

## STATIC FROM HQ

Ted is here at the publishing session but we're giving him the week off......he is "off" anyway, but that's a family secret and we won't say anymore, hi. We have some business to take care of and will use "Static" this week.....
THE MAIL'S A MESS and Frank Dailey sends the following: "Due to increase in holiday mail volume and postal losses incurred in the past, orders for our booklet publications (logs and manuals) and reprints received at Publications Center after December 12 th will be held until after January 1 st. We regret any delays but past experience has proven this to be the most effective method as far as everyone is concerned. Happy Holidays from Frank, Ken and Karl."
BEST SERVICE from the various NRC volunteers can be obtained if you send your inquiry or change of address to the proper person right away. We have a lot of mail misdirected, so help us help you.

> Headquarters in Louisville gets: Changes of Address, Requests for missed bulletins/back issues, Articles, Clips, Requests for Membership Certificates, Complaints and Suggestions (hi).
> Membership Center in Poquonock gets: Applications for New Memberships, Renewals, Requests for Samples and General inquiries about the club.
> Publications Center in Gales Ferry gets: Orders for NRC Logs, Night Pattern Books, Reprints and Orders by other than new members for the new member booklet, Getting Started in Medium Wave DXing.

## THEY JOINED

Welcome to these two new members. Muse and introduce yourselves soon! Art Rideout, WA6IPD, P.O. Box 945, Fallbrook, Calif. 92028 Robert Jenkins, 2041-B Paxson Drive, Anchorage, Alaska 99504

## CPC TESTS Times are Eastern Local

| December 18 | KDLG-670 Dillingham, Alaska 0515-0615, 5 Kw ND. Will include |
| :--- | :--- |
| Monday | tones, vice \& code IDs, DX gab \& Ekimo talk. Prepaid calls to |
|  | (907) $842-5281$ R Reports to Les Robinson, GM, KDLG, Box 670, |

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4 lot of you are DXing, but not sending in any of your catches. Why not send in your latest catches and share some of your DX with others?

## DX TEST

WWDJ - Heard by RA

## PREQUENOY OHECK

4th Mon. WJDY-1470 per list. (RA)

## WWILIGHT 2ONE

730 WFMW KY MADISONVILLB - $11 / 41746 \mathrm{~s} /$ off, fair, au ex prevailed. (JK)
350 WRUF FL GAINESVILLB - $11 / 152131$ fair W/spot for Krispy Kreme Do-nuts, ads, ID, T40 mx. (WPT)
900 WGOK AL MOBILS - $11 / 16$ good @ $1747 \mathrm{w} / \mathrm{area}$ ads, Soul mx. (JK)
950 WNGC PA BARNSBORO - $11 / 19 \mathrm{~s} /$ off $1700 \mathrm{w} / \mathrm{WPEN}$ nulled, weak sig.
WSPA SO SPART heard. (H1)
WSPA SO SPARTLNBURG - $11 / 16$ almost positive reception 사 1722 w/many ments. of SC \& SS tables showed other SC station on this freq. to be off by 1715. (JK)
970 WWIT NO CANTON - 11761716 w/ "One Nation Under A Groove" Soul
song in WDJ null, fair w/ 97 II IDs. (JK)
Good at 1736. (JK) au eve on RS in wVov, aull.
1010 KLRA AR LITTLE ROCK - 11/15 2031 xlnt w/talk show w/head coach
of Arkansas FB team. (WPT)
WGUN GA ATLANTA-DEOATUR - $11 / 4$ on RS © $1715 \mathrm{w} / \mathrm{religion}$, good in
90 WKSP SC XINGSTREE - $11 / 51713$ good w/ads for Myrtle Beach, s/off. (JK)
WMTY SC GREENWOOD - $11 / 5$ 1733, heard mins. after WKSP to $\mathrm{s} / \mathrm{off}$
1330 WBIC NC NEW BERN - il/11 dominating freq. © $1654 \mathrm{w} /$ Soul. (HJH)
1400 WFTG KI LONDON - 11/20 Xlnt $1749 \mathrm{w} / \mathrm{ad}$ for Oook Bros. Supply,
1410 WRIS VA ROANOKE - $11 / 21$ fair a $1715 \mathrm{~s} /$ off ments. of $F M$, $\# 87$ from
VA. (JK)
1460 WAKS NO FUQUAY-VARINA - 11/11 1657 strong at times w/ID ending
WROY II OARMI - 116 like community $n x$, ad for Carmi "Carm-I" or "Carm-E"? (sounded like the former to me). (KVJ)
WPMH AL OULLMAÑ - 11/16 good $1743 \mathrm{w} / \mathrm{ad}$ for local food store, OsW mx-QRMing WROY. (KVJ) Fair 11/25 1745 in au, power cut to 500 watts in null of WOMB. Local ads, $A: M-F M$ ID. (JK)
1480 WABB AL
1500 WDEB TN JAMESTOWN $-11 / 41730 \mathrm{~s} /$ off $\mathrm{w} / \mathrm{FM}$ ment, poor way $\mathrm{u} / \mathrm{WIOP}$,
1520 WHIG KY best SSS catch on this freq. (JK)
UNTD --_-_-_-11/19 1730 fair sig. but missed ID but (JK) heard SSB on s/off, mild au cx suzgest GA-FL area, any 1deas? WNMT-Garden at ty GA maybe? (iPT) WNMT? (RA) 1570 WONA MS WINONA - $11 / 5$ \& $1302 \mathrm{~s} /$ off, loud, 414 from MS. (JK)

## MISPLACED BY EDITOR

1050 KSIS MO SEDALIA - $11 / 16$ good $1755 \mathrm{w} /$ national wx sponsored by Realty Co. then s/off 1753 read hurriedly, ment. clear channel freq. (KVJ)
KSOH AR LITTLE ROCK - 11/16 concl. of "Old T1me Gospel Hr." 3 1753, into s/off, ment The Sound of Hope. (KVJ)

MIDNIGHT MOVIB
850 WRAP VA NORFOLK - $11 / 13$ most wanted catch finally heard 0343 860 WAYE MD BALTIMORE - $11 / 16$ 0810 noted off the air. (WPT)
930 WITN NC WASHINGTON - 11/14 $0601 \mathrm{~s} / \mathrm{on}^{\circ}$ good in WPAT null, so loud I thought it would be one I would have to have heard aleady
1220 WRIB RI PROVIDENNS
CAMBRIDGE - 11/16 a 0600 on RS fa1r, need only 6 sta
1240 WOAM MD to complete MD. (JK)
1280 WGSO LA NEW ORLEANS - weak but here on 11/27 0113-0225 w/local tele-talk programming, VIDs, many mentions of area, QRM from OJMS/CJJD was severe to almost non-existent at times, WADO off. (RA)
1310 WORO MA WOROESTER - 11/27 0019-0027 o/WICH BT W/ET of their own,
1400 WSGA GA W/TT/OO \& IDs © $0022 \frac{1}{2} \& 0024$. (RA) Song, good atop GY pile. (WPT), then
1450 WTSA V' BRATTLEBORO - 11/27 topping WWSC OOOF in WHJR null. (JK) nX , WX, thought for the day, 0012 detalled $\mathrm{M}-\mathrm{FM}$ s/off, nx, WX, thought for the day, 0012 detailed AM-FM 8/off
1550 WMOO AL MOBILs - 11/27 noted briefly $0424 \mathrm{~W} / \mathrm{ID} / \mathrm{BT} / \mathrm{GOS}$ mx. (FD)
1580 KLOU LA LAKE OHARLES - $11 / 120408$ alone $\&$ good at times $\mathrm{w} / \mathrm{rr} \mathrm{mx}$
1590 WGOE VL क्m Furkey contest. (HJH)
mx , atop others 0046-0107. (RA)
1600 WFRC NC REIDSVILLS - $11 / 27$ on late $W /$ NO State-Louisville BKB Game from $\mathrm{U}_{\text {. }}$ Of Alaska Gym, local spots noted during time outs, 0235-0306, weak, but all alone. (Ra)

That should do 1t. It's $10: 15 \mathrm{PM}$, and I still have five reception reports to type, so I'll say 73, and thanks to all those who could
 THE BIG 6
FD Prank Dailey, Preston, OT
HJH Harry J. Hayes, Gouldsboro, PA【VJ Karl Jeter, Atianta, Gd
JK John Tromka, Montwill
MPI William P. Townshend, Washington, DC
B4 Raymond Rocket, Oush Net, MM
HQ-180, SM2, LW
2en15 $1=0$, SM2 R.M.
DX -160 , 800 , 112
TRF
SX
-122,
SML

## CHUCK HUTTON

P.O. BOX 208

DECATUR, GA 30030

Times are GMT. For ELT subtract 5 hours. Deadlines are usually Monday.

The word on the new frequency changes-orily partial co-operation from what little data I have (caused by somewhat auroral cx) will be liste briefly here: 665-Portugal stere here, 738 unid 765 seral : 877 portugal stere here, 738 unid but hopefuliy spain, 1016 still ocupied 1034 Portuoal stere 1044 Morocco 1053 here, Britain 1088 unid, 1089 Great Britain 1215 Great Britain 1304 an AA still here-either Senegal or more likely Algeria, 1404 Guinea, 1467 Monaco, 1475 somebody here, 1476 unid also, 1539 Germany, 1554 unid 1557 seems to be France, 1566 unid, 1575 has 2 unid's-one seems to be the Tunisian, 1593 Germany.

DU's: I can speak for 15481 Weak carrier, presumably $4 Q D$, heard MM $11 / 27$ at 0933, not a trace of audio. Not a thing on the rest of the channels. What's going on out on the west coast

A very small column this week. Next week ought to be much better$11 / 26$ and $11 / 27$ were the 2 best LA nights of the season here, plus maybe some DU/TA logs will wander in

Unless otherwise indicated, all logs are from Mark Coneelly...
(750, continued) mentions of Caracas $051811 / 18$. (Kenneally) PORTUGAL Lisboa bombins in w/opera 2315 11/15. Xint on car rx w/piano mx 2341 11/20
EL SALVADOR YSKL? R. Universal at first unid until // on 760 and 770 showed up. Going by signal streng th I'd venture that YSKLB San Miguel moved up while YSKLC Sonsonate stayed but this is only a guess $060011 / 24$. (Kenneally) 765 is YSKLD-CH SENEGAL Dakar at pest level w/AA talk $231611 / 15$.
EL SLAVADOR San Salvador YSKL like local w/full station ID and SPAIN 760 and 7650600 11/24. (Kenneally)
shot 2317 eres et al good w/SS talk punching through WABC buckPORTURA1 11/15.
a local Miramar good w/violin $m x 2318$ 11/15. Outstanding/like Rolling on car rx, utterly demolishing 780 ; several 1964 era PANAMA Chitre, R. La Exitosa in fair r/XEROK nulled. US rock and ID 0526 11/23. (Kenneally) Somebody called this Costa Rica in DXWW a while back-this is definitely Panama-CH
SPAIN Sevilla fair w/SS talk $231911 / 15$.
ANDORRA La Vieja superb on car radio, blasting in like a local and providing me with entertainment while I was stuck in a down town Boston traffic jam: "She's Not There" by Santana, then FF disco 2344 11/20.
MOROCCO Rabat xlnt w/AA violins //827 2320 111/15 COSTA RICA San Jose TIOS fantastic signal w/ "Titania" ID in middle of US blues song 0635 11/19. (Kenneally) MOROCCO Oujda loud, dominant o/SAH w/AA violins //818 2320 11/15. DO:IINICAN REPUBLIC Santo Domingo HIJB 0358-0401 11/21 caught s/off W/NA. Good. (Krueger)
HONDURAS Tegucigalpa R. Moderna local quality after HIJB down $040111 / 21 \mathrm{w} / \mathrm{mx}$, "la hora en Radio Moderna" ID. X1nt. (Krueger) MEXICO Nexico City XEUN presumed the one 0640-0700 11/21 unde K0NO w/ SS man a
CUBA Guantanamo CMDN SS talk by OM fair $u / W W L 022511 / 16$. (Tn'snd) CUBA Guantanamo CMDiN SS talk by om fair u/ whe radio, sometimes $\begin{array}{ll}\text { IIALY } & \text { Milano generating screeching } \\ \text { II or } & \text { talk by man surfaced } 2346 \\ 11 / 20 \text {. }\end{array}$
GREAT BRITAIN synchronized outlets killing 910 on car radio during best TA opening of this autimn; woman in British EE in well on car rx at 2348 11/20.
MOROCCO Agadir poor to fair w/AA instrumental mx 2325 11/15. UNID probably YV or HJ-mushy audio and apparent SS talk, hetting CBM w/potent carrier; too early for Central America 2323 11/15. Looped east of south, almost towards Africa. (Connelly) Not even the slightest trace of a het here-maybe it is indeed Africa?-CH VENEZUELA YVKG R. Vision, Caracas loud and clear, nearly alon w/several ID's followed by SS vocal 0903 11/20. (DeLorenzo) SPAIN Madrid very good w/man in SS 2327 11/15. SSNEZUELA YVA R. Tricolor, Barquisimeto good, all alone w/lively PORTUGAL Porto A1 to RDP clear w/PP folk mx , woman in PP 0650$065811 / 20$. (DeLorenzo)
MOROCCO Sebaa-Aioun good w/man doing nx in FF 0704 11/20. (D'1zo) PORTUFAL Norte xlnt on car radio w/cl piano mx, blasting 1060 into oblivion w/hardiy a trace of a het, $234911 / 20$. sint during unusual cx where low latitude TA's were loud, but domestics were weakened as if by aurora-no KYV/CJRP QRM to 1061, just a weak 1060 het whicb seemed to be from LA's-man in PP and female operatic vocal noted at $225311 / 15$.
 $\frac{2 \text { men in }}{2} \mathrm{~S} 2250-2254$ 11/17. (DeLorenzo)
HAITI Port-au-Prince 4VRD R. Soleil FF rr song good o/WWVA 0040 11/16. (Townshend)
MOROCCO Agadir fair w/moaning and groaning $232811 / 15$.
CBANI Lushnje poor
SENE?AL (tentative) talk by man in unfamiliar lang, weak, atop I223 het 2257 11/16.
MOROCCO Tangier likely w/female chanting in WESX slop 2258 11/15. CZECHOSLOVAKIA Praha-Melnik noted at weak level w/cl mx 2259 11/15 MAURITAVIA llouakchott probable w/mumbled AA-sounding talk at a pitifully poor audio level on a tremendous carrier (demolishing WHNE et al) $230011 / 15$. $\mathrm{w} / \mathrm{mx}$, then OC $230111 / 15$.
FRANCE Lille good $0 / 1375 \mathrm{w}$,

SPAIN Madrid good w/SS talk and mx 2303 11/15.
UNID LA in faint w/bad TVI het. Didn't really sound FF but might have been. Is there anything here other than 4VARH? 0220 11/24. (Kenneally) The Haitian's calls are 4VSD if memory serves me correctly. R. Hoyer is also here but very weak-CH
$1415 \frac{\text { DO.I.ICAG RZPUBLIC }}{2305}$ Narien HIOS suspected w/poor to fair SS talk $230511 / 15$.
1457 ALBANIA Durres R. Tirana FS 11/9 0341-0256 OM in EE criticizing China and the West, "International" played at 0356. Not listed as being on at these times! Q2M from a BBC Radio Nwo test 0355+. (Vernon)
1466 MOMACO Monte Carlo fair to loud w/man in GG 2306 11/15
(Vernon). Humberside $11 / 70647$ just topping frequency w/ ENGLAIND BBC R. Humberside (Vernon)
ICELAND AFRTS Keflavik $11 / 60643$ SID "radio, the oreatest sound on earth", then "American Forces Radio in Iceland", rr mx TC at 9 minutes before seven, APR $n x$ noted at 0700. (Vernon) Great! I never expected to type up this station-CH
SPAIN R. Popular de Sevilla fair w/mx from "Grease", SS rock, TC, ID 0625-0633 11/20. (DeLorenzo)
1502 SPAIM SS graveyard mess showing through bad WITS slop 2307 11/15.

Just a short note-the R. Angulo tx I mentioned last time is not ex 1120 but a new tx. 1120 heard in // 11/27-CH


390A, car radio, SMI
H0100, SM1
X160, SM $2, C B$ antenn
QR666, 80 and $65^{\prime}$ LW's $^{\prime}$
DK150, DX160, FRG7000, 600', $1500^{\prime}$, and $3^{\prime} 2000^{\prime}$ Beverages

Response to my offer to tape the record of LA anthems has been very good. I'm getting them recorded within a few days of receipt so hang tight. Those who want the European anthems will need to send a second $\mathrm{c}-60$ or $3^{\prime \prime}$ reel. Don't miss out-send tape.


Submitted by both Jerry Starr \& Kon Rychalsky

Hi Fat listeners, thanks for requesting a WFAT Q.S.L. card. WFAT has studios, oftices and transmitters on an unassigned frequency of 1620 KHZ . Our transmitters output range between $30 \& 75$ red HOT watts. The good old trusty EAT antenna is horizontally polorized and is

Greetings to all for the December edition of Graveyard DX Achievements. This month 1490 is spotlighted. A lot of new entries are contained herein, bringing the total new membership list, and I've received a couple of requests to delete listings for various reasons. The Grande Totales column is coming up next month, so for those of you who haven't yet sent in your new totals, do it soon. Since the totals column is shorter than the other six, I will be including updates of the GY maps. Some call letters were in error, some have changed, and there are a few additions to add on. For those of you unfaniliar with the Graveyard Grand Totals...send in the total number of catches on each GY frequency and the total. Big or small, makes no difference.
Here's an example:

EXXER, Gy D. $\frac{1230}{13} \quad \frac{1240}{39} \quad \frac{1340}{5} \quad \frac{1400}{11} \quad \frac{1450}{23} \quad \frac{1490}{23} \quad \frac{\text { Total }}{104}$
Deadline for the January Fiasco is December 20...Happy Holidays to all.

* 1490 *

Bill

| Miles | DXer and Location | Station and Location |  |
| :---: | :---: | :---: | :---: |
| 5000 | Norm MAGUIRE E. Hartford CT | KTOH | Lihue HI* |
| 3690 | Gene ALIEN Vallejo CA | WECW | Mayaguez PR* |
| 2640 | Gene ALJEN Vallejo CA | CMOX | Havana CUBA* |
| 2400 | Norm MAGUIRE E. Hartford CT | KVOE | Santa Ana CA* |
| 2400 | Stan MORSS Bradford MA | KDB | Santa Barbara CA* |
| 2375 | Ron SCHILLER Avenal NJ | KPRO | Bremerton WA* |
| 2300 | Hank HOLBROOK Chevy Chase MD | KWIK | Burbank CA* |
| 2275 | Ernie COOPER Brooklyn NY | KPQ | Wenatchee WA* |
| 2200 | Ernie COOPER Brooklyn NY | KWWB | Walla Walla WA* |
| 2100 | Stan MORSS Bradford MA | KYCA | Prescott AZ* |
| 2010 | Ralph SPERRY Fairfield CT | KYCA | Prescott AZ* |
| 1850 | Norm MAGUIRE Albuquerque NM | WIKE | St Johnsbury VT* |
| 1785 | Frank WHEELER Erie PA | KYCA | Prescott AZ* |
| 1600 | Don KASKEY Omaha NE | CMOX | Havana CUBA* |
| 1600 | Hank HOLBROOX Chevy Chase MD | WMDD | Fajardo PR |
| 1500 | Norm Maguire Albuquerque NM | WMRF | Lewistown PA* (tie) |
| 1430 | Don Kaskey Galva IA | WESB | Bradford PA* Petaluma CA* |
| 1265 | Frank WHEELER Erie PA | KNEL | Brady TX* |
| 1225 | Rick CARR Bloomington IL | KCUZ | Clifton AZ |
| 1225 | Ernie COOPER Provincetown MA | WSEM | Immokalee FL |
| 1180 | Ralph SPERRY Fairfield CT | WTUP | Tupelo MS |
| 1170 | Jeff KOSNET Evanston IL | WMBM | Miami Bch FL |
| 1100 | Russ EDMUNDS Parsippany NJ | KXRA | Alexandria MN |
| 1100 | Alan IMPRESCIA New York NY | WMBM | Miami Bch FL |
| 1090 | Russ EDMUNDS Kinnelon NJ | WKEM | Inmokalee FL |
| 1050 | Andy RUGG Pointe Claire PQ | KXRA | Alexandria MN |
| 1010 | Alan IMPRescia New York NY | WTRL | Bradenton FL |
| 910 | Ernie COOPER Provincetown MA | WSNT | Sandersville GA |
| 895 | Dan PHILLIPS Cookeville TN | KXRA | Alexandria MN |
| 875 | Mike HEPPE Houston MS | KRTN | Raton NM |
| 870 | Ron MUSCO Windsor CT | WMOG | Brunswick ${ }_{\text {a }}$ |
| 860 | Russ EDMUNDS Glen Rock NJ | WKRO | Cairo IL |
| 860 | Rick CARR Bloomington II | KRTN | Raton NM |
| 825 | Tom SUNDSTROM Willingboro NJ | WDXL | Lexington TN |
| 805 | Jerry STARR Hubbard OH | KXRA | Alexandria MN |
| 805 | Dan PHILLIPS Clinton TN | кTOP | Topeka KS |
| 800 | Bill Hardy Aberdeen WA | KDB | Santa Barbara CA |
| 785 | Jerry STARR Hubbard OH | KBON | Omaha NE |
| 765 | Robert WIEN San Jose CA | KVAC | Forks WA |
| 765 | Robert WIEN San Jose CA | KCUZ | Clifton AZ |
| 755 | Bill HARDY Aberdeen WA | KWAC | Bakersfield CA |
| 750 | Andy RUGG Pointe Claire PQ | WOPI | Bristol TN |
| 715 | Gary ATKINS Louisville KY | KXRA | Alexandria MN |
| 685 | Tom SUNDSTROM Stockton NJ | WDXB | Chattanooga TN |
| 680 | Mike HEPPE Houston MS | WKEM | Immokalee FL |
| 680 | Gary ATKTNS Louisville KY | KDOK | Tyler TX |
| 675 | Stephen MC'INTIRE Des Moines IA | WSGB | Sutton WV |
| 675 | Dave SCHMIDT New Castle DE | WMOG | Brunswick GA |
| 670 | Tim KErroot Weston ON | WHSL | Wilmington NC |


| Jeff FALCONER Clinton ON | WDXB | Chattanoogs TN |
| :---: | :---: | :---: |
| Dave SCHMIDT New Castle DE | WIXB | Chattanooga TN |
| Tim Kerfoor Weston ON | WFLB | Fayetteville NC |
| Bill TOWNSHEND Washington DC | WMOG | Brunswick GA |
| Rich EDDIE St Louis MO | KORN | Mitchell SD |
| Fich EDDIE St Louis MO | KXRA | Alexandria MN |
| Frank DAILEY Preston CT | WMOA | Marietta JA |
| Nancy HARDY Aberdeen WA | KTOB | Petaluna CA |
| Nancy HARDY Aberdeen WA | KOWL | S. Lake Tahoe CA |
| Ron MUSCO Windsor CT | WABJ | Adrian MI |
| Forest OSBORN Hooker OK | KCUZ | Clifton AZ |
| Karl JETER Atlanta GA | KTTR | Rolla MO |
| Bob WESSOLOWSKI Milwaukee WI | WXIT | Charleston WV |
| Harry HAYES Thornhurst PA | WABJ | Adrian MI |
| Paul MOUNT Teaneck NJ | WXIT | Charleston WV |
| Bob WESSOLOWSKI Milwaukee WI | KLNG | Omaha NE |
| Karl JETER Atlanta GA | KOTN | Pine Bluff AR |
| Brett hanavan Chula Vista Ca | KCUZ | Clifton AZ |
| Jeff FALCONER Clinton ON | WSIP | Paintsville KY |
| Harry HAYES Thornhurst PA | WSSB | Durham NC |
| Forest OSBORN Hooker OK | KLNG | Omaha NE |
| Bill LACKEY Kingsville TX | KBST | Big Spring TX |
| Bruce WINKELMAN Man WV | WAJF | Decatur GA |
| Brett hanavan Chula VISTA CA | KAIR | Tucson AZ |
| Gene NLX Billings MT | KVOG | Ogden UT |
| Stephen $M^{C}$ INTIRE Des Moines IA | WOPA | Oak Park IL |
| John BoWKER Valparaiso IN | WESL | E. St Iouis IL |
| Jeff KOSNETT Evanston IL | WOMI | Owensboro KY |
| Paul MOUNT Teaneck NY | WPOR | Portland ME |
| Pat hartlage Louisville KY | WDXB | Chattanooga TN |
| Gene NIX Billings MT | KNDC | Hettinger ND |
| Pat fartlage Louisville KY | WAJF | Decatur AL |
| Bill TOWNSHEND Washington DC | WXIT | Charleston WV |
| Stephen PONDER Ft Worth TX | KBST | Big Spring TX |
| Frank Dailey Preston CT | WBCB | Levittown PA |
| Bill Lackey Kingsville TX | KNOW | Austin TX |
| Stephen PONDER Ft Worth TX | KNOW | Austin TX |
| Bill hais Ft Walton Bch FL | WIOX | Biloxi MS |
| Bill WURTZEL Passaic NJ | WAZL | Hazeltown PA |
| Jeff KOSNETT Chicago IL | WGEZ | Beloit WI |
| Bill WURTZEL Asbury Park NJ | WUSS | Atlantic City NJ |
| Don DAVIS Warner Robins GA | WSNT | Sandersville GA |
| Don DAVIS Warner Robins GA | WMJM | Cordele GA |

*= pre 1960 logging

Appreciate the support this column has been receiving and a bis pat on the back to Steve Ponder of Fort North, Texas, for his tireless research of recent verie signers.
FOLLO:IING are "holdouts" who have verifled for others \& resulting v/s :
1140 OKXL T E MoBridge, GM; B. Nartin, GE (holdout for RN)
150 TTAM J if Hult, OpM; Tony Nemec, OE (HZ)
1180 IIIDS Robt. Gerner, CE (NZ)
1210 KGYN N. Raburn, M. (P) (KJ
1230 KYJC M Moran (RE)
1240 KSMA Dennis Bornholf, OE (RN)
1250 KPPC N. Callaghan; Geo. Chambers, CB (RV)
KMAA Joseph Lane, CE (f) (BB)
KLAZ R A Ghent, OE; J. Narino, GM (SP)
1270 KFJZ RE Hornberger, E (RC-
WXYZ R E Hornberger, ${ }^{\mathrm{E}}$ (RC-MN)
1280 \#GSO Frank Kaynard,
1290 KCUB I. Holsclaw, CE (1) (NH)
KPRII $V$ Beok, $C E$; King Viggins, $P D$ (IIZ)
1300 KOWB Ken Keat1ng (IZZ)
1310 VIBA $\underset{V}{ }$ Elmendorf, OSL Mgr. ( t$)$ (RO-NZ-MN)
1320 KFKA D Sawyer, OB (NZ)
1330 KRAA James T. Kite (1) (RC)
SOHE USIT heretofore unlisted holdouts:

| 540 | TARO | (KA) | 1150 | MABH | (ITI) | 1290 | KTGH | (12) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 550 | KAFY | (RT) |  | TGON | (Mi:) | 1290 | WFBG | (KA) | $\begin{aligned} & 1390 \\ & 1400 \end{aligned}$ | KPOLI | (1N2) |
| 590 | KFXI | (RTi) |  | KAYO | (RN) |  | KIEN | (RV) | 1430 | KTYN | (NNT) |
| 620 | Kngs | (RT) | 1190 | KHAD | ( NZ ) | 1300 | KYyO | (RM) |  | KPRO | (8V) |
| 730 | KCRI | (a7) | 1230 | KDAC | (RiV) |  | KMFP |  | 1450 | KPRTP | (RT) |
| 790 | TAKY | (KA) |  | KRDG | (R.: | 1320 | KGNR | (RIV) | 1450 1460 | KTIP | RIT |
| 860 | TSON | (IT) | 1240 | KROY | (2I) | 1330 | KUPL | (RiI) | 1460 | TMXM | 172 |
| 900 | 7ATC | (ivi) |  | KPOD | (2:i) | 1350 | KOKC | (RI) |  | TMBR | 172 |
| 910 | CJDV | (1iz) | 1250 | OH\%O | (IIZ | 1370 | TTKY | (ITZ) | 1470 | KUTY | Rif |
| 950 | TRuTA | (12i) | 1260 | WTJH | ( NZ ) | 1380 | KOIM | (12) | 1490 | KTOB | R ${ }^{\text {a }}$ |
| 1020 | TPEO | (NZ) | 1280 | KIT | (RN) |  | TYNK | ( FW ) |  | KVAC | (RT) |

PREPARED CARD DEPT.: Received three examples (plus my own) of prepared cards. Wy only suggestion would be NOT to offer the station the "option" of NOT confirming your
report. Think POSITIVELY!


## Station \& Location

## We_Verify__Are Unable to Verify Freq

The Report of


Date of Reception $\qquad$ Time

Station's Facilities
Comments $\qquad$

Signed
KARL TETER


WH J B
$620 \mathrm{kc} / \mathrm{s}$.
Greensburg, Pennsylvania 1000 w.
verification of recention
This will serve to verify the reception of WHJB on August 16, 1963, from 5:56AM-6:00AM, while WHJB was on regular schedule.
(signed)

Roin schuce


CRSDIT where OREDIT is due Dept.:
SP-Steve Ponder, Texas
RP-Richard Pistek, Ill.
PM-Paul Mount, Nhio
WS-Wm. Schackner, Conn.
MW-Marty Wright, Ill.
RV-Robt. Wein, Calif.

## MORE ON MEDIUM WAVE IONOSPHERIC PROPAGATION

RÓNALD F. SCHATZ

This is the promised sequel to our previous article, Medium-lave Ionospheric Propagation - A New Perspective, which originally appear Reprint. That article was the first to approach the subject from the perspective of the MW DX'er rather than that of the common "SWI". That philosophy will be continued herein as we expand upon those same and additional basic concepts. The references therein listed remain the same for this work.

## Refraction vs. Reflection

Are radio signals refracted or reflected by the ionosphere? Perhaps the best way to answer this debate is to review the three most common theories of iorospheric propagation:

1) The best known and most accepted theory states that the ionosphere refracts radio waves according to magneto-ionic principles, mean of electrons and ions in the plasma determine how the waves are refracted. This "magneto-ionic theory" is a definite advantege in predicting signal paths, where critical frequencies must be calculated; but its oversimplified, unrealistic model of jonospheric structure, consisting of "Chapman layers", is of little help when changes in the signal path must be analysed on a transient level, TXM being a case in point.
2) Another theory has been very popular among engineers dealing with the longer wavelengths, especially those returned by the E layer at night (i.e., most of the MW band and below), since it allows equation". This theory states that the E layer is dense enough to reflect long radio waves, and since true reflection is involved, the signal path will consist of the algebraic sum of progressively weaker 1, 2, 3, 4, 5, etc. -hop paths to the point that excessive attenuation can support no more, as suggested below:


The reality of such a signal path structure has been verified on MW with the strip-chart recorder, but it is seldom possible to discern more than the first 3 or' 4 hops in this manner.
3) The newest theory, pioneered by NASA scientists and independently by the author, deals with "ionospheric transfer" or "diffuof a single-hop path, every portion of the overhead ionosphere in common sight of both transmitter and receiver will contribute to returning, or "transferring" the signal, and not just a limited centralised area between them. This theory lends itself well to transient analysis, thus to terminator-transit mechanix. It will be explained in detail in Part III of the TXM series of articles.
The three theories given above lead us to a safe conclusion to our original question: It appears that either true refraction or true reflection has its respective validity - depending on the situation and how we wish to enelyse it.
$\qquad$

## E vs. F2

Which ionospheric region/layer returns MW signals - the E or the F2? In the author's qualified opinion, either one or both, depending on the circumstances. This matter has been amply settled in the tetter textx, for those who wish to refer to them (c.f. New Perspective signal for any given path and when. As a start, and very roughly and $20 \%$ are combinations of both, this according to the author's stri -chart research.

Because of the myriad of factors and variables involved, there is no simple, nor even moderately complex, formula fon determining when either E or F2 is respectively in control of a given MW signal path. The best we can do is to list some guidelines for the reader to follow:

1) Exclusive E skip is almost certain before local sunset and after local sunrise; i.e., both transmitter and receiver must be located within the dark half of the globe for F2 skip to be possible Obviously, "SRS" and "SSS" are exclusively E-skip pheromena.
2) The author has yet to detect any F2 below 800 kbz under any circumstances; it is extremely rare below 1100 khz , and then appears only on multi-hop paths. F2 is common only in the 1500's - sometimes!
3) Exclusive F2 skip is rare, generally limited to paths within 1000 kilometers and frequencies above 1450 khz . Low solar flux is tional to the number of ionospheric hops, since E recuires mor skips than F2 to cover the same distance.
4) E-skip signals peak at midnight; F2 shortly before dawn.
5) As hinted before, E-skip signals fade up at sunset and out at sunise. F2-skip signals fade up about an hour after sunset and out on hour before sunrise.
6) "Auroral conditions" normally preclude the possibility of F2 skip on medıum waves.

Again, these are only guidelines. It takes a strip-chert recorder and skill at reading the charts, tc determine the nature of the signel path with any degree of accuracy.

Absorytion
there are two kinds of ionospheric absorption, deviative and non deviative.

Deviative absorption is loss along the signal path due to scattering or "deviating from the straight and narrow. Bits of the signal "get lost" alcng the journey, much like grammar-school children on

Non-deviative absorption occurs mainly in the $D$ and lower $E$ layers where the signal loses strength by bombarding with gas molecules in this region. § In both cases, "loss" would be a preferable tern to "absorption".

## The 2 Fregs

the "3 freqs" of ionospheric propagation are the geomagnetic frequency, the plasma frequency, and the kybrid frequency:

The gyro-frequency is the "twirl rate" of an ionospheric electron. It averages 1400 khz but varies over a wide area within the broadcast and. Its wide bandwidth absorts the extraordinary ray, leeving only portant to the average MW DX'er as it is understandable to him).

The plasma freguency is the natural frequency of intersction be tween the electrons end positive ions in the iorosphere. It reflects (not refracts) signals of its same frequercy. A radio signal shot straight up into the overhead ionosphere will bounce back at the level where its equivalert plasma frequency occurs. It is also the secret behind oblique ionospherjc refraction.

The hybrid frequericy is a heterodyne of the previous two. Beyond nogrammes (i.e., those made from satellites looking down), just knowing of its existance is enough

## Ground-wave or Sky-wave:

Daylight MW reception is propagated almost totally by groundwaves, Which are characterisec by rock-steady signals (not withstanding Radio Caroline in rough seas), good coverage over salt water, and poor covther on the lower MW frequencies, especially below 800 khz.

Sky waves vary in signal strength over a relatively short period of time (i.e., they fade). On MW frequencies, sky-wave propagation is normally limited to night and twilight hours.

## Geographical Variations in Reception

All sky waves start and end as ground waves, just as an aircraft spends its first and last moments on a runway. Since ground waves travel best over salt water, a seacoest location does wonders. Good, reliable TA and TP reception is thus limited to about a $100-\mathrm{km}$ wide coastal strip on respective sides of our continent. Note that those dx ers who have achieved fame working trans-oceanic stations reside within these coastal strips.

The normal auroral zone, which falls north of Montréal, also limits trans-oceanic reception to certain geographical areas. European line extending from Montre is more likely to be heard in Miami than in Boston on any given night Asian signals are similarly limited to the area west of the Rockies.

Horizon blockage is caused mainly by nearby mountain ranges, which cut off low-angle signsl peths in their direction. The resultant signal is thus attenuated, since only high-angle rays get through, which require more ionospheric hops than normal for the same distance. E.g., a one-hop E path over flat land may be a 3 -hopper if a mountain range is in the way (going by the reflection theory of propagation strong signals. Cases in point are Lima and Santiago, which are regularly reported in California but rarely in Florida. Honolulu stations are also far weaker in North America than they should be, thanks to horizon blockage.

The same mountain barrier enhances signals in the opposite direc tion, since it acts as a reflector in such cases, Honolulu stations are much stronger than they should be in the South Pacific.

## Seasonal Variations in Keception

the trans-oceanic $D X$ season in North America extends from mid -August to mid-April, while stations in Argentina and Brasil are best received in mid-summer or mid-winter - two seasons per year. What are the phenomena behind these seasonal changes?

Thunder-static is not a direct factor; the noise may discourage DX'ing in summer, but it merely masks the signal rather than reduce its strength. 8 Another leaky theory suggests that summer nights In fact, the Lisboa-Miami path never experiences less than five hours
of total derkness at any time of the year, and in spite of the RTP's 24 -hour operations on 666 and 1035 khz and a rather southerly route, the path remains all but useless during the "off-season"

Actually, DX seasons are a product of two closely related variables, both related to solar flux:

The solar flux $\frac{\text { index }}{f} \frac{a}{\text { si }}$ practical equivalent to sunspot number, serves as a measure of signal ettenuatior caused by the sun's cum-
ping of protons, corpuscles, and other particles into the upper atmosphere. As a rule, only long-distance, multi-hop paths are notably affected, such as TA's and TP's. Good DX nights normally have SFI values under 100, while bad nights sport values over 160 . The SFI is an overall figure, a mean value for the planet as a whole. The piece of data.

But solar particles are not distributed evenly about the earth. Just as the sun affects seasonal temperatures by changes in the angle particle radiation is a factor in ionospheric absorption. During summer the combined effect of intense, high-angle radiation and a longer period of it causes a surplus of particles to build up in the lower mid-latitudes then experiencing the high sun, while the opposing hemisphere has a correspording deficit of corpuscles. As the particles take several days to dissapate, absorption continues throughout the nights of late spring and early summer. During late autumn and early winter the relatively clean" ionosphere

In March and September the maximum radiation is over the tropics. Particles building up in that area discourage trans-equatorial reception, and that is why there are two seasons per year for DX'ing lower South America and other areas of the southern hemisphere.

If the SFI is high enough, excess particles in the "summer" hemisphere may spill across the equator into the hemisphere then enjoying

Seasonal variations in reception, then, may be attributed to unevenly distributed solar flux. An SFI figure of 120 , as per WWV, may be effectively 90 in one hemisphere and 150 in the other.

## Errata

It is not uncommon in scientific journals for authors to submit corrections to errors appearing in their previous works, and we shall continue the tradition here:

In New Perspective (now NRC Reprint "P23"), kindly ignore Figure ne; it was drawn with transfer theory in mind and is misleading within the scope of its presentation. Also dismiss Figure 5 and the ac-
companying text on the plasma frequency for the same reasons. Please forgive our trespasses.

## FLASH! FLASH! FLASH!

Provincetown, Mass. (NRC)...Veteran Editor Ernest Cooper's typer is ill and is being treated. Recovery is expected. The typer nearly succumbed after the typing of a Verie Signer list and two pages of Musings and was quickly pulled from service. A trusty dusty machine of old was immediately called issue. His friends at HQ were thankful for the perseverance shown by Mr. Cooper. To minimize any possible printing problems from the second-string typer, a couple of pages were retyped at HQ. A clever notice (?) was then placed in DX News, lest anyone wonder if the senior editor had flipped his wig. The members were asked to endure Mr. Cooper's typer's illness and keep sending in contributions to DX News. A tired HQ typist (who only typed two pages of copy) was heard to say, "if only those guys out there.

ERNEST R. COOPER 5 ANTHONY STREET PROVINCETOWN, MASS.

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

STEPH H. PONDER - Box 22635 - Fort WOrth Texas - 76122
Hello again from Cowtown. It will not be much longer that I oan say that - I will graduate soon from the sendnary here and will move el senhere (I hopel) Anyway,
 friends and acquaintances that I've made while here. To mention a few of those who are NRCers, there are RON SCATLLER and ARTIE EICEEIS. How to the DX: Not much to report, ex cept a few veri es that have been found in my mail box-KRVI-880, iLAZ-1250 (ex-KM0), hibl1270, KFJZ-1270, KAYC-1450 \& KROB-1510. 211 except WHBF were $f / \mathrm{ups}$, and all of the $f / u p s$ were prepared cards except KFJZ, which was stationery furni shed me by Ron Schiller. Now
it's time for some al earing out of wy logs, trying to get responses from all wy hold-outs in wy Fort Worth log. Spealding of hold logis, trying to get responses from all sy holdmouts in excell ant - all of us NRCers ought to cis to the colum - it would help those of us who are not as experienced in the verifleation gane. I'm leaving for the Imanksgiving Holidays a littie oarly - I'm gonna spend an ontire
 too. That's all for now - have a good Thanksgiving. 73 from "Turkeytow, Texas."

JIFT KOSNETT - 9623 - Basket Ring Road -Coluainia, Haryi and - 21045
11/18/78 to anen fob to a new job and a now home here in Haryland. I'moridng sy way closer to ny native liew Jersey, though not necessarily by deaign. It's fust that the newspaper business begets wandering, and I hope I've found my spot now as a buainess and financi al writer for the Belduaive to Dxing but othervise bettor suit ted to onels heal th, rest, meterer - fros ghout 10:158m to $6: 30 \mathrm{pe}$. I have been starting to get my logs in order for the winter season, and hope to be back DXing reguil arly soon. The other news to report was a chance menting and very enjoyable one with HRCer HANX WTLITMSON of Santa Rosa, Cal. This took place on a Omited Jivilines DG-10 from Chicago to Baltimore two woeks ago. Mr. hillkinson was returaing to his one-time home tom of Baltimore for the first time in 27 years, unfortunately, to attend his mother's funeral. By a finke, we were seated next to each other in the tive seats to the left or the adsel got to talling, and eventually, grter about an hour, di sei vered how sall the world is. I wonder how nary other menbers I've ran across without lmoving who they aro? Despito the elrcunstances leading up to his trip, Mr. Wilcinson was quite eager to hear about what had changed in Baltimore in 27 years. and of course, the answer a lot. Hothing more to report - I will be back after I start tuang in a litile. 73 s .

I've retired the HQ -180 and put a new Kemwood R- 300 receiver into serviee. It'se pages. Domestic DX, and with the help of the Space Magnet, picks up the stronger LA splits. The weaker ones I just have to pass up. Last Docenber I went on CB as RBCIO038 (Redeye) at then this past August got a Hovice Hailicense, and I'in now INBBP. As a result BCB Daing has taken a back seat for a while, and ad th advancing ald age, I wave to pass up the MM DX ges sions, and just go for evening Dy ng. (I'm now 58 years ald, and ready for a mice roolding
 pmis/off w/whide." CEL f course was on same frequency, but I heard a Latin al 50 ,
 strong 9 7:20. Thanks go to JOHN CMLLARMAN for a great job on the NRC Domestic $\log -\mathrm{a}$ lot of hard work by a fine Dxer and a genti eman as well as a scholar. 73.
HAS BECOME A CONVEXTION AFFECTIO IADD

WARREN B. GREENBERG - 145 Cottage Road - West Roxbury, Massachusetts - 02132
I vill most ilkely be at rai Arruda's Sunday. I had a groat time in Atianta at the Convention and I am planning on attending the Convention in ST. LOUIS next year. I haven't had much time at the dials since the Convention. Since then I have only

AS YOU CAN SES, WE'RE HAVING SOME TYPENITER TROUELE HERE, AND WE WHLL ATTBPTT TO DO THE REST OF MUSTMGS ON A [IFFERENT MACHTHE AND GET THIS ONE FIXRD. IT STICKS WHRN I RE EASE TEE
 BUT LET'S HAVE THOSE MUSINGS, GANG - NEXT DEALLINES ARE SITURDAYS $12 / 23 \& 12 / 30$, \& MON. $1 / 8$.
 This is probably my first Musing sin nee about /809-293-1142 (NASA sta.) 1966, when I dropped out of NRC. To old timerrs, I am the C. Al an Tanior of Indi anapolis fane (notoriety ?), whan Indianapolis was the hotbed of DX aetivity, with such other names as Loui srille -1976. A re-intios: I am a charter member of IRCA present at Indy- 1962 and from Philippines (Sorsogon, Sorsogon at $S$ tip of Luzon Island); wo have throe otris and in boy. I'If a liavy veteran, with a tour in Vietnam and in Philippines (and other places), an electromi es technician ud th Bendix Fiald Engineering Corporation (BFBC maintains and operate most of the MASA Space Tracidng and Data Network), and wetre currentiy $\pm n$ Bermuda, Ny first love is MN BCB DX, next is anateur radio (WDII MP), SNBC DX. Other activitíes are church work (Momon), jogging, languages (Spanish, Portuguese, Plipipino), and ellectronics construc tion/dosign. I have veried 45 states (includes il aska), 19 countries, silx provinces, and 39 of the 57 MW active Indiana countil es, all from Indianapolis. Current heard to tal s aro 1,452 from Indi anapolis, 360 from Philippines, and 200 from Bormuda. Bquilpant is a Drake SPRM4; SA-2 and Palomar loops, Panasomico RO-500 $t / \mathrm{r}$, and a PMA/FSA setup builit around a Heath Int110 counter and a Momitor (Pasadena, Cal.) frequency standard. We're here in Bermuda for
at least two years, then who knows mero? 73 de Charile.

Dated 11/14; recelved $11 / 24$ anbelievabay good, othor bimes, nothing except the local CBDD. 560 and CBDC few changes noted up here though. The "Дlaskan Foroes Radio liotwork" which has a number of 1ou-powered relays across the stato, and also foeds some of the outilying stations, is now oalling itself the "Maskan Forces Satellite Hetwork" though no change in programing hat boen noted. KSRRS- 920 has boen playing a sort-of automated oldi es rock format, togother ud th 34 hours, and has been nous programies. ALso KFIR 66018 now off 5-11 am ETT MMs, othervise roceitrers for has been now for some time. I have added one of those new "Yaesu" pro-7000 great length widh a quality RX, I consider the FRG-poon not had the opportuni ty to DX at any $\$ 900$ hero in Canada, so 1 t's quit to an outh er Maybe very good, except for the price; 1t's
 1510, and their poor inland sidgnal. They vere noted here a couple of times in about hats-

 danolng aoross our clear sld es at the moment. They usually mean a dead wh band, but theyire nice to vatch, if you like that kidnd of thing. Personally, I could .... Cood DX to all.

MYIMI in Poldn has applied for a chango in oall lotters. 18 about to have a change. WSIV and the format is BNy mx. WSIV AM, 1140 in oall letters. Currently the stations simule cast times IDs as "W-Val vot" so that 18 where they are getipng the for WVE. The station now some the OM Null continue to be BFI. The M plans to giting the WVIS. It soens likaly that they wouldn't tall me if they were going to suitch formats. It sems likely the siation but to more of an MoR-退, format. That is only a guess, howover. Very littio DX here on go $11 / 17$ an SS was heard on 540 e $5: 45-6 \mathrm{pm}$ u/KMTT. They seened to play Caribbean stye on ID, however. Any ideas who this might be? I will have a whole month to $D X$ around Christ das because of winter break. I hope to get to Loutsille and 580 TED Re break. I hope to see a lot of you here in Peoria next lugust $24-26$ for the IRCA Convention
be held here. (ood DX $\& 73$. wich will bo held here. Good DX \& 73 .

11/19/78


 veries for some of my offorts in September. Veries in from 2NO-650 in Tanworth, and 2BY-660, in Byrock. Both are 10 ke stations. A1.so, ABC sent me dotailed copies of all the fustrallian ABC frequency changes taldng place on $11 / 23$. I'm andions to see wat these changes itill

JEFF LOCKWOOD - 3131 K Prado SOME FINE SSS DX IN FLORTDA
11/19/78 heard e 10:55pm 10/20 for the first time; verie in mail: $\operatorname{RRM}$ from KOPT 1
 1310 5:30pm 11/13. GY DX on 1230 has turned up of:45pm 11/6. wCH-1310 7:30pm 10/15; workr o/WRUF. In my last Muse (issue $\$ 3$ ), by the way, that should be "85-RUF" for WRUF's ID. WSB 750 \& WHYZ-1070 now fade in e $4: 45 \mathrm{pm}$ here; I was able to hear theend of the Georgia-Auburn game on WSB after hearing the start of it on wh00-990 (via tape delay). (con'd next page)
(Lockwood) I heard they were scalping tickets to that game at upwards to $\$ 50$; just shows you how much trouble some people will go to, hi. On Dec. 13 I will be going on a field trip to several chemical plants in Georgia \& North Florida. I may be able to get some DX in then as well. 73 .

## THE NEN WDNY-1600 IS ON तूS

JERRY BOND - 143 Burwell Road - Rochester, New York - 11,617 it was about time I got a
Musing in. First of all, thanks to everyone connected with the Atlanta Convention for doing
 as I have all the previous ones. On to DX: $10 / 21$ - wi.r-160 wa $10 / 20$ and they are the first cormercial station licensed in Livingston County, which is the county directly S of our Monroe County. 10/29- whKR-1310 heard easily e $12 \div 48 \mathrm{am}$, CKDK-1340 in e $1: 35 \mathrm{am}$ for new call \& CJVL- 1360 noted with ID \& 1:01am, one minute after setting my clock back an hour to EST. Later in the day WZZD-990 made it in for the first time ever \& $4: 14 \mathrm{lpm}$. Unn, but rarely heard WCHE-1520 came in with WKEW nulled on my Sankyo portable e $5: 12 \mathrm{pm} \& ~ K C N O-810$ was in unusually loud $6: 19 \mathrm{pm}$ way o/viGY. MM 10/30-WSKI-1240-TEST made it in real well $\mathrm{w} /$ TT \& SIDs. $10 / 31-$ TTW- 640 R . Nacional in very well © $11: 57 \mathrm{pm}$. 11/1- YNNM-1000 R. Mi good © 12:03am. 11/4- WBAM-740 noted testing $81: 37 \mathrm{am}$, WKWK-1400 in with 114 -NK ID $81: 44$ am \& CHMM-570 in © 2:1lam. $11 / 5$ - This was a real good SSS night with the Deep South \& plenty

 heard $5: 29 \mathrm{w} /$ soul, unn wXTN-1000 was noted $5: 59 \mathrm{~s}$ /off, HHJJ mentions of Colombia \& garranquil1a, 4VEH-1035 in with evangelism program a $6: 04$, , good $\&$ lam $\mathrm{s} / \mathrm{off}$ \& YVRS -1020 in $\in 1: 10 \mathrm{w} /$ lively $\mathrm{mx} \& \mathrm{R}$. Margarita ID. Later in the day, the SSS DX proved to be very good \& new stations noted were wKBX-630 © $5: 26 \mathrm{pm}$, KFDF-1580 Ark 6:13pm s/off \& 250 w KPCA-1580 from 6:15 to 6:19pm. KPCA came in with such a steady, readable signal that I find it hard to believe they are only 250 watts. They had a NXcast on divile I was listening to them \& they made many mentions of Marked Tree \& Arkansas. According to the SRS/SSS maps they should have signed off 06 bm but they were still going strong until at least 6:19. Nore next time.
 Recent late night DX includes WoI- 1 H 50 again from D.C. w/its Saturday night Disco Show. Since I am not a Disco afficianado, I am a Rock-n-Roll Desperado, and did not
 KS, Bill - ERC) The Saturday Night Jamboree on WWVA-1170 came in loud from Wheeling, w.Va MM $11 / 20$ I had a nice signal from WRRE-1300 Cleveland with the Larry King Show. Were you listening to WERE? . Under wKEv--1520 I heard a southern preacher on a religious program,
possibly KOMA in Okla. City. I'm writing a lot of words to radio station call letters which possibuy koma in example of one is: WEVD- We Enjoy Veal Dumplings. Another one, wNBi- We Need Extra Women. Anyone else doing the same thing? Now for the Christmas season, here is a poem telling about what really happened at the NRC Atlanta Convention. And I wasn't even there! at the atlanta convintion
1/ At the NRC Convention in Atlanta
A DXer was drinking a Fanta
Suddenly the lights went out
Everyone began to shout
When they came on they all saw Santa.

73's \& it's time for bed. Happy Holiday to all.

## AURORA CONES TO WASHINGTON

BIIL TONNSHEND - 4500 Connecticut Avenue N.W. \#901 - Washington, D.C. - 20003 202-966-8046 Greetings from Redskinland once again. I got a $v / 1$ from WMQQ- 670 exactly ne wafter my midday reception of that station. I even got my Shsi back unused, so I can use it for some other QSL. I now have 717 stations heard in D.c. area, including 78 foreigners as of $11 / 15$. On that Wednesday night, between $8 \& 9 \mathrm{pm}$, these stations were "AurorKDKA, WHN, WTIC, WNEN, WJJD, WHAM, WOWO, WGAR, \& WPTR. The barely audible stations were: MMAG WOR, WGY, CJBC, WWVA, WKBN \& CBE. The weaker-than-normal stations, though readable came from WABC, CEM, WCFL, WHO, WIBC, WWWE, KMDX, WCAU, WCKY, \& WUXR. Only WEZ, KYW \& the came from WABC, WSS, WSB, WWL \& WBT \& WIAC came in anywhere near normal. WX is still warm here, 68 yesterday, $11 / 18$. No killing frost yet. Eat your hearts out, you in the Pacific NW:

PHILIP BOERSMA -15570 Cleveland St. - Splining Lake, Mich. -49456
Ernie's query at the end of my last Musing about possibility CE a DX TEST from WKJR-1520 is the subject of this Musing. I have known the CE
Kowitz is a very concientious person, \& if it were at all possible to dedicate Kowitz is a very concientious person, \& if it were at all possible to dedicate
a TEST to NRC, he would do it. Which is the point I would like to makes it is not legal, according to FCC rules, to put a station on the air (especailly a daytimer) in the early morning hours, with daytime power \& pattern, solely for the purpose of broadcasting a program dedicated to a $D X$ Club. The experimental hours of midnight to 6 am local time are to be used for ETs, PoP tests, etc. when absolutely necessary to insure continued proper the air after midnight oNLY does the PoP test once a year, around May \& he will operation of WKJR. He also before next year's proof. But any station that signs on with daytime power \& pattern during nighttime hours (after midnight included)for the sole purpose of "seeing how far out our signal will reach", or for the purpose of broadcasting a DX program, risks a fine. Stations which put in "plugs" for DX clubs as commercials, which are prohibited during ETs. I hope this Musing gets a few people thinking; WKJR was contacted a few years ago by the CPC on one of the WCB clubs, Mark showed me the letter. In effect, it asked the CE (then Phil Waite) to sign the station on after midnight, put in plugs for the Club \& "see how far out the signal will reach" - all of which are not legal! I advise the special TESTS, it does make the clubs look somewhat ignorant. At any rate, will advise you before next year's WKJR PoP, \& try to work in extra IDs during will advise you before next year's WKJR PoP, \& try to work in extra IDs during
that PoP. WKJR will verify any accurate reception reports they receive RICHARD H. WE WELCOME THIS NEW MEMBER AND INVITE HIM TO MUSE REGULARLY

> Hi everyone. This is my first Muse so I will intorduce myself. I'm 30 yrs old, single \& work at an iron factory. Totals: 775 stations 43 states, 9 provinces \& 7 countries. Radios are a Hammarlund SP-400-X, an Beveridge. My friend Art Berg help me on this which was quite a job. This ant enna is pointed NW. I ran through a woods \& is not terminated. Although this isn't the perfect Beveridge because of good ground conductivity it does work. My first MM on the antenna, 11/20, $1: 45 \mathrm{am}$ found KEX-1190 for my first Ore. station on top w/heavy snow \& blizzard conditions, NX \& WX 2-2:05am. Then they said "Northwest News comes first with KEX." I spent most of the AM listening to him \& trying to get a verification. 2:50am found WABC testing \& I heard KOB-770 W/ c/w \& NBC NX @ 3am \& WX @ 3: 05, hi temp 580, low $28^{\circ}$. I also heard unID KFBK 3:i7am \& found him still way atop. More on this antenna \& other DX for KEX

MIKE TUGGLE

## HE GETS SOME SS STATIONS ON HIS CRYSTAL SET <br> 909 Moores Mill Rd. - Bel Air, Maryland - 21014

Menses in Mothball Memories Being quite int radio, I found these to be the most enjoyable ever. Ite interested in early in those days--knowing what I do now, hi. Couple of items in the dad NX around ment, one is learning that WASA-1330 plans to go nighttime, 500 w . It may not sound too bad, but w/a crystal set \& limited selectivity, every little bit hurts The other problem is the terrific buzz set up by a defective street light, especially on the low end of the band. I am still in the friendly negotiation stage on getting this one fixed, but sharpening the axe, just in case...The other crystal DXer in the unsigned Muse an issue or so back is CHARLIE BARFIELD on just about every country in the Caribbean area. A few bits of recent DX on just about every country in the Caribbean area. A few bits of recent DX: I thought it was local WMAL- weird that they should carry Ga. FB, Arst thought w/them until ID \& pattern change @ 7:30. Veri CX back in a couple of weeks. 11/16CX AU, an SSer on 820 around $10: 30 \mathrm{pm}$ w/lots of ads \& mentions of Habana- $11 / 16$ CMCA raised their power from 1 kw ? Also SS on $760 @ 10: 45 \mathrm{pm}$ even w/WJR, I thought 0 jeard "Barranquilla" mentioned several times. Morning of $11 / 18$ @ 6:30 on $540 \mathrm{w} / \mathrm{nice}$ signals was XEWA with mentions of Mexico \& ID "Eh-kees eh doh-ble ooh". Is this right? I thought SS "W" was Doh-ble vay"? In the eve WWJ-950 in WELCOME TO ANOTHER NEW W/NX-95 Report. 73 s .
SCOTT PARKER - 2104 Harrison Ave, - Muskegon, Michigan - 49441 OFTEN $11 / 22 / 72$ I'm 21 \& have been BCB DXing for 3 years. I lil tell you a little about myself I'm 21 \& have been BCB DXing for 3 years. I listen on a Realistic DX- $160 \mathrm{w} / \mathrm{an}$ Inverted $L$ antenna of $65^{\circ}$. My U.S. totals are 165 stations heard, 32 verified hope to increase those verified totals. Verie in from WAKR, lst verie in a long time. I heard WHOP-1230 at $2: 17$ am $11 / 18$, the longest distance for a GYer for me so far. I also heard LARRY WILD's SS station on 530 kHz . I listened for over an hour \& didn't hear any ID. So long for now.
WE NEED MUSINGS: BE A PART OF THE LIVING NATIONAL RADIO CLUB - CONTRIBUTE:

 show $36: 45$ \& $\mathrm{HTOC}-1290 \mathrm{w} / \mathrm{CBS}$ NX o 7. So, olght new onse today. 11/14 I hed EZFK - 1540 w/Ark. Pazordack PB announcomant, 5:50pw. KNDY-1570 a 6:10. Ko visited \%/LADS group Eliz \& hops this will help in a faxans. ZNS atop 1540. KWSE Keeza \& EWHZ Hutchinson fighting louring lonf it out on 1260. Roloj Nacional -760 Havana 8pm, very loud. 2DK-1100w/EE NX 9 9:05; 12-15 it out on 1260. QSLs in: WBRJ, KNOB, CKOC, EWOA, WSHY, WQIz. 11/16- WAYD- 1190 s/o1f, no anthem, $5: 45 \mathrm{FI}$, 900 loggod. ESOH-1050 6pm s/off. KYPI-1050 late s/off o 6:20, EBUF-1050 6:30, al 1 nem , also KMMJ-1050 on tape $96: 10 \mathrm{pm}$ - what a catch - Pour now onez in the Fest in 20 minztes or 1050! 11/17-QSLs: KDFN, WADC \& WXIF, $11 / 27-$ WJJT-1540 s/of1 $5: 30 \mathrm{pm}, \mathrm{mo}$ antism. Toxas Was in nicely on 900 kHz - KALT s/off 6:15, KIKR $/$ /off $6: 30$, KPLP s/a f 6:45, reports out to KALT \& KFLP. With CX so good into the Texas Panhanile I thought Santa Fo, Siow on 810 might just snoak in but only WGY mixed with R. Bahamas, w/ferme NXcast for nice log. 7 pm , Cuban was off 600 tonight but only Memphis, Winoton-Salem \& Colar Rapias wore not wh were back on ss. I hope thay stay off a while ab 10 a very bai frequics FiSHRB-1125 11:30pm; Honiuras-94
 at midnight \& a costa Rican on 10 in this could bot I'm up to 913 now. In just sbout 28 I'd gusss 12:20. Ang 18- QSLs: WMAX \& EHYD on third try. At long lest, XCMO-810 w/Neb Mour, FB $5: 50 \mathrm{~mm}$. I can't understand why thay woren't logged before. Trinidad again in on


DX 18 CAPITAL IN WASHINGTON Apt. 202 - Fanhington, D.C. -20020
 did to my boloved Skins Fund\%. When I think of What Dallas is going topio to them Thanke giving, it puts me in a fowl mood. On the cover of the new MBC log - how far back doos
 980 , Fom, some yeart back IDs, roport sont. UnID ss on $6203: 10-3: 30 \mathrm{man}$, vary low loy, chimes
 type of ide 3:26, costan on 575 with fanteotic signal. 11/25- 1:32am, R. Sonora-675 super atrong: 1:47, 2: O2am, wVOK-690 Ala. W/ET; 2:57, on 775, unID Latin noted hero quite of ten, alway weak, very bassy; 3:06am, CaNN-780 wiping out WBEM. 11/16-4:07pm, 840, super strong Latin turned out to be unn WEM4, Comn, in $8 S$ prior to $s / 011$ in EK Who SSB . $5: 14 \mathrm{~mm}, 860$, unn WFMO H.C. B/off $w / b r i e f$ Como "May the Lord $B 2 s s^{\prime \prime}$ oto.; $5: 30,860$ newio for ub, WLBG, S.C. s/ofs no SSB. 11/17-4:48 pm I gat tape on WGTL-870 N.C.; 5:17 umn WILA-1580, s/df $\mathrm{f} / \mathrm{mo}$ S8B. Still on 1580 , newies WPUV, Va. s/off $5: 17, n 0$ SSB, \& WBBE, S.C. moman wix. Thon another one of your PICON things - $5: 46 \mathrm{pm}$ still 1580, unn WEIY, Als. s/off with tirade about boing forcel off atr at this time and the money they had to spemi on Fir storco xR. $11 / 18-12: 08 \mathrm{ma}, 2590$ newio WCBG Pa. bricely, thon $5: 44$ a emall milestone fous as we reachod the 50, mark on tapings with s/off, no SSB, of TLIJ-2580, Tann. Wo broke out a bottle of bubbly wo had boan chilling for the occasion. $11 / 19-$ have got protty tiredt UnID Latin here weth unoniling NoR oven for comporcials. Playors wust have got prot ty tiredi onid latin here witi unoming Mor or KLL mx, no broake tointor to wishone and all a very Merry Christmas and a Hap py Hew Tear fanted to use the ramainder with $D X$ all other thinge that are good. As usuml, take carr. I found room for a inne or two - $11 / 20-1: 04 \mathrm{am}$, WTIC-1080 gone, who had the TT here until at least $1: 29 \mathrm{~mm}, \mathrm{~m} / \mathrm{mo}$ IDT We gone now!

Hot moh new in staticland latoly. (Ies, the local power compeny is atill etrongest local, hi). I was playing with my antems ayetem (i) as of late \& reapocbored oweone had tried using Ma Bell's lines as an antenna, I triad it \& noticed a an noiderabl improvement in signal on some chachole tolephone drop is mening at a 90 degres anglo to the LF irsectiond wore that I'vo obtan nod anothor 1 M antenna the oasy way. Local electrical noiso㲘 somer aince I mowd into a house so I came up with a few extra bills \& bought anald Hallicrafters $S-120$. The BCB on this $R X \cdot 18$ almost umamble for $D X$ as the selactivity is oxtramely poor but it fitill gets me on the SW banis. Whan I can afford a better Genoral Coverage BX, I may give it to ${ }^{\text {m }}$ son to get him interastel in DXing. All fornow. 73s.



 whon I calloi him at ToRJ - don't broak that promion In a 2000 important ovent, I colamit toi a sin by breaichng away for a fow bours froo intornational Dx, \& with some results. I


 Trirrol LARKY WILD's unID on 530 is the poworhouse Costa Rican $\ddagger \mathrm{R}$. Rumbo, usual2y vary $1 \mathrm{ng} 527-529$. The Costa Ricans aro cooiding as I type this; several aro running compontaries and the liko rogard ingoling into the same catagory as the soccer Far of El Salvatior and Honduras, I boliovg in '697 I hope you ill had anico Thanikagiving, \& if I'm not in hero bofore 1979, Horry Cor istrase $\frac{\&}{i}$ Now Year's to all NRCors. 73 \& all.

Hi again. Vory raio for mo to Nise agtin so soon, but there is good news, when In the Atianta Convontion I mot GLSNN HAUSKR who anked mi soome quastions about B . Clarin, Rudy Bopinal, otc. I told him I could 1 nvestigato for him a lot him know. I did and sent him the 1 nformation nhioh war hy ghiy publicizad, so much that soris xide in tho Dominican fopublic haard it through R. Nodarland. Thoy are the members of santo Domingo dic crub. . DXer than they aro ix their own country, and fo me to bear about a $D X$ club in the Douinicer Dxor than they aro
Ropubilic. They found my nexe in the telephone hook, calliod we and arranged a viait. They Ropubs to my home end wo had a long talk ell about DXing. They mere over joyed with their emthusiaex. Fhon they read my 88 translation of NRC information to bromdcasters they liked it \& askoi mo to persit them to make copios fac del ivery to stations, I sald yos, \& they took it With them, they aro going to holp with this. The clut has soven or oight meabere but they are all 20 yeare old or younger and none of ther worice, for EXing they use portable radice \&
 Fir ciub. At once I boceme a weaber of the dib nith the intontior of helping them the niost I can. Compunication recoivers are not oold in this country due to the higk price plus cuetom dutios higher than the cost of the recoiver. Yes, BON SCHMYZ told ne about his cocing coming for fust a got-togother ard meeting the nom DXers' club, hi, some information ubout
 perkape w111 docide to come down hore and enjoy a tropical crristras. Plane reservation ha to be wado in advance es mary Dominicans froc. Nen Yori, Boston, Yiami, otc. Will also cono as naual and it is difficult to got a soat. I hope to soe many of you couing, I wil bo waiting.

KEX-1290 MOVSD LOCCKY RMCRNTLY

 Rome, Idento from $1966-1977$. I wonder if he know Dick Scott, the cs over thero. Mo v/l from
 nea o or an air name. KPUO-850 \& EIUP-930 both made it here. KBX' PD Eric Norberg inforus me that thoy have moved from their old location at 5 th \& Lincoln in Portiand to a new locaticr In the nem cilin in the Surreor of 297 at the old KEX locaticr. This Sumier, when I fiew into
 Portiand, the 10 running non-directional fo a peried of $t$ ine around widday \& in ear 2 y aftarroon on Pridaye to contuct nondirectional field strength reasurements. On one recent occasion, they were ND
 Put up there, $1 \mathrm{it}^{\prime} \mathrm{s}$ snowing. Seattle, a city which is no atranger to rain $n$, was host to soven
 don host to snow, had ono foot of enow in many parts of the low 1 ands. Fappy Eoldays to all!



 tunar for it someday. I am amber of the IRCA oince $4 / 78$ \& through enopuragement frol TERIE COOPER hore, I joined the NRC. Rrnio, do you think you might bo able to mrite a nice
 can 108 thear ( H ). Noll Winter has arrived here in N.I. Conn. with 1if" of snow on 11/21.
 BRYAN LEE - Box 69 - Brookdyn, Connocticut - 06234 - thio ohould have boen atop this husing.)




 probebly to restricted to the occasional weekem st my parents' place. It looks like ay ontry to Content 41 wsi oi ther delay od or 100 t in the postal strike as I kad feared, as apparentig Jois kroura did not receive it. 73.
*CANADA TILL RAISE POSTAGE PATES AGAIN*
ANDREN F. RUGG - 568 De Gaspe - Apt. 408 - 110 des Socurs, Quebec - H3E 1 H9 VELAQP Not much to report. My penchant for FCB DX has always boen cyclical, and lately \# sears to be waning. Now I get all sorts of spurs that I never bad bofors. Porbaps CEF-690 also moved, because they are spurring too. Pity. Carade's postage rate will rise to $27 \neq$ in the Spring. Ky onily DX was on $17 / 10$, when I innggod mom- 1470 on their third Tuesdey $\mathrm{r} / \mathrm{c}-\mathrm{mT}$ e $12: 10 \mathrm{~mm}$. At 12:13 I think I hoard an ID. At that moment, I was distracted, and the ID wont in one ear and out the other before I raslized what was happening. Forturately, they verified my tentative report. Out of curiosity, I tried for them again on $21 / 11$. Local cro-1470 was on lete with NFI, FB, but somebody's TT eut right through them (rarginally miled) $12: 11 \mathrm{am}$ 12:12. I guess 'twas MaNi. JOHN FKLTMMY: CHOO-1390 still is in Ajax. Eowever, Ajax is part of the "Rogional kunicipelity" of Durham, \& isn't too far from Durham County. That Why they wontion Drahem. Thet has nothing to do with the distant town of Durham.

THO ELNILTON STATIONS GET SOKO FULLTDES
dAVE Whatmough - 284 Main Street F . - Hemilton, Ontario - L8P 2 JB
I guess it's about time I Mised after an absence $\alpha$ nomrly two yeare irow sctive DXing. I still havent got around to comre cting the ald Famarland BR-100 up to the loop so all DX has been done on a portable. 10/26- KFUO-850, I haardons or two IDs u/KOA \& WWJC also testing. Repar to sent to sevaral sexi-10als IG ceil chenges, itc. - WhBK-1560, CIDI -1340 , CJJID-1280, Whw -1460 who ID as 3 GG-1500. I guess by now jou all know that CHML -900 is ranning 50 ow, fulltime since sbout $9 / 20$, from an oight tower array 27 miles F est of Eamilton. Some more bad news is that CKOC-1150 have ton new towers up 25 miles ss of Has 11 ton, and cr Les Horton say e they should be on with SOWr. by the and of Docember - they ' have heard a rumor that thay wil be within a year or so. It was nice to see so many member at the Atianta Convention which was whore I started my two -woek vacation working my way acrose the Gulf Comet to as far Thest as Gaiveston - Visiting about 125 radio stations along the way. One of the interesting ones was WPMP-1580 Pascagoula, Miss. who wers awaiting delivery way. anond tower, as they were increasing power to 5iof, and going DA. They said they would libe iy be doing some testing sovaral nights this Fall. If all goes woll, I'll try and laise again this season - if not, I'll see you in ST. LOUIS.
JANES E CRITCHETT -1635 PaNOUS OLD CALLS XIDO-630 CEANGED BACK YROM EMAA

$$
35 \text { Palbridge Street - Hed Bluff, Celifornia - } 96080
$$

11/21/78何 $10 / 31 \mathrm{DX}$ report, printed in the $11 / 20 \mathrm{DX}$ NEFS arrived here today, I had batter get another report off to rrnio. Now station call lottors ke ap boing heard,
 hours; but not a regular visitor here. I raalize that I ampot the only one to hoar Crai. 1050, Vernon, B.c.; but I did hear then Mon. 11/13 8am. (I thought they said cKOw). The s/on e 8 om Mon. $11 / 20$, mims 11 degrees Celeins. To correct Joms cawheratyts 10 g , on 1250 , ETMS, Banta Barbera, Cal. is not 24 hours NSP; signed on e $8: 30 \mathrm{Tuss}$. $12 / 14$; off at $5: 30$, nightiy except for 6:0s Sundey mornings. Ny latest new Cal, station is RNCO-1250, Grass Valley (in Nevada County) hasd Tues. $11 / 14$ - $9: 24$; botter $5: 06 \mathrm{pm}$ same dev, Latost call ciange was EISU-1290 (Idaho State University), ox-K8NN, ID © 8:20 Thurs. il/26. The latest now Canadian was CKIQ-1150, Xelowna, B.C. ID 8:20an Fri, $11 / 17$ on top of 1150 . KKX, Fortland, did not come on at 5 aftor their silent period $11 / 19$. Instead, with roostors crowing my latest Kaxican XDNBC-2190, Moxicali, B.C. signod on $7: 57$; still there at 9 . $10411 / 20$




 POSTAL ROLIDAS S ON MONDAYB, THE NEET DEADLINE DATES IN PROVINCETOWN ARE SATURDAYS, DECEMEER 23 \& 30 . THEN, NE KEVERT TO FR CLSTOMAEY MONDAY DEADLINES WITH MONDAY, JANUARY B, AND EACH KONAY THEREAFTBR THHOUGE MARCH. WE WANT KORE MUSINE S, AND TE AGAN ABE MOFE OF YOU QUIET KEID ALSO LIEE TOHEACND YOU WHO AFE ERCEIVING FERIES TOSEND US TEI SIGNGRS' NAMES, PIEASE!
.

 -by ERIIE COOPRR
ofor this issue, C, the thought occurred to us thet we had to revert to our old old typemriter far enine could talk or type by itself, it could tell a lot of old memorios of the earlier days of the Nutional Radio Club. Fo first apologize to ANDY RUGG whose M.M. Wo promised for this is sui, but wo'll foeture it noxt week for sure. First, this mackine is an L. C. Saith standard with a right-hand throw, and was purchased from uy firat office when I worked as an of fice boy, in about 1939, for $\$ 15.00$. At that tifie, it was considered a piece of anciont history, a voritable antique oven thon, so you can got some lea or " from 1946 until around the tire we went offent. If the number of typing er rade by these fingers on this machine could be totalled, weld be draedfully ashared of our akille! When we used stoncils and mimoogrehing, to make corrections, it was naces gary to a foul-smelling correction liquid, and every tire I'd opon the bottle, I'd get to coughing, choking, and sneezing! So we finally just abandoned that form of torture, and merely struck over the orrors (that we caught, that is!) a 11 ttle harder so as to be logible. It was in this era that your Editor was known as Lefty Cooper, and towards the ond of this time, durirg the ragn of the "BAD Ouys" - the Boston Publishing Cormittee - that the term "Hefty Blooper" was born for use in our April Fuel anmal hilarity. Fe figure this machine typed out the Musings for somothing around 900 issues of DX NKws, and if we averaged eight pages par issue, that would anount to about 7,200 pages of Kuainge, ad with an average of four par page, that would come to amond 28,200 kusinge done on this old solid-iron machine. so, it is whech th much nostalgia that we pound this old keyboard once again for DX NEsis, while the present machine is being repaired and sharpered up for the, hopofully, long road ahoad. The reas have boen used a dong while and are somewhat dulled and dont maice too good, sharp letters, so we hope
you'il forgive the appearance of these words for an issue or two. Noxt week, ANDY RUGG.

 An intro: I am a cheaist, 35, and married with a one year old son. I have boon intorested in DXing io a long timo, but it has only been in the last couple of years that 1 aoquired an Fibocis and an 8 K -2 and joined the NRC. I have 20 ggod 601 stations in 35 states, three provinces, \& 22 countries. I do not collect verios because I oniy have linited tire arvilablo for DXing, and I'd rathor spond it at the diale than playing secrotary. On to DX: Up on $21 / 6$ for a rare hat aession. On 1190 WOWO was off leaving woak audio w/UPI NX, local WX (high of 85 , low of 55 ), and the $t$ ime (MST). The ID was muddled, but it sounded like MDX. got a positive DD. On 1030, WBZ was off and B. Contro was booming in. On 21/11, Wrasp-1630 in $4: 30 \mathrm{mem}$. On 11/12, WPCE-1400 Portemouth in $4: 33 \mathrm{ame}$ for one of ny better graveyard cet
 daytime DX on 11/18 I got WKYA-920 with WTMM mulled, Wiol-1120 with WUST mulled, and later, TeIr -1290 with thoir $4: 45 \mathrm{pme}$ e/off just after our local rTUT wont to bod. 121 for now. 73 .

## IE HAD $\triangle$ GREST TDEE AT BAI ARPUDAIE GTG

BinIE COOPKR - The Cape Tip DXer - 5 Anthorg Street - Provincetomn, Mass. - 02657 11/28/78 GRORGE HOLLAND, \& MARC DOLORENZO. phone calle thie weak from RAY ARRDA, HCLLAND LINDELADE, Arlenels beautiful home in Acuahnot was a roal delight, and wo had about 15 NBCers there to shoot the breese with, along with plenty of beer and pisza - thanks, Bay \& Arlone, for a groat day! Breat $A U C X$ contimu, and hera's this weok's activitien a DX sossion here on that in. foll as I bogan DXing. $85-1090$ o/WBAL $22: 46 \mathrm{sm}$, \& unID TT on 1440 bit 15 minutes of sow your WBB now carries Larry Eing, too! What has ho got, anyway? TVov- 540 way up top and in good 1:29-1:49, 11/z-WHKO-680 was off today, nothing new noted on 680 only crop \& WIPA in/out, up/down, \& one TC from CIIQ haard $\theta$ 2:29 (one mimite to four!). Turkey Dey
 u/Wimis-1130 today and several days since. UnID TT-1380 2:20-3:04, no IDe heard. WROD-1340 WSGA-1400 wore channel toppers during that time. 11/24- SSS searan report out to WIBG-1520 $0 / \mathrm{n}$ WTHE With no sign of WKEF, and no sigy wave frax anybody anywhere at thio hour, $\log$ gad $4: 35$
 1 :40-1:54 fade, I don't think it's tho formor ANer there, R. Aoropuerto, or Radis olandia, but it seans to be a Colombian. SN 11/26, with galofare winds whipping around: Vonezuelan Ni a 1090 , 1140 . No skgwave not ed on 1240, wcou-Me. atop there, now rr, ux-c/w. PX, after get 1090, 1140 . No kigwavo not ed on 1240, WCOU-Mo. atop there, now rr, ex-e/w. PU, after getting over TNB for a goot refort, 11:11-12:33pw, when thay faies jown, out, \& gone. Thay had a of mantions of mrusica de Betados Unidos". Nothing much unueual noted during the MM hours of $11 / \mathrm{a}$, oxcopt a banketball game from Elmendorf AFB in Alaske on 2600 , tut a phone call from BILL COLBLAN cloared up the ID on thlo coe, WFRC, Reideville, N.C., unn. That ovening, MARC DoLo FinNZ callsd to say that Furks was coning in on 1550, so I tuned there, got a iftile bit before a neaty unacebunted-for busz took over the ontire BCE dial, so we still need Ir ore datil on this one. They had rr to $5: 45 \mathrm{pan}$, when they atarted talking ato ut oports, and then - the buss took them out. 11/28- R. Princi pe- 1580 with U.S, wx onceneore fooled me with their excellont sigmal 1: ©Cal. Whod again topped 1340, as the Aurora continues morrily orward. A report was takon on B . Kara-go, Maracaibo, which was ANing, in/out w/a Cucan \& CKTS, no eigr
of oither Xaw or CBML. Either CBML's 50 low goes away from this area, or the AU took them out or else they woren't ANing these last couplo of nornings. Katch for AN shows froil FFCs and
Lis on Christras \& Now Year's noornirga! C UN 10 !
 Qliot Straus Ron Musco Mike Tuggle Nedl Zank
50 WHBQ q (Christopher W. Karb, CE $\begin{array}{llll}\text { WRTH } & \text { iu } & \text { Janes Ja } \\ \text { KTBB } & r & u / u, \text { CE } \\ \text { WKRG } & \text { iu } & \text { Christop }\end{array}$
Christopher (Kip) Allen, $N \times D$ Chuck Bullet, E
Lester A. Null an, TD
Roger Hively, CE
Dan Hubbard, GM
Vel don F. Leverich, CE u/u
Don Martin, GM
WGIL
KRVN James R. Covington
p R. J. Bitner, CE
880
890
George Donahue, CE

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Rdek Sparks

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& \text { Terry Wayne, } \\
& \text { J. Miller, }
\end{aligned}
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Chuck Kelly, CE
Whlliam A. Allison, GM
Michael G. Adams, PD F.F. St. Ciair, R Patrick MCLaughlin, CB Donna M. Cameron, Trf $D$ Kames Batnes,
S. Joann Morri
Phil Sanksen, CE
Blande Perry, CB
Scott C. Mason
Earl Tolley, CE
Rid ak Robinson, PD
Jack $G$. Lovel ady, Do John Johnston, CE Ed oliver, CB
Curtis L. Waite, CB George A. Landry, Prom D Charles A. Hecht, CE Eric Norberg, PD
Steven K. Moreen Steven K. Moreen, C Larry Ryan, GM Wendell All egood, SM Randy Hayes, CE (Dal e R. Sed denswarte, CE Fred Brown, M
Whlli am J. Wi erel Fred Bowen, cE Fred Bowen, CE
Robert Meador Robert Meador,
$u / \mathrm{u}$
Jemes Booth, CE James Booth, CE Edward F. Joseph, GM Dwight will kerson, M Randy Wheel er, NxD Randy Indermann, E Linda Aron, Trf D Ríchard F. Morse, GM (Banes $\frac{\mathrm{D}}{\mathrm{M}}$. Asher, Carwell , Op M (Jerry L. Bowers, TD Chuck Spaugh, M Martin Sullivan, DJ

These are all wo have through Friday, Novenber 24 th.
Please send foreign verie signers to IDXD.

| WZIX | 1 | Darren Dunl ap, CE |
| :---: | :---: | :---: |
| WLLY | 1 v | Mlliam Capp, MxD |
| WKAT | 1 | Arthur P. Sinith Jr., CE |
| KSCJ | uq | $\mathrm{u} / \mathrm{u}, \mathrm{CE}$ |
| KRRR | 1 | Arthur J. Borgeman, Cop |
| K.RS | 1 | Lynn Herrin, GM |
| WKII | q | Charl es E. Gustafson, DOE |
| WRGS | m | John M. Wall er, E |
| WNVR | 1 | Cralg S. Carragan Jr., GM |
| Lucy | 9 | W A. Cooper, $\infty$ p |
| KFL ${ }^{\text {d }}$ | 1 | Floyd Jeter, O, CE |
| WAPB | pu | Yvonne B. Fleming, GM |
| ca00 | 1m | Pat Gonzal ves, PD |
| KENN | p | $\mathrm{u} / \mathrm{u}, \mathrm{CE}$ |
| waka | in | Chuck Conlon, CE, K4abg |
| KVOP | 1 | Paul Easter, B |
| KVEP | 1 | Gordon Al sum, DoE |
| K mok | 1 | David Petrik, CE |
| WICK | 1 um | Whlli am Hessudil er, CE |
| WHLN | 1 | James T. Morgan, P |
| kxow | ul | Robert Cl ements, OpM |
| KUJ | 1 | James Nelly, PD |
| WWES | 14 | Kris Thomas, PD |
| WCIM | 1 | James Martens, CB |
| WHHH | fm | John L. Armour, CE |
| WAJR | 1 | David B. Knell, GM |
| KAYC | uqp | $\mathrm{u} / \mathrm{u}, \mathrm{CE}$ |
| KBBS | 1 | Ralph P Burger, CE |
| CHOW | 1 | Larry Holl eran, CE |
| 爫國 | $p$ | Earl Russell |
| WIRX |  | Alan Dearfoss, CE |
| KSTV | $r$ | Joyce Brewrer, PD |
| KROB | p | Karl Lentz, 0 p |
| WIEB | 1u | Ronald M. Viller, SM |
| WRSt | pu | S. Phillip Osborno, SxD |
| DAIV | 1 | Auston G. Xrazer, CM |
| KWOX | ni | Phil Sherman, OM |
| Evio | 1 | David Chafln, PD |
| W[PM | 1 | Leon D. Resce, M |
| CHII | fin | R. Terris, ${ }^{\text {s }}$ |
| WIRD | 1 | Sue Bahner, GM |
| WJII | 1 | Eari ene Casti eberry, GM |
| WSEO | 1 u | Candi Sodith |
| WTHS | 1. | Bruce W. Wall ace, |
| WYZD | 1 | Lee R. Childress, OM |
| WTow | 1 | Nancy L. Sipes, Conl M |
| WYTI | 1 | Herbert Gardner |
| WPGM | 1 | Larry Souder, GM |
| WQTM |  | Mick A. Corvello, P |
| KR2I | p | Herbert Harding |
| WYYZ | 1 | H. J. TIppens, SM |
| WETT | 1 | Al Lerner, CE |
| KCLU | 1 | Greg Stanton, Maint E |
|  |  | Leroy A. Hamil to |

c - Typed or hand-writton postcard
c - Typed or handwritton postcard
f - Form or mimeo letter $\mathrm{h} / \mathrm{V} / \mathrm{s}$ is a ham I - Verie is a letter n- included coverage n - Native language of station when notEs/map p - card prepared by the DXer signed by st
q - QS, card. $\quad$ - On DXer's own letter. - On DXer's oum letter u - Verie is the result of a follow-up. v - (NBN1) Personal visit to the statio
x - Verie is vague or unsatisfactory

Several Musers have recentiy listed some fine veries but did not send in the signers. We' appreciate it if they would soon do so, and al so that others of you who delight in reced $v$ ing veries would send in your recent signers, thus to help others. Thank you!

