



DX MONITOR

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JANUARY 27, 1979

DX CALENDAR DX CALENDAR DX CALENDAR

- MM Feb 5 WJWL-900 Georgetown, DE 0100-0200. Pop w/IDs, tones, recorded music. Reports with return postage & accurate details will be QSLed. Attn: Stephen Wallace, OE, WJWL, Box 111, Georgetown, DE 19947. Arranged by Dablestein, NRC.
- MM Feb 5 WILLI-1400 Willimantic, CT 0100-0200 Will use 1000 watts. Test will have 1000 cycle tones, music, and ID's. Prepaid phone calls (203)-423-1621. Reports to Paul F. Moraghan, OE-WILLI 948 Main St. Willimantic, CT 06226 Arranged by Bryan Lee (IRCA)
- MM Feb 5 KKIO-1290 Santa Barbara, CA 0300-0400. This test was one which was to have been on 1/8 but the OE/owner had some trouble with the date, so it has been scheduled again. Details same as last time (From NRC DX NEWS 1/22/79).....
- MM Feb 19 WDBQ-1490-Dubuque, IA 0300-0400 (EST). Tones & IDs, maybe a bit of other chatter. LKW ND pattern. Prepaid calls accepted at (319) 583-6471. Verie signer Lloyd Berg, OE, WB9CRG, WDBQ, 1170 Iowa St., Dubuque, IA 52001. Arranged by Bruce Renaud, GWDXA & forwarded to us by Eddie Ryan.
- Tu Feb 27 WBIO-1310 Parsippany-Troy Hills, NJ... 0000-???? This is an extended f/c and will run 3/27 & 4/24 also. Will include 1000 Hz tones to 0015. followed by music and voice. This is the former WQTK. Veries from Jerry Toro, WBIO, 1 Percypeny Lane., Parsippany NJ 07054. (From DX News 1/22/79)

Canadian Korner...Knews From "The Frozen North" January 15, 1979...the jo birthday issue!

- 54 EC CB.. Barkerville/Wells 40w. 1prt will relay CBU.
69 SA CBNB Gravelbourg. Noted carrying CBF & CBC(SRC) Montreal stuff direct. CERN & CENS(86) are both just relayers(no studios) of CBNB FM in Regina. CBNB feed is from CJEC or CEF. Thought I had CBF for a few mornings, hi.
- 79 PQ C... Baie-Comeau wants 1/3kw. UL...French
86 MB CKB-1 is ex CBNB...40w. 1prt relaying CKB 105.
86 MB CKB-2 is ex CBNB...ditto CKB 105.
86 EC CBRP Cranbrook 1prt will die when CBC FM arrives.
*73 ON CBOP-3 is ex CBNB...r-CBOP 1250...Exciting, eh?
92 MB CPHY Portage la Prairie wants 50kw. U2. Why not!
96 ON CKWS Kingston applied to drop all CBC stuff.
105 EC CKAL Vernon is AN6 OFF REI 3-3 ELP, says "C-Kal".
107 ON CHOK Sarnia applied to drop all CBC
107 AB CBNB Saint Albert is on...later than 11/15. NSP?
115 EC CKIQ Kelowna got the OK for 10kw. Nights.
115 PQ C... Gaspe. Application by CHNC withdrawn! Ahh!
117 EC CBWV This 1prt will die when local CBC FM arrives.
122 AB CJOC Lethbridge drops all CBC stuff. No longer part of the c-jock license requirement.
- 122 PQ C... Amqui. CP DERIVED! Bet they'll try again as the CBC bought the local, CHUM 1450.
- 123 AB CB.. Jasper. One of those 5w. NP Info. things.
124 ON CFAK Atikokan...is the call...r-CFOB 80. Soon NSP.
124 MT C... Yellowknife wants 1/3kw UL...English.
124 ON C... CKAP's application is now for 145.
127 ON CJTN Trenton s/b on now? Relaying 40% CJEQ 80.
134 EC CBXO This 1prt will die when new FM is on.
134 EC CBRY Alert Bay is gone to FM since June.
134 MT CHAR NA's most northerly stn. is now FM, I'm told.
134 PQ C... Jonquiere wants 1/3kw UL...French.
134 ON CKIG Ignace is the call...r-CKDR 90...soon NSP.
134 ON CBWV Hunter or is it Hudson? 1prt is on r-CBW/CBQ.
140 EC CBXN will die after local FM arrives at Sparwood.
140 ON CKOB Renfrew gets OK for 1kw.
141 SA C... Moose Jaw wants 10kw. U2..English of course.
143 AB C... Grande Prairie is reapplying for 10kw. U2
145 ON C... Timmins application(ex 124) for a CKAP twin.
148 PQ CHRD Drummondville wants 50/35kw.
148 AB chum Edmonton...CHUM Toronto wants 50kw. U2 & FM.
149 AB CB.. Jasper. The French version..see 123.
153 MB C... Winkler-Horden wants 10/1kw. CFAK protests,

Still more 1prts seem to be going to FM. More private stations are made happy by being allowed to get rid of having to carry the CBC. CHAT wants FM which would seal their monopoly market. C-joc ditto. End of excitement...73...jo John

WMPT

AM 1450 KC. FM STEREO 99.3 MC.
american contemporary radio network

P. O. BOX 883
WILLIAMSPORT, PA. 17701

WLLH
RADIO 140 STEREO 99
WSH

LOWELL / LAWRENCE

P.O. BOX 1400
LOWELL, MASS. 01853

FLASH TIPS

From Matthew Shugart: "I received a special delivery from KNBR saying they plan to be off Feb 1-4 between 1-4 AM (PST)....." WCAW may test again & Matthew has also contacted WBOC for a possible test.

From Mark Bixby: The mobile unit Mark lists in this issues WDXR on 1646 kHz will be on again on Feb 2-3 & 9 carrying Basketball games and using 100 watts. This unit is operating with a 28' whip on a VW Van. Time broadcast begins is 2125 EST each night. Thanks to W. Page Pyne & Sheldon Remington for their letters to me at HQ.

The Inside Story

EDXR---238-239-240 EDXF---244 DXWW--247-248-249
GDXR---240-241-242 WDXF---245 DXWW II-249-50-51-52
WDXR---242-243-244

Department Store Radio-----254
Graveyard Records-----246
IRCA Sports Network-----258-259
IRCA Technical Column-----255-256
Radio World 1922 excerpts-----260
Reflections Column-----253-254
Sears Radio Theatre-----252
Special Feature "AM Broadcast Band will soon be different"-----256-257-58

**eastern dx
roundup**

Bob Curtis
17 Cobbleview Dr.
Colchester, VT 05446

DEADLINES: Mondays All times are Eastern Local

Splatter:

"Patience hath its reward! Five newies within 50 minutes after a week-long drought." (see WGAS-1420, WQMG-1520, WYNA-1550, WKYR-1570 & WONA-1580) Bill Townshend - DC

"12/10 not a bad morning for me." (see CBK-540) Douglas Miske - ON

"Got WISN in a much wanted state and WGAT, unreported since '72!" (see 1130 and 1050) Steve Grubb - TN

"Called station to confirm." (see WDBL-1590) Paul Mount - OH

"Both new and needed!" (see WKAO & WWBC-1510) Karl Jeter - GA

"The pirate, WFAT-1620, in the Big Apple has been bagged at long last (see 1620). It's still alive and well as of the New Year." Bill Townshend - DC

"State # 27." (see WPRO-630)

Douglas Miske - ON

"VL's from the KADE CPC, CFCC & CKLW came this week." Steve Grubb - TN

510a OS UNID, Beacon w/Morse O S (--- ...) at far low end of TRF 1/4 1652. Who? (PRM-OH)

(ed: am interested in your report, Paul, as I have also logged OS; but still carry it as UNID.)

540 CBK SK, Watrous 12/10 0159E w/CBC SK ID, CBC Nx, 0204 s/off. Very good w/some WGR slop. Province # 5. 12/10 not a bad morning for me. (DM-ON)

WGTO FL, Cypress Gardens 1/4 1753 Good w/local wx, temps in 70s Winter Haven area; promo, country format. (PRM-OH)

550 KTSA TX, San Antonio 1/8 1958 Poor, lotsa garbled ID's and one good clear ID. Coke spot, T40 mx. (Hitline-292) (SG-TN)

WGR NY, Buffalo 175-1135 Daytime catch fair-weak u/semi-nulled WKRC, with Andy Gibb mx, wx incl Ontario, "GR-55" promo at 1135. (PRM-OH)

+ 1/8 1948 Fair, lotsa "W-G-R" ID's & "55-GR". T-40 mx. (SG-TN)

560 WFIL PA, Philadelphia 12/21 0050 In big fight w/WIND, T-40 mx, 0050 WFIL ID & TC as 0051, sports & into mx. Surfaced w/ID @ 0056. Usually fair. This stn is reputedly very hard to hear on DA-N, so I felt pretty good about this one. (DM-ON)

WIND IL, Chicago 12/21 0052 WIND jingle, talk, fighting WFIL. Fair. (DM-ON)

580 CFRA ON, Ottawa 12/21 0046 CFRA ID, "Too Much Heaven" (Bee Gees). Fair. (DM-ON)

WHP PA, Harrisburg 1/8 0128-0133 Fair, ID w/easy list inst, "just beautiful" promo and AM & FM ID o/nulled WCHS. (PRM-OH)

620 KWFT TX, Wichita Falls 1/5 1800 MOR mx, ID, into CBS "World Tonight" followed at 1815 by farm report (KJ-GA)

WTMJ WI, Milwaukee 12/21 0157 ID by YL, mx, 0159 ID by YL, ment to stay tuned for NBC Nx, wx (28°), spot, jingle, 0200 NBC Nx. During this Andy Gibb & the Bee Gees were heard on two stations fighting WTMJ. 0208 "Welcome back", 0208 TC, WTMJ ID, Bee Gees mx. Fair. (DM-ON)

630 WMAL DC, Washington 1/8 0117-0120 Fair 07u/Cuban w/"At 17" 0117 to ID at 0120. (PRM-OH)

WPRO RI, Providence 12/21 0036 Phone # Given, WPRO ID, talk & phone # 842-2630 (?), 0037 Disco (ugh) mx, 0039 f/out, WMAL left. Good. State # 27. (DM-ON)

640 KFI CA, Los Angeles 11/20 0200-0300 Poor-fair on TRF w/rr mx. 0230 talk-show with guest about "Leadership Crisis". "Long Distance" call from Pomona. At 0300 ad for \$4.95 book on "Acu-Pressure" (no medical costs). Then into news w/Phillip Clark - much on the USSR space pgm - flights to Mars, etc planned. Then wx & different guest, doctor against welfare. (LMP-OH)

+ 12/10 0159 "Fly Like An Eagle" (Steve Miller Band), "64 KFI" ID, quick talk, "Whenever I Call You Friend" (Kenny Loggins) poor u/CMQ pest. State # 26. (DM-ON)

650 *WSM* TN, Nashville 12/11 0400 Off the air, some OC, TT. (LMP-OH)

660 WESC SC, Greenville 1/4 1655 Fair but no WNBC at 1655 telling motorists in South Carolina to put on headlights. (PRM-OH)

680 (CFTR) ON, Toronto 1/8 0101 640-700 kHz now DXable as super-pest leaves air totally. (hooray). (DM-OH)

WCEM MD, Baltimore 1/8 0105 AP Nx, WCEM ID, talk and another ID, Bee Gees mx, 0108 talk about Super Bowl 13, bsktbl scores, WCEM ID, talk "September" (Earth, Wind & Fire) 0112, ID poor. (DM-ON)

700 WLW OH, Cincinnati 12/11 0145 Off the air most of the night. (LMP-OH)

710 KGNC TX, Amarillo 1/3 1812-1822 Good w/nx, femme anncr, Earl Nightingale, xltnt after WKRG power drop at 1815. (KJ-GA)

WOR NY, New York 12/11 Test tones and open carrier most of the night. (LMP-OH)

???? UNID, Canada 12/9 0030 French singing over WOR (at work). (LMP-OH)

(see also 710 u/IDING the UNIDS)

740 KRMG OK, Tulsa 12/10 0136 MOR mx & talk by OM who sounded like he was falling asleep (I was, hi). Fair all alone. State # 24. (DM-ON)

???? UNID, 1/8 0145 weird tones, noises, rise and fall tones. Poor all alone. (DM-ON)

790 t WQXI GA, Atlanta 1/8 2036 Poor with QRN (Recent winter storm?) T-40, ment Atlanta. (SG-TN)

WTAR VA, Norfolk 12/21 0023 "Swingtown" (Steve Miller Band), 0025 talk and WTAR ID, Tom Jones mx, 0029 talk & WTAR ID. Fair-good in CHIC null. (DM-ON)

800 CKLW ON, Windsor Sign-off 12 PM (2400) and back on 0530 since about Thanksgiving. May have run later weekends, and seems to be back on full time schedule since Christmas. Reason given at s/off is to work on AM-stereo. (Does seem to splatter more now.) (LMP-OH)

830 WNYC NY, New York WNYC is not now 50 kw and won't be until its owner, NYC, gets out of its financial crisis and can afford it. Give 'em at least ten years. (GM-NY)

(see BL-CT's question u/830 in EDXR for Dec. 23rd)

850 KOA CO, Denver 12/11 0225 Good with sports talk. (LMP-OH)

860 CJBC ON, Toronto 1/8 0010 S/off with a FF version of GSTQ. (SG-TN)

WXAP GA, Atlanta 1/8 0010-0025 Heard u/the constant hum of CJBC's xntr (after s/off). Not clear enough for a verie. Fair to poor signal. (SG-TN)

880 KRVN NE, Lexington 11/23 2230 Fair. No WCBS or Cuba. "KRVN, Lexington, NE, 10 before 10 at 2250. State nx, traffic accidents. At times fades & covered by WCBS. Some Cuban and TV QRN also, but quite better than would think from NRC pattern - aimed away from WCBS. Are they testing non-directional, like WNOE has been most of this year? (LMP-OH)

WCBS NY, New York 12/11 (time?) Test tones. (LMP-OH)

920 WTTM NJ, Trenton 12/20 2358 Pop mx, WTTM ID. Fair in mess & WBEN slop. (DM-ON)

930 KWOC MO, Poplar Bluff 1/5 1729 Good at 1729 w/full ID, MO Net Nx to 1734, The Family Optical ad. "Big Country Radio". (KJ-GA)

950 WROL MA, Boston 12/6 0557 o/u/WPEN with end of rlg's show reminding listeners they heard it on WROL. (GM-NY)

970 *WWDJ* NJ, Hackensack 11/27 0355 Open carrier with WWSW (?). At 0400 poor test tones under WWSW looped east. At 0405 faded out or being turned on and off. (LMP-OH)

WWSW PA, Pittsburgh 1/7 0115 C&W type mx, 0115 TC, WWSW ID, mx, fade-out Fair. (DM-ON)

980 CKGM PQ, Montreal 1/8 0129 "Shake It" (Ian Matthews), 0132 CKGM ID, talk, mx, 0136 ID, talk, Bob Seger mx. Poor-fair, Station # 200 from Toronto. (Pretty good for me as I haven't had much time to DX since moving here in 3/76. (DM-ON)

???? UNID, 1/8 0119-0131 Somebody knocking walls down (and ears out) with TT. Signal excellent until off at 0131 w/no ID - nothing! (DM-ON)

990 CBW MB, Winnipeg 11/19 0558 Good. National anthem and list of CBC stations. At 0600 "990 kHz, 50 kw, 5:00 AM" (LMP-OH)

1030 t KCTA TX, Corpus Christie 12/3 0130 C&W mx poor to fair under WBZ with sub audible het. Used R-300 and 60 ft. non-directional ant, so may have been KTWO. (LMP-OH)

(ed: Is the 60 ft. ant a vertical?)

KCTA TX, Corpus Christie 1/8 0112-0117 Fair but alone w/segued country 0112-0117 then repeated IDs off & on. (PRM-OH)

1050 WGAT VA, Gate City 1/9 1719 Fair w/C&W mx. No QRM. PSA about blood-donating, sx and then into "You Don't Bring Me Flowers". (SG-TN)

(ed: Streisand and Diamond)

1060 *WQIO* OH, Canton 11/30 0025 ET loud test tones, then 0030 "Grease" theme mx & "Double Vision" starting & stopping suddenly & changing volume. Still on at 0145 with rr mx & DJ talking. 0150-0200 several WQIO ID jingles played. Apparently off at 0230+. (LMP-OH)

???? UNID, TN, Morristown 1/9 1728 Xlnt w/good rr (mentioned Morristown) ID'd as "1060 M and M (or M and N)" into Tennessee News Radio (Network) (SG-TN)

???? UNID, 1/8 0035 TT u/KYW. (SG-TN)

1090 KAAV AR, Little Rock 1/8 2105 Fair with slight QSB. T-40 Hitline Area code 501-243-KAAV, Dial spot. ID'd as "K-A-A-Y" and "K-A-Y". (SG-TN)

1100 WWWE OH, Cleveland 12/6 0025 OC. Off at 0030 on a week day. (LMP-OH)

1120 WWOL NY, Buffalo 1/4 1659 Poor u/KMOX w/s/off. Was looking for WUST, but heard c/w mx instead. Glad I stayed with it, hi. (KJ-GA)

1130 WISN WI, Milwaukee 1/9 1728 Good, no QRM, QRM or QSB. Oldies and rr. Milwaukee wx report (6°). (SG-TN)

1150 *CKOC* ON, Hamilton 12/10 0100-? Running OC, nobody there (*!#@) Excellent. (DM-ON)

+ 12/21 0150 Using tone tonight, (sure woke me up, hi!) Excellent. 0218 back on RS. (DM-ON)

1160 KSL UT, Salt Lake City 12/10 0115 Talk show, fair, all alone for state # 25. (DM-ON)

1170 (WWVA) WV, Wheeling 12/3 0330 Off the air, OC at 0335. (LMP-OH)

1190 KLIF TX, Dallas 1/8 0200-0430 Maybe this w/talk show about basketball, M & F speakers, show named UPA Today 0200-0230 then into Open Door Program 0230-0300 ID but tape ran out, "Wildfire" 0300 and other rock, not CHTN/KEYZ per calls to KEX KAYQ/KLIF didn't answer. Then definitely 0430 w/rock, ID. WOWO off except 0400 TT. (PRM-OH)

1220 WGAR OH, Cleveland 12/11 0100 Off the air, back before 0200. In Sept. started using new xmtr & plan going to AM stereo. (LMP-OH)

1240 *WGBB* NY, Freeport 12/13 0400-0430 Off from 0100-0400, then ET consisting of tracking Beatles LP's 0400-0430. Back to RS at 0430. (GM-NY)

WGBB NY, Freeport 1/7 0115-0520 FoP test. TT's at both hi & lo power. ID's every 15 min at beginning, then once an hr near end. (GM-NY)

WGBB NY, Freeport 1/8 0010-0058 Still proofing on hi pwr, ID 0058(GM-NY)

1250 WTAE PA, Pittsburgh 1/8 2150 Fair with MOR'ish mx w/some stray hets. ID'd as "T-A-E". (SG-TN)

1270 WDLA NY, Walton 12/26 1230 QRM from WADO, WSPR. In w/"Delaware County Farmer" show, AM-FM ID, New Year's greeting. (GM-NY)

1280 WONW OH, Defiance 1/3 2355 - 1/4 0020 Fair-good w/Mutual pgm not King, then nx wx, national nx 0030. Per call to stn on till 0000 normally, except when there's a bsktbl game, HS or Defiance College; then recorded programs played and s/off 0037. (PRM-OH)

1290 WICE RI, Providence 12/15 0151 Occasionally on top w/tele-talk. (GM-NY)

WNBF NY, Binghamton 12/15 0154 o/u/mess w/ments of "Chenango", "Endwell", wx report. (GM-NY)

1320 CKEC NS, New Glasgow 12/20 0113 After WATR s/off w/rr mx, local comml, ID. (GM-NY)

WVOJ FL, Jacksonville 12/20 0121 Sur-faced w/pop, c&w, Xmas songs, wx, ID's. (GM-NY)

1330 ??? UNID, 1/8 0335-0355 Good o/u/WRIE/WFBC w/jazz 0335-0355 then said end jazz special, back to top 40 (at 4?), two more selections then missed ID going to check 1190; mentioned Al Candy in the newsroom at 0359. (PRM-OH)

1400 WKWK WV, Wheeling 1/8 0017-0100 Among the rock 0017-0100 report 0057 about hotel for dogs in CA, Hot News then jx like "Joyce Greller, 14 W-K" into rock, # 299. (PRM-OH)

WSGA GA, Savannah 1/8 0017-0103 Probably one of the rockers 0017-0103, one had AT 40, one F DJ, then "WSGA Savannah" ID into "Miss You" (ed: Rolling Stones, eh, Paul?) o/WKWK. Station # 300 in 3 1/2 months. (PRM-OH)

1420 WCED PA, Du Bois 1/6 1828-1832 Poor to Fair, clear ID, from out of nowhere for just a few minutes. First time logged here...usually unable to hear due to splatter from local on 1410. (WFP-MD)

WGAS NC, South Gastonia 1/8 1730 S/off by OM. Fair. (WPT-DC)

1470 t WQXL SC, Columbia 1/1 1730 S/off by man, "W-L" heard and ment of SC led to above conclusion. Fair sig(WPT-DC)

WVBS NC, Burgaw 12/31 0600 S/on w/NA. Fair amid moderate QRM. (WPT-DC)

1500 KSTP MN, St. Paul 12/21 0116 Andy Gibb song crept over guitar twanging WDEE. Surprise. No sign of them after this. (DM-ON)

WDEE MI, Detroit 12/21 0112 "Big-D" ID, C&W mx, 0118 TC & wx, C&W mx and "Big-D" ID's. Good-very good over WTOP. (DM-ON)

1510 WKAO FL, Boynton Beach 1/4 1743 A clear "This is WKAO..." heard during s-off of WWBC @ 1743. Both new and needed! (KJ-GA)

740 WVLN IL Olney 12/20 1236 poor w/ Xmas mx and faint ID. (MJ)

800 WSHO LA New Orleans 1/13 1812 good w/ C&W, anmt about WSHO buying used trailers, s/off at 1814 w/ no SSB. (RAL) (RAL, below)

KQCV OK Oklahoma City 1/13 1825 fair w/ ID, mx.

CFOB ON Fort Frances 1/1 0300 all alone for about one minute, full ID with mention of CHMM-FM relay. (RS)

830 KBOA MO Kennett 12/21 0805 ad for Kroger Foods and ID. Reasonably strong. (RS)

850 KEYH TX Houston 12/26 1830 wx for major TX cities, then brief s/off anmt. Good and clear. (MJ)

920 KTLW TX Texas City 1/4 1812 good w/ wx report, ID o/ KARN. (JC)

930 WKY OK Oklahoma City 12/15 2000 ID at 2000 during OK St. basketball game. Good. (MJ)

KDET TX Centre 1/6 1830 s/off, weak u/ WTAD w/ promo for FM. (JC)

940 WCPC MS Houston 12/26 1740 after Billy Joel song, ads for Bill Haney concert, something on Hwy. 15 north in Houston, Hills Bros. Pontiac, then "WCPC Houston, MS", into religious pgm. All alone after WJPC s/off. (MJ)

950 KFSA AR Fort Smith 12/20 2055-2100 mx by Cher, ID, song by Donny & Marie, then "It's 8:00 and time for news on KFSA, Ft. Smith." Good to fair. (MJ)

WSPA SC Spartanburg 12/15 1945 heard "Radio 95", then Spartanburg wx and ID. Good. (MJ)

WKTS WI Sheboygan 12/24 1100 surprisingly weak, the same for WHBL-1330 (during the day). (RS-Kau)

960 WSBT IN South Bend 12/27 0045 o/u WERC with T40 mx, wx, and ID. Fair-poor. (MJ)

970 KGKL TX San Angelo 1/13 1846 fair w/ R&R. (RAL)

WMAY IL Springfield 12/20 2123 good w/ C&W mx & ID o/ KAKC. Much wanted. (MJ)

KAKC OK Tulsa 1/14 0227 fair w/ "The all new AM-970 KAKC" ID, MoR. (RAL)

1010 WBIX FL Jacksonville 12/30 1730-1731 s/off w/ calls, no SSB. Sig faint, mixing w/ WKQT and others. (JL)

1010 KCHI MO Chillicothe 1/3 fair u/ KLRA, s/off at 1815. (JC)

WMOX MS Meridian 1/3 good 1803-1808 o/ KLRA. C&W song, then promo for Elvis special, "Total Country 'MOX" ID, local ads, bluegrass song. (JC) (WMOX is one of my more unique veries, the verie scribbled on a sheet of stationery says "Hell, yah it was us"---ed)

WXYQ WI Stevens Point 12/24 1050 10Q Country, local level here. (RS-Kau)

1030 KCTA TX Corpus Christi 12/31 strong 1750-1800 w/ gospel. "KCTA 1030 Corpus Christi, the Gospel Giant of the SW" ID at 1800. No WBZ, yeah! (JC)

1050 KSIS MO Sedalia 1/2 fair 1802 w/ wx report. (JC)

KFMJ OK Tulsa 1/2 good w/ C&W mx, mentioned would be on til 1830 because of later sunset in Jan. at 1822. (JC)

CHUM ON Toronto 1/2 weak thru WHN & others w/ ID, rock at 1800. (JC)

1070 WFLI TN Lookout Mountain 12/27 0217-0223 ID: "WFLI, Lookout Mountain-Chatanooga, TN" Ment'd testing xmtr w/ daytime power of 50000 watts. Disco mx. Sig strong but fluttering, w/ QRM mainly from WDIA. (JL)

1090 WBAF GA Barnesville 1/6 1742 fair o/ WGLC w/ s/off. (KDF)

WGLC IL Mendota 12/17 1300 fair w/ "WGLC, Mendota, IL" ID, ment of WGLC-FM, into Ae news. (MJ)

WISS WI Berlin 12/24 0900 very strong, a lot stronger than I thought it would be. Never heard in Milwaukee. (RS-Kau)

1110 KDRY TX Alamo Heights 12/14 1930 after religious pgm, s/off at 1930, fair but little QRM. Heard after WMBI s/off while trying for WBT. Probably my best catch yet. (MJ)

1140 CKXL AB Calgary SM 1/14 0137 fair in WRVA SP o/u WIBA/WISM mixing product w/ R&R. (RAL)

1150 WDEL DE Wilmington 1/5 0406 fair w/ local nx, rare here. (KDF)

1220 WLBI LA Denham Springs 1/5 1829 $\frac{1}{2}$ weak but alone w/ s/off. (KDF)

CJRB MB Boissevain 1/13 0102 fair o/u WGAR w/ nx, sports, So. MB wx. (RAL)

1260 WBBG OH Cleveland MM 1/15 0359 poor thru WNDR/ KGBX w/ end of NBC nx, Cleveland wx. (RAL)

1280 WJAY SC Mullins 1/8 0600 weak w/ s/on anmt, then gone. (KDF)

1290 KRGV TX Waslaco 1/9 2356-2359 ad for Interiors Unlimited, PSA for Army, SID, R&R mx. Sig fair to poor, w/ some QSB, QRM from several stns, splash from local WIBR. (JL)

1300 WLOW SC Aiken 1/6 0601 barely audible w/ s/on w/ excited announcer. (KDF)

1310 WGSA PA Ephrata 1/5 0601 poor w/ SSB & s/on, unn. (KDF)

WBNT TN Onsida 1/5 0610 good w/ what appeared to be late s/on, then local nx. (KDF)

1320 WHHO NY Hornell 1/7 0600 fair w/ s/on w/ FM plug. (KDF) (KDF, below)

WGET PA Gettysburg 1/5 0559 $\frac{1}{2}$ fair w/ SSB & s/on.

WKTQ PA Pittsburgh 12/31 0008 "We'll be ringing in the New Year on 13-Q, WKTQ, Pittsburgh." Good u/ KXYZ. (MJ)

KXYZ TX Houston 12/14 2036 heard u/ WILS with "KXYZ Studio 13". Fair. (MJ)

1340 WAGN MI Menominee 12/26 1730-1745 poorly mixing with a very weak WECS-Milwaukee. Lucky to catch ID. (RS-Kau)

1350 WSLR OH Akron 12/21 0216 ID "WSLR Akron, OH" during talk show. Good. (MJ)

1370 WCCN WI Neilsville 12/24 1030 poor in null of WGEE splash. (RS-Kau) (KDF, below)

1380 KBWD TX Brownwood 1/5 1900 thru WVON slop for rpt w/ "6 o'clock news" and local spots.

1410 WIZM WI La Crosse 12/24 1045 good in null of WDUZ splash. (RS-Kau)

1450 WWIW LA New Orleans 12/29 1849-1851 forties-style pop mx, promo for CBS Mystery Theater, calls, dixieland jazz. Sig in and out of the GY; splash from local WXOK. (JL)

1500 WTOP DC Washington 1/5 under KSTP with talk, believe Larry King Show, CBS nx and two IDs. 0145-0210 Surprise for first time ever here. (NZ)

1520 WKJR MI Muskegon Heights 12/26 1130-1145 easily heard during the day. (RS-Kau)

1530 WJPJ TN Huntingdon 1/8 1745 good signal w/ local news. (KDF)

KNBO TX New Boston 1/6 weak-fair at 1829 w/ s/off u/ WKCY. (JC)

1540 WRSM AL Sumiton 1/6 1802 fair-good w/ s/off, little interference. (KDF)

1550 CBE ON Windsor 1/1 0310 stayed on late for New Year's Eve simulcast with CBEF-540 Windsor. The French guy did most of the talking. (RS)

1560 KAJN LA Crowley 12/29 1807-1813 sports nx, wx for Acadiana, pgm about Evangeline Parish water quality, calls. Sig poor, w/ QSB, slow flutter, QRM. (JL) (KDF, below)

1570 WCRL AL Oneonta 1/8 1759 surprise w/ wx, s/off, & what sounded like the end of a hymn.

KBJT AR Fordyce 1/3 good w/ s/off at 1829, mentioned 259 watts. (JC)

KMAR LA Winnsboro 12/29 1755-1757 ID w/ calls, ad for McLemore's Supermarket, garbled ad, another ID. Sig poor, erratic, w/ unid QRM. (JL)

WHII MS Bay Springs 1/3 fair at s/off w/ promo for WXYI-FM at 1816. (JC)

CHLO ON St. Thomas 12/27 0100-0103 wx (temp. -9 $^{\circ}$), calls, nx, sports. Sig weak, intermittent, pushed aside by XERP. Came in after TGVE s/off. (JL)

1580 WSBP FL Chattahoochee 12/29 1744-1745 s/off w/ calls, no SSB. Sig fair to poor, w/ QSB, unid QRM. (JL)

1590 WATM AL Atmore 1/6 weak at 1815 w/ s/off, promo for FM at 104.1 and owned by Southland BCing Co. thru mess. Much wanted catch. AL in well here on this evening. (JC)

KYDE AR Pine Bluff 12/29 good at s/off at 1800, mentioned power of 1000 watts. (JC)

1600 KCGS AR Marshall 12/29 good w/ ads, IDs, wx report, 1746-1752. (JC)

KMDO KS Ft. Scott 1/2 fair w/ ad, ID at 1805 thru mess. (JC)

KFNV LA Ferriday 1/3 fair at 1830, s/off, mention of MissLou area. (JC)

KOGT TX Orange 12/31 1856-1857 two IDs w/ calls, local nx. Sig quickly wrecked by graveyard-type QRM. (JL)

DX TEST

1230 WJOB IN Hammond 1/8 0115-0130 fair to poor with plenty of IDs. (RS)

UNIDENTIFIED STATIONS

- 930 ?KCCW? 1/4 1837-1847 weak u/ WTAD w/ C&W mx, news at 1837, 43, that I hrd a KCCW ID. No such call in Domestic Log. Temp. makes me think KCCC. Ideas?? (JC) (KCCW is the new call for KITE--ed)
- 940 T40 mx on 12/27, ads for motorcycles, and ID "Radio 94 WLIS???" Heard 2 IDs w/ WLI? Suddenly off 1745. Any ideas? (MJ) (Possibly WMIX which sounds somewhat like WLIS--ed)
- 1050 12/31 s/off at 1745 w/ comment of return at 0700 and owned by Broadcast Associates. (JC)
- 1590 12/29 s/off at 1744 w/ promo for FM, sounded like 100kw at 100.3. No ID given. Info doesn't hold together. I see now the advantages of a tape recorder!!! (JC) (WVNA-FM is 100.3, but WVNA is fulltime!--ed)
- 1600 12/28 "stay tuned for Paul Harvey news on ?WTDL?" P. Harvey news followed. Unreadable by 1800. Help! (JC) (Maybe WKDL Clarksdale, MS, listed as Ai & Ae affiliate in new NRC log and which should s/off 1800 in Dec.--ed)

A TIP OF THE HAT TO THESE CDXR REPORTERS

- JC - JOHN CLEMMER, 2937 W. Gilbert, Peoria, IL 61604 (TRF, SM-2)
- KDF - KARL FORTH, 630 S. Ardmore, Villa Park, IL 60181 (HQ-160, 3x3 spiral loop)
- MJ - MICHAEL JEZIORSKI, 4758 S. Lavergne, Chicago, IL 60638 (Sears Stereo Console)
- JL - JOSEPH LANDRY, 11643 Baylor Dr., Baton Rouge, LA 70816 (Realistic TRF, 350' LW)
- RS - ROBERT STEADMAN, 2758 S. Wentworth Ave., Milwaukee, WI 53207 (TRF, RF-2200, SM-2) (RS-Kau is DXing done from Kaukauna, Wisconsin)
- NZ - NEIL ZANK, 623 Lyncrest Dr., Lincoln, NE 68510 (HQ-180A, TRF)
- RAL - BOB LAZAR, 511 W. Doty, Apt. 208, Madison, WI 53703 (FRG-7, SM-2)

Welcome to new member Michael Jeziorski and an apology for not having your report in last week's column. I misplaced your report and forgot about it until after I typed the column. Also, a late thanks to those that sent me Christmas cards. I found interesting the various items in recent DXMs and DXNs concerning various proposals for allowing daytimers to go fulltime or to allow new AM stations to go on the air. I hope the FCC doesn't move too fast in breaking down clear channels. They should wait for the outcome of the other two proposals (extending the AM band and changing channel separation from 10 to 9 kHz) before they do anything too drastic to the clear channels. If these proposals will create so many new stations it is really unnecessary to use the clears. Either of these proposals (the later two that is) would be a great improvement for domestic DXing due to the simple fact that new channels would be created. Foreign DX would be greatly harmed if a 9 kHz frequency plan would be the same as elsewhere.

73, Bob

 HANCY HARDY, Editor

2301 PACIFIC AVE.

ABERDEEN, WA 98520

western dx roundup

ALL TIMES ARE EASTERN LOCAL

Phone for hot WDXR tips: (206)532-6827 till 10:30pm(PLT) nightly--prepaid calls only
 DEADLINES: Thurs. 2/1, Thurs. 2/8, Mon. 2/12

REPORTERS FOR THIS ISSUE:

- (NHP) Nick Hall-Patch-3272 Alder St.-Victoria, BC Transmogrified HRO, V8X 1P2 FET AA loop
- (RH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA FRG-7, SM-1 98520
- (NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA FRG-7, SM-1 98520
- (WJH) Bill Harms-865N 160W #2-Provo, UT 84601 Realistic TRF, wedge
- (DFJ) David Jackson-4281 Encinitas Way-Alvarado, CA 94587 Realistic TRF
- (SMK) Steve Mittman-2248 W. 37th St.-San Pedro, CA Realistic TRF, FRG-7, 90732 3' wedge
- (BW) Bill Moriyama-2662-22nd Ave.-San Francisco, CA 94116 TRF
- (bp) Bruce Portzner-6546-19th N.E.-Seattle, WA HQ-180A, FRG-7, 4' box loop 98115
- (PT) Pete Taylor-2614 Jackson St.-San Francisco, CA Sony ICF6700, SM-2, R390, CA 94115 rooftop Y

- (RET) Randy Tomer-P.O. Box 2674-McKinleyville, CA FRG-7, R. West loop, HQ-180A, 95521 W-E mini-Beverage
- (RW) Robert Wien-945 Desert Isle Dr.-San Jose, CA GE long-range portable, SM-2 95117 *****
- 540 KNAK UT, Delta ex-KDLT 1/16 1709 ID and top 40 mx. (WJH-UT)
- 550 KAFY CA, Bakersfield 12/1 1428 weak but steady. Wx for Kern Co., ad for some shopping plaza, into top 40 mx. (BM)
- 550 KBOW MT, Butte 1/12 0001-0042 w/CBS nx & pops; u/KOAC, w/KOY. (PT-CA)
- 550 KOAC OR, Corvallis 1/11-12 2342-0043 w/ opera; w/KBOW & KOY in/out. (PT-CA)
- 560 (KSFO) CA, San Francisco 12/1 1415-1545 off air due to downed phone lines near xmtr. Back on w/OC at 1545 & resumed programming at 1610. (BM-CA)
- 570 KCNO CA, Alturas 12/1 1508-1516 weak but steady. Heard while KSFO was down. KCNO "Emergency Hot-Line," promo, mx, "Casino Radio--KCNO--570" slogan. (BM) CA, S. Lake Tahoe 1/8 1336-1415, weak. (PT-CA)
- 690 KKUA HI, Honolulu 12/16 0522 u/KHEY w/"Win" contest sponsored by local Volkswagen dealer, ID, into rr mx. (SMK-CA)
- 690 CBU BC, Vancouver 12/15 0358 exotic-type mx heard, into s/off w/ID's & ments of CBC Radio. Fair. (SMM-CA)
- 710 KFIA CA, Carmichael started RS 1/11/79. Not 24 hours. (PT-CA) +1/11 1550-1605 good & steady. Relig. program from the "Multnomah Bible School," legal ID "KFIA, Carmichael; an island of praise." Announcer mentioned first day on air & will have UPI audio and teletype soon but machines weren't hooked up yet. Promo'd future prog's. Mx ("Contemporary Christian") as KBRT, Avalon, plays. (BM-CA) +1/12 0903 w/solid signal, after gospel song, "Good morning & welcome to day number two at KFIA." OM announcer said there'd be no nx because UPI wouldn't install lines until "today," into badly recorded wx, more gospel mx. Great fun! (DFJ-CA) +Now on air. First noted 1/13 at 1045, great signal for 250 watts, mixes w/ KMPC/KIRO at night here. S/off at midnight. Relig. format, UPI nx on hour. (RW)
- 710 *KMPC* CA, Los Angeles 1/15 0532 noted w/ID "This is KMPC, Los Angeles, testing w/ 50,000 watts. KMPC, Los Angeles." KIRO nulled. (RW-CA)
- 740 KMEO AZ, Phoenix 1/14 1000 heard ID into "Spoken Word" w/Spencer Kinard (a program originating from KSL-1160). QRM from KCBS & another unID station. (WJH-UT)
- 770 KOB NM, Albuquerque much weaker than I would expect 1/8 0418--possibly using a 5-10kw standby rig. (bp-WA)
- 790 KXQR CA, Clovis 12/6 1614 weak w/slight fade. Wx, "You're in tune w/KXQR, Clovis. Always beautiful, always beautiful" slogan, into beautiful mx. (BM-CA)
- 790 KJRB WA, Spokane 12/11 0455 poor to fair through KGHL w/pop mx, ID, into nx. KABC off. (SMM-CA)
- 820 (WBAP) TX, Ft. Worth 1/14 noted off 0430-0520. Only unID SS heard in their absence. (SMM-CA)
- 830 KIKI HI, Honolulu loud 0000 1/9 w/coyote howl, "KIKI Disco 83," then more disco. (RET-CA)
- 850 KGOE CA, Thousand Oaks 12/10 1951 noted this semi-local daytimer booming in past their s/off time, for emergency coverage of a raging fire in Thousand Oaks. What's the status of their CP to go fulltime? (SMM-CA)
- 930 KSEI ID, Focatello noted briefly 1/3 2200. An infrequent visitor. (PT-CA)
- 970 KUZZ CA, Bakersfield 1/15 1952 call, promo, nx & wx to 1758, then into C&W mx. Fair through KYTE/KBEE. New. (NH-WA)
- 970 KBEE CA, Modesto 1/8 1930 all alone w/soft instrumental mx, KBEE & "AM-97" ID's, then into ads. No sign of KYTE. (NHP-BC) +1/15 2000 ID, into NBC nx, 2004 into local nx & wx; o/u KYTE. New. (NH-WA)

+1/16 1948-2002 o/u KYTE; very good at times. EZL or BFL mx uninterrupted till 2001 $\frac{1}{2}$, then "AM-97, K-B-E-E, Modesto," & into tape-delayed NBC nx. (BH-WA)

980 (KFWB) CA, Los Angeles 1/15 0510 noted totally off, back on later w/TT's. (RW-CA)

1030 WEZ MA, Boston 1/15 0531 weak but clear in XEQR null. MOR mx. Killed by KTWQ TT at 0535. (RW-CA)

1060 KAMA TX, El Paso 1/7 1912-1930 pushed thru KNX-1070 slop w/Mexican-type mx & SS language. S/off at 1930 in EE, w/a mention of KAMA-FM 93.1, then in SS. Fair. (SMM-CA)

1070 CPAX BC, Victoria 12/11 0603 extremely poor u/XEPRS-1090 slop w/Canadian nx, and "C-Facts" ID. KNX off. (SMM-CA)

1100 KFAX CA, San Francisco now has apparent nightly SP at 1:00, noted every night past this time w/OC. (RW-CA)

1140 KRAK CA, Sacramento 12/19 0640 ad heard promoting C&W station KMPS-1300 when visiting Seattle! (SMM-CA)

1140 CKXL AB, Calgary 1/15 0420 blasting in w/promo for "XL Children's Fund fundraising show" at the Jubilee Theatre in Calgary." Gregg Stuart, DJ. Are they 50kw now? (RW-CA)

1170 *KLOK* CA, San Jose 1/14 0435 noted w/"KLOK testing" ID. Didn't go off, stayed on RS. (RW-CA)

1180 VOA FL, Marathon Key 1/14 0627-0631 heard EE ID "This is the Voice of America, broadcasting from Washington, DC" then Yankee Doodle. Into usual SS program. Fair signal but in clear. (WJH-UT)

1230 KPRL CA, Paso Robles 1/10 0800 xlnt at s/on, w/SSB. S/on information, then "On this Date..." (RW-CA)

1230 KIBS CA, Bishop 1/10 0914 weak u/KWG w/SID "12-30 K-I-B-S," into Kendalls song. (RW)

1230 KLAV NV, Las Vegas 1/8 0320 fair w/pop mx o/u KRDR w/KWYZ off. (bp-WA)

1230 KWYZ WA, Everett 1/8 0259 s/off for "technical adjustment & repairs." Gave s/on as 0830. (bp-WA)

1240 KESE CA, Monterey ex-KMBY now has a nightly 1:00am s/off, not 24 hours anymore. KDIG now dominates 1240. (RW-CA)

1240 KELK NV, Elko 12/14 1958 pushed through KSON w/ID, TC, & an ad for J.C. Penney, then National wx forecast sponsored by Security National Bank. Clean signal, then disappeared at 2000. Possibly still on 1kw (?), though long past their local sunset. (SMM-CA)

1260 KPIN AZ, Casa Grande 1/8 0805+ w/Mutual Southwest nx, mentions of American Cotton Network, ad, cattle market nx, SID, C&W mx. KYA not on until 0816 today. (DFJ-CA)

1270 KCOK CA, Tulare-Visalia ET 1/15 0404 w/rock mx, then ID & gone. (bp-WA)

1270 KNDI HI, Honolulu 1/8 0506 very clear "...right here on KNDI" by man w/ accent, then into some ethnic folk mx. Heard u/somebody's strong OC. Hawaiian #20 for me!! (RET-CA)

1280 KFVY CA, Arroyo Grande 1/6 1955 C&W mx, YL DJ, TC & "K-5" slogan. Good in KJOY null. (DFJ-CA)

1280 KBDF OR, Eugene 1/15 0704 poor u/KFRN w/wx for Eugene. (RW-CA)

1290 KCUB AZ, Tucson o/u KMEN 0300-0400 1/8, heard while waiting for KKIO test. C&W mx and "K-Cub" slogans. (RET-CA)

1300 KNOP CA, Brawley 12/19 1358 heard midday in KWKW null w/C&W mx & mentions of El Centro. Into CBS nx. ID at 1406. Rainy day. (SMM-CA)

1300 KYNO CA, Fresno apparently not 24 hours anymore. Not heard after midnight for some time now. Anyone confirm this? (RW)

1300 KOZE ID, Lewiston 1/11 0400 ID "In Idaho, it's 1 o'clock, a late Wed. night, from KOZE, Lewiston, where your friends are..." Good, o/everything w/KMPS subdued. KYNO apparently off, doesn't sound 24 hours anymore. (RW)

1310 KNPT OR, Newport 1/15 0202 $\frac{1}{2}$ atop KDIA (KLIX off by this hour) w/instrumental jazz; ID, DJ saying jazz on KNPT each Sun. nite from 2300 till 0300 MK. Guess this means KNPT is on till 0300 nightly now. Can Frank Aden check this out? (BH-WA)

1340 KBET NV, Reno 12/1 0230 heard "over the garble" wx & ID into C&W mx. (BM-CA)

1370 KPCO CA, Quincy 1/14 1000 listing of programs to be aired that morning "...from the 500 watt voice of Plumas County, KPCO." Poor in KWRM null w/KEEN off due to a big storm. New. (RW)

1370 KGEN CA, Tulare 1/14 0900 poor u/KWRM at s/on, then at 0955 had PP programming, soon faded out w/XEHG taking over. (RW)

1380 KKZZ CA, Lancaster 1/14 0932 fair at s/on in KTOM null. Strange s/on time. (RW)

1380 KSRV OR, Ontario 1/14 1038 poor o/u KGMS/KTOM/KKZZ/KBCH w/ad for the KSRV Coupon Book, then YL giving the "KSRV Ski Report." New. (RW-CA)

1380 KBCH OR, Lincoln City 1/14 1043 topping KSRV w/sleepy-eyed announcer "keeping you awake this Sun. Morning," ad for Newport Wax Museum or something like that. New. (RW-CA)

1390 KGER CA, Long Beach 1/12 0844 end of program on Indians, ID. Then gone u/KCEY. (DFJ)

1400 KFTN UT, Provo 12/11 0343 fair through KVEG w/ID's, MST TC's, & pop mx. (SMM-CA)

1430 KAMP CA, El Centro 1/15 1443 heard rock mx in KALI null (while carrying talk), then clear ID, "KAMP." It was raining during this reception. New, for station #450 and midday #98. (SMM-CA)

1430 KNTA CA, Santa Clara now has 0730 s/on, rather than 0800. (RW-CA)

1430 KJAY CA, Sacramento 1/14 0914 poor in KARM null w/preacher, mention of Sacramento area church. (RW-CA)

1440 KVON CA, Napa 1/14 0835 has SS programming in early morning. (RW-CA)

1450 (KEST) CA, San Francisco 1/15 0430-? noted off all morning, still off well past 0930. (RW-CA)

1450 KEED OR, Eugene 1/15 0405-0410 on top of freq. w/ID "Country mx radio, K-double-E-D," and promo for Super Bowl trivia contest. (RW-CA)

1450 KEYY UT, Provo 1/15 0540 on top briefly w/SID "K-E-Y-Y!" killed by unID TT'er at 0545. Is this one NSP? (RW-CA)

1450 KRPM WA, Puyallup ET'ing w/two ID's 0358 1/15. Ex-KUPY. (bp-WA)

1460 KGAA WA, Kirkland ET w/OC 1/8 0402. (bp-WA)

1480 KPHX AZ, Phoenix 1/7 0857 gospel mx prog., full ID in EE & SS. Alone on freq. (DFJ)

1490 KGUD CA, Banning 1/15 0735 noted w/ID in mess "...24 hours a day, on KGUD, Banning," gone u/KDB. Are they on now? (RW-CA)

1500 KRRX CA, San Jose what's going on? Heard plug for KMJJ 1/13 0608, including commercials from local Las Vegas dealers, then an actual ID "...at Fairway Chevrolet, downtown Las Vegas. I'm Jim Michaels, you are tuned to KMJJ, the magic 11, Las Vegas. It's 3:09, & now back to the mx, on the magic 11!" Suddenly off, Larry King on. What happened? (RW-CA)

1500 (KRRX) CA, San Jose off MM 1/8 before 0403 to after 0730. Only KUMU & unID rr in their absence. (bp-WA)

1510 KDJQ AZ, Mesa 12/31 0930 noted good signal at s/on (no SSB, just "good morning" & details). Then KDJQ forum "previously broadcast by our sister station KDKB." (NHP-BC) (Guess KDJQ kept the KDKB call on FM.--NH)

1510 KIRV CA, Fresno 1/13 1958 ID, spots, 2000 s/off. Poor u/KTIM w/KGA nulled. (NH-WA)

1530 KFEK CA, Sacramento 12/20 1345-1410, 1500 midday reception of this station was finally heard while it was raining, through extreme KPOL-1540/KACY-1520 slop! Santa was taking calls from the wee tots of Sacramento. ID at 1400, into CBS nx, then into all-news format. Another ID at 1500 (noon PLT). (SMM-CA)

1530 *WTTI* GA, Dalton 1/8 0515 weakly heard "My Life" being played, then interrupted for "This is WTTI, Dalton, Georgia; on the air for experimental test purposes only." Then song began again; suddenly disappeared 0519. (SMM-CA) (Great catch, Steve!--NH)

1530 *KVWO* WY, Cheyenne 1/10 0731 noted TT'ing weakly u/KFBK. (RW-CA)

- 1540 KKAP CA, Aptos-Capitola 1/14 2005-2015 amazed to hear extremely faint rock mx in KPOL null! Then bits of s/off was hrd w/mention they would return to the air tomorrow morning at 6am. (SMM-CA)
- 1560 KIQS CA, Willows finally logged this on s/off 2015 1/7 o/u KPMC. Many mentions of call letters followed by SSB. Poor to fair signal. (NHP-BC)
- 1560 *KKA* SD, Aberdeen 1/15 0514 on w/OC most of morning, KLIV-1590 off so no slop. Poor w/ID "This is KKA, Aberdeen, South Dakota, conducting equipment tests." CKTA-1570 slop. (RW-CA)
- 1570 KMAX CA, Riverside 12/14 1700 ex-KHNY. EZL mx, then ID "Serving the entire Inland Empire at the top of your AM dial, this is KMAX, Riverside--Radio 1570." Into MBS mx. (SMM-CA)
- 1580 KNIX AZ, Tempe-Phoenix 1/14 1635-1703 heard midday in local KDAY null w/faint C&W mx audible every now & then. OM ID at 1703 "KNIX--. Good afternoon, Arizona." Also heard 1/15 1300. (SMM-CA)
- 1590 (KLIV) CA, San Jose 1/15 0500-0600 totally off except 0550-0600 w/OC. (RW-CA)
- 1590 KZOK WA, Seattle 1/15 0505 good, well o/ KBBQ w/rr mx, but no ads! (RW-CA)
- 1600 KBBX UT, Centerville good signal 1/5 1830 w/religion, then spot for moving outlet in Ogden. (RET-CA)
- 1647 KXF952 AZ, Lakeside 1/13 2045-2310 remote pick-up link for KVWW-FM 93.5 Show Low, Arizona, carrying Blueridge Yellowjackets vs Solo Cougars basketball game. Until 2120 the mobile was hooking up w/the base (KVWW-FM). Pregame show began at 2130; game at 2145. Sportscaster would announce stn breaks, then pause 30 sec., so ads apparently inserted at KVWW-FM. At conclusion of game, pause--then "This is KXF952 Mobile, Lakeside, AZ; remote pick-up for KVWW-FM, Show Low, AZ, signing off." (SMM-CA)
- 1075/1125 KFAX CA, San Francisco spurs noted 1/4, reported to CE, cleaned up 1/8. (PT-CA)

DX TESTS:

- 860 (WXAP) CA, Atlanta not heard, XEMO too strong. (NHP-BC)
- +No sign of the 1/8 test here. (RET-CA)
- 1290 (KKIO) CA, Santa Barbara 1/8 0300-0400 not heard here. Maybe the high mountains north of Santa Barbara blocked the signal. (RET-CA)
- +Not heard on DX test 1/8. Called stn and nobody answered. (bp-WA)
- +Not heard due to a CKDA-1220 spur which suddenly showed up on 1290 (and many other frequencies) (NHP-BC) (Doesn't look like the spur hurt your chances anyway, hi.--NH)

F/C's HEARD:

- 2nd Sat. 0215-0230 KAHL-1410 NE (RW-CA)
- UNID'S:
- 1230 1/14 0403 unID ET looping N/S, had TT's at first, then played rr mx. ID at 0408 "This is K-G (or C) conducting equipment tests." Either KRDG or KYJC. (RW-CA)
- 1310 KNUI? 1/8 0400-0430 weak rock mx & what sounded like "K-nooye" slogan between songs. Seldom heard. (RET-CA)
- 1360 1/14 1102 on top carrying AT40 show. KGB listed as having it at 1200. (RW-CA)
- 1560 UNID TT from 0628 tune-in, MM 1/8. Poor to fair. OC at 0707. Too late for KKA? (DFJ-CA)

Thanks to all who reported to WDXR this week. ♡

eastern dx forum

John Zondlo
6617 Maryland
Hammond, IN 46323

John Clemmer-2937 W. Gilbert-Peoria, IL 61604
FY has been very good here, particularly at SSS. 15 or so new stations have been heard in the last week. WSTV 1140 5kw days, Pekin IL, is now WVEL. The format continues to be beautiful music. WVEL is short for "W-Velvet". A very nice v/l was received from WUNI. The CE stated that their towers, transmitter, power and pattern have all been the same and in constant use since 1941.

Also, the CE sent along a personal invitation to visit the station next time I am down that way. A "WUNI bird" tie tack was sent too. The "WUNI bird" is the station's symbol. I suppose it helped that I mentioned that I have been in the Mobile area on vacation many times and that I listened to WUNI. I also mentioned that last time I was down that way I saw their towers alongside I-10. Sure would be nice if all stations were so friendly and fast with their v/l. Good DX and 73.

Bill Wurtzel-32 W. 31st St.-New York, NY 10001

Within one week I came into possession of two powerful radios. First I went out and bought a new Panasonic RF-2200. Then a friend came over to look at it and told me his friend wanted to sell a Sony ICF-5900 for \$90. I said I was interested and two days later I picked it up. Trying the Sony out in Passaic, New Jersey, I managed to hear good signals from two hard to get locals: WJLK-1310 Asbury Park NJ and WGBB-1240 Freeport, Long Island, NY. IRCA member Greg Monti is a DJ on WGBB and I heard the announcer, or Greg, mention the Rick Morgan Show with Greg Monti. I met him at Paul Mount's get-together last January of '78. The Sony sure has powerful circuitry. Long Island stations come in all over the dial in NJ, some of them pushing the S-meter up to an 8. I received a nice letter from Bryan Lee in Connecticut this week. I am also glad to read mention of my name in the Forums. If anyone writes me, I promise to answer in free verse. I'll try not to rhyme.

Greg Monti-5 Hickory Road-Bayville, NY 11703

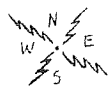
There's been a lot of talk about splatter in these pages recently, and accusations about how much is too much. Perhaps a little theory is in order. An AM station is incapable of transmitting any intelligence (audio) without transmitting sidebands (splatter). If the splatter were to be confined to within only 1 kHz of the carrier frequency, which would be very convenient for split-channel EXers, then so would the station's transmitted audio. It would be total mud, and speech would barely be understandable. Mediocre fidelity could be attained with about 5 kHz audio response, and reasonably hi-fi audio with about 10 kHz audio response. Of course, a station transmitting out to 10 kHz takes up 20 kHz of space on the AM band since the sidebands are identical both above and below the carrier frequency. A super hi-fi AM station claiming response out to 15 or 20 kHz takes up 30 or 40 kHz on the band. This is why the FCC never puts stations closer than 30 or 40 kHz in the same market. The FCC also requires response out to 7.5 kHz to be flat within reason, and stations must prove this to the Commission annually by doing a proof-of-performance test. (continued in next FYN-jr)

Bryan Lee-P.O. Box 69-Brooklyn, CT 06234

STOP THE PRESS...This is an announcement, it is only an announcement (but it's important!). On February 5 from 0100 to 0200 WILI-1400 will conduct a test using tones, various music and lots of IEs. Prepaid calls go to (203) 423-1621. Chief engineer Paul Moraghan (sic) is very interested in getting reports so all IRCA's please try for it, especially you silent and not so silent Southern New England DXers, and write in to EDXR and say whether you tried for it or not, and above all, please try to send WILI a report (valid ones ONLY!!). There is one slight problem, though. The CE says WILI does not radiate a strong skywave (I'll attest to that, being only 15 miles away from them), but, of course, that's no problem for you EXers using that \$600 plus equipment, right? Other DX related news: WILI is seeking to purchase WJLS (FM 98.3). The CE says WILI and most other graveyarders are seeking permission from the FCC to allow broadcasting with 1,000 watts fulltime. WILI's complete schedule (differs from the one I mentioned a few weeks back): Monday thru Thursday- 5:15am to 2:05am, Friday and Saturday- 5:15am to 4:00am, Sunday- 6:00am to 1:05am. I want every member to listen for WILI's test, even get your relatives to listen and send a report! (Hi). 73s, Bry.



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MATTHEW F. SHUGART-12561 GROVEVIEW ST-GARDEN GROVE, CA 92640

Well, it was a long way from the notice that the test had been arranged (9/23) to the actual test (12/16) but it looks like WCAW was a success. I've gotten notes from several DXers up north that they heard it w/nice signals. We can thank long distance (you know, the next best thing to being there, and cheaper before 8---and on toll free lines!) for its success. That was one of the most exciting 48 hrs I can recall. I had just returned from an overnight trip to the Colombia R. area, picking up my Sanserino loop on my way back from LAX, when Mark Fixby called and said he'd hrd KNBR would be off. I talked to Don Erickson and he said "people have been trying to reach you all day!" Obviously something was up. So I called WCAW next morning to set it up. Rich Segalas called me and I gave him the message, and, w/Rich making most of the calls, as many people as possible were notified. Oh yeah, to round out the 36 hrs, I too hrd the test! It's very weird that the LAs (XELG & unID) were hrd, 12/15. They were not noticed 12/16. XETRA 690 was also off, and believe it or not, every time WCAW faded up, there was an ID! There really is an anti-Murphy out there! On another matter, tnx to John McDonalds and Gene Martin for quick replies to my KYW question. The questionable Mexican brp hrd 12/16 @ 0600 ELP was XEFO "R. Sensación". 73 for now de MFS

GENE MARTIN-3303 E. EVANS AVENUE-DENVER, CO. 80210

Let me quote Bruce Portzer in DXW 12/30: "During the past months, I've noticed that both DUs and Asians peak in the 1030-1230 period and then deteriorate quickly. From 1300 to local sunrise, I've only heard a few of the stronger stations, even when the band was alive w/audio, hets and carriers a few hours before". Local sunrise in Seattle comes close to 1500 in Dec. Now local sunrise in Dallas in Dec comes close to 1330, and in DXM, 19 Mar 77, I was recollecting how the TPs were heard in Dallas was back in the 1928-32 era. Let me quote myself: "Another part of the pattern of DXing TPs was the limited time-span when they could be heard at all. The Japanese and the Aussies were rarely to be heard before 1000 GMT and by 1200 they were gone, faded out 60-90 min. ahead of the Fall and Winter sunrise in Dallas. The approach of sunrise did not enhance reception of the Japanese or DU stations in any way. Instead, it began taking out such signals even before dawn was showing itself in the Eastern sky." It seems to me there is an astonishing similarity between Bruce's 1978 experience and my recollections of what it was like almost 50 yrs ago. I noticed the same phenomenon in Hawaii in Dec---a conspicuous dying-out of stations to the West, an hour or so before their 1625 sunrise.

BILL HARDY-2301 PACIFIC AVENUE-ABERDEEN, WA. 98520

When I tried for WCAW 680 W. Va. on 12/16, I noticed hets all over the dial from 640-890 kHz, and the hets matched the new 5kHz TP spacing. However, I wanted W.V. very badly, so didn't pursue the TPs. My first serious try at the TPs was Thur 12/28 but not one cotten-pickin' het to the heard - even the Hawaiians were moderate strength - so will have to try again. I've decided to count relogged TPs as a new stn only if they move 5kHz or more from their old freq., since my dial doesn't read out the freq. very accurately anyway. Since I only have a total of six TPs from these countries anyway, it doesn't really matter, hi. W/a freq counter I'd have a fatter logbook, of course. Soapbox time: it bothers me that the IRCA is beginning to look like a "regional" club w/heavy WC support and poor support from certain parts of the East. Meantime, NRC looks more and more like an "East Coast" club w/very little support from its WC members. W/so many of us in both IRCA and NRC, this makes no sense. The solution is simple: Whatever clubs you belong to, please contribute! How else can we get the total picture? I'm sure not everyone agrees w/me, so I hope I've at least provided some food for thought. 73 everyone.

ALAN E GILMOUR-107 MARLBOROUGH ST-GREYMOUTH, NEW ZEALAND

I thought as a relatively new member of IRCA, I might introduce myself. I'm 32 yrs old, and have been into MW DX on and off since 1960, during which time I have verified 34 countries and 14 continental US states. At home I use a Trio 9R59DS, but very high QRN level forces me into open spaces where I use a Vega Helena B206 w/a 40' loop and preamp, or 150' of wire

strung between suitable fixtures. My location is not good for N.A., as we have mtn. ranges to the East and NE. Between Nov. and Mar. some N.A.s are audible in the early evening w/KFBK, KEX, KING, and KVOO amongst the more regular brigade and when conditions are better, several others appear. CKFH and CFGO were heard at good level once or twice last year. Getting up early is not one of my favourite things, so that I miss Europeans that this location can provide, although last year I managed TWR Cyprus 1232 and Sudan 1295. In mid-winter Middle Eastern stations such as Batra 1106 can be heard until past 0830 local time. DX is tougher now than when I first began. In 1963 N.Z. stations occupied 39 channels, as compared to the 63 that are now used, 29 of which are all-nighters. Australians are dominant on most other frequencies within 2 hours of sunset particularly in winter, w/only the strongest Asians, or those on splits (Indonesia) audible before the Aussies s/off. The enjoyment I get out of the hobby is its uncertainty. The station you hear well one night may not even be there the next night. If it was too predictable I am sure the interest would not be the same. I am not very keen on tentative reports, as knowing what you hear is to me the biggest thrill. 73. (Welcome to IRCA & WDXF Alan. I'm thrilled to get a Forum from Down Under, please send them as often as you can-Rth).

HILL HARMS-865 N. 160 W. #2, PROVO, UT. 84601

Not much going on here. Cx have been poor lately, but I have noticed a few hets like 828 looping DU and a het on 738 almost every night. I even heard some audio one time. Thanks to Grant Manning my "frog" will probably be ready for DX soon. I'm planning to have it modified soon, so I might have more foreign DX. I think I'll move to Orem next semester. Maybe that way I will be able to hear something other than "The Key" (KEYY) on 1450. Rth, I hope you are feeling better. (Tnx Bill, I think half the Bay Area has a cold or the flu-Rth). 73 de WJH in Provo.

ROBERT WLEN-945 DESERT ISLE DR-SAN JOSE, CA. 95117

I figured I'd send in another Forum. New catches XECVC 700 Chihuahua, Mexico (unlisted anywhere!) on SRS w/great cx to N. Mexico 1/4, and KSCV 980 Richfield, UT, also on SRS. Totals now are 704/384, 4 veries in '79 so far: KRKO, KCMK, CHP, and CFRC. Other than that, not much thrilling DX. Did hear tent. KXOW 1420 f/c MM 1/8. For a few months now, after XEBBC s/off, I can hear an unID SS on 1470 extremely weak w/their OC w/KXQA nulled, usually around 2 or 3 AM PLT, as KXQA has a terrible signal in this direction at night. This SS is apparently 24 hr but they've never come up strong enough for a sure ID. XESM is 24 hr, but I don't think it's them. Listed on 1470 are XECU & XECAF. It's probably XECU, anyone know if they're 24 hr now? (I don't think so, RW, XESM has been hrd by me-Rth). If anyone in the Bay Area hears a SS on 710 in mid-evening o/KMPC/KIRO, it's XEPS Guaymas, Sonora, Mexico. The station is extremely friendly toward DXers, or at least toward me, sending posters, albums, patches, etc. along w/veries. They ID as "R. Amistad", power is 1kw nite, XR located in Empalme, Son. Their phone is 305-40 & 306-19, address: R. Amistad de Sonora, U.A., XEPS, Carr. Costera Internacional, KM. 1968-1969, Empalme, Son., all according to verie. V/s is Herbierto Lizarraga Zatarain, Mgr. 31 days to verie. XMTNT 650s current address according to verie is A.P. 965, Los Mochis, Sin., veries in 2 wks. No TP DX in yet, but have heard "whistles" (not necessarily hets) on WLS, XED, KRDU, and WWL on occasion. I suspect XED may be off freq slightly. KOKL has the most consistent HI. signal here, audible after midnight, but Santa Clara Valley is a poor location f/TP DX, as nothing gets o/the mtns. No DUs to date, even though I've tried and tried. No JJs either. Rth, is KNTM 1430 easily mullable in SF, or KXRX? (KARM buries KNTM at nite, some KROQ u/KXRX, KCBQ thru KLOK, & Oxnard u/KLIV-Rth). 73.

RICK HEALD-1581 20th AVENUE-SAN FRANCISCO, CA. 94122

Ph: (415) 665-4201 to 2200 PLT and ppp
I'M THRILLED TO GET A REPORT FROM NEW ZEALAND!!! Many tnx Alan, and I hope this will encourage other DU members to Forumulize. What Bill is referring to is nothing new. It seems like ever since IRCA's formation, that's been true. IRCA does have heavy membership in the East, but CA. has the largest membership, which could be a partial reason why IRCA seems weighted down in the West. But you're basically right. Support your club(s). And, how 'bout more Forums from you people in the Midwest W of the Mississippi. They're more than welcome here. Enuf said. Was going to DX this last weekend (1/19-22), but a combination of bronchitis, laryngitis, inflamed throat, blocked sinuses, so the doc tells me, kept me in bed. The new KFIA 710 is really a block-buster, a steady 20 o/s/9 on the "frog" day & nite. Hope they don't go NSF for a while, as I want a verie from XEPS. RW, you might try them on SRS, they totally wipe out KIRO/KMPC. No new DX, so I'll shut up, hi. See u in 7. 73 de Rth..

GRAVEYARD RECORDS: Niel Wolfish
15 Donwoods Grove Toronto ONT
M4N 2X4

1230

Call Location	Miles	DXer-Location	
WAUD Auburn AL	891	Kaskey, Galva IA	
WBHP Huntsville AL	1989	Allen, Vallejo CA	
WHOD Jackson AL	140	Ayers, Jackson MS	
WTBC Tuscaloosa AL	749	Robertson, Crosswell MI	
KIFW Sitka AK	1429	Allen, Vallejo CA	
KSUN Kingman AZ	1107	Kaskey Galva IA	
KAAA Phoenix AZ	1350	Eddie, St. Louis MO	
KATQ Safford AZ	1103	Kaskey, Galva IA	
KINO Winslow AZ	901	Dabelstein, Omaha	
KCON Conway AR	858	Dabelstein, NE	
KFPW Ft. Smith AR (I)	1654	Allen, Vallejo CA	
KGFE Bakersfield CA	310	Eddie, St. Louis MO	
KWTC Barstow CA	2520	Wood, Kailua HI	
KIBS Bishop CA	2619	Wood, Kailua HI	
KXO El Centro CA	785	Portzer, Seattle WA	
KDAC Ft. Bragg CA	2675	Wood, Kailua HI	
KGFJ Los Angeles CA	2352	Wood, Kailua HI	
KPRL Paso Robles CA	2525	Wood, Kailua HI	
KRDE Redding CA	1430	Kaskey, Galva IA	
KWS Stockton CA	2535	Wood, Kailua HI	
KDXO Grand Junction CO	2433	Wood, Kailua HI	
KBRR Leadville CO	797	Allen, Vallejo CA	
EDZA Pueblo CO	1395	Wood, Kailua HI	
KGPK Sterling CO	1133	Kesteven, Edmonton	
WIME Manchester CT	1196	Wheeler, Erie PA	
WSBE New Smyrna Beach FL	421	Sorensen-Emsdale ON	
WYNV Pensacola FL	854	McCormack-IN	
WQNH Quincy FL	828	Cartwright-PA	
WBLO Dalton GA	697	McCormack-IN	
WXLI Dublin GA	566	Wheeler, Erie PA	
WFON Marietta GA	2236	Allen, Vallejo CA	
WSOK Savannah GA	680	Abraham, Bridgeport MI	
WAYX Waycross GA	728	Winsor, Valparaiso IN	
KBAP Burley ID	1072	Kaskey-Galva IA	
KHBT Grangeville ID	570	MuCullogh-San Jose CA	
KRYK Rexburg ID	623	Allen, Vallejo CA	
WBOC Bloomington IL	665	Allen, Vallejo CA	
WQUA Moline IL	475	Wheeler, Erie PA	
WHOC Sparta IL	331	Braun, Jackson MI	
WJOB Hammond IN	1756	Allen, Vallejo CA	
WSAL Logansport IN	736	Belanger-Winnipeg	
WTCJ Tell City IN	477	Sorensen-Emsdale ON	
WLCW Terre Haute IN	557	Kaskey-Galva IA	
KFJB Marshalltown IA	866	Belanger-Winn. MB	
WHIR Danville KY	3958	Wood, Kailua HI	
WHOP Hopkinsville KY	2029	Allen, Vallejo CA	
KLIC Monroe LA	1894	Allen, Vallejo CA	
WPOK New Orleans LA	734	Kaksey, Galva IA	
KSLO Opelousas LA	808	Winsor-Valparaiso IN	
WTH Baltimore MD	868	Kaskey, Galva IA	
WOUN Cumberland MD	1007	Kaskey, Galva IA	
WNEB North Adams MA	454	Winsor-Valparaiso IN	
WNEF Worcester MA	224	Brown-Ottawa ON	
* WOUZ Grand Rapids MI	432	Sorensen-Emsdale ON	
WIME Iron River MI	161	Heimbürger, Port Huron	
WNEC Lapeer MI	1795	Allen, Vallejo CA	
WSOC Sault Ste. Marie MI	179	Wheeler, Erie PA	
WSTR Sturgis MI	370	Wheeler, Erie PA	
WDLK Cloquet MN	537	Dabelstein, Omaha NE	
EGHS Int. Falls MN	406	Dabelstein, Omaha NE	
WYSM Mankato MN	575	Winsor, Valparaiso IN	
KMRS Morris MN	715	Wheeler, Erie PA	
KTRF Thief R. Falls MN	352	Markewicz-Camp Norton MB	
KWNO Winona MN	890	Wheeler, Erie PA	
WOMA Corinth MS	594	Wheeler, Erie PA	
WHSY Hattiesburg MS	667	Wheeler, Erie PA	
WSSO Starkville MS	861	Kaskey, Galva IA	
WAZP Yazoo City MS	664	Wesolowski, Omaha NE	
HOOF Joplin MO	1552	Allen, Vallejo CA	
ELWT Lebanon MO	286	Dabelstein, Omaha NE	
EWIX Moberly MO	377	Kaskey, Galva IA	
EBRN Rozeman MT	311	Winsor, Valparaiso IN	
KHBN Hardin MT	804	MuCullogh, San Jose CA	
KXLO Lewistown MT	3255	Wood, Kailua HI	
KLOP Libby MT	808	Allen, Vallejo CA	
KTNC Falls City NE	859	Markewicz-Camp Norton MB	
KMAC Hastings NE	80	Dabelstein, Omaha NE	
EDLY Ely NV	1240	Allen, Vallejo CA	
HLAV Las Vegas NV	1034	Kaskey, Galva IA	
KDEN Reno NV	2728	Wood, Kailua HI	
WBCB Berlin NH	1007	Kesteven, Edmonton AB	
WOCB Wildwood NJ	227	Brown, Ottawa ON	
KALT Alamogordo NM	70	Sundstrom, Willingsboro NJ	
	3234	Wood, Kailua HI	
KOIS Doming NM	910	Allen, Vallejo CA	
KYVA Gallup NM	247	Kemper-Grand Junction CO	
KFUN Las Vegas NM	1419	Wheeler, Erie PA	
KRSY Roswell NM	1105	Winsor-Valparaiso IN	
WNIA Cheektowaga NY	226	Brown, Ottawa ON	
WENY Elmira NY	561	Winsor-Valparaiso IN	
WIGS Gouverneur NY	206	Sorensen-Emsdale ON	
WLFH Little Falls NY	280	Cartwright-Johnstown PA	
WFAS White Plains NY	335	Wheeler, Erie PA	
WSHY Asheville NC	764	Brown, Ottawa ON	
WFAI Fayetteville NC	90	Hall, Greensboro NC	
WMFR High Point NC	20	Hall, Greensboro NC	
WISP Kinston NC	161	Singer, Richmond VA	
WCBT Roanoke Rapids NC	410	Wheeler, Erie PA	
KDIX Dickinson ND	3496	Wood, Kailua HI	
WUBE Cincinnati OH	605	Sherman, Rosemount MN	
WCOL Columbus OH	969	Belanger, Winnipeg MB	
WIRO Ironton OH	253	McCormack-W. Lafayette IN	
WGWA Toledo OH	185	Wheeler, Erie PA	
KADA Ada OK	1430	Allen, Vallejo CA	
WBBZ Ponca City OK	1378	Allen, Vallejo CA	
KVAS Astoria OR	2546	Wood, Kailua HI	
KRNS Burns OR	461	Allen, Vallejo CA	
KOOS Coos Bay OR	436	Hecker, Saratoga CA	
KRDR Gresham OR	2588	Wood, Kailua HI	
KQIK Lakeview OR	2582	Wood, Kailua HI	
KYJC Medford OR	2469	Wood, Kailua HI	
KTDO Toledo OR	224	Portzer, Seattle WA	
WBVP Beaver Falls PA	784	Kaskey, Galva IA	
WEFX Easton PA	619	Winsor, Valparaiso IN	
WKBO Harrisburg PA	541	Winsor, Valparaiso IN	
WCRO Johnstown PA	896	Kaskey, Omaha NE	
WBPZ Lock Haven PA	140	Bailey-Williamsville NY	
WTIV Titusville PA	55	Gantzer, Fredonia NY	
WFR1 Westerly RI	336	Brown, Ottawa ON	
WAIM Anderson SC	865	Kaskey, Omaha NE	
WOLS Florence SC	2363	Allen, Vallejo CA	
KISD Sioux Falls SD	710	Robertson-Crosswell NM	
WAKI McMinnville TN	720	Edmunds, Glen Rock NJ	
KSIX Corpus Christi TX	3764	Wood, Kailua HI	
KDLK Del Rio TX	3540	Wood, Kailua HI	
KNUZ Houston TX	1635	Allen, Vallejo CA	
KFRV Kerrville TX	88	Kuenast, Austin TX	
KLVT Levelland TX	734	Kaskey, Galva IA	
KFEP Nacogdoches TX	3900	Wood, Kailua HI	
I KOZA Odessa TX	805	Eddie, St. Louis MO	
KGRO Pampa TX	429	Dabelstein, Lincoln NE	
KSST Sulphur Springs TX	882	Nuthals, Green Bay WI	
KWTX Waco TX	1487	Allen, Vallejo CA	
KMOR Murray UT	890	Kesteven, Edmonton AB	
KOAL Price UT	866	Dabelstein, Omaha NE	
WJOY Burlington VT	304	Sorensen, Emsdale ON	
WODI Brookneal VA	98	Singer, Richmond VA	
WFVA Fredricksburg VA	292	Wheeler, Erie PA	
WNOR Norfolk VA	1092	Kaskey, Galva IA	
KOZI Chelan WA	186	Hardy, Aberdeen WA	
KWYZ Everett WA	679	Allen, Vallejo CA	
KSPO Spokane WA	705	Allen, Vallejo CA	
KREW Sunnyside WA	142	Portzer, Seattle WA	
WKYG Parkersburg WV (WTAP)	398	Edmunds, Red Bank NJ	
WHBY Appleton WI	802	Belanger, Swan R. MB	
WCLO Janesville WI	930	Kaskey, Bryan TX	
WXCO Wausau WI	437	Eddie, St. Louis MO	
KVOC Casper WY	1038	Allen, Vallejo CA	

Notes.. (*) denotes station w/call changes, and the call call when the station was heard is in brackets. For WBYC it has been heard by Keheler in Ft. Wayne IN at 270 miles (I) is a station heard by Wood in Kailua HI which has now been replaced by a 'domestic' record. There are several Wood loggings that should be changed, so send yours in. Best catch (excluding HI)... WOLS in Florence SC by Allen. Closest catch...WMFR High Point NC by Hall in SC. Of the 138 stations, Allen has records for 23, Wood-20, Kaskey-18, Wheeler-13, Winsor-9, Dabelstein-8 and Brown-5, with many having records for 4 or less....73's de niel *Neil*



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ELT

Not such a big column this week but a couple of special features I know you'll find interesting. Let's see what's been heard:

TRANS-ATLANTIC

- 765 SENEGAL Dakar 2343 Jan 05, gud on TRF w/AA preaching. 2244 Jan 06, fair to gud w/male chants during semi-AUCX. (Connolly-Ma.)
- 819 MOROCCO Rabat 0005 Jan 03, w/male AA vocal to fair peaks o/bad 818 TVI. (Connolly-Ma.)
- 1044 MOROCCO Sebaa-Al'oun 0124 Jan 03, w/potent OC, audio from 2nd sta. prog. German. (Connolly-Ma.)
- 1404 GUINEA Conakry 2252 Jan 06, poor w/YL vocal, heavy sloop. (Connolly-Ma.) 2220 Jan 10, FF OM tx, getting better, poss. nx. (Straus-NJ)
- 1422 GERMANY Saarbrücken 0140 Jan 03, poor in sloop w/bits of mx, mostly a loud het on WBSM (Connolly)

PAN-AMERICAN

- 527.5 COSTA RICA Cartago, TICAL, 0807 Jan 08, weak but steady w/monotonous LA mx. (Everitt-Ok.)
- 552.4 UNID, 0408 Jan 03, w/romantica mx, gud audio but no ID before 0445 fade. TI poss. (Thomas-Fl.)
- 574 EL SALVADOR 0600 Jan 06, audio in/out almost nightly around 0600. noted s/off @ 0630 w/ EL SAL NA, but on past 0700 Jan 07, w/R.Nacional & R.Cadena Central slogs. no call or city yet. (Thomas-Fl.)
- 575 COSTA RICA San Jose, 0510 Jan 03, better than usual, w/cia. mx. (Thomas-Fl.) 0535 Jan 08, R.Nacional, xlint sig. w/cia. mx, long SS armt, more cia. at 0535. (Everitt-Ok.)
- 605 UNID, 0930 Jan 01, in/out w/rhythmic LA mx @ 0240 Jan 04, rough loop HC, no ID. (Thomas-Fl.)
- 615 UNID, 0518 Jan 03, vy weak LA here. checked for SW//on 4910.5 but no gud. (Thomas-Fl.)
- 625 COSTA RICA San Jose, TIJC, 0530 Jan 03, gud w/operatic SS male. (Thomas-Fl.) 0542 Jan 08, LA mx, 0547 w/ R.Cucu ID by hi-voiced OM foll. by 2 cuckoos. (Everitt-Ok.)
- 635 UNID, 0615 Dec 31, weak carr. w/snatches of LA mx in lulls of sloop. (Everitt-Ok.)
- 640.6 UNID, 0853 Jan 03, gud sig. 600 hz. high on Cuban, CMQ was 30db stronger using 1 khz. mech. filter. (Everitt-Ok.)
- 650 t COSTA RICA San Jose, TIBAS, 0729 Jan 08, gud sig. w/LA mx & only slight co-channel QRM. poss. R. Monumental ment. not clear. (Everitt)
- 670 GUATEMALA Guat. City, TGRT, 0056 Jan 03, vy gud w/WMAQ gone in AUCX, SS tx, incl. 'La Emisora (something) en Guatemala', 0143 retune xlint, w/SS c&w mx, promo. (Everitt-Ok.)
- 675 COSTA RICA San Jose, TICN, 0551 Jan 08, vy gud w/SS MoR & LA mx, w/Sonora ments. during and after songs. (Everitt-Ok.)
- 680 MEXICO Chihuahua, XEFO, was my Mex. of Dec 15, not XEKO as orig. suspected. Slogan was R.Sensacion This per Matthew Shugart who hrd same s/on but w/better sig. (Portzer-Wa.)
- 690 COLOMBIA Bogota, HJ CZ, 0604 Jan 01, briefly atop the Cuban in WTI X null w/LV de Colom. ID's. (Thomas-Fl.)
- 700 COSTA RICA San Jose, TIHB, 0815 Jan 07, w/SS MoR vocals, faded. (Tomer-Ca.)
- 700 UNID, 0550 Jan 01, a R.Festival ID (marked by bells), weak u/WLW. nothing else. (Thomas-Fl.) (maybe YNSC ?-ed.)
- 700 t GUATEMALA Guat. City, TGHR, 0138 Jan 03, poss. w/extended SS tx & marimba mx. foll by poss. 'Mundial' ment. altho latter is not clear on tape. Guat. seems likely. (Everitt-Ok.)
- 725 COSTA RICA San Jose, TILX, 0135 Jan 03, xlint, w/well-mod. LA mx. seems closer to 725 than in past, fairly close SAHs between them & SRS are more common now. (Everitt-Ok.)
- 735 t ECUADOR Quito, HCGC1, 0556 Jan 08, most likely the sta. w/well-mod. mx, drums. (Everitt-Ok.)
- 765 EL SALVADOR YSKL net, 0242 Jan 03, fair w/SS pop mx // 770. also 0601 Jan 08, w/R. KL, long fanfare, carr. cut. lasted 20 sec. longer on 770. (Everitt-Ok.)

- 770 EL SALVADOR San Sal., YSKL, 0243 Jan 03, // to 765, 0601 Jan 08 also. (Everitt-Ok.)
- 825 COSTA RICA San Jose, TIOS, 0545 Jan 03, w/slow SS vocal, 'Titania' ID. (Tomer-Ca.)
- 830 MEXICO Culiacan, Sin., XEVQ, gud w/WCCO down in AUCX, w/LA & ranchera mx, loud 'VQ' amnts. Belize sloop. WCCO soon dominates. (Everitt-Ok.)
- 854 PERU Lima, OAX4A, 0610 Jan 08, pres. the one w/Andean flute mx, but unfortunately they don't give their ID in flute. (Everitt-Ok.)
- 880 GUATEMALA Guat. City, TGW, 0400 Jan 06, w/SS tx & Nuevo Mundo ID. (Tomer-Ca.)
- 890 COLOMBIA Bogota, HJCE, 0725 Jan 07, w/chimes & ID, then SS vocal, no WLS. (Tomer-Ca.)
- 895 t HAITI 0640 Jan 01, pres. by DF to Hispanola w/FF, 4VRMN s/off list. 0600 so 4VB (Thomas)
- 900 BARBADOES Bridgetown, CBC, 2310 Jan 11, nx in prog. by OM/YL in/out, gud on peaks, hy Canadian interference. (Straus-NJ)
- 925 GUATEMALA San Pedro Carcha, TGJL, 0420 Jan 01, R. Imperial fair w/SS OM, LA mx & freq. ID's (Thomas-Fl.)

RADIO HABANA CUBA

- 960 COLOMBIA Maganque, HJHN, 2325 Jan 11, xlint w/ lite instr. mx. 'Sutatenza' ID. (Straus-NJ)
- 1005 COLOMBIA Nelva, HJJR, 0640 Jan 02, in lighter than usual K'OK sloop, w/old sounding LA mx gud mod-level. (Everitt-Ok.) 0840 Jan 05, w/SS vocal. (Tomer-Ca.)
- 1010 MEXICO Torreon, Coah., XEVK, 0054 Jan 06, mult. ments. of Torreon, R.Felicidad ID's by OM. (Everitt-Ok.)
- 1020 COLOMBIA Monteria, HJZD, 0234 Dec 31, gud w/SS tx, sev. ments. of R.Panzenu, LA mx, KDKA gone in AUCX. (Everitt-Ok.)
- 1020 UNID, 0327 Jan 04, someone bombing away w/SS sports event, ann'r & crowd noises, no ID on 1/2 hr. prob. YVRS, or HJZD. (Everitt-Ok.)
- 1035 HAITI Cap Haitien, 4VEC, 2347 Jan 06, vy gud to xlint w/EE rel tx, mx. (Everitt-Ok.)
- 1040.4 UNID, 0159 Jan 03, 400 hz. het on high side of WHO, no audio altho WHO weaker than usual. 150 hz. het noted 0100 Jan 06. (Everitt-Ok.)
- 1055t COLOMBIA El Espinal, HJPZ, 0451 Jan 08, prob. the sta. w/fair carr. and occ. snatches of SS mx in hy KEG 1050 sloop. (Everitt-Ok.)
- 1059v CUBA 0430 Dec 31, low-mod SS YL w/mod LA mx, hetting WNOE 1060, DF & revolucionario ment. suggest CM. don't know if Encyclopedia has drifted down or this is the never-hrd R. Revolucion (CMKB-1059nf). (Thomas-Fl.) 0457 Jan 08, CMKG Baracoa, throwing raucous het (700 hz.) on low side of WNOE/XEEP carrier cut 0459:30. (Everitt-Ok.)
- 1100t COLOMBIA Bogota, HJCN, 0152 Jan 04, prob. the one briefly o/others w/SS amnts, 'musica .R.Reloj'. poss. HJAT. (Everitt-Ok.)
- 1110 VENEZUELA Carúpano, YVQT, 2250 Jan 10, much SS OM screaming, R.C. ID, fqy. given 2256, also SW fqy. (Straus-NJ)
- 1124.6 COSTA RICA San Jose, TISRHB, 0632 Jan 02, US pops, audio qual. improving lately on this, seems to have settled into EE/SS pop/rock format. (Everitt-Ok.)
- 1130 COLOMBIA Bogota, HJAC, 2353 Jan 03, prob. the HJ here briefly atop WNEW w/many Bogota ments. midband LA's bulldozing domestics, but I didn't have time to 'milk' the opening. (Connolly-Ma.)
- 1160 COLOMBIA Barranquilla, HJEL, 2345 Jan 05, R. Aeropuerto up to gud peaks w/LA mx, then R.A. ID by YL. (Connolly-Ma.)
- 1165 ANTIGUA St. John's, CHL, 2339 Jan 05, fair w/ radio drama, o/under TVI, WHUE sloop (Connolly) 2353 Jan 06, EE/SS rel tx. poss. lang. lesson (Everitt-Ok.)
- 1170.2 UNID, 0310 Jan 03, gud sized 200 hz. het on high side of KV00, snatches of SS tx, low-voice OM. (Everitt-Ok.)
- 1200 VENEZUELA Caracas, YVOZ, 0848 Jan 08, fair w/soft romantica mx, little co-channel QRM, 'Radiotiempo' ment. (Everitt-Ok.)
- 1205 CAYMAN ISLANDS Georgetown, 0038 Jan 03, fair-gud w/EE rel tx. nowhere near as gud as 1555, an every night reg. here. (Everitt-Ok.)
- 1210 VENEZUELA Coro, YVMN, 0255 Jan 03, ads, ments. of Coro, mix w/TGMX, others. also 0337 Jan 04, clear 'R. Coro' ID. (Everitt-Ok.) 2335 Jan 05, to xlint peaks, ads for Coro businesses, vy gud LACX. (Connolly-Ma.)

- 1210 GUATEMALA Guat. City, TGMX, 0602 Jan 02, w/
R.Rumbos' ID. also 0302 Jan 03, mix w/YVMN,
SS mx, jx, Rumbos ID. (Everitt-Ok.)
- 1375 ST. PIERRE et MIQUELON, 0100 Jan 03, w/cia. mx.
loud. (Connelly-Ma.) 2315 Jan 16, w/EE pop
vocals, FF OM/YL tx, FF vocals, xlnt (Straus)
- 1380 DOM. REP. Santiago, HISC, 2335-50 Jan 11, w/
WAWZ null'd, fair w/usual HI stuff & R.Nacional
ID. WAWZ Zarepath, N.J. also in SS at this
time. (Straus-NJ)
- 1385t HAITI Port-au-Prince, 4VS, 0720-0830 (date/?)
Fair w/isl type merengues, looped Hispanola
but YL lang. unid. (Thomas-FL.) (Gerry, I hear
the same stuff every night after WENX off at
2300. must be 4VS.-ed.)
- 1430 UNID, 2256-2300 Jan 06, SS mx,tx o/domestic
(Connelly-Ma.)
- 1505 t ANGUILLA, The Valley, prob. the one w/big carr.
always during good LACX, precious little audio,
meas. 1505.021 can anyone confirm meas. (Straus)
- 1540 BAHAMAS Nassau, ZNS, 2307 Jan 06, u/WPTR, soul/
reggae mx, OM caribbean EE ann'r. (Connelly-Ma.)
- 1555 CAYMAN ISLANDS Georgetown, 2308 Jan 06, fair w/OM
in EE. (Connelly-Ma.)

TRANS-PACIFIC

- 738 SOCIETY ISLANDS Papeete, Tahiti, 0416 Dec 26, gud
sig. o/KCBS slop. tx in Poly. lang. RTH says
Tahitian this time; FF after 0600. also 0845
Jan 07, late Sat. nite sched. (Tomer-Ca.)
- 756 UNID, 0750 Jan 06, DU w/EE vocals, prob. 1YA
vy weak. (Tomer-Ca.)
- 846 GILBERT ISLANDS Tarawa, 0620 Jan 06, xlnt sig.
w/comedy. (Tomer-Ca.)
- 882 AUSTRALIA Brisbane, 4BH, 0942 Jan 05, w/ezl
mx. '4BH' ID. (Tomer-Ca.)
- 882 NEW ZEALAND Auckland, 1YC, 0847 Jan 05, w/
quiet piano mx // to and weaker than 2YC
657. (Tomer-Ca.)
- 891 FIJI Lautoka, 0810 Jan 05, w/Hindi tx. also
0904 Jan 06, w/Hindi pop mx, Hindi YL DJ,
phenominal ultra-loud. (Tomer-Ca.)
- 1008 NEW ZEALAND Tauranga, 1ZB, 0825 Jan 05, w/
Olivia N-J song // to 2ZB 1035. (Tomer-Ca.)
- 1017 TONGA Nuku alofa, A3Z, 0840 Jan 05, xlnt sig.
w/ezl mx. also gud 0727 Jan 06. w/native YL
tx. (Tomer-Ca.)
- 1026 UNID, 0928-33 Jan 05, DU, weak EE pops, DU
accented EE ann'r. not Solomons as they had
native pgm. at this time. (Tomer-Ca.)
- 1026 SOLOMON ISLANDS Honiara, VQO, 1002 Jan 05, loud
w/native mx // 5020 SW. (Tomer-Ca.)
- 1035 NEW ZEALAND Wellington, 2ZB, 0831 Jan 05,
w/pop mx. weak w/nx 0805 Jan 06. (Tomer-Ca.)
- 1044 NEW ZEALAND Dunedin, 4ZB, 0842 Jan 05, weak
w/race results // 1008,1035. 1st time hrd in
3 yrs. thanks to fqy. change. (Tomer-Ca.)
- 1206 UNID, 0702 Jan 06, nice carr. but no audio
hrd. Fiji? (Tomer-Ca.)
- 1210 HAWAII Honolulu, KZOO, 0700 Jan 06, w/JJ YL,
then 'K-Zoo', fanfare, legal ID. (Tomer-Ca.)
- 1323 UNID, 0907 Jan 06, weak carr. DU loop, maybe
Fiji. (Tomer-Ca.)
- 1500 HAWAII Honolulu, KUMU, 1000 Jan 08, f-good
w/bfl mx. 'Koo-moo, AM 1-50' ID, & nx 1000.
o/weak domestics QRM. KXRX off. (Portzer-Wa.)
- 1566 t SOUTH KOREA Cheju Isl., HLDA, 1000 Jan 08,
weak carr. poss. (Everitt-Ok.)

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Report from Okinawa: submitted by Mike Hardester

The following observations were made by Mike from
Okinawa, Nov 23 to Dec 13, 1978. Due to the size
the second part will conclude next week.
Abbreviations used: *= 9kHz. plan freq., //=
parallel freqs., @=at, FEN=Far East Net, KBS=
Korean Bdstg Sys., lang.=unid lang., PRC= People's
Rep. of China, ROC=Rep. of China, ROP= Philippines

- *531 khz. NHK-1 only sta. on fqy. when audible
unid JJ sta.
- *540 khz. NHK-1 dom. Moscow IS noted occasionally
- *549 khz. KBS w/KK 0900-1000, EE 1000-1030, FF
1030-1100, SS? 1100-1130, EE 1130-1200,
KK 1200-1230, // 2510 1230-1430.
- *558 khz. KBS // 2510 in KK
- *567 khz. NHK-1
- *576 khz. unid CC sta. gone by 1400.
- *585 khz. unid CC sta. looped toward ROC.
- *590 khz. PRC //3360 dominates, occ. JJ @1300.
- *594 khz. unid carrier, occ. aud. loops N-S.
- *596 khz. unid CC sta. loops toward ROC
- *600 khz. unid CC sta. loops toward ROC
- *603 khz. KBS //558 khz., poss. EE @ 1330, also 558.
- *612 khz. NHK-1 dom. w/occ. mix w/CC sta.
- *621 khz. KBS // 2510
- *630 khz. KBS // 2510 0900-1100, PRC // 4250 1100-
1130. then many CC/KK stas. in jumble.
- 635 khz. NK (N.Korea) // 3015 dominates
- *639 khz. jumble of CC, JJ, KK stas. no def. ID
- *648 khz. local FEN sta. dominant
- 655 khz. NK // 3320 dominant
- *657 khz. jumble of CC, JJ, KK stas.
- 660 khz. unid CC sta. loops ROC
- *666 khz. NHK-1 dom., PRC // 4035 noted occ.@ 1030.
- *675 khz. NHK-1 dominant
- *684 khz. NHK-1 dom. w/occ. CC sta. noted
- 687 khz. NK // 3320
- 690 khz. unid w/EE @ 1100 loops ROC & // 700.
- *693 khz. NHK-2 dom. occ. PRC //3360 and KBS //
558 also noted.
- 700 khz. unid w/EE @ 1100 loops ROC & // 690.
- *702 khz. occ. PRC //3360, otherwise silent fqy.
- *711 khz. KBS //2510
- *720 khz. unid. occ. CC sta. loop bear, not def.
- 725 khz. NK // 2850 exc. 1300 when // 3320.
- *729 khz. PRC // 3220 once @ 1130. otherwise silent
- 735 khz. occ. weak KK sta., local 738 too strong
- *738 khz. JORR covers 733-743 khz. w/slop
- 740 khz. unid. 740v. poss. KK or CC
- *747 khz. KBS // 2510
- *756 khz. unid. occ. weak CC loops PRC, no // noted
- 760 khz. carr. loops ROC
- *765 khz. KBS // 2510 dom. occ. JJ noted.
- *774 khz. unid. sta. noted w/weak JJ.
- *783 khz. local JOXR dom. sig. cleaner than JORR
- 785 khz. NK // 2850 occ. sometimes no //.
- *792 khz. PRC // 3360 occ. o/wise silent fqy.
- 800 khz. NK // 3320, tho has varied, // @ 1300=
2850 or 3320. varies to 800.5 khz.
- *801 khz. altho a 9 khz. freq. only NK above has
been noted, no hets indicated.
- 808 khz. NK // 2850 sporadically noted.
- *810 khz. static dom. this frq. tho PRC // 2476
noted @ 1100, occ. FEN-Tokyo.
- *819 khz. some JJ noted, o/wise silent freq.
- *828 khz. NHK-2 dominates.
- *837 khz. PRC // 3950 (at times), occ. KK noted
without SW // noted.
- 840 khz. mix of CC, KK loops eastward.
- *846 khz. PRC // 3360.
- 850 khz. NK dom. // 3320, tho noted @ 1300
// 3031 or 2850 on diff. dates.
- *855 khz. CC & JJ stas. mix no // 's noted.
- 860 khz. NK occ. noted // 2850.
- *864 khz. KBS // 2510.
- *873 khz. NHK-2
- 880 khz. unid. CC sta. loops ROC
- *882 khz. KBS // 2510 dom., tho PRC // 2340 @
1100 and PRC // 3920 @ 1200 noted.
- *891 khz. KBS // 2510.
- 900 khz. unid. stas. in CC, KK mix w/no // 's.
- *909 khz. NHK-2
- 910 khz. occ. carr. poss. audio in KK, tent.
- *918 khz. KBS // 2510
- 920 khz. unid. carrier loops ROC.
- *936 khz. KBS // 2510 dom. and PRC // 3220.
- *945 khz. NHK-1 dom. KBS // 2510 noted often.

950 khz. unid. CC loops ROC, but very strong sig. not indicative of ROC sta.
 *954 khz. PRC // 3400, PRC // 3360 @ 1300.
 960 khz. unid. loops ROC w/CC.
 *963 khz. NHK-1, and KBS // 2510 mix here.
 *972 khz. KBS // 6135.
 *981 khz. PRC // 3220 @ 1200, o/wise not hrd.
 *990 khz. NHK-1 dom. occ. weak CC noted.
 995 khz. unid. carrier loops N-S.
 *999 khz. weak KK sta. occ. noted.
 1000 khz. NK // 2850.
 *1008 khz. PRC noted w/no regularity // 3200, 3360, 4380, various dates/times.
 1010 khz. CC sta. looping ROC.
 *1017 khz. NHK-2, occ. EE @ 1330 not // other NHK-2 outlets, may be new sta.
 1020 khz. unid. CC sta. loops ROC.
 *1026 khz. KBS // 2510.
 1030 khz. unid. CC sta. loops ROC.
 *1035 khz. KBS // 2510, 0900-1030, PRC // 4800 @ 1100-1300. CC/JJ stas. mix till past 1500.
 1040 khz. PRC w/no MW or SW // 's noted.
 *1044 khz. no aud. sig. but carr. detected at times
 1050 khz. occ. carr. diff. dates, bearings, stas.
 *1053 khz. JJ lang. sta. loops Japan mainland.
 1060 khz. unid. only 1300 w/EE weak, no ID.

The rest of Mike's report as well as his notes will appear next week. Now to John Allchin's report from New Zealand.

Report from New Zealand: John Allchin

John's loggings from Te Araroa on the east coast of N.Z.'s North Island, using Sony ICF6800W w/1900' bev. running N/NE from Nov 20-28.

550 TEX. KTSA at 1147 w/T40, fair thru KMVI o/c.
 570 CAL. KLAC at 0814 w/jx ID, 2YA splatter.
 580 CAL. KMJ at 0805 w/jx ID, o/WIBW, NBC nx.
 580 IDA. KFSD at 1046-1130, unid. QRMu/it.
 600 CAL. KOGO at 0825 mix w/CJOR, MoR mx.
 610 MO. WDAF at 1001 above KFRC and 4QR-639.
 620 ARI. KTAR at 0846 w/net tx pgm. KGW noted earlier at 0809.
 640 CAL. KFI at 0810 blasting in. het 4YW.
 650 TN. WSM at 0800 ID, no KORL.
 660 NY. WNBC at 1057 after 2YC s/off, faded quik
 670 ILL. WMAQ at 0705 past 0800 later KBOI dom.
 690 B.C. CBU at 0746 w/EZL mx.
 720 ILL. WGN at 0605 w/KUAI & 4YZ, soon faded.
 740 TEX. KTRH at 1100 ID, w/KRMG s/on under. Tahiti off.
 760 CAL. KFMB at ? tx pgm, ads.
 780 ILL. WBEM at 0600 all nx to past 1230.
 830 MN. WCCO at 0605 w/CBS nx, wtr.
 840 KY. WHAS at 0756 bet. 2ZD, 1YK/1YK, T40.
 860 MEX. XEMO at 0915 w/off cla.mx, rel.
 860 KAN. KOAM at 0928 clear after XEMO s/off.
 880 NY. WCBS at 0738 w/all nx, ID.
 920 ARK. KARN at 0621 w/EZL mx, ID.
 930 CAL. KHJ at 0804 ID, ads, 93-KHJ ID.
 950 WA. KJR at ? adv. XEGM dominates.
 970 ORE. KYTE at ? o/KPUA 97-K-Y-T-E.
 980 B.C. CKNW at 0814 NW wtr, ads.
 1020 PA. KDKA at 0557 pre KTNQ f/in. sports.
 1040 IA. WHO at 0628 fair, KPOI after 0700.
 1070 CAL. KNX at 0600 strongest U.S. sta. sig. so strong you could see it!. (sounds like WOR here-ed.)
 1130 LA. KWKH at 0830 c&w, 'Arklatex' wtr.
 1180 NY. WHAM at 0654 c&w, ID.
 1210 OK. KGYN at 1205-1230 c&w, farm nx.
 1280 CAL. KFYV at 1230 many ID's, over others.
 1290 CAL. KMEN at 1122 ID, ads. K-MEN ID.
 1300 WA. KMPS at 1112 ID, ads. T40 sta. u/it. maybe KYNO.
 1360 CAL. KGB at 0640 many ads, ID's.
 1370 CAL. KEEN at 0740 dom. freq. ID's, UPI nx.
 1380 GA. WAOK at 1022 ads, ID. KTOM off w/MM SP cla/EZL mx u/WAOK-who could this be?
 1390 ORE. KSLM at 1030-1100 Eting request reports.
 1400t NEV. KVEG at ? adv. for car dealer, promo for Vegas stickers, can anyone confirm?
 1400 UNID. hrd 'IT's 5:30 stand. time' then K_O, sounded like KPOM or KTMO pretty sure abt. K and O. s/on 1152 GMT faded into GY mud. who would s/on this time? HELP! hrd at 1152 yet announced 5:30.
 1410 ALA. WUNI at 0610 ads, jx ID.
 1410 UNID. USA. at 0617 w/Larry King, not WUNI CFUN there too, also a Larry King or similar on 1150 0615? who?
 1410 OH. WING at 0627 ID u/WUNI and gone.

1420 IA. WOC at ? wtr, ID, sports, QRM.
 1430t CAL. KARM at 0912 poss. w/slog. 1-43 KA___, KELI in too. def. not KALI.
 1440 CAL. KPPO at 0816 w/contest promo mix w/ KUHL, KEYS.
 1450 CAL. KVEN at 0813 w/tx pgm. many u/neath.
 1460 IA. KSO at 0625 ID, also T40 u/neath.
 1500 MN. KSTP at 0607 w/contest, wtr mx, gud o/KUMU and. poss. XERH.
 1520 ORE. KYXI at 1430 ID, Mut. nx.
 1520 CAL. KACY at 1457 ID, nx, K-Cee 1-52.
 1550 N.D. KQWB at 0625 ID, wtr for Fargo mix w/ KKHI, KRGO, KGAR.
 1580 LA. KLOU at 0859 w/ID thru KDAY OC dur. MM SP. jx ID, T40.
 1600 MO. KATZ at 0700 xlnt atomated soul mx, ID.
 1600 IA. KCRG at 0900 T40, ID. poor.
 1600 FLA. WOKB at 1000 s/on after MM SP. full ID.
 1600 CAL. KUEA at 1500 ID, nx, c&w.
 1600 ORE. KASH at 1500 u/KUEA no nx on hr.
 1600 CAL. KWOW at 0957 ID, no anns. OC. test?
 1600 UT. KBBX at 1330 Gos. mx, ID. list day-only?

Queries

Randy Tomer: As you probably know now, Cook Islds. are on 630 ex 600 w/10kw.

Art Peterson: Your DU/SEA on 558, if Aust. would be 4GY rather than 6WA. 4GY w/5Kw, has a major lobe to west & thunders into NZ. Your 846 Dec 3 @1425 would not be 2CY as they s/off 1400 due to daylight time.

Nick Hall-Patch: 5CK-639 does give time pips on the thr. noted last night at 1100, anning. Eastern Summer Time. Gives S.Aust TC at 1110, then 5 min. S.Aust. nx.

Gene Martin: 1YC & 2YC off at 1100 at pres., not 1000 as you suggest. s/off 1200 when not DST. WVUV remains on 1120, format of 2RE-1557 is mainly T40.

Colin Newell: Tonga-1017 does have ABC nx 0700, then local nx, wtr in EE, back to Tongan 0715.

John, I wish I could hear 1/2 of the above stas. from here on the U.S. east coast. Thanks for an excellent report, let's go fellas and help John out on some of the above questions he has.



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TRANS-ATLANTIC

Because all of the changes of November 23 are now reaching the club bulletins, I have chosen to present the TA section this week in sequential order rather than by country. I am probably going to duplicate some material which is in the IRCA Foreign Log VII; pgs. 23-28, but that's the breaks of the game.

- 155 West Germany, Donebach, 250 kw, will be increased to 500 kw later. (Arctic 12/15)
- 182 Turkey, Ankara 150 kw. (MWN 12/78)
- Germany, East, Oranienburg, carries the Voice of the DDR. (SCDX 12/5) 750 kw. (MWN 12/78)
- 191 Spain, Madrid, Radio Nacional de Espana, 1000 kw (Arctic)
- 200 Turkey, Estimesgut, 200 kw. (MWN 12/78)
- U.K., Radio 4. (SCDX 12/5)
- 209 Germany, West, Deutschlandfunk. Munchen, 20 kw, will be increased to 500/250 kw later. (Arctic 12/5)
- 227 Spain, Barcelona (800 kw), Bilbao (400 kw), Linares (400) Lugo (200), all Radio Nacional de Espana (Arctic 12/5)
- 245 Turkey, Eserum, 200 kw. (MWN 12/78)
- 251 Algeria, Tipaza, 1500 kw French Net. 0600-1700 and 750 kw 1700-0500. (MWN 12/78)
- 254 Finland, Lahti, 200 kw, Finnish pgm. (SCDX 12/5)
- 272 Czechoslovakia, Topolna, 1500 kw became fully operational on 11/15. CSSR built the transmitter, but the USSR designed the aerial system. (Arctic 12/5)
- 520 Germany, West, Hof and Wurzberg remain here but Passau is now on VHF. (MWN 12/78)
- 529 Ireland, Tullamore, RTE 1, 500 kw. (SCDX 12/5)
- 531 Germany, East, Leipzig and Greifswald, DDR 1 (SCDX 12/5). Radio DDR Measewelle, Leipzig is not quite sure whether they will use 531 because it has too good coverage. Possibly they will use the old 10 kw transmitter from 529 on 558. (Arctic 12/5)
- Switzerland, s/off 1800 ex 529. (MWN 12/78)
- Israel, Network C. (Arctic 12/5)
- Algeria, Ain Beida, 600 kw, 24 hours, Arabic net. (MWN)
- 540 Finland, Oulu, 10 kw, Finnish pgm. (SCDX 12/5)
- Ireland, Connemara, Radio Na Gaeltachta. (SCDX 12/5)
- Carrace 2 kw. (MWN 12/78)

- Belgium, Waver-Tombeek, 150 kw, BRT-1 (ex 926) will be overhauled to begin here in 1979 with BRT-2 program. (Arctic 12/5)
- 549 Germany, West, Thurnau (200 kw) and Nordkirchen (100 kw) Deutschlandfunk. (SCDX 12/5) Thurnau (20) will be increased to 200 kw in 1979. Nordkirchen (100) will be completed in Jan. 1980 they hope. (Arctic 12/5)
- Algeria, Las Trembles, 600 kw, Arabic net, 24 hours, (MWN 12/78)
- 558 Finland, Halsinki, Finnish pgm (100 kw) (SCDX 12/5)
- Germany, East, Rostock and Neubrandenburg, DDR 1 (SCDX)
- Radio DDR Ferienwelle. (Arctic 12/5)
- 567 Germany, West, SFB, Berlin 1. (SCDX 12/5) Not reducing their power now, only 100 kw all the time. (Arctic 12/5)
- Israel, Network A. (Arctic 12/5)
- 576 Germany, East, Schwerin, Radio DDR 1. (SCDX 12/5)
- Germany, West, Stuttgart, SDR. (SCDX 12/5)
- Algeria, Bechar, 400 kw. (MWN 12/78)
- 585 Spain, Madrid, 500 kw, pgm 1. (Arctic 12/5)
- 594 Germany, West, Meisshain, Hessischer Rundfunk. (SCDX 12/5)
- 603 Finland, Mariehamn, 1 kw, temporarily out of service (SCDX)
- Germany, East, Potsdam, DDR 1. (SCDX 12/5)
- 621 Spain, Santa Cruz de Tenerife, 200 kw, RNE 1 (Arctic 12/5) (More properly, Canary Islands, Ed.)
- 630 Germany, West, Darnsborg, NDR. (SCDX 12/5) Uses 10 kw, will increase to 100 kw in 1979. 0500-1700. (Arctic 12/5)
- Turkey, Cukurova, 300 kw. (MWN 12/78)
- 639 Israel, Network B. (Arctic 12/5)
- Spain, La Coruna (200 kw), Almeria (20), Bilbao (20), Zaragoza (20), Albacete (1), Alcoy (1), Badajoz (1), Burgos (1), Jaen (1), Palma (1), Salamanca (1), Almaden (0.3), Beas Segura (0.3), Benavente (0.3), Olot (0.3), Villablino (0.3), all RNE 1. (Arctic 12/5)
- U.K., World Service. (SCDX 12/5)
- 648 Germany, East, Berliner Rundfunk, Neubrandenburg and Burg. (daytime only). (SCDX 12/5)
- Helpterburg, increased from 5 to 20 kw. (MWN 12/78)
- 666 Germany, West, Bodenseesender, SWF. (SCDX 12/5) Rohrdorf off the air Thursdays 2310-0000. 300 kw at night to protect Athens and Vilnius. May operate with 150 kw in 1979. Tests now taking place. (MWN 12/78)
- 675 Holland, Lopik, carries Hilversum III. (SCDX 12/5)
- 684 Germany, West, Hof, RIAS. (SCDX 12/5)
- Spain, Sevilla, 500 kw. (Arctic 12/5), RNE 1.
- 693 Germany, East, Berlin, Berliner Rundfunk (SCDX 12/5) 250 kw. (MWN 12/78)
- U.K., Radio 2. (SCDX 12/5/7#)
- 702 Germany, West, Aachen, Herford, and Siegen, WDR. (SCDX)
- Turkey, Istanbul, 150 kw. (MWN 12/78)
- 711 Germany, West, Bopfingen, Heidelberg, Heilbronn, Ulm, and Wertheim, all SDR. (SCDX 12/5)
- 720 Germany, West, Langenberg 2. (SCDX 12/5)
- Spain, Las Palmas, ECS4, 20 kw. (Arctic 12/5)
- 729 Germany, East, Potsdam, Radio DDR Ferienwelle. (Arctic 12/5)
- Spain, Oviedo (100 kw), Malaga (20), Logrono (20), Ciudad Real (0.5), Cuenca (0.5), Tortosa (0.5), Almansa (0.3), Bazabejar (0.3), Pozoblanco (0.3), all RNE pgm 1. (Arctic)
- 738 Spain, Barcelona, 500 kw. (Arctic 12/5), RNE.
- 747 Holland, Lopik, carries Hilversum II. (SCDX 12/5)
- 756 Finland, Kuopio, 10 kw. (SCDX 12/5)
- Germany, West, Ravensburg, DLF. (SCDX 12/5) 120 kw day, 40 night. Braunschweig 800 kw day, 400 night. (Arctic)
- 774 Spain, Valencia (100 kw), Caceres (60), Orense (20), San Sebastian (20), Campo de Gibraltar (5), Barnastro (1), Granada (1), Leon (1), Calatayud (0.3), Figueras (0.3), Jaca (0.3), Quesada (0.30), Soria (0.3), all RNE. (Arctic 12/5)
- Germany, East, Burg, Voice of the DDR. (SCDX 12/5) 1000 kw. (MWN 12/78)
- 792 Spain, Sevilla, EAJ5. (Arctic 12/5)
- 800 Spain, Radio Sevilla (SER) (SCDX 12/5)
- 801 Germany, West, Munich-Ismaning (500 kw) and Nuremberg-Dillberg, Bayerischer Rundfunk, Bayern 1. (SCDX 12/5) 450 kw omni/day, 420 kw night to protect Leningrad. Nuremberg is 50 kw omni, also protecting Leningrad. (MWN 12/78)
- 810 Spain, Madrid, 20 kw, EAJ7. (Arctic 12/5)
- 828 Germany, West, Freiburg, SWF. Hannover and Kiel, NDR. (SCDX 12/5)
- Ireland, Corca Dhuibhe, Radio Na Gaeltachta. (SCDX 12/5) Cahirciveen, 1 kw. (MWN 12/78)
- Spain, Barcelona, 20 kw, EAJ1. (Arctic 12/5)
- R. Peninsular, Barcelona ex 1178 and R. Juventud, Barcelona, EAJ16, ex 1025 were due to merge into one Radio Cadena Espanol station on either 828 or 1476 with 25 kw. (MWN 12/78)
- 837 Spain, Las Palmas, 10 kw, EAK35. (Arctic 12/5)
- Iran, Shiraz, 400 kw, new. (MWN 12/78)
- 855 Germany, West, Berlin, RIAS. (SCDX 12/5)
- Spain, RNE, Murcia (250), Pontevedra (20), Santander (20) El Bar (1), Lerida (1), Lugo (1), Pamplona (1), Ponferrada (1), Palencia (0.5), Puertollano (0.50), Zamora (0.5), Ciudad Rodrigo (0.3), Guadix (0.3), Huelva (0.3), Jodar (0.3), Plasencia (0.3), Teruel (0.3), Vivero (0.30) (Arctic 12/5)
- 873 Germany, West, Frankfurt, American Forces Network. (SCDX)
- Spain, Zaragoza, 20 kw, EAJ101. (Arctic 12/5)
- 882 Germany, East, Koenigs Wusterhausen, DDR 1. (SCDX 12/5)
- Spain, Tenerife, 20 kw, EAK64. (Arctic 12/5) (Canary Is.)
- 891 Holland, Hengelo, 0700-1700 Hilversum II and Hilversum III 1700-0700. (SCDX 12/5)
- Turkey, Antalya, 600 kw. (MWN 12/78)
- 909 U.K., Radio 2. (SCDX 12/5)
- 918 Spain, Madrid, 20 kw, EAJ29 (Arctic 12/5)
- 927 Belgium, Wolvtem, 300 kw, will not increase to 600 kw because of good test results. (Arctic 12/5)
- Turkey, Izmir, 200 kw. (MWN 12/78)
- 936 Germany, West, Bremen and Bremerhaven, Radio Bremen. (SCDX) Plans to use 10 kw Bremen at night instead of 1 kw Bremerhaven. Bremerhaven will be closed completely after that change. (Arctic 12/5) Bremerhaven will close in 1979, replaced by Bremen 24 hours, 100 kw day/10 kw night, from 2210-0457. (MWN 12/78)
- Ireland, Cloubur, 1 kw. (MWN 12/78)
- 954 Spain, Madrid, 20 kw, EAJ2. (Arctic 12/5)
- Turkey, Trabzon, 300 kw. (MWN 12/78)
- 963 Finland, Turku, 100 kw. (SCDX 12/5)
- Ireland, Tir Chonaill, Radio Na Gaeltachta. (SCDX 12/5) Amagary (Cork?), 10 kw. (MWN 12/78)
- Bulgaria, station here is in Sofia, not Blagoevgrad, according to EBU. 150 kw 24 hours. TT period 0115-0130. (MWN)
- 972 Germany, West, Hamburg, NDR. (SCDX). Bonn and Kleve, WDR. (SCDX)
- 981 Algeria, Algiers 1, 200 kw. (MWN 12/78)
- Sri Lanka, SLBC, Puttalam, 24 hours. 400 kw. (MWN 12/78)
- Sweden, Gothenberg, R. Sweden, experimental period after 11/23 in EE, SS, PP, and Swedish, from 2300-0000 with EE at 2300. (MWN 12/78)
- 990 Germany, West, Berlin and Hof, RIAS. (SCDX 12/5)
- Spain, Barcelona, EAJ16, 10 kw, and EAJ28 Bilbao, 10 kw (Arctic 12/5)
- Iran, Shiraz, new, 400 kw. (MWN 12/78)
- 999 Germany, East, Hoyerswerda, Schwerin, and Weimar, All Berliner Rundfunk. (SCDX 12/5) Cottbus, Schwerin, and Suhl each 20 kw. (MWN 12/78)
- Italy, Rimini 2. A new RAI station in Emilia-Romagna relays Radio 2 //Bologna 2. (MWN 12/78)
- Holland, Lopik with Hilversum 1. (SCDX 12/5)
- Spain, Las Palmas, 10 kw, EAJ50. (Arctic 12/5)
- Germany, West, Rheinsender, SWF. (SCDX 12/5) Wolfsheim is off 2310-0330, 600/300 kw. (MWN 12/78)
- Turkey, Istanbul, 1240 kw (MWN 12/78)
- 1026 Spain, EAJ11 Reus (2 kw), EAJ31 Alicanta (3), EAJ48 Vigo (3 kw), (Arctic 12/78)
- 1044 Germany, East, Burg, Dresden, and Wachenbrunn, with DDR 1. (SCDX 12/5)
- 1053 U.K., Radio 1. (SCDX 12/5)
- 1062 Turkey, Diyarbakir, 300 kw. (MWN 12/78)
- 1080 Poland, Katowice now using 1500 kw. (Arctic 12/5)
- Spain, Palma (2 kw), EAJ13, EAJ16 Granada (5), EAJ41 La Coruna (3). (Arctic 12/5)
- 1089 U.K., Radio 1. (SCDX 12/5)
- 1098 Spain, Santa Cruz de Tenerife, Canary Is., 5 kw, (Arctic)
- Iran, Zabol, new 200 kw, 0156 s/on. (MWN 12/78)
- 1107 Germany, West, Berlin, Kaiserslautern, Munich, and Nuremberg, American Forces Network. (SCDX 12/5)
- Spain, ECS1 Teruel (5), ECS10 Socuellamor (2), EFE1 Valladolid (2), EFE6 Caceres (5), EFE14 Madrid (20), EFE 25 Santander (2), EFE31 Vigo (5), EFJ19 Murcia (2), EFJ29 Ponferrada (2), EFJ46 Palma (2), EFJ56 Malaga (10), Laredo, Logrono. (Arctic 12/5)
- Holland, Bloemendal, ex 1223. (MWN 12/78)
- 1116 Spain, EAK2 Sevilla (10), EAK3 Burgos (2), EAK4 Pamplona (2), EAK5 Valencia (10), EAK6 Zaragoza (10), EAK9 Valladolid (2), EAK13 Bilbao (10), EAK19 Salamanca (2), EAK22 Ciudad Real (2), EAK29 Lorca (1), EAK40 Jaen (2), EAK43 El Ferrol (2), EAK48 Astorga (1), EAK53 Reus (2), EAK57 Caceres (2), EAK59 Orense (2), EAK67 Ciudadela (2), EAK69 Almeria (2), EAK82 Figueras (2), EAK91 Aviles (2). (Arctic)
- Radio Popular de Sevilla (COPE), 10 kw. (SCDX 12/5)
- 1143 Germany, West, 17 Locations, American Forces Net. (SCDX)
- Italy, Messina 2 (MWN 12/78)
- U.S.S.R., EBU lists Kaliningrad with 150 kw here, but observers in Sweden feel this is in Byelorussia and not Lithuania; Foreign Service. Such a practice is not unusual for the Soviet Radio. Seems to be 500 or 1000 kw in the Minsk area. (MWN 12/78)
- 1170 Germany, East, Plauen and Reichenbach, Berliner Rundfunk. (SCDX 12/5) Plauen with 5 kw; Reichenbach with 4. (MWN)
- 1179 Spain, EAJ17 Murcia, 5 kw and EAJ39 Barcelona, 5 kw. (Arctic 12/5)
- Radio Miramar de Barcelona has taken over R. Peninsular, Barcelona. (Arctic 12/5)
- 1188 Ireland, Cork Local Radio, RTE 1. (SCDX) Cork 1 (Tullamore?), 10 kw. (MWN 12/78)

- Belgium, BRT 2 is either here on 1512. (MWN 12/78)
- Italy, Sarnemo 2. (MWN 12/78)
- 1200 Angola, E.R. de Benguela (Cuba?) new here. (Arctic 12/5) s/off 2300.
- 1215 U.K., Radio 3. (SCDX 12/5)
- Spain, Las Palmas, EAK92, 20 kw. (Arctic 12/5)
- Albania, Operating when Radio 3 is on from 1130-1330, 1500-1730, 1800-1830 and 1900-2030. (MWN 12/78)
- 1224 Spain, Madrid EAK1 (20), EAK11 Malaga (6), EAK12 Murcia (5), EAK14 Huelva (2), EAK15 Lerida (2), EAK17 Jerez de la Frontera (2), EAK18 Palma (2), EAK20 Cordoba (2), EAK21 Badajoz (2), EAK23 Puertollano (1), EAK24 Ibiza EAK25 Leon (2), EAK26 Zamora (2), EAK31 Alicante (2), EAK33 Vigo (2), EAK39 Granada (5), EAK44 San Sebastian (2), EAK46 Albacete (2), EAK58 Lugo (2), EAK68 Santander (2), EAK78 Villareal (2). (Arctic 12/5)
- 1242 Finland, Vaasa, Swedish language pgm. (SCDX 12/5)
- 1251 Ireland, Dublin, RTE 1. (SCDX 12/5) 20 kw. (MWN 12/78)
- Holland, Amsterdam, with Hilversum III around the clock with breaks for STAD (Local Amsterdam radio) 1200-1300 and 1700-1900. (SCDX 12/5)
- 1260 Spain, EAJ3 Valencia (20), EAJ4 Santiago (10), EAJ8 San Sebastian (10), EAJ52 Badajoz (5), EAJ55 Algeciras (5). (Arctic 12/5)
- 1269 Germany, West, Neumunster, 600 kw, DLF. (Arctic 12/5)
- 1278 Finland, Turku, Swedish pgm. (SCDX 12/5) Ex 962. (MWN)
- Ireland, Dublin 2, 20 kw. (MWN 12/78)
- 1287 Czechoslovakia, Prague. (SCDX 12/5)
- 1305 Ireland, Athlone, 2 kw. (MWN 12/78)
- 1314 Spain, ECS7 Tarrega (2), ECS11 Madrid (20), ECS12 Cabra (2), ECS17 Monforte (2), EFE4 Palancia (2), EFE17 Valencia (20), EFE23 San Sebastian (10), EFJ2 Soria (2), EFJ5 Cadiz (2), EFJ41 Sama de Langreo (2), Melilla. (Arctic)
- 1323 Ireland, Dundalk, 2 kw. (MWN 12/78)
- 1341 Spain, EAJ43 Santa Cruz de Tenerife (20) (Canary Is.) (Arctic 12/5)
- 1349 France, Nice. (SCDX 12/5)
- 1359 Germany, East, relay of Radio Berlin International, ex 1511 ex 1358, external services to Europe 1730-2300. (SCDX 12/5) Berlin 250 kw sharing channel with RBI. (MWN 12/78)
- Spain, Figueras, 1000 kw, RNE. (Arctic 12/5)
- Ireland, Galway 2, 2 kw. (MWN 12/78)
- 1368 Poland, Zielona Gora. (SCDX 12/5)
- 1386 Ireland, Limerick, 2 kw. (MWN 12/78)
- 1395 Holland, Hoogezand carries Hilversum II 0700-1700 and Hilversum III 1700-0700. (SCDX 12/5) Ex 1594. (MWN 12/78)
- Spain, ECS5 Granada (5), ECS6 Tortosa (2), ECS13 Ciudad Real (2), EFE5 Leon (2), EFE8 Alicante (2), EFJ11 La Coruna (5), EFJ21 Huesca (2), EFJ38 Bejar (2), EFJ50 Calahorra (3), EFJ51 Huelva (2), Algeciras, Guadalajara, Segovia. (Arctic 12/5)
- 1404 Finland, Helsinki, Swedish pgm. (SCDX 12/5)
- 1413 Germany, West, Bad Mergentheim, SDR. (SCDX 12/5)
- Spain, ECS8 Sevilla (10), ECS14 Gerona (2), EFE10 Vitoria, (2), EFE19 Castellon (2), EFE22 Oviedo (5), EFJ15 Barcelona (10), EFJ46 Zaragoza (20), Cartagena, Pontevedra, Ceuta, Zamora. (Arctic 12/5)
- Ireland, Ring, 2 kw. (MWN 12/78)
- 1422 Germany, West, Heusweiler, Saarlandischer Rundfunk. (SCDX 12/5)
- 1431 Germany, East, Bernburg, Karl-Marx-Stadt, Seelow, and Wachenbrunn, Berliner Rundfunk. (SCDX 12/5)
- Bernburg with 20 kw; others 5 kw. (MWN 12/78)
- 1440 Luxembourg, Radio Luxembourg. (SCDX 12/5)
- 1449 Germany, West, Berlin 2, SFB. (SCDX 12/5)
- 1476 Spain, ECS18 Orense (2), EFE58 Cordoba (5), EFJ43 Bilbao, (10), EFJ23 Albacete (2), EFJ25 Almeria (2), EFJ37 Toledo (2), Gijon. (Arctic 12/5)
- 1485 Germany, East, low power transmitters of DDR 1. (SCDX 12/5)
- Turkey, six low powered stations of 1 kw each. (MWN 12/78)
- Switzerland, Saviese ex 1367. (MWN 12/78)
- Germany, West, Adelsheim, SDR. Baden Baden, SWF. 8 locations of American Forces Network. Munster, Saarlandischer Rundfunk. (SCDX 12/5)
- Ireland, RTE Community Radio (Mobile). (SCDX 12/5) Sligo 1 kw; Trim and Ycoughal, 1 kw; Drumgriffen 1 kw. (MWN 12/78)
- Spain, many 2 kw and lower transmitters. (Arctic 12/5)
- 1494 France, Clermont-Ferrand and Besancon. (SCDX 12/5)
- Holland, Hulberg with Hilversum II 0700-1700 and Hilversum III 1700-0700. (SCDX 12/5)
- Spain, ECS16 Santa Cruz de la Palma (Arctic 12/5)
- 1503 Poland, Foreign Service only on this frequency in the future. (Arctic 12/5)
- Spain, ECS2 Badajoz (5), ECS3 Avila (5), ECS9 Jaen (2), ECS15 Marbella (2), ECS19 Benavente (2), EFE33 Taragona (2), EFE57 Pamplona (2), EFJ54 Burgos (2), Cuenca, Lugo. (Arctic 12/5)
- 1504 Angola, E.R. de Benguela varying to 1506, s/off at 2300 (Arctic 12/5)
- 1512 Belgium, Wolverson, new transmitter to be built with 400 kw. Antenna will be an umbrella beam. BRT2 programs but a parallel with future LW transmitter in Holland is not excluded, if there will be a common NOS/BRT program. (Arctic 12/5)
- 1521 Spain, Radio Peninsular de Barcelona 0600-0100. EAJ19 Asturias (5), EAJ40 Pontevedra (5). (Arctic 12/5)
- 1522 Tunisia, a regional station is reported. (MWN 12/78)
- 1538 International Waters, Voice of Peace still here, now relaying news bulletins in Hebrew on the hour from IBA's network B program. (Arctic 12/5)
- 1539 Germany, West, Mainflingen (700 kw), DLF. (SCDX 12/5)
- Spain, Radio Peninsular de Barcelona (5), EAJ47 Valladolid (5). (Arctic 12/5)
- 1557 Malta, Broadcasting resumed 1900-2000 in AA, EE and FF ID as Radio Mediterranean. Financed by Malta government and not confirmed by Deutsche Welle. Libyan relay begins now at 2230. (Arctic 12/5)
- 1566 Switzerland, Sarnen ex 1562 s/on 1700; also on the air mornings to 0700- or 0800. (MWN 12/78)
- 1575 Germany, East, Dresden, Beeskow, Keula and Werda, Berliner Rundfunk. (SCDX 12/5) Dresden 20 kw, others 5. (MWN 12/78)
- Spain, Radio Peninsular de Madrid (5), EAJ24 Cordoba (5) (Arctic 12/5)
- 1584 Germany, East, low powered transmitters of DDR 1. (SCDX)
- Spain, many 2 kw transmitters. (Arctic 12/5)
- Ireland, Ballingearry, Baugoremorris and Weaford, each 1 kw. (MWN 12/78)
- 1593 Germany, West, Langenberg I. (SCDX 12/5) 400 kw day/night but 800 kw from local dusk to 2305. (MWN 12/78)
- 1602 Germany, East, low powered transmitters of DDR 1. (SCDX)
- Spain, many 2 kw transmitters. (Arctic 12/5)
- Italy, Bolgna and eight others moved here from 1594. (MWN)
- Ireland, Drogheda and Wicklow, 1 kw. (MWN 12/78)

As has been noted, the Nov. 23 plan was just that-- a plan. Not all assigned stations are on their new frequencies with the powered allotted. The above list gives an idea of what is on.

Albania. There seems to be some doubt whether they built their 300 kw transmitter on 648 khz. Since they lost the friendship and financial support of Peking, maybe they couldn't afford the new station. (MWN 12/78)

Angola. Most Angolans are still on old channels. (Arctic 12/5)

Belgium. Liege is on 1305; March on 1233. (SCDX 12/5)

Cyprus. There are plans for 2 x 50 kw transmitters for the Turkish program. Bayrak Radio said they were not changing frequencies on 11/23. (MWN 12/78)

India, Deutsche Welle has permission to open a relay station in Trincomalee; plans include a 600 kw MW station. Completion is due in 1980. (MWN 12/78)

International Waters. R. Caroline was off from 10/20 from a generator explosion. (MWN 12/78)

Poland The Second Program is now being carried only on MW. A new 200 kw transmitter on 200khz now relays it between 0700-1500. (SCDX 12/5 and Arctic 12/5)

Spain. All COPE stations, those with EAK prefixes, were due to leave the air on 11/23 and be on VHF only. (MWN 12/78)

Tunisia RTP Monastir is 20 kw. (MWN 12/78)

Turkey. TRT-1 began 24 hour service as of 1/1. This had been discontinued because of lack of listeners and to save energy. (Arctic 12/5)

TRANS-PACIFIC

China, Kwangtung-648 (ex 650); Canton City, 2nd program-1062; Canton Downtown service-972. (Arctic 12/15)

Indonesia. RRI announced that all MW stations must use the new frequencies. Non-government stations which fail to use them will not be allowed to broadcast. (Arctic 12/15)

Korea, South. Korean Broadcasting System has announced the following new frequencies: First Program on 711, with relays on 1134, 1169, 1341, and 918. Second Program on 603. Public Education Program I on 972 and Public Education Program II on 756. (SCDX 12/5)

Philippines. DWWW Manila 630/50 kw; DZAS Manila 702/50 kw; DPI-1 738/50; DHRV Manila 882/50; DZRP Manila 918/50; DXXX Zamboanga 1008/100; DWVA VOA Poro 1143/1000; Maguindanao 1179/60; DPI-2 Pampanga 1287/200; DZOR FEBC 1458/250. (MWN 12/78)

Singapore. English on 630, CC on 675, Malay on 990 all 50 kw plus multilingual service on 792 with 750 kw. (MWN 12/78)

Thailand. R. Thailand now using 891 khz. Second Program on 819. Third Program on 846, and external service on 927. (SCDX 12/5)

LATIN AMERICA

Argentina. A new border station LU23, Em. Lago Argentino, Calafate, Santa Cruz, is on the air with 10 kw. Frequency not known.
590 LUB R. Bariloche increased power to 25 kw.
670 LRA52 R. Nacional, Chos-Malal, Neuquen, new. Unknown power.
740 LRA55 R. Nacional, Altos Rios Senguerr, Chubut, new.
860 LRA56 R. Nacional, Perito Moreno, Santa Cruz, new.
1030 LRA15, R. Nacional, Tucuman, now 50 kw.
1160 LRA51, R. Nacional, Jachal, San Juan, new, 1 kw.
1370 LRA54, R. Nacional, Ingeniero Jacobacci, Rio Negro, new, 1 kw.
1430 LU29, Em. Condor, ex R. Las Flores.
1440 LRA53 R. Nacional, San Martin de Los Andes, Neuquen, new, 1kw.
(All Arctic 12.15)

Bolivia (Arctic 12/15)

600 CP.. R. Aolo, Sucre, in Quechua 1100-1800 and 2200-0100 with 10 kw.
1050 CP28 R. Cochabamba (or R. CBA--the abbreviation for Cochabamba), move from 900. 1100-0600 3 kw.
1090 CP45 R. Cultura de Cochabamba 1200-0400 1 kw.
1160 CP78 R. Tronari 1100-0300.
1260 CP40 R. Nacional de Cochabamba, ex 1250, 1100-0700.
1300 CP51 R. Loyola 1130-0430 1 kw.
1300 CP.. R. Estacion CAMBA, a pirate. Slogan is La Voz Oficial de La Junta Nacional de Accion Social.
1310 CP68 R. San Rafael 1000-0500 10 kw.
1400 CP17 R. Maritima 1100-0500 1 kw.
1420 CP49 R. Centro de Cochabamba 1100-0500 1 kw.
1510 CP80 R. Litoral 1100-0500 1 kw. Quechua 1100-1200 and 2330-2400.
1530 CP116 R. Dif. Cosmos, 24 hours, 1 kw.

Chile. Chile has reorganized its 25 provinces into 13 regions. (Arctic 12/15)

Colombia. La Voz de Sud America, Bucaramanga is new on 1080 with strong harmonic on 2160. Also IDs as Cadena Lider. (SWNS 1/79)

Haiti. 4VEH-1035 s/off 2400 with Amazing Grace. Formerly was on until 0030. Now a Haitian on 1450a with harmonic on 2900a. Probably La Voix du Peuple down from 1475/2950. (SWNS 1/79)

Trinidad and Tobago. National B/C Service on 610 now is 50 kw. (MWN 12/78)

Venezuela. R. Apolo, Turmero has moved from 1320 to 1310. (SWNS)

Clubs. Asociacion Dominicana de Clubes DX-istas consists of two clubs, Santo Domingo DX Club and International Dominican DX Club. "Radio y Teonca", the bulletin, is offered to SS-speaking DXers for two IRCs. The club also has a 5-minute DX program in SS on Radio Antillas-1120 on Sundays. Write Santo Domingo DX Club, Apartado 17-12, Santo Domingo, Rep. Dominicana. (SCDX 12/5)

Club Ondes Courtes du Quebec, 3420 Chemin Ste.-Foy, App. 5, Ste-Foy, Quebec, Canada G1X 1S6, offers a booklet of 8 pages in FF about SW for 3 IRCs. (SCDX 12/5)

I have a lengthy (9 page) report from Mike Hardester of stations he has heard from his location in Taiwan. I'll be glad to send a copy to anyone in exchange for 15¢ postage.

I haven't heard anything recently, mainly because I haven't been listening. Don Kaskey, one of these days I try listening to KLOC around its s/off time to see if I can hear anything under it. I just noticed that for the majority of the above reports I listed the Arctic issue as 12/5 when it really was 12/15, not that that makes a whole lot of difference. The official title of Arctic's bulletin is MV Eko for the trivia buff. It comes out every two weeks. CU in a while. FJP (Typed 1/14)

In the mail this week were several letters/cards expressing interest in the non-heard listings so will include them again this issue. During the past 3 issues the following stations were reported to the DXR's for the first time since prior to volume 12: WPKE-KY BY Dave Faulkner; WKFD-RI, WAKS-NC, by Bryan Lee; CJMC-QU by Neil Wolfish; WJPW-MI by Bob Lazar; WNGG-SC, WGTA-GA, WNPC-TN, KWEL-TX, KTAE-TX, WMAC-GA, WMGO-MS, WKPO-MS, WIFM-NC, KGAS-TX, KLGA-IA, KFNV-LA by Robt. Kramer; KGLN-CO, KICA-NM, KBWA-AZ, KRTR-WY by Bill darms; KLOC-GA by Don Kaskey; WKDX-NC, WYTH-GA, WBHC-SC, WORL-FL, WEXI-FL, WMGS-AL, WGAS-NC, WTLN-FL by Dave Nelson; WSSC-SC, by Bill Townshend; WBIB-AL, KCHI-MO, by John Clemmer; KDQN-AR by Robt. Mackinney; WZKY-NC by Karl Forth; WGAT-VA by Steve Grubb; WWBC-FL by Earl Jeter; WOKX-NC, WSSL-NC by Paul Mount; WKTS-wi, WISS-WI, WAGN-MI, WDUZ-WI, WKJR-MI by Robt. Steadman; WKQP-LA, WWIW-LA By Jos. Landry; WGLO-IL & KDRY-TX by Michael Jeziorsky; KGUD-GA by Robt. Wlen This reduces the stations not in DXR's or DXWW's since September 1974 to 859 or 17.6% of the total number of stations in the U SA and Canada....dkk..

CBS RADIO ADDS "SEARS RADIO THEATER," STARTS FEB. 5th

CBS and Sears, Roebuck & Co. announced jointly in September, 1978, that the major retail chain would sponsor "Sears Radio Theater" on the CBS Radio Network, beginning Mon. 2/5/79.

Sam Cook Digges, President of the CBS Radio Division of CBS Inc., says the series of original one-hour radio plays will be produced on a Hollywood soundstage and aired on CBS five nights a week following the 7pm ELT news. "Each evening will be devoted to a different genre," notes Digges, "with a celebrity host introducing a star-studded cast." Digges pointed out the "large and enthusiastic audience for radio drama," which CBS has nurtured through its successful nightly "CBS Radio Mystery Theater," which began in Jan. 1974. CBS also airs the "General Mills Adventure Theater" to a youth and family audience on Saturday and Sunday afternoons.

Sears will be the sole network sponsor of the series. Individual Sears stores will be able to buy local commercial time in the program through availabilities on the local CBS station. Sears plans to mail advance schedules to its 22 million credit card customers, as well as promote the call letters and frequency of local stations in its newspaper advertising.

As of 1/10/79, the following hosts have been set for the various special nights:

- Mon. - - Western night, host to be announced
- Tues. - - Comedy night, Andy Griffith
- Wed. - - Mystery night, Vincent Price
- Thurs. - - "Love and Hate Night," Cicely Tyson
- Fri. - - Adventure night, Richard Widmark

Nelson Riddle has written and recorded a "Theme from Sears Radio Theater" to be heard at the beginning and end of the programs, five nights a week. Riddle is also doing an original musical score for each individual program in the series, to be recorded by small groups, such as a Dixieland band for a comedy or a harmonica-guitar-bass combo for a Western.

(Thanks to CBS Radio Press Information Services for this info.--BH.)

Some additional info on "Sears Radio Theater" comes from 10/2/78 Broadcasting (used by permission): The initial commitment is for one year (130 new programs; 130 repeats). Production for the series is entirely in the hands of Sears, rather than CBS.

CBS will send out two feeds a night, Monday thru Friday: 1908-1958, and 2108-2158, ELT. (That's right after the 7pm and the 9pm news.) Broadcasting's writer says, "Affiliates will be encouraged to run the plays during the 7pm hour or at 9pm. However, in those cases where sports programming might conflict or stronger affiliated stations are needed, delays will be arranged." (Ed. note: The programs probably couldn't air too far into the night, or else they might bump into "Mystery Theater," which tends to be aired at 9pm, 10pm, or 11pm, local times.)

One additional note of interest: The article notes that "Mystery Theater" is now on more than 220 stations.

HELP: I'll try to obtain a station lineup (with airtimes, if possible) for "Sears Radio Theater" to appear soon in DXM. Meantime, those of you hearing "Sears Radio Theater" in your area can help me by sending call, freq., location, and normal airtime (beware of sports preemptions) for any station you hear airing it beginning 2/5/79.

While you're at it, I'd also like the same info for "CBS Radio Mystery Theater" seven nights a week (check to see if the weekend broadcasts are the same as on weeknights), and "General Mills Adventure Theater" on Saturdays and Sundays.

One caution: Note that Wednesday is "Mystery Night" on the Sears show, so be careful not to confuse it with E.G. Marshall's "Mystery Theater"! Vincent Price is the Wednesday host for Sears.

Please send CBS Radio Drama info to: Bill Hardy, 2301 Pacific Ave., Aberdeen, WA, 98520. Thanks much. -BH.

WDUZ

REFLECTIONS

ON REFLECTION AND REFRACTION
by Randy Seever

1. INTRODUCTION

A question that is often asked by DXers interested in medium wave propagation is:

"Is reflection or refraction the mechanism by which medium frequency radio waves are propagated by the ionosphere?"

The REFLECTIONS article in the Sept. 23, 1978 DX Monitor discussed night medium wave propagation by means of ionospheric refraction, making no mention of reflection. Some other articles, past and present, in the DX club literature state that reflection is the primary mechanism and discount refraction. As is often the case, there is considerable confusion over one of the most fundamental questions of ionospheric radio wave propagation.

This article will provide some definitions, present a detailed description of reflection and refraction, and will offer the editor's conclusions on this subject.

2. DEFINITIONS

Reflection - This is a wave phenomenon occurring at boundaries between different media (in this case, the neutral atmosphere and the ionosphere) such that the direction of at least part of the oncoming wave is abruptly changed so that it remains in the same medium. Regular reflection occurs at plane boundaries such that the angle of incidence of the wave to the reflecting surface is equal to the angle of reflection from the reflecting surface; for this case, the refractive index of the reflecting medium is sufficient to totally reflect the wave. Partial reflection can occur at a plane boundary in the same fashion as regular reflection if the refractive index of the reflecting medium is not sufficient to totally reflect the wave; in this case, part of the wave energy is reflected back to Earth at the plane boundary and part of the wave energy is refracted at the plane boundary and continues upward into the ionosphere. Diffuse reflection can occur at rough or irregular boundaries; the best example of this is the reflection of waves by a rough ground, such as mountains or valleys where the reflecting surface is uneven.

Figure 1 below shows the cases of regular reflection and partial reflection.

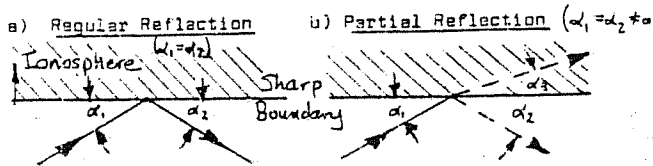


Figure 1. Reflection at a Sharp Boundary

Refraction - This is a wave phenomenon occurring between media or within a medium (e.g., the ionosphere) in which the direction of the wave is modified as the refractive index of the medium changes. In general, a radio wave will enter the ionosphere at an angle of incidence, encounter an increasing number of electrons and be gradually bent until it reaches a peak altitude, continue to be bent until it leaves the ionosphere and returns to Earth. The amount and rate of bending is determined by the refractive index of the ionosphere at the particular wave frequency. Figure 2 below shows a refracting wave in the ionosphere.

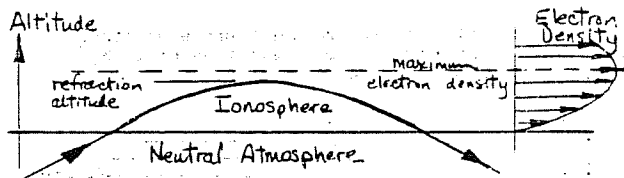


Figure 2. Refraction of a Radio Wave in the Ionosphere.

Refraction can also occur at a sharp boundary between media if the change in refractive index is not sufficient to cause total reflection; this is shown in the "partial reflection" sketch in Figure 1 above.

Refractive Index - The refractive index is a measure of the bending of a radio wave between or within media. The classical equation for the refractive index is the Appleton formula, which relates the refractive index to the number of electrons, the strength of the Earth's magnetic field, the number of electron collisions, and the wave frequency. The reader should refer to the several excellent technical books available for the derivation of the formula (e.g., Davies, Budden, Alpert, etc.). The simplified Appleton formula was presented in some detail in the 9/23/76 REFLECTIONS article and won't be reproduced here. The value of and the change in the refractive index and the application of Snell's Law determine the amount and rate of bending that a refracting radio wave experiences in the ionosphere. As noted above, the refractive index controls both the reflection and refraction of radio waves, and this will be discussed in more detail below.

3. REFLECTION AND REFRACTION

Reflection of a radio wave will occur if the change in the refractive index is great enough to cause the wave to change directions such that the angle of incidence and angle of reflection of the wave to the boundary of the ionosphere are equal. If the change in the refractive index is instantaneous, then the change in the direction of the ray path is instantaneous. Since the refractive index is dependent upon the number of electrons present along the ray path in the ionosphere, the electron density variation with altitude is very important.

Consider a model ionosphere which has an instantaneous increase in electron density (N) at altitude (h), as shown in Figure 3.

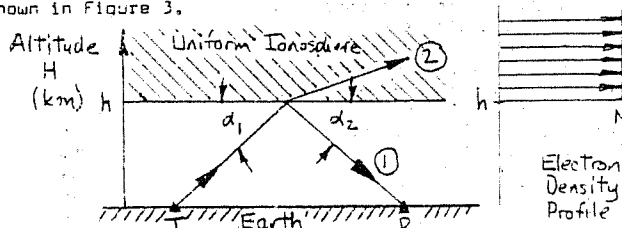


Figure 3. Model Ionosphere with Constant Electron Density.

If the oblique critical frequency of this model ionosphere, as determined by the refractive index and Snell's Law, is greater than the wave frequency, then the wave will be totally reflected back to Earth according to ray path ① above with equal values of the angle of incidence and angle of reflection (α_1 and α_2 as shown). If the wave frequency is greater than the oblique critical frequency of this model ionosphere, then part of the energy of this ray will be reflected along path ① and the remainder of the energy will be refracted at the base of the ionosphere and continue upward into the ionosphere along ray path ②. The fraction of energy reflected and refracted depends upon the refractive index.

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Telephone: (931) 544-1115

Now consider a model ionosphere which has a vertical gradient of electron density with altitude up to N_{max} electrons/cm³ at altitude h_2 , as shown in Figure 4.

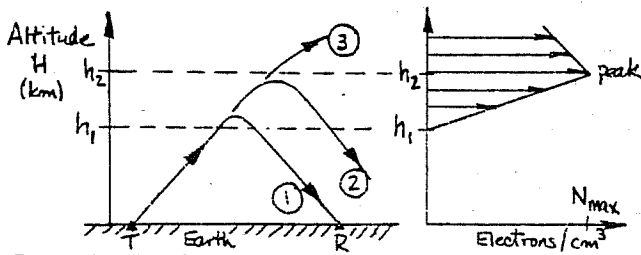


Figure 4. Model Ionosphere with Vertical Gradient

Ray path (1) is for a wave frequency very much below the oblique critical frequency of the model ionosphere. The ray barely penetrates the ionosphere before it is refracted back to Earth. Ray path (2) represents a wave frequency slightly below the oblique critical frequency of the model ionosphere. The refraction altitude of this ray is nearly equal to the altitude at which the peak electron density occurs. Ray path (3) represents a wave frequency far above the oblique critical frequency of the model ionosphere; this ray is only slightly refracted and continues upward into the ionosphere.

The E-region of the night ionosphere usually has a vertical gradient of electron density at the base of the E-region and a series of one or more electron density peaks as shown in Figure 5. Occasionally, one of the peaks will become very pronounced, resulting in a "sporadic E" layer.

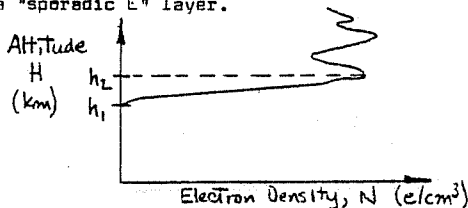


Figure 5. Typical Night E-Region Electron Density Profile.

The base of the E-region denoted by the altitude h_1 is usually between 70 and 90 km. The first peak electron density, h_2 , is usually between 90 and 100 km. Several peaks in electron density may occur between 90 and 120 km. altitude.

At wave frequencies near the oblique critical frequency of the night E region, several ray paths between the transmitter and receiver may exist when rays with different angles of incidence reflect from the several E-region peaks. This situation may approach a "diffusive reflection" condition. However, experimental and theoretical data shows that ionospheric absorption of radio waves is maximum when the wave frequency and the oblique critical frequency of the E-region are equal. Therefore, this is probably not a viable model for long distance medium wave propagation.

Rather than the rather stringent definition of reflection given above, most references state that "reflection" of radio waves occurs if the wave is refracted back to Earth in a distance of one wavelength. For the night E-region, this criterion is satisfied for two conditions:

- Very low frequency waves that barely penetrate the base of the E-region, since only a few electrons are required to refract these waves back to Earth, and are refracted within a distance of one wavelength.
- Some sporadic E layers with large electron density gradients may refract medium or short waves back to Earth within a wavelength.

Both of these examples produce regular reflections.

Medium wave ray paths can be modelled by simply assuming that the ray is effectively "reflected" from an "effective height" of the night ionosphere such that the takeoff and arrival angles are equal. While, in a pure sense, this is not what really happens as the wave passes through the ionosphere, it is an adequate approximation for most ray paths. The "effective height" of waves with low medium wave frequencies will be lower than that of high medium wave frequencies, since more

bending occurs as the wave frequency approaches or exceeds the oblique critical frequency of the E-region. For E-region refraction, the "effective height" is in the range of 90 to 110 km. If the ray penetrates the E-region the "effective height" of the ray refracting from the F-region will usually be well below the altitude at which the peak electron density of the F-region exists; typical "effective heights" of rays refracted from the F-region are usually in the range of 200 to 300 km.

It is difficult to be more precise for the general case because there are many factors to account for; the real ionosphere, under the influence of the Earth's magnetic field, has geographic and temporal variations in the electron density profile.

4. CONCLUSIONS

The general conclusions that can be drawn from the above discussion include:

- The ray path of radio waves in the ionosphere is controlled by the refractive index, which is a function of the electron density of the ionosphere and the wave frequency.
- The two basic criteria for reflection are that it occurs at plane boundaries and that the angle of incidence and the angle of reflection are equal. These criteria are satisfied only for long wavelength waves and some "sporadic E" layers at medium wave and short wave frequencies.
- The lower part of the night E-region of the ionosphere usually exhibits a vertical gradient of electron density with altitude. Consequently, ionospheric refraction is the general rule, and reflection is the exception.
- The classical magnetoionic theory encompasses both reflection and refraction in a unified theory. Reflection is actually a special case of refraction.
- A model of reflection from an "effective height" is usually assumed to greatly simplify range and elevation angle calculations with little loss in accuracy.

DEPARTMENT STORE RADIO

by Cary Simpson

In the early days of radio, hundreds of stations were put on the air by department stores and radio supply houses or stores. There was a very specific reason for this. The stores wanted to sell radios, and without a station to pick up, people wouldn't buy their radios.

Thus, even before the Department of Commerce began to issue licenses, many communities already had local outlets operating very informally, but enough hours so that customers of the stores could tune in. It was all a matter of pastime, or a hobby in those days. There was no news on the radio, no live music except at the larger stations.

In Philadelphia, stations were put on the air by John Wanamaker Store (WOO), Lit Brothers (WLIT), Gimbels (WIP), Strawbridge & Clothier (WFI) and several other department stores. WFI and WLIT were merged into WFIL, and WIP remains today. WOO was taken off the air because the owners of Wanamaker's saw no future for this "glumick" that radio seemed to them to be.

In Chicago, WLS was operated by Sears, Roebuck and Company, in New Orleans, Maison Blanche operated WSMB, and the list could go on and on. Gene Martin should research this sometime and give us a list of all of them he can remember.

In the central Pennsylvania area, Gables Department store operated WFPG for 31 years before selling it to Triangle Publications in 1955. That was 24 years ago, but many people in and around Altoona, who were raised on a steady diet of "Gables Radio" do not today refer to WFPG as that, but still call it "Gable's". The habit is too great to break.

In those early days, the station was devoted to promoting the department store throughout much of its broadcast day. So, it's no wonder the public was brainwashed. They used to announce the time as "Ten minutes to nine. Only ten more minutes before Gable's opens for business." Then, at 9:00, a fanfare, and an excited announcer practically screamed "It's now 9:00 and the doors swing open on the biggest and best department store in all of Pennsylvania!"

The station had its "Crystal Studio" in the store's Arcade and shoppers could watch the programming from the rug department.

Can any other "old-timers" recall days of "department store radio"? How about the old Yankee Network? Or The Outlet Stores in Providence?



the irca technical column

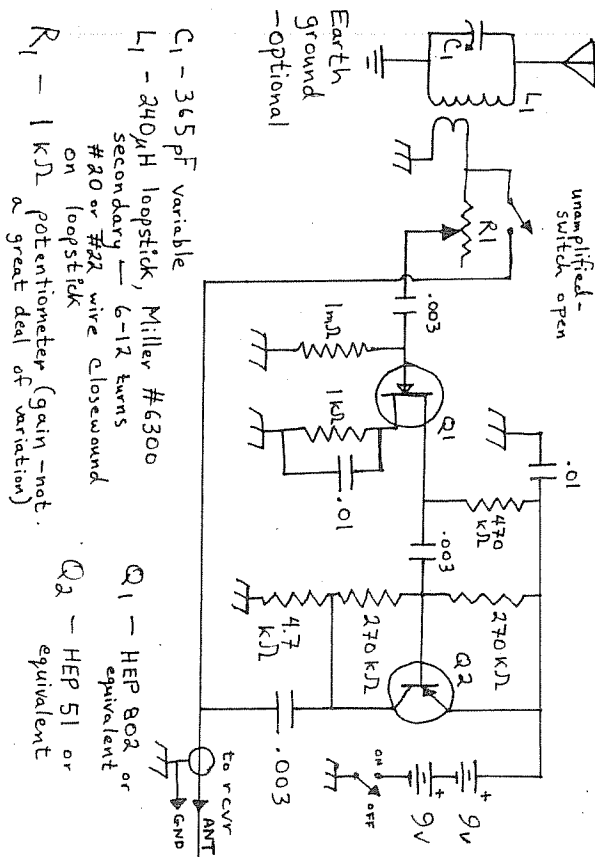
Editor: Nick Hall-Patch
 3272 Alder St.
 Victoria, B.C.
 Canada V8X 1P2

This time, we'll look at the front end and the tail end of the receiver. First, a word about **spurious signals**. When you tune your receiver across the BCB, do you find your local stations turning up (usually with murky audio) on frequencies other than their assigned one? Or do you find that some stations show a beat note (with the BFO off) which goes from a high to low back to a high pitch as you tune past the station? Then your receiver is probably suffering from spurious signals. I won't go into the details of how such signals are produced, as there is a good treatment of that in the "NRC Receiver Reference Manual" (\$2.50 from NRC Publications, P.O. Box 401, Gales Ferry, CT 06335) and in Joe Worcester's "Curse of the Superheterodyne" (IRCA Reprint T1).

But what can you do to eliminate these "spurs"? If you have a tube-type receiver, test the RF and mixer tubes--if these are at all questionable, replace them with new ones. Otherwise, you could try shortening your longwire a bit or add some attenuation between the longwire and receiver--you may be getting more signal than you need to log those weak ones, and by attenuating the antenna input, you reduce the strength of the spurs much more than you reduce your desired signal. Most communications receivers have enough sensitivity for you to use quite a short longwire for best results on BCB.

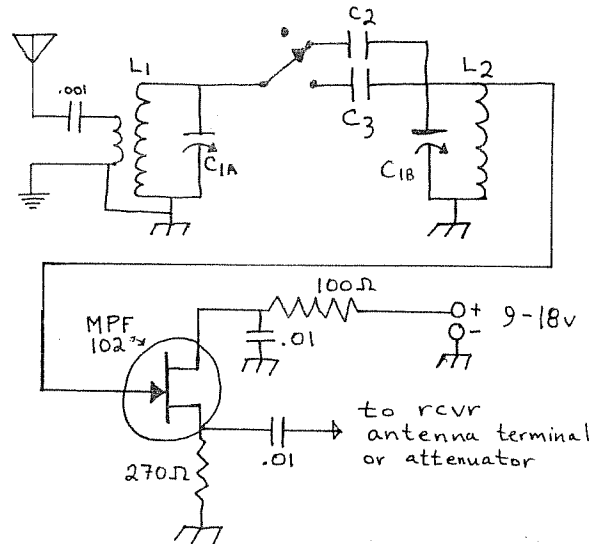
A good solution for spurs is to use one of the longwire tuners described in last month's column by Brian Sherwood. Or use a tuned loop antenna instead of the longwire. Incidentally, you can use a loop as a longwire tuner. With the IRCA spiral or the unamplified Wedge, connecting the longwire lead-in to one side of the tuning capacitor will make a tuner out of your loop, though it will lose most of its directional properties while the longwire is connected. The amplified loops can be a little trickier, but they are possible. If there's any interest, I'll try to cover them another time. If all else fails, your receiver may need alignment.

Brian Sherwood has submitted a circuit which amplifies as well as peaks a signal from a longwire. Please remember that most communications receivers don't need preamplification on BCB (unless your longwire is very short), so try Brian's longwire tuner without amplification first.

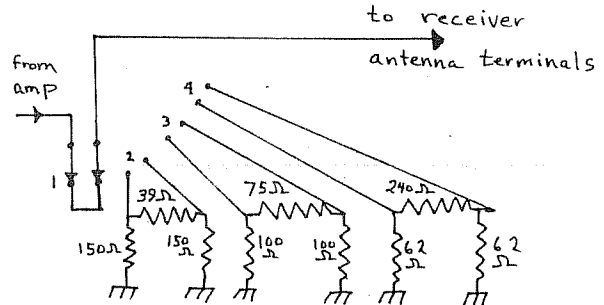


The circuit is a little unorthodox with its impedance mismatch between L₁ and the gate of the FET, but this helps to keep amplification down and more easily allows switching between the straight antenna tuner and the amplifier.

The next tuner-amplifier is probably more expensive to build, but does provide a bit more selectivity. Again, try the unamplified longwire tuner first. If there are still problems with spurious signals after using the tuner, aligning the receiver and so on, perhaps this tuner-amp will help. Basically, it's a two-resonator RF filter with a source-follower FET amplifier to make up for the filter's loss. I added a switchable attenuator for mine, because I didn't need all the gain that the amplifier offers. Here's the circuit:



THE OPTIONAL ATTENUATOR:



Position 1 gives no attenuation, positions 2, 3, and 4 are very roughly -6dB, -10dB, and -20dB respectively.

The wiring of the attenuator and the FET amplifier are reasonably straightforward, but the filter is a little tricky. First of all--parts availability. I used two Miller A-320-A shielded BCB RF coils for L₁ and L₂, and a two gang 365 pF variable for C₁ A & B. Both came out of my junk box. The Miller coils are still available from either JW Miller, 19070 Reyes Ave., Compton, CA 90224 or G.R. Whitehouse, 11 Newbury Dr. Amherst, NH 030319, but at (arghh!) \$6.10 each. The much cheaper Miller #6300 loopstick could probably be used as long as you could find shielded boxes for them, and could wind about 10 turns over L₁ for the antenna coupling. Maybe the twin-gang capacitor could come out of an old radio; the only supplier I know of is Ambit International in England, who have cheap shielded BCB RF coils as well. If you're experimentally inclined, write me and I'll send more details about these British parts.

Assuming that you've got the necessary parts, there's still the matter of building the filter. As can be seen from the schematic, L₁ should be shielded from L₂, as you want coupling between them only through C₂, C₃ or stray capacitance. For high BCB frequencies, you should get optimum coupling by using short leads, shielded coils and no direct connection between the tuned circuits; stray capacitance will couple them quite nicely. This will give you reasonable selectivity from 1200-1600 kHz (re-peaking needed every 10 kHz) without such a large loss that the FET amp can't make it up. Unfortunately, at 550 kHz, there is a great deal of loss, and you will get a faint, noisy, albeit selective signal. So it's necessary to switch in additional coupling capacitance for the low & middle parts of the BCB. The value of these capacitances will depend upon your coils, variable capacitor, wiring etc. The best bet is to use "gimmick" capacitors, i.e. two insulated wires

twisted together for a few turns, and adjust the number of turns for best selectivity without undue loss of signal. C₂ was a gimmick of one turn for 700-1200 kHz and C₃ was a gimmick of 4 turns for 540-700 kHz in my model but could be different for yours.

There may also be difficulty in getting the filter to "track" over the entire BCB without doing some chopping and changing at either end of the filter. If you're interested in this circuit and run into problems, write me and I'll try to help you past the pitfalls. There's a good treatment of RF filter design in the ARRL Electronics Data Book if you're interested in going further with a circuit like this one.

...and now to the tail end of the receiver...audio filters again. Perry Ferrell of Gilfer Associates writes to say that the Datong FL-1 audio filter mentioned in last month's column is intended for CW and SSB and is of little use for AM except as an expensive bandpass filter. So put your \$179.95 towards a better receiver! Perry also writes that MFJ has a model 752 audio filter for \$79.95 which has adjustable lower and upper audio cuts, as well as peaking and notching facilities. More info available from MFJ.

And finally--the last word (maybe) on audio filters, courtesy of Bruce Portzter:

In response to Nick's series of articles on audio filters, I have a few suggestions on how they can be used.

1. A high pass filter is useful for eliminating 60 and 120 Hz hum and reducing the "rumble" which often accompanies reception of stations on graveyard channels. (ed. note: not to mention the low hets that go with reception of off-frequency Latins)
2. A low pass filter with a cutoff at about 2000 Hz will reduce the hiss which is often present when replaying DX tapes.
3. A high-Q "peaking" filter designed for amateur CW use (such as the Autek QF-1) can be used to improve reception of test tones during DX tests and f/c's. This is especially desirable if Morse code IDs are given. The filter should have a variable center frequency since tone frequencies can vary from one station to the next or more than one tone can be used during a test (400, 800, & 1000 Hz are fairly common TT frequencies). It might also be possible to use such a filter to enhance time pips transmitted by some foreign broadcasting stations. However, it would probably be difficult to do so, owing to the short duration of the pips and the fact that many pip sequences use more than one frequency. I have had good results using a bandpass filter to improve pip reception, however. A bandpass filter, with high and low cutoff frequencies set close to one another can also produce good results in enhancing test tones.
4. A bandpass filter with variable high and low cutoff frequencies can also be used to enhance some announcer's voices. The process is usually one of trial & error in which a DX tape is replayed several times while trying different cutoff frequencies until the announcer's voice is heard most clearly. On more than one occasion I've used this technique to improve a particular announcement from marginal or unreadable to where it is at least partially readable. The "optimum" passband varies depending on the announcer and reception but the range of about 600 to 1500 Hz often gives good results.

Audio filters are definitely useful, even with highly selective receivers like the HQ-180A. On more than one occasion, my Krohn-Hite 310AB variable bandpass filter has improved a DX tape's readability and in a couple of instances it's made the difference between hearing an ID and not hearing it. The main benefit, however, has been esthetic. It's improved the quality of a given reception without actually improving readability to any great extent. Since audio filtering is usually the last stage in the receiving process it is not nearly as important as a good antenna, a receiver front end that doesn't overload easily, and selective IF stages.



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SPECIAL FEATURE

CHANGES - the AM broadcast band will soon be different

By Retiring IRCA Special Features Editor Bill Hardy

In 15 years that this editor has been watching the broadcast-band scene, I can't remember a time when there have been more changes - real changes - underfoot in BCB DX.

Some examples of what's going on:

- The new 9 kHz spacing plan began 11/23/78 for most European, African, and Asian stations. This has a particular impact on TP DXing of Asians, Japanese stations, Aussies, and Zedders. If you haven't been following these developments in DX Worldwide, perhaps you should be.

- The American group called the Daytime Broadcasters Association wants the FCC to switch to 9 kHz spacing in the Western Hemisphere as well. They say that the 14 new AM channels under their proposal would allow for 2,352 new AM stations, with many of America's 2,250 daytime AM's moving to the new fulltime stations. (This proposal may or may not get anywhere.)

- The FCC will ask the 1979 World Administrative Radio Conference (WARC) at Geneva, Switzerland, to expand the AM BCB by adding 1615-1860 kHz for broadcast use in the Western Hemisphere.

- And, on 12/19/78, the FCC released its long-awaited decision regarding U.S. clear channel broadcasting. While the final rules will be set later, the FCC plans to break down all 25 Class I-A channels assigned to the U.S. Instead of the "coast to coast" protection all 25 Class I-A stations received in the past, the I-A signals will be protected only to a level of some 750 miles at night - and perhaps even less than that!

▶ DAYTIME BROADCASTERS URGE 9 KHZ SPACING FOR U.S.

The Daytime Broadcasters Association (DBA) has asked the Federal Communications Commission to reduce the present separation between AM broadcast stations from 10 kHz to 9 kHz, thereby creating 14 new AM radio channels to accommodate 2,352 additional stations (168 per channel). The plan also calls for a slight expansion of the AM BCB.

Ray Livesay of WLBH-1170 Mattoon, IL, who is chairman of the DBA, asked the seven commissioners who comprise the FCC to give the plan "serious study and consideration." Livesay called it "the first practical plan to be worked out" to give daytimers spectrum parity with fulltimers.

The plan would add a new channel at 530 kHz and 1610 kHz, and realign existing channels at 9 kHz intervals - stations on 540 would move to 539; 550 to 548; 560 to 557; and 570 to 566. A new Class IV (i.e. graveyard) channel would be created at 575. Stations on 580 would shift to 584; 590 to 593; and so on, with new Class IV channels at each number ending in "5" - 665, 755, 845, 935, 1025, 1115, 1205, 1295, 1385, 1475, and 1565 kHz. (If these numbers seem familiar to trans-Atlantic DXers, they should. They happen to be the old "TA" frequencies, at least between 539 and 1538 kHz.)

Livesay is offering his allocation plan as a counterproposal to the FCC proposal for expansion of the BCB which will be suggested at the 1979 WARC meeting in Switzerland (see separate story). The FCC figures that about 700 new AM stations could be accommodated by adding broadcast service from 1615-1860 kHz. Livesay says that almost 2,250 of the 2,352 new fulltime facilities under his plan would go to existing daytimers, so the DBA plan would provide for considerably less of an increase in new stations. He added that there was "absolutely not" any guarantee in the FCC proposal that daytimers would be allowed to move to any new fulltime channels above 1610 kHz.

Livesay says that there is considerable interest in South America for a 9 kHz plan. Europe has had a 9 kHz plan for years, and the rest of the Eastern Hemisphere switched to a 9 kHz plan on 11/23/78. Any decision made at WARC for North American stations would also apply to Central and South America.

DBA points out that by expanding the AM band to 530-1610 kHz (it is presently 535-1605 kHz), rather than adding a band from 1615-1860 kHz, the FCC would keep AM service within the capacity of radios now in use. DBA says under the FCC's WARC proposal, daytimers would be able to move to fulltime operation only in the expanded (i.e. above 1610) portion of the AM band, which present radio sets could not receive. (Based on 12/11 and 12/18/78 Broadcasting, used by permission.)

Editor's comments: (1) The actual expansion of the AM BCB under the DBA proposal would have to be 525 $\frac{1}{2}$ -1614 $\frac{1}{2}$ kHz, rather than the 530-1610 kHz they cite, unless (a) you consider the band now as being 540-1600, or (b) the stations on 530 use upper sideband and the stations on 1610 use lower sideband, which isn't too feasible, hi. I point this out not to nit-pick, but simply to point out that DBA makes it sound like a 5 kHz expansion at each end, and it's really 10 kHz at each end when you get right down to it.

(2) Of course, if allocations on 530 and 1610 were dropped, the present BCB could start at 539 and end at 1601, which would require no WARC action - just a renegotiation of treaties such as the North American Regional Broadcasting Agreement (NARBA). This would cut the new Class IV channels from 14 to 12, or limit the increase in new stations to 2,016, which is not quite enough to handle all of America's 2,250 daytimers. However, it also would not eliminate the Travelers Information Service (TIS) stations on 530, 1606, and 1612 kHz, and as such would not run into strong opposition from TIS licensees, most of which are government agencies.

(3) It's also interesting that DBA is suggesting the former TA split channels (the ones leaving a remainder of 8 when divided by 9) rather than the new TA and TP split channels (the ones evenly divisible by 9). It would leave 1 kHz hets all over the band. Of course, I'm sure that Ray Livesay is not a DXer and as such was unaware of the exact frequencies used by TP's and TA's - he probably came up with these out of the blue. Putting the American stations on the new TA/TP channels would eliminate hets (and, alas, most of our DX too, sigh). Of course, if we really wanted great TA/TP DX, we could recommend channels 4 or 5 kHz removed from the TA/TP splits (such as 544, 553, 562, etc.) and that would really help our country totals, hi hi. Be that as it may, a BCB starting at 540 and ending at 1602 probably wouldn't require an act of WARC any more than one stretching from 539-1601, as mentioned above. -BH.

▶ FCC PLANS TO SEEK BROADCAST-BAND EXPANSION TO 1860 KHZ AT 1979 WARC SUMMIT

(See items in 12/23/78 DXM, p. 177, and 9/23/78 DXM, p. 31.)

The FCC has prepared its final report and order on the position the United States will take at the 1979 World Administrative Radio Conference (WARC), to be held in Geneva, Switzerland, starting in September. WARC summits are held each 20 years to determine how the entire radio spectrum (from longwave to satellite frequencies) will be divided up among all nations of the world. Thus, this first general WARC since 1959 will be very important for 20 years to come.

After mulling various proposals to expand the AM broadcast band (including the possibility of adding longwave - 115 to 190 kHz - in the Western Hemisphere, which idea was dropped partly because of complaints from power-line companies), the FCC has decided to ask that the AM band be expanded by adding a band from 1615-1800 kHz, to be shared between broadcasting and other services, and a band from 1800-1860 kHz, to be used exclusively for broadcasting. The FCC figures that, given engineering and regulatory constraints, 14 new channels would be created that could accommodate about 700 new stations. The FCC hopes that the proposed expansion would help diversify the ownership of broadcast stations and would help create new opportunities for minority ownership. Since few AM receivers tune as high as 1860 kHz, and in fact few tune very far above 1600 kHz at present, new AM radios (at about the same cost as at present) would be needed to pick up the new stations.

The FCC decided against asking for 1605-1615 kHz (currently used by Travelers Information Service [TIS] stations on 1606 and 1612 kHz) or expanding the AM band downward to start at 525

rather than 535 kHz (TIS stations are also assigned on 530 kHz).

There are 154 member countries at WARC, many of which are developing or "Third World" countries that didn't even exist during the 1959 WARC. The U.S. has only one vote. The U.S. State Department will do the actual negotiations for the U.S., using the FCC report and order as a guide. The final outcome may be vastly different from the proposals taken into the summit.

WARC and the International Telecommunication Union (ITU) have divided the world into three zones, for purposes of determining allocations:

- Region I - Europe and Africa
- Region II - Western Hemisphere
- Region III - Asia and the Pacific

Of interest here will be proposals for Region II, which includes North, Central, and South America (plus the Caribbean, etc.). Whatever changes in the BCB are adopted for Region II will be binding upon the United States.

As a footnote, the U.S. has also proposed changes in the amount of spectrum available for satellites, international shortwave broadcasting, and a variety of specialized services. Check the various communications magazines and SWL clubs for developments on those matters. Meanwhile, about next October or November, DX Monitor should be able to tell you what changes, if any, WARC '79 will make in the size of our AM BCB. -BH. (Based on 1/1/79 and 12/11/78 Broadcasting, used by permission.)

▶ FCC DECIDES TO BREAK UP THE "I-A" CLEAR CHANNELS

(See item in 12/30/78 DXM, p. 189.)

The FCC has decided against "superpower" for America's 25 Class I-A 50kw clear-channel stations, and has decided to assign a select number of new fulltime stations on each of the 25 channels. Once the final rules are adopted, sometime in 1979, it should have an impact on clear-channel DXing for a long time to come.

On 12/19/78, the FCC adopted a "further notice of rulemaking." This means that the FCC plans to adopt the rules within a few months, but wants a few final comments on how to fine-tune the rules. In particular, the FCC wants to choose between two alternate proposals - one which provides a radius of about 750 miles of protection to each I-A station at night; and one which provides only the same protection day and night - a radius of only 150 miles, or less!

The FCC has pondered what to do with the clear channels since the 1940's. The clear-channel concept dates to the 1930's, when certain frequencies were set aside in the U.S. and Canada for exclusive nighttime use by one station apiece. These assignments were included in the original 1941 NARBA treaty, which also assigned clear channels for Mexico, Cuba, and other North American countries. The Class I-A stations were protected from coast to coast, allowing nighttime radio service to areas with no local stations.

In 1961, the FCC decided to experiment with about half of the I-A clear channels. On some of the channels with I-A assignments in the eastern U.S., where the I-A signal was of little value in the western U.S., the FCC permitted a second nighttime operation on each, to serve sparsely-populated areas of the West, such as Nevada, Idaho, Wyoming, etc., with at least 10kw nighttime, utilizing a directional pattern that would protect the I-A station's regular nighttime service area in the East. These are the Class II-A assignments. Since 1961, the FCC has studied the impact of the II-A stations on I-A coverage, while keeping its options open. These options included granting "superpower" up to 750 kw to some or all of the unduplicated I-A stations, or breaking down some or all of the I-A channels with more fulltime stations.

Well, then, this finally is the FCC's decision. The I-A channels assigned to the United States will be broken down.

The FCC wants to choose between two alternatives. The "primary" alternative (meaning the one more likely to be adopted) would protect the I-A stations to their nighttime skywave (skip) coverage area receiving at least a 0.5 mv/m signal 50% of the time. (In laymen's terms, the station would be easily received on a simple home, car, or portable radio most of the time. Since most radio listeners don't use an elaborate radio, like DXers

tend to use, a signal too weak to be heard easily is of little value to those listeners.)

This protected area reaches a distance of about 750 miles for most of the I-A stations. Three of America's I-A stations use directional antennas (namely, WWL-870, WBZ-1030, and WWWE-1100), so the distances might be slightly more in certain directions for those three stations. This is the same level of protection that the Class II-A stations presently provide to the duplicated I-A stations. Any signal stronger than 1/20th as strong as the protected signal is not allowed. (In other words, if the I-A station has a 0.5 mv/m signal, the II-A station cannot be stronger than 0.025 mv/m, which is awfully weak!) So, you won't find new fulltime stations springing up 751 miles from a I-A station - the new stations must be far enough away from the I-A to keep any signal from coming within 750 miles of the I-A. Also, where two or more fulltime stations operate on the same channel, the signals are combined mathematically (by the root-sum-square method, I believe), which recognizes that two stations generate more QRM than one station. So, hopefully, the clear channels won't end up sounding like graveyards.

This primary proposal would allow for some 80 to 100 new fulltime stations on the clear channels themselves, plus another 25 stations on adjacent channels. This would allow 3 to 5 new fulltimers on each I-A channel, since some like 700 and 1200 are presently unduplicated, and some like 1020 and 1100 have two existing fulltime stations apiece besides the I-A's. The FCC says that, once all the possible fulltime stations are on the air on each channel, additional daytimers that would not block new fulltime assignments could be added. Now, let's look at the alternate proposal.

The alternate FCC plan would protect the I-A stations only to their 0.5 mv/m groundwave contour -- in other words, their daytime service area. (Class I stations are currently protected to their 0.1 mv/m contour, so this would be a decrease in protection, if adopted.) Depending on the ground conductivity of the local area, this ranges from a radius of 80 to 150 miles out! So areas served only at night would not be protected from interference.

The FCC figures that this alternative would allow 3 or 4 additional stations on each channel. And the FCC is particularly interested in squeezing more stations onto the clear channels east of the Mississippi, where AM and FM daytime service is more plentiful than in the West.

Even with the more conservative proposal of the two, the FCC staff believes that about 125 new stations could be added on (or adjacent to) clear channels. This could result in perhaps as many as 600 applications for the stations, and that in turn could result in as many as 100 comparative hearings. FCC Chairman Charles D. Ferris says the FCC will ask Congress for a new law that would allow such competing applications to be decided by a lottery -- an idea that has been suggested before.

The FCC is also interested in improving the ratio of radio stations owned by minorities. For one thing, minority owners could be given some kind of enhanced chances in any lottery procedures such as those just mentioned. For another, the FCC might waive certain rules that limit the entry of new AM stations into large, well-served markets. The FCC notes that many minorities live in those large markets.

At one time, 20 million people lived in areas not served by a local AM or FM station at night. The FCC says that, thanks to the surge of interest in AM and FM, that number is now down to 4 million.

Comments on the new rules should be due in at the FCC in a month or two; then, the FCC will issue the new rules. Meantime, potential fulltime station operators are getting applications ready. Some of the "limited time" stations may finally succeed in their efforts to go "fulltime" (KXA-770 already has its application in, again; WAIT-820 and others will probably try again too). There are only 14 "limited time" stations left in the U.S.A. (there were 16 before KTNQ-1020 and KFAX-1100 went fulltime); maybe before long there will be none of these relics of an earlier radio age left around. --BH.

(Based on 1/1/79 Broadcasting, used by permission, and other known data including FCC rules.)

One important comment: The breakdown does not apply to the I-A channels assigned to Canada (690, 740, 860, 990, 1010, 1580), Mexico (730, 800, 900, 1050, 1220, 1570), or both (540). Most nighttime operations on these channels will continue to be severely limited by treaties. (1540 is a I-A channel within 650 miles of the Bahama Islands, but a I-B channel beyond that distance.) Clear channels such as 680, 710, 810, 850, etc. that are assigned as Class I-B do not seem to be involved in this rulemaking.

IRCA SPORTS NETWORK UPDATER

Bill Hardy, Editor

► NBA Updater (see 12/30/78 DXM, p. 199)

Greg Monti and Steve Apel send the following addition to the Philadelphia 76ers net:
1420 WCOJ-PA

Greg also doubts that the New Jersey Nets have a network on radio, but the radio audio is simulcast on over-the-air TV and cable-TV, so the net announcers use the expression "network" at ID time.

► NHL Updater (see 12/30/78 DXM, p. 199, and 1/13/79 DXM, p. 224)

Boston Bruins: Greg Monti ID's our "mystery station" as WNVR-1380, Naugatuck, CT (ex-WOWW).
New York Islanders: Greg adds two more stns to the net: 610 WIOD-FL, and 1370 WALK-NY** (the latter listed as WALK-FM Patchogue, NY, but WALK-1370 always simulcasts w/FM per Greg).

► WHA Hockey

As of mid-January, I only have station lineups for two of the teams in the faltering World Hockey Association: Cincinnati and Quebec.

Tim Cronin advises that the Cincinnati Stingers are on WLW-700.

Dan Sys and Eddie Ryan send the following lineup for the Quebec Nordiques, in French:

1240 CJAF-QU	1310 CHGB-QU	1420 CJMT-QU
CIRB-QU	1350 CHAL-QU	1460 CKRB-QU
1280 CKCV-QU	1400 CJFP-QU	(no FM's)

Anyone know the play-by-play status of any other teams in the WBA?? Please send to Tim Cronin (address 1/13/79 DXM, p. 224) or Bill Hardy.

► Pro Basketball

Mike Endza tells me that there are a couple of minor pro-basketball leagues! One of them, the Western Basketball League (or WBA as I've seen it listed in an item from Bill Harms), has a team with radio play-by-play; the Utah Pros are on KALL-910, Jerry Howarth doing pbp. Now you know...

► NFL Football

Looking ahead to next season, an item in 1/8/79 Broadcasting (used by permission) says the New York Jets have signed an exclusive five-year contract with WCBS-880 for play-by-play radio coverage of all Jets games (4 preseason and 16 regular games per year, plus playoffs if the team qualifies). The contract begins Aug. 1979 and continues thru the 1983 season. In 1978, the Jets were on WOR-710. WOR did not have a regional network (neither did the Giants on WNEW-1130). Anyone know if WCBS plans a Jets network? --BH.

► Major-league baseball

Thanks to Mort Meehan for an interesting clipping on coverage of baseball in the Palm Springs/Indio/Coachella area of California. Seems that KCMJ-1010 Palm Springs signed a contract in December to carry the American League's California Angels in 1979. Also, verbal agreement allows Golden West Broadcasters to supply KCMJ with L.A. Rams football, plus UCLA college football and basketball. That'll start next year. KCHV-970 Coachella, 20 miles east of Palm Springs, has had the Angels, Rams, and both UCLA nets in 1978. It is possible that both KCMJ and KCHV will carry all those sports, but KCHV management isn't happy with the proposal (it means KCHV would carry the games free) so that might not come about.

Mort points out that Gene Autry (the old singing cowboy of movies, records, and radio) owns the Angels, Golden West Broadcasting (which has the Angels radio rights and also owns the flagship KMPG-710), and the Gene Autry Hotel in Palm Springs. The Angels train in Palm Springs each spring. Mort says KCMJ recently moved its studios to the Gene Autry Hotel. A spokesman for Golden West says they signed up KCMJ for Angels games

U.S. Seeks Channels For 700 New AM Stations

By ERNEST HOLSENDOLPH

Special to The New York Times

WASHINGTON, Jan. 9 — The Carter Administration plans to try to open the way for the creation of up to 700 AM radio stations and the development of low-powered television stations that could serve rural areas and even some urban communities.

The plans go beyond a proposal last month by the Federal Communications Commission to allow for up to 125 new AM stations by ending its policy of maintaining 25 "clear channel," 50,000-watt stations to provide broadcast coverage to remote communities.

The new proposals are designed to increase competition in broadcasting and give members of minority groups a better chance to own stations.

The Administration plans to ask the Federal Communications Commission this week to begin proceedings to carry out the plans.

'To Show the World'

"We think," Henry Geller, the Administration's communications policy chief, said, "these policies would help to increase healthy competition in the broadcast media and also show the world that we intend to make the most efficient use of our spectrum."

The new radio stations could be added to those now broadcasting by reducing the spacing between frequencies. This is now done in Europe and elsewhere outside the Western Hemisphere. Technically, this means reducing the spacing between the frequencies from 10 kilohertz to 9 kHz.

There are 4,500 AM and 4,000 FM stations. In many areas, especially urban zones, the AM band is virtually completely allocated.

In addition, the F.C.C. has recently asked the State Department to seek additional wavelengths for several hundred new stations at the World Administrative Radio Conference this year.

Mr. Geller heads the National Telecommunications and Information Administration of the Commerce Department, and developed the proposals in concert with the White House domestic policy staff.

The F.C.C. is already studying the use of low-power television stations and

"translators" as a way to reach rural areas that have few stations, and some urban minority or ethnic communities that might be served by special-interest programs.

Translators are an alternative to cable systems where a transmitter — usually working with low power — picks up and repeats programs being broadcast in a distant community. Under proposals before the commission, these translators would be authorized for wider use, and in some cases allowed to originate local programs.

Elsewhere, including Western Europe and Africa, reduced spacing in the AM band has already been adopted, Mr. Geller said. But the policy, if adopted here, would have to be implemented together with Canada, Mexico and Latin America to avoid interference problems.

Among the benefits of the new spacing, he said, would be the possibility of new assignments in the crowded AM band; improved local broadcasting under local ownership, including minorities; less reliance on daytime-only stations, and worldwide uniformity of broadcasting technology.

Such uniformity would make it possible to develop better radios with electronic digital tuners, according to the communications administration.

Wider use of low-powered television transmitters, broadcasting on unused urban channels, could provide significant new voices, according to Mr. Geller.

The telecommunications agency continues to support the Government policy of aiding minorities in purchasing existing stations, Mr. Geller said, but the new stations could provide a faster way to increase minority impact in the ownership and management of broadcasting outlets.

There are some drawbacks associated with the proposals. Reduced spacing could make some inexpensive radios obsolete, and the frequency shifts would create some expenses for broadcasters, who would have to make changes in their transmitters.

However, the Administration favors the changes because it feels they would enhance competition and possibly create an atmosphere where there would be less need for Government regulation of radio broadcasting.

because the team is closely identified with Palm Springs, and the ballclub and sponsors felt it would be "in everyone's interest" if a Palm Springs station was on the network. He said they liked their association with KCHV, but he said it was more of a regional station.

KCHV-970 has carried the Angels each of their first 18 seasons, thru 1978. In Palm Springs, KPAL-1450 (now KPSI) picked up the Angels along with KCHV in 1964-1969. KCHV was alone in 1970-71. KPSI-1450 and KCHV carried the 1972-73 seasons, then KPSI switched to the Dodgers and KCHV has been the only Angels outlet since then. KCMJ is already heavily into sports thru its CBS affiliation. Will KCHV carry the Angels in 1979? KCMJ says yes. KCHV says no. Golden West says maybe both will be on the Angels net. Soon, we'll know.

► CBS expands tennis, golf coverage

For the first time in 1979, CBS Radio Network will cover three major tennis tournaments: The Grand Prix Masters (1/10-1/14), the WCT Finals (4/30-5/6), and Wimbledon (6/25-7/7). CBS will also cover the U.S. Open Tennis Tournament (8/28-9/9), which CBS has covered since 1973.

In golf, CBS Radio is handling six tournaments in 1979: The Tournament Players Championship (3/22-3/25), the Masters (4/12-4/15), Ladies Professional Golf Assoc. (6/7-6/10), U.S. Open (6/14-6/17), British Open (7/19-7/21), and PGA Championships (8/2-8/5).

In both sports, most coverage is concentrated in regularly-scheduled sportscasts, plus special reports (such as :45 or :50 past the hour) on Saturdays and Sundays and which are greatest in number on the final day of the tournament. Ed Ingles is frequently anchorman of tennis coverage.

CBS has also added "The Golf Spot," with Nick Seitz of "Golf Digest," and "The Tennis Spot," with Shep Campbell of "Tennis" magazine. Both are heard on Saturdays and Sundays (time not listed).

► CBS, NBC announce Olympics coverage

With all the media attention on the millions of dollars NBC-TV paid for exclusive TV rights to the 1980 Moscow Olympics, few people realize that the radio rights to the Winter and Summer Olympics are nonexclusive. This means that any radio network can cover the games, and CBS and NBC Radio have already started doing just that.

NBC Radio is using the umbrella title, "Olympic Odyssey," for 984 programs from 1/2/79 till 8/3/80. From 1/2/79 till 12/31/79, a daily 4½-minute program fed at 1745 ELT will cover various preparatory events such as NCAA, AAU, Olympic trials, World Cup Gymnastics, the Millrose indoor track and field games, and the Pan American Games.

From 1/1/80 till 7/18/80, the daily 4½-minute programs will double to two per day, at 1645 and 1745 ELT. These include coverage of the Winter Olympics at Lake Placid, NY, in Feb. 1980.

The most extensive coverage, of course, will be from 7/19/80 till 8/3/80, when the Moscow Olympics are actually underway. NBC will air five 4½-minute reports on opening day and on closing day. In between, there will be an 8½-minute opening report at 0545 ELT, another 8½-minute wrapup at 2245 ELT, and thirteen 4½-minute actuality reports in between, hourly from 0645 till 1845 daily. (NBC Radio info from 10/2/78 Broadcasting, used by permission.)

CBS Radio, meantime, has 728 programs from 1/27/79 till 8/3/80. Former Olympians Pat McCormick and Parry O'Brien will join CBS sportscasters Pat Summerall, Brent Musburger, Win Elliot, Jim Kelly, and Ron Weber for the coverage.

CBS coverage kicked off 1/27/79 with a series of weekend reports, "The Olympics." Early this year, CBS will add a series titled "The Olympic Trials," covering major qualifying events like the Skiing World Cup Race, ice hockey and figure skating, NCAA, AAU, swimming, and diving. In August 1979, there will be a series of reports from "The Pan American Games" in Puerto Rico.

"Countdown to the Games" will provide extra coverage for six weeks before the 2/13/80 opening of the Lake Placid Winter Olympics, and for six weeks before the 7/19/80 opening of the Moscow (USSR) Summer Olympics. Coverage of the games themselves will be titled "The Olympic Games." CBS plans to sell sponsorship to national advertisers, with their distributors getting an opportunity for local tie-ins. (CBS Radio info from CBS Press Information Services.) -BH.

Whip radio

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THE NEW YORK TIMES, THURSDAY, JANUARY 11, 1979

A Plan for Increasing Radio Stations in U.S. Is Termed Inadequate

Special to The New York Times

WASHINGTON, Jan. 10 — Representative Lionel Van Deerlin, Democrat of California, has called inadequate the proposals by the Federal Communications Commission to increase the number of radio stations in the country.

In a letter to a fellow member of the House that was made public today, Mr. Van Deerlin, who heads a subcommittee on communications, said that the com-

mission had passed up opportunities to increase the number of stations dramatically and had chosen instead to preserve a scarcity of stations.

However, in an earlier letter, Mr. Van Deerlin, who earlier had urged to revise the basic communications law, praised a proposal by the Carter Administration, which was disclosed in The New York Times today, to create more radio stations by reducing the spacing between frequencies.

The commission is examining the possibility of eliminating clear channel stations, which can be heard over long distances at night, and substituting about 125 local stations.

The commission said that the availability of new stations would help the Government implement its program to increase

ownership of broadcasting outlets by members of minority groups.

In a letter to Representative Paul Findley, Republican of Illinois, who has been active in his support of wider operating authority for about 2,000 radio stations who must confine their broadcasting to daytime hours, Mr. Van Deerlin said: "The proposal for 125 new fulltime stations does not begin to meet the pressing need to find outlets for minority broadcasters and to find fulltime frequencies for those now relegated to broadcasting during the daytime hours."

A spokesman for the Federal Communications Commission said that the proposal to increase the number of stations by reducing the protection to clear channel stations was not meant to benefit daytime broadcasters but instead to

make stations available to new owners.

In another criticism of recent commission proposals to create stations, Mr. Van Deerlin said that the commission plan to obtain additional AM radio spectrum would not immediately result in more stations, he said in his letter. "It will be many years before radio stations can effectively use the high end of the AM band above 1600 KHz to serve our population, and there is today an urgent and compelling need for local nighttime radio service for millions of Americans."

Mr. Van Deerlin said that a much more effective way to increase the number of stations quickly would be to create more low-powered radio stations in the 230 to 1,000-watt classification, a step that he said the commission has ignored.

The DX Nite Owls

THE Editor of RADIO WORLD will be pleased to receive sketches of listening areas, or "DX Nite Owl" records, in records with a view to publishing them. Send back-ups of your sets, provided they contain something unusual. Send also the names of the various makes of apparatus you are using.

Make your letters brief and informative. Write to one address, the principal publication in the principal country published in the principal month of RADIO WORLD.

Fine Stuff! Send 'Em in Men, Send 'Em in!

From Maxwell Davidson, Jr., Lawrence, L. I.

BEING a consistent reader of Radio World and looking it weekly, I have noticed the column devoted to the DXers. I have not noticed many articles in this column, but I have had my Grede C199 (four months) and if it is not impossible, I would like particularly to see my list published. I find a 43-plate variable condenser in series with my ground and selectivity. WOP, WBS, WBOB, WYAY, WYF, WOO, WPI, WPKA, WEAR, WHAS, WSH, WHN, WGI, WGL, WGM, WGV, WWC, KYW, WHZ, WHZ, WHK, FWX, WVI, WBR, WDAF, WPI, WMAF, WOF, WPA, NAH, CFCA, WLV, KSO, WBA, WVA, (Texas), WLV, WCA, WCO, WCOM, WDAI, WLAC, WTV, WOH, WHAM, WCAP, WUP, WJAX, WEAQ, WMAK, WZAR, WYX, WMAQ, WQAD, WMC, WQAN, WQAN, WQAL (Florida), WQAD, CFCA, CHYC, CKAC, WAAP (Kansas), 2AYZ, 2BHM, 2EL, 2PB, 2CLO, 2RQJ, 2BY, 2AZ, 2ZL, 2BDF, 2BWJ, 2AGY, 2OE, 2AFM, 2BUA, 2ABA, 2ACB, 2ZTD, 2BKA, 2RL, 2BEF, 2ABD, 2AWL, 2CFW.

Grand total, 93. Can prove all with data and date. Would like to communicate with any Grede 9 owner.

"Out Where the West Is"

From Pat Ewing, Hardin, Montana.

I AM a subscriber to Radio World and I enjoy the DX Nite Owls very much. Here are some of the stations I get on the West Coast of the United States and Canada. We all get 1,500 miles or better out here (where the West is) every night. Any one that does not have a loud-speaker might try this one: Put phones in coffee cups and note the results. I have a house full of music every night with detector in front of 200-ohm, head set and tone caps. 175 ft.

Gotta Show Us Y'know!

From H. R. Graf, Jackson, Mich.

AS a reader of the Radio World and especially interested in the "DX Nite Owls" records, I am sending my record of 24 stations in one evening from 7:00 to 9:00 o'clock P. M.

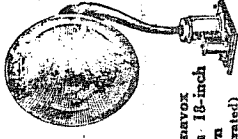
They are as follows: St. Louis, KSD; Chicago, WGN; Pittsburgh, KDKA; Kansas City, WHB; Newark, WJZ; Memphis, WMC; Davenport, WOC; Louisville, WHAS; Fairbairn, WIAT; Birmingham, WSY; Detroit, WCC; Fort Worth,

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WBAP: Pittsburgh, WCAE; Winnipeg, Ont., CJGG; Collier Park, WDAJ; New York, WJAB; Minneapolis, WLAG; Los Angeles, WJAK; Chicago, WJOP; Boston, WJAC; Miami, WJAX; New Orleans, WJAB; WSB. In all have heard 25 stations. The earliest is Honolulu, Hawaii, KDXX, about 4,800 miles. I am using a tickler circuit and one-stage of audio-frequency, which I constructed.

Auburn Come in QSA

From One Lyman, 803 Main St., Auburn, Ind.

I READ in a recent issue of Radio World an article relative to the day takes on the radio. I am using the above circuit and receive for Los Angeles, Cal., station, KHJ; Winnipeg, Canada, CIG; Dallas, Texas, WFAX; Fort Worth, Texas, WBAP; Newark, N. J., WOR; Atlanta, Ga., WGM; Havana, Cuba, FWX; as well as several intermediate stations. I am using a transformer constructed from the book in which I used for the above named stations. Mr. Fitzsimmons lives in Auburn, Ind. My aerial is 18 feet high and 50 feet long.

California Registers WOW!!

From Earl Kaufman, Clark, Calif.

I NOTE with amusement the challenges of Mr. Lindstrom, of Baraboo, Wis., regarding his hearing voice and music from all over the United States. Why shouldn't he? He is in an ideal location, and time is in his favor. If Mike Pedroni (old time in the U.S.) didn't get going, he would have results from his ideal location. I advise him to discard his expensive set and make himself a good one.

Time is against us for receiving eastern stations. However, we hear WLV, WGM, WYLL, KSN, WDAF, WOV, WQAJ, WYLL, KSN, WDAF, WOV, WQAJ, and Pacific Time. This on one-step audio frequency. Also want it understood, there is nothing to patent about this set, but it has a vernier condenser, without which no one can expect to tune in anything and know what he is going to tune in. Use a good quality variable condenser in a better style, tested and accurate. The better head phones are used, and can substantiate every station named by reliable witnesses.

One WD-11 Without Amplification

From O. E. Shebough, 253 Shriver Ave., Danbury, Conn.

I HAVE been sending the records of the "DX Nite Owls" for the night of March 9. All stations were received on a single-circuit regenerative set, built by myself using one WD-11 tube without amplification. WLAG, Minneapolis, 50 miles; WOC, Davenport, 250 miles; WJAX, New Orleans, La., 260 miles; WBA, WJOP, Chicago, Ill., 270 miles; WJAK, New York, N. Y., 270 miles; WJAB, Miami, Fla., 270 miles; WJAB, Dallas, Texas, 695 miles; WDAI, College Park, Ga., 355 miles; WSD and WGM, Atlanta, Ga., 345 miles; Jefferson City, Mo., 345 miles; WSY, Birmingham, Ala., 460 miles; WDAF, Kansas City, Mo., 495 miles; WJAX, New Orleans, La., 495 miles; KYW, Chicago, Ill., 200 miles; WJAB, Wichita, Kan., 635 miles; WJAX, West Lafayette, Ind., 640 miles; WJAB, Los Angeles, Cal., 1,895 miles; KFDL, Denver, Col., 1,005 miles.

(Continued on page 24)

THE INTERNATIONAL RADIO CLUB OF AMERICA

A non-profit club devoted to listening to distant radio stations on the broadcast band (510 to 1630 kHz). IRCA is a member of ANARC, the Association of North American Radio Clubs.

OFFICERS: President: Bruce Portzer, 6546 19th Ave N.E., Seattle, WA 98115 (206-522-2521). Secretary-Treasurer: Rich Segalas. Board of Directors: Gregg Allinson, Philip Bytheway, Dr. Larry Flegle, Bill Hardy, Rick Heald, Rob Keeney and Father Jack Pejza.

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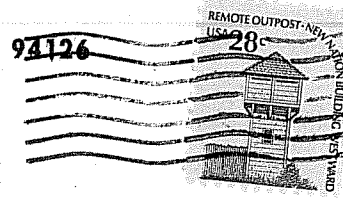
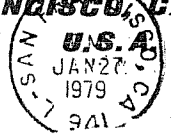
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