



DX News

OLDEST
MEDIUM WAVE
DX CLUB
Established 1933
32 issues per year
\$13.00 1st
\$10.75 2nd
\$14.00 Air

VOLUME 40

FEBRUARY 7, 1973

NUMBER 14

* "Enclosed is a check for another year in the NRC. Tnx *
* for the many hours of enjoyment I get in reading DX *
NEWS; all projects are great." (Ernie Wesolowski) **

THIS WEEK IN DX NEWS...

Beginner's Guide to the Ionosphere (Conclusion) - Fr. Jack Pejza
Advance Orders for New Domestic Log Now Being Accepted!

MORE NEW MEMBERS THIS WEEK!

- *Joseph McKinley, 2733 Andrew Circle, N. Las Vegas, Nevada
- *David Whaley, 129 San Roque Ave., Ventura, Ca. 93003
- *Don Erickson, 6059 Essex St., Riverside, Ca. 92504 (Rejoins)
- *Tom Williamson, MD, 43 Forest Hill Dr., Guelph, Ontario
- *John McDill, PO Box 43, Orwell, Vt. 05760
- *Michael Regnall, 1384 Adelaide SE, Warren, Ohio 44484
- *Russell Kaczorowski, 56 New St., Edison, NJ 08817

Welcome to the NRC, gentlemen; why not drop a note to Musings and introduce yourself to the rest of the Club?

RENEWALS THIS WEEK...

- Woodward... Calkin... Kennedy (S)... Falconer... Davidsaurer... Schmidt...
Wesolowski... Tweedie... Roberts(J)... Romeika... Widner... Pejza...
Purdy... Bundy... Rubin... Phillips... Eddie... Gustafson... Allen...
Mockus... Kadet... Bezilla... Conner... Murphy... VanWormer... Berntonz...
Mahew... Worst... Foutz... Macken... MacGill... Druzak... Hart...
Cesarek... Osborne... Wederbrand... Hoover... Clayton... Brown... Kable...
Wilkinson... Crabill... Lord... White...

PROGRESS REPORT ON DOMESTIC LOG PROJECT...

Bob Bundy informs that his part of the alphabetization for the new Log will be arriving this week; we hope to have all of the corrections and alphabetical "by call" tabulations back within about 10 days. Typing will begin at that time; given a couple weeks for proofreading of the final copy, final composition by the HQ crew, adding the frequency headers, etc., we hope to have the copy to the printer before March 1st. We are still planning on completion about March 15th. The new Edition will be noticeably larger than the last one - in addition to the new alphabetized section, we're going to include more blank space for corrections and additions. The latter was the number one suggestion from the membership about the last Edition. The extra pages plus increased labor and printing costs have necessarily resulted in a price increase; as detailed inside we are however going to give a substantial DISCOUNT for advance orders received here at HQ before March 1st. We will include a page or two of last minute Update material also, making the Log information up-to-date within a few weeks of the time you receive it. What more could anyone ask? *GPN & BGK

SPECIALS

Table with columns: Day, Time, Call Sign, Frequency, Location, Power, Class, Time, Location, Power, Class. Includes stations like WPCF, KOTA, KWHN, etc.

Write-ups for WPCF, KOTA, KWHN, KDEL - see prior issues.

W W W I - 1080 , Center Street, Valparaiso, Indiana, 46383. Mr. D. E. Wiggins, Chief Engineer. They will be testing with marches and IDs.

W K I G - 1580 . Box 98, Glennville, Georgia, 30427, Mr. Donald P. Cobb. This will be a frequency check, with cycle tone and voice IDs.

W D V L - 1270 . Radio Park, Vineland, New Jersey, 08360. Mr. Joseph Fitzgerald, Chief Engineer. This will be a Proof of Performance Test, using NEM equipment.

We have written to WNL-1500, begging for the Feb. 26 silence, but there hasn't been time at this writing for a reply.

HIG NEWS FOR C/W PANS IN N.Y.C. AREA -- WHN-1050 GOES COUNTRY-WESTERN IN FEBRUARY!

Ernest R. Cooper - 438 East 21 Street - Carrier Route 56 - Brooklyn, N.Y. - 11226. Veries are as scarce as good news - there ain't none!

A.M., E.S.T. Info

Table with columns: Call Sign, Location, Power, Class, Time, Location, Power, Class. Includes stations like WNSL, WXAL, WFLA, etc.

1400

(LOCAL CHANNEL)

1400

Table with columns: Call Sign, Location, Power, Class, Time, Location, Power, Class. Includes stations like WPRC, WNSA, WHPB, etc.

A page from the last edition of the NRC Domestic Log. The format and layout for the 1973-1974 Edition will be similar. The new Log will contain calls, class of operation, mailing address, day and night powers, Presunrise powers, network affiliation, and schedule for all stations in the U.S. and Canada.

RICHARD NOEL ALLEN - Billings, Oklahoma - 74630

I was not able to do ~~my~~ DXing during the Christmas holidays, & since then I have found it hard to stay awake long enough to do much listening. However, the following DX has been heard recently: 12/30- XBP-1260, Moncton, in SS w/mx @ 8:12pm. 12/31- KPWB-990, Los Angeles, v/mx u/10MEZ @ 4am. 1/1- KXLO-800 Juarez, w/"Back to the Bible" broadcast, v/CKLW @ 11:05pm. XPROK did not live long, less than a week; proving that "hellfire and brimstone" pays better than rr mx. XELO is AN/rr after 2am EST. UnID-1220, in EE w/program on sports in Canada, fading in o/WGAR @ 11:53pm. UnID-1220, probably OMBY, heard briefly in SS o/WGAR @ midnight. 1/2- CJRL-1220 Kenora, Ont. 1:00am sports, s/off w/O Canada @ 1:08, o/WGAR/MBL. 1/3- CFEM-1470, Winnipeg, w/rr & XESM QRM @ 3:45am. @SIM-1220 Salem, Ind. heard u/WGAR @ 6:10am. KFLX-1200, Oaever, heard briefly w/ID @ 6:20am. 1/6- CHUM-1050 Toronto w/mx sports HI & CJIC-1050 Sault Ste. Marie, v/mx/mx, both heard @ 4am u/XFD. 1/7- WTKX-690 New Orleans, w/talk o/CMPC @ 2:07am. KOOL-960, Phoenix, v/mx & @ID QRM @ 4:18am. 1/8- KPMC-1560 Bakersfield, TX, sports, WX & s/off-SSB @ 3-3:07am, u/KQBA, Dallas, v/IRCA TEST. New QSLs from CIA CBF CBK CBE CBR CFX CFW CFXL CFXM WTSO & XELO (for my XPROK report). Questions: Does CWVI verify? CFX-990, Winnipeg, new s/off @ 4am on Sat. & Sun. AMs, when they have an rr program named "Major Progressions". Totals: 356 stations heard. I concentrate my QSLing to Canadian & Foreign stations, to cut down the expense of postage. To everyone in the NRC, come on and send in a Musing to Ernie. If I can do it, anyone can do it, for Musing is very easy. This column is the only one in DX NEWS that really gives it a club-like atmosphere. Good listening to everybody, & 73s. ~~Thanks~~ for the kind words, Richard! -ERC

DAN MYERS - 2650 104th Street - Toledo, Ohio - 43611 419-726-4348
 Back again, with some more DX. Total of 41 new stations heard this week, so I will list only better catches. DX: MM 1/8- 12:30, CKLW kinda quiet & WTAZ loopable for a change, so I logged WMC (& WAXI) @1:33. CFMB-550 heard w/c/w & mention of Radio Atlantic 12:52am; 5:01 s/on WBPZ-1230 Pa. (w/local WGM silent). 6:05, WBBN-1590 Bryson City, N.C. surprise OVER/THROUGH GARBLE. Texas in well for second evening in row, with log on KMCO-900 @ 6:33pm ID, s/off 6:45. Also KXKZ-940 logged w/rr & SID @ 6:54pm. Tues. 1/9, WNCB-900 Ariz. s/off 6:45, also KXKZ-940. then surprise of WXIX-970 in Christiansted, V.I., w/SID o/mess @ 6:50pm. 1/10- WFTV-1440 Lexington, N.C. noted o/mess @ 5:23 w/ad for furniture store & local MX. 1/11- KNRT-1370 Booneville, Mo. s/off 6:15pm, w/local WSPD slightly nullified. WSPD was way w/WSPD, but I heard splitches of s/off, so I called & had DJ read off announcement to me and that was it. 1/12- Two Ft. Worth stations: WTTX-1240 ID @ 6:21pm & KPOK-970 s/off @ 6:44pm. 1/13- I finally managed to ID WBBN-1270 Ill. u/WXIX, & WQX-1350 Ill. u/WELR both around 1am. 1/14- KCRW-1300 was on top of frequency 1:45am w/c/w; KPWB-1140 Mo. near s/off ID @ 6:01pm w/almost no trace of WQVA (whoopee!) Total so far this month 71, current heard total now 1,096. Two varieties in recently, v/q WPRO & v/l, WDEL, both for new states verified. WONG not heard on Special last week, though frequency sounded kind of strange, like there might be an extra station there not usually there. WBSB heard I&C on their TEST. I haven't had much mysteries lately, partially due, I'm sure, to the fact I have not kept my log up to date. Boy, will I be glad when the new NRC Log comes out, hi. Meanwhile, anyone know who s/off 1440 @ 1:15am EST? I have heard an SSB there twice in the last week, but can't drag an ID out of the mess. Loop is generally ~~low~~. Be sure to come to Boston this year and see the presentation of the Official WFF Christmas Tree to NRC Hq. That's all for this week. 73s and best

Deadlines: Fridays of each week; DX "hotline" phones: 201-838-5721 daily 1800-2200 EST, prepaid only.

- 164 FRANCE. Allouis coming in with local quality 2105 on 1/20. This stn, Morocco 209 and Algeria 251 are the three best LW TAs. (Moore, Mass.)
- 180 W. GERMANY. Europe No. 1 good in FF 2210 1/20. Ranks as 4th best LW TA. (Moore, Mass.)
- 209 MOROCCO/UNID. Azilal had the best signal on the band w/AA chanting 2221 1/20. Later, at 2330, was being killed by another stn causing a powerful 1-2 Hz SAH. Iceland? No audio heard from second station. (Moore, Mass.)
- 251 ALGERIA. Tapaza per recent EBU list. Very strong carrying FF prog 2230 1/20. This is a new LW country. (Moore, Mass.)
- 540 COLOMBIA. HJKA, R. Horizonte, Bogota is AN and vy strong has to be best bet for Colombia. Few IDs. (Cooper, NY)(Welcome!)
- 555 ST. KITTS. ZIZ, Basseterre, now leaving its carrier on AN, RS begins @ 0900, I believe. (Cooper, NY)
- 566 IRELAND. Athlone taped 2226-2349 s/off 1/4. Sked differs from WTHH. Prog. in lang. (Gaelic-ed) until about 2250, then into EE with musical prog that sounds like Irish C&W. EE mx 2345, local wx 2347, anthem 2348. (Moore, Mass.) (pgmg identical to that hrd from UK, summer '72; daily s/off now varies 2345-2350 GMT-ed)
- 570 VENEZUELA. YVLL, R. Rumbos, Caracas s/on is 0855, another Best Bet logging. (Cooper, NY)
- 575 W. GERMANY; Stuttgart SDR1 noted here at 0310 on 1/4 during fairly good German opening. (Dangerfield, Pa.)(Welcome back!-ed)
- 580 PUERTO RICO. WKAQ, San Juan is NSP with mx to 0900, then goes all-NX for at least an hour. (Cooper, NY)
- *615 COLOMBIA. Cali, HJKL, R. Tricolor is the off-freq SS being hrd here, noted 12/25; s/off around 0600 (Cooper, NY)
- 645.001 PARAGUAY. Calling this one "Encarnación", measured 1/12, 0326. (Schatz, Fla.)
- 660.524 unID. measured here 1/12, 0312. (Schatz, Fla.)
- 675 ECUADOR/COSTA RICA: With YND apparently off on 1/8, I was able to separate the two remaining stns on the loop, tho barely, and one had mx and the other, sports. This from 0100 to 0130. Noisy. (Dangerfield, Pa.)
- 705 ST. VINCENT? Strong stn looping SE on 1/22 from 0025-0045 playing SA and Carribbean-type mx, some vocals in SS. No announcements prior to fade. Was a good Caribbean evening. Nobody on 695. (Dangerfield, Pa.)
- 719 PORTUGAL. Norte I in w/fantastic local quality signal so taped them from 2207-2212 1/3 for my tape files. ID as Emissora Nacional. Could even be hrd on my hi-fi tuner, which is mighty broad. (Moore, Mass.)
- 730 COLOMBIA. HJCU, R. Melodia, Bogota. NSP & often in o/CKAC here w/many IDs. (Cooper, NY)
- 740 VENEZUELA. YVNC, R. Maracaibo s/on 0900 give or take a few minutes. (Cooper, NY)

- 764.015 SENEGAL. Dakar measured here 1/12, 0216. (Schatz, Fla.)
- 764 SWITZERLAND/SENEGAL. Sottens in FF and Dakar in lang.(AA?-ed) both perfectly readable at 2155 1/3. (Moore, Mass.)
- 770 COLOMBIA. HJKH, R. Tequendama, Bogota AN MMs & dominates those MMs when WABC is off; with Panama only a whisper under them. (Cooper, NY)
- 800 MEXICO. XEMMM, Tijuana, B.C. s/off 11/4/72 0247 w/local-like signal. (Millar, Wash.)(Welcome!-ed.)
- 800 MEXICO. XEROK, Juarez, Chih., ID 12/7/72 1029; verified w/XELO QSL card, and hrd since w/XELO call; what goes on?(Millar, WN)
- 810 COLOMBIA. HJCY, Bogota, R. Sutatenza s/on shortly thereafter (WKVM-ed), around 0900. (Cooper, NY)
- 810 PUERTO RICO. WKVM, Arecibo, s/on noted MM 0856 w/P.R. anthem. (Cooper, NY)(Thought they were San Juan, Ernie?-ed)
- 820 unID. Who'se hetting HJED/WBAP these days on the high side, het seems less than 1 kHz. to these non-musical ears - is AN SM/MM. (Cooper, NY)(HIAZ reported here, Ernie-ed)
- 830 MEXICO. XEVQ Culiacan, Sinaloa s/off 0200 10/31/72 for new state logged; very Auroral. (Millar, Wash.)
- 830 DOMINICAN REPUBLIC. HIJB, Santo Domingo is AN SMs & battles WCCO very well. (Cooper, NY)
- 840 ST. LUCIA. Castries very good in FF at 0040 on 1/22. RE: item on p.14 of 1/17 IDXD: St. Lucia does have "Back to the Bible" broadcasts in EE. (Dangerfield, Pa.)(Tnx info, Ben! NOTE:PVT.-ed)
- 840 PANAMA. HOL-80, R. Libertad ID 0900 12/18/72; signal hashed up by another stn from 0915, probably St. Lucia, but no ID or loggable material. (Millar, Wash.)
- Now best logged on SM as WHAS has changed its SP from MM to SM. HOL80 dominates here, then Ondas del Caribe, Santa Marta, Colombia. (HJBI-ed)(Cooper, NY)
- 850 COLOMBIA. Bogota, HJKC, Emisora Nuevo Mundo NSP often on top here, if given only a little Aurora, onlt IDs hrd during wee hours are "CARACOL" and announcer comes in after every other record. Almost in the clear here SM 1/21, 0800. (Cooper, NY)
- 850 GUATEMALA. R. Ciro's, Guatemala, new harmonic on 1700; 1/18 0610 SS talk; 0621 Guat ads; 0632 Guat. ad ment. zona-9 several times ("Zonas" are a dead giveaway for Guat. City); reqs and dedications; strong, but didtortion on speech; 0647 ID, 0708 still on; once detected seeming //on 850 w/KOA et.al. (Hauser, TX)
- 854.036 PERU. R. Nacional, Lima OAX4H measured here 1/12, 0245 (RFS)
- 860 DOMINICAN REPUBLIC. HILR, R. Clarin, Santo Domingo noted AN SM/MM and about in the clear. (Cooper, NY)
- 890 COLOMBIA. HJCE, Bogota ID 0155 11/18/72 during WLS f/out ; promptly verified w/fine letter. (Millar, Wash.)
- 909.982 VENEZUELA. YVRQ, Maiquetia measured here 1/12, 0246. (Schatz, FL)
- 914.187 SURINAM. R. Nickerie, Nieuw Nickerie msd. here 1/12 0437 (RFS)
- 935.085 MOROCCO. Agadir msd. here 1/12, 0140. (Schatz, Fla.)
- *990 GUATEMALA. Judging from 2969 reception, a new stn on 990 exists catering to women: 1/18 0350, 0358 "simbolo de mujeres ... para mujeres"; lectures and mx; 0418 ID sounded like R. Sundunga; 0553 amt ment. "mujeres de Turema(?)", 0556 re f/in already in NA, 0557 off. (Hauser, Texas)
- 1000 MEXICO. R. Mil, Mexico, DF XEOY still NSP, but carries some EE songs. (Cooper, NY)
- 1000 BRAZIL. PRB9, R. Record, Sao Paulo still makes it around 0730 some AMs, particularly if there's an Aurora - a tough nut to crack for a verie. (Cooper, NY)(Just tape it, Ernie, hi!-ed)
- 1016 W. GERMANY. Rheinsender, Mainz in w/fine signal at 0040 on 1/4, but didn't last long. (Dangerfield, Pa.)
- 1020 TONGA. A3Z Nuku'alofa w/"R. Australia" ix at 0705, 11/4/72, and intermittently for some time thereafter for new logging under this call change. (Millar, Wash.)
- 1030 unID. Another SS noted u/AN XEQR MM 1/14 around 0830, but R. Centro just too strong to ID him. (Cooper, NY)
- 1040 unID. AN SS here 1/21, too much WHN-1050 slop, probably R. Tropical. (Cooper, NY)(probably-ed)
- 1040 BRAZIL. PRG2, R. Tupi, Sao Paulo in and out at 0640 on 12/24, but far below signal of a few years ago. (Dangerfield, Pa.)
- 1043 MOROCCO. Sebaa-Aioum C quite good at 2320 on 11/3 with no QRM from E. Germany at that time. (Dangerfield, Pa.)
- 1055 COLOMBIA. HJFZ, LV del Centro, El Espinal, AN noted here recently on a MM w/WHN off, not IDed. (Cooper, NY)
- 1106 W. GERMANY. AFN, Munich really up at 0330 on 1/10 w/soul mx. In Italy last summer was a regular evenings. (Dangerfield, Pa.)
- 1110 unID. There's a very weak SS here AN MMs, but I can't get him out of the mirk and mire. (Hello, Mirk! Hi, Myer!)(Cooper, NY) (Hello, yourself!-Sincerely, Mirk and Myer.)
- 1140 MEXICO. Monterrey, XEMR 1/20 1333 plugging "Grupo R. Alegria", not there before 1330, apparent time of day power/antenna commencement. Hrd 2280. (Hauser, Texas)
- 1160 DOMINICAN REPUBLIC. Radiolandia, Santiago HIBG AN SMs, no KSL to bother him SM 1/21. (Cooper, NY)
- 1180 BRAZIL. R. Globo, Rio PRE3 real good on 1/14 from 0655 to after 0700. Many IDs. Veried for me last season. (Dangerfield, Pa.)
- *1187 @AN SMs & in the clear, hrd now four straight SMs in the 0830-0900 period. Fades away shortly after that. (Cooper, NY)
- unID. TT at 0423 on 12/25. Caroline ETT (Dangerfield, Pa.) (Possibly, Ben. ARC "MV-EKO" issue of 1/22 notes Caroline permanently leaving 1517 kHz on 12/29, then s/on 1/2 on 1185, all reported in Sweden.-ed)
- 1200 VENEZUELA. YVOZ, Caracas, R. Tiempo is AN MMs w/mx, easy logging. (Cooper, NY)
- 1205.015 SIERRA LEONE. Freetown measured here 1/14 0135. (Schatz, Fla.)
- @Freetown taped 2310-2331 s/off 1/3. Prog in EE with MoR III. Man gives s/off ann at 2330. ID as Sierra Leone Broadcasting System, frequency as 1.205 MHz. This stn not as easily hrd as it once was - hardly above noise on a good West African nite. (Moore, Mass.)
- 1205 POLAND. Krakow believed to be the OC w/40° - 45° bearing often noted on good TA eves - e/g 0235 on 1/3. Is carrier on 24 hrd? (Moore, Mass.)(Believe so, Ray. Was in summer of '72-ed)
- 1249 MEXICO? SS NW/SE roughly 1/18 0713, probl drift from 1250. (GH)
- 1265 ST. KITTS. R. Paradise, like everybody else, they are a lead-pipe cinch here evenings, as strong as 1260/1270. (Cooper, NY)
- 1329.288 BRAZIL. R. Liberal ZYE25, Belem measured here 1/12, 0345 (RFS)
- 1339.5 MEXICO. XESI, Canal 134, San Luis (Potosi), SLP still hrd on 2679, 1/22 as late as 1416 w/stove ad; also 1/20 1316 TC, sevl local ads, 1327. (Hauser, Texas)
- 1349.020 MAURITANIA. Nouakchott msd here 1/12, 0231. (Schatz, Fla.)
- @Good at 2145 on 1/7. Veried last year. Usually best early AM. (Dangerfield, Pa.)

Father Jack Pejza

II. Radio Waves and the Ionosphere

So far we have seen that the atmosphere contains regions with high concentrations of electrons. We are now interested in seeing what happens to a radio wave as it enters one of these regions. To begin with, in order to simplify the explanation, let's ignore the magnetic field of the earth which, as we shall see, is influential in the way that radio waves are absorbed.

A radio wave has associated with it an electric field. This field exerts a force on charged particles in the ionosphere. Since electrons are much lighter than the positive ions in the ionosphere, they are more strongly influenced by this electric field. In fact, the effect of the electric field on the positive ions can be ignored since it is negligible in comparison with the effect on the light electrons.

The force exerted on the electrons causes them to vibrate along a path which is parallel to the flux lines of the wave, and at right angles to the direction of the wave. The lower the frequency of the wave, the greater will be the size of the vibration of the electrons and also the average velocity of the electrons. Changes in the velocity of the electrons will be 90° out of phase with the electric field of the wave since the moving electrons offer inertia reactance to the forces acting on it. Since the electron is a charge particle, its vibrations produce a charge electric current, which in turn makes the electron act like a small antenna, taking energy from the initial wave and re-radiating it in a different phase. Since there are many electrons vibrating, the wavelets produced by each will be in phase in certain directions and out of phase in others. In general, the wavelets will add up to produce a strong wave in the forward direction; in other directions, the combined waves will produce a weak wave by destructive interference.

Since the phase is advanced by 90° in each of the wavelets produced by an electron, the combined wave from all the electrons occurs a little earlier than the original wave travelling through free space. To put it in another way, the phase velocity of the wave is greater than the group velocity. The result is that the wave appears to have travelled a little faster than the original wave, and will arrive earlier. As the wave travels into a region in which the electron concentration is greater, the re-radiated wave is greater so that in the combined wave the oscillation occurs even earlier than before. (The phase velocity increases.) The phase velocity of the wave depends on the frequency and on the concentration of electrons. The change in velocity is greatest for low frequencies and for high concentrations of electrons.

Refraction

Let us see what happens to a wave which hits the electron layer at an angle. Suppose that the concentration of electrons increases upward. The top of the wave enters this denser region first, and after being re-radiated, travels more rapidly than the bottom of the wave. As the wave continues to advance, the top of the wave continues to get further ahead of the bottom. The effect is that the direction in which the wave is travelling gradually changes: the wave gradually swings around until it is reflected back to earth. (See Figure 6.) Waves that hit the layer at a small angle need only be bent a small amount before returning to earth. For larger angles of incidence, the wave must penetrate further into the layer. In doing so, the number of the vibrating electrons which collide with other gas particles increases, and hence the amount of absorption increases. The electric field of the wave increases in strength when the wave speeds up. The electrons are thus thrown into greater oscillation, with

- 1367 INT'L WATERS. R. Nordzee likely source of TA carrier 1/18, 0614. (Hauser, Texas)
- 1376 FRANCE. Lille likely source of TA carrier 1/18 0656. (GH)
- *1385 MARSHALL ISLANDS. WILE Eniwetok in and out 1/17 from 0908 to s/off at 1000. Surprised at this early a s/off. If verified as 250 watts would be my most distant at that power surpassing FEN, Misawa by hundreds of miles. (Millar, Wash.)(Nicol-ed)
- 1394 ALBANIA/?? 1/18 0613 5 hZ. SAH, not accounted for in EBU list; single steady carrier 0655 presumed Tiran#. (Hauser, Texas)
- 1399.25 MEXICO. IRLA Acaponeta, Bay., on 2798.5, 1327 norteña mx, 1330 Tepic ad. (Hauser, Texas)
- 1402.7 GUINEA. Conakry a big bet against 1403 1/18 0703; 0705 bits of FF on low one. (Hauser, Texas)
- @measured 1402.702 on 1/12, 0240. (Schatz, Fla.)
- 1412 UNID TA, 2310 on 1/17. Canaries or Portugal? (Dangerfield, Pa.)
- @unID noted 2315 on 1/27, bearing Canaries, lang SS. (Taylor, NJ)
- 1435.001 NETHERLANDS ANTILLES. PJA5, R. Kalkboom md here 1/12, 0250-0255
- 1448 ITALY. RAI synchr. net in at 0445, 1/12 (Dangerfield, Pa.)(RPS)
- 1466 FRANCE. Monte Carlo 1/18 0654 TA carrier probably. (Hauser, TX)
- 1479 MEXICO. IERR. 1/18 0247 talk about Monterrey, on 2958. (GH)
- 1500 MEXICO. IERR. R. Tricolor, Mexico DF easy MMs w/WDRK/WTOP off, 0600-0800. (Cooper, NY)
- 1515 NICARAGUA. YWCK, R. Progreso, León, on 3030 1/18 0058 YL ID 0128, "la música está aquí—la Progreso"; 0244 EL (Hauser, TX)
- 1520 COLOMBIA. My wait for KONA to go off; tune 3040 for R. Minato as 1/18 0409 soft mx, 0431 ID, vibraphone IS (Hauser, TX)
- (What's this, Glenn? A Madison Ave promo for Harmonic DE, hill-ed)
- 1538 W. GERMANY. WDR Main presumed 1/18 0425 TA carrier, 0426 mx (GH)
- 1540 COLOMBIA. HJHD, new harmonic on 3080, or slightly below, LV del Petróleo, Barrancabermeja 1/18 0245 SS ball game, 0411 slogan ID chimes, plug BCE, 0412 RA and off. (Hauser, Texas)
- 1550 GUATEMALA? On 3100 1/18 0537 mx briefly, hvy QRM, Cadena Azul de Guatemala? (Hauser, Texas)
- 1554 FRANCE. Nice ORTF 1/18 0425 TA carrier 0612 talk, 0653 song, FF amat., 0701 good w/FF mx; 0720 fading down. (Hauser, Texas)
- 1562 SWITZERLAND. Beromünster presumed 1/18 0652 TA carrier, talk snippets. (Hauser, TX) ("snippets"??-ed. Like that word, hill) @faded in about 0300 on 1/10 and was strong and clear, with announcements in GG and FF until about 0400. Had not hrd before at this time. (Dangerfield, Pa.)(Proposed FS here-ed)
- 1565 COLOMBIA. HJZT R. Sensación, Manizales as of 1/18 no longer hrd on 3130, tho other HJs were in; may mean harmonic is fixed, or sta totally off the air. (Hauser, Texas)(noted 1565 1/26-ed)
- unID. 1/18 0652 TA carrier (Hauser, TX)(prob Portugal-ed)
- W. GERMANY. WDR Langenberg 1/18 0426 TA carrier; 0611 mx, 0611 EL mx, stronger, SRS?;(Yes-ed) 0659 YL w/numbers, prob. wx;(no.netw. list w/frequencies at this time-ed);0700 single tone, 0M ID, nx, 0720 fade. (Hauser, Texas)

Thanks to these reporters:

Ernest R. Cooper, Brooklyn, NY (26)
 Benjamin Dangerfield, Wallingford, Pa. (14)
 Glenn Hauser, Von Ormy, Texas (22) HQ160, 560 LW NW/SE
 Roy H. Millar, Everett, Washington (7)
 Ray Moore, Walpole, Massachusetts (9)
 Ronald F. Schatz, Miami, Florida (10)
 Page Taylor, Butler, NJ (1) SX-130, GPN loop

a greater loss of energy, even though the number of collisions may not increase significantly. Since the electrons oscillate at higher speeds, this means, in terms of the kinetic theory of gases, that their temperature has increased. Experiments have been conducted, or at least planned, to send extremely high energy radio waves into the ionosphere, heating the atoms there to the point that they emit visible light.

Let us see what happens to a radio wave which travels straight up. Using the same line of reasoning as in the preceding paragraph, the wave will be reflected straight back down if its phase velocity becomes infinitely great so that it can swing over quickly enough. This will happen if the frequency of the wave is low enough or if the concentration of electrons is high enough. If the frequency of the wave is too high, or if the concentration of electrons is low, the wave will not reach an infinite phase velocity and thus will not be reflected, but will instead penetrate the electron layer, perhaps to reach another electron layer of greater density. Scientists use this phenomenon to measure the height and electron density of the different layers. Radio waves of different frequencies are sent vertically upward. By noticing which are reflected and from the time lapse, they can tell the height and electron concentration of the layers.

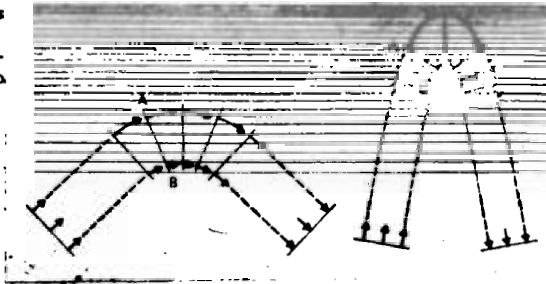
The highest frequency to be reflected from a layer is called the critical frequency. The critical frequencies for the various ionospheric layers are really only of theoretical interest to the medium wave DXer, since all frequencies in the broadcast band are well below the critical frequencies, and then will be reflected back to earth. The shortwave DXer or ham must pay heed to the critical frequency or a lower value known as the maximum usable frequency (MUF); otherwise, higher frequencies will simply continue through the ionosphere into space, perhaps being refracted but not enough to return to earth.

Even though all broadcast band frequencies will be refracted back to earth, this does not mean that a station will be heard via skywave only. A station closer than about 200 km (125 miles) will probably be received via groundwave, since the intensity of the groundwave is much stronger than the skywave at this distance. At about 200-250 km, the intensity of the skywave and groundwave are about equal, and consequently there is often interference between the two waves, weakening the signal. Above 250 km (160 miles) the station will be heard primarily by skywave. Since as we have seen, a wave entering the ionosphere at a small angle is not absorbed as much since it does not have to penetrate as far into the layer, waves refracted from the ionosphere have an optimum angle of refraction, of about 10° . For angles smaller than this, there is too much absorption from the lower atmosphere. Because the earth is curved, the maximum distance away from a transmitter that a signal can be received is about 1200 km from the E layer and about 3000 km from the F layer. Signals can reflect off the ground to once again hit the ionosphere. All long-range DX is of this multi-skip type.

Absorption

Electrons which are vibrating will occasionally collide with gas molecules. As they do, kinetic energy acquired from the radio wave is partially transferred to the gas molecules and partially radiated in the form of a disordered radio wave. This disordered wave adds nothing to the transmission of the original wave. The net result is that the passing radio wave becomes weaker because of

When a wave falls obliquely on an atmosphere containing charged particles whose concentration increases upwards, the top (A) of the wave front travels more rapidly than the bottom (B) so that the wave swings over and is reflected. A wave arriving more steeply must travel higher to find enough charged particles to reflect it.



the loss of energy by absorption. The amount of energy absorbed depends on the number of collisions and on the velocity of the electrons. Most of the absorption of waves takes place at the lower edges of the ionized regions because the atmospheric pressure is greatest there. The possibility of collisions is greatest there because of the larger number of gas molecules. Since low frequency waves cause the electrons to vibrate more than high frequency waves, low frequency waves are absorbed more. That is why medium wave frequencies do not penetrate the D region in daytime. A relatively high gas pressure exists in this region. The large oscillations of the electrons increases the possibility of collision.

Sky waves of considerable intensity are returned from the E layer. Nighttime sky waves frequently penetrate the E layer and are reflected from the F layer, particularly at the high frequency end of the MW band, and at nearly vertical angles of incidence.

Sunrise Absorption

Under ordinary circumstances, a distant station east of a receiver will be received until absorbing layers of electrons build up to block the path of the waves. (See Figure 7.) Point A in the diagram is the control point. The amount of absorption at this point determines whether the signal will reach the receiver or not. The main factor governing absorption here is sunlight. When sunrise occurs at this point in the ionosphere, the concentration of electrons builds up very rapidly, thus decreasing signal strength very quickly. Gordon Nelson has computed for particular paths the time at which such absorption will occur. He calls these times "E20" times since they indicate the time when a drop of 20 db in signal strength occurs because of the absorption of the E layer. The E20 times change from month to month because of the changing angle of the sun. E20 times are not identical with the time of sunrise at either the transmitter or at point B, directly below the control point. However, for most cases, the E20 times fall within a few minutes of sunrise at the transmitter site. This allows us to use the time of sunrise at the transmitter as a good indicator of the latest time that good reception can be expected. It is extremely rare that there is reception via skywaves for more than ninety minutes after transmitter sunrise. Sunrise at the control point usually causes the electron concentration to build to such a point that only a small portion of the strongest skywaves can penetrate.

There should be an analogous E20 time for stations to the west of a receiver, that is, there should be a predictable time at which a western station will fade in. This is less predictable, however, since it takes some time for the already existing electrons to recombine, reducing the amount of absorption to the point where the signal can penetrate. Since the transmitter is still in daylight in such cases, noise levels also will be generally higher. Thus signals travelling eastward should be expected to fade in later than their westward counterparts fade out. More work needs to be done in this particular area.

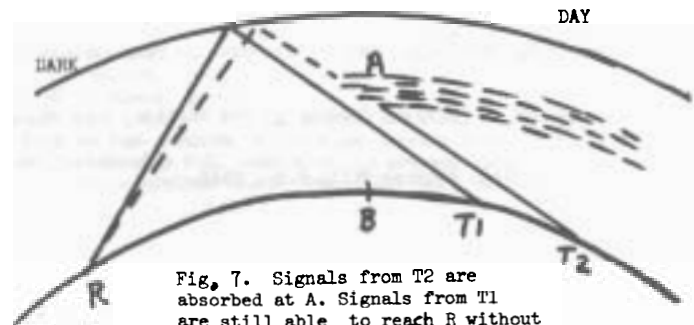


Fig. 7. Signals from T2 are absorbed at A. Signals from T1 are still able to reach R without being absorbed.

The Earth's Magnetic Field

The magnetic field of the earth also influences the moving electrons of the ionosphere. Any charged particle in motion, such as an electron, produces a magnetic field around it. The interaction between the magnetic component of the radio wave and the magnetic field of the electron causes it to vibrate back and forth on a line at right angles to the direction of the wave. Now if a third magnetic field, that of the earth, is added, the electron will then move in an elliptical path. The exact shape of the ellipse depends on the frequency of the wave and the strength of the earth's field. At high frequencies the ellipse will be long and narrow, but as the frequency is lowered, the ellipse becomes closer to a circle. At certain broadcast band frequencies, the path of the electron becomes a spiral. The exact frequency at which this occurs depends on the strength of the earth's magnetic field at that point. The direction in which the electron is travelling is reversed at the same instant that the electrostatic flux of the wave changes polarity. At these frequencies the electron velocity can increase without limit. The electron takes out more energy than it is re-radiated. At these frequencies, called the gyro-frequencies, the wave is thus weakened. The smallest gyro-frequencies occur near the equator, about 680 kHz over Brazil; the largest near the poles, about 1700 kHz near New Zealand. Thus reception from certain directions on certain frequencies becomes almost impossible.

Conclusion

In this brief article I have attempted to present as clearly as possible without a great deal of mathematics a description of the ionosphere and the ways that radio waves are affected by it. By no means has this been a complete or detailed analysis. However, I hope that some understanding of the way in which radio waves are affected by the ionosphere will help the DXer to avoid wasting time and energy in looking for stations which simply could not be heard because of conditions in the ionosphere preventing such reception.

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DOMESTIC
X
IBEST



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Greetings oh ye denizens of DX-land and welcome once again to the DDXD regions. Geoff Fox (of WBT fame) notes reception of WLS, WBZ, WNBC between 1430-45 1/20, commenting on the readability of signals, and whether is day or SSS DX. Despite the fact that such receptions do occur via daytime skywave even at noon, we have traditionally held in several areas of DX News that winter daytime was defined as 1000-1400 LT. Thus Geoff's receptions are a sort of quasi-sunset, hi.

F/J/G

JANUARY: 1st FM: WSLT-1520, WTTM-920, KFVS-960; 4th MM: KLEO-1480; 3rd MM: KWKY-1150, WPJD-1550; 3rd TH: WHII-1570 (Bay Springs, Ms., 0215-30, as this info has been questioned of late); 4th SA: WABD-1370

MORE QUESTIONS ON CANADIAN DATA:

Three more Canadian Forces Stations sport LPRT's, for which we have calls & locations, but no frequencies, viz:

CKBG, CFB Bagotville, Alouette, P. Q.
CHIB, CFS Chibougamau, Chibougamau, P.Q.
CKMA, CFS Mont Apica, Mont Apica, P.Q.

.....HELP????!!!!.....

Changes

+ 560	WQTE-MI	p65	+ 1060	WGTR-MA	p 1.6
+ 730	WMGS-OH	p230	+ 1070	WKMB-NJ	p250
+ 740	KBAD-NM	p250	+ 1140	KFWB-MO	p65
+ 920	WBOX-LA	p500	+ 1150	WHYT-IN	p60
+ 970	WUPY-MI	p500	+ 1220	KPUL-WA	p390
+ 1220	WSME-ME	p500	+ 1220	WSAF-FL	req. WQSR
+ 1230	WSOQ-NY	p500			
+ 1230	CJOK-NWT	Fort McMurray, 40 U1 - on the air			
+ 1280	KRZE-NM	p500			
+ 1370	WGSO-LA	ex-WDSU			
+ 1440	KTPA-AR	p500			
+ 1470	WKHJ-SC	p500 (not yet on air)			
+ 1490	KPUR-TX	delete PSA			
+ 1500	KOLI-CA	p113			
+ 1570	KAPS-WA	p500			
+ 1590	CJFR-AB	Is correct call for Coleman			
	WMJL-KY	p 2.7			
	WNCN-NC	p250			
	KBBQ-CA	ex-KUDU			

In addition to the network of Canadian private stns. included in the recent Plessisville/Asbestos P.Q. confusion, we present here the stations included in Radio Mutuelle Limitee: CJMS-1280, GJRP-1060, CJRC-1150, CJRS-1090, and CJTR-1140.

MORNING & EVENING

590 WPLO-GA Hrd w/ ID 1730 1/15 b4 patt. chg. No Cuban!! (dm)
 690 KGGF-KS Hrd w/rr, spot for local business in Coffeyville 1828 1/18(dm)
 810 WCBC-NC Hrd briefly atop 1655 1/15 but quickly faded into bkgd, so no report possible. Has mx 1655-1700, believe r&b b4 that(ERC)
 WQIZ-SC Noted weak 1723 w/ r&b, seemed still on 1736, then an SS took over. (ERC)
 860 WLBG-SC Hrd wk w/WDMG, CJBC w/ stn promo 1734 1/23 (RJE)
 WOAY-WV Taped w/ s/off atop hets on channel 1730 1/24 (RJE)
 900 WDDT-MS Hrd s/off 1816 after KHOZ off 1815 1/17 (dm)
 920 CJGH-NS Hrd w/ "World Tomorrow" 2225-35+ on sporadic e-skip during heavily auroral cx 1/25. New here. (RJE)
 970 KNEA-AR Hrd w/ mentions of Jonesboro 1807 1/18 (dm) (PT)
 1010 WHLN-TN Hrd 1/14 w/ s/off 1800 topping WINS w/ FM promo follo by SSB
 1090 CHR8-PQ Noted s9 in clr 1445 1/7 in FF, match. (ERC)
 1150 WTYC-SC Hrd 1/23 surprisingly in clr @ 1730 s/off(PT)
 1250 WQDE-GA Hrd w/rr, ID 1721 1/15 (dm)
 WKYZ-TN Hrd in mess 1735 1/17; sat on freq. an hr, got 4 newies(dm)
 WLCK-KY S/off atop freq. 1745 1/17 (dm)
 WRAY-IN Beautiful SID for this up 1746 1/17 just after WLCK s/off(dm)
 WKBL-TN Atop w/rr & ID 1800 1/17 (dm)
 1310 WTIK-NC Hrd 1/23 1646 ID follo WPRJ s/off, strong. (PT)
 1320 KRLW-AR ID 1801 and into local nx 1/15 (dm)
 1350 WIOU-IN Hrd while just passing freq, stopped a second and hrd ID just b4 patt. chg. 1731 1/21 (dm)
 1360 CKBC-NB Hrd 1/4 w/ Parliamentary nx 1710 o/unID, unlisted PFC (PT)
 1370 WKIK-MD Noted atop briefly 1/15 1557, soon gave way to WJWB. (ERC)
 WJWB-VA Atop here 1605-30 1/15 w/rr (ERC)
 1390 WHPB-SC Hrd s/off 1/23 1731 by IL w/ complete stn details (PT)
 1470 WINH-SC Hrd 1/23 o/u WJWB w/ ID 1725 (PT) (RJE)
 Hrd per tip o/u WJWB w/ contest promo, s/off 1728-30 1/23
 1490 WLDB-NJ Is still on air, hrd 1/7, 14 (ERC) ** Note comments in CHANGES last column - RJE
 1570 WSSA-GA Hrd w/ad for Evans Toyota, I-285, Forest Pk., & TC 1731, 1/23, unnn, as taped twice last Spring. Still a rarity, tho'
 1600 WEUP-AL Hrd ID 1747 fantastic level, then phone #, 1/12 (PT) (RJE)

MIDNIGHT TO MORNING

590 CFNB-NB Radio Atlantic hrd w/ c&w-MoR stuff 0045-0105+ 1/8 o/KTSA (WB)
 560 WMIK-KY Good w/ nx, wx, ID, & Earl Nightengale Bit 0702-07 1/5(WB)
 580 WIEW-KS W/ c&w all AM 1/15 w/WKBN off so no splash (WB:!)
 740 KCMC-AR W/ c&w atop freq all AM 1/22, WKIS now off MMs??(WB)
 940 KSWM-MO Fair-to-good w/ c&w, spots, etc. 0723-29 WESA/WGRP s/ons(WB)
 950 KJRG-KS On w/ ET o/all freq. tracking what sounded like a Johnny Horton LP. ID 0307 1/15, IDed as KJRG-FM (dm) (WB)
 960 WERC-AL On MMs past 0330. NSP??? (Cool it, Gleason,) 1/8-15-22
 980 KMBZ-MO Good 1/8 w/ MoR stuff 0227-0232, then pests back. (WB)
 1000 KKIM-NM In solid on ET 1/15, plenty IDs, logged 0219 (dm) ** Methinks was f/c, no?? -RJE
 WHWB-VT On NRC DX 1/22, but w/ IRCA annets 0030-0058 s/off. Mostly good sigs despite XEOY w/ WCFL nulled. Several IDs, some w/ phone # and address. (TRS)
 1100 WWWE-OH Off 0145 MMs now (WB)
 1110 WSLV-TN On ET 1/15 0131-40+ (WB) ** f/c ?? -RJE
 1140 CJTR-PQ In w/ fine sig in FF MM 1/8 AN (ERC)
 1190 KRDS-AZ All AM 1/15 o/u KLIF, SSers. NSP?? (WB)
 1230 CHLD-PQ AM and often atop MM 1/8, // 1340-80-1400-20 w/ FF MoR (ERC)
 unID-PQ Seems to be a second PFC AM MMs, w/ deep-voiced anncr. (ERC)
 1240 WRNC-NC Finally bagged 1/18 w/rr 0328-0345 o/WIST, WNOV, WDEC, etc. (WB)
 1250 WXOX-MI Hrd 0600 s/on 1/18 while looking for them, WCHO, CHWO (dm)

* 1260 WEZE-MA Not noted 0000-0300 MM 1/22, so maybe SP exists?? (WB)
 WPHB-PA W/ c&w, spots, PSAs etc, 0710-20 1/5, no WLXY-WFBM-WWYN-etc
 1280 WDNT-TN Hrd w/ local nx to 0607, then wx, then Christophers-thought-for-the-day and into furniture store spot. Atop freq. 0630+ 1/21 (dm)
 1290 WHIO-OH Is atop here MMs noted 1/8,15 while trying unsuccessfully for CJBK (ERC)
 WFBG-PA OC ET 1/22 0200-0205+ (WB) ** f/c ?? -RJE
 1300 WFBR-MD Tho' silent SMS, often runs OC as on 1/21 (ERC) (dm)
 WYNG-NC Hrd very clear IDs in weak spot in mess, hi 0600 s/on 1/21
 WAAC-IN Finally hrd w/ SSB when o/WYNG 0602 anncr 1/21 (dm)
 1320 WJAS-PA S/off 0205 1/22 (WB)
 KXYZ-TX MoR AN here gotta be this. Talk & c&w u/it (WB)
 1340 WAIR-NC Unn, hrd on w/ ET & TT, ID 0117 1/15, ment. "testing transmitter apparatus..." (dm)
 1340 CJAN-PQ Is AN MMs w/ aforementioned net and often hits top spot w/ WOOK (ERC)
 1350 unID TT just w/WSLR 0100-0230+, no audible IDs, no DF, rats (WB)
 1380 CFDA-PQ Easy MMs AN, but bkgd QRM de an rr-er which appears only spasmodically, WMEE ?? (ERC) ** Possibly, or, if b4 0300 maybe KWK -RJE
 * 1400 WPAY-OH Nx, spots, wx, 0202-06 1/22, past old 0200 s/off, AN??? (WB)
 unID-PQ UnID: but in CFDA etc. net, peaks every once in a while MMs thru mess (ERC) *** Is CKFL-Lac Megantic, ex-1340, npw here, only other stn in net, per Merriman's CFDA verie - RJE
 1420 CKTL-PQ Calls still unhrd here, is easiest SMS w/WBSM off. Same net again (ERC)
 WKCW-VA ET w/ c&w stuff 0133-0202+ 1/19 (WB)
 unID Hrd w/ ET w/ raucous c&w stuff w/banjo 0130-0200; ID 0159 but I blew it. Maybe WLET in sked r/c, called, but not they, looped n/s. (dm) ** You mention no date, but if 1/19, was the above probably -RJE
 1450 CFJR-ON Is often atop here MMs (ERC)
 1460 WFNX-AL RS w/ c&w, PSAs, promos, etc. 0340-0405+ 1/22 (WB)
 1480 WADR-NY ET w/ c&w stuff 0203-50+ 1/19 (WB)
 KJOE-LA On w/ET o/freq., ID 0259 1/17. Had TT earlier, hrd w/ Lynn Anderson's "Rose Garden" just b4 ID (dm)
 1500 WGMF-NY ET 1/22 0230-40+ when lost 'em (WB)
 1580 KTGR-MO ET w/rr, mucho IDs 0333-43 1/22, when lost 'em (WB)
 1590 KVGB-KS Unn, hrd on ET-TT w/ID 0131 1/17 (dm)

The troops this go-round:

Wes Boyd, (WB) - Youngstown, Ohio, w/ HQ-180 & NRC loop
 Dan Myers, (dm) - Toledo, Ohio, w/ HQ-180A & "crummy 3-foot box loop"
 Ernie Cooper, (ERC) - Brooklyn, N.Y. w/ HQ-180 & NRC loop
 Tom Sundstrom, (TRS) - Willingboro, N.J. w/ HQ-150 & SM-2; DX-150A & LW.
 Page Taylor, (PT) - Butler, N.J. w/ SX-130 & NRC loop
 Geoff Fox, Charlotte, N.C. w/ SX-62A
 & ye ed, (RJE) w/ HQ-150 & NRC loop.

Another aurora week of 1/22... esp. late in week cx extremely noisy here, not much DX as a result of noise and TVI. For a low-sunspot year, the cx stink, hi.

73, RJE



OUT OF THE TIME WARP...

YES FOLKS, CPC'S TIME IS GOING FAST!

That's right, NRCdon. We're over half-way through this year's DX-Test season and, as the CPC Boxscore will show you, we're just a bit behind where we were at this juncture last year. NOWHERE, there's still time to enlist some new members to work for the NRC CPC. I know you're out there somewhere. So, how 'bout it? Just write me for all the gory details. Actually, CPC work isn't as difficult as people who have never done it might think. Of course, you could spend 10 hours a week with CPC work if you wanted to, but even 10 hours a year can yield rewarding results. Like I've said umpteen times before, the CPC doesn't want your life, just as many hours as you can devote to furthering the NRC and providing some good DX catches for yourself and all the other members. So think about it. Your NRC CPC needs YOU RIGHT NOW. Why should a handful of members do all the work for a club with nearly 600 members? To those faithful few we say THANKS, to those of you sitting around with your thumb up your.....ah.....receivers, how about it? We need YOUR help!

NRC	IRCA	NNRC	Other
20	17	16	1

EDITORIAL

WHY is it so damn difficult to recruit CPCers anymore? Is there such a decline in interest in the Hobby? Can it be that the general lack of DX News support this season is, at least, in part due to the decline in the number of quality DX tests? Without the usual quantity of DX Tests, are less and less people given the incentive to DX as frequently as they used to? I get as tired of using up the CPC page with pleas for volunteers as you probably are reading it all the time. Maybe it all boils down to the real question of "just where is the Hobby heading?" The only people who can make that decision are you...and you...and YOU! Think about it. Do you care? You can show you do by supporting the CPC, Ernie's very essential Musings section, DDXD, IDXD and the other sections that make the NRC and DX News the leaders in medium wave DX. It's up to you. 73's and Good DX

Jerry Starr c/o WHOT Radio Youngstown, Ohio 44505

JERRY STARR - WHOT Radio - Youngstown, Ohio - 44505

Greetings. After seeing the rather anemic Musings sections of late, I thought I'd better get back in the pages of DX NEWS although there really hasn't been too much to muse about from this end for a while. The past months have featured such goodies as the entire Beverage system cooking down in a November wind storm, the power supply going ka-poot in the HQ-180 and the motor seizing up in the tape recorder. Aside from that, a busy work shed and crusty CX, things have been fine, hi! The equipment is all perking again although the Beverage system won't be repaired till a break in the WX so everything is back on the loop. Oh yeh, the CEF in THE SAH scope burned out, too. A good year, huh? Recent DX: 1/7 - KIL-555 St. Kitts at surprising level 7:05-7:40pm w/discussion program until 7:15 then into instrumental mx program without announcements except for 7:31 ID. KIKY-660 killing WNEC 6:18-6:45 a/pff w/canned religious programs. I got good tape. 1/8 - Unlisted f/c-IF from WMOB-840 noted 1:39, ending @ 1:45. WMSG-650-TEST noted on early @ 1:06 w/TT & IDs requesting reports with authenticator line. No sign of WMSG-590, were they on? 1/12- KIKY all over 660 again @ 6:30pm. 1/15- I left myself two notes to remind me of the WREX-1470-TEST but slept right through it. I understand they were on & IAC here. I guess I'll have to try for their r/o. Strong TT/OC all AM ch 1/8 on 1310 I hoped might be the new WPNJ which is due to begin testing any day now, but no IDs. (Russ tells me they were HTing 1/9-10-11 - EBC) Recent veries: v/1- KMKX-1460 for 1/3/72 tape, WRT-1480 KIMA-1590 WSPF-1230 (says they have been AM since early '72, mostly c/w) WJSE-1400 WMSG-860. v/q- WHT-1340 WATT-1510 WIND-560 KIMO-1000 WCLB-740. More, a v/1 from KTOH-1580 for 12/6/71 report, so f/up, WMSG-1130 & WLLJ-1580 for 9/21/71 report w/cas f/up. 73 and good DX, & everybody M U S E. (Welcome back, Jerry & thanks! -EBC)

LAURENT GAGNON - 994 Fourth Avenue - Quebec 3, Quebec

On 820. WBSU, O. @ 5pm, WAT Ill. @ 6, & EJWF, LW del Rio Causa, Cali, @ 1-pm & again @ 2am. WVEE-830, Cap Haitien, @ 7pm w/RE lesson w/WOOD barely audible at that time. An EE w/British accent was heard on 834 w/KI @ 10pm & IDed as R. Bellise. This station was heard many evenings thereafter. R. Caribes-840, Ste. Lucie, @ 7pm in FF & another evening on the same frequency it was R. Libertad, Panama, around 10pm. KDA-890 @ 2am during WHEH's SM SP & w/CKVL Verdon called out. HILR-860 R. Clarin, Santo Domingo, heard many nights IAC after CJBC s/off @ 1:10am. HJCE-890 IDed as LW de Bogota, heard @ 9pm & another evening @ 10 it was HJFU, R. Continental, Santo Domingo. KEM-900 @ 11pm during a fading to CJWF Rimouski. FJA6-925, clearly IDed in EE as R. Victoria, Aruba, NWI. KEM-940, after CIM s/off @ 1:30am. CSM-990 Winnipeg, @ 1am after CHY s/pff. On 1000, during MM SP of WCFR, R. Mil Maraga, was heard @ 1:30am. TVRS-1030, IDed as R. Margarita La Ascension, heard @ 8pm. WVEE-1036, Cap Haitien, around 7:30pm many evenings. This was a surprise to me as the power is only 2.5kw. KYN-1060 Pa. @ 1am Tuesday AM during a SP of CJWF Quebec. KING-1090, Seattle, WA @ 2. ZIK-1100, Greenville Radio, St. John, Antigua, @ 7pm. On 1160, w/WEL called out, a Dominican Republic station was heard many times saying Radiolandia, but I haven't the C/L. (11 -EBC) WLLB-1190, NYC, @ 3pm & on same frequency, R. Barima, Venezuela, @ 3am. TVOE-1200 R. Tisapa, Caracas, @ 2:30am. KEB-1220 Mexico @ 1:30am after CEM s/off, & s/off of WGAN/CKCW. WNDV or WPMW-1330, NYC, many evenings w/different languages. I was hearing a station on 1375 many evenings, but it was not Lille. One night it was IDed as CHEF, St. Pierre at Miquelon, giving EX in FF @ 6pm & saying it was 30.00 St. Pierre time (two hours ahead of EST). WHEX-1380 NYC, heard many evenings in SS. KESH-1500 R. Tricolor, heard MM @ 3am w/WCFP off. CHIN-1540 between 2 & 4 pm in Italian. KXEL-1540 Ia. @ 1:45am during WTR's MM SP & EBSL, Nassau, on same frequency after KXEL's s/off, @ 2. WOLJ-1590 Jackson, Miss. 10pm w/CBS called out. KEM-1570 Ciudad Acuna, @ 2am during a fading of CKIM. These two stations cannot be separated by my loop.

ROY H. MELLAR - Box 508 - Everett, Washington - 98201

Week #2 in '73 netted one new logging, on 1/10, in KMSB-1380 Okla. s/on 6am (Okla. #28, & #28 logging on 1380!) Big week in veries: three most welcome ones in WPMW-1380 (#18 thereon) HJCE-890 & KEM-1400 (#59 thereon, a most welcome addition to graveyard veries and Montana #47 out of 49 logged. Missing #3 in '73 posted 1/15 - 73: (Sec'd Fri. 1/12 -EBC)

KEN CHYSCHUK - 12934 Page Ct. #2 - Blue Island, Illinois - 60406

Greetings from the South Side of Chicago. My wife & I went to the Chicago Public Library downtown 1/13, & I was fortunate enough to run into a copy of the '81 Broadcasting Yearbook. I must say I was impressed with it. I copied down the dates all 130 Illinois stations went on the air, #1 being WDE-1050 Decatur, an excellent "good ex" station, 142 miles from here. I plan on returning downtown again soon to dig into this fine BK publication. Not bad for \$13.50. I've been giving my ears somewhat of a vacation lately on the regional sloop. Mornings in the recent zero spell WCCO-830 came in well after 7am w/interesting WX info. MM 1/8- WXL-870 in good around 7:15 w/WX of the snipers, then a few days later about the same time BK about a rare sn wfall. Coming home from work 1/10-11 after 6, I caught KMKH-1130 w/good MoR till 6:30, then the DJ interjected "And now 50,000 watt KMKH changes broadcast pattern. Good-bye, Gordon, Ia." 1/11 it was --- City. 1/12 it was Rply. I can only remember WPCP-940 announcing changing pattern on air. Usually I've only noted they just "disappeared". Same w/1170, KVOO, & on 1130, WLSN. I tried for WJDX-620 TRST, but no chance - WPMJ w/light jazz wiped out everything from 1:30 to 2. Apologies to HQ for forgetting my B.I. (?? -ERC) address correction. It just happens to be the only thing I don't notice about the address page. And it just delays it at the P.O. It's 1/14, my last BK NEWS is dated 12/30/72. I miss your old typewriter, ERC. I can read the print a bit easier. (Which one do you mean, Ken - you like this one, or the other? -ERC) A few changes: WNUB-1390 w/Aesetwork, BK every 15 minutes. I will s/off for now. Best of health to your typewriter, hi. C U sums!

RICHARD HOEL ALLEN - Billings, Oklahoma - 74630

Another week of good BK, despite the poor CX. I ordered an SM-2 from Worcester Electronics in an attempt to improve my reception. My 2' antenna has not been totally successful, due primarily to my faulty carpentry work. Since reading the articles on the limits of midday MW BK reception, I have been fascinated with the idea of daytime BK. So, on 1/13, I attempted some long-distance midday BKing, with fantastic results, as follows: WMAQ-570 Jackson, w/weak signal & rhythmic fading w/WFAA @ 11am, approximately 440 miles. WQAI-1200, San Antonio, w/extremely weak signal & random fading (long, deep fades) @ 11:25am, about 475 miles. WNAS-840 Louisville, w/poor signal & random fading (short, shallow fades) @ 1:01pm (local noon), approximately 690 miles. WNAQ-670 Chicago, w/poor signal & random fading @ 2:15, about 635 miles. Weak readable signals were not-d briefly on 720 & 760, both w/the Tamaco Metropolitan Opera broadcast, WGN & WJH Detroit is approximately 860 miles from here. WCCO MW & BKX could not be heard. Nighttime BK: 1/13- WDFW-1270, Rock Island, good w/Galesburg-East Moline BK @ 10pm. 1/14- WKIS-740, Orlando, good w/MoR o/unID QM (KENS off) @ 2:02am. KVEP-1300, Austin, w/ex @ 2:52am, KVOB-1300, Colorado Springs, good w/ex @ 3:02am. WHIO-1290, Dayton, good w/ex & unID QM @ 3:05am. TYOE-1200, Caracas, weak w/MoR & frequent "R. Tiespo" IDs, w/WOAI off, @ 3:15am (country #16). KNEP-1150, Albuquerque, poor w/ex & CKOC QM @ 4:07am. 1/15- HJYJ-650, Bogota, w/MoR & QM from WEM w/RT, had "Releasas Monserrate" ID @ 3. HJYJ heard many times before, but this was first time I was able to ID it. CBU-650, Vancouver w/WX, then s/off @ 0 Canada & OAG, w/OAG & KETHA @ 3:02. WWA-1170, Wheeling, c/v ex w/KVOO off @ 4:01am (state #37). No new QSLs. Totals: 369 stations, 16 countries, seven provinces, 37 states. Good listening to everyone out there in ERC land. 73s.

HILL KEITH sends in the list of University of Maryland Basketball broadcasts:

610	W H P L	1050	W M S G	1280	W H V R	1450	W M P T
630	W M A L	1070	W I N A	1350	W O R K	1460	W E M D
930	W F M D	1090	W B A L	1370	W K I K		W P R W
960	W B O C	1230	W C U M	1410	W H A G	1490	W N B T
970	W A M D		W F V A	1430	W N A V		W V E C
1010	W C S T	1240	W C E M	1450	W F T R	1560	W S M D
						1590	W E T T

(play by play announcer: Steve Gilmartin).

YOUR MUSINGS SHOULD INCLUDE YOUR BK DAY BY DAY AS MOST OF OUR MUSERS DO. IT IS EXTREMELY INTERESTING READING, AND YOU KNOW IT, BECAUSE YOU READ IT AND ENJOY IT!

HARRY HELMS - Box 302 - Carrboro, North Carolina - 27510

Greetings, people. Most of my recent holiday BK is in Page's section. I did a great deal of SW BK over the Christmas break, as I find doing MW BK is becoming a bit tiring after about four years of it, virtually non-stop. I couldn't find William Krakov's phone number in the UNC student or faculty directories. Mine is 933-6031 if he's interested in discussing BK. I'm at work from 7-10pm Monday through Thursday and from noon to 5pm Sundays. A new BK is in the works, thanks to my job - either an HQ-180 or one of the Drake 4 or 2-B series. I may consider the SPR-4 since recent information, such as Mr. Wood's Musing in the 12/23 issue, indicates the major problems of the BK are at least correctable. My job plus a six course schedule this semester means virtually no BK the rest of the season, but I should be all set for next year. 73 to all and best of luck in the year ahead.

DAN WINGS - 2650 104 Street - Toledo, Ohio - 43611 419-726-4348

Greetings, BK World! BK continues to be absolutely fabulous here, with 34 newies this week, bringing my total heard up to 1,131. As of 1/21 PM, 105 new ones this month, that being an average of five per day. Hopefully I can keep that pace up & pass 150 this month. Last Friday AM according to the r/c list was asked a check from WCLE-1440 Pa., 12-12:15. I tuned in @ 12 & nothing. Having other things to do in my room at the moment, I left the radio on, still tuned to 1440. At 12:10 I heard a carrier come on, then a TT. It lasted till 12:11am, then TT off & carrier off. No IDs. After the normal scream a DXer emits whenever that happens, I decided to call them the next day. When I got hold of the fellow who ran the test & talked to him Sunday, he said it was indeed they, that they needed only that length of time for measuring the frequency, and was not aware of any need for IDs. After a bit of coaxing (politely, match) & a small explanation of BKing, he said he'd ID next r/c. I'm sure some of you have heard about the "letter" someone in IRCA propounded sending to the FCC (that the rescind their new ID policy of none on the half-hour). Well, how about sending a letter to the FCC, requesting they clarify the rules regarding test transmissions (in particular, the ID rules, hi) so that stations know that IDs are indeed required at the beginning & ending of each transmission? Or maybe we could circulate a petition around the membership to that effect. Anybody see any reason we shouldn't do something like this? I also brought up the story of WCLE to illustrate the fact that patience is required for hearing r/cs. I'm sure I've grumbled just as much as the next guy when a r/c I want to hear doesn't show, but I listened through the whole period & as a result, got it. I wonder how many more stations take only a minute or so to do their r/c? The fellow at WCLE said the check was asked between midnight & 12:15." One might presume this to mean they'd be on for that length of time, but such is not the case. I don't know if anyone is interested, but my list of jobs just went up one: I will now be running camera for taping of City Council meetings that are run on WCTE-30 (Public TV) on tape-delay basis. BK: 1/15- Um WAIR-1340 s/on-ET @ 1:17; 3:07 am, ET on 950 turned out to be KJRG, Kans. UnID-1420 w/c/v 1:30-1:59am, IDed @ 1:59 but I biev it- not WLEP, 'cuz I camed them. Who? 73.

LAURENT GAGNON - 994 Fourth Avenue - Quebec 3, Quebec

WWR-1600 Mass. was heard many times in Italian & one eve @ 11 a Dominican Republic station was dominating this frequency but I was not able to ID. My first TA was R. Senegal one eve @ 6:30 & Agadir @ 6:45pm. Lisbon-II-755 heard s/off @ 7:15 w/WMA. Later, ORTF-1205, Bordeaux was IDed @ 11:40pm giving the time in Bordeaux as six hours, less 12 minutes. ORTF-1554-Nice @ midnight. The German on 1565 was heard @ 12:20am & another evening as early as 10:30. The Europeans seem pretty hard to tune in here, because Quebec City is about 1,000 miles from the Labrador coast & the Atlantic Ocean. On 1/2 there was a very good opening from the S, R. Granada-535, St. George, was heard @ 3pm for 30 minutes with poor modulation. ZIZ-555 at Basse-Terre, St. Kitts @ 9:30pm & my first Costa Rican, R. Omega-625 @ 10pm. An SS was heard @ 10pm the same evening on 615, but not IDed w/any help? (R. Tricolor, Cali, Colombia -ERC) Not able yet to ID any station from Jamaica. A good part of January will be reserved for SWL. 73.

WE THINK IT'S TIME TO CALL TO YOUR ATTENTION - THE LABOR DAY BOSTON CONVENTION!