

## STATIC $\mathbb{F R O M} H Q$

These are nodern times，and just so we won＇t be left behind，we＇re changing a few things curing the summer，starting with the signatures ard by－lines which will appear on the various articles．We figure if you read them，it＇s only fair to say who wrote them，so we are and we will（and if you got that one，you＇re not doing badly！）Also，we＇ve got a new colum on the way starting with the July issue．The column（name still being decided）will cover all changes of calls， new stations，deletions，construction permits，schedule changes and the like and will be edited by well－known ！ircer Bruce Winkelman．By way of an intro， Bruce is 27，married but with no children．He＇s a pharmacist at areensboro， N．C．hospital and has been BCB DXIng since 1969，which is also when he foined NRC．A native of Kansas，Bruce is a 1973 graduate of the University of Kansas． He does his IX with an $\mathrm{H}_{\mathrm{Q}} 180 \mathrm{~A}$ with 2 foot loop．In addition to the FCC and other information，Bruce will need any changes or format or other information you might have．Send it along to him at 3324 Kettering Place，Greensboro， N．C． 27410 ．Deadlines，etc．will be announced by Bruce in his first column next month：

## HEY JOINED

 Jokn Selth，178 Frog Kalipy Hosd，Ckurchvil1e，Fa， 13966 Hoy I．，\＃ilson Jro，Hpute 1 月ox 272－5，Harlen，気， 30314. Jerry Bobertson， 6065 Garaner IAne，Croowel1，Mich， 48422. Col．Hobert E．Manchke，Retas 394 St．Andrase Way，Lompoe，Calif． 93436 George \＃ollison，212甘 Ethel Street，Ayt．B，H．Hollywood，Calif．91605．



## LOOK INSIDE．．．

．．．for a review of the McKay－Dymek DR－22 receiver by John Clements，a new column with some of our mail by Pat Hartlage，verie signers from Ernie Cooper，a feature on Trans－Polar $N X$ Revisited（again！）by R．J．Edmunds and all of the regular features you＇ve come to depend on NRC for！

## TELL US．．．．

During the next month，between now and the July issue，LPC will be compling a complete membership survey，which we＇ll run in July and hope will give you， as members，an opportunity to express your opinions about what is being done right，what is being done not so rigkt，and what changes we should be making． Now is your chance to comment－bo send your comments to us，as well as any issues you think we should include on the survey，and we＇ll make every effort to include them．Just send them along to LPC，P．O．Box 32125，Louisville， 40232.

## Keep Hinkin LinCln

Robert L．Cummins，Urbandale，Iowa wrote asking for missed DX News copies，which were gladly forwarded．Robert was one of several members accidentially＂dropped＂during the move to Louisville．We hope future issues will not be delayed．

J．W．Brauner，Punxsutawney，Pa．was cisappointed with the May 23 issue．A collatin problem at the printer omitted pages $3,4,17$ and 18．He didn＇t get ILXD or CLXD， brief as they were．He did find the crystal set article interesting．A replacement bulletin has been mailed，He also indicated greater support of the menbers we，of course，agree．We would much rather clippings to bring the page count up to the number needed．

According to Richard Evans，Lakeside，Calif．，a new group has been formed，The Radio Programe Collectors Association．The club is devoted to the collecting and preser－ vation of radio broadcasts of the past，present and future．Samples of their bulletin
are 404 ．For information write：RPCA， 10514 Caminito Baynood，San Liego，California 92126.

Gerald Koske， 10204 Thayer Road，Wonder Lake，Ill． 60097 tells us he has received a new batch of field effect transistors．They are matched pairs of 2 N 4410 óA FETS， available at $\$ 8.00$ per nair，postpaid First Class．

One＂tradition＂of former Fuolishing Committees lives on，hi！Nost of our mail goes through without any problems，but the Post Uffice has been returning some LX News copies which should have been forwarded．Also，most of our members have notified us notice．Each address changes，but we have had a rash of changes wilt of our legend ＂address correction requested＂costs us 254 ．If the fost orfice is slow，we may get 2 or 3 notices before we can get the adoress plate changed．
Need equipment？In addition to our own LXCHANGE，several other sources of communicat－ ions type gear include：Ham Trader＂Yellow Sheets＂，i．O．Eox 311，Sycanore，Ill． 60178 ；buyers \＆Sellers，P．O．Hox 73，Doston，Nass． 02215 anc ham Exchange Dulletin list equipment available directly from individuals．ie caution all to exercise care however，when purchasing any equinment．The above is not an NPC endorsement but you may find sore good equipment at reasonable prices．

Charles George of lallas，Texas has sent in several clippings for $1 \mathbb{X}$ News．Thanks we need more technical／practical articles as well as mopit fall material．We urge you all to keep supporting DX News．Clippings used in DXA，by the way，listing no contributor，are from LPC．
Hack issues needed by Russ Edmunds for the special library collection should be sent directly to huss at 48 Lakeside Traii East，Kimellon，N．J．07405．Needed are single copies from volumn 41，issurn 10 ，Same volum，issues 22 and 30 are needed
10 and 24.

Not going to make LINCOLN but still want to contribute to the convention＇s success It＇s easy．Send items for auction with a friend or mail them pre－paid to the Neil G．Zank， 2445 ＂$E$＂Street，4pt．6，Lincoln，Nebraska 68510

Nembership rencwils go to the Membership Center，P．O．box 118，Poquonock，Corn 06064 ．Checks should be made to National Radio Club．Outside the U．S．member should send a money order payable in U．S．funds．Yearly dues in the $U . j$ ．and Canada are $\$ 25$ ，firmail to Nexico and the Caribbean is $\$ 18$ ，Kirmail to other areas is $\$ 22$ and Surface mail to all other areas is $\$ 18$ ．New member fee is $\$ 1$.

Esit $6 \sec ^{2}+4$

## Station closing



ALGERIA Oran the best TA on 5／19．fair w／AA mx at 0400．（Connelly PUERTO RICO WKAQ dominant o／growl w／WKAQ jingle，then rapid fire SS talk；WTAG／FFC under 0413 g／22．（Connelly） CUBA San Antonio de las vegas CMW atop WEEI w／man in SS，then circus type mx，$/ / 600,640,720$ ；third station behind（WARM or Columbia） （Connelly）
CUBA San German CMKV noted with mushy audio，blockbuster signal $\operatorname{man}$ in SS 0410 5／22．（Connelly）
CUBA La Habana CMQ／／740 w／George Harrison song，then SS mx 0257 5／22； R．Liberacjon ID atop second LA and CBN 0330 5／22．（Connelly） UNID het on low．side of YVLH／WSM $04205 / 22$ ．（Connelly）
VENEZUELA Maracay YVLH in a jumble w／fanfare，SS promo for stn，then flute or piccolo dance mx $03325 / 22$ ．（Connelly）
0810 GMT w／WOR on OC．Anybody know if this is nite MM 5／16 fm 0745－ used to be on 670 with the slogan＂Radio Tricolor de Belle＂？I have a $1967 \mathrm{v} / 1$ from them with the calls HJNX．WRTH lists two HJNX＇s now one on 670 ，the other on 710 ，but in the frequency list the 670 is shown as HJPX in Medellin．（Cooper）Sorry，no info．（CH）
CUBA CMGN Colon loud w／messy sig，overmodulated audio with circus type steel band／calliope $m x$ ，then $R$ ．Habana ID and $S S$ talk，／／640 0405 5／22．（Connelly）
VENEZUELA YVNC R．Maracaibo atop CBL w／ID＇s $04385 / 22$ ．（Connelly） SENEGAL Dakar fair w／male AA talking and chanting $00055 / 14$ during poor cx．（Connelly）
的 alk o／SS mx（possibly Cali）and other LA＇s 0403 5／22．（Connelly） horal vocals 04025 PJB Bonaire al DOMINICAN REPUBLIC HIJB Santo Domingo dominant，\＃1 hit＂Canson de Amor＂played，then SS mentions of D．R． $04005 / 22$ ．（Connelly） VENEZUELA YVLT R．Sensacion is now AN＇ing－may be off MM＇s but not sure yet．（Cooper）
BELIZE Belize City good w／SS pgm 0417 5／22．（Connelly）
CUBA CNDN Guantanamo way atop WWL，SS talk good at 0440 5／22．（Con） VENEZUELA YVKG R．Vision Caracas is AN－7 and gives domestics fits． ENEZUELA YNM R．Mil，Moron（city，not the anncr，hi）seems to have upped wing（ COLOMBIA Brand new R Suramerica
nnouncing as in Bucamaranga．（Coted AN＇ing here on MM 0824－0851， GUINEA Conakry fair w／male voc（Cooper）
COLOMBIA HILJ R．Tigre，Cali，not，violin accompaniment 0320 5／11．（Con） norted，bit I don＇t hold too much hope for m $5 / 2$ 0750－0817 and re－ and ownership is the same as toughie HJED 820．（Cooper）

Brought to you by．．
Mark Connelly，W．Yarmouth，Mass．Realistic TRF

FEATURE MATERIAL
BOLIVIA CP 179，R．Musical，Santa Cruz La Sierra is a new station on 1515 announcing as 1520．Closedown is 0600，power unknown．（Arctic）A shot at Bolle 60＇s，if memory logged in US since Ben Dangerfield heard 680 in the號，if memory serves ine correctly．（CH）

VENEZUELA YVZB is a new stn，as of April 1．Freq is 1500 ，power 10 kw ，loca－ tion is Barquisimeto．（Arctic）
ECUADOR HCIC6 R．Nuevos Iforizontes operates on 1465．（Arctic）HCMP2 R．La Prensa，Quito is on 775 ．（Arctic）HCBA6 R．Ambato operates on 845 ．（Arctic
HCRS R ．Surcos is on 1015 ．（Arctic）HCPV6 （Arctic）HCEMG Ondas Carchenses listed on 1255 ．Centro is listed on 1125. operates on 1325．（Arctic）All this taken from their LA Incr2 R，Guayaquil

DOMESTIC DX DIGEST

Hi A11,
First off, note the Summer address above. please send all reports there, until further \#otice. Excuse the tyning yob on this edition; the trusty Smith Corona has had another selzure, and this is the best I could dol Ye Ed is just returning from a long weekend of sun and fun in Los Angeles and environs, so if in seem hany farbive it, hi. I just stepped ont myself... This has its advantages in terms of typing DDXD, but otherwise, it is oretty nainful, hi. The doldrums of summer seem to have hit a few DXers other than ECR, if the size of this column is ny indicition. Remember, the beach can be a great blace to DX from, hi. Still, static is not impossible to live with, so thy not do a little listening, and send me a rejort. To those who have sent in Changes from Broadcasting, etc, thanks. Some are ninted this week, and I will try to keep up with thritating a senerate e-lum cobering have discussod with the LPC the idea of instituting a semerate ciumm avering changes only, fandings reasonably up to date... Seems the three week break left me with a lot to say, hi. Anyway, on to the real stuff...

## Cnanges:

1450 KRaN MT Change SH to 0600-1900 NiLT wicdays, 0800-1900 MLT jun. (RJE-NJ)
1270 NDA NI CP: 5 kw days. (R.jE-N.J)
1230 "BCR CO Steamboat Smings, on ait. (RjE-NJ)
950 KMTX MT Helena, on air. (RyE-NJ)
1070
1400
KERR
WPRY
FL Polson, on air. (RJE-NJ)
1400 KCTE MO Southesest City, on air. ( $\mathrm{K}_{\mathrm{jE}} \mathrm{N}-\mathrm{NJ}$ )
1600 KCGS IR CP: 5 kw day. (RJE)
590 KTHO CA CP: 2.5 kw day. (RJE-NJ)
630 WSAV GA Granted wKBX. (RjE-NJ)
1460 ZQE? TN Granted change back to MJAK. (RJE-NJ)

All of the above relayed from Broadcasting.
1380 WANZ NJ Sked 0700-0830 should read 0630-0900 ( (R.jE-NJ)
RCs:
Ind Fri writa is ALTOONA, Der list (SUa i)


Tests:
1020 KBCQ NM ROSEWELL, hrd by Poda.

## Sumset to Midnight:

920 WMEL FL MELBOURNE, 4/10 2004=10, u/WJAR w/CBS nx, ID barely hrd 990 NIM18 On 2009. (SN-MA)


Midnight to Sunrise:
550 CFNB $3 B$ FREDRICTON, 5/23 fr/gd w/rr 0031-0042, C\&W 0042-0100, jx 710 WOR ID into nx by DJ John McCarthy. QRM de

KMPC CA NEW YORK, $5 / 23$ on ET/TP 0109+. (PRM-NJ) LOS ANGELES, all day while driving north from 190 in Livermore, CA over 300 air miles from LA. (ECR-CA)
1900 . 1900 in Livermore, CA over 300 air miles from LA. (ECR-
$5 / 19 \mathrm{ET} / \mathrm{TT} \mathrm{w} /$ short breaks of 00 0250-0320+5/19 u/CHML. 5/19 ET/TT w/short b CALGARY, $5 / 17 \mathrm{w} / \mathrm{KOOL}$. KABL off 0300-0400. (DKK-CA) CRESCENT CITY, ex-KPLY. 4/11 atop $0628 \mathrm{w} / \mathrm{SID}$, lite rr. (DKK) HARRISONBURG, $5 / 14 \mathrm{~s} / \mathrm{on} 0600 \mathrm{w} / \mathrm{SSB}$ o/WAVZ/WFBR. (RJE-NJ) TRENEON, S/On 0600 o/WKCY w/no SSB, into Soul. (RjE)Date? S/14 several ments of NC. Gospel frmt. s/on 0630 . (RjE) 0,1 EGO, $5 / 16 \mathrm{~s} / \mathrm{on}$, no SiB , into MBS nx 0601 . (RjE) WEBO DE GRACE, $5 / 16$ S/on 0602 into UPI nx, no SSB, atop HEBO and UnID SSB. (RJE-NJ)
IROY. $5 / 22$ s/on, no SSB $0603 \mathrm{u} / \mathrm{WPOW}$. (RjE-NJ)
LURAY, $5 / 22$ s/on, $\operatorname{SSB} 0604 \mathrm{u} / \mathrm{WPON}$. O/WHAZ, into Hr . of Decision. (RjE-NJ)
HORWALK.
HORWAKK, $5 / 17$ on RS 0528, sked s/on in Log wrong. (RjE) ROME, S/17 0643 ID weak u/raess, (Rje')
P4CCHOGUE, $5 / 18$ ad, ID $0555 \mathrm{u} / \mathrm{WHE}$ o/ WHWH. (RjE-NJ)
 MALEYFIEID, $5 / 18$ s/on 0.Can. $0600 \mathrm{u} / 4 F E A / W A L K$. (RjE-NJ) LEONARDCONN, S/On, no SSB 0601 o/u WFEA/riALK. (RjE) 5/18?

 BクA'E COLLEGE, $5 / 4$ s/on w/Cat stevens, "Morning Has Broken" w/voice overed anncments 0600 o/u WLAN/WEGK/WFBL. (RjE)
KEYSER, $5 / 4 \mathrm{~s} /$ on $5 S B$ for AM\&FM 0605 o/u mess. (RjE-NJ) in Log. (EST). (RJE)
WIKI VA CHESRER. $5 / 3$ s/on SSB 0602 O/WPOP, u/WDOV. (RjE-NJ)
WIKI VA CHESIER. $5 / 3 /$ ISH OA SSB 0602 O/WPOP. u/WDOV.
CFMB Pa MONLREAL, $4 / 26$ s/on w/orch $0^{\prime}$ Can. SSB; !starting another

1470
1470 CP0
dionl'RLAL, $4 / 26$ s/on w/Orch O'Can. SSB; Istarting another
day of International $B$ 'casing" 0545 . Siked NSP per Log. (RjE)
POINTE CLAIRE, $4 / 220528$ o/VSAN w/ID. (RJE-NJ) (RjE)
POINTE CLAIRE, $4 / 220528$ o//iSAN w/ID. (RJE-NJ)
ALLENTON, listed SM SP $0600-0700$ didn't happen 5/D5. NSP
WOUNGSTOMN, $5 / 21 \mathrm{~s} / \mathrm{on} \mathrm{w} / \mathrm{jingle}$, annct o/rr. into rr 0601
way o/AIOP. (RJE-NJ)
590 WFIF
MILFORD, $5 / 21$ S/on 060
CLAYRON, $5 / 20530 \mathrm{~s} / \mathrm{on}$
$\frac{\text { CLAYRON, }}{\text { OGOO. (RjE) }} 0530 \mathrm{~s} / \mathrm{on} \mathrm{w} / \mathrm{ET} / \mathrm{OC}$, testing DA pattern to
RICHMONL, $5 / 20600 \mathrm{SSB} \mathrm{s} / \mathrm{On}$ O/WQQW/WAKR/WHPY. (RjE)
SICHMOND, $\quad 5 / 20600 \mathrm{NSB} 5 / \mathrm{On}$ O/WQQW/WAKR/WHPY. (RJE) (RJE)

That's all! Excuse the typos here; I lost the correction ribbon, and I never had any White-out, so I had to wing it. Once again, notice the address change mentioned at the beginning of the column. Until next time, 73 and good DX de ECR...
Reporter:s:

| RjE | RUSS EDMUNDS | Kinnelon, NJ | HQ-150, 4' loop |
| :--- | :--- | :--- | :--- |
| SW | SHARON NATERMAN | Southwick, MA | HAGOOA, loop |
| PRM | PAUL, MOUNT | Coffeeneck, NJ | TRF, SM-2 |
| DKK | DON KASKEY | San Francisco, CA | Radio of sorts |
| ECR | ERIC RITTENHOUSE | Berkeley, CA | Car radio |



H. SOH: GENENTS

After reading Bob Foxworth's review of the Mckay-Dymek DR-22 (Vol 44 \# 14 2-7-77), I thought DXers might be interested in a review of one of the prototypes which George McKay brought to a Southern California DKers meeting some time ago for us to look at. This meeting has been traditionally held in a downtown notel and is somewhat noisy. For antennas, we used a Dymek amplified whip and a $50^{\prime}$ quickee longwire. Overall, I would say I was quite pleased with it. In judging a receiver I consider the following factors with importance in the order listed: front end imnunity, selectivity, readout, and conveniences. I usually ignore sensitivity since it is so easily obtained. It's only when there is too much or too itttle that you need to be concerned about it. Front end immunity (the ability to withstand overloading from strong signals), to me, is the most important since selectivity and readout are worthless if your front end is clobbered and filled with garbage frcal 50 kw locals. Good selectivity is a must, but if the front end can't take it, then you can't listen close to powerhouses which is one place where you need selectivity. Similarly, good readout amounts to a frill if you are hearing two adjacent stations. Bear in mind that I am reviewing this receiver with high performance BCB DXing in mind-not casual listening or DXing on shortwave.

## SYNTHESIZED TUNING

The first thing that hits you when you turn it on is the big LED readouts. As I remember, they were about $3 / 4^{\prime \prime}$ high and you can read them $10^{\prime}$ away. (The readout on the R-390A is only $\frac{17}{4}$ "high). The tuning is excellent but takes some getting used to. If you are not used to digital readout, it can be awkward at first, but once you are used to it, it is really nice.
Synthesized tuning has been in disfavor by those in the know due to their experience with the military R -1051. This particular receiver requires two hands to turn the knobs because of the high torque required and makes DXing very tiring very quickly. The DR-22, though, had a verly light touch and allows zipping around the band as some DXers are prone to do. One of the nice features that results from synthesized tuning is that the BCB band is not broken into two bands like it is on the R-390A and SPR-4. It is such an annoyance to have to change bands when you reach 1000 khz and then retune down to 1000 khz to continue where you left off. Also because of the high IF, there is no preselector to tune. Synthesized tuning can make for faster tuning. Turning a knob one position can put the receiver from 550 khz to 1550 khz in $\frac{2}{2}$ second. Try that on your R-390A or SPR-4.

On the otherhand, tuning from 995 to 1000 khz requires turning 4 krobs. The DXer who plans his $0 x$ and knows where and when he will listen will find the DR-22 a great help, whereas the DXer who just scans up and down the band witl pay a slight penalty. For example, going from 790 to 800 khz , the DXer will turn the "9" to "0" which will put the receiver on 700 khz . Then he will turn the " 7 " to " 8 " putting the receiver on 800 khz . Soing from 790 to 700 to 800 khz can be a bit confusing at first, but the LEDs tell you exactly where you are. I feel that intermediate and advanced DXers will really go for synthesized tuning, but beginning DXers may find it somewhat of a hassle.

## SENSITIVITY

From the corments I hear, most DXers think the published sensitivity of 2.5 uv is terrible since the SPR-4 has a sensitivity of 1 uv. Any DXer who knows hos stuff will tell you that as long as the sensitivity is below 5uv, knowing how to $D X$ and knowing where and when to listen is vastly more important than that extra microvolt of sensitivity. Remember the $R-388$ has a sensitivity of 15 uv (!) and the R-390A has a sensitivity of 3 uv and you know how good they are. My R-390A was measured by a Swan engineer as having 1 uv sensitivity from 500 khz to 30 mhz . Although you can tell the difference, it can't hear anything my R-388 cna't. 2.5 uv is mre than adequate and at the motel we were listening to WhVB-60 khz coming thru the power line noise. FRONT END IMAUNITY \& SELECTIVITY

Here in the Los Angeles area, I have some quick tests that I run on every receiver that I use. If they pass, they are in the good to excellent category. If they don't, they aren't worth bothering with for serious DXing purposes. The first is to tune in XEMMM-800 in Tijuana, Mexico. KABC-790 ( 5 kw ), which puts in a potent signal, produced little slop and no cross-mod as I would expect from a good quality receiver. (NOTE: I used the 4 khz filter. The 8 khz filter is worthless for Dxing.) The next is to tune to 990 and 7000 khz . XECL-990 Mexicali and KML0-1000 Chula Vista were received weak, but clear. In this case KFWB-980 and KGBS-1020 (now KTNQ) produced little interference. The last one I ran was to tune in 1050 khz . In this case, KBBV-1050 Big Bear Lake and XED-1050 Mexicali were fighting it out weak but very readable. In this test, the combined effects of KFWB-980 ( 5 kw ), KGBS-1020 ( 50 kw ), KNX-1070 (50 kw) and XEPRS-1090 (150 kW) can bother reception of 1050.

The DR-22 passed it well whereas my SPR-4 is bothered noticeably. Aparently, having a double balanced mixer, 30 mhz IF , and 30 mhz crystal filter really cleans things up. I usually fun these test in the daytime since that is when

8 everyone is on with their maximum power and provides a worst case test. I chose these stations, because they are next to strong locas and because they represent the 1 imit of daytime $D X$. Since they are weak, any cross-mod or extra slop due to poor selectivity will quickly cover things up. One thing I wasn't able to do was to test it with an amplified loop on it.

SPURS \& SUCH
Quite predictably, I couln't any cross-mod even when listening close to 50 kw locals. Naturally, when the Rockers whent into a drum solo or the Mexican stations went into their Mariachi music, you heard it 10 khz away, but this receiver really makes you a believer in state of the art solid state. I couldin't find and spurs or images but then I wasn't about to look thru 6000 channels for them. There is a daytime spur on 830 produced by two stations (KMPC-710 \& KPOL-1540) mixing in the front end and appears on even the better receivers. However, it was absent on the OR-22. CONVENIENCES
One thing McKay-Dymek did right was to separate the BFO from the selectivity function. If you want to use the BFO independent of the selectivity or vice versa on the SPR-4, you have to modify the receiver, which is pretty rediculous for $\$ 600$. However it is offset by 2.5 khz from the center of the IF. The vernier tuning overcomes another objection to synthesized tuning: not being able to tune inbetween 5 khz steps. It will be no problem to get 1 khz readout (just take a felt pen and mark the face p?ate) and with a little practice, $\frac{1}{2} k h z$ or better readout should be possible. Also, there is a jack for recording, which should be on every receiver. The knobs are nicely laid out in a row instear of being plastered all over the faceplate like the R-390A and R-388. Also there are no unnecessary knobs.

SPECIAL CONSIDERATIONS
The first thing to remember is that McKay-Dymek in no way claims or implies that this is a DX machine. They explicitly state that $\mathbf{i t}$ is for the HiFi Enthusiast/SWL. Since we are not that category of people, we can't feel that the receiver will necessarily have the features we need. I feel that this should be stressed since some rotten reviews of the FRG-7 are turning u) by members who bought one without reading the specs. A receiver with 6 khz bandwidth is going to make a fair domestic receiver and a very poor one for splits. The DR-22 with 4 khz selectivity will make an excellent domestic receiver and a fair to good one for splits, depending on what you are trying to hear. I suggest any prospective buyers make arrangements with Ralph Sanserino ( 8422 Crane Circle, Huntington Beach, CA 92646) to yank the 8 khz filter and replace it with a 2 khz ceramic or mechanical
filter. Ralph is already doing this with the FRG-7 and he may be able to g make arrangements so this would not violate the warrantee. Also, being: a hifi receiver, the audio response is good--to good in fact. Dymek claims it goes down to 30 hz which is a no-no on the broadcast band since all the low freq hets and rumbles will come thru. I suspect that changing a few capacitors in the audio stage will fix things. Similar considerations apply to the highs. If you have an Autek $Q F-1$, then this will solve the problem. There is, unfortuneately, no notch filter in the IF. Hammarlund users will miss this, although you could add one easily since it has a 455 khz IF. It does have a 5 khz audio notch filter, but this is of dubious value on the broadcast band. If you are using 4 or $\hat{2} \mathrm{khz}$ filters, a 5 khz Ket isn't going to make it thru very well. With a light weight, solid state receiver like this, Dxers are going to be tempted to take it on Dxpeditions and Beverage parties. I think there may be a problem with the crystal filter at extremes of temperature. Temperatures ranging from 30 F to 115 F are not uncommon during such events (at least here in So. Cal.) and I doubt if the filter is designed for this kind of range. 30 mhz is very high for a crystal filter and they drift a little with variations in temperature.

A 5 khz drift at 30 mhz is very small, but it could put the signal outside the passband. This is, of course, no problem at ordinary room temperatures. SUMMARY

My preliminary test indicates that this receiver is worthy of serious consideration by the serious DXers, but any potential users should carefully weigh the features before buying and remember that a few changes will enhance the already superb performance for serious DXing. I rate the DR-22 against The Big Three as follows:
Using 4 khz selectivity, the DR-22 could totaly outclass a stock SPR-4. The SPR-A's selectivity ( 5 khz ) is too wide for splits and it has rotten audio. Also the SPR-4 has the disadvantage of having the band split at 1000 khz . Although good, the SPR-4 front end is substantially inferior to the $D R-22$ 's.
The DR-22 should run neck in neck with the R-390A. The mechanical filters will provide siightly better selectivity since the shape factor of the ceramic filters are not quite as good. However the DR-22's front end will let less crossmud come thru and make up for the difference. The R-390A has a major advantage with a 2 khz filter which helps a lot when the going gets rough. The DR-22 can drive a loudspeaker directly and has provisions for recording whereas the $R-390 \mathrm{~A}$ is rated to drive a speaker to $\frac{1}{2}$ watt maximum and recording must be improvised.

The OR-a's selectivity will also be better. However, the R-388 has a
more apropriste audio response and it has a crystal phasing notch filter
which is a big plus.
There you have it and, as the man says, its a nice radio

Following a thorough researching of all of the logeines of Urumchi-1525 reported to IDXD in DXS between January of 1970 and April of 1977 , several things become increasingly apparent. Eariy in this period, both the author and Eob Foxworth noted that the best receptions of this station could be had during periods of moderately active geo-
maglictic conditions, or uncettled conditions. The statistics, for the most part, bear out this observation. In perusint the logeings reported, no effort was made to evaluate the receptions qualitatively on the basis of audio quality or signal strength. The prosence of a discernable signal was deemed to be sufficient.

In a large number 0 : the cases, the index of geomagnetic activity, Aff, showed val ues of 10 or more. In an even liager number of cases, the average of fhe values of $A_{\text {fr }}$ taken over the ten days prior to the reception showed values in excess of 10 . The the eral agreenent as to being above the previously-described levels. In isolated instances, all three values were below 10 .

These findings are not generally surprising, however, with the exception of the latter statement. The results of this studt tend to generally substantiate the expected trends, but are not sufficiently definitive to be grounds for any hard and list statements or predictions not couched by a disclaimer or two.

It is also interesting to note that a larger proporation of the receptions are during the months of November and March, which are conceded by many to be those months which border upon the Mid-winter Anomaly. The next most frequently-appearing month is October. This data seems to indicate that receptions on Trans-Polar paths may very well be adversely affected by the MwA.
Other comments of note include one made by several DX'ers, that receptions of Urumchi tend to parallel receptions of Vinnitsa, Ukraine on 1545 kHz . Vinnista is one of the quired before any correlations of any meaningful nature could be drawn. As would be expected under unsettled or moderately active geomagnetic conditions, many DX'ers noted that Urumchi receptions did not tend to coincide with good TA conditions.

The findings detailled above do not, however, shed any light on the propagation mode responsible for the Urumchi receptions. Logging data supplied by a number of the in dividuals reporting these receptions also do not provide any substantive information Many receptions were noted with no bearings at all, while the range of those bearings which were reported varied from $0^{\circ}$ to $30^{\circ}$. Given the range of receiving locations, this range is pretty much acceptable for a Trans-Polar path, as opposed to one utilizing an ionospheric tilt (chordal mode), which might be expected to yield a lower range of bearings. There is, as was noted in the original Trans-Polar DX article, that the phenomenon exists, and that under certain conditions simnals may be propagated by it. There has been, to date, no information as to the characteristics of the bearings of such signals.

As an appendix to this report, is a listing of those receptions which were the basis for the study, as well as the relevant data concerning $A$ ir as mentioned above. Also Inasmuch as the $A$ is computed on basis of UCT (GMT) and the IDXD reports likewise, no adjusfments need be made to compensate for the time differences.

Additional data, obtained from individual DXers, much of which did not appear in IDXD, or which represents additional data, will be studied at a future date, and will be the subject of another report.

MUSINGS OF THE MEMBERS

KARL JETER - 2816 Frontior Trail N.E. - Atlanta, GA - 30341
Finst First of all, apologies to Kllfcrd Rogers, from Stone Nountaln, wh, who was at our GTG, and whose name I forgot in my last Mose. D. has been off, as expected, lately but I have been
fil in up the slack with a renewed interest in OY DX. After reading Dob Foxworth's ex celient article "Successful Lonf-Distance Reception on the Class IV Channelg" I picked up some ijeas and hints that have helped me bag a fow. By the way, that article is know as ${ }^{n} \mathrm{D}-13^{n}$ in reprint circies, and is reccommended. Does anvone know who the jopko on 1240 mieht be? (Yes, Karl, it's Herb Jepko, hil, -ERC) I've heard it often after midnight, but never any IDs. There are probably nore than one on that channel - does anyone have a list The recent UY DX includes: WBIA-1330 Au-usta, GA for GA 8137 on $5 / 5$ at midnisht w/ID popping in, weak signal. MM $5 / 2$ brought WKRN-1340 in 3am wid, one minute of NX, then rr, to
$3: 02$. This w local WISO nulied (but they're no problem anyway). Goim back to April, WY_I-1230 Dublin, GA heard for GA 1136 on $4 / 27$ no probiem anyway, $11 ; 27 \mathrm{pm} / \mathrm{s} / \mathrm{off}$, also weak. Best recent
 No vcice IDs neard. SSS on $5 / 5$ was productive, $\mathrm{K} / \mathrm{WGSV}-1270$ Guntersville, AL heard $a$ off late 8:48, no SSB. Then WFUL1270 Fuiton, KY noted w/s/off $0: 01 \mathrm{pm}$. Unn KADL-1270 Pine Bluff, AR was heard very well after $9: 05 \mathrm{pm}$. So much for recent $D \mathrm{X}$. A few veries have fil Bluff, AR was heard very well after $9: 05 \mathrm{pm}$. So much for recent DX. A few verios have fild
tered in: WKRM- $1340 \mathrm{w} / \mathrm{V} / \mathrm{PF}$ form, WADO- 1280 v , KRYT- 1530 holdout for last year's TEST, $\mathrm{V} / \mathrm{f}$ (Thanks, waynel) and WKAZ-950 v/q. The bulletin is lookine good, Louisvile and keep up the हood work $=00 k s$ like the transision was smooth, and the club is in great shape. It'a nice gettine DX AEis at the berinnin; of the week, also. Nell, all talked out for now. nofe to have some more GY to report next time around. This DKer will hitting the BCB dials all Summer lons! 73 s for now. (Way to talk, Karll - ERC)
HARRY :EELMS - 1781 A Cedar Post Lane - Rock Hill, SC - 29730
The electrical problems mentioned in my prior Musin fhave been corrected, efforts of Gilfer. The electrical problems mentioned in my prior Kusing have been corrected, and tie selectiv6 db and $20-2 \hat{2} \mathrm{k} \mathrm{hz}$ un 60 db ; Giffer installed a coramic filter that now gives selectivity of $4 \mathrm{khz} \approx 6 \mathrm{db}$ and 10 kHz 60 db . That's not a challense to an $\mathrm{H} 0-180$ but is easily enough to tis out stuff like Surinam-725 with ease every evening. On SW I can split R. Nacional Feru-6012 from Ceutache Welio's Antisua relay on 6015 with no problems. AVC time was also modified by illfer. Ijlfer offers the FRS-? with the new filter installed for slightly over $\$ 300$ and is wortn investicatin if you're in the market for an SN RX. Porry Ferrell of uilfer does not advise usine the FRG-?, or any other wadley loop RX, as a BCB DX RX. The FRJ-? is insensitive when using an IW on the BCB but performs fine with a space Magnot. There is some cross-mod, however, $x$ imarine the problem gets worse in orban areas. In summary, if you buy an FRG-? be sure to have it modified for selectivity and AVC time and buy it from a reputable source such as silfer or Ham Radio outlet, your selling dealer is responcible for warrant;, service. On otner notes, have an article on foreign cB DXing ities scheduled for $t$, knew that derree in Journalism would come in handy for somet in. some day, hi. I aiso nave two more awaitin publication at Elementary Electronics. Everyone have a nice Summor. 73.

STEPHEN H. PONDER - Box 22635 - Fort vorth, TX - 76122
10 againl 1 went home to Bossier City, LA, for Mothers' Dayl here's
 10:40; in; 11 . $5 / 7-$ WETC-540 throush static (e $5: 102 \pi$; wR"0-680 toppint channel $5: 40$; WABC-770 In the clear 5:45; WO:NO-1190 topping O'KLIF/KAYQ 6:05; WGAR-1220 in the clear 6 6:15:
 5:04; KRYS-1360 EOO. O:KXOL A 9:40. 519-KAKC-970 u'KSYL/WAVE 2 4:55am; KROF-960 good ul
 FRUS Э:O7; WCAU-1210 o/KGTN : 9:55; WIRL-1290 o/WHIO. 10:15; KXOL-1360 good o/KRYS 10:22
 that school's out, I hope to be at the dials more often. $C U$ in 141
WARREN SREENEER - 145 Cottage Road - West Roxbury, MA - 02132 Nothink new here since the last Musing oxcept that I received a v/q from my trip to surope. This wae from the Armed Forces Radio, Europe. So that's all for the Misin; because tre s wan't that much new.

DARIO MONFERINI - 8 Devanrati Street - 20158 Malano, Italy 2:40pm \& WHAS Louisvill © 8:20pm (both these thanks to thesilent poriod of ral Roma); Bobit Dganda $=809$ was here al: 30 on $3 / 12$ aftor $10: 05 \mathrm{pm}$ EST. Aftor $3 / 18$ also here was noted St. Vincent-705 8:30pm EST s/off ulth good poaks. Prom $3 / 18$ till $3 / 23$ wore NA openings, and usuals stations wore noted, among them CHOM-1250 7:40 pm EST W ORM from WHN; CBAF-1300 6 9:15 pa. New poriod of NA opening was 3/31 till 4,4. CKCV-1280 8:13pm; WABK-1280 a 9:u5 8:35pm EST, will I met the most axotic signal of ZANI Virs in Islands, according to my tape recorder they ID like "Radion reverberited \& repeated fipe times. After 9pm a program from IJK was over the air, but after that date CX have becone very poor and only usual LA stations has been noted. QSLs received from precedent Musing: CKBN-1000, CJBR-900, R. Lerida1520 Spain informins they now have 5 kwl Dutch pirate 1 kw "rom $\mathrm{C}_{7} t$ Radion-1322; Vilndus verified my report of Kaunas HS-1554, WLW-700, WGY-810, R. Antilles-930 v/1, Groenland-700 with nice folder; a controversial letter from Caribean Radio Li-hthouse-1165 writing like a St. Thonas "I will verify only if you will send a taped cassette." Maybe he don't like Italian DXersif? Hi. VOCM-590. CKLC-1380, a real unexfected, after 210 days. I have 2 final note to say about that $D X$ season which is approaching to sloff, also here concerning NA reception It has been very good \& the logging of KSO- 1450 \& WMTC-1280 shows the limit.s of reception are still to bo traced. Spain from April run GMT + two hours. Thiswill till the first week in October, Italy will have GMT + two hours from the last Sunday of May till the last保

SAM IELLIT - 23 Lorinya Street - Mansfield, Brisbane, Australia, 4122
Not much DX nere lately, however I managed to get away with fellow MA DXers ition. Three unterminated beverages were erected in all 1,000 feet to the E for the Carriboan and Central Africa - our mainstay with 600 footers to the NE \& SE as backups. First night we arrived at lam local time \& started listening on the NE beverage left behind from a previous trip. Some interesting things were heard, stron; st beins Lusaha-818 with "Beat Scene" 1730 GMT \& Kampala- $908 \mathrm{w} /$ "African Top 40 (3) 1800 z (shorthand for GMT). Otiors not= od around t.m. time were Nairobi-511, Dar es Salaam-656, Nairobi-746. Buteba-728, Mom-besa-791, Asmara-944, Mogadishu-963, traces at times of Guecla on 998 . Around 5pm local the 300 , afforts were - a rewarded with Colosal-1005, Voz Centro-1055, Cubans on 590 s 600 avening our ities from Austrilia wnere only a handful of latins ha e been heard. Hishlight of the trip though was Caymans, the $O C$ we heard e 10502 seemed too stron for 10 kw a 9,000 miles, but 10582 lady announcor with "At this time Radio Cayman in the CaymanIslandis begins anothor transmission." Armchair cope with rapid fadeout \& ${ }^{\circ} 1125 \mathrm{z}$. Thus fortified we weathered the cold all night, the Caribiean aerial had a narrow sidelobe on Borneo, enabliny us to loy Sabah-665, Benjalmasin-1134, Pontiniah-1233 while waiting for the Africans to arrive. when Sabah s/off © 1000z Reunion was al ready bounding in short-y afterwards forrestside-683 w/ BBC NX \& 1800z. Good report on Seyschelles-1331 w/ "Seyschelles Roundup" $1730 z$ though hats from Japan- 1330 \& RRI- 1334 were annoying, Next night a fair openint on the top end - Com-ores-1088, Malagache-1394\& 1502 w /tentatively Swaziland- 1370 . All in all a very enjoyable a 2 radius of 50 miles). Equioment used ras 4 Drake SPR-4's, probably not a pinch on your hat ting up on a stool in the back seat of the car. I forsot to mention our last locgins, Lord House Island-1490, 30 W \& 330 miles during the daytime: Recent QSLs from KXEL, KCRG, VOAMarathon, $4 \mathrm{MK}, 4 \mathrm{NK}, 2 \mathrm{CN} .73 \mathrm{~s}$ \& good DX.

- MIKE HARDESTER

Box 2,723 - USNAVREGMEDCEN - FPO Seattle, WA - 98778
There was montion recently over local FEB-65) that the U.S. Postal Service is requesting an increase from $13 \phi$ to $16 \notin$ for First Class Mall, $x$ permission to oliminate Saturday deliveries. This struck ne as huorous in a way (bein, 27 z able to recall 44 First class letters) in that the service continues to deteriorate as the rates go up. It's a simple matter to eripe about som the but how many actua,iy do anythin; besides sripe? Not too many has been my experience.
ceivine complasnts over present mail service ' the request to raise rates. The present sugceivine complajnts over present if my calculations are correct, $f$ if such is projected across the board, that raises interaaticnal airmail as well: $22 \phi$ newsletter to $27 \phi$; $25 \neq$ airmail to $31 \notin ; 31 \phi$ airmail to $38 \phi$; \& IRCs from $42 \phi$ to $52 \phi$ each. Again, this is assuming the rate increase is the same across the voard. Now a sugzestion (an what complaint is any food without a suggestion?): on the domestic level, instead of charyiny $16 \phi$ per ounce, how about $8 \phi$ per half-ounce? International mail is cnarged on the $\frac{1}{2}$ ounce basis, so why not domestio mail? Believe it or not, a legal size ervelope, stamp \& two sheets of regular paper will go for about $\frac{1}{2}$ oz. If two shets are too heavy, uce one sheet \& write on poth sides. Comments Very 73 z best of DX. (How about sliminatine JUNK mail, Mike? -ERC)
NEXT DEADLINE IN PROVINCETOWN FOR MUSINOS IS SATRTAY, JULY 2, AS THERE IS NO MAIL DELIVERY ON MOXDAY, JULY 4. JET THESE MUSINSS IN RIGUT NON AND BE SURE TO BE ON TIME FOR THE NEXT ISSUR

EIICHAEL E. BISCHOFF - Goldon Wost DX Ass'n - 420 Longfellow Avenue - Daerfield, Il - 60015 for me to spend $13 \phi$ to put my $2 \phi$ worth in, hi. DX has been absolutely incredible over the past Winter season, probably due to the rotten WX experienced around these parts. WC openings were particularly good, most of the new loggings came from that direotion with a turn back towards the E lately with the arrival of Spring. As of lata, I naven't done too much now DXing, Just clearing up a lot of outstanding reports. Also, atmospherics are killing averything, I can't even get whs clearly lately (which may be more or a blessing than a curso, hi) \& $S$ suburban stuff is next to impossible. Totals are how drastically up from 2st time, with 669 heard, 364 veried, 48 states $\& 81 x$ provinces heard-veried. I junt need K \& HI now, looks like I'll ha w to wait until next Winter for them). So far, the follow ing rosults in from GWDXA TESTs of this season: KNWS heard in 12 locations, including OR \& WA (with KING on? It can't be 1 ), 1 s far $S$ as GA, WWVX heard in almost the same spots, obGUTY, ears! Eithor that or you use KGO's towers as your antennas! WCMY had in 22 places, farthest being FL. This, by far, was our best-run TEST of the season; special thanks to CE Delnar Dayton. First results from KVOX have 14 roports in, NE being farthest $W$ due to KTLK, $s$ all you Now England boys to the E. If you haven't sent in yet, for a tape, KVOX will send a rather wild poster w/verie. That WTVX TEST really makes me look bad, here I tell everybody they won't even verie \& a guy from MI gots then to TEST twice! So much for my credibility, hi. Actually, per call, they've got a new CE who's into DXing. Station is also back to programming on FM, all ethnic on AM. A good soason for TESTs this yoar; lot's see more folks involved this coming year - just think of the results if every member arranged ONE TESTI Speaking of TESTs, anybody get a CJGX verio yet? Methinks they've ulled the shaft on everybody again. I sent them a 10 -page lettor, with every 10 verbatiml t took me eight hours to copy it all down, too. If the veries are out, does anybody know wil not larther (nour can high quality. 91 s .

PHD BOERSMA - 15570 Cleveland Street - Spring Lake, MI - 49456
Trefor a Musing I'm thinking very seriously about attending the IINCOL vention - I really hope I can make it. Local WKJR-1520 had an open house on Sunday $5 / 22$, I went, \& ran into an old high school friond of mine who's now an announcer at the station. nyway, he told me that WKJR has ap,lied for a nighttime operating pormit, \& they would be using Sevent towers. fe didn't say what power they have applied for, but with a soven-towor array, it just might be 5 or 10kw. WKJR currently operates with a daytime only power of okw fed into threo towers, producing a fairly sharp N/S pattern, with sharp nulls to the $E$ 6 . IF the nighttine pattern gets approved by the FCC , it would be the most complex DA in解 or bxers oust wo arts to near some of my locals, rop me a limose areas

MTKE WHELAN - 1654 Bathurst Street \#401 - Toronto, Ontario - M5P 3J9

- It's been a month or so since the last Muse so I ambort, Que as three, so I guess it's about time I aot away from the bis town. When I left, I rememared tiac I foroot to check the membership list to see if any NRCers are in $3 t$. Lambert. Too bad, but I doubt there are any. St. Lambert is in suburban Montreal so I left Toronto looking forward to some nes Dxins experiences. Unfortunately, it's not too different except that the odd station is either a little weaker or stronger than it is in Toronto. Bascally there are the same dominant stations on each frequency $x$ that was the disappointment, erie percentere. It is currently about $40 \%$ with 540 stations heard. Slowly but surely the Toronto Area DXers (TADS) are gettine to know each other. Thers are now seven of us who communicato regularly and belons to either the IRCA or NRC \& of course there is Mike O'Shea george Semko in Buffalo who also keep in touch. If we get many more (there are stilli 10 or so), we may have good reason to hold the NRC Convention here - wowl By the way, has the NRC ever had its convention near Toronto? (Yes. Buffalo, and Montreal -ERC) For the next few weeks, fill have lots of time on hand to write reports. I'm in a cast for six weeks from falling off a skateboard - two days before out city track meat. Oh well, that's the RREAKS, hi. NON they tell me you shouldn't skateboard if you're 64 . Thanks go out to ! 1 ITPC members for making this Club what it is, and to Dario Monferini for his letter. I'll phone CFUM when I get back. $73 s$ \& bye, all.
CHALRES IEORGE - 6407 Howard - Dallas, TX - 75227
I have received only one vario recently, 2 it was from KFEQ I had almost iven up on hearing from them. My ground on the SM-2 broke off so now I am using the round that I use with ry outside antenna for listening to the SW. In a way I am surprised that there is hardly any information on MWDX compared to SWDX. I was also wondoring why $A$ belize uses more power on their XR than on the SW XR. I even found that owners of the electronic stores do not know much about MN DX.

MRK CONNELLY - 52 Ameden Street - Arlington, VA - 02174
Musing/Eastern DX Forum. Bostan's only Csw outlot, WOOP, has dumped its country format \& WCOP call, the now Call hoard on 1150 is WACQ, w/a format of curront hits and oldies of the 60 's \& 70 s svenly mixed. Announcing, while live, is kept to a minimum the formet stresses non-stop jukecox-style mx rather than personality-oriented announe ing. I first logged ihis on 5/21 on the car radio at Wost Donnis Beach; at first the strange call \& foraat mystified ne until numyorous Boston mentions fioatod through. The slogan the now is usod; this is rominiscent of nusprous othor stations such as
 arred to as "Q rips": a practise of questionebie othical propriety congdering the fact that a well-known manufacturer of cotton swabs uses that brand name. WACQ remains under the old COP owners, Plough, Inc., \& their XR site is still in the clay marahes off of ConCord Avenue, Lexington, MA. "Progressive country" is offored on WTTK, the FM side of wace this appoars to be the only variaty of CsiN that has a chance in the Boston area market. Some initial technical problems at WACQ include "tin-can" restricted, overly-compressed aud 10 on some commercials \& the audibility of only one channel on stereo records; on "Down on hin Street" by Bob Seger, the guitar comes through fine but the vocal is very weak \& sound reverberated. Well, for now, 73.
RUSSELL J. EDMUNDS - Box 127 - Boonton, NJ - 07005
Greetings once again. Looks like I'm getting to be a regular in these pages already. I guess after being regularly in almost all of the 111 previous ones on the lase though a fow, and seroral ner tapes. Now new): 5/14. WKCY-1300 \& WTNJ-1300 W 6 \& $6: 01 \mathrm{~s} / \mathrm{ons}$. $5 / 15$ - I noted WSAN-1470 on through isted SP, so nothiny new there, drat. 5/16 WEBO \& WESA-1330 6:01 \& 6:02. Also an un
 30 wrong, WZIX mostly on top w/WHWH, but I got s/on of WCBA \& 6 \& that was it. $5 / 18$ on 1370: WSAY tosting w/OC w/IDs $5: 32 \& 5: 48$; WALK s/on $5: 55$, CFLV s/on w/O'C @ 6 ; WKIK @ 6:01, quickly buriod by WPAZ SSB 6:01:30, then WZYQ* 6:02, WELV 6:03 w/choral SSB after AM-FM s/on. 5/21- I caught WGFT-1500 s/s/on w/jingle, announcement oirw 6 way u/WTOP, then WFIF s/on 6:06. Sked notes, changes, etc. other than above in DXDD. No SSS or foreign stuff either, I've been doing just s/ons. Trivia dop't: Do you know when the last time wo had 2n Afr of ZEROS Would you believe 12/18/79? And this is supposed to be a minimum, hi. Seriously, since this is the change in sunspot sycles, we can't expect things to be like 1964-65, but even in 1970, wo had nine zeroes in Afr. We've had only ten "1's since $1 / 1$ ' 731 I'm busily compiling a lot of analyses of the A-index over the past for years for either DX NEWS or monographs, at LPC's choice. Speaking of monographs, the time, anyone wanting a iist, send an SASE $w / 354$ postage to me s Illl get a copy out. If you've ordered one before, you'll get it automatically, hi. There've been several changes in format of it so read the introduction to the list carefully. Anybody interested in any sort of propagation resoarch, etc. please contact me, and maybe we can got something going on that. 33 all, till July.

DAVE SCHMDT - 43 Chelwynne Road - Castle Hills - New Gastle, DE - 19720
430. v/LCEW-680 WGRG-1110 (says calls changed to WUPE 5/1) WRYO-1430, WRTC 5/q- WTTT490 (PA WGORS-1110 (says calls changed to WUPE 5/1), WRYO-1430, WRIC-540 \& WDDL sipped it back Wha 8 WHDM-1110 scribbled 2 line on the bottom of wy report and \& on w/ET $\quad$. off, 5:03-5:18am w/CiN nux. 4/22- WGRG-1110 12:13-12:25am ET w/mx \& OC o/u WPr. $4 / 25$ KBCO-1020 TEST noted mostly u/KDKA ET 2:06-2:25am w/ TT \& mx. MT was readable at one point
 able. $4!22-A$ lons shot on an r/c from WKRG-710, DT u/WOR's yak-yak 1:30-1:40am, por the
 Iclist. $4 / 29$-LOCal WReed, so $u$ /their OC, WPAR-1450 ending NX, then s/off 1:05-1:08am. $5 / 3-$ WCVI-1340 $12: 16$ $12: 31 \mathrm{a}_{\mathrm{m}} \mathrm{w} / \mathrm{rr}$, Ray Height Show. Many mentions of Uniontown boing made also. 5/6-Shocker, !WFOY-1240 f/c 12:17-12:24am way atop $w$. TT \& IDs every minute, not listed on the $\mathrm{f} / \mathrm{c}$ list. 5/9, first of many statieny MMs to come, but a report shipped to CKSO-790 12:25-12:38am, reak, but atop. I believe new pest CHIC is off MMs. WTAR may have beon off also. WSGN-790 was also notod running a PoP at the same time CHIC was heard w/one very weak 10 noted 12:33. Radio Bishops noted loud on 900, giving CHML fits $1: 10 a m$ w/rr. Is this an outlaw or maybe one of those Canadian net hookups? (I think Itis GKTS, Dave - ERC) Unon listening to y suitching between the main and $A X R$ to do work on the main $X R$, otc., since they dropped ly switching between the main and AXR to do work on the main XR, otc., since they dropped their MM SP. Their big est lost programming effort is still SM, when they start their ga sit down and listen to the mess they've created, hil
Easterners - 80 West. Westerners - go East. Southerners - go North. Northerners stay in your territory. ALL may thus attend the NRC Convention in LINCOLN, NESRASKA over
Labor Day weekend. Thetime is getting close - there are only TWO MORE DX NEWSes between now and Convention time, so make those plans and reservations pronto. Don't miss the funt

BILS COLEMAN Jr. - 114 Circle Drive - Rocky Mount, NC - 27881
Wolcome to Kontucky Publishars conaittoal I guass a re-intro is in anft brick manufa years old, marriod, \& working in my father s business who ia prosidont of a Net (WRAL-FM maing plant. I was fornerly aed to be TN (Tobacco Not MX not). Also a part nor for WRMT \& WIIT Wilison and WKBQ Garnor \& Eadio R.S.I. in Va. Class i71. Ny biggest desire is to own a powerhouséstation one day! I will soon go take the technician amatour radio license a (1973) and ex-WNHCQI (1962), listed in both oallbooke. A DI tip for $1280 \mathrm{ka} / \mathrm{s} .: \mathrm{WYL}, \mathrm{rr}$, Scotiand Neok. NC, Skw, has been signing off daily (seven days a weok) 6pm right after NC NX net, 65:55pm. Slogan is Now Music People, WTAL. Local WRMT switched to the now studio site on hiwy. 301 Soutin $\mathrm{w} / \mathrm{a}$ now $148 \&$ tower, \& Gates ZR (they were remote oontrol). Also are using the old XR For standby, liston out on 1490 k . UPI NI on top of hour, \& MoR/rr/oldias format. Local WCEC is now verifying roports that are correct, with roturn postage. WCEC i. MoR, 810 k , 1 kw day, \& Ieatures NC NX Net. Not much DXing here, WHPY, Clayton, was on MM a $12: 15 \mathrm{am} \mathrm{w} / \mathrm{a}$ TT. ET, me \& D. A good possibility for a DX TEST from this one? Strong signal here o/WAKR (usunlly dominant on 1590 hore). Only one verie in from WCV-1550, says nreaching out touchin You, in (name of towns), Crawfordsville, IN, first time hearing this one. I have sef Yeqty ry surplus receivers, and Kanwood GR-666, Aliliod SX-190 SH RXea for sale. Write of interestod $\&$ please watch DX-Change ads for info. Niso, I'm looking for a good HQ -180. If you've got any tips; or technical questions regarding anything about the DX hobby, vall wy DX Chat Line, seven days a wook, from midnight to 3am EDT, propaid (no collects) to 919-443-7282, also correspondence and exchanging casettes or raels of air checks most welcome. Peace ins.
DON KASKEY - 386 Geary Streot - San Francisco, CA - 94102
more than a year frowning the 1976 - 77 season was limited, mostly due to my wife of little I did manage a good bit of foreign DX during Sept-Dec. \& a smattering of domestic DX since then. I spent the last several months' spare time putting my $D X$ records in shape. Very then. I spont the last several monther spare time putting very DX records in shape. Very of them from my Galva, IA \& Omaha, NE locations. I had a combined log due to the proximity of the two locales. This included 47 of the then 48 states. Only Vermont was missing. It also included seven provinces and only ten countries. Best were seven from HI, 4IA N. 2. \& ACA, \& 200w HOL from Panama. Texas led the states with 168 heard, and Cal. had 106. I DXed briefly from Wyoming. Texas and Iceland 1954-56, then to California in '57. Log here is 1,043 heard in 20 years, not quite as impressive as mh Midwest log, hi. Only 41 states toc. But quite a fou more countries - 28. Frequencies are so erowded for domestic DX that
it's hard to hold my enthusiasm. I did note KPOD -1240 in Crescent City, CA, ox-KPLY w/AN 1t's hard to hold my enthusiasm. I did note KPOD-1240 in Crescent City, CA, ex-KPLY w/AN progressive $4 / 11$ u/KROY 6:28. Also KYTE-970 in Portland, ex-KOIN on $5 / 23011: 48 \mathrm{pu}$. $\frac{I}{I}$ may contact some K.C. DXers. Best catch of the past season was stumbling onto KNOM-780 Nome on $1 / 21$. 73 .

GENE ALLEN - 134 Brot Harte Way - Vallejo, CA - 94590 ittio DXing hore as most of my time is spent DXing thim Ham bands. KXQR-790 Clovis, CA is now on RS, verified in 7/76 while on ET. Verie in from R. St. Vincent-705 stamps, Dow Jones, and play a littio samba Very little BCe DI due to too many Ais, TVI power noise, etc. which do not bother $15 \& 20$ meters. Good luck to all.
STAN SHEDD - 1433 Fifth Street NW - Calgary, Alberta - T2M 3 C1
the move. They are now on $570 \mathrm{~m} / 10 \mathrm{kw}$. They put a reasonable signal into Cal finally made but some oRM from CKEK is inevitable. Oh the wonder of the CRTC. Cross out regional in your NRC Dorestic Log under 570 and write in "local", hi. The other item is a planned gettogether here in Jnly. Rather than set a date. I thought I'd throw it out and ask for suggestions. That way if anyone from out of town can make it, we can find a date to accomodate them. Just drop me a line or call prepaid 284w1996. If you live in Calgary, I'll try to get a hold of you, but if I don't. please call me. Till next time, 73 s .
RICH KODIE - 152 West Rose Street - St. Louis, MO - 63119
in the Club for a whille too. The biggest nows is that I'm closing in on 1,000 weries ben beon nine away! Maybe by the The biggest news is that $I^{\prime} m$ closing in on 1,000 veries - only nine away Maybe by the time this seas print, I'll have the thousand veries. The other have not beon heard at night yet. $76.289453 \%$ verio return, states $49 / 49$ for 100 , I still need $A 1_{2}$ sika, provinces $6 / 5$ for 83.38 and countries - $23 / 15$ for 65.217391 . I am mainiy a domestic DXer. For those who wonder which stations verify bettee, Ks or Ws, here are totals: K-calls: $487 / 386$ for $79.26078 \%$ $\&$ W-calls, $693 / 550-79.3650798$ As you can see there is not much difforence between them.
Not much else is new so I will s/off for over the Labor Day weokend - will you be there? cood DX \& 73s.
NEXT MUSINGS DEADLINE IN PROVINCETONN IS SATURDAY, JULIY 2. IT WOULD HORMALLY BR MONDAY $7 / 4$ BUT IT IS A NATIONAL HOLIDAY AND THERE IS NO MALI DELIVERY ON THAT DATE.

MO_THBA_L_ $\mathrm{M}_{2} \mathrm{M}_{-} \mathrm{OR}_{-} \mathrm{I}_{-} \mathrm{S}$
CAPTER LII - "THS FIPTIES RE-VISTIED- $\overline{A C A D N}$ This is the way it was in 1954-1956 per Musings of the whears: Lincoln NE DXer Kon Murphy received Now England veries from WAAB \& WACE, both in Massachusetts! Fort WXer Kon Mon Rollor heard his sitth Puerto Rican - NENA, $2 s$ well as f/cs from Idahoan KCID1490, \& WCers KSFG \& KPKW, GYs all! Jim Critchett, then of San Diego, noted his 34 th verio from 36 jXes that season (out of 96 scheduled), all by WLYN (MA) \& KFGT having vorified. The York PA DXer, J. Warren Routzahn, reported Mexicans XEAA-1340 \& XEK-970 28 well 2 s ER (Election Returtis) irom wroy- 1240 Fla., WCLT-14 $30 \&$ WHBS-1550, Ala. He \& I both logged KBTA-1340, Ark., f/c May 1 rolling over Mllwaukee's WEMP Seymour, Conn. DXer Hal Will lams reported his 35 th Ontario verie to keep his reported record at 1000 for the pravince, cKSO790. Scooter Seagraves, the Stuttgart. Ark. DJ-DKer caught the WSIG-790 DX run by fellow NRCer Phil Potter as well as Honolulu's KPOA. Sooner State DXer, Buddy Gilies of Oklahoma City, noted Peace River, Alberta's CKYL-630 toppint the above-mentioned KPOA Men in Buf\& XEHD-1430 both f/cing. Stan Morss' latest included iYZ \& Brazilian PRH2 one February MM 4 \& later, WCKI, SC ETing offoring a prize for the furthest listener. Vormontls Hank Tym$4 \&$ later, WCKI, SC ETing afforing a prize for the furthest listener. Vormonts hank the scene of a GTG of ERC, Bernie Duffy, yours truly, Pete Taylor (then of Miami, FL) at Hal Williams' home. Len Kruse, the 4,000-+ Dubuque. IA verifier, wrote of KBRO's 1490 WA DX, KEYZ-1450 ND f/c, \& KWRW, the 100 -watter in OKLA on ET as well as (above) Scooter's DX irom CAMO-1390, thanks to WFMJ's stand-b O Oklahoma was also represented in DX NENS by Oklahome City's Hank ward, verifying Alaskans XINY Juneau, \& KPQD Anchorage! Follow Oklahoman Bus Boatman of Stillwater observed KBOI, boise, as well as British Columbians CKNW-1320 \& CJVI900 on his PHILCO CONSLOEt The DXer from Schuylkill Haven, PA, Ted Weiser, caught both WABL, Fla. \& WTAY, Ill. through then-pest XERF, formers ETing. And as a sequel to Len
Kruse's accomplishments, $1 / 16 / 56$ saw him log five of the six scheduled DXes: wSUX-1280, Del., KYES-950 Ore., WBEU-960's C., CFRC- 1490 Ont., \& KBRC-1430, Wash. Not a bad morning's DXing I Heanwhile, Houston DXer Mike Ferguson, noted that though CMCO normally dominates 1230, he'd managed to squeeze WNOR, Borfolk, through 'em! And - TAAT'S THEWAY IT WAS - in the MID-FIFTIES!

E AGAIN EXHORT THOSE OF YOU, WHO GO BACK A FEN YEARS IN DX TO SEND IN SONE OF YOUR MOTHBALL MEMORIES FOR THIS COLDMN. WITHOUT SUCH CONTRIBUTIONS, TAIS COLUMM WILL HAVE TO DIE. WE HAVE THE LAST CARROLL SETB POEM IEET FOR NEXT ISJUE, AND THEN ONE
MORE FROM OLD-FAITHFUL RON SCHILLER ABOUT DX IN THE FIFTIES. AFTER THAT - IT? ITI MORE FROM OLD-FAITHFUL RON SCHILLER ABOUT DX IN THE FIFTIES. AFTER THAT - T? ${ }^{\text {I }}$ ITIS
UP TO YOU VETERAN DXERS IF YOU WANT TO CONTINUE THESE NOSTALGIC TRIPS INTO YESTERYEAR:
J. W. BRAUNER - R. D. 1 - Box 153 - Punxsutawney, Pa - 1576 ?
(Members, change Joe's address (bar number) in your master address list in
the $2 / 7 / 77$ issue of DX NEWS - ERC) Time to wrap up another DX year. 175 177 was not too the $2 / 7 / 77$ issue of DX NEWS - ERC) Time to wrap up another DX year. '75-177 was not too CPC TESTs, many more as a direct result of hot tips in DX NENS. About a dozen via that very useful $f / c$ list, including six from Kentucky. Veries from all those reported on TESTs. AIso from all others reported except WVFC, on a rather meager report. Since $5 / 1$ very little tuning was done, so little effort, littie reward. I tried for the KBCQ TEST on 1020 4/25. KDKA, as usual, had its carrier on throughout the half hour. In addition they modulated with $m x$ much of the time. A lucky break 1:15 let one definite KBCQ ID get through. After $1: 30$ some woak mx was heard, but seened likely to be from Cal. On 5/2, the KAOL TEST was heard for a new one. The CIDs were easily heard, but the voice did not make it through the QRM. In closing, my sincere thanks to all the oditors and the NJPC for a great job in keeping NRC
\& DX NENS out in front of the crowd. Happy jumertime to all. 73 .
sLifPEN FRANCIS - 1620 Lodee Streat - Alcoa TN - 37701
lately have been WAZL-1490 PA W/ID :21m $5 / 8$ during Philles' WC game; WSFC-1240 KY u local WBIR w 500 cycle TT 3 ID $4: 15 \mathrm{~mm}$ on MM 5/23-WKYY 930 FL MM 5/23- WKXY-930 FL fair u/WGNT 3:30-3:38 w/ET, IDs every couple of minutes, musta been OC only. At 8:45pn, WLCK-1250 KY nabbed W/s/off plug for FM-99.3. $5 / 26-$ Finally, WEMB-1240 TN briefly o/WLET 7:08am w/local spot. D-1 5,000w, at 92 miles, only took seven years to hear it1 Closest unheard ( 38 miles) is still WBHN- 1590 NC. Their bein: on the other side noted off for about the ejghth consecutive $\mathbb{M M}$, so hopefully they're back to a regular SP 5/31- "WJJJ, ehristiansburg" taped ID by woman heard as 8:30 pm on 1260; $\perp$ presume the tail ond of their s/off although $\mathrm{m}_{4} \mathrm{ps}$ say $8: 15$. See you in INDIANAPOLIS.

TONY Lagattuta - Box 6291 - Portsmouth, VA - 23703
$\mathrm{c} / \mathrm{w}$ mo stations: wokT-1270 (ex-WTID), daytime. DX reports should berolk area has two new OpH, EOKT Radio, 553 Michigan Drive, Hampton, VA 23669 . WHNE- 1350 (ex-NKLX-NIS), AN, IDs frequently as "Honey Radio. ${ }^{\text {Io }}$ DXX reports should be sant to: Mr. Boo Sinclair, Mgr., WHNE Rad-

RAY ARRUDA - 48 Woodlawn Street - New Bedford, MA - 02744
very little to hooe everyone is enjoying the Summer months. No $5 X$ here in quite some time, so ERC's phoned tip. Three veries were received the same say are bacn from heard - this pe 1280 \& WFKY-1560. I mentioned KYMN-1080 as being veríled not too long ago for their $2 / 21$
TEST, but they have not yot answered try reports, so maybe a flup is in order. See you all in
(Arruda) in the Fall. LINCOLN and YAD are out for thisyear, but a good possibility for 'rt








 Tive maratas on, and the old ovder chankwit, yielding placo to new. Local wist-1330 now a



 "asok 13' mov that fambline has lean aporowid for Atiantia Chiy. Parailias on All oo 1265, as










 Horle, who was hel jur $5 / 27$ - WQt


 THE "NEW" STYLE WON OUT FOR THE VIRIE-SIGNERS COLUMN, with FOUR votes FOR it, and NONE against it, and 700 ABSTAINING, hi. LET'S HAVE THOSE RECENT VERIE SIGNERS, PLEASE: BRIAN VERNON also sent in the TORONTO BLUE JAYS' network. MIKE WHELAN writes to say to remove CKLB-1350 from that network; they are carrying the Montreal Expos, in English.

## Greensboro Pair Wed During Radio Program

GREENSBORO (UPI)

- A couple was married in - A couple was married in a radio station studio Fri-
-day in a broadcast ceremo-
-ny that left at least two lisny that left at least ceremo.
teteners in a nearby office in meners
3ears.
in
In
Jears.
In what station manager
Tom Miller called a revival
"of the old bride and
"groom" stows that wereon Broom stows that were on
Tarolyn Jobent 25 years. Jarolyn Jones of Greens-
boro and Kenneth B. Deadboro and Kenneth B. Deadnuptial vows in cerchangenes Broadcast by station
WGBG. EMiller ers a play, who gave listenof the ceremonies before
Zurning the microphone Zurning the microphone about 50 secretaries in an adjacent office listened to Swaiked into the office fol-
lowing the marriage and
found two of the girls in lears.
Everything wen beautifully," said Miller
"We wanted to "We wanted to ayoid t circus atmasphere.
The bride and groom were in format attire and were accompanied by a
best man and bride's maid as they walked down the station's hallway to the strains of five of Miss
Jones' favorites pop songs. Jones' favorites pop songs.
The ceremony took place shortly after $8: 30 \mathrm{a}$ a.m.
under a magnolia trellis under a magnolia trellis se
up in one of three studios. up in one of three studios. by te couple was married kins after Miller's com-
mentary on the procedmentary on the proceed
ings. "I pulled the old bride angs. I Ipulled the old bride
and groom trick," Miller
aid, "the bride is reachin said, "the bride is reaching
the ctapel, that kind of
thing.
After the short ceremor--
ey, the two were whisked ey, the two were whisked
away to a reception in away to a receppion in
197 silver Cadillac owned
by a wonnan who pulled op by a worman who pulled op at the station and
teered her services. The reception was donat-
ed by a local lotel and teon ed by a local hotel and then the couple embarked on a one-week honeymoon do
nated by the Myrtle Beach nated by the Myrtle Bea
Clamber of Commerce. About 35 persons attended the wedding.

Miller orginated the idea, and went on the air
asking for volunters to be asking for volunteers to be
married. "Within two married. "Within two
weeks, more than 20 couppes volunterered. They sent portolios with pictures and
something
about something
themselves," he said.
Miss Jones said before
the wedding that she had the wedding that she had always. been a private
person." But added, 'This
has been so fantastic. I'm has been so fantastic. I'm
meeting so many ereet
peonle.

| Station | CLET | N14 | [818 | BhaR D $=$ Day <br> 30,000 H - Night |
| :---: | :---: | :---: | :---: | :---: |
| WFBG-FM | Altoona, FA |  |  | 50,000 ${ }^{\text {5,000 }}$ - |
| WBre | Eedford, PA | 1310 |  | 3,000 |
| WAKM-FM | bedford, PA bradenton, FL |  | 100.7 | 1,000 D, 250 H |
| WTRL | bradenton, Clarksburg, WV | 1500 1000 |  | $1,0001,250$ II |
| WBÖN | Clarksburg, WV Connellsville, PA | 1100 |  | 1,000 D, 250 I |
| WCVI | Connellsville, PA | 1370 |  | 1,000 D, 290 H |
| WWCE | Corry, PA ${ }_{\text {Cumberland, ML }}$ | 170 |  | 5,000 I, 1,000 s |
| WCEC |  | 1-70 |  |  |
| WCEL | Luiols, FA | 100 |  | 5,000 D, 500 l |
| WCEL-FN | Lubois, fA |  | 101.2 | 9,500 |
| WLEM | Emporium, PA | 1290 |  | 1,000 $1,290 x$ |
| \%TCS | Fairment, wi | 1490 |  | 1,000 - , 2900 - |
| WFAR | Farrell, PA | 1470 |  | 1,000 -, 500 3 |
| \%Fía | Franklin, PA | 1590 |  | 1,006 in 280 |
| MJEK | Frarklin, PA |  | 59,3 | 3,000 |
| whild | tiuntingder, PA | 1100 |  | 5,000 |
| WRLR | Funtingoon, PA |  | 106.3 | 3,000 250 N |
| wimL | Johnstown, PA | 1490 |  | 1,000 D, 250 N |
|  | Johnstown, PA |  | 16. 2 | 50,000 |
| WKLr | Keyser, iv | 1790 |  | 1,000 D |
| WKLF-FV | Keyser, WV |  | 46.1 | 6,000 |
|  | Linesville, PA |  | 101.7 | 3,000 |
| MKST | New Castle, FA | 1260 |  | 1,000 500 L |
| MMSG | Uakland, Ku | 1050 |  | 500 L |
| W:SC-FN | Uakland, Mi |  | \% | $50,000 \mathrm{Clear}$ Chanriel |
| KLKA | Pittsourgh, PA | 1000 | 4 | 50,000 Clear Chanrel |
| kKBI-FM | Ridgeway, PA |  | 4 | $1,000 \mathrm{D}, 280 \mathrm{H}$ |
| *XEI | St. Marys, la | 4 |  | 1,800 is |
| WSOM | Salem, OH | +001 | 105.1 | 100,000 |
| WSOM-FF: | Salem, OH |  | 105.1 | 20, 500 |
| WVSC | Somerset, PA | For | ¢7\% | 3,000 |
| Yis-F\% | Somerset, PA |  |  |  |
| VTII | Steuienville, 0 H | $1240$ |  | $1,000) 6,2508$ |
| vtr | Titusville, Pi | 1140 |  | 1,000 1, 250 N |
| atas | Tyrone, FR | 1.6 | 100.1 | 6,800 |
| 085 | Uniontowt. Pt. | 500 |  | 1,000 |
| 406E | Sa, nesburg, PA | 1580 |  | 500 |
| WHED-P | Waynespurg, FA |  | 109.1 | 3,000 |
| *P\% | Yourgstown, OH: | 176 |  | 5,000 |
| Ki4F | belleforte, PA | 970 |  | 1,0col |

The 1977 annual convention of the Association of North dmerican Radio Clubs (ANARC) will be held July 15-1? at Schaumburg, Ill, home of the Yoodfield International DX Club not to mention Woodfield--the world's largest shopping mall. All DXers and hear prominent speakers at this all-wave session.

For more information or reservations, contact the Foodficld International DX Club, P.0. Box 95073, Schaumburg, 111. 60195. Please enclose a SASE, mint Canadian stamps in Canada or three IRCs outside North America.


| A - Neil Zank <br> B - Ron Schiller <br> C - Ray Arruda <br> D - Jim Critchot <br> E - unsigned <br> F - Steve Ponder <br> G - Mike Tuggle |  | H-J. Trochímazyk |  | $\begin{aligned} & 1240 \\ & 1260 \end{aligned}$ | WATN mi <br> WNDE fh <br> 1 | (G. Harry Righter, $P$ (Donald Schryuer, CE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | r I - Dave Schmidt |  |  |  |  |  |
|  |  | J - Marry Hayes |  |  |  | (Ronald P. Hyor |  |
|  |  | tt K - Ron Musco |  |  |  | (Bob hyatt, E |  |
|  |  | L - Stan Morss |  |  | WEZE q B | Barney Lyon, CE |  |
|  |  | r M-Mike Bischoff |  | 1270 | KBAM ulm | David Peterson, PD |  |
|  |  | N - Ernic Cooper |  | 1280 | Cajd fm | Bruce Dingwall, C.E.T. | N |
| $\begin{aligned} & 540 \\ & 545 \\ & 550 \\ & 580 \end{aligned}$ | WRIC 1 C | C. D Lawson, GM | C | 1290 | KDMS p | John Pratt, GM George Wussor |  |
|  | Jumbo ln $p$ | P. Meyer, Dir. Gen. | E | 1300 | WTNJ | Barry E. Steinor, CE |  |
|  | CFNB q G | G. D Love, TD | I | 1310 | CKCY 9 | Stan Harrison, CE |  |
|  | WIBW mq | u/u | F | 1320 | KCPX uq | (william E. Wright, SM |  |
|  | WCHS qu D | D. Newhouse, CE | H |  | ul | (Rachelle Gibbons |  |
| 620 | KCMX ru e | E Whitman, CE | H |  | KLAN ur | W. H. Sadler, Jr.. P, GM |  |
|  | WSTN rq S | Stanley K. Jarvis, ACE | M | 1330 | WJPS 1m | John Buck, CE | U |
|  | KWSD ru Da | David H. Rees, M, CE | H | 1340 | WEPM 1 | C Michat 1 furst, MX D |  |
|  | KHOW q G | George Vogel, CE | F |  | WTRC 1 | Allen Strike, PD |  |
|  | WMAQ f W | W E. Newbrough, SuprTech0p |  |  | KLBK | Cruck Spaugh, SM |  |
|  | KFEQ q D | Donald E. Moss, COp | MF | 1350 | WLLY $p$ | Ray Frazier, M |  |
| 730 | XEX ln G | Gloria E. Parada, S de Dir. | F | 1360 | WNSR in | Rick Levy, CE |  |
|  | KMME f T | Tom Hotchkiss, GM | D |  | KDXI p | B. Strange, GM |  |
| $\begin{aligned} & 770 \\ & 290 \\ & 300 \end{aligned}$ | KRUS fm Ty | Ty Stites, Stu Su | M | 1370 | WZYQ 1 | Howard C. Fisher, CE |  |
|  | KXA lu W | William G. Shephard, CE | H |  | KAFB p | Donald Bordelon, CE |  |
|  | WSGW lm R | Rick Belcher, OPM | K |  | WFDR p | U/, ${ }^{\text {P }}$ |  |
|  | WLAD q R | R. Cohok, CE | E |  | KESN 17 | George D. Snell, gm |  |
|  | KHIS lu D | Jon Kuhns, M | H | 1380 | TAOK | Ivan Miles, 0 C |  |
| B90 | KOA qu | u/u | H |  | <SNC | Ben Kni ht, PJ |  |
|  | WJW q | u'u | M |  | KJET | Lloyd Jones, PD |  |
| $\begin{array}{r} 380 \\ 910 \end{array}$ | WRFD q H | Harry W. Jackson, CE | M | 1390 | KCFC 1 | Pat Murphy, Vp |  |
|  | WDSM q C | C. G. Williams, E | A |  | WTJS f | Carl Martin, CE |  |
|  | WGBI 1 R | R. E. Leach, CE | E | 1400 | WK:/K | Jack Rees |  |
| des | KYXX 1 S | Scott James, PD | F |  | KIUN ul | Bill Hubbs, 0 |  |
|  | NJAR q \% | dyatt McDaniol, CE | H |  | WOND fhm | T. McNally, TD |  |
|  | KITN ru E | E Whitman, CE | H |  | WJLB $p$ | Thomas Christie, CE |  |
|  | KLIK fm T | Tom Holmes, E | M | 1420 | WSPR | Kenneth Byle |  |
| $\begin{aligned} & 300 \\ & 950 \\ & 90 \end{aligned}$ | WKXI lm R | Robert Kohlmeyer, CE | M | 1430 | WTExO 1 | H. W. WInstead Jr., GM | J |
|  | KYES lu | Darell Rogers | H |  | WCMY f | Kent Hawthorne | KN |
|  | WEBR q D | Donald N. Lange, TD | H |  | Karm ulm | Scott Dean, DE |  |
|  | WCSH $f$ He | Herbert iN Crosby, GM | H |  | KAOL fm | Mike Thayer |  |
|  | WESO mq R | Richard La Vallee, CE | H | 1440 | WNCR I | Michaeld Marcy, CE |  |
|  | KOIN lu | Herbert Davidson | H |  | KMED ulm | Ellis Feinstoin, DoE |  |
| 100 | CFPL $f$ 3 | Bill Brady, PM | M | 1450 | WIBM I | John W. Cooley, CE |  |
|  | CHEX q B | Brenda A. Bolton | J |  | KOBO ul | Ross $W$ Forbes, op M |  |
| 89 | KWAM m B | 3 W Travis, CE | MF | 1460 | WBUC q | Michael R. Betler, CE |  |
|  | WHOO fm E | E. Miller, CE | G | 1470 | WSRO 1 | Robert Lupien, CE |  |
| 1010 | KLRA q B | Blande Perry, CE | F |  | CHON 1 | Larry Holleran, E |  |
|  | WB2 q | u/u | F | 1480 | KYOS ufm | George Smeade, CE |  |
| 90 | XEG q H | H S Schwartz | M | 1490 | KBRO Ul | Ron Rogerson, SM |  |
| 1069 | WQIO J | Jon Boebe Truman, Assoc.E | M |  | KVWC 1 | Greg Givens, Trf D | F |
|  | WRMF 1 A | Alan T. Sterger, CE | c |  | KRNR ul | Gregory K. Johnson, CE |  |
|  | WKKQ 1 (R | Robert Meyor, $\mathrm{N} \times \mathrm{D}$ | c |  | WFAD 1 | Lawrence C. Maier, CE |  |
|  |  | Scott Davis, CE | c |  | WMRE 1m | William Arrington, M |  |
| 1970 | WIID m | u'u | M |  | KNOW 1 | Wayno Hardin, TD | F |
|  | WILD 1 R | Robert Wotiz, CE | CH | 1500 | WFIF f | Alex Fraser, CE |  |
|  | WBAL mq R | Rowland Kraft, CE | M |  | NAKE 1 | John S. Bowker, NRC | GI |
| 1100 | WGPA 1 A | Arthur \# Holt, 0 |  | 1510 | WJIC 1 | Sen Ferguson, CE |  |
|  | KREX q (A) | Al Ladage, CE | M |  | wTHO lm | M. Thomaston, S | E |
|  |  | Carl Anderson, GM | M | 1520 | WVOE $f$ | R. Nicholson, CE |  |
|  |  | Rex Howell, Chmn of Bd. | M | 1530 | KFBK ${ }^{\text {q }}$ | Dale B. Harry, CE |  |
| 115 | KPOP lu W | Wes Meyers, OpM | H |  | WCTR 1 | Robert Nafzinger, PD, CE | H |
|  | WKRA 1 J | Jimny Dale, M | M |  | WDJZ fhm | James Elmore, ACop |  |
| 1140 | KLL'C q | u.u | F | 1550 | KOQT 1 | Ronald Cowell. |  |
|  | KNAB 1 B | Betie M. Bailly, CE | F |  | WMOO 1 | Wilur H. Goforth, GM |  |
| 1151 | Kago lu Ed | Ed Tomlin, E | H | 1560 | WBUX 1 | David C. Doubleday, CE | MN |
|  | WIVA fm J | James S Hartzler, DOE | KM |  | KIQS ul | Fran Mahon, S |  |
| $\begin{aligned} & 1160 \\ & 1220 \\ & 1270 \end{aligned}$ | WJJD $q$ D | Don Jeffries, CE | FH | 1570 | WTOW ul | Susan L. Fishol, Coml M | H |
|  | WKRS fo V | Verne Buland, CE | M |  | WYYT lm | Steven Shilts | N |
|  | KEXO urm | Kathy Shupe, OM | H | 1580 | KTLU r | Bob Rogers, GM | $F$ |
|  | KGEEE uq $S$ | Steven Mull, CE | H |  | WANB 1 | Abe Albright, GM |  |
|  | WAYX 1 S | Stuart Sraham, $C E$ | J | 1590 | WEHH 1 | Frank P. Sala, GM |  |
|  | KAAA 1 | l.ylo C. Henry, CE | D |  | WMIM I | Ed Rumance, M |  |
|  | KOZA i J | Jim Simpson | B |  | WCEG 1 | Cindy L. Secrest, Cont'y |  |
|  | KİCZ ul $J$ | Johnny Walker, CE | B | 1600 | KBBB mL | Gayland Darnell |  |
| 1240 | KMCL 1 | Jim MeCall, GM | D |  | KUBA lu | David Remond, $A E$ |  |
|  | KCIV ml Nid | Nilliam R. Hays, CE | F | Keep | om comin: | ; gans! Thanks for suppo |  |

AN - All night
CC - Aritish of North American Radio Clubs BEC - British Eroadcasting Corporation CBC - Canadian broadcasting Corporation CE - Chief Engineer
CH - Critical Hours; period when some s+ations change power or antenna.
cl - Cıassical music
CM - Coverage map; showing primary \& secondary coverage areas
CD - Construction permit; new station - group which arranges special tests group which arranges speciad
from hard-to-hear stations.
$\mathrm{c} / \mathrm{w}$ - Country \& western music
CX - Feception conaitions
DA-1 - Station with unlimited hours of of operation; same pattern day and night.
UA-2 - Unlimitea hours of operation; but different pattern day and night
LA-N - Unlimited hours; directional

- pattern nights only

LF - Direction finding
IOT - Lepartment of Transport (Canada) LU - Lown under (Australia of N. Z. $\mathrm{LXN}_{\mathrm{L}}$ - LX News; magazine of the NFC
bol - Eurapean isoadcasting bion,
ET - Equipment test.
FBIS - Foreign Eroadcast Information Service; radio arm of the CIA Frequency check
FCC - Federal Communications Commission FFC - French Canadian station
Freq - Frequency
r/up - follow up reception report; a copy of initial report sent to a station after no response
CCP - Great Circle Path
GCIB - Great Circle Initial bearing GM - General Nanager
ies-lot Save queen
et - heterodyne
IYC - International Reply Coupon; form of return postage available from the Post Office.
kliz - kiloHertz; same a kilo
LA - Latin America(n)
LFC - Louisville Publishing Committee; volunteer group responsible for operetion of NRC \& production of LX News.

LANGURUES:

| A: - Aradi: | II - Italian |
| :--- | :--- |
| ID - Lutch | PP - Portuges |
| EE. English | RR - Russian |
| FF - French | SS - Spanish |
| GG - German |  |

A - Approximate frequenc
M - Neasured A-cyriency
V - Frequency varies

LPRT - Low Power Relay Transmitter; 20 or 40 watt remote \& unattended Canadian station.
Lif - Longwave; band below 529 kHz
MM - Monday morning
MOR - Middle of the road music
Min - Medium wave
NAREA - North American Regional Broadcasting Agreement
ND - Nondirectional antenns pattern

- Former North Jersey Publishing Comnittee
NRC - National Radio Club
NSP - No Silent Period
NX - News
o/ Over
OC - Open carrier; no modulation
PD - Program director
PoP - Proof of performance; test conducted by stations upon request of FCC
PPC - Prepared card; verification card prepared for a station to sign \&
PSA - Presunrise authorization; special provision allowing station sign on

QRM - Interference
QRN - Static, natural or man-made
CSB - Fading
QSL - Verification of reception
( TH - Location
r/C - Regular monthly check
FR - Rock and roll music
PX - Receiver
SA - South America(n)
SASE - Self-addressed stamped envelope
SC - Top 40 record survey list
SM - Sunday mornins
SM-1 \& SM-2 - Space Magnet antenna
S/on - Sign on
S/off - Sign off
SP - Silent Period
SAS - Sunrise skip reception
SSB - Star Spangled Eanner; also Single Side Band
Stn - Station
SN - Shortwave (abrve 1620 kHz )
TA - TransAtlantic
TC - Time check
TP - TransPacific
TT - Tone test
TVI - Interference produced by TV receivers; sounds like a buzz every 15.75 kHz

## u/ - under

unIL - Unidentified
Unn - unneeded station
$v / c$ - Verification card, typed
$v / f$ - Verification
V/f - Verification form letter
v/1 - Verification letter
v/1 - Verification letter
V/q - Verification card, printed
VOA - Voice of America
$\mathrm{v} / \mathrm{s}$ - Verification signer
w/ - with
WRTVH - World Radio TV Handbook
WWV - Standard time and frequency station
$W X$ - Weather
XR - Transmitter
YL - Young Lady
73 - Best regards

Bootleg - See pirate
Loop - Loop antenna for broadcast band reception; also means direction finding. Pattern - Map showing station power in various directions; see NRC Night Pattern Book Pirate - Unlicensed racio station; some are commercial offshore ship operations. Primary coverage - The area of strong groundwave reception from a radio station. Ranadan - Moslem holy month in late fall; many Arab stations stay on the air all night. Secondary coverage - Area with good reception at night via skywave.

SPECIAL TECHNICAL TERNS:
AFr - Fredericksburg index of geomagnetic disturbance; the best measure of high latitude auroral conditions
Hurora, auroral oval - figh latitude region of extreme absorption to Medium have signals; Eeverage an single wire with special grounc cornections,
i region - Region of ionosphere where daytime $t$, signal absurftion occurs; Height: 40-100 kiloneters; involved in auroraj. disturbances.
Elayer - Cne of the rair reflecting layers for $M$ signals at night. Hejght about 105 km 2. 20 - Computer progrem to predict dawn-incuced fadeout times of specific stations

- Fiz 1000 - Fht Altazimuth lised interna; high ain loop.
, Aher 100 - FEI Altazimuth lcop antenna; high gain and very deep nulling capatilities. Height varies from 260 to 400 km .
Cemagnetic - Perteinins to the Earth's magnetic field; strongly affected oy auroral disturbences.
Ground wave - wignal component which travels along the surface of the ground; most daylight reception is by this node.
Beterodyne - fudio tone produced by two stations close in frecuency
Secharical Filter (MF) - Electronic component which produces improved receiver selectivity for separation of stations on close Mi frequencies.
Wh - Midwinter Anomoly. A well established phenomenon, which produces days of unexpectedly weak signals during midwinter morths; most evident during high surspot activity.
from a station with a loop antenna, e from a loop antenna; the act of eliminating reception
suf - Subaudible heterodyne produced between stations so close in
tope is not audible; soretimes shows up as the wavering of the s-metercy that the beat-note
wave - The signal reflected from the layers of the ionosphere; primary needie. at night, as distinguished from groundwave.
plash, sidevand splash - Crashing sound produced by programming of a strong station or a nearby freçuency; reduced or eliminated by mechanical filters, a loop antenna, or both.


## Fraudulent Billing Blamed

Charlette Gbenrver Via Kelly Aadrew.

## Radio Station Could Lose License

By FERREL GUILLORY
WASHINGTON - The Federal Communications Commission (FTC) is expected to rule in three or fuur months on whether to revne the license of Raleigh radio station
WLLE: for alleged frauduleat billing prac tices.
WLLE, whose programs are oriented to he black community, would be forced of the air if the FCC decides to revoke the license.
A year ago. FCC administrative law
judge Ernest Nash ordered WLIE to judge Ernest Nash ordered WLLE to pay a advertisers in violation of commission cules. However, the FCC's Broadcast Bustrong enough sanction and appealed to the strong enough sanction and appealed to the
full commission to take away the license. The commission heard arguments in the ase Thursday, during which a representa-
ive of WLE ownership admitted "we
were wrong" but contended that the prob lems have been cleared up.
According to John T. Kelly, a Broadcas
Bureau legal counsel. WLLE billed 120 ad Bertisers for $\$ 60,000$ worth of commercial that were never broadcast and also enThese practices took place in the period 1971.73, he said. A central issue in the arguments before
the commission was how responsible should Wallace Hankin principal owner of WLLE Inc., be held for the improper billing practices. In calling for license revocation, Kelly charged that Hankin "failed grossty
to supervise the employes of the station." to supervise the employes of the station. general manager of the radio station. The administrative law judge found that Dula ney had pressured another employe, Ba-
bara Daughtry, who handled program logs into preparing false information about into preparing false information abour
broadcast.
Representing Hankin, attorney Vincent A. Pepper told the commission that the
fraudulent pilling Mr. Hankin's direct knowledge. Trust was Mr. Hankin's direct knowledge. Trust was
placed in two employes and that trust was violated," said Pepper.
Hankin's attorney said corrective action was been taken: restitution has been made to the advertssers. Dulaney was fired and
new management procedures were inst. new management procedures were inst.
tuted to puard against a repetition of fraudulent billing
Pepper said WLLE agreed that "a fine is approriate" but asked the commission not to go so far as to take away the license from Hankin and his company.
Following the oral arguments, commis-
sion members went into closed session to give instructions on the preped session to order in the WLLE case to the staff. A final months.

Mail tor Neil Q. Zank, 2445 "E" St., Apt. 6, Lincoln, Nobraska 68510

## PIENSE COMPIETE ALI ITEMS

Name
Phone

Street Address

City $\qquad$ State $\qquad$ $21 P$
$\qquad$ I plan to attend the ConventionI will stay at the motel.I'will not need accommodations at the motel.
$\qquad$ I will / will not (Circle one) take part in the buffet-banquet.

I will arrive by
(transportation)
(date, time, flipht number, etc.)
NRC Lincoln Convention registration fee is $\$ 15.00$, including costs of refreshments, hospitality room, meeting rooms. Ne urge you to preregister no later than sugust 7, 1977. Late registration will open at 3:00 PM Friday September 2, 2977 at the motel Convention site。
te also urge those of you who are interested in attending the Convention, but who do not have transportation, to write. Ne will do our best to try to arrange any carpooling that may be possible.

## 




Rates are subject to chanpe.

