From the Publisher ... A recent DXN sent to NRC member George W. White, Tulsa, OK, was returned with the notation that he had passed away December 10. Our sincerest condolences to his family.

Wow, a 24-pager! Thanks to all who contributed, especially those of you who sent in loggings and Musings. And thanks to G. Harley DeLureere, Hendricks, WV, who sent in his renewal check for the fiftieth year of membership in the NRC.

Welcome to these new members ...

<table>
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<th>DXN Publishing Schedule, Volume 72</th>
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Promote the NRC and DX News and help us grow!

Planning to attend a DX or hobby gathering? Why not include DX News in your plans? Upon request, we'll send you a packet of up to 50 recent DXN's to be given free to attendees. Just send a postcard to NRC - P.O. Box 5711 - Topeka, KS 66605, or e-mail <plsRCDXER@aol.com>. Packets are sent by Media Mail rate, so please allow 10-15 days for delivery. Help keep the NRC on the grow!

AM Station Location Maps

7th edition - $13.00 to members ($18.95 non-members), ppd. Compiled by Bill Hale, this must-have companion to the AM Radio Log and Nighttime Pattern Book shows the location of all U.S. and Canadian broadcast stations (except TBS/LPRT) as well as latitude/longitude coordinates, plus instructions by Dave Sanduski enabling users to calculate distance and bearing to any station. This book is three-hole punched for a letter-size ring binder. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY residents, please add sales tax.

Allaway, Neshanic, Station, NJ (rejoins and wastes no time in sending in a Musings); Robert Cullen, Houston, TX; Mark Danieli, Raleigh, NC; Dennis J. Ealy, Jefferson, City, MO (rejoins); and William Usher, Wilmington, NC.

DX Time Machine

From the pages of DX News:

50 years ago ... from the January 29, 1955 DXN: Ernie Cooper, Brooklyn, NY logged WIND-1582, the AFRS station at Nouasseur Air Depot, French Morocco, before and after midnight of 1/25. Steve Johnson, Haver de Grace, MD, reported a verie from WIND listing the power as 100 watts.

25 years ago ... from the January 28, 1980 DXN: Mort Meahan, Twentynine Palms, CA recalled verifying KWYO-1370 Sheridan, WY, from NJ, when it was 100w and one of two stations in WY in 1935.

10 years ago ... from the January 30, 1995 DXN: Bill Swiger, Bridgeport, WV, joined the crew of NRC volunteers, helping out with NRC Publications ... DXR, the Association of DX Reporters, based in Baltimore, announced that it would send out its last bulletin in February.
AM Switch

Bill Hale w_r_hale@sbcglobal.net
6124 Roaring Springs Drive
North Richland Hills, TX 76180-5552

Status changes in AM stations, supplied by the FCC and listeners

CALL LETTER CHANGES

<table>
<thead>
<tr>
<th>Old Call</th>
<th>New Call</th>
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<tr>
<td>KHNR</td>
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<td>WSAI</td>
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CPs ON THE AIR

730 WJYM OH Bowling Green - CP for U4 1000/59 is on the air.

GRANTS TO EXISTING FACILITIES

830 KMUL TX Farwell - CP amendment granted for U1 1100/10 from a new transmitter site at N34-29-37 W103-23-38 along with a change in city-of-license (Col.) from Muleshoe, Texas on this frequency (now on 1380 kHz). Station had originally requested U1 5000/9 CH 1400.
1040 WCHR NJ Flemington - CP granted to increase day and night power levels and add CH operation to become U7 15000/2500 CH 7500.
1210 WILY IL Centralia - CP granted to increase their daytime power to be D4 10000/0 CH 1100.
1360 KHNC CO Johnstown - CP granted to add a tower to their current two in order to increase their nighttime power to be U4 10000/1000.
1400 KIGO ID St. Anthony - CP amendment granted for U1 32000/12 from a new transmitter site at N41-40-03 W111-52-07 on 1420 kHz. Station had originally requested U1 5000/16.

APPLICATIONS FROM EXISTING FACILITIES

1350 WKCU MS Corinth - Applies to increase day power and decrease night power to become U1 1000/44.

AMENDMENTS TO CONSTRUCTION PERMITS SUBMITTED

1260 KIMB NE Kimball - Licensed for U1 1000/112, KIMB has a CP for U9 50000/112 from a new transmitter site at N41-15-08 W103-39-49, along with an amendment to that application to change the city-of-license to Ogallala, Nebraska. This second amendment requests U5 50000/110 from two slightly taller towers at another site, again from Ogallala.

AMENDMENTS TO APPLICATIONS SUBMITTED

710 WREM ME Monticello - Licensed for D1 5000/0, WREM applied to move to 780 kHz with U1 5000/60 CH 5000. The application was rejected as it seems that the applicant, Mr. Allan Weiner of Kennebunk, Maine who some of you may remember held a license (still may) for a short wave station in Maine, was cited for some kind of broadcast misconduct. This latest amendment certifies that there has been no recurrence of misconduct on the part of Mr. Weiner.
860 WFMO NC Fairmont - Licensed for U1 1000/12, WFMO has a pending application for U4 50000/750 from four new 286' towers at a new site. This amendment moves the site about 7 miles to the west.
1080 KGYV AZ Green Valley - Licensed for D1 1000/0, KGYV applied to move to Tucson, Arizona with D1 2000/0. This amendment now asks for D1 1700/0 from Tucson.

1120 WXJO GA Gordon - Licensed for D1 10000/0 CH 2500, WXJO had applied for D1 10000/0 from a new 6-tower site, plus a city-of-license change to Smyrna, Georgia. This amendment requests D1 10000/0 from another site, this one with 4 new towers.
1150 KCKY AZ Coolidge - Licensed for U4 5000/1000, KCKY has a pending application to change their city-of-license to Apache Junction, Arizona and lower their nighttime power to become U4 5000/190. This amendment requests U4 5000/185 from Apache Junction.
1230 KLC LA Monroe - Licensed for U1 1000/1000, KLC has a pending application for U1 500/500 with a city-of-license change to Richwood, Louisiana. This amendment requests U1 1000/1000 from Richwood.
1250 WPEL PA Montrose - Licensed for D1 1000/0, WPEL has a pending application for U1 1000/137 CH 1000 on 800 kHz. This amendment lowers the nighttime power by two Watts.
1250 KZDC TX San Antonio - Licensed for U2 1000/1000, KZDC has a pending application for U4 50000/2000 with a city-of-license change to Bandera, Texas. This amendment changes the application to U4 35000/2000.
1270 WXGO IN Madison - Licensed for U4 1000/58, WXGO has a pending application to move the city-of-license to Aurora, Indiana, build six new 194' towers for D3 600/0 operation. This amendment requests D3 330/0 from six similar towers at a different location.
1280 WWPG AL Ravenna - Licensed for U2 500/500, WWPG has a pending application to change the city-of-license to Etowah, Alabama while relocating to a new 3-tower site and increase their power levels to become U2 7000/500. This amendment requests U1 7000/25 from that new site and Col. using only one tower.
1310 WJUS AL Marion - Licensed for U1 5000/34, WJUS has a pending application for U1 1100/17 with a Col. change to Selma, Alabama. This amendment lowers the night power to 16 Watts from Selma.
1400 KHC B TX Galveston - Licensed for U1 1000/1000, KHC applied to move to League City with U4 1000/1000. This amendment alters the directional patterns.
1560 WWSQ IL Sycamore - Licensed for U1 198/18, WWSQ has a pending application for D1 800/0 with a frequency switch to 1180 kHz. This amendment requests D1 900/0 on 1180.

AMENDMENTS TO CPs FOR PENDING FACILITIES

720 WQTH NH Hanover - This new station, not yet on the air, has a CP for U4 50000/500 and an amendment requesting U7 50000/1700 CH 50000 from a new site as well as a city-of-license change to Claremont, New Hampshire. This latest amendment asks for U7 50000/2500 CH 50000 from Claremont. All three proposed patterns shoot due north.
1470 KNFL UT Tremonton - This new station, not yet on the air, had a CP for U4 10000/1000, but was later amended to U2 1000/940. This amendment now requests U2 1000/880.

AMENDMENTS TO APPLICATIONS FOR PENDING FACILITIES

750 NEW MN Duluth - Original application was for U2 1000/1000 and an amendment requesting U7 7000/500 CH 5000. This amendment requests U7 50000/1700 CH 50000 from a new site as well as a city-of-license change to Claremont, New Hampshire. This latest amendment asks for U7 50000/2500 CH 50000 from Claremont. All three proposed patterns shoot due north.
830 NEW FL Tallahassee - Original application was for U4 10000/2500 from a 4-tower site. This amendment requests U4 50000/4000 from six towers at a new site.
890 NEW TX Mabank - Original application was for U4 400/250. This amendment requests U4 600/250. This application is very precarious as Mabank is only 40 miles from the new KTXV in Frankston, Texas.
940 NEW NC Beaver Creek - Original application was for U4 3500/750 from 6 towers. This amendment requests U4 250/250 from 4 towers at a new site.
1060 NEW MT Missoula - Original application was for U2 1000/1000. This amendment requests U4 50000/450.
1080 NEW CA Arroyo Grande - Original application was for U4 10000/1500. This amendment requests U4 1000/500.
1140 NEW TX Shallowater - Original application was for U4 3000/250. This amendment requests U4 5000/300. Shallowater is just northwest of Lubbock.
APPLICATIONS REINSTATED

960 WZRH NC Dallas - Application is to increase daytime power to 2400 Watts.

APPLICATIONS FROM EXISTING FACILITIES DISMISSED

1050 KCAA CA Loma Linda - Application was to increase power to 1800 Watts from a new transmitter site. Station remains D3 1400/0.

1190 WSDE NY Cobleskill - Application to add a CH designation has been dropped from the application which requested CH and night operation. The application for 1000/20 remains in pending status.

1940 KRSN NM Los Alamos - Application was to relocate their transmitter in order to share the tower of KSWV-810 Santa Fe, New Mexico and change city-of-license to Santa Fe.

PETITIONS FOR RECONSIDERATION FOR APPLICATIONS

1380 KRCM TX Beaumont - Station applied to move to Shemandoah, Texas with D1 600/0 as part of the Auction 84 window but the application was rejected. This amendment requests U1 480/65 from a new tower site.

LICENSE RENEWALS GRANTED

720 WGN IL Chicago 1450 WKLA MI Ludington

1220 WLRX HI Waukegan 1540 WSMI IL Litchfield

1420 WJLB WI Plymouth 1570 WFRJ IL Freeport

NORTH OF THE 49TH PARALLEL

- CHUC-1450 Cobourg, Ontario has applied to move from AM to 1079 kHz on the FM band with 1030 Watts of ERP at 203 metres.

HEAR AND THAR

Let's talk Graveyard DX Achievements for a minute. Don't wait 'til you see a GY column to send in updates. So now that the Totals column has hit print, scan your 1230 logs for any updates and send them in. Visit the web page (see below), which has all the details, to see who holds the record and determine if you can best that distance.

- It has been reported that WKCU-1350 Corinth, Mississippi and KBYO-1360 Talulah, Louisiana have gone silent, along with KCLR-1350 Ralls, Texas. But returning to the airwaves is KPZA-1590 Hot Springs, Arkansas with a Spanish format and 1Ding as "Que Pasa".

- Thanks to Shawn Axelrod, Gerry Conkling, Perry Crabill, Wayne Heinen, and Jerry Starr.

GRAVEYARD DX UPDATE

GTY TOTALS

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Remember, all Graveyard records are on-line at: http://www.angelfire.com/bt2/phantom2/index.html

Boston Area Low Power / Unlicensed AM/FM Radio Stations

by Bruce Conti

Here are the results of monitoring and a follow-up Internet search for low power and unlicensed AM/FM broadcasts on the air in the greater Boston area. Note the dominance of radio stations serving the Haitian community. Many of these stations are running full-scale professional commercial operations and maintain an equally impressive presence on the web. (Updated Jan 20, 2005)

- Radio Planet Compa, Randolph - French Caribbean. <www.planetcompa.com>

- R.Log, Dorchester - R&B/urban contemporary.

- unID - Classical music days, French Caribbean zouk nights.

- WRCB R.Concorde, Mattapan - French Caribbean. <www.radiocorronde.com>


- WRMM R.Nouveau Monde, Boston - Off the air? Moving to 1710 kHz? <www.radionouveaumonde.com>


- 1700 R.Bel Aigi, Boston - French Caribbean. <www.belagi.com>

- 1700 unID, Lawrence - Spanish contemporary Chicano music and preaching.

- 1710 Swamped by WRKO and WZB (60) +1030 = 1710 kHz.

- R.Planet Compa, Boston - French news/talk, IDs as "Compa FM." <www.planetcompa.com>

- 91.3 R.Supertars, Everett - French news/talk, IDs as "Radio Quebec" and "La radio d’information." A list of Haitian radio stations in the Boston area can be found online at the Haitian Americans United web site <http://www.hauinc.org/haitian/community/Media/Radio/Radiostations.asp>. A more comprehensive site with links to Haitian radio in Boston is at www.jsanet1.homestead.com/radioboston.html. This list with hyperlinks is available online at jBAMLog! <http://members.aol.com/bacon/i BAMlog.html>.
January is history, but the season is not over yet! Share what you are hearing by sending your loggings to the DDXD-W addresses listed above. Deadlines are Thursday at 1300 ELT for e-mail, Dale Park sends along information on recent switches in Honolulu. See Station News below. Thanks, FM Algoma Ginnie 4404 WTMJ WI Milwaukee. Last summer this station installed IBOC equipment, ran it for about a month, and then turned it off. Now it is back. An item in the 1/13 DX Digest: ‘Traditional Hawaiian All The Time, AM 9-40.’ ID at 2402 ‘KHCM Waipahu, HI Honolulu’s All Traditional Hawaiian Music Station.’ Actually, the KHCM call sign moved to 1170 along with the satellite country format; not using the call sign listed with the FCC. Second time KJPN calls on 940. Format change, previously was a Japanese station. Station was sold by Salem Media to Cox.

Regular DX Loggings (times in ELT)

1/13 0310. KMTL MN Nashwauk-Hibbing” into news. I checked the frequency 12 hours later, and they were every bit as strong despite the NRC Log saying they drop power. (DS-TN) (See also 1510 in Regular DX Loggings section for one possibility Ed: Presumed, Tentative, UnID)


940 KJPN HI Waipahu, Hawaii. Last used on 1460 before it went 1460-1490. (Got 1600 MS Jackson, 1/14 0958. Business news followed by call ID. Extremely weak. First time logged here in 2-1/2 years. (RA-NV))

560 WFIL+ PA Philadelphia. 1/8 0200. Heard one set of Morse code IDs in a mess with WBEI and WIND. NEW. (SA-MB)

550 WSAU WI Wausau. 1/14 0640. Poor. ID “55 WSAU — Sports, Rare” (JJR-WI)

610 KFRC CA San Francisco. 1/14 0144-0146. “Inside the 60’s” with Gary Bryan. Conclusion of “He’s So Fine” by the Shirelles, followed by “Groovy Kind of Love” by the Mind Benders. Fair, with QRM. (Note: I have heard Gary Brian in Los Angeles on KTH Radio.) (RA-NV)

1510 UNID WI are KCUV-CO, WLGN-OH, WWSM-PA; any of the three is possible. (DS-TN) (See also 1510 in Regular DX Loggings section for one possibility Ed:)

5015 DX Tests

presumed, tentative, unid


820 WDAE FL St. Petersburg. 1/17 0628. ID as “The Sports Animal”; news w/Tampa, St. Petersburg, and Tallahassee items (Gov. Bush going to the inauguration); traffic report for Campbell Bennett Park. Poor in mess. (DS-TN)

620 WJDX MS Jackson. 1/18 1810. Newscast ending, mention of Jackson and call ID. Heavy QRM from KMJKJ. (JJR-WI)

460 KMRE UT Manti. 1/3 1800. Utah regional news, weather 60% chance of snow, call ID followed by ABC news. (RA-NV)

810 WSM TN Nashville. 1/13 0310. Heard briefly with ID, “America’s Country Station, WSM.” (RT-MN)

940 KJPN HI Waipahu, 1/13 2342. Automated Hawaiian AC, oldies music, using slogan “All Traditional Hawaiian All The Time, AM 9-40.” ID at 2402 “KHCM Waipahu, Hawaii’s All Traditional Hawaiian Music Station.” Actually, the KHCM call sign moved to 1170 along with the satellite country format; not using the call sign listed with the FCC. Second time KJPN calls on 940. Format change, previously was a Japanese station. Station was sold by Salem Media to Cox.

1/13 1100. In strong with ID at TOH. “Newstalk 650, WNMT Nashwaum-Hibbing” into news. I checked the frequency 12 hours later, and they were every bit as strong despite the NRC Log saying they drop power from 10 kw to 1 kw at night. (RT-MN)

660 WBHR MN Sauk Rapids. 1/14 1200. ESPN programming, ID “All Sports Radio 24/7, WBHR” into The Jim Rome Show. (RT-MN)


95.5 FM AM 870

New format, ex Protestant teaching and praise music. (DP-HI)

2110 WTCI HI Honolulu. 1/13 1700. NASCAR programming, ID “AM 870 WTCI, Hawaii’s Classic Country,” dead air for SIX minutes, then the in-house DJ. Traffic and surf reports at 2239. Apparently the format’s syndicated by Waitt Networks. Also using slogan “Bringing Classic Country to Paradise.”

460 KMRI UT Manti. 1/3 1800. Utah regional news, weather 60% chance of snow, call ID followed by ABC news. (RA-NV)

650 WNMT MN Nashwaum. 1/13 1100. In strong with ID at TOH. “Newstalk 650, WNMT Nashwaum-Hibbing” into news. I checked the frequency 12 hours later, and they were every bit as strong despite the NRC Log saying they drop power from 10 kw to 1 kw at night. (RT-MN)

660 WBHR MN Sauk Rapids. 1/14 1200. ESPN programming, ID “All Sports Radio 24/7, WBHR” into The Jim Rome Show. (RT-MN)

810 WSM TN Nashville. 1/13 0310. Heard briefly with ID, “America’s Country Station, WSM.” (RT-MN)

940 KJPN HI Waipahu, 1/13 2342. Automated Hawaiian AC, oldies music, using slogan “All Traditional Hawaiian All The Time, AM 9-40.” ID at 2402 “KHCM Waipahu, Hawaii’s All Traditional Hawaiian Music Station.” Actually, the KHCM call sign moved to 1170 along with the satellite country format; not using the call sign listed with the FCC. Second time KJPN calls on 940. Format change, previously was a Japanese station. Station was sold by Salem Media to Cox.


560 WFIL+ PA Philadelphia. 1/8 0200. Heard one set of Morse code IDs in a mess with WBEI and WIND. NEW. (SA-MB)

460 KMRE UT Manti. 1/3 1800. Utah regional news, weather 60% chance of snow, call ID followed by ABC news. (RA-NV)
to news. Strong signal, disappeared after 1800. (RT-MN)

WVL WH Cincinnati. 1/18 2230. TC, followed by callsign then into news. Numerous mentions of “Newsradio 700 WLW.” Fair signal, conditions poor with lots of noise. (RT-MN)

WCMO MO Kansas City. 1/19 0640. Local talk show, “376-7710, star KC here on 710, WCMO.” In and out with unidentified station underneath. (RT-MN)

WDSM WI Superior. 1/19 0900. ID at TOH, “You’re listening to 710, WDSM Superior-Duluth” into news. (RT-MN)

KNUS CO Denver. 1/19 2200. ID at TOH, “This is newstalk 710, KNUS Denver” into news—see WGST-ATL. (RT-MN)

WVCC GA Covington. 1/18 1800. Sign-off, no trace of WGN. (JT-MO)

CCKJ HKeflavik. 1/14 0840. Gal with balmy weather forecast (high minus 30, low minus 47); mention of “ck750.com.” Generally fair. (JW-CO)

WJJQ WI Tomahawk. 1/19 0725. Poor. ESPN sports, local ads, calls, weather: -40F wind chill's! Not heard in +3 years. (JJR-WI)

KFLT AZ Tucson. 1/19 1000. Arizona sports news, traffic, weather including snow levels. Reception strong. No KNST 840 splinter present at that moment. (RA-NV)

WEOL OH Elyria. 1/19 2158. Fair with moderate QRM from multiple sources. Cleveland Cavaliers basketball vs. Utah Jazz. Legal ID: “The Cleveland Cavaliers play here. The News Station AM 930 WEOL Elyria Lorain.” NEW! Normally dominated by WAUR off at the time. Thanks to Tom Jasinski for the tip. (RT-MN)

WHYL PA Carlisle. 1/17 0616. Surprisingly good though occasionally fading under KZJM. “AM 960 WHYL,” ad for Chapel Point Retirement Center (294-1363) in Carlisle. (DS-TN)

WNSI AL Albertville. 1/19 2005. AM and FM ID, basketball game. Note this station is supposed to be a daytimer, simulcast with 105.5 FM. Auroral conditions observed, good signals from south. (GT-MO)

CKWX BC Vancouver. 1/3 1012-1014. Ads for Radio Shack and Honda. Station website mentioned (www.news1130.com Ed-WI), weather in Celusium. Splatter from KSFN 1140. Note: first time CKWX monitored at this hour. (RA-NV)

KXTA CA Los Angeles. 1/3 0158. Mention of a show carried on both KXTA and sister station K76X, minimum QRM, no splatter from KSFN 1140. (RA-NV)

KERI CA Greenacres. 1/17 2300. TOH ID as “KERI Greenacres-Wasco-Bakersfield”. Strong signal as noted by others. (WCER)

WQLS AL Ozark. 1/15 0702. Very poor. Legal ID into REL show. No VPHT. NEW! (JW-CO)

WSSP WI Milwaukee. 1/16 0700. Poor signals in partial CHSM null with full ID on the hour. Sounded like a sports talk program after. New calls. NEW. (SA-MB)

WLK TN Newport. 1/3 0705. Poor. CNN news, weather, SID Oldies. (JW-WI)

KATE MN Albert Lea. 1/15 0359. Man with legal ID at 0359:92 “You’re in tune in 1450 Radio KATE Albert Lea, Minnesota. It’s the top of the hour...from ABC.” Did not hear ABC news at 0400, only someone else with CNN covering KATE. Semi-rare here. (JW-CO)

KBBS WY Buffalo. 1/16 0459. Legal ID at 0459:53 “You’re listening to the Good Time Oldies station, 1450 AM KBBS Buffalo,” and into ABC news at 0500. Fair in the jumble. (JW-CO)

KGW WA Spokane. 1/3 0125. Very weak with call ID slogan. (RA-NV)

KCUV CO Littleton. 1/14 0155. Fair to good, rivaling WLAC and overpowering it at times, with Americana music, slogan “AM 1510 the V,” and legal ID “KCUV Littleton-Denver.” Best ever heard here, raising questions as to if it was on 1300 watt night power and pattern (see Patrick Griffin’s logging below). (PG-CO)

KCUV CO Littleton. 1/17 2315. Difficult to tell at this close distance but sounded like day power as reported by others. S+30 on my meter with typical Americana programming. Checked again after sunrise on 1/18 and found the signal at the same level - S+30. (PG-CO)

KKAA SD Aberdeen. 1/18 0924. Last few minutes of a Family Radio program, ID at 0929 “Your South Dakota station for Christ-centered programming and music...
George Pataki's State of the State message, "WIBX news time coming up on new 870, The Voice, WLVP Ridgeville-Cleveland." Sign off at 1732 included Federal News Radio, AM 10-50, WFED, and on the web into "Mona Lisa" by Nat King Cole. Poor reception; new at this location. (GL-NY)

WADV PA Lebanon - 1/17 1643 - this is AM nine-twenty, CJCH", into "Mona Lisa" by Nat King Cole. Poor reception; new at this location. (GL-NY)

WCLB WI Sheboygan - 1/7 0700 - ID "Sheboygan's ESPN Radio 950, WCLB Sheboygan", good, over all. (BDM-ON)
new Jerry Springer talk show. (SC-ON)

1560 WKNJ OH Warren - 1/16 1810 - High-school basketball game began at 1830, and between the Warren Harding Raiders and possibly the Saints. It's the Raiders station - they get the most mentions as in "The Raiders are leading..." or "The Raiders are trailing..." Two players mentioned, Steve Williams and Bruce Allen, are on the team, helping me solve this via Google. (SC-ON)

1580 WDQN IL DuQuoin - 1/14 2113 - Calls clearly heard and possible live sports beneath KCHA-IA Charles City, which was running basketball and local ads. WDQN should be 6 watts and KCHA 10 Watts at night. KCHA is a relog. WDQN is new. (SC-ON)

1590 WPVL WI Platteville - 12/31 2100 - ESPN, dual ID for WGLR-1280 Lancaster and WPVL. (BDM-ON)

WPSN PA Honesdale - 2/1 1012 - Heard weather and community bulletin board and then they proclaimed they were "Wayne County's first radio station." (BDM-ON)

1600 WKEN DE Dover - 1/7 1910 - Good, with dual ID "the leader in gospel music, 1260 sounds more like 1240" WAMS Newark-Bloomington and 1600 WKEN Dover-Milford, a division of East Coast Broadcasting. Last logged as WQVL. (BDM-ON)

Confirmations to NRC DX News "Musing of the Members" editor Dave Schmidt, the new broadcast DX columnist for Popular Communications magazine, premiering in the February edition.

162 FRANCE France Inter, Allouis JAN 15 0405 - Man in French with English and French pop and folk tunes. Good, best in AM mode! [Frodge-MI]

183 GERMANY Europe 1, Felsberg JAN 15 0411 - Man and woman in French with chatty talk - doesn't sound like news, and music bumpers. Poor, best in USB. [Frodge-MI]

189 ICELAND Riksäströar, Gufuskáli JAN 15 0430 - Presumed: pop music. Poor, nothing detectable on 207 to check if parallel. [Frodge-MI]

ENGLAND BBC Radio Four synchrons JAN 17 0521-0524 - Fair; sports report over beacon DIX Dixon, NC. [DeLorenzo-MA]

IRLAND RTE Radio One, Clarksstown JAN 17 0530-0547 - With ID: "On AM and FM, on longwave two five two... this is RTE Radio One. It's five thirty..." followed by old song "I'll be with you at Apple Blossom Time." Local weather at 0533 then Irish folk music and US Country & Western tune. No trace of the usual Algerian at this time. [DeLorenzo-MA]

Pan-American DX

690 ANGUILLA Caribbean Beacon, The Valley JAN 15 2243 - Good; minister (presumably Dr. Gene Scott) parallel to 690 kHz. No trace of CINF in auroral conditions. [DeLorenzo-MA]

760 COLOMBIA HJAJ RCN Barranquilla JAN 12 1015 - Good over WJR with ID following national anthem: "RCN, la radio de Colombia. Radio Suceso de Atlantico." [DeLorenzo-MA]

770 COLOMBIA HJXK RCV Bogotá JAN 8 2253-2256 - Fair; battling WABC and a second Latin American signal; RCN jingle, ID, ads and network promos parallel to 760 kHz. Played the national anthem at 2256. [DeLorenzo-MA]

Transpacific DX

1557 unID - I was in Hawaii between the January 2nd through the 7th and from both Kauai and Oahu I received a strong signal on 1557 kHz with some type of Pacific Rim language. This was in the evening between 10 p.m. and midnight local time. If you have heard of anything let me know. [Tankersley-HI] R.Rossi was once reported at 1555 kHz; haven't seen anything reported off-frequency recently though.

Contributors

Marc DeLorenzo, South Dennis MA; JRC NR-525; noise-reduced vertical, broadband loop and longwire.

Harold Froedge, Michigan Area Radio Enthusiasts DXpedition, Waterloo Recreation Area, near Chelsea MI; RSB; 65-H TTI; 300-ft southwest unterminated. [yu-kon@tm.net]

Fred Tankersley, Glendale AZ, DXing in Hawaii. [tanker@qwst.net]

Radio Angulo

73 and Good DX!
**Formats**

Wayne Heinen  
4131 S. Andres Way  
Aurora, CO 80013-3831

Changes in programming status; reported by listeners

<table>
<thead>
<tr>
<th>Freq</th>
<th>Call</th>
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<th>New Format</th>
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<td>WWNC, Monroe, NC</td>
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**Typical 'Wall Wart'**

In case you aren't familiar with the slang term "wall wart," that refers to the seemingly solid block brick that plugs into the AC mains electrical wall outlet and provides DC power to various consumer devices from cell phones through medium-sized radios to many computer peripherals. Typically, a good consumer-grade wall wart contains a transformer to reduce normal mains voltage to the range needed by the device to be powered. Once the mains AC power is lowered in voltage, it is run through a solid-state "bridge" (four diodes) or "full-wave" (two diodes) rectifier to be converted to DC. This is usually followed by a single filter capacitor. The power is then piped out through twin wires of appropriate size to carry the current at the designed power level. It is my understanding that some very inexpensive wall warts do not contain even rudimentary filter capacitors. Avoid these, if possible.

Being rather desperate for some small power supplies about a year ago, I finally worked up the courage to admit my ignorance about such things to long-time friend Bill Bowers. I asked him to develop some notes for me, so that I could create both adjustable and fixed voltage DC power supplies from my drawer of wall warts. This was about like asking a NASC driver to give you tips on parallel parking, but Bill kindly complied. In the last few months, I've loaned copies of these notes to several hobbyist friends, some of whom are technically astute and others, dummies like me. Both sets of folks have found Bill's notes very useful, so I am encouraged to share them more widely. What follows are Bill's notes, data and circuit diagrams (redrawn by me) along with my running commentary.

**Expiration? Time to renew? Not sure when? Need to call or e-mail someone or join the listser? Check the back page - it's all right there!**

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**A Dummies’ Guide to Working with Wall Warts**

John H. Bryant, with Bill Bowers

I've often been frustrated by my lack of understanding of the simplest electronic device that any of us possess: the ubiquitous "wall wart" plug-in power supply. I must confess that when I have co-authored technical articles in the past, the emphasis is very much on the "co." In such projects, I generally perform as scribe, editor, graphic artist and all-around cheerleader, while relying on my co-author to supply the essential technical expertise and applied creativity. Thus, when faced with a continuing need for small external power supplies of specific voltage or RF cleanliness, I have been at the mercy of the rather insanely high prices charged for such things at Radio Shack or other electronic parts outlets; all the while, I was accumulating a whole drawer full of spare wall warts, orphaned from various long-forgotten consumer and hobby devices.

In case you aren't familiar with the slang term "wall wart," that refers to the seemingly solid block brick that plugs into the AC mains electrical wall outlet and provides DC power to various consumer devices from cell phones through medium-sized radios to many computer peripherals. Typically, a good consumer-grade wall wart contains a transformer to reduce normal mains voltage to the range needed by the device to be powered. Once the mains AC power is lowered in voltage, it is run through a solid-state "bridge" (four diodes) or "full-wave" (two diodes) rectifier to be converted to DC. This is usually followed by a single filter capacitor. The power is then piped out through twin wires of appropriate size to carry the current at the designed power level. It is my understanding that some very inexpensive wall warts do not contain even rudimentary filter capacitors. Avoid these, if possible.

Being rather desperate for some small power supplies about a year ago, I finally worked up the courage to admit my ignorance about such things to long-time friend Bill Bowers. I asked him to develop some notes for me, so that I could create both adjustable and fixed voltage DC power supplies from my drawer of wall warts. This was about like asking a NASC driver to give you tips on parallel parking, but Bill kindly complied. In the last few months, I've loaned copies of these notes to several hobbyist friends, some of whom are technically astute and others, dummies like me. Both sets of folks have found Bill's notes very useful, so I am encouraged to share them more widely. What follows are Bill's notes, data and circuit diagrams (redrawn by me) along with my running commentary.

**Cautions**

At its simplest, there are three possible outcomes to a project like this and two of them are BAD. When energized, there is some 120 volt AC (or more) electricity wandering around in what you are working on... Be careful, or you might fry yourself... or at least knock your heart out of rhythm. I hate it when that happens. BE CAREFUL!

A second bad outcome is the possibility of frying the device that you are hoping to power with your newly modified wall wart. DC current has a positive and a negative leg and it is very easy to get them reversed (reversed polarity.) Often, this will literally fry the device that you hope to power. I take a very direct approach to checking for proper polarity at the end of one of these wall wart projects: I keep very close attention to which meter probe, red or black, that I use on the inner and outer parts of the DC connector and I note which direction the meter pointer swings. I then repeat the same test on my newly modified wall wart. That approach may seem both simple-minded and paranoid, but I've made too many sad mistakes to do otherwise. BE CAREFUL!

The third possible outcome of one of these simple projects is VERY GOOD: you create a voltage-regulated, RF-clean, fixed or adjustable voltage DC power supply for about $5.00 worth of parts and
Discussion

Most wall warts are manufactured to power a single small solid-state electronic device and are usually designed to supply DC power. This article focuses entirely on wall warts that supply DC. If the wall wart happens to be one of those that also provide voltage regulation, the DC voltage measured at the DC tip of the device can be between 15 and 20 VDC, when there is no load on the wall wart. As load is applied to the circuit, the voltage drops proportionally. Thus, if a wall wart is rated at 12 VDC and 500 mA, the voltage will be significantly above 12 VDC when the supply is powering a device that only uses 200 or 300 milliamperes of current. Similarly, the voltage will drop well below the specified 12 volts if more than 500 milliamperes of current is needed by the device to be powered.

Cheap wall warts have a second weakness of concern to us: although they usually have a single filter capacitor inside the case, they are still somewhat dirty devices from an RF point of view and can produce all sorts of buzzing and other artifacts at the frequencies on which we normally DX. Most often, this is caused by “ripple” in the DC current created by the rectifier... Ripple is a less than smooth, steady value for the voltage and or current produced when plotted over time. It may be thought of and measured as vestigial AC current downstream from the rectifier and is often a cause of serious noise in RF-related circuits. Unless you are interested in DXing your new power supply and QSLing yourself, adding filter capacitors to your Wall Wart project is very worthwhile.

So, since we usually want to power an auxiliary device at a steady specified voltage and since we usually need a very clean power supply, what I wanted Bill’s help on was in creating a filtered, regulated power DC supply. We accomplished this by adding a module between the wall wart and its DC output plug that contained a fixed or adjustable voltage regulator1 and a network of filter capacitors.

Voltage Regulators

Bill recommended using two families of small integrated circuit voltage regulators for our more common applications: the 78xx family of fixed voltage regulators and the LM3xx family of adjustable regulators. Both of these families are popular in commercial and hobby applications and are manufactured in great numbers; hence, they are all quite commonly available and very low cost. A grid of reference information for each family which follows:

<table>
<thead>
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<th>Type</th>
<th>I_{max}</th>
<th>V_{in}</th>
<th>Package</th>
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*Voltage IN must exceed voltage OUT by at least 3 volts under design load

Adjustable Regulators

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*Voltage IN must exceed voltage OUT by at least 3 volts under design load

Filtering

Most electronic devices have some kind of filtering, usually accomplished with multiple capacitors, to remove 60 and 120 cycle ripples from the DC electrical current powering them. Most wall warts do contain filtering, but it is usually far less than adequate for our purposes, either because the device that the wall wart was designed to power did not require filtered power or because the majority of the filtering for the original device was done inside the device itself.

In these kinds of circuits, it is good practice to place filters capacitors both before and after the circuits, they are followed by a .001uF cap, as well. If possible, Bill also recommends placing a small (.1u or .1µa) capacitor between the power bus and ground, just inside the box of the device to be powered. This will ground any stray RF that might be picked up by the DC lead running from the regulator circuit to the circuit to be powered.

When I was building the first of my circuits, I found that the only small 50 volt electrolytics in my junk box were 100 µF units, far smaller than the suggested 20µF caps. I talked to Bill and he felt that the 100µF units would likely suffice. They did, in that particular application. However, I now routinely use the suggested 470µF caps for general applications. As I understand it, there is almost no such thing as too much filtering.

For R2, I prefer to use a small screw-adjustable trimmer resistor by Bournes. This particular design is screw-adjustable from the top and, as with all Bournes pots, is very smooth. From Mouser, the part number is 652-5290Y-1-502 and the price in December 2004 was $2.50.

Some hobbyists may feel that the filtering network suggested in both of the above circuits is a bit excessive. For some applications, that is undoubtedly true. However, given the critical nature of some of our circuits and the disastrous affects that 60/120 cycle buzz can have on weak signal DXing, I tend to err on the conservative side. After all, the component costs of this design are literally pennies apiece, so more filtering is generally better.

Selecting an Appropriate Wall Watt

Using wall warts as a basis for power supplies should, for all sorts of reasons including fire safety, be limited to supplying devices that need no more than 100 to 150 milliamperes of current at the specified voltage. If your device requires more current than that, we strongly recommend either buying or building a complete regulated power supply. Thanks to modern components, these are relatively simple devices, with designs, components and complete supplies being readily available.

Within the range of regulated supplies requiring 100 to 150 milliamperes or less, the primary concern in selecting a wall watt is to make sure that it will supply power at least 3 volts DC in excess of the desired final controlled voltage, when the circuit is running at the designed load. This “3 volts in excess” comes from the basic needs of the voltage regulator itself. The most straightforward approach to selecting a wall watt for your project would be to select one with an amperage rating that matches your needs and a voltage rating that is 3 or 4 volts higher. Thus, if you need a 5VDC 100 mA regulated supply, you might select a used “9 VDC” wall watt rated at 100 or 150 mA. If you need a 9 volt regulated supply at 70 mA, you might select a small “12 VDC” wall watt rated at 100 mA.

The selection becomes a bit more complex, if you desire a 12 volt regulated supply. One way to go is, as discussed above, to use a 14.15 or 16 VDC wall watt rated at least as large as your design load in milliamperes. However, these wall warts though less common are readily available from JAMECO.
and other supply houses for from 3 to 8 dollars. The other design strategy for building a small, filtered and regulated 12 VDC supply is to take advantage of the unregulated nature of wall warts. Remember that a wall wart rated at 12 VDC and 300 ma. will actually supply significantly more than 12 VDC at loads smaller than its rated load in milliamperes. So, if you need a regulated 12 VDC at 150 ma., a wall wart that is rated 12 VDC at 300 ma. would likely supply at least the requisite 15 volts to your new regulator at the 150 ma. load level. The only way to be sure is to measure the voltage output under the load you expect to use.

Some published diagrams of wall warts show a fuse in the circuit. None of the units that we cut open had fuses. If your application requires a fuse, you’d better incorporate it in the same box with the regulator and capacitors. It was also noted in all the wall warts that were opened they all did contain a filter capacitor but it varied from 50 to 1000 uf, with most containing a 100 uf capacitor. Unless you plan to cut open your wall wart, then adding the suggested capacitors looks like a good idea.

Heat Dissipation

Like most devices dealing with power, voltage regulation tends to create heat. In our case, the more reduction in voltage accomplished by our regulator and the higher the current, the warmer the regulator gets. At loads around 100 ma. and dropping the voltage only 3 volts, the heat generated is only .3 watts. However, the amount of heat generated builds up rather quickly as one moves to higher currents or deeper voltage drops. Happily, all general electronics houses stock small heat sinks designed specifically to snap on the body of our “TO-220 shaped regulator. Since they only cost between $0.15 and $0.30 USD each, we strongly suggest snapping one of these devices on the regulator, no matter what the projected current draw. Further, knowing that heat generation/dissipation is a concern with power supplies, common sense would dictate normally using a metal box and making sure to provide cross-ventilation by drilling a few holes in the case.

John, being a “hands-on” type, does not put his regulation/filtering modules into a case until after he hooks the entire circuit up to the device needing power and lets it run for a while. If the regulator and its little heat sink get warm, it is relatively easy to use common sense to determine what kind of enclosure and ventilation strategy, if any, is needed. This kind of careful in-use testing of your newly modified wall warts is strongly recommended.

Testing and Use

Bill ran a series of measurements on two wall warts to demonstrate the effects of the new regulation/filtering module. Both sets of measurements used a variable voltage module that I assembled from Bill’s second schematic. That particular module is also the one used in the photo illustrations at the end of this article. Two wall warts were tested. Each wall wart was tested from 0 ma. to its rated current capacity. The output voltage, VDC, and ripple voltage, VAC, were measured with a Fluke-45 Dual Display Voltmeter. The “Regulated” values were obtained using the new filter/regulator circuit.

<table>
<thead>
<tr>
<th>WW#1</th>
<th>Unregulated</th>
<th>Regulated</th>
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<tbody>
<tr>
<td>12 VDC / 300 ma / Bridge rectifier circuit / 2000 uf filter condenser</td>
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<tr>
<td>Unregulated</td>
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<tr>
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<tr>
<td>300</td>
<td>12.6</td>
<td>229</td>
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</table>

In looking at the Unregulated VDC column in both grids, you can see the very unregulated nature of most wall warts, with the maximum voltage (minimum load) on each over 75% above the rated voltage. Comparing the Unregulated Voltage to the Regulated Voltage of each unit certainly illustrates the effectiveness of our voltage regulator. The Unregulated VAC (the “ripple voltage”) columns of each are quite interesting. When comparing the two, you can see the effects of the more efficient bridge rectifier in WW#1 and its much larger than usual single filter capacitor. It is likely, though, that the remaining 200 or so millivolts of AC would induce a 60/120 cycle storm in our more critical uses. The 1260 millivolt ripple in WW#2 is probably more typical (and scary) as you can see, the new filter circuit only allows one-half of one-thousandth of a volt of AC ripple to pass through our circuit. Finest kind!

Recently, I’ve used Bill’s first circuit to make up several fixed voltage supplies for various uses. However, as a normal procedure, I plan to prefabricate generic adjustable units rather than fixed voltage, single-use units. My approach is to order parts for five of the adjustable modules at once and build them all, as a group, on small pieces of 1” x 2” perf board. Then, when I need one, I’ll drop it in the box, attach the wall wart and set the voltage with a digital multimeter. Fifteen minutes work and I’ll ready to roll.

Other Uses

If you have managed to read this far, you have almost certainly realized that these two circuits have uses far beyond harnessing the power of wall warts. For most of my own career as a MW and SWBC DXer, I’ve DXed almost as much from a vehicle (“12 volt DXing”) as I have from a formal radio shack. These circuits are just the thing, of course, to convert the power from one or two deep-cycle batteries to the various lower voltages required by some pieces of peripheral DXing equipment.

<table>
<thead>
<tr>
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<tr>
<td>All Electronics</td>
<td>Jameco</td>
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<td><a href="http://www.jameco.com">www.jameco.com</a></td>
</tr>
</tbody>
</table>

1 It is possible to create a current-regulated power supply, as well. However, since these are only rarely needed in hobby applications, they will be ignored here. Bill and I used a current regulator to drive an opto-resistor for a remote controlled termination (RCT) for an antenna, recently. That regulated power supply will be covered in a forthcoming article related to RCT antennas.
DJ, donations keep station alive
One-man operation a work of love

By Matt Ehlers, The Tuscaloosa News (via Chris Cuomo)

CARROLLTON — (reprinted from The Birmingham News, April 16, 2000) For $5, radio disc jockey Willie Washington will have a conversation with himself about your business and then play it on the air.

It's the kind of commercial you make when you're the only person working at a rural radio station.

When a local grocery store and barbecue restaurant wanted to air an ad on WRAG-AM, Washington acted out both sides of a conversation between two men. One was trying to convince a toothless friend to try the barbecue.

"Man I ain't got no teeth. I ain't got nothin' but gums, and I can't chew no meat," said the first man.

But at Sipsy Grocery and Package Store, the meat just falls off the bone, his friend replied.

"Look, brother," the friend said. "To dine at WRAG was closed for several months before Aliceville, the station has over the years, played a variety of formats, including southern gospel and country.

With the $5 donation, the station sent a form letter in 37 days.

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Willie Washington talks on the telephone at his catfish restaurant in Aliceville. The restaurant helps keep his gospel radio station, WRAG, on the air.

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him about $750 a month for power. There are no donations, but as portions of his disability checks. But the main funding comes from the Aliceville Religious Center catfish restaurant. Washington and his wife, Bernice, opened the center about nine years ago when they were first married.

One-half of the building contains a sanctuary that is available for use by area church groups. The other half features a restaurant where customers can purchase a catfish sandwich for $4.52 and a side of okra for an additional $0.58.

Bernice said the catfish allows her husband to keep his dream job alive.

“I believe if he wasn’t there he’d be seriously sick or something,” she said. “He just loves being here.”

Washington has never worked anywhere but WRAG.

“If you took it from him, he’d just as well pass away,” said friend and longtime listener Mary Cousette.

People in the area depend on him for community news updates, she said. Washington regularly plugs church socials and announces weddings and engagements, as well as funerals.

On a good day, Washington said, the signal stretches from Bessemer to Philadelphia, Miss.

Washington was a little harder-pressed to explain his relationship with the station.

“I’ve questioned myself about that a lot of times,” he said. “Maybe the Lord’s got me here for a reason.”

## Musings

**of the Members**

Thoughts from NRC members... the opinions expressed in this column are those of the individual writer and do not necessarily reflect those of the editors, publishers, or the National Radio Club, Inc.

Here is the NRC column which is as much fun as an “I Like Ike” bumper sticker! When sending your items along, please keep them radio- and DX-related; what you’re hearing is also appreciated! So here we go:

Richard Evans - 7416 Heathstone Way - Indianapoloth, IN 46227-7923 <REVans4535oal.com>

I would have been willing to bet my job that ROGER WINSOR had been a member of NRC past 1971. When I lived up in Gary, we used to get together, either in person or on the phone, on Monday mornings and DX for a few hours. We had some great sessions and heard some stuff I can only dream of these days. Last time I report on here was in the summer of 1988. Time flies so quickly. Since then, I moved to South Carolina in 1996, then to Indy in 1999. Where is the next stop? I’ve been out of work, except for a parttime job since the end of last Feb. In mid-April, I really started to do some serious listening here and kicked my heard total from 171 up to 520 as of 1/18. I don’t think that is too shabby for these days. I’ve been hearing stuff that he had never heard before in about 45 years of DXing from 8 different locations. Back in 1992, I started a log at my mother-in-law’s house near Dothan, Ala. and that is up to 238 heard. We are there for about 5 days a year, but the last trip down was in 2002. My best location was in Gary, not far from where Roger is, from 1966 to 1974 (followed by four years in Michigan, just at the point where Ind., Mich and Lake Michigan come together—I kept the same log going for those years) where I heard 1337 stations in 49 states (just not my 40-year-old vernier capacitor has survived to see service again."

Ah, those were the days. ALOGRUZOWICH, I lost your e-mail address last year when my computer crashed. 73. (Great to hear from you Rick, check in with us often—DWS)

Dave Aillaway - Neshanic Station, NJ <cn2xb@arrl.net>

I may appear to be a new member, but I just rejoined this month after a considerable lapse. I sent the last of my frequent monthly reports to ERC, so it’s been a couple of cycles and then some! My most avid MWDX period was 1968-74. Other interests and obligations intervened, but my fondness for the NRC was never forgotten. Much has changed since then, more local interference, less local programming, few AM sign-offs; but much more remains the same. Testing a new (to me) radio last month, I was surprised by the number of NRC stations heard on AM MW carriers, and of 12-26 members, I was the only MWDX (Zadar with a modified audio /7285. That’s when I decided to get back in touch with the NRC before another sunspot minimum passed by me. Since then I’ve mostly been working on building my domestic log from scratch. Recent days, especially 1/15, have also yielded some auroral conditions favoring the Caribbean. At the moment I can only dream of DXing from that one, but I am planning to do it on now) and the public wants to hear what’s available on XM and Sirius Satellite Radio (a lot of the dinks I have gone into have just come on now) and the public wants digital radio; that’s how it’s going to happen, sad to say. Don’t forget the column, it’s YOUR column, and your reports are appreciated! 73.

Dave Schmidt - P. O. Box 3111 - Scranton, PA 18505

Tests with WB3XNN pretty much concluded Monday 1/17; results of the measurements have now gone to our consulting engineer for conductivity studies. It was interesting to note the skywave conditions at about 40 miles away, especially worse on the colder days. We received a great report from KERVIT GEFARY who has another experimental station testing at the same time. Yes, that was my voice on the ID. BILL ALISAUSKAS also sent us a tape with the ID’s recorded at various spots in the area of the station. And our sports guy BOB GALERSTEIN reported picking up 1620 in Morris County, NJ. Custom-produced verifications will be going out by the time this is printed. Locally, WCDL-1440 returned a moon on 1/3 with a “Classic Country” format, with them I had a very good chance to hear the demise of WSAL-1530, dropping the oldies for talk. It’s really thrilling to think that, down the road, we’ll be able to listen to talk in digital audio! I’ve heard what’s available on XM and Sirius Satellite Radio (a lot of the dinks I have gone into have just come on now) and the public wants digital radio; that’s how it’s going to happen, sad to say. Don’t forget the column, it’s YOUR column, and your reports are appreciated! 73.