRAR VA $11 / 10$ weak s／off $1730 \mathrm{u} /$ WCFL，FM promo（JF）
HXIN MS $11 / 7 \mathrm{w} / \mathrm{inspirational}$ programs 1759 ，then $1800 \mathrm{~s} / \mathrm{off}$ ，SSB（IIJH）
VQTY AL 11／10 w／hoR and promo＂WFMI Stereo 99＂1725－1745 s／off（JF）
，KKYB SC $11 / 10 \mathrm{~s} /$ off $1712 \mathrm{w} / \mathrm{WKOD}$ ，no SSB（ F ）
CKBy NS $11 / 10$ tent．w／CBC sports 1719 ，quickly gone to $W K D E$（JF） WHOX MS 11／8 w／Ac Nx 1755，then annct of power drop（WM）
KPBC TX 11／15 good w／e－z mx 1822－1825，then nx（HM）
WADC ：iN $11 / 22$ in clear $1650 \mathrm{w} / \mathrm{e}-\mathrm{z}$ mx for call change（GG）ex－iWCEF（JS） WAUG GA 11／6 w／FR and concert promo 1720－1723＋calling themselves ＂the station w／all the concerts＂（WM）Clever wording（JS） CKSB MB 11．5 tent．w／FF u／CHUM／XEG 1810－1820＋（iVM）
WNCT NC $11 / 10 \mathrm{w} / \mathrm{C} 8 \mathrm{~d} 1655$ ，full ID 1700 ，then pattern change（JF） WBB GA 11／6 w／Ae Nx 1730，then six min of ads 1738－1744，s／off， promos＂The Big 11 Hundred＂and＂No． 1 in west GA＂（iVM）
WJML MI $11 / 12$ noted $1700 \mathrm{w} / \mathrm{Ai} \mathrm{Nx}$ ，net not in Lo
ESOO SD 11／6 way u／ITRVA 1800 w／AN－FM ID（VMM）
WTHP FL 11／20 s／off 1728 after soul mx（JS）
WRUN NY $11 / 10$ w／religous prorram and ID 2246 o／mess（Shaff）
VOA FL 11／11 on top w／Press Review／／shortwave o／u ：hHAM 2110 （Shaft）
CJMR ON 11／22 toping freq w／Canadian nx，wx 1630－1700 s／off w／full ID and mentions of CHYO（J， BB ）
WAVS FL $11 / 13$ on top 1700－1729，mostly nx／sports，no $10 \% O$（J．VB） $11 / 16 \mathrm{w} /$ contest promo 1720 ，then $\mathrm{e}-\mathrm{z} \operatorname{mx}$ in WOWO null（GG） YPUP MS $11 / 24$ in WOWO null $1730 \mathrm{w} / \mathrm{ez} \mathrm{mx}$ ，spots e／record（GG）11／23 w／sports 1745 ，clear to $1800 \mathrm{~s} /$ off（JWB） $11 / 24$ way o／WOWO w／MYPUP gives you the bird＂contest 1743－1801 s／off w／SSB（JS） NOS NY $11 / 15$ during severe aurora $2135 \mathrm{w} / \mathrm{ID}$ atop freq（Rjw）Who？（JS） TTYSR VA 11／25 w／nx to $1800 \mathrm{~s} /$ off，no SSB u／iDVA（RjLi He DXed！！（JS） CMR IN 11／9 alone w／AP Nx 1705－1715，then MoR（JF）
IVI FL 11／17 w／RR 1715－1730 s／off，no SSB，FM stereo 103 plug（DEF） HND FL $11 / 17 \mathrm{w} / \mathrm{RR}$ ，airline spot，ripoff promo $1733-1745 \mathrm{~s} / \mathrm{off}$ ，no

Whin IN 11/27 for tape, occasionally atop irite to $1730 \mathrm{~s} / \mathrm{off}$ (Rji:) inisc liv ll/15 o/rse w/?R, local nx/wx 1845-1000, in aurora ( $\mathrm{RF}^{2}$ ) TIKIN TN $11 / 3$ veak w/13i to 1715 s/off w/SSB (JP)
NYA TX $11 / 19$ endin' $n x 1835$ into $R 2$ oldies using "lu-K" IDs (G G) HTH VA $11 / 19$ w/local nx 1704 , then wx (DS )
NWL LA $11 / 12 w /$ female hish school reporter 2148, then $\operatorname{RR}$ (LB)
1343 TEKY KY 11/12 fair in uess 1737-1742 w/iul (.ili)
GNT NY $11 / 18$ w/inst mx 1858, ID 1859 , promo for CBS 1 (H (HAB)
1300 FidT IL $11 / 15 \mathrm{w} / \mathrm{CBS} \mathrm{Nx} 1300$ weak but clear, no idik in murora (HJH) Unid ?? $11 / 2$ hrd two stations o/u illarc/isil, one w/many C\&if solass, other with lod instrumentals and call soundin? like "ispec" $2353+$ (Shaft) jell, bost bets would be . dBA for cail and UIXK for NoR (JS)
1370 Wis TN $11 / 12 \mathrm{w} / \mathrm{wx}$, promo for iurkey Shoot $2225+$, then schmatz ux(I) WIF ME 11/6 fair and alone in . ISPD null $1915 \mathrm{w} /$ sports, ID 1030, then NBS Nx (JF) Used to be Nif rerular before iSiPD HSY ( J )

 Unid ?? $11 / 27$ w/UPI Nx 1702 u/WFid, lost carcier at nossible s/off 1715, loop sez WGOi or Wree (aji)
whie FL 11/18 w/local events, shorts $1710-1730 \mathrm{~s} /$ off (DLF)
TMAB NC $11 / 18$ weak w/end of $\mathrm{nx} / \mathrm{wx} 1705-1710$ and plug for ionday
 WFR VA $11 / 19$ w/CQ: $1703-1800$ thru niess, concert promo i contest ( $D_{L}$ :
 ATSE NC $11 / 23$ local spots, activities, $\mathrm{A} R$ and is Fet loss 101700 s/off w/vocal isB (ive)
YYNi Lil $11 / 23 \mathrm{w} / \mathrm{nx} / \mathrm{sports}$ / wx $1800-1615$, local ads, int plare to ONS FL $181 / 4 \mathrm{w} / \mathrm{oif}$, no NSB (inn )

$$
\text { ONS FL } 11 / 4 \text { w/NBC loso } 1731 \text { into local nx (ㅍ. }
$$ KCLO KN 11/18 w/reli pro:rams 1723-1730+ (im)


1440 Why $\mathrm{FL} \mathrm{11/10} \mathrm{w/RI} \mathrm{1740-1802} ,\mathrm{lotsa} \mathrm{sinots} ,\mathrm{uses} \mathrm{"4-Radio"} \mathrm{(DS)}$


 could iear theni here (Jis)







WHip iLL 11/1\% riurin"; arrora w/roli on alnost clear fren to 1745 s/orf, 10 sis (Zju)
1230 rivis $\mathrm{rL} 11 / 13$ on top $1720 \mathrm{w} / \mathrm{TH}$, jone 1739 ( 3,3 )
 Fre Vi $11 / 10$ rovine ins own (JS)


.



1541 : 1579 a 6 spurs as strong at 1520 si mals on 1579 , no Fint aoticod, andio best on lij9, also noted only 1705, rone by $1950(12 j)$ I dicia't innow $\because$ ou were Dxin in 1950, solisd like 19 kHz spurs from Fid feed ala marticle few years aso

1550 WRIC FL 11/11 w/SS 1702, weak but clear (HJH)
KUAT AZ 11/4 poor 1930 w/ s/off, TV promo, much KKJO/CBE (WM) in:00 AL 11/26 xlnt signal w/nx $1755,1759 \mathrm{~s} /$ off for tape (RjE*) WYNX GA 11/15 topping freak w/s/off 1729 (J:B)
WSAO AS 11/15 on top after WOKI off, also noted in mess (JWB) KTUI HO $11 / 21$ strons $w / W \mathrm{WXR}$ w/spots for St Clair 1724 (JF)
KDDA AR 11/21 weak $u / \%$ NR $1800 \mathrm{w} / \mathrm{MODNA}$ Dumas, $A R "$ and off (JF) TKYX WO $11 / 21$ on top of WOXR w/roz, local wx, s/off w/SSB, mentions IKYX WO
1570 IVCZN liI $11 / 19 \mathrm{~s} /$ off 1715 , mentions 250 watt PSA and IFM promo for Stereo 105, into FM programing, carrier cut 1717 right Stereo lo5, into Fr prog
HGLX OH $11 / 19 \mathrm{~s} / \mathrm{off} \mathrm{w} / \mathrm{SSB}$ a bit late at 1718 (JS)
MFLR NY 11/9 noted on late 1659-1717+ w/wx, IDs, etc, should be off 1645 (Shaft)
WrSX AL $11 / 15 \mathrm{w} /$ Rid $1733-1744$, really bad production (DS)

KHKC IA $11 / 4 \mathrm{w} /$ political ads, many Webster City mentions (iV:) KTER TX 11/13 w/Bible reading 1840-1845 s/off (m)
KESM MO 11/10 weak w/ s/off 1801, mention 500 watts and FM (DEF)
HCCR IL 11/10 wealc 1735 and faded, only heard C8d and ID (DIFF) KCUF AZ $11 / 9 \mathrm{w} /$ AMFFM simulcast, mentions INIX Stereo 102, fair

11/10 w/RR 2112, local ads and events (LB)
KLI
HETT MD 11/12 o/WAKR w/M Nx, 1829-1835, then local wx (MM)
ITT M $11 / 12$ o/WAKR w/M Nx, $1829-185$, then KCO ?? followed
 by SSB, fe:iale seport on phone $1710-1714 \mathrm{~s} / \mathrm{off}$, no SSB (JS) WNST WV $11 / 22$ w/stock report on phone $1710-1714$ s/off, no
WKDL $\mathrm{AS} 11 / 4 \mathrm{~s} /$ off 1759 mentions "the best in ABC Nx" (MM) WKDL AS $11 / 4$ s/off 1759 mentions "the best in ABC Nx" (hM)
CINR ON $11 / 12$ fair w/WAAM/NNSU o/inRL about $1500 \mathrm{w} / \mathrm{MoR}$, Nx on the CINR ON $11 / 12$ fair w/WAAM/WNEU o/iniRL about 1500 )
WKWF ITL $11 / 16$ o/CHNR, no FWRL $1805 \mathrm{w} / \mathrm{CBS} \mathrm{Nx}, 1806$ detailed wx, 1807 local wx, cable TV spot 1809 (WTB)
midnight to sunxige
540 KDLI UT 11/11 TEST: : W/ C\&W \& IDs 0233-0259+, 50 o/ S-9 (DAB) Couple IDs 0249-0300 off, mixed w/ R. Mundial (JAC) Very weak, only real copy was TT 0239,ID, then mx (WM) Fair 0230 w/ TT-IDsCe:V, lost to KSD 550 ET 0239 (LB) Not Hrd. (RJE) Ditto (HNB) Me too (SHAFT) FRUMP (ELKK)
WHIC 0 H $11 / 11$ Noted for lst time $0219 \mathrm{w} / \mathrm{RR}$ (SHAFT) WKZO NI 11, 25 o/ WhBS w/ CBS nx 0804-local nx to 0813, then wx to Big Band mx 0815 (HYB)
SNG CT $11 / 20 \mathrm{~S} / \mathrm{on}$ W/ SSB 0545, used to be 0535. Will check!! (RM) WITE TN 11/25 Noted s/off $0128 \mathrm{w} / \mathrm{SSB}$ (DS) $11 / 11$ noted s/off 0009 (SHAFT) KHOW CO 11/11 Fair 0240 of others w/ RR, PSA, Jx. (PLB)
$C F C R$ ON $11 / 18$ Noted strons in YCBM null $W / R R$, was classical last season on PRIS (DS)
WPTF NC $11 / 16$ iW/ C8W OO21, ID 0130 in WHAQ null (KO)
WHS NO 11/Il Poor $0232 \mathrm{w} / \mathrm{RR}$, ID, WOR off, but no KIRO (PLB)
YOR NY 11/18 Off past 0429 (DS) 11/18 0ff 0030-0453 (JS) Ditto(SHAFT) WLOR GA 11/4 TEST: Good 030U w/ IDs, Piann mx, etc. (LB) Poor thru CKAC WLOR GA w/ IDs $0306 \& 0308$, TT 0309 (TRS)
KTHil TX 11/18 S/on w/ ISSB 0458, into CBS nx--CHANGE (JS) KITO AZ $11 / 11$ TEST: Not hrd. (SHAFT) To much MOR (GG) Centative $0300 \mathrm{w} /$ WILIS FL $11 / 23 \mathrm{~W} / \mathrm{wx}$, temps.,0245, then

790 GRAN RI 11/23 In WTAR null w/ RR \& oldies, 0038-0050.en (Li) CILAB SA 11/5 W/ RR 0547.ID, nx, wx, etc. in CALMone u/w/SACRED HEART WHDH M $11 / 17 \mathrm{~W} /$ intermittent TT, ID OSTMis WJi (RM) (No-iVJi off or
 in MOR then, dunno
$0301-0305+$ (iNLK)

 jiruc test ( BL L )
hav iNC $11 / 13$ (BV)


FSN FL $11 / 15$ \%/TP \& $J X$, frerle sween record, anncd. as 52 watt FA O:D SC





 10, wive (ro)
(L3)

 HKN WX 11/3 WK, nra:o, 77\%, local sots, ete.- one pujnicly (IJ)




WHiv NY 11/1s, Noted AN $\because /$ / ic, lo; sez 00no off-any ole ios (JE)


HVE in 11/9 :x Onl2,wx, local ids, lost to Winy s/on (L3)
 TDAY Ni $11 / 24$ This w/ ax,wx, ol3l-0132--also 01 be30 w/ annct. as 24

 most 'fr made it, best cosy 0323, then 700 ' $0334-0336$ on the extcaica test (liji) Thru severe mox ondi, only fair at best \& that vass't often (ELK) Fair/excellent y/ Ins, TT, mx, most Qri: iy ino: \& Sior (LB) rostly u/ Wivi to 0337 s/off (Jic)
 able to contirm? also why so rouril if lown No (siliris) well, from rou'r lors I wouldn't cumt it!, also is rousin due to it's loçtion.. I'm still diчrine for it! - Hry
CIB.I NS 1l/24 OC 0404+, In nx o502, s: 0505\%, detailed wx 0.307, lost 0309 while in local wx (ITNB)

 Fald hat $11 / 10$ inis of $10 / 17$ (3v) (1)







ENA $11 / 10$ off this AM, a 3ri. hi: 30 ? (JS) 'inats 3 in row, $11 / 4-$ $11 / 11-811 / 10$ (IT/B)





$11: 50$ WJBO LA $11 / 7$.. x , promo for Bi-Centential in Baton rouge 0032, nx , in fight w/ :IL納 (IS)

 on Dr/PoP--:/ Tr', some C\&ir 0215-0345+ (DS)
WKOX Ma 11/7 iYay $u$ / WONO $w /$ RR is similar call 0642-0055 (PLi3)
KNK 0 R $11 / 13$ Almost a pest, on top all morn. but only peaked a bit
KEK OR of S-9 \& had couple fades u/ KLIF (Hiv3)

 WGVA NY $11 / 11$ Local nx, possible s/on 0525 before nx $052 \%$, writ s/on
0530 hamered $\Phi t-N Y$ ( 1114 (RM) Gee izon, only 6 more and you OS30 hammered it--NY \#lll4 (RM) Gee jion, on
can put brown sugar on your oatmeal! -ing
$11 / 18$ Atop most of ani-CSS nx-promos "An al
WIST NC $11 / 18$ Atop most of AM-CBS nx-promos "All Alternative" (DS)
WSNJ NJ $11 / 12$ ET $0028 \mathrm{w} / \mathrm{TT}$, off $0031-$ no IDs (DS)
WYOCO CT 11/11 Atop w/ segway album RR stuff, Only 2 "usic on CO" at 0020 \& 0040 , no break 0030 (inli)
WHNS GA 11/18 On ETI atop freq., ID 0131 for tape-last hrd 11/19/62(TrS)
WFOY FL $11 / 15$ Ending $f / \mathrm{c} w / \mathrm{TT}$ (800Hz.) 0024, thru looped WBBH (JS)
1250 CKJD ON 11/15 Bits u/ YTAE/CHNO 01:56w/ local nx, lost 0157 in spot(HTB) WZOX MI 11/25 on top 0620-0635+ w/ C\&N-local ADs, Tri-City wx, etc. (INB)
WREN KS 11/3 NX, KX, ID, soft RR O635, "On This Date" feature 0637 (LB)
WHV VA $11 / 10$ Local $n x$ 0230, AD, $0235^{\circ}$ "BIG D COUNPRY" Wx,o/WTAE/WTMA(FD)
WLEM PA 11/18 Way $u$ / $\quad$ WAE/etc. $w / n x$ \& local spots 0635. Back again
WLEM PA confuse this one w/ wXOX, similar format \& stuff... HVB
1260 WNDE IN $11 / 8$ AD 0646, Nx heads, 10 , \& RR oldies (LB)
HHBF IL $11 / 8$ Nx 0703, did Local, State, Natl. \& World, each seperated by $11 / 8$ Nx 0703, did Local, State, Nati, \& Norld, eac
a TC ) then $w x$, funeral notices, "HBF" jx , MOM (LB)

* WTNT FL $11 / 11$ O/ KFJZ $0350-0425 \mathrm{w} / \mathrm{MOR}$, CBS nx 0400 (DEF) $11 / 18 \mathrm{AN}$ on MNS now, formerly off MWs, NSP now?? (DS)Bye-Bye 1270--HVB
1280 KTLK CO 11/18 TEST: W/ Voice IDs,TT, QRM form another TT thru HET \& U/ WGSO 0403-seemed 750 Hz , nuttin' else (DS) Rough thru Ilet/mess w/ CILAM in Alt-az null \& still on top, Nost TT got in, bits of IDs $0425 \& 0429$ (HirB) Not hrd. to 0421
on $1 \mathrm{KN} N$, anncd. Tr as 800 Hz \& $75 \%$ mod., weak u/even to mess but readable (JS)
WFIG SC $11 / 7$ SSB 0458 $\frac{1}{2}$, then $\mathrm{s} /$ on AM-FM WMDM 101.3 , studio as 45 N . Main St.-Annct. by Pres. \& GM (FD)
1310 KDIA CA 11/3 OC-ID 0538 mentioned aux. xmtr. test (BV)
1310 KIA CA $11 / 18 \mathrm{EF} 0156-0200+$, on top 0238 , ID 0202 ( rm )
1340 WLAV iT $11 / 4$ ig/ R2,O400 ID, In a short while after KHUB DX (LB)
1340 HLAV II 11/4 M/RA,0400 ID, In a short while arter me 0330-0400 (LB)
KHUB NA 11/4 TEST: Fair to , Voice IDs, March max (DAB)
WNIC CT $11 / 7$ Surfaced w/ nx 010 seemed autonated-- ( HJH )
1550 HKLX VA $11 / 9$ R8B-iR2, ID 0200, others as "X-135", Nx at :15 \& : 45(FD) 1360 KRYS TX $11 / 11$ : $4 / \mathrm{Ai}$ nx 0100 , then local wx \& EL mx (WM)ex:RR?--HWB
1360 KRYS TX $11 / 11$ w/ Ai nx 0100 , then local wx
1380 WAOK GA $11 / 25$ Noted ANing, log change (JS)
1380 WhOK GA $11 / 25$ Noted ANing, lotr change (JS)
1400 WSGA GA $11 / 19 \mathrm{Nx}, \mathrm{Sx}, 0025-0030$, then RR (DEF)
1400 WSGA GA 11/19 Nx, Sx, 0025-0030, then RR DAF CrcB on $11 / 17 \mathrm{Nx}, \mathrm{Sx} 0035-0045$, many ments. of Barrie, Canadian Anthem at 0045 . Supposed to // CKHiB, but no calls hrd. (ELK)
1420 WVJS KY 11/12 C8AY 0649,ID,PSA, etc. (13)
WHK OH 11/25 ET-'H1-OC 0340-0410+ (JS) 11/25 Dack to RS 0501 (HMB)
CKPT ON 11/25 W/ nx 0400, Nx 9407, NSP now (JS) About 6 weeks-HWB
or is this WHSC even thou looped N/S. .HELP! (RM)
WNiAS MA 11/22 ET w/ C\&:Y till 0506 \&iriNAS concludes much KSO JRM (LB) Sunday SP (Dwr)

UNID ?? 10/28 On top 0528-0532 w/ OC-'MT, ID $0530 \& I^{\prime} m 100 \%$ sure he $10 / 28$ On top $0528-0532$ w/
said $\mathrm{W}-\mathrm{S}-\mathrm{A}-\mathrm{S}$, only thing listed is WSAC. Called, but CE not in...HELP (TRS)

MYZ GA 11／12 Lifelins 0625，ID，C\＆N，NX from Ga．News Net．，ID at 0635 as＂Atlanta Country＂（LB）
 HDAS．Did anyone ID the other TTer？？（NW）
KLi＇S NS II／4 On LT，ID 0425 ments． 4 tower DA，then $\mathrm{CC}-0 / \mathrm{u}$ KHIZ（BV） KPU日 CO 11／25 TEST：No show－FISM／KLTS／WRDF in battle（DS）No show（JS） OSH WI 11／l8 Faded up 0130 for＂Smallest Radio＂promo，ID，local WX， and into teletalk（HVB）

 ID 0135 \＆O205－phonetically $W-(L, M$ or $N)-?-(R$ or 0$)$ ．Night be WKLR－WKLO－WKAO．．DF of $250^{\circ}$ but skewed by WiNX（RJE）
1520 WKJR MI 11／4 ET w／RK 0255 noted w／TKBSY off（SHAFT）
 Mx \＆POLKAS ？？ 0310 （Lß）O3O1－0346 off－fair／good w／POLKAS－IDs $\hat{*} O C$（ $\mathrm{D} A B$ ）Not hrd．due PPCR （ $\mathrm{Rj} \mathrm{\Omega}$ ）Not Hrd。（TRS）
1550 KגXI Co 11／18 TEST：On early，started before 0432，long IDs \＆yak about DX，etc．Said would be on about 1 Hr. －CDS on OC 0444 （JS）Got there O501 \＆about equal to CB2，on top $0502 \mathrm{till} 0506 \mathrm{w} / \mathrm{C}$ 路 lotsa long Iis，etc．－3y 0.309 way $u / \operatorname{CBE}$（HMB）Got end of test 0456－0500 w／long IDs \＆＂lotw Gospel Voice＂meations（DEP）IDs C\＆：relig．mx，nixed w／\＃OKJ／CiSE（LB）
： FCSJ IL 11／11 TEST：Thru TT－OC of TYNA，IDS 0306－09－15，some TT（TLS） if／Instr．mx，IDs，0300－0330（DA3）Axcellent w／IDs－TM－promos－ mx，etc．（LB）Fair 0307－0329 thru UNID Eler（DES）Not hrd．due to unid ETer（RiE）ias iYNA on ET that save trouble－INB（LB）




Ville Oil 11／18 ET w／Jx－OC－r＂T－nromos－lons IDs 010．3－013i）＋（JS）13／25 ET w／non stop IDs 0254－C330＋（DS）Ya＇oripe when they ID，and if they ID to much！！－－EGAD！－ILY3．．．11／18 ET－TT 0121－C123（iLK）ET 11／18 0122－0135＋w／lotsa IDs（H7RB）11／25 NY－OC－TT 0330－0410＋ （JS） $11 / 3 \mathrm{ZT}$ W／IDs \＆PSAS，DA must be at me（Silafi）Sorry，but you be off to the side，goes SOUTII－HMB．．11／25 ET－0330 Jx ID then only $O C$（ $G G$ ）
WKOT NY $11 / 18$ ET w／non stop RR 0115－0145＋，IDs 0129－0134（DS）
WPHC FL 11／18 Mini－ET C341－0343，back 0345 w／TT－ID as Coral Gables／ Miami（DS）
1560 WBOL TN $21 / 17 \mathrm{ET}$ W／mux 0141－0154，much KKAA QUM（ELLE）
KKAA SD 11／16 Finally 0447，very fadey w／C\＆H（BV）11／4 Fadey \＆weak 0123－0132 w／C8ay（DAB）
1570 CKTA AB 11／4 In RS／／CHDC 1090 © $0230-0300 \mathrm{~s} / \mathrm{fff-no}$ GSQ．（DAB）Just what is the reason for this station．Taber close enuf to CHIEC and CKPA extra coverage can＇t help that much？？？－－HVB
WKIG GA $11 / 18$ As usual，loud，on f／c w／DIXILLAND（JS）
WCCR IL 11／26 ET TT OC， 0148 ending same－not the $f / c$（JS）
KDAY CA $11 / 10$ Tentative w／RR o／u WCLS $0304 w / R R$（SHAFT）Not hrd．in here yet this season，betcha＇was KLOU－HIVB
1300 WEZA NJ 11／15 THST：Not hrd．，0003－0030 had TT，\＆breaks for possible IDs－none hrd．Called C工 \＆sez was they．Gave ID 0028 \＆in a Wkei hole hrd．call only．（RN）No IDs hrd．in breaks of TT 0003 on（TRS）
KGVB KS $11 / 15$ Net nx 0000 ，s／off 0015 （KO）
UNID ？？11／15 Noted Sinatra tunes in sked WLRA DX 0015－0031，this WERA or WEMT？？（KO）Betcha＇was WETP－－HNB HGOE VA $11 / 22 \mathrm{ET}$ W／fenale anncr． 0415 o／WSIZ，on top by 0425. （JS） 1000 WNST ：N 11／25 On top 0714－0735＋w／C\＆N－lotsa local spots（HVB）

Gents \＆ladies，that concludes still another DDXD．I appreciate the great support．Should you notice some contributions have been edited／dropped it＇s due to the size－these 7 pasers are a bit much．Comments by editors are now at an all time low，kinda hard to feel silly looning at the project we have srown to call DDXD．Remember：N．R．C．cunes FUST！！

Before the list of this issues strange people some CnTC info：：Finally got notice they approved 710 Clarencille，NFLD．w／ 10 Kw and 670 Musgravetown NFLD w／lokw－same pwrs．day \＆nite．Interesting as the 710 was hrd．ETing a few weeks back using CKZO call．Also Sussex，NB granted 500 wt．days－250 watts nite－DA－1（U3）on 590．．．All are to be English language．
Reporterz（\＆others）：（Excluding those I forget to list！！）
JWB Joe Brauner Punxsutawney，Pa SX99 \＆LWV，A2515 \＆c SM2

LB Lou Buehler St．Charles，Mo SX100 \＆loop
DAB Darryl Belanger Swan River，MB TR 109 R59 \＆SM2
PLB
JAC
DEF
JF
GG

Others：
DS Davie Schmudt Nou Kastle，DE HQ180 \＆antenna
ELK Waldo Lydecker PARMA，OH HQ112 \＆antenna dAN mYERS Toledo，0H receiver \＆loop


P．O．BOX 340 CAMPBELLTON．N．B． DEADLINES FOR TIIE NEST 15 or so issues will be：：（ $*$ or -2 weeks） $\begin{array}{lll}12 / 10 & 1 / 21 & 5 / 4 \\ \text { BREAK } & 1 / 28 & 3 / 11\end{array}$ ．．．BREAK indicates the break here for HQ break BREAK $\quad 1 / 28 \quad 3 / 11$ the following week for a holiday． 12／23＊BREAK $3 / 18 \ldots . .1 * 11$ indicates a deadline very near holidays 12／31＊2／11 4／1＂．．．and typical mail poul ups If possible ship $1 / 7 \quad 2 / 18 \quad 4 / 15$ info a day or so early for these issues．
$1 / 14$ 2／25 $5 / 6$ info a day or so early for these issues． WDLR 1550


## The

not necesserily reflect those of the editors, the publishers, or the National Radio Clut
DON 'T FORGE TO MAKE NOTE OF THE NEW ADDRESS FOR MUSINGS, BEGINNING WITH THE ISSUE TO BE DATED JANUARY 6, 1975, WITH BROOKIYN DEADLTNE, THURSIAY, DECEMBER 12. AFTER THAT, AND FOR THE REST OF THE SEASON - AND THEN SOME - THIS IS THE ADDRESS TO BE USED: ERNEST R. COOPER

7-A WASHINGTCN AVENUE
PROVINCETOWN, MASSACHUSETTS - 02657.
PLEASE DO NOT USE "MUSINGS EDITOR" OR "NATICNAL RADIO CLUB" OR ANYTHING IN THAT VETN AS I AM NOT KNOWN IN THE AREA AND SO MUST BE ADDRESSED AS ABONE. FIRST PROVINCETOWN DEADLINE WILL BE THURSDAY, DECEMBER 26 - DAY AFTER CHRISTMAS.

HANK WIIKINSON Jr. - 384 Rockgreen Piace - Santa Rosa, California - 95405
CX in the Asian-Pacific area improved in the past eight days starting on 11/3. I finally logged HLDA-1570, Cheju City, South Koren, on $11 / 4$. They have abbreviated broadcasting hours with their religious programming. They have a very hea lthy signal when they are on the air. Also, I finally caught The voice of Free Asia-1580, Thailand, after many fruitmess tries in the past two months. They put in a good signal here on worning of 11/11. And finally, I caught my first Aussie at this location on morning of $11 / 11$ - I didn't expect: to hear $2 N R-700$ so strong \& loud. Reports out to all three. I am experimenting with reports to F.E.S. U.S.S.R. stations. I'm sending them direct to stations instead of R. Moscow. This is how I verified Vuzhno-Sakhalinsk-973 years ago. I will advise on how well I make out with this procedure. The NRC bulletins are sure healthy looking of late. A lot of guys are contributing but the real work is being done by those guys who put it into the bulletins for us MeMBers. 1 you fallows persomally but MaNY MaNY THANKs mo FACH AND answer all mail from DXers in the $W$ who are interested in Asian-Facific DXing.

ALBERT S. LOBEL - 247 North First Street - Apt. 27 - E1 Cajon, California - 92021 This must be some sort of a record for me. In the past few months betwe mast have written at least ten reports. That's pret, ty good! Considering I have my own column in IRCA to do: X here has been great. I just logged wy 15th country this past Let me be asSR-o47. I hope the DX season is treating all of you just as well. Let me be among the first, if not THE first, to wish everyone a Merry Christmas and or a Happy Hannukkah and a Prosperous New Year. I might be a little early, but 1975 is almost upon us \& will be here before we know it. 73 s and a11: San Diego Fadres - World Series Champs in '76:')

JEFF FALCONER - Box 63-clinton, Ontario - NOM 110
Hi. CX have picked up considerably through October. DX so far this season has been mostly Auroral $\mathrm{w} / \mathrm{no}$ Tas making it this far as yet. Some recent DX: $1 \mathrm{p} / 21$, an Auroral evening. $6: 36 \mathrm{pm}$, I found WJJT-1540 on top w/severa1 IDs. 6:58, WAGL-1560 in clear w/s/off. 7:05, WAAY-1550 u/CBE w/concert an ID from WSGW-1540 possibiy on today program w/KOMA, no WKBW at all. 7:27, ment, then SSB. $7 ? 39$, WPNX-1460 noted fair $\mathrm{w} / \mathrm{WWV}$ nuli $10 / 17-$ The new HJ on 1170 clear w/Chicaro-Grealled partially. 9:04, I wes surprised to fynd WNDB-1150 in clear w/Chicago-Green lay FB. I found them on top again the next night, $10 / 22$, even stronger. $10 / 22,: 25 \mathrm{pm}$, WFAR-1470 in mess $\mathrm{w} / \mathrm{rr} 6: 59 \mathrm{pm}$. Long sought-after $\mathrm{WYFC}-1520 \mathrm{w} / \mathrm{s} /$ off a long w/WKBW. 10/23-@12:05am, WGBF-1280 in CHAM null w/WX. 10/c4-FF on 1270 @ 10: 22pm, must have been CFGT. 11/3-R. Globo w/blockbuster signal w/many SIDs \& EL mx, 2:15-2:30am, for Brazil \#1. WHAM on regular SP of course. $5: 15 \mathrm{pm}$, WKIN-1320 s/off way down in mud. $5: 25$, cJLM- $1350 \mathrm{u} / \mathrm{CKLB} \mathrm{w} / \mathrm{MOR}$ 11/6- A real surprise - while sitting on 1370 listening to a station giving FB scores for New England states, hoping for WDEA-1370 Me., @ 7:30pm, I got a perfect
(Fa, 1coner] for Mont. 41. 21/9-4:35pm, WFOB-1430 in w/rr, no sign of usual 1 ID from Knhe excellent signal - I should have heard 'em long before this. 5:10 XKrr or wha, that 's about it WCNR-1270 only for DX. A few recent veries: V/q- WGBF WNDB KMPL. v/f= CHAM. C late
ROGER GIANNTNI - 1111 Forest Hills Drive - Belleville, Illinois - 62221 I shouldn't have exaggerated too nach about my new loop experiment being better than the $\mathrm{SM}-2$ but $I$ would say it's pretty effective. I fas able to become acquainted with a colonel at scott AFB who waa kin enough to lend me an R.390A. I mengioned the beverage antenna to him in regards to the possi bility of finding someone in Hawail to experiment with it on a decerted beach \& he told me that this was possible \& I fncluded the Jerry Conrad Florida Beverage heiche along with White's Radio Log \& will be most interested to see wat cones of it. Doing some 11/9 afternoon DXing \& finding what the score of the Onio of state/Nich. ing out dal lar last of that exciting game. I had spent five years in Waco \&
 was most enjoyadle 18 , them 18 years to do it. (W) long gare entire season has SM-2 if I didn thave ky GN Loop therd high band been nearly all Aurora except for the secon tin IA opening on 11/11 NW W/WDN end had TIBAS o/WSM-650 9:05. HJCX-700 without WLW 9:10. HJHN-960 strong 9:20. Veries in from KGA \& KOOL for $10 / 14$ reception brings my VAS to 37. an the 10 ca 1 cene, KXOK and KATZ were noted on $10 / 14$ NSP \& with this bit of sed news I will be adios. 73.

21217
MARRY J. HAYBS - 1418 West Mount Royal Avenue - Apt. 2 - Baltimore, Maryland A few nice thinga have been sliding down my antenna the past week. Unfortunately I haven't had. that much time to $D X$. 11/7-1:20am, WhJR1440 W . Va. in fair. $5: 31 \mathrm{pm}$, WCPC-940 Miss. in good to excellent. 5:34, WVOV1000 A1a. In well w/rr \& SID. 5:35, tentative, WRFC- 960 Ca . 5:40, WERC-960 Bir in 54. They call themselves at times "ERC." 5:59, WKIN-1000 Miss. in t armehair level w/inspirational programs, then $s$ /off - no WCFL this evening. at armehair level w/inspirational programs, Weak-1440 Greenville S.C. in w/rr \& So far it's my best catch on 100 . full ID C 12:30am. 1:03, WOLF-1490 Syracuse in at a rair $1: 23$, tentative, WFLB-
 up to 239 heard \& two verified. 73 s.

GARY ATKINS - 2200 West Burnett Avenue - Louisvi11e, Kentucky - 40210
New catches since last Musing: 10/21-WORV-1580 r/c w/organ ma e 3:15. $10 / 22-\mathrm{WHYD}-12707: 15 \mathrm{pm}$, KNBY-1280 7:30pm. 10/25-WAVS-1190 s/off 7pm, WHMT-1190 s/off 7:15. 10/27- XEFW-810 8:25pm, HJAQ-1000 8:40pm, presumed to be the one w/many RCN IDs. $10 / 29-W P T D-12806: 05 \mathrm{pm}$, WZOB-1250 s/off $6: 15$, KVSA -
 $12206: 28 \mathrm{~s} / \mathrm{off}$, whup-1190 6:30 s/off, Whin 62 new ones in '74 so far I feél my on 11/11. Log totel now at 1,2 of reaching 1,300 heard this season are good. The local 1 Froup is still chances of reaching 1,300 heard this season are good. The local 1 . Itm so ophoping to erect a beverage (or scrounging the wood for the stakes. A point to tomistic I've already started scrounging the wood for the stakes. A point to
ponder: If the Foston grea DKers are BAD, would that make us fouisville from DXers mere Lads? 73.
PKITE KEMP - 13-3 Fleetwood Avenue - Bethel, Connecticut - 06801
DXing has picked up quite a bit since the local power company fixed come of the dables \& transformers in the area. It's still not acceptable, but While listening to CHOK-1070 @ 6:30pm on 11/2 I almost went crqzy. It seems that during this half-hour time block they program a show produced by a local college's speech \& tneater department. The problem is they constantly refer to themselve as CJLC. Those call letters bring attention to Iambton College. IDs on the hour rectify everything. QSLs received this week from WFLI, CJRP, WEND \& WHOL (with (ath Maybe we for parence I hope to make it down to New
 this 73.

ALAN TKARECIA - 201 Est 17 Street - New York, New York - 10003 212-013-3645 Getting back to wirk has really curtailed uy DKing but I still have manared a few. 11/4- WH4W-980, o/a $11 \mathrm{w} / \mathrm{c} / \mathrm{w}$ after $\operatorname{Gam} \mathrm{s} / \mathrm{Con}$, CJFP-1400 w/FF rre 5:24pm. 11/5-WKLP-1390 s/on, NX, c/w © Gam. 11/7-YVKE-550 © S-9 © 2:25 w/SS-rr \& many IDE as R. Mundial. 11/8- WEBB-1360 o/WDRC w/Soul-rr © 6:15am. 11/12 saw a rea $11 \%$ unusual event here - WRAI-1520 o/wKBl for a spell e 12:15am w/ EE-rr \& IDS as "The new WRAI." After seeing this, I thought I'd try other PRs. And sure enough, WBMJ was logged w/SS ta $1 \mathrm{k} \& E E \& S S$ rr w/many IDs $u /$ WONO at 12:34am. WDSL-1520 © 5:03pm w/NX, ad for lumber co., selling mart \& job opportunities into s/off e 5:15, again, no trace WKDN. S/off of WSLT-1520 © 5:28, regular s/off proceedures, w/lcation "On U.S. Hwy. 80 in coean City N.J.", then SSB. Recent veries: v/c- WFVO WOHO WNRI WLOR. (not v/q? -ERC) v/1- finally, KAGN - CE says KAGN was struck by two tormadoes since my report so this was the reason for the delay. Other $v / 1$ from WWO WMID WTUU WORC WIAN (my 1lth try) WHAW reason for the delay. Other $v / 1$ from WWOK WMID WIU WORC WLAN (my lith try) WHAW
$\&$ WNNA. Not a trace of any of the sked TESTs on M $11 / 11-I$ dia note, however, Switzerland on 1562 © 1:05am 11/9 w/cormentary, then GG-style mx, a nice sigma 1too mad it's unn here. Back to 11/11, a11 unn: ET from WTTI-1530 © $2: 10-2: 15 \mathrm{w} /$ rr. KFI- 640 knocking the heck out of Cuba w/relizious programing from $3-3: 30 \mathrm{w} /$ a pause e 3:15 for ID. I also noted a "het on 1440-guess it was Luxemboure, but no audio possible -drat, I still need him. Speakine of 'hets" Rich Shaftan's het on 683 is here too- 24 hours a day. I believe it's a spur from WOR- no audio at all here from Spain, \& ry first logging of FNE here was about this time last year \& no het then either - just poor audio - I get the WOR spur on 680 to about 740 - nice, huh? Also a ba from about $6-1 \mathrm{lpm}$. Rick, don't log 'er. unless you're sure, no offense intended. I had a nice phone chat $\mathrm{w} / \mathrm{BRC}$ last week, \& thanks to John Anderson for his note on the SM-2 (I still haven't gotten it - three weeks waiting - thanks, postal service!) \& thanks to Chris Lucas for verie from PUT. MUSE - that's what it's all about: Good DX to all.

CHARLES RAT - 34 Carrison Avenue - Lcamington, Ontario - N8 2 2P2 CX, nothing spectscular to report but here is whet's been what with the cruddy CX, nothing spectscular to report but here is what's been heard since the end of
 10/7- CMTX-860 Cube lam s/off//-1030. 10/8-WCSJ-1550 II1. ending ET \& 1:45am. 10/14-KIUF-1420 Tex. s/off $1: 11 a m$ n/2001 theme W/WFK off; CMMR-1190 ont. a real surprise W/HX e 1:15pm w/wowo looped; HJCR-590 8ID5pm \& HJGJ-1010 8:12pm both //960. $10 / 20-\mathrm{WSCP}-1070 \mathrm{~N} . \mathrm{Y} .6: 31 \mathrm{~s} / \mathrm{on} \mathrm{w} / \mathrm{PSA}$; KHEM-1430 Ark. f/c-TT cEding $6: 55$ am; WVOG-600 Ia. 7:Olam s/on w/PSA, has all religious programs per announcer.
 a lso on Ts; no sign of KGHO-15\%O on either date w/Geomag storms on both dates. 10/24-WKAX-1500 Ala. f/c-TT 1:45am o/u WDEE. 10/27-WKJK-900 N.C. s/on 6:05am. 11/3-WPWC-1530 Va. ex-WQVA s/on 6:15am about z hour too early; wOKE-1340 S.C. 5 amm $\mathrm{s} / \mathrm{on}$; CHNP-1600 Ont. ex-CFRS-1560 11:40pm, had s/off © 1:05am. 11/4- CMAX-1260 R.N. 1:20m w/wIXY off; WTCR-730 Ca. TIST E 3am, the other one testing $\mathrm{w} / \mathrm{TT} \& 0 \mathrm{C}$ was CHIA Cont. testing new 500w rig; KHUB-1340 TEST Neb. heard atop the frequency about $50 \%$ of the time $w$, voice IDs better than the code; Wan-1340 P.Q. 4:17am //-

 an; WMW-1150 TEST not heard either date; KDLT-540 Utah TEST in e $2: 31 \mathrm{o} / \mathrm{MHNL}$;
 WYNA ET; KDAS-1290 Ark. EI/rx o/WHIO © 3:54am. That about does it. Till next
time, best DX \& 73 . time, best $\mathrm{DX} \& 73$.

JIM HaGAN - 89. Purt Malaber Boulevara - Palm Bay, Florida - 32905
My 1-A loop has been completed for quite some time now. I am really amazed at its ability to null local signals. I haven't been able to evaluate it fully for nulling of skevave simals on MM due to continuing rather NHL. I hope to nill HJJX for a shot at KOAL-650, but so far too ncisy. SPS-725 is provine to be a cood regular most nights, with very strong signal. Results of CPC TESTS continue to be dusappointing, with only WIOR-730 beinc heard. It was quite strons, A completely covered R. Helodia on same channel. MOP-900 was heard also CX have really worsened since the late 50 when I copeid the KDDD TEST easily while in the Bhams. The recent KDDD TEST was a complete washout. 411 these ily lowted \& verified while toiay even the bil anes like KFI \& KNX are rough. I
(Hagan)
got a nice card' back for an EE report to R. Hurope \#1-180k in a little over a year. It was accompanied by nice tri-lingual folder giving all details. Not signed, however. MM 11/4-3:4lam, WMID-1340 atop channel quite a bit of the time, as is WGBB-1240 many MMG - not bad for graveyard operations. So far, 100 p has tailed to snatch KKAA-1560 from under super-pest Cuban Minute Man. I had a nice afternoon visit w/RjE in August while on vacation. I had hoped to visit some others, but time just did not permit. Shortly after returning home I had a visit with Dick Clark. It was interesting comparing noted with the only other Florida DXer I have ever met, especially our KW logs. I hope to catch him aspin in Miami in a few weeks. Incidentally, that darn loop takes up my whole shack!

CARL W. DABESSTETN - 3300 North 56th Street - Lincoln, Nebraska - 68507
CX have been more than adequate lately. The ET from WMOP900 ocala Fla. was heard very well on 10/20. The CE told me he was leaving the station on $10 / 30$ so I made a plea that he get out all the veries for this TRST before he left. I think he did. Also heard $10 / 20$ was WJSO \& KYFP (ex-KPPS), both 1590, © 7. Only new one of MM 10/21 was WTHP-1490 Miss. © 3:30. on 10/22 I logged the new KIEM-1530 waggoner, Okla before local KECK s/on © 8. 10/23 brought KODE-1230 Joplin W/CTBS NX \& s/Off © 1:05. KMON-560 was heard. ETing w/TT (C4 4:30 on 10/20. The s/off of KFEL-970 Pueblo we heard on 10/29 © 7:15pm. 10/30 brought the s/on of WEIS-990 Centre, Ala. © 6:45. MM 11/4 brought severa 1 goodies. S/off of KRDO-1240 unn © 1:59. R/C of unn KGHL-790 heard @ 2:49. DX TEST's from KiUB \& WLOR both heard quite well. KCMC-740 Texarkana w/c/w e 4:15. /s/on from CoNM-740 Maryville, Nfld. heard good e 4:30 folo w/Marine WX. Log taken on KEET-710 w/rr © 4:50. 11/5 brought s/ons from WKuN-1580 Manroe, Ca. © 6:59 \& WAXU/WSKT/WCIJ all 1580, © 7:15. on 11/8 unn WJLJ-1060 s/on © 7 \& finalIy picked out KBUG-1060 w/NK @ 8. MM 11/11 was very good as the TESTs from KDIT, WTKM, KMEO, WCSJ, all heard very well though KMEO unn here. While checking the frequency just prior to the KDIT TEST I found HCFA2 coming in fairly good so a log was taken. I hope CX continue to improve. Good DX to all \& support the efforts of the CPC with reports or thank-yous to all stations testing.

ERNEST J. WESOLOWSKI - 1416 Pasadena Avenue - Omaha, Nebraska - 68107 Domestic DX getting much better now. 11/2-KZEE-1220 Tex. s/orf © 6:30pm w/sSB. 11/3-WEOL-930 RS © 6 am SM w/wKY on 10w power. That evening, I caught WPRC-1370 Lincoln, I11. on $1 \frac{1}{2}$ hours past s/off as annoumcer form got to shut down AM XR. They finally went off e $7: 03 \mathrm{pm}$. $11 / 4-\mathrm{r} / \mathrm{c}$ from KDXU \& KVSL- 1450 per list. . Also the WLOR-730-TEST in the best during the last $15 \mathrm{mfn}-$ utes. 11/5-KDDR-1220 Cakes, N.D. s/off © 6. Remember their TEST in 1967 as KEYD? $11 / 7-K V W M=970$ Show Low, Ariz. s/off © $7: 15$ - Good sigmal for 20 minutes. 11/9- KRKK-1360 ex-KVRS w/r/c 2:10-2:20, second Wed. 11/10-KVSA-1220 McGehee, Ark. s/off-SSSB @ 6:01. 11/11- KDIT-540-TEST heard 100 , WTKM-1540 TEST heard $98 \% \mathrm{w} / \mathrm{KXEL} O C$ at times. KMEO-740-TEST $100 \%$ readable $\mathrm{w} / \mathrm{unk}$ tester $\mathrm{N} / \mathrm{s}$ from omaha. Thanks to Skip Dabelstein, KOYY-1360 El Dorado, Kansas heard on $11 / 12 \mathrm{~s} / \mathrm{on}$ (e 7 \& into NX. I will leave Thanksgiving morning on an 11-day trip to N.M. \& Texas incluaing Juarez, Mexico. I will get Mexican Air Mail stamps, so if you need some send SASE. $10 \phi$ each. Send U.s. postage - Himit - five per $\mathrm{DX}_{\mathrm{e}}$, pleman. mia
 WKID WJZM KXIW KPBC WTAW \& KIKZ.

RICHARD ECKMAN - 1611 East Mount Pleasant Avenue - Fhiladelphia, Penra. 19150 Greetings. I!m a new member so here's a quick into. I! $16 \&$ a high school junior. I've been a member of the IRCA for about a year \& have been DXing on MW since 1973. I got into the hobby after reading articles about it in PTIL. I've been DXing SW for o/four years now. 4 RX is a Grundig catel1it 210. Antennas are Sanserino Loop \& an SM-1. Ny main interest is TA DXing. I really find it to be a challenge. MM 11/11 a real washout from the TA standpoint w/not one heara. 11/12- somewhat better. WDR finally was back to its old self $\mathrm{w} / \mathrm{good}$ signal around $3: 45 \mathrm{am}$. Nice \& Monaco also in around 4 am . Monaco w/onlys an OC at that time. (At 10 a.m. there? -ERC) I disagree w/Rich Shaftan's opinion that Morocco-818 is only 25kw - must be much more. It was heard w/best signal ever on $11 / 10 \mathrm{SSS}$, much better than Agadir's 100 Kw signal at the same time, which was just barely splittable from domestics. I'm in the process of purchasing a new RX - more on that later. $73 \mathrm{~s} \& \mathrm{good} \mathrm{DX}$. (Welcome to the NRC, Richard - we hope you will Muse often \& have much good DX.

38
 Itin is my flrut Maing o I really $\qquad$ Hacona in - 53511 dicn't hor vhat to hay. I an the fornar hant. Brectior of the Handicapped ald program. Itm 40 years old, IIve alone, \& totally disabled/handicapped. I had to resign from HAP for health reasons. I try to live on a amill Veterans Disability Peasion each month which fis rough these days. As for min Dxing accomplishments, I'm afraid I have nothing "super" to report. I am predowinantiy an SWBC DXer, but juat recently took up serious BCB DXing for a diverilion inantiy an ShsConer, but just recently took up serious BCB DXing for a divernion in 1971 but it was not serious. Now, since Sept. 74 I have $108 g e d$ axing 107 wh
 on 725, atc. I am ashamed to list my "poor" saore of what stations I have haard when I see others with $1,900-$ plus staticoss, $h 1$. However, time will tell. I am
 I use a howe-brew Joystick \& $75^{\circ}$ IW pius a Joymatch (full coverage) ATU \&ions with my Galexy R-530 RX. I have wished for an SH-2 but am not able to afford one with my small Disability Pensioc. I had written in to DX-Change for a "waNTED" for an SM, but bo far it has not been printed. I pray that Santa claus may be able to help me obtain an Sh-2 so that I may be able to receive more stations \& be able to "huli" out these pests that-are so abundant on omidirectional antemnas. liere I wish to thank those at NRC HQ for their kindpess in helping me, plus Tum Swh strce \& Karl Forth for their welcome aid in inquiries I have made of them. For SV I have 122 countries \& 248 SwBC stations. I rather doubt such good country reception on BCB up in this neck of the woods. Best regards to all. 73 . (Weicome to the NRC, BHIL Wh hope Santa fills your stocking with that SM-2! -ERC)
MWin KREINEERG - 517 Latshmere Drive - Harrisburg, Pennaylvania - 17109 Top of the DX Season to all! I hope your DXing is as good ell mine. I'm so glad we're weekiy so that DX NEWS : Will come that much faster. have been excellent here. So on to the DX : 9/29- 6:53-7:11pm - WANN-1190 Md. manty good signal, ©SB IT, WKSL pff $=7: 11$. 7:11-7:30pm= WOW0-1190 Ind. came on when KANN 8 /off, 27 , bad signal. 10/21-7:53-8pm, KMOX-1120 Mow , sigrel good, much ㄷN, CEX NX \& 10cal NX. 10/23-7:0907:25pm - WNEN-1130 N.Yo good-signal, MoR. 7:27-7:46pm, WRVA-1140 Va, signal good, some mx, Joe Gamariola
 WX, wix, \& promod. 10/24-9:25-9:47pm, WIOP-1500 Washingto 10-10:16, WIIC-1080 Conne stgeal faif to good, WX, WX, wro , sipnal WCFI-1000 Cuicago had WX \& rr. 11:45-midnicht, WWSH-97O Be had MOR O/uTD Cus adian ataticn, CBS NX. 12:03-12:20am, CEN-940 que. had NX, WX, SX (32 -ERC) then攸, Bome SSB noted, also "70. Note to Ray Arruda who wanted to know if aluminum siding had any effect on receptico- yepl it blocks off signal quite a bit. Wel. I gotts go now, 73 \& best $D X$ to all.

Weicone from a DXer in NW Tllinois. Ner stations: WOKI-1550 Tem. 10/3 w/s/ors in mess © $5: 45$, \& CNIM-1570 que. w/ID, NX in FF © 6 in very goode Minar listening on 11/9, cKNN-710 Que. © midanght w/ID in FF, NX w/WCR good. WAAX-570 Ala. W/c/w \& ID, 12:40-1. WIBN-580 Kanso w/CBS NX © 1. Fumy thin heard in network NX - a apecial report from KGcM Albuquerque I thought it wa KRKS - was repeated - KMcM. Maybe they ought to notify CES of the call chman Total now is 557, Canada 42. Mor bad mostly due to "pover "anesa" to H op change. ment. IX NRSS ${ }^{4}$ was one day too late - I miased $11 / 6$ WIGH TEST. Nert one to look fow in three days is WERA-1590 N.J. Say, howdoys get rid of wann for coe hour, huh? A cone hour SP - don! think I'II hear It, but I 'II tiys. Ny future

 I guenil it is about time for a ecentribution to this colmis sinoel









是 ging' After a lang pertod of isolarion I've fimilly









 doubt there vere nore, but ins inc, best of Inek in your nek hoos is vith pending retirnens! 73 .

 $-2+10$, both Su SSS rycepricn,


 FMer. Wothing eloe of interant heant exoept soceocne nenticning


 blanked out -4140 m, , loont dank









 ce Masionippl. 73.

21217
 forry I was Inte in mailing lant Veek's roport but I mefplaced




 y fifth year of BCB-ing tonidnt Hoopty $800 *$ Aurami







 have been DXing for a yeur on BCB, two aporatile yeurl on TV. koulpoent in a Nana
 rendy to klek off, I thinkt. Totalat $470 / 37$ ataticre hasid/vertfled a riyt now
 have to varit, his. I oecaniomiliy so down to Hollind, Mich. to viatt ny erundper




ERIC HAVEMANN - 71 Madison Street - Pequannock, New Jersey - 07440
my faithful Metz with me (Let 's Go, Metz! - RRC) NJPC Convention. I am bringing that's been gathering dust in the besement. I along w/a Hallicrafters SX-71 Musing \& will have to go back on my promise to relate all week late writing this since nay last Muse. My total verie collection relate all redent DX w/26 newies for $10 / 21$ test \& v/o from KUPK for the for time of their ID \& that they were using the time of their ID \& that they were using IT but they sent me one anyway. Didn't anyone else hear them? I haven't seen any mention of them in DX NEWS. Totals now stand at 242 non-locals in 37 states \& five provinces \& six countries. DX: With WNJ off every MM e 12-5 or 50 I heard TMJ for the first time w/s/off @ 12:04 MM \& Wis. \#1. Next aftemoon 10/18 © 5:48m WYE wes in like a local w/ c/w \& Wide Radio" promo for State th7. 10/19- WHEB in $\mathrm{U} / \mathrm{WABC}$ QRM w/local spots (0) 5:15pm. I was in Atlantic City area for the $10 / 26-27$ weekend $\mathrm{w} / \mathrm{my}$ brother's portable Panasonic eight-bander. N.Y.C. pests were nuch quieter down there, but all you south Jersey area DXers mast have a fit with Atlantic City station on three of your graveyards! (Four, Fric, counting Wald-1400-ERC) I heard these newies while there: WKEN-1600 in weakly s/off © $12: 04 \mathrm{~mm} 10 / 2$. They gav powees of 500 w day and 1,000w night - weird! WCLS-1580@12:06am w/rr \& ID; NRC's entenna tuners for wh ic $2: 24 \mathrm{pm} 10 / 27$. I ave since tried making one of w/rr \& ID $€ 11: 58 \mathrm{pm} 11 / 4$ for my furthest $5 w$. yet. came in without any trouble won't give me more than 30 lines, hi WEED Rocky Moumt, N.C. \& WHCU Tthace, For his \& everyone else's peace of mind, helps any. $\because$ expect everybody within the rance of WABC will aio Log, if that gobble-gobble, so see you there. I' gobble-gobble, so see you there. I'm about 15 miles away - waybe some of you

PAUL MOUNT 471 Imerson Avenue - Teaneck, New Jersey - 07666
Well, long time (for me) no Muse so here I is. Here I have some comments \& notes from past DX NeNses shoulan't be allowed to list all the stations heard all DK ratings, ithink one cause in the case of people in traveling around the $U$.s. an aet a bein one year. You got mention that it's a lot of orHs. And athatever the lial for Home it should be from your house, not in the middle or the mver the limit Enough. HJH says 1290 is easy there. Amidst WADO \& WFBD, 1200 is her or such. tations heard at night yet. In the new member lists I notice is here. No names from IRCA. ERC: CTH is location in radio. (Ham notice a lot of familiar took about 360 days to verie me. Look in radio. (ham radio, no? FERC) WRC in those I met: Perry Ferrell \& FJ Kleppick. TRS ment list I did forget some time I heard WMBG-740, their s/oif was lMMBG, TRS mentioned short s/opes. Iast saye he's not there any more, so he does a sunday show at term Updaters. I wonder if the petterns for and show at WRNL Looking at Pat all get in here awful sood. More to coms CFYTR, CKFH, \& CFGM are right? They CHARLES RIESAR - 39 Wickford Road - New Rochelle, New Uork - 10801

Hello there, this is my first Musing. I hope you can underetand it fully. I've been DXing since I was 12 years old - I will be 23 in December. None really so hot except fis until last summer ('73). I have close to 40 of them None really so hot except for Wrok because of its low power. I use four Lhs whem switch box connecting 1, 2, or all in any combination. This is done w/four on/ ofi switches, One of the wires is connected to a telephone \& gives good vertical ?ickup. One is connected to a neighbor's fence \& worl:s well, also one is connect. ed to an old $V$ antenna, \& the last is connected to the pipe in my laundry room. I own a Grundis Portable TR305 \& two other Grundies - they are a table radio
 am anxious to ret an R 390 , R 388 , or $\mathrm{F392}$ if any but is the best when it does. I these sets please write me a postcard or letter. Also has on the sensitivity of Fair padio Sales Co. in Lima, 0. ? Or the letter. Also has anyone dealt w/the got my $3 N-2$ but hoped for even better results then thenic Co. in N.J. I just you null out a station it's tough letting go with your finger \& I did eet. Once magnetic field. Iad owns a Sony TFM-8000W (BCB is your finger \& changind the geocare for now - " 2 " is my nickmme. (We lcome, 7 ! We frod as Grundig). Take care for now - " $Z$ " is my nickmme, (We lome, 7 ! We hope you'll mise often \&
lor many coodies as an NaCer! -ERC)

BRUCE REYNOLDS - Route 2-Warrensburg, Missouri - 64093
Hi. First a couple of corrections for previous typos committed either by FRRC or me. In the $11 / 11$ Muse WROA wass heard AN w/Ir \& WWKY-1380 was the one heard testing. In $11 / 18$ the verie was KSYL, unfortunately not KALL. DX: $11 / 9-W 10$. in
 5:57pm w/Paul Harvey \& c/w to -1340 atop © ilpm after Texas Net nx. Nil. Never heard before, but best signal evout of me; in really well in WING aull. Never heard before, Both KSD \& KTSA off. KTIK=1280-DX er from B.C. WSAU-550 AN-rr w/unn KOY. Both KSD \& KisA off. King SP was even was heard, though only TT W/250w Test appreciated but following SP was even more so as I was able to cer whan and an a (2) 5:57. I wish pest KIIK would make that a habl before, not enough for a report. SSS brought more Aurora whan \& $7-8 \mathrm{pm} \mathrm{w} / \mathrm{no}$ इ1gn of KSTP. XEZM-650 © 8:50pm w/Costa Rican \& no wSM. 11/2O, had an Aurora 1 morning w/XEU-930 unbelievably all alone atop e 7.10a. unn KYKR s/on-SSB © 7:30am on 1510. 11/21-Weird SSS w/the band rather dead up to sunset, then an early evening Aurora that seemed to affect wainly win che to sunset, then an no KSTP, \& KWFA in weakly © 6:45pm s/off-SSB. S/off in EF, but解 1500 was so open I had visions of calif.
 KGRC WJAM WHMA WYIS WCIW WOCH KOYY WPLB KITIN KPIA WMPA WEKR KDET (a nice two( pager) KCAR KAIM KKI. Also v/1 CHWO (seven months), CKAY (on f/up) UID CKLC \& T13s
JEFF ROBERTS - 945 East Moore - Decatur, Illinois - 62521
TX inally enter much more organized. Totals: 811 heard, approximately 250 taped, \& only two veries. U.S. heard: 719. Most by states: Illinois 84, Mo. 57, Iexas 54, Tema 45, \& Ark. 40. I still need Alaska, Hawaii, Majne, N.H., N.J., Ore. \& R.I. \& Vt. Total foreign: 92, w/Canad contributing 33 of these. Total countries, 150 \& 1280 , counting the U.S. Most stat statistics is recent DX . 11/10- KVPI-1050 If in w/a fair s/off @ $6: 15 \mathrm{pm}$. MM 11/11 KNX noted unusually strong. If the KDIT TEST was on, just too much noise here. WTKM-1540 Wis. noted w/a good ID begin ning TEST @ 3am. I didn't listen very long on that one. 11/15-KGBC-1540 Tex
 alone \& strong e 6:20pm. Mx noted right before the ID - f/c list says TT. 11/21concludic $11 / 22 \mathrm{SSS}$, band sounded great. KBOK=1311 Ark. atop WRR \& others w/s/off @ 6:Olpm. KICO-1280 okla. very weak © 6:11 w/ID Ark. atop WRR \& others w/s/off
\& mentions of oklahoma. 73 s.

PAT HARTLAGE 79200 Wendell Way - Jeffersontow, Kentucky - 40299
11/18. I have had to limit DXing to SSS \& early PM lately. Fx11/18. I have had to 10 stans since my $10 / 21$ Muse. Better catches in cellent CX have helped add 54 stations since my $10 / 21$ Muse. Better catches in clude WHEX -1580 w/test $10 / 26$ e midnight $u / C B J$. HJHJ-600 was heard w/R. Liber= tad ID © 1:44em, 10/20. Later WrIT-1530 e 2:35, NDN 3:56 were all heard testing. 11/4-I missed WIOR-730 TEST but caught tneir 5:45 $\mathrm{pm} \mathrm{s} /$ off for report 11/9. My first Arizon station KIUF-1580 ass heard just before their $7: 30 \mathrm{~s} / 0 \mathrm{ff}$. I have heard them fairly regularly since. 11/10- Very good CX brought six new stations on 1580 . WBBA @ 5:43 s/off, KTGR @ $5: 59 \mathrm{~s} / \mathrm{off}$, KESM © 6 s/off, KILV @ 6:01 s/off, KITR @ 6:22 \& KPIK © 6:27. I'mglad several of the sbove don't check the time too closely. 11/12- KMCP-900 e 6:02 in very ill HX , sports, s/off $6: 30$. The strongest Texas signal ever heard here was $11 / 13$ from $6: 0$, $6: 45 \mathrm{~s} / \mathrm{off}$ of $\mathrm{KPER}-1570$ in Terre11. With only 250 w are they directional E? My cecond Ariz. station KUAT-1550 wes heard 11/15 for 7:30 s/off amein bri tape an TD. KVIG-1570 heard $11 / 17 \mathrm{w} / \mathrm{s} /$ off @ $6: 30 \mathrm{u} / \mathrm{KI} \mathrm{ER}$. I adaed Roseau, Domtape an lD. Veries: v/1-KITR, WERE, WGOE , WING. v/c- WAAM, WONE, KCRG, WLOR. (Not v/q, Pat? -ERC) Report to KATZ HDEI, WPNG. v/c- WAAM, WONE, KCRG, WLOR. (NOt
retumed with rubber stamp confirmation. 73 .

ITIS IS A TREMENDOUS MUSINGS ISSUE! WE CAN DO THIS REGUTARLY: IT'S UP TO YOU?
heard CBC mention hi folk, lotsa happenings of late. First, re CEU/XEPRA - I George Greene Gramercy Park. 11/3-I got a call from TRS who had an $H 2-140-X$ \& I DKed in famous it over $11 / 10$ \& decided I'd buy it. I TRS who had an $H 2-140-X$ for sale. I looked Iatest newies: WDLR BBC-1214 WKJR WIOR-TES heard around ten newies on it so far. counted, ZBV-1 for country \#33. WNAR WGPA WFLR (hard s/off time!), 4VEF KIRI w/WINS off 11/10. KDAY w/rr 11/10 $3: 38$, Katr car in carteret. Is it legal to count it within 25 miles but out of NYC? (No law aginst it unless you're in a contest -ERC) Most wanted WRUN, WOR off 10/28m 11/4, 11/11, regular now? HJCN-1100, WRVT, WBFD, R.
 $\mathrm{nx} 11 / 10$ 3:38am on $1500 \mathrm{u} / \mathrm{XERH} / \mathrm{KSRP}$. UnTD SS u/HJCY $4: 58$ ? $1 / 11$, ditto $\mathrm{u} / \mathrm{WFIL}$, EE daytime, also ethnic mx, carrier current? MoR in WMIR null days, who is SS-1265? 8:46pm $11 / 11,8: 58$, 1190 k SS taik, U.S. rr mentions of Venezuela, YVRE? SS , unid SSer, see IDXD/DDXD/DXWW for details. Any help on abonezuela, YVRE? D/unld replied $\mathrm{w} / \mathrm{WABC} / \mathrm{W}$ WRL SCs. Totals $534 / 286,33 / 19,38 d / 31 d, 6 / 6$. 73 s .

TIM KERFOOT - 34 Cross Street - Weston, ontario - M8N $2 B 9$
CX have not been very good latelu, but a number of new catches have been made nevertheless. $11 / 4-$ CFLS-1240, 12:36-1:35am, in the new catches have time except for some trouble from cWA. Only one ID was heard in all that time. 7:01 WCEM-1240, 6:29-6:45pm, good sigmel. 11/9-WIIA-1580, incredibly strong 7:01 $\mathrm{s} / 0 \mathrm{on}$ to 7:38am. They had as many as four commercials (five counting short ones) in a row at times so a lot of verifiable info was copied, hi. of course that is no real criterion for verification: in fact, it has been my experience that the very best reports are often the ones that go unanswered. MM $11 / 11$ was a. day off work for some DXers at least as it was Remembrance Tay. CMJN-782 was w/interference from another new cating CFRY-920. on, w/a guy yelling "Buito" ew catch, CrY-920. Also on 920, SS was noted off \& -1230 , पMSA-1340, and KLWB-1550.


CX have been poor whenever I get the chance to Dx. I did get a bit of the KGHO-1560 TEST o/u the new KKAA which is regular here. Those in the Midwest should watch for the new CKTA-1570 //-CHEC-1090 using 99\% "CHECK" In the bridge IDs. They are AN too. Re my last report I meant to say: These lew mini-1PiPls in Canada's National Farks (CBPA, CBPB, etc.) reach about 800 new Forget it as DX. CJVB-1470 applies for an AN-NSP twin on 850 (vacated by CJJC) w/ 10 kw . The new CKAK-1240 twin is on now AN (/-CKPG-550 Prince George. Frick or Frack wanted to now how I get the new calls since the Crac rarely publishes them. I simply dial DDD info \& ask for the new listing for the new station in said city. If they have a phone installed, they 're also on the air. Thus the calls: CKTA, CKMK, CKGR, etc. CHAK-850 (ERC's semi-local) gets another IPRT on 1230, Fort Franklin, NWT. Many of these LPRTs are on the air before the CFTC OKs there four months before the CRTC OK the CFFB-1210 NWT move from 1200 . They were cal Lf:T network for the Eskimos (Inuits) in The CBC has been told to build a lo relaying CFFE-1210. Greenland is still alive \& well near CFFB-land, at times 11/10. 73 from CHEdmonton.

## JIM MEYERSON - Owen Hall - EOx 207-West Laflayette, Indiam - 47906

order. I'm 18 and have been pyingers. I suppose a brief introduction is in University majoring in EF; but my homet own rears now. I'm current ly at Purdue St. Louis: $639 / 420$ (heard/veried) stations, 37D/37D states. Mo. Total from are 145 stations from 30 stat $s \& P \cdot R$. only v/37D states. Tota $1 s$ in Indiana Cincy. I met with Jim Pogue last MM \& had a great time. KDr good 2:45-2:53am w/1,000Hz TT \& $c / \mathrm{w}$. I guess that's all from here was heara DX to all. (Welcome to the Club, Jim, and we hope you'll Muse oft $73 \mathrm{~s} \&$ good Sreat DX - but - please - DCUBLE SPACE? -ERC) hope you'll Muse often and get IF YOUR MUSINGS WILL REACH BROOKLMN BY DECTMBE
USE THE NEN ADDRESS, ERNEST R COOPER - 7A WGSHTNTON SED THEM THERE - IF NOT, THM 12657. REMEMER CHRISTMAS MIL TTME IS SLOW MAIL TIME! DOUBLE SPACE! -ERC

Dave Schmidi - 42 Chelwyne road - Castle Hills - New Castle, Delaware - 19720 Congrats, ERC, on your up-coming retirement! Pn 11/13, I had to take new hours at work, so now Im working lipas DX will be done \& other rewake too much of a change, just a 1itthe
 3:29 w/c/w. WCSJ-1550-TEST w/mx 3:03-3:17am, I belfeve Wha was $3: 03-3: 49 \mathrm{w} / \mathrm{mx}$,
 I believe thea went off e $3: 45$. WVLK -590 3:54-4am EI 4 , strong. 1530 5:29-5:39pm then faded, WAAO-1530 s/off noted 5:4, announcer tave clarr 5:48WAOA even. 11/15- WIQX -1570 5:33-5:44pm w/Soul wx, Winut ) 11/18-KPMO-990-TEST 6:02 w/commercial format (six in 15 minutes, all one minute. station and ran audio $\mathrm{u} / \mathrm{WIDG}$ ET/WNOX/SS, TT made it 3:01:45-3:23 off 10 , 1 called sta over line, \& CE said twas indeed they. WIST-1240 holding down frequency this w/underground mx, CBX NX, noy d 1:50-2:10am, very strons. 11/20-much manced WDON-1540 in clear followinz WRCP s/off 4:46~4:59pm. Peport taken on WLDB-1490 wa had wind of this change a few months back from friend at WMID. WLDB will probabhad wind 1 - ther'11 make a lot of cash with that type of format in that area. ly go AN Veries: vin check went to Shaftan in NYC. He ter than nothing, hi! even! If I can dig up a few more of these zoodies, maybe I called me on that one even. mith be able to start my owiness on the side, hi! 73 s .

De GHOTI - Hickory, N.C.
A big welcome to Nawth Kayroliner goes to Paul Hart, Ace Thpe DX Champ from Fort Worth. PKH now lives 0.31 miles e2 224 from Ghoti Manor. Dial twir ing has dropped off quite a lot these past two or three wotis Dunno if things will improve or not. PKH \& I flew N.C. to Fla. by private plane \& DXed the BCB on the plane's ADF. Some interesting results were noted on bearings umder somewhat Auroral CX. Cubans had most clear chennels locked up baril the way into S.C. Also KXEL held 1540. I got bearing tracking on 704 but no decent audio. Cuban on 782 really boomed in. If anyone hears 088 KNN E of Mississippi River these days, please report it in Musings, DXWW, or drop a post-保 ake the time \& effort to do so! More to come. (Spacing fine, de G.! -erc)

DAVE BURNS - 2137 Sumingham Drive \#102 - Hampton, Virginia - 23666
since my lact report to these pages two major developments have arisI've managed to damage ny eardrum and am sked for an operation in en. First, I ve nanaged to dange and be transJanuary which will bring ${ }^{\text {D }}$ DXing to a temporary hat be the tenth assigment I ferred up to Alexandria, had in nine years with the USAF. Lately I've been concer Merman act during SSS \& results have been somso with many IDS via Alan Merrnan whon been bugging over the phone. Just wait till I get up to Alexandria, Alan \& Wavs Meanwhile, back at the dials: 10/24-WLOP-1370, Ca. on top e 6:50pm w/c/w \& Wavs -1190, Fla. clear e s/off e 6:59. 10/25-WFLI-1070, good w/rr e b:45pm. 10/21 WKAQ-580 alone © $1: 45 \mathrm{am}$ W/many IDs, pop mx, WLCI-1300 e 5:5Spm w/in wx a ads, and W $Q P D=1430$ © 6:15pm w/"Q-143" TEs \& rr. 10/28-CFBC-930, surprisingly good e 12:2. an w/rr \& mention of a top 500 contest. his should be a good bet for anyone in this area needing N.B. Unn KONO-C60 better than usual @ $\mathrm{s} / \mathrm{off} \mathrm{G} 1$ \& then back
 I was surprised to find KCMC -740 alone © $2: 50 a \mathrm{~m} / \mathrm{w} / \mathrm{c} / \mathrm{w}$ wile waiting for WLOR TEST. The latter it $I \& C$ for the duration \& $\mathrm{v} / \mathrm{c} \mathrm{back}$ in oniy four days. Later, at The latter mad ine in the $5: 30-0 \mathrm{pm}$ w/Albania-1394 \& 1457, Monaco-1466, Czech SS. a -1206, England-1214, Spain-12c) a $16-\mathrm{kTcT}-910$ on top © 6 pm s/off mentioning er hets noted but no time for cop. arba $6: 15 \mathrm{~m}$ until buried by wHic e $6: 30$. KHLS-FM \& ORDF-640 Martinique of the caban e 6:15pm until bic around 6:15. 11/10$11 / 9-$ WDRC-1360 @ $5: 45 \mathrm{pm} \mathrm{w} / \mathrm{rr} \&$ ads \& Portuga 1-66) audib
Spain $-683 \mathrm{I} \& \mathrm{C}$ around $6: 30 \mathrm{pm}$. That's it for now. 73 s.

JACK HATHAWAY - 2109 Tamarack Court - Champaign, Illinois - 61820
5- WAKR-1590 12:0lam. 11/18- Wrox-990 3:02am while looking for KR1K TEST. KRMO-990 3:06, \#704, sent report. XET-990 interfer ing w/KRMO TEST. KTLK-1280 DX 4:04 \#HO5, sent report. KaXI-1550 wis fiob, sent report. Veries: KDII Xerox letter, HKYW PP/c filled in requency as 90 sta tionery says 950 but heard around 945 ; KHYM $v / 1$; hMOH $v /$ Xerox. Sest $73 \& \mathrm{DX}$.
year. European DX $h$ s been far below expectations, deal of solar activity this Ginning noted in late August \& early sept. It 'd be nice if our whe good beperts in the Club in the Boston area would take a few minutes to share with us their opinion of what's happening to the BCB this year \& why CX are so bad for Europeans, \& what the outlook is. I know many NrCers would appreciate this, \& it would be a help to a 11 of us. For those wating for the $S B-620$ review, it may be in this issue, or it may be a week ahead or behind this. I understand Domestic Iog printing took up much time at the printer's, \& I revised it a bit. An interesting note - a major BCB DX CIub on the Const recently semt out within the past month, a flyer \& order form for the WRIVH. The only problem was the order form was for the '74 issue, I'Il bet they get a lot of orders, hi. In the enntime, Gilfer has already sent out order forms for the '75 issue, \& the price is "right again, hi. I've been doing some experimenting w/ "active ant ennas" which are physically small whip antennas with matching $\&$ amplification in the support base, before feeding the RX. I don't expect anything in this line to equal the $S M-2$ however, so don't hold your breath. They are interesting on SW, though. Recent $D X$, a $\frac{1}{2}$ rate heard Sat. $11 / 16$ on 1615.5 K . On an Aurora 1 Friday eve 11/15 I heard WLOR-730, WARV \& WGOK-900 © s/off \& a few other unIDs. Sunday I had an excellent signal from WQBA-1140 to 5:30 pattern change, othervise bands dead. Russ heard WGNP-1520 at the same time. I tried the KPMO-990 Monett Mo. TEST 11/18, a weak TT $\mathrm{a} / \mathrm{WIBG}-\mathrm{ENP}^{(p r e s u m e d ; ~ s t r o n g, ~ \& ~ t h e y ~ E T ~ a ~ l o t) ~ \& ~ W N O X ~ P S ~}$ heard $3: 16-3: 22$ or so. At $3: 27$ an SS in briefly, no ID heard, but there was a real weak station there which may have been tyey, or another PSer. I have heard NO DXes so far. I tried for WERA TEST while coming home from train station on hand portable, a weak TT heard $u$ /WQCW © $12: 45$, but home e $12: 50$ \& nothing noted; Auroral CX. 73. (WERA is on ly a MYTH, Bob, didn't you know? -ERC)

RAY ARRUDA - 6 Wilbur Avenue - North Dartmouth, Massachusetts - 02747 Short report this time. New stations heard: CFPL-980, KRMO-990 (tentative on TFST) WERA -1590 on TEST. Only one verie in this week: $v / 1$ from WPHB-1260. Recent DX: 11/15- WERA TEST heard u/WQQW/WETT W/ID \& s/on emidnight \& TT to 12:16. Further copy spoiled by untimely WARV ET to $12: 45$ tune-out; rem ported. MM 11/18-KRMO TEST very tentative e $3 \mathrm{w} / \mathrm{s} / \mathrm{on} \& \mathrm{voice}$ ID \& some TT to 3:15; much QRM from WNOX on RS \& later WIBG's untimely ET. Normally NSP WPRO-630 noted off \& testing $O C$ a $3: 30 \mathrm{w} / \mathrm{WMAL}$ way under w/MOR \& "Padio 63 "ID. KTLK tried but not heard $4-4: 15$ tuneout, too much CHAM. 4:10, WRHC-1550 on EFT W/ID \& TT through 4:21 tune-out, voice ID in E © 4:10. KQXI TEST covered by $4: 58 \mathrm{~s} /$ on of CBE, not heard. Tentative DX report sent to KRMO. 73.

SCOTT STRENTZSCH - 5206 Round Table - San Antonio, Texas - 78218
The DX season is here \& I thought I'd give an intro. I'm 13, a member of the Club for a month, \& a DXer for a couple of months. I use a Totals 11 probably be using a DX-160. country just yesterday, $10 n s, 25$ states, \& three countries. I logged my third country just yesterday, Bonaire-800 PJB came through almost local X-ROC (Ciudad I guess compared to some of the big then \&: I must have jumped out of my earphones. I guess compared some of the big guys it's small fry but it's a start. Well, $73 \mathrm{~s} \& \mathrm{gcod}$ DX. (Ard good DX to you too, Scott, and Welcome to the NRC! -ERC)
GENE ALLEN - 134 Bret Harte Way - Vallejo, Califormia - 94590 Congratulations to both ERC \& Mort Meehan on their retirements. We've been retired here for four Uears. After 31 years as Electrical District Engineer for PG\&E CO. Recent veries in from KSPD-790 \&KDLI-540. KSPD is an allNX station operating in the smallest city in the USA for this type operation. At 3 pm 11/15 on $15 / 0 \mathrm{KKEE}$ salims, $250_{\mathrm{w}}$ was copied for 15 minutes \& IDed using the SML. (Salinas is 105 miles distant). Using the Sanserino Loop or the $4^{\prime}$ air loop this sigmal could NOT be heard. The reason was that nefther loop could cut out KCVR (5Kw in Lodi \& 55 miles distant). However, on distant DX the larger ty of give a better signal-t noise ratio but do not have the pinpoint selectivity of the SM-1. KKAA- $1560 \mathrm{~S} . \mathrm{D}$. reported $8 / 31 \&$ a $\mathrm{f} / \mathrm{up}$ to Kallestad on $10 / 21$ have produced no veri - guess they aren't interested in rX reports. The Specials of This noise came on on $11 / 7$ so Ihope it doesn't cause me to pad in the neighborhood. This noise came on on $11 / 7$ so Ihope it doesn't cause me to cive up DXing. TEST from WCSI-1550 was heard on the lith before the $2 R N$ carme on. 73 for now.

GEORGE C GREENE - 1527 Sunset Avenue - Akron, Ohio - 44301 cX that seem to be Hi all. In spite of the mostly Auroral $11 / 16-\mathrm{WAVS} \mathrm{w} / \mathrm{soft} \mathrm{mx}$ prevalent, I have managed to log a number nulled; KXYZ-1320, who now uses " 13 K " ex\& a contest promo © 5:20pm w/WOWO si NX, \& then into oldies during SSS on $11 / 19$, cept on the hour, heard at the end of NX, \& no sign of $13 Q$ for some reason. WEAN-790 W/rr \& rr-oldange on $11 / 22 \mathrm{w} / \mathrm{k} \mathrm{mx}$ at SIDs © 12:38am; semi-local $1 \mathrm{WADC}-1050$ logged for call change wX e $2: 45 \mathrm{am}$, temperature was 4:50pm on the car RX. 11/23-WKIS-740 W/soft rr \& WX © 2:459m, temperature was only $45^{\circ}$ there at the time: $11 / 24$ had WPUP $=1190$ in WOWO null w/ unn included cials between each selection. other catches of intercst, though unn, included WHCU-870 w/Cornell FB talk \& the FB scores during SSS on 11/23, \& WDLR-1550 ust in the 25 th with what apparently was the end of an ET. I dialed onto 1550 just in the 25th with what apparent then nothing. WWWE noted during the past week or so time to hear a w/OC many car WHBC=1480 now earrying Ai40 dur to trade air checks, CMs, or SCs - just write! 73. hearing from anyone who wants to trade air checks, CMs, or
KIN ONYSCHUK - 1403i Stewart - Riverdale, Illinois - 60627 freaks! I am DXing Another action-packed Musing! Hi frequency freaks! I am DX now just on weekends because of snooze hours, local electrical ard is frone numhere. I called up newie local WKDC-1530 Elmhurst Sunday afternoon. Phone number is 312-530-1530; mail address is 130 North York Road, 60126. Hours are 7:15 am-5:30pm. XR on Butterfield Road, Elmhurst. Girl who answered said their s/on date was $10 / 16 / 74$. A friend of my uncle mentioned to me Sundgy night they be been trying to get on the air for 13 years! They were listed in Sat. $10 / 16 \mathrm{Chi}$ cego sun-limes as carrying local FB game, heard good $10 / 17$ from 1:59-2:20pm w/EI max. That makes Ill. station \#122. I've heard 83. 73.

RICH RICHMAN - WLFH - 341 South Second Street - IHttle Falls, New York - 13365
It's been quite a while since I apper red in these pages, so I thought I'd remedy that with these few lines. I'm still doing the Midnight-6 c/w shift at WLFH-1230, six nights a week - SP is MM. Our station's claim to c/w shift at is that we're 'The only dathour-a-day station in Herkimer County!" But $^{4}$ fame there's only one other station in the county - and it's a daytimer, hi. I've been at WLFH since 7/73; MxD since 11/73. I enjoyed attending the 1973 1974 D.J. Conventions in Nashville, and the Fan Fair, down there, this yack Good to hear by phone DX report received by WLFH D.J. Chris Miller from NRCer Ron Musco \& verified by Chris. I enjoy DX NEWS each week, although I'm not active
Best of luck to ERC in his new Bay State DX site. 73s.

## JEFF FALCONER - Box 63 - Clinton, Ontario - NOM 110

Bi: DX of late has been somewhat curtailed due to lots of over-
time \& ever-present TVI. Fantastic Auroral CX still prevail. Some recent DX: $11 / 10-\operatorname{CHNR}-1600$ (ex-CFRS-1560) on $t o p$ w/MOR all afternoon. They ve been on since $11 / 1$ per veri. $4: 58 \mathrm{pm}$, WNCT-1070 fair in CHOK null w/sports. 5:12pm, WKYB weak u/WKDE w/s/off. 5:22pm, WOTY-1000 strong o/WCFL w/MoRo TIFEAW-1525 fair w/some WCKY splast w/speech by male announcer in SS. 11/13-6:20pm YVMF-700 strong in WIW nuli o/the usual TI. $11: 45 \mathrm{pm}$, I was surprised to hear TICAL525 in the clear w/up-tempo dance mx. They faded @ $11: 50$ \& returned in time to catch s/off w/NA@ 12:06mm. 11/15-5:30pm, s/off from WRAR-1000 weak u/WCFL. catch s/off whe this still to be on. $6: 46 \mathrm{pm}$, WRBC-1300 o/WERE w/rr. YVII- 1360 on seems op w/the HJ the was one of the most fantastic Aurural openings after for years, WFYC-1280 w/hocal NX a lone on frequency (2) 5 02pm. WAKE- 1500 s/off e $5: 30$ cut up badly by WDEF.
 I decided to St. Clair businesses. 6 pm , an ID from KDDA which then disappeared, probably its



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KARL TESN - 2816 Frontier Trail H. E. = milanta, Georgia - 30341
I've been DXing mare lately, but CX haven't been that good. I got fimals coming up $12 / 1$, so $D X$ will be curtailed then also - but over the holidays I monning a DX BLITZ: There's been a few changes around stations in at lanta I thought I'd mention: WQXI-790 has a new FoD., Scott Shannon from WMAK Mashville no format changes so far. WGST-920 is no longer owned by Georgia Tech, but by the Meredith Corp. Of Des Moines - still has MoR \& oldies mx, \& have brought back "Skinny" Bobby Harper (who was at WIIN-970 two years ago) from WDAK Kansas City. I was glad to hear of that! Speaking of WIIN-970, strange sounds continue to issue forth from them: the latest is their new "iar-witness NX". on to recent DX: 11/4- WOHO=1470 Toledo 6:47-6:50pm u/WBIG, w/political announcement \& talk. 11/5-WKUN-1580 Monroe Ga. 10:37-11: 10am before going to polls; that night, CJBC-860 in */excellent signal \& no WDMG © 12:25am w/FF talk \& mx. 11/6-WTOP-1500 Washington @ $5: 30 \mathrm{pm}$ w/sports, NX, ads; KVSA-1220 McGehee, Ark. for a newie, long WX report, then $s$ /off © 6 . Lo \& behold, KGYN-1210 actually heard from here, although poor, u/WCAU @ 6:10prow/farm ads \& c/w. $11 / 8$ - WDNT-1280 Dayton Temn. w/:X \& verer short s/off @ $5: 27 \mathrm{pm}$. 11/9-KGBX-1260 whBCNX $12 n$, s/off © $1: 05 \mathrm{w} /$ sung SSB; KOKA $\mathbf{- 1 5 5 0} \mathrm{s} /$ off $1: 30$, mentions long list of trustees \& other names, \& a 4 mm s/on. KSL-1100 w/great sigral \& Nitecap e 2:05am. That eve, KOKY-1440 heard e 5:57pm $\mathrm{w} / \mathrm{s} / \mathrm{off}$ o/WHHY. $11 / 13-\mathrm{WWNC}-1220$ Whiteville $\mathrm{N} . \mathrm{C} . \mathrm{w} / \mathrm{NX} \& \mathrm{~s} / \mathrm{fff}$ e $5: 15$ on car RX while driving back from Carroliton. 11/19- WNN-1590 Jackson Miss. W/ID "W-1" during NX © $5: 55$ folo © 6pm by "Drive-Time" show, c/w \& "The Great American" slogan; KOLS-1570, Pryor, d:la. unn si/6:15 s/off; KTUl-1560 Sullivan Mo. unn, w/6:16 s/off, no SSB. 11/21 brought KLOU-1580 Lake Charles way o/WCLs w/rr 4:38am. Veries in" $v / 1-\mathrm{WORD}-910$ \& $\mathrm{WCOH}-1400$. v/PP- WGAC-580 WKNT-1580 WVJS-1420 KOKYVeries in $y / 1-$ WORD-910 \& WCOH-1400
$1440 \mathrm{WEHF}-1450 \&$ WLAW-1360. 73 s !

ANDY RUGG - 146 Francis - Apt. 212-Ile des Soeurs, quebec - H3E $1 G 3$ My only new verie is HIBE-1280, afyer $2 \frac{2}{2}$ years. In August, I moved to Nun's Island, which is near downtown Montreal. My apartment is not a very good DX location. Anyway, I will DX from time to time at my old location at my parents" place in Pointe Claire. In September I spent three weeks in England, Scotland, $F$ ance \& Spain. It was a pleasant change of scene. From mid-November to mid-December, I will spend a month way up North in Dolbeau, 2ue. - that is a different change of scene! (How about a DX TEST from there, Andy? -ERC) I may DX around Christmsstime and send in another Muse. 13.

JOGN D. HATHAWAY - 2100 Thmarack Court - Crampaign, Illinois - 61820
11/25-KOA-850 1:29am, s/off 1:08, following prayer \& SSB. WFAA-570 1:52. WWJC-850 for \#7O7, sent report. I Was looking for KFUO TEST but couldn't hear it if on. I thought sure I would pick them up as I have heard them on RS before. KPUB -1480 \#708, sent report, heard very poorly due to lots of interference on the frequency but I did get several IDs. I could not hear KDUN TEST although I listened theentire half hour \& couldn't ID any of the several atations on the frequency - interference very bad here. Best 73.
FRNEST 2. COOPER - 438 rast 21 st. - Carrier Foute 52-Brooklyn, N. Y. - 11226 Well of all thinge, Olde Fme finally came up with some new logsings, and four reports went out this week! I had almost forgotten how to write them. SM 11/17- I got up at the ungodly hour of 5:30 to look for the WRMT-1490 r/c-TP, but again, no show. At $5: 33$, WA $K K-1490 \mathrm{~s} / \mathrm{on}$ to dominate the channe1. MM 11/18-WDLR-1550 unn, w/another FT/TT © 1:50-I sure hope this isn t their projected nishttime pattern - if it is, good-bye 1550! Unn WCRB$1330 \mathrm{ET} / \mathrm{TT}$ most of AM; they 'll be my ${ }^{H} \mathrm{l}$ listenins local when I move as they are strictly classical ma: ( $\mathrm{C} / \mathrm{w}$ is next choice, \& that's WCOP-1150). WINT-1270, also unn, drminating on 2 N - Rs (e 2:13. HIJB-830 is definitely NMMs , \& were rocking WCCO who was rolling from the punch. CKCY-920 atop there, \& WOR-710 on ET/TT \& wrecking the whole area on the dial. I tried KRMO-990 but only about on minute's worth of TT Noted except for wNOX -NN \& WIBG-ET. $11 / 23-\mathrm{T}$-ilicht session
 cot me two at once on 1140 w/KNEN-1130 doing FB instead of playing MoR - WCWH 1140 losice 3:59-4:33pm \& WBZY-1140 then 4:30-4:45 with, of a 11 things, Souza marches! Probebly as an aftermath to local FB as a cuess. "Greenville" dominated 1070 - either needed WHYT, or unn WNCT, I think the latter as no s/off heard, so it must have been a pattern change. Then, CHOK/CBA about even © 5 pm on. The other two were logged MM $11 / 25$ but there isn't room to tell you about that here, so please do me a favor, folks? Con you possibly wait till next week? C UN 7:

## KWANGIU MUNWHA BROADCASTING CO. ITD.

hranamuo. korea

Radia a TV

OUR RLI.

4r. Henry J. Wilkinson, Jr.
384 Rockgreen Flace
Santa Rosa, California 95405

## For the personal attention of Mr. Henry J. Wilkinson, Jr

Dear Henry J. Wilkinson, Jr.,
Thank you for your wonderful reception report of fICN dated on October 6, 1974.
Kwangju MBC (Munwha Broadcasting CO. Itd) which has 2OKW RF transmitting power of AM broadcasting system and 5 KW video power and 1 Ku scound power of black and white television broadcasting system, founded in 1964 .

Our medium wave frequency, 820 KHz , is on the air 21 hours in a day and $8 \frac{1}{2}$ hours in 2 day with channel 9 for TV.
Verifying that you were listening our program "Key of Happiness", weekiy documentry drama, for unhappy people.
Please find our penant and International Reply Coupon are enclosed.
Good luck to your future growth.
Sincerely yours,
Bun-Sub Iee (Mr.)

| Chief Engineer |
| :--- |
| Krangju MBC Ltd. |

Harul Admin. Dept,

