

DX News

• Serving DX'ers since 1933 •

Volume 66, No. 27 - June 14, 1999 (ISSN 0737-1659)



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From the Publisher ... We have a nice variety of columns and articles for your information and reading pleasure, including the return of Mark Connelly to these pages with a construction article for a broadband loop antenna, not to mention the annual NRC catalog, courtesy of Wayne Heinen.

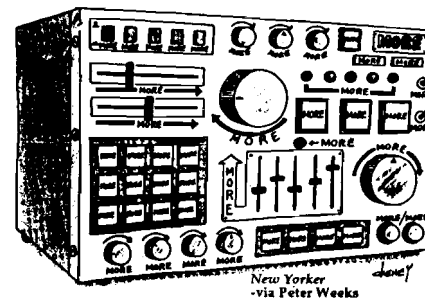
Just as a reminder, not a warning, if you're a former NRC member, you no longer have direct access to being able to publish information in DXN. We've recently had several former members drop out and then continue to send in loggings, listings, or DXChange requests. I can only surmise that either they have no clue that their subscription ran out or that they have access to someone else's DXN and are too cheap to come up with \$22 for another year. Privileges of membership go to the members, folks.

Don't forget that several clubs' conventions are coming up soon, including the NRC's in West Virginia - and now would be a good time to make

travel plans and reservations. The last two issues (#25 and #26) included complete details about a number of gatherings.

And - there's plenty of DX out there, in spite of the summer static. Keep scanning the dial for highway construction TIS's - two have popped up around Topeka, on 800 and 970 kHz, broadcasting 24 hours, according to NRC'er Kurt Neunzig.

Welcome to these new members ... Dale Hull, Hulbert, OK; T. Hoskins, Reno, NV; Marc Kulbacki, Windsor, Ontario; Eric Cooper KB6VPI, Mission Viejo, CA (rejoins); Keith Mechler, Madison, AL; Terry Breck, Brunswick, GA; Arnold Fuoco, Arlington, VA; Thomas H. Althoff K8OSH, Sylvania, OH; William McKenna, Sheridan, IL; SGM Richard M. McClung, San Jose, CA; Ed Dyer, Mechanicsburg, PA; Millard Anderson, Escondido, CA; Pedro F. Royer, Brooklyn, NY; Athony Casamassima, Hauppauge, NY; John Nitsick, Jr., Omaha, NE; Larry Rubin, Williston Park, NY; Robert J. Howard, San Bernardino, CA; Michael Shaw, Beverly, MA; John E. Clark, Ridgecrest, CA.



New Yorker
-via Peter Weeks

DXN Publishing Schedule, Volume 66

Iss.	Deadline	Pub. Date	Iss.	Deadline	Pub. Date
28.	July 9	July 19	30.	Sept. 10	Sept. 20
29.	Aug. 6	Aug. 16			

DX Time Machine

From the pages of DX News:

50 years ago ... from the June 18, 1949 DXN: Frank Wheeler, Erie, PA, mused that he had sent out 201 reception reports since last October, and that about 90% of them were verified; 8 stations had been sent follow-up cards to no avail.

25 years ago ... from the May 27, 1974 DXN: The SONY TFM-1600, known as one of the best portable radios in its class, was replaced by the ICF-8000 ... This issue included as its centerfold Glenn Hauser's "Mexiglenn List", which served DX'ers for a number of years as "the" list of Mexican AM stations ... from the June 17 DXN: The verie signer for a 10-watt TIS on 640 kHz, "WCNF", located at Chanute AFB, IL, was "very surprised" to have received a reception report from Sid Steele in Charleston, IL about 75 miles distant.

10 years ago ... from the June 26, 1989 DXN: DDXD-W Editor Nancy Hardy reported only one logging in her column, that of KTID-1510 on May 1, with new calls, ex-KCAF, from Rich Toebe, Pleasanton, CA.

Are you expiring?

We hope not! To avoid expiration, mail your remittance to the **DX News Membership Center early**. Allow **at least three weeks** after mailing your check or money order for new renewal data to appear on your mailing label.

AM Switch

Jerry Starr w8jv@yahoo.com
c/o WHOT Radio
4040 Simon Road
Youngstown, OH 44512-1320

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

CALL LETTER CHANGES

	<u>Old call</u>	<u>New Call</u>
690	*New PQ Montreal	CIQC
760	WBDN FL Brandon	WLCC
820	WZTM FL Largo	WMGG
950	WIDB IL Chicago	WNPD
1000	WJBW FL Jupiter	WDBE*
1220	WSME ME Sanford	WPHX
1230	KISO AZ Phoenix	KOY
1230	WNOR VA Norfolk	WJOI
1230	KDLK TX Del Rio	KTJK
1280	KEXX CO Denver	KVOD*
1360	KGME AZ Glendale	KFDJ
1440	WC DL PA Carbondale	WKJN
1450	WODZ NY Rome	WYFY
1490	KBVI CO Boulder	KWAB
1520	KQKL NM Albuquerque	KSYU
1570	WKDB MD Towson	WNST

Call notes: WJBW change to WDBE corrects a source typo shown last month. KEXX was to drop this call in favor of KXKL but has now opted for KVOD

APPLICATIONS/GRANTS FOR NEW STATIONS

None

APPLICATIONS FROM EXISTING FACILITIES

830	KPLS	CA Orange: modify CP to show 30000/1000 U2
1450	KQDI	MT Great Falls: 720/720 U1
1540	KZMP	TX Fort Worth: modify CP to show 32000/890 U4 University Park, TX
1570	KB JT	AR Fordyce: 780/8 U1
1670	#App	CA Moreno Valley: 10000/9000 U2 (seeks to amend application)

GRANTS TO EXISTING FACILITIES

630	WDGY	WI Hudson: 900/200 U1
850	CKVL	PQ Verdun: to 940 kHz with 50000/50000 U4 (old CBM facilities)
990	KRKS	CO Denver: 4200/390 U2, relocate transmitter

OTHERNESS

660	KFAR	AK Fairbanks: CP to relocate transmitter is on
710	KUET	AZ Black Canyon City: silent station is ON THE AIR with 20 watts temporary power
930	WDLX	NC Washington: CP to relocate transmitter is on
950	WWJ	MI Detroit: CP for 12000/50000 U4 from new site is on
960	WRNS	NC Kinston: CP to relocate transmitter is on
980	WITY	IL Danville: CP for U3 from new site is on
980	KRTX	TX Rosenberg: CP for 5000/4000 U4 is on
1050	KBBV	CA Big Bear Lake: station is SILENT
1050	WLYV	PA Williamsport: station is SILENT
1060	WMCL	IL McLeansboro: CP to add 2 watts nights is on
1170	WKLN	FL St. Augustine Beach: CP for 830 D1 is on
1210	KUBR	TX San Juan: CP for 10000/5000 U4 from new site is on
1230	KHDN	MT Hardin: silent station is ON THE AIR
1230	WEEX	PA Easton: CP for 840/1000 U5 is on
1260	KSML	TX Diboll: CP for 1800/72 U1 from new site is on
1300	WQBN	FL Temple Terrace: CP to relocate transmitter is on
1300	KKAS	TX Silsbee: CP for 61 watts at night DISMISSED
1310	WOKA	GA Douglas: CP for 3900/39 U1 is on
1320	WKPG	MS Port Gibson: application to move to 1020 kHz DISMISSED

1280 AM
wkst
YOUR TOTAL RADIO STATION

1340	WTYS	FL Marianna: CP for 540/540 U4 from new site is on
1340	KIJV	SD Huron: CP to relocate transmitter is on
1360	WWLG	MD Baltimore: station is SILENT
1360	WKPO	NY Binghamton: CP to relocate transmitter is on
1360	WBLC	TN Lenoir City: silent station is ON THE AIR
1400	WBTB	NC Beaufort: station is SILENT
1400	WLSE	NC Wallace: license CANCELLED, call DELETED
1430	WRMG	AL Red Bay: silent station is ON THE AIR
1470	WIJK	AL Evergreen: CP to relocate transmitter is on
1470	WTBL	FL Dunedin: station is SILENT
1470	WBUL	KY Shepherdsville: station is SILENT
1470	CHOW	ON Welland: CP to move to 91.7 FM is on
1480	WHBC	OH Canton: CP for 15000/5000 U4 is on
1490	KBSR	MT Laurel: slint station is ON THE AIR
1490	KBIX	OK Muskogee: CP for 450/450 U1 from new site is on
1510	KJQI	CA San Rafael: CP for 8000 D3 is on
1520	WTRI	MD Brunswick: silent station is ON THE AIR
1520	WDMN	OH Toledo: now operating daytime only until night transmitter is repaired
1530	WCTR	MD Chestertown: CP for 1000 (270 CH) is on
1530	KQQA	TX Creedmore: CP to increase CH power to 1000 is on
1590	WAIK	IL Galesburg: CP for 5000/55 U5 DISMISSED at station's request
1600	WAXP	GA Warner Robins: station is SILENT
1660	WMIB	FL Marco: new station is ON THE AIR
1680	WTTM	NJ Trenton: new station is ON THE AIR



THANKS: Bill Hale, Dave Schmidt, Ed Krejny, Al Merriman, John Bowker, Russ Edmunds, Steve Francis, Dick Truax, Fred Vobbe, Tom Rothrock, Shawn Axelrod, Gary Jackson and MSJ

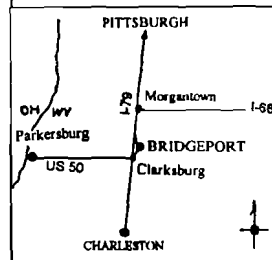
73 and Good DX, Jerry Starr & Buffalo K. Foonman

Djmy & BKF

N R C ANNUAL CONVENTION

September 3-6, 1999

**Holiday Inn
Bridgeport, West Virginia**



Here's your chance to begin the autumn dx season in one of the best places we can imagine in the whole country! Just think: No big city stations for miles and miles, and pests? None! That's right! Bridgeport has no AM station, and Clarksburg several miles away has just two AMs with night operations, and they are both 1,000 Watters! Where else can you get away from it all for a terrific weekend in the beautiful hills of West Virginia with new and old friends who share your hobby?!

And it all starts on Friday, September 3rd. We'll have a reception program in that evening you won't want to miss when Bill and Brenda Swiger get things rolling for the weekend.



HERE'S THE DETAILS:

Hotel: Holiday Inn, 100 Lodgeville Road, Bridgeport, WV. 1-304-842-5411—\$70.85 including tax for a Room with two double beds and no limit mentioned on how many can be in a room. Reservations MUST be made by August 13, 1999 to guarantee this rate! Be sure to call the Bridgeport Holiday Inn directly (not through the 800 number) to get that special low rate and tell them you are with the National Radio Club.

Convention Registration: \$35 up to August 1st and includes Saturday banquet, Sunday breakfast and all the soda / beer and snacks you can snarf during the weekend. Please register by August 1st so we can be sure to have enough hotel rooms reserved. Registration after August 1st is \$40. Your registration should include your name and the name of any guest and payment for each person you are registering for the convention. Send that to:

Mr. William Swiger, One Casey Lane, Bridgeport, WV 26330.
304-842-4635

Auction items should be sent to this same address.

Travel:

Air: You can fly US Air into Clarksburg and take a taxi from there to Bridgeport. Experienced travelers in and out of Bridgeport usually find it just as easy and less expensive to rent a car in Pittsburgh (2 hours) or Columbus (3 hours) and drive to Bridgeport.

Bus: Greyhound has daily service from Baltimore, Charleston, Columbus, Pittsburgh and Washington.

Train: Train transportation to Bridgeport is not available.

Domestic DX Digest

West: Bill Hale phantom2@cize.net

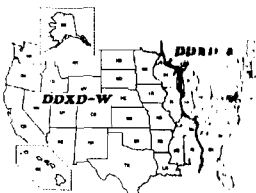
6124 Roaring Springs Drive - North Richland Hills, TX 76180-5552

East: David Yocis DavidYocis@aol.com

532 LaGuardia PL, #462 - New York, NY 10012-1428

DX Catches in the U. S. and Canada, with 24-hr. ELT

(Division line is
between East and
Central time zones)



DDXD-West

MEDIUM WAVE RAMBLINGS

- As Dave mentioned last issue, we are considering changing the structure of the Loggings portions of the DDXD columns to one, 24-hour period from 0001 to 2400 hours, in frequency order. We also have received the suggestion to change the time standard to UTC (GMT) from Eastern. We both need your votes soon, as want to begin either/or new practice with the start of the new Volume year, October something. Let's hear from you! And thanks to those who have already sent their votes!! If ya don't vote, don't complain!!
- Newly rejoined member Eric Cooper of Mission Viejo, California questions the legality of the TIS station at Norwalk, California broadcasting its college baseball games. He includes the section of FCC rules (FCC Part 90.242 subsection 7) on TIS stations which say explicitly what can be broadcast on TIS stations: "(7) Travelers Information Stations shall transmit only noncommercial voice information pertaining to traffic and road conditions, traffic hazard and travel advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest. It is not permissible to identify the commercial name of any business establishment whose service may be available within or outside the coverage area of a Travelers Information Station. However, to facilitate announcements concerning departures/arrivals and parking areas at air, train, and bus terminals, the trade name identification of carriers is permitted." So there you have it . . . but no mentions of baseball games. :-) Shawn sez: Conditions are poor here lots of rain T-storms and static that can be S6 at times . . . visit the AMANIX web pages at: <http://www.geocities.com/CapeCanaveral/Launchpad/3652/index.html>. JW-CO reports: "Got a verie from Hue Beavers for KTBK-1700. Although I sent it to 3500 Maple per your advice, the return address on envelope was the NRC Log address 3632 Blossom Trail. Guess either one works, but I'm still confused, hi." Hue gave me the 3500 address and said to disseminate it wherever. Guess they have some old envelopes laying around - Ed.
- Visit the GraveYard DX Achievements web page at <http://www.angelfire.com/tx2/phantom2/> for the very latest updates. Speaking of Graveyarders . . . but not necessarily their coordinates . . . sharp-eyed Ron Bailey of Shelby, North Carolina spotted an error in the Station Location Map Book. On 1230, change the latitude for WODI Brookneal, VA to N37-02-17. This has been verified in the FCC database. Thanks, Ron.
- A pretty fair turnout! Let's keep those dials spinning. Next deadline . . . July 7th. See you here?

REPORTERS

- FA-ID Frank Aden Boise FRG-7 with 4' box loop <n7sok@aol.com>
 SA-MB Shawn Axelrod Winnipeg ICR-70, Drake R8, MFJ-1026 phasing unit + 4' unamplified box loop/Quantum Loop/145' long wire/100' indoor wire <saxelrod@mb.sympatico.ca>
 EC-CA Eric Cooper Mission Viejo Sony 7600G <mvlaw2000@juno.com>
 RD-AZ Ragnar Danneskjold Mesa Kenwood R-1000 with Zepp antenna, Realistic 12-655, GE Superadio III or Realistic DX440 barefoot <lwdxer@juno.com>
 DJ-TN David B. Jones Springfield Lowe HF-225 + Palomar Loop
 GJ-CA Gary Jackson Sacramento FRG-8800 + Kiwa Loop
 NJ-MT Nancy Johnson Billings <nancy_johnson@prodigy.com>
 AK-WA Andy Kahn Camas SuperRadio III + Selectenna <andyw@kpdq.com>
 JEL-MO J.E. Lewis Kansas City '98 Dodge Maxivan AM/FM cassette or *Sony 7600G + Select-A-Tenna
 JJR-WI John Rieger South Milwaukee Radio Shack DX-398-stock and FRG100, Kiwa loop, MFJ-959B Tuner/preamp and DSP-599zx Audio Noise Reduction Filter



- <johnrieger@webtv.net>
 JTR-OK John Reed, KA5QEP Ponca City Sylvania R1414/URR & Harris RF-550 + noise-reduced wire, homebrew ferrite loop, MFJ-1025 phaser <jtreed@poncacity.net>
 JS-MN John Sampson Grand Rapids Collins UR388, Sanserino 2' Amplified Loop <jsampson@uswest.net>
 JW-CO John Wilkins, N0AXM Wheat Ridge Drake R-8, 4-foot box loop <peakpagger3@juno.com>
 INet Chip Kelley at <http://www.metronet.com/~chipk/Texas/TXradio.html>
 INet2 Tim Noonan at <http://www.angelfire.com/wi/dxing/>
 Ed.-TX Editor North Richland Hills ICF-2010 barefoot

STATION NEWS & NOTES

- 820 WYPA IL Chicago - Is scheduled to become a Catholic Family Radio affiliate as of June 9. (INet2)
 840 KMAX WA Colfax - 5/19 0210 - News/Talk format. Fair, over KSWB-OR. ID and then into the Art Bell Show. AM 8-40, K-M-A-X, The Max. Years ago, I could hear WHAS. Now this channel is so cluttered. Kind of sad. (AK-WA)
 900 WDLI WI Wisconsin Dells - Is now classic country //WIBU 1240 Poynette. (INet2)
 950 WIDB IL Chicago - Now carries Spanish, Radio Unica. (INet2)
 1250 WREN KS Kansas City - Noted OFF a couple of times, including 5/18 2230. I usually pick up Port Arthur, but could not make an ID this time. Local paper reports WREN is in the process of a sale, but is having tower problems. Projected new format would be sports, but there is already KMBC, which is sports part-time, and KCTE which is all-sports and noted on one hour past sunset on 5/18. (JEL-MO)
 1280 KHEP AZ Phoenix - Has added a new ID: Radio Phoenix, 1280 KHEP. (RD-AZ)
 1280 KEXX CO Denver - Using this call now, ex:KRRF. CLA music with KVOI-92.5 FM IDs. KEXX call is only used for legal ID at ToH. 92.5 remains KVOI and is Oldies now. (JW-CO)
 1340 KTIK ID Nampa - Still on this frequency as of 6/4. (FA-ID)
 1360 KFDJ AZ Glendale - New calls here. KGME calls now on 550. (RD-AZ)
 1400 KGVV TX Greenville - 5/10 - Has changed from classic country to oldies and slogan of 14K Oldies. (INet)
 1420 KPEL LA Lafayette - 5/15 - Changed to sports as ESPN Sports @ 1420. Ex: news/talk. (INet)
 1620 KAZP NE Bellevue - 5/27 2218 - Play-by-play of Bellevue Bruins baseball, live from NAIA tournament. Went to ESPN programming after the game. KOIL IDs at :00, followed by something else inserted afterward, possibly a KAZP ID, but is always covered after a syllable or two at 00:00 by ESPN programming. This happened for several consecutive hours, so no actual ID yet for 1620. / / to 1180, which was fair here under a NOS station, probably KYET-AZ. (JW-CO)
 1620 KAZP NE Bellevue - 5/26 - Is on the air. From an Internet dispatch: "As of Wednesday morning (5/26), there's a new station on the expanded band. It's KAZP in Bellevue (Omaha), Nebraska, operated by Mitchell Broadcasting Co. The project manager informs me they will be simulcasting co-owned KOIL 1180 kHz for the time being, which is all-sports and affiliated with ESPN radio. The 1620 transmitter is diplexed into an existing tower of another co-owned AM station, KKRAR on 1290 kHz. The tower they are using is about 310 feet tall, pretty close to half-wave at 1620, so groundwave coverage should be pretty good. With the relatively tall tower the radiation angle should be fairly low, so the sky wave results could be interesting." I did not copy the name from the post (sorry). Also saw a message concerning this on the NRC reflector. But nary an 'official' report to DDXD-West :-). The FCC database says the tower is 302 feet at N41-11-21 W96-00-19, which lines up with the middle tower of the KOIL-1290 array. [Ed.]
 1670 KHPY CA Moreno Valley - 6/16 - Letter from owner of KHPY says they have been turned down twice for tower sites, but has filed to keep present site with U4 10000/9000. He says it looks like about nine months. (GJ-CA) [This nighttime power far exceeds the 1000 watt limit the FCC has placed on X-Banders, BUT they also want to employ a highly directional pattern targeting Los

Angeles from Moreno Valley - The application shows three towers in a triangle for both day and night - Ed.]

- 1680 WTTM NJ Princeton - 5/24 - Per phone call, new address is: 619 Alexander Road, 3rd Floor, Princeton, NJ 08540 Phone is 609-419-0300. (GJ-CA)
 1700 KQXX TX Brownsville - 5/31 - On the air with SS format. (GJ-CA) [Not audible here, due to KTBK - Ed.]

UNIDs and UNID HELP

- 860 UNID ?? - 5/19 0400 - Sign-on, with *O Canada* into FF news by female. Male with ID as *Ici Canada C/JBC* or ????. I thought C/JBC Toronto was off?? (DBJ-TN) [C/JBC-ON is still on, according to responses I got from an inquiry to the NRC reflector. So, odds are in your favor that your logging was them! - Ed.]
 1000 UNID ?? - 5/8 0032 - Thirty minutes of a national country music show, then a fade then another half-hour and a fade and the frequency was taken over by KOMO. This one was frustrating because I listened for an hour and at the ToH it faded, then it faded before another ID was given. (RD-AZ)
 1300 UNID ?? - 5/16 0233-0235 - Sports talk about *Charismatic's* win in the Preakness. Station is east or west from Phoenix. KVET? (RD-AZ)
 1490 UNID ?? - 5/17 2306 - *Seattle Mariners* game, in strong with KNDC nulled, but soon faded into mess. Mariners network lists show only KBSR (my semi-local, now off the air) and KVAC Forks, WA. Ideas? (NJ-MT)
 1560 UNID ?? - 5/7 0632 - Fair, then fade out. 1560, *The Touch* with UC/Oldies, in with three others. WNWV? (JJR-WI)
 1700 UNID ?? - 5/23 0600 - Heard what sounded like ID of *WIUP*. Is Huntsville, AL now on the air or testing? Don't have on tape. (GJ-CA) [Could be. See Tests, below - Ed.]

EQUIPMENT TESTS?

- 1680 UNID ?? - 5/22 0600 - Strong signal, but no audio or IDs. Any ideas? (GJ-CA)
 1700 UNID ?? - 5/22 2105 - Good signal, with solid test tone. (SA-MB) [Could be WEUP. See UNIDs above - Ed.]
 1700 UNID ?? - 5/29 0722 - Station in SS. Any ideas?? (GJ-CA) [See above - Ed.]

TIS

- 530 CFHS ON Ft. Frances - Good all day here, with tourist info for Ft. Frances and Canada. Message loop of about a 6 minutes. No QRM daytime, obliterated either by RVC or CIAO (depending on conditions) at night. (JS-MN)
 1610 WPFK506 CA Burney - 5/22 - Finally IDed this as one of my 1610 TIS unIDs. Took almost three months. (GJ-CA)
 1610 WPFK508 CA Chilcoot - 5/21 0600 - Nice signal for the distance. Report sent. Getting close to 100 TIS/HAR QSLs from 11 states. (GJ-CA)
 1610 UNID TIS CA - 5/29 0600-0800 - Cal Trans testing. No call or location other than *District Three* which covers a vast area starting at Marysville. (GJ-CA)
 1620 UNID TIS TX Dallas area? - 5/31 0645-on - Seems to be a new station here (or in area) relaying KEC56 Dallas NOAA Weather station (162.400 MHz) with 'Perfect Paul'. No IDs heard for the 1620 station, but KEC56 several times. No listing on the FCC web site for a 1620 anywhere close. [Ed.TX]
 1700 WPMD956 CA Norwalk - 5/8 0700 - Good signal, with many IDs and info on the college. The address for this new TIS station is: Attn: Campus Radio Station, Cerritos College, 11110 Alondra Blvd, Norwalk, CA 90650. QSL received in five days... fastest one yet. (GJ-CA)
 1700 WPMD956 CA Norwalk - 5/15 1630 - With a college baseball game, no legal ID, just many mentions of *Cerritos College* along with team stats etc. This station is located at the college. (EC-CA)



No Category, so it's here

- 1260 "KASR" AZ Tempe - 5/13 1430 - With *Art Blakey* playing jazz. This station is at *Arizona State University* and has no call. It is a "free radiate" station and is calling

itself KASR. (RD-AZ) [Isn't this what is known as a "Carrier Current" station? - Ed.]

MIDNIGHT TO 0800 HOURS ELT

- 540 CBK SK Watrous - 6/4 0100 - With CBC News and into classical music. At strong levels, overcoming XEBACH and XEWA, which are both strong into Arizona. Was a rare treat to hear this guy and at such powerful levels was even nicer. (RD-AZ)
 590 KUBCt CO Montrose - 5/24 0055 - Gave ID sounding like *Unforgettable music*, *KUBC AM 580*. Playing standards and adult music. (RD-AZ)
 570 KLIF TX Dallas - 5/6 0106 - With *When you're talking about it, we're talking about it*. 570 *Cliff*. (RD-AZ)
 580 WIBW KS Topeka - 5/6 0107-0118 - *Wichita State Shockers* and *K-State Wildcats* on the *Wildcats* Network. The *Shockers* were leading in the 8th and scoring. (RD-AZ)
 590 KCSjt CO Pueblo - 5/24 0109-0154 - With *Art Bell*. Not a single ID but loop direction leads to believe that this might be the guy. Art Bell stations are the absolute worst IDers. (RD-AZ) [And IMHO, *Art Bell* is the worst spokesman a sponsor can have, hi - Ed.]
 610 WDAF MO Kansas City - 5/21 0707 - 61 *Country* with ID and into *Oh, Maria* and other country music. (RD-AZ)
 650 WSM TN Nashville - 5/24 0200 - Playing *Tonight the Heartache's On Me*. Then ID *The home of the worlds greatest country music*, *WSM* and into ABC News. (RD-AZ)
 650 CINT SK Saskatoon - 6/3 0143 - All I heard was 650, N-T-R. *ESPN Game Night Show*, local spots and top-of-hour news. I was able to verify with a phone number given during the news. Fair signal, on top of CISL and KSTE. Very Rare. Lots of KFI splatter. (AK-WA) [Andy, these are correct calls. See AM Switch in DX News Vol 66 Issue 5 (November 2, 1998) - Ed.]
 740 KCMC TX Texarkana - 5/25 0559-0602 - Appeared out of nowhere with very brief sign-on announcement, including legal ID, then either ABC or CBS News. Couldn't break out network as was fighting with KTRH and T-Storms. Not "NSP" as per Log? [Ed.-TX]
 780 WBBM IL Chicago - 5/24 0213 - Story about *Joey Bonanno* and crime family, time check, ads and weather at 0214. (RD-AZ)
 800 CKLW ON Windsor - 6/1 0520+ - Poor-to-fair, over Mexico, with chat-between a man and woman, mostly talking about hockey (what else, hi), then a *Leonard Maltin* feature on a movie, news at :30 with stories about baby smuggling from Toronto to the States, a body found in the Detroit River, Amish being killed, the auto haulers strike, a new Windsor police chief, more. Never IDed (naturally), but plenty of Windsor and Ontario mentions and local ads. Sports at 0540 with news on hockey, baseball scores (Tigers lost), Indy 500. First Canadian from Texas, and it's *The Big 8*. [Ed.-TX]
 860 KBEE UT Salt Lake City - 5/22 0602 - Poor signal, with Radio Disney. Assume it is then only Disney station on frequency I know of. NEW!! (SA-MB)
 930 KAFF AZ Flagstaff - 5/24 0738 - ID: *You're listening to KAFF country*. (RD-AZ)
 1160 WSCRt IL Chicago - 6/1 0545 - Very poor, with sports talk. Sounded local, as the host was lamenting both the Cubs and Sox. Either a traffic report or just a mention of *Eisenhower*, *Edens*, and *Stevenson Expressways*. That led me to thinking it was WSCR! [Ed.-TX]
 1160 WAMB TN Donelson - 5/24 0618 - End of waltzy piano tune, the *Beautiful music in the night*, *WAMB* into ad. Fading, but over KSL. A bit before their local sunrise, I surmise. [Ed.-TX]
 1180 KYET AZ Williams - 5/15 0609-0622 - Fair, on peaks, with *Art Bell Show* with a guest host. Local ad break at 0620 mentioned a care facility... in *Williams*. Other references to Williams and Arizona. Tough, between KVOO-1170 and KLUV-1190. Must have been on their 10 kW day rig by mistake. No calls heard, but it had to have been them. [Ed.-TX]
 1240 KBIZ IA Ottumwa - 5/11 0033 - Poor, with NOS and TCs... *It's 11:33 at KBIZ*. Later talk of *St. Louis Cardinals*. (JJR-WI)
 1250 KBSZ AZ Wickenburg - 5/16 0243 - Very weak, fighting it out with KHIL. Gave ID. (RD-AZ)



- 1320 KFNZ UT Salt Lake City - 5/8 0100 - With ToH ID and sports news (RD-AZ)
 - 1370 KXTL MT Butte - 5/16 0151 - Ad for the Montana Educators, ID Soft rock FM 100.1 Governor's PSA asking people to invite their friends up to Montana "Bring Groovin' (on a Sunday Afternoon (RD-AZ)
 - 1450 KVSL AZ Show Low - 5/8 0750-0800 - With a business program and ID at ToH (RD-AZ)
 - 1560 KQYX MO Joplin - 4/26 0725 - Call ID and Talk of the four states. (JTR-OK)
 - 1630 KCJJ IA Iowa City - 5/16 0205 - Playing Do You Believe in Love by Cher. (RD-AZ)
 - 1670 WTDYt WI Madison - 5/16 0207 - With talk show that sounded like The Laura Lee Show Very Weak and splashed by KXOL. (RD-AZ)
 - 1680 WJNZt MI Ada - 5/16 0211 - Playing rap music; Very weak. Had black announcers (RD-AZ)
 - 1680 WTTM NJ Princeton -- 5/12 0630 - Through WJNZ, with ID and ESPN promotion. Very weak. (GJ-CA)
 - 1700 Round Robin Radio - 5/6 0600 - Top of Hour ID from WRNO at 0600, then KBGG in at 0604, then KTBK in at 0607 until 0615, then all mixing 'til 0630. (GJ-CA)
 - 1700 KTBK TX Sherman - 5/14 0600 - The strong one with ID and sports. (GJ-CA)
- 0800 TO 1600 HOURS ELT
- 650 KGAB WY Orchard Valley - 5/1 1315 - News, Rush Limbaugh talk and call ID. Very weak daytime signal. Tried for several days before getting the ID. (JTR-OK)
 - 710 KLNZ AZ Glendale - 5/15 1200 - La Zeta relaying 103.5 KZPZ. They are playing some ranchera and a little Tejano. The station is ex-KUET Black Canyon City, AZ. (RD-AZ)
 - 710 KEEL LA Shreveport - 5/2 0800 - Talk, news and 71 Keel. (JTR-OK)
 - 900 WCDR TN Lebanon - 5/20 0830 - Local news items and country music. (DBJ-TN)
 - 970 KXTP WI Superior - 5/23 1550 to 1605 - On top, with Disney programming, ToH ID as AM 970, KXTP, Superior, Duluth, otherwise only IDs are AM 970, Radio Disney. Fairly strong over WDAY. (JS-MN)
 - 1050 KTBA AZ Tuba City - 5/24 0809-0930 - Focus on the Family and SRN News at 0830. No ID until 0900. SRN News again at 0855. (RD-AZ)
 - 1180 WGAB IN Newburgh - 5/10 0900 - Local news and REL. program. (DBJ-TN)
 - 1210 KQTL AZ Sahuarita - [no date] 1445 - With ads for Radio Mundo. (RD-AZ)
- 1600 TO 2400 HOURS ELT
- 580 CKPR ON Thunder Bay - 5/25 1925-1949 - Weak, a daytime regular in CKY null, with Dr. Laura and breaks for local ads. ID as Thunder Bay's news, sports and entertainment station. (JS-MN)
 - 690 KBYT AZ Tucson - 5/23 2159 - With religious programming and news of annual fair in Tucson. Ad for Tucson revival May 29th. This was KVOA just the other day. Seems they may have changed calls. (RD-AZ) [FCC database, dated 5/22/99, says KVOI - Ed.]
 - 720 KSAH TX Universal City - 4/19 2050 - SS talk with a couple references to San Antonio. New here. (JTR-OK) [These guys have been driving me crazy at night since May 7th or 8th, making reception of WGN very chancy, except during Cubs games when broadcast.com works great, hi - Ed.]
 - 800 WVAL MN Sauk Rapids - 5/22 1645 and on - On the air since last summer, dominates 800 during the day here with C&W music. New. (JS-MN)
 - 800 CKDR ON Dryden - 5/22 1645 and on - Assume this is the one, way under WVAL, with AC, etc. Last summer, CKDR was the only station on 800 audible here during the day. (JS-MN)
 - 1010 WGUN GA Atlanta - 5/10 2300 - Local news and WTR. (DBJ-TN)
 - 1070 WTSO WI Madison - 5/23 2145-2147 - ID, then into Barry Manilow and other OLD. Good-to-excellent, in the clear. Best ever from this location. (JEL-MO*)
 - 1230 KFJB IA Marshalltown - 5/10 2357 - Poor, though clear, with end of weather, into oldies on 1230 KFJB. (JJR-WI)
 - 1230 KTRF MN Thief River Falls - 5/26 1725-1745 - High school baseball game, with lots of local ads for Greenbush, which was one of the teams. Third in line on 1230 here: WKLK dominates with



- 1260 KROX MN Crookston - 5/26 1815-1830 - High school baseball game between Crookston and Fertile-Beltrami (they have some interesting town names in Minnesota). Lots of local ads. On top of 1260 during the day, with QRM from two others, probably KDUZ and WXCX. (JS-MN)
- 1440 KXXI ND Grand Forks - 5/26 1750-1805 - NCOS, generally IDs as Star 1440. Mixing with KDIZ, Golden Valley. KXXI and KDIZ are over/under each other here during the day with long, deep fades. (JS-MN)
- 1450 WIITC MI Holland - 5/5 2135 - Fair, in fade up, with ... on WIITC. Detroit Tigers baseball, though don't know if that was WIITC. (JJR-WI)
- 1450 WRCO WI Richland Center - 5/2 2212 - Poor, with calls said twice, then out. (JJR-WI)
- 1460 KLTC ND Dickinson - 5/22 2235 - Community events calendar with call letters given. 2237 into country song. 2242 1460, KLTC & Real Country slogans. (NJ-MT)
- 1490 WNDV IN South Bend - 5/10 2017 - Fair, in fade up, with ... 1513 dot com for station comments ... Not usual 70s format. Shania Twain's Still the One heard. // FM?? (JJR-WI)
- 1490 KOVC ND Valley City - 5/20 2300 - This is Dakota Country Radio, KOVC Valley City, KDDR Oakes, KDAK Carrington, and KHND Harvey into ABC News. 2315 weather North Dakota's weather authority, Coda Country. Fair, atop the frequency. (NJ-MT)
- 1530 WEYZ PA North East - 5/22 2328-2354 - Surprise of the night, with good signal at times in WSAI null. With C&W music, IDing as Z Country 1530. (JS-MN)
- 1650 KCNZ IA Cedar Falls - 5/22 2210-2240 - Arena football (Iowa vs. Portland). Quite strong up here, of course, but slight QRM at times. Have heard bits and pieces of this in Arizona but too much KXGL there for good logging. (JS-MN)
- 1660 WQSN MI Kalamazoo - 5/22 2250-2300 - Game on Cubs Radio Network just ending. Strong too, but considerable QRM from SS (WWRU or whatever its call is this week?). Haven't heard this in Arizona at all due to strong KXOL. (JS-MN)
- 1700 KTBK TX Sherman - 5/13 2120 - Sports talk under KBGG. No ID heard. (JTR-OK)

GRAVEYARD DX UPDATE

* indicates record held by DXer from North America

1230 kHz:	Miles						
WHIR	KY Danville	Ron Bailey	Shelby, NC	245			
1240 kHz:							
KSUE	CA Susanville	Carl Dabelstein	Phoenix, AZ	*655			
Totals:		1230	1240	1340	1400	1450	1490 Total
Ron Bailey	Shelby, NC	27	32	20	22	22	145
Don Trelford	Scarborough, ON	7	10	8	9	17	58
Don Trelford	Runaway Bay, Jamaica	3	5	6	5	9	35

DDXD-East

Deadlines are Tuesdays: July 6.

STATION NEWS

- 740 CBL ON Toronto - Is scheduled to leave AM on Saturday 6/19, presumably with the same final day of tape loop that we've seen for CBF and CBM. This news from Wayne Plunkett (Ontario DX Association) via Werner Funkenhauser via the "Hard-Core DX" e-mail list.
- 940 CBM PQ Montreal - 5/14 2020 - Tape loop, "CBC Radio One has discontinued broadcasting on the 940 AM frequency. Our programming is now heard at 88.5 on the FM dial." I'm waiting for you, WGRP! Silent at recheck 5/15 0100. (SK-PA) + 5/14 2330 - Repeating endless loop announcement by woman: "CBC Radio One has discontinued broadcasting on the 940 AM frequency. Our programming is now heard at 88.5 on the FM dial." At exactly 0000, this announcement stopped and CBM went silent. No open carrier, no nothing. Amen. (MB-ON)



- 1040 **WJHR** NJ **Flemington** - 5/24 - Still using these calls with new talk format. So far, I've heard only news and local talk, trying to encourage calls. New slogan is "Chat Radio." (RJE-PA)
- 1170 **WSPW?** NJ **Bridgewater** - 5/25 - Still on, relaying WMTR-1250 at least late afternoons and early evenings, no local ID heard. (RJE-PA)
- 1470 **CHOW** ON **Welland** - 5/20 1500 - The new FM station, "Spirit 91.7, Today's Country" at 50 kW, came on the air to replace CHOW. CHOW has been on the air since 1957, with C&W music since 1974 (if my log is correct). According to chairman Gord Burnett, they will simulcast for 2-3 months, then surrender their AM license. The most unsettling comments (in my opinion) were made by owner Rochon Burnett who said the switch to FM was necessary "because no one listens to AM any more." I guess we're all no ones, hi. It's too bad to lose another AM (especially since my mother once worked there in the late 50's/early 60's) but then again it will be nice to DX 1470 after these 20+ odd years of night time power, not to mention the cleaning up of splatter 20 khz in either direction. Get them now before it's too late. (RC-ON)
- 1570 **WISP** PA **Doylestown** - 5/24 - Now with these calls, with both local and syndicated talk. (RJE-PA)
- 1590 **WMIM** PA **Mount Carmel** - 5/11 1800 - End of "Speaking of Sports," a Pennsylvania sports program, then "This concludes WMIM's test compliance for this day," then off. Expect a return soon for them? 15 new stations logged during their absence! (SK-PA)
- 1660 **WMIB** FL **Marco Island** - 5/20 2108 - Weak under WQSN with NOS (same feed as WILY-1620) and canned "If you like what you're hearing, tell a friend about us; we're at 1480 WODX and 1660 WMIB." 1660 #5 and FL #155. (SF-TN)
+ 5/31 0033-0045 - Per Tony Simon tip, excellent with Louie Armstrong rendition of "Summertime," other adult standards on ABC "Stardust" format. Canned ID by man 0037: "If you like what you're hearing, tell a friend; we're 1480 WODX and 1660 WMIB." // 1480, which was at fair level throughout. No trace of 1660 mid-day today (5/31); maybe just the day pattern? (TLK-FL) [Should be non-directional; maybe still working out the kinks? - DY]
- 1680 **WTTM** NJ **Princeton** - 5/7 2212 - End of Trenton Thunder baseball, canned ID "WTTM Sports Radio 1680, all day, all night, the home of ESPN," then annoying OC tape testing. Was airing Thunder games, then signing off for a while; began regular schedule on 5/17. (SK-PA)
+ 5/10 - Is on the air with regular schedule now, heard a couple of evenings last week with Trenton Thunder minor league baseball. By 2030 or so, WJNZ is all over WTTM. Also heard on 5/8 with several repeated promos for ESPN Sports "coming soon to this frequency." Even the daytime signal is unimpressive, much like WMDM-1690. Don't know how it is that these two are so weak compared to the monster X-band signals like WJNZ and most of the rest of them in the upper Midwest. (RJE-PA) [Maybe it's a matter of ground conductivity, but the weaker groundwave at higher frequencies could also be a big part of it; the 1660 NJ signal is awful here in New York but seems to get out well enough via skywave. Thoughts, anyone? - DY]
+ 5/21 2202 - Fair in WJNZ null with Trenton Thunder baseball, "Let's pause now 10 seconds for station identification on the Thunder radio network," then dual ID's for WTTM and WHWH-1350. When a game isn't on, the nearest thing to an ID that I can get is "Sports Radio 1680, the home of ESPN." NJ #20. (SF-TN)

UNID AND UNID HELP

- 1230 **UNID** - - - - - 5/9 2207 - With "Big Country" slogan. (SK-PA)
- 1240 **UNID** - - - - - Re: WM's unID in no. 26, you'll actually hear "This is NHL Radio on Westwood One," so it's a network feed, not local. (SK-PA)
- 1320 **UNID** - - - - - 5/13 0050-0100 - Black preacher, promo for station program, mention of 416 area code. (WM-MD)
- 1360 **UNID** - - - - - 5/19 0005 - USA Radio News, then ESPN Radio. (WM-MD) [Cincinnati? - DY]



- 1460 **UNID** - - - - - 5/12 2032 - One on One Sports, KKTK-TX is the only one listed in the Log. Signal in for about 15 seconds, so who knows for sure? Again at 2059 just seconds before ID. (SK-PA)
- 1470 **WJDY** MD **Salisbury** - Re WM-MD's unID in #26, this is the only Radio Disney listed on 1470 at their web site. (DP-HI) Also confirmed by (SK-PA).
- 1590 **KYOK** TX **Houston** - Re DT-JAM's unID in #26, this is the only Radio Disney listed on 1590 at their web site. (DP-HI)
- UNID** - - - - - 5/7 2007 - In brief fade-up, heard meteorologist "for the Lake Region's radio station," then announcer "Your dial is set at 1590" Someone in New York's Finger Lake region. Is this WAUB? (SK-PA)
- UNID** - - - - - 5/20 0000 - In partial fade-up, "You are listening to (WVCB?) news, talk, and jazz till dawn." (SK-PA)
- 1680 **UNID** - - - - - 5/24 0230-0307 - Solid test tone over, under WTTM, WJNZ, non-ID 0307: "This concludes this test on 1680 AM" and off. (SK-PA)
- LOGGINGS - 0000-0800
- 850 **WPTB** GA **Statesboro** - 4/25 0011 - ID, weather report bubbling up through mess. (RJ-NC)
- 920 **WMNI** OH **Columbus** - 5/21 0058 - Presumed with Ohio lottery numbers, briefly fading up over WIRD. (SK-PA)
- 1050 **WCMS** VA **Norfolk** - 4/18 0001 - ID at top of hour, C&W. (RJ-NC)
- 1230 **WONN** FL **Lakeland** - 5/6 0100 - NOS music, "Your memories station," SID. (WM-MD)
- WBVP** PA **Beaver Falls** - 5/28 0105 - ABC news on the hour, station promo, ID. (WM-MD)
- WCRO** PA **Johnstown** - 4/27 0100 - Various ads, ID, then Bette Midler song; QRM from C&W station. (WM-MD)
- 1240 **WIOV** PA **Reading** - 5/4 0100 - ESPN Radio, ID. (WM-MD)
- WBAX** PA **Wilkes-Barre** - 5/4 0105 - ABC news on the hour, coffee ad, "The Music of Your Life," ID, then NOS music. (WM-MD)
- 1430 **WNAV** MD **Annapolis** - 4/26 0000 - ID "Serving Annapolis for 50 years, WNAV." My first on 1430, due to local menace WLXN-1440. (RJ-NC)
- 1520 **KOMA** OK **Oklahoma City** - 4/17 0005 - "Leader of the Pack," "Crimson and Clover," "Specializing in oldies from the '60's, we're KOMA." (RJ-NC)
- 1580 **WEAM** GA **Columbus** - 4/17 0018 - Promo for advertising on WEAM, PSA for Second Harvest Ministries. (RJ-NC)
- LOGGINGS: 0800-1600
- 1000 **WRTG** NC **Garner** - 4/18 1300 - // /WRTP, WGSB, with USA Radio News, very weak. (RJ-NC)
- 1060 **WKRE** NC **Monroe** - 4/18 1322 - Syndicated beach music program, promo for the 1999 Blooming Arts festival in Monroe. (RJ-NC)
- WCOK** NC **Sparta** - 4/18 1505 - ID, Brother Richardson hosting Seventh Day Adventist program. (RJ-NC)
- 1080 **WKGX** NC **Lenoir** - 4/18 1559 - Country oldies show, "Country giant WKGX." (RJ-NC)
- 1250 **WPRZ** VA **Warrenton** - 5/23 0915 - Poor with REL music, ID's as "Sounds of Praise" and "Praise Radio," FRN news, local weather. (AA-VA)
- 1370 **WJWS** VA **South Hill** - 5/23 0845 - Poor with gospel, "You're listening to WJWS, South Hill, Virginia," weather, news, AP sports news. (AA-VA)
- 1440 **WKAK** VA **Blackstone** - 5/14 1128 - Fair with Talk America, Worldwide Web News Network, UPI sports, national weather, ID.
- LOGGINGS: 1600-2400
- 550 **WSVA** VA **Harrisonburg** - 4/18 1945 - Poor with news, ESPN Game Night, "News Radio 550 WWSVA." (AA-VA)
- 610 **WGIR** NH **Manchester** - 5/20 2218 - Presumed with Boston Red Sox post-game show under WIP, probably my long-running unID with Boston Celtics basketball as well. (SK-PA)
- 620 **WRJZ** TN **Knoxville** - 5/14 2312-2318 - Tentative with religious bible study, no ID before fade. (BT-IN)
- 790 **WSKO** RI **Providence** - 5/25 2105 - Sports news, mention of NFL, ESPN Radio, ID as "The Score." (WM-MD)

- WETC TN Johnson City - 4/26 2055 - Weather forecast, ID. (WM-MD)
- 800 WSVS VA Crewe - 5/22 1650 - C&W music, "Your country, Real Country WSVS AM 800," Chris Daniel DJ, "Since 1941, Real Country WSVS AM 800." (AA-VA)
- 850 WTAR VA Norfolk - 5/22 1722 - Talk show with Dr. Joy Browne, "Talk Radio 850 WTAR." (AA-VA)
- 860 WSON KY Henderson - 5/7 2120-2131 - All Sinatra, sounded like Sid Mark's syndicated show, canned(?) ID by female 2123, ad for Sinatra cookbook at 2129 with Philadelphia address. Strangely enough it's the same P.O. Box as WWDB, which is also on 860. Pattern change at 2131. (SK-PA)
- 910 WEPG TN South Pittsburg - 5/10 2156 - "This is 910 WEPG South Pittsburg." Must have not flipped to night power. (BT-IN)
- 930 WBEN NY Buffalo - 5/24 2240 - "The Voice of Buffalo," ID. (WM-MD)
- 940 WGRP PA Greenville - 5/26 2033 - Sign-off with "WGRP operates on an assigned frequency ... 1,000 watts ... owned and operated by ... McCracken Road. Join us again tomorrow at 6 a.m.," steady, but grainy and alone. This is the first sunset anything's been heard on 940 since CBM went silent. Now only 6 PA's left. (SK-PA)
- WADV PA Lebanon - 5/16 2205 End of USA News, then canned ID "940 WADV Lebanon" into religious program. Definitely on day power, very clear, never heard at night before and in fact barely readable during the day. (SK-PA)
- 1090 CKKW ON Kitchener - 4/17 2320 - "Oldies 10-90," "Summer Breeze" by Seals and Crofts. (RJ-NC)
- 1140 WRLV KY Salyersville - 4/17 2052 - II), weather report for Salyersville, "now let's kick off 12 in a row," C&W format. (RJ-NC)
- 1150 WMET MD Gaithersburg - 5/7 2153 - Ad mentioning Maryland, another ad for Tinniman, Taylor, and Dodds, mixing with WDEL. Only two MD's left! (SK-PA)
- 1150 WGOW TN Chattanooga - 5/14 2231-2232 - "Doug Stephen here 6 until 9:00 on News Radio 1150 WGOW-AM," back into ESPN Game Night. Still on day power? (BT-IN)
- 1230 WCMC NJ Wildwood - 5/2 2310 - Presumed with weather forecast mentioning southern New Jersey. (WM-MD)
- WAKI TN McMinnville - 5/9 2200 - "You're listening to WAKI," in quick fade-up. (SK-PA)
- WJOI VA Norfolk - 5/12 2355 - ID, then rock music. (WM-MD)
- 1240 WCNC NC Elizabeth City - 4/26 2200 - Sign-off, "WCNC is owned and operated by East Carolina Corporation," ABC hourly news heard. (WM-MD)
- 1260 WGAY DC Washington - 5/9 2105 - Poor with ID's as "The Music of Your Life, AM 1260 WGAY," music with Scott O'Neal, mention of Washington's new Music of Your Life station. (AA-VA)
- 1280 WANS SC Anderson - 4/23 2300 - "You're listening to the music of your life, AM 12-80 WANS, Anderson, South Carolina." (RJ-NC)
- 1310 WYUR MI Dearborn - 5/14 2238-2239 - Listener testimonial, "It's so great to hear classical music on WYUR." (BT-IN)
- 1370 WWCB PA Corry - 5/5 2312 - In passing, heard various tones and code, sign-off by female mentioning 500 watts at 2315. Tones were atop, talking was in the mix. Only heard once before. (SK-PA)
- 1410 WDOV DE Dover - 5/21 2040 - Tentative with Wilmington Blue Rocks baseball, heard ad mentioning Delaware County. (WM-MD)
- 1440 WGVL SC Greenville - 4/19 2315 - C&W Tim McGraw song, // WSSL 100.5 FM. Surprised to actually get a 1440 station; local pest WLXN usually wipes out this frequency, but the little 12-174 really finds the narrowest of nulls. (RJ-NC)
- 1450 WTBO MD Cumberland - 5/25 2325 - Baltimore Orioles vs. Anaheim baseball, in WOL null. (WM-MD)
- WTHU MD Thurmont - 5/13 1936 - Presumed with ad for computer company, "It's Carroll County's largest," also mention of Cecil County, briefly over WPAM. (SK-PA)
- WMAJ PA State College - 5/25 2255 - Sports talk, mentions of State College and Penn State. (WM-MD) [Are you sure it was a locally originating program? - DY]
- 1460 WZNZ FL Jacksonville - 4/22 2020 - Promo for Dr. Joel ?? medical show. (RJ-NC)
- WCRY NC Fuquay-Varina - 4/19 2059 - Fair to good with GOS music, ID's as "Joy 1460 WCRY," North Carolina ads (e.g., "Mr. Shoe" in Durham). Still on day power at this time? Also heard around the same time on 4/20. (MS-ON)
- WWKL PA Harrisburg - 5/25 2120 - Montreal vs. Philadelphia Phillies baseball, mention of Pontiac Auto on Carlisle Pike. Mixing with unID station with reli-

- gious music. (WM-MD)
- 1480 WRDW GA Augusta - 5/5 2330-2345 - Tentative with One on One Sports, mixing with two or three others under local WISL's NOS. (SK-PA)
- 1490 WKNY NY Kingston - 5/12 2100 - EZL music, ID. (WM-MD)
- WGCD SC Chester - 5/25 2100 - Bassy-voiced ID "AM 1490 WGCD Chester," going over station with Phillies game. (SK-PA)
- WFAD VT Middlebury - 5/5 2300 - Female announcer "1490 WFAD Middlebury," then CBS news, atop the jumble. (SK-PA)
- 1520 WTRI MD Brunswick - 4/29 1845 - Definitely back on the air with SS music, signing off at this time with announcement in EE: "That's gonna do it for another day. This is Al Handlin at WTRI AM 1520," then off. Noted much later over the past two weeks and a few times all night. (SK-PA)
- 1550 WDLR OH Delaware - 5/14 2242-2243 - Out of Cleveland Indians game, "Dominion Homes" spot, call ID. (BT-IN)
- CBE ON Windsor - 5/22 2100 - News, weather, ID "This is CBC Radio One 1550 in Windsor." (AA-VA)
- 1570 WSSA GA Morrow - 4/22 2335 - ID "15-70 WSSA." Only 50 watts? (RJ-NC)
- 1580 WPGC MD Morningside - 5/12 1900 - Poor with ID as "Heaven 1580, giving you the best new music first," Gospel music. (AA-VA)

TIS AND MISCELLANEOUS

- 1610 UNID - - - - - 5/17 2320 - Message about festival of culture and jazz celebrating the 30th anniversary of something, gave 800 number. (SK-PA)
- 1630 WAVY? MD - - - - - 5/10 2112 - "Report all accidents to the Maryland State Police. WAVY. This message will be repeated." Briefly over a second station with female voice, no KCJJ. (SK-PA)

INTERNET UPDATES

- News from Scott Fybus's "Northeast Radio Watch," used by permission:
- WNRI-RI-1380 has been purchased by Keating Willcox, who promptly took the station to all satellite-talk like his other New England stations (WPEP-1570, WNSH-1570, WMVU-900); some of the local hosts will move to WCOON-1240 which Willcox is selling.
- WNJR-1430-NJ is NOS with "Sunny 1430" slogan, and owner Arthur Liu is contemplating a call change to WNSW to match.
- WODZ-1450-NY is now WYFY and religion from Bible Broadcasting Network.
- WTSA-1450-VT has dropped NBC for CNN, including the morning-drive slots where NBC's remaining newscasts air.

ADDRESS UPDATES

Wayne Heinen sends along some addresses, in response to recent requests: WRRR-1290-VI is now at 1 Mahogany or P.O. Box 277, Frederiksted VI 00840; and WADR-1480-NY and the relays are at 239 Genesee Street #500, Utica NY 13501. WDMN-1520-OH is now at 1510 Reynolds Road, Maumee OH 43537; phone (419) 725-9366.

And from Steve Kennedy: WOPI-1490-TN is 288 Delancy Street, Bristol TN 37660. WSWW-1490-WV is 1111 Virginia Street East, Charleston WV 25301. KMOZ-1590-MO is at 501 North Main Street, Rolla MO 65401, (573) 341-5329. Steve is missing addresses for WCRV-640-TN and WANZ-1330-NC.

REPORTERS

- | | | |
|--------|-----------------|--|
| AA-VA | Albert Arnold | Chesterfield VA - FRG-7700, ICF-2010, Eavesdropper 42' trapped dipole |
| MB-ON | Mike Brooker | Toronto ON - Station news |
| RC-ON | Robin Christoff | Welland ON - Station news |
| RJE-PA | Russ Edmunds | Blue Bell PA - Station news |
| SF-TN | Steve Francis | Alcoa TN - TRF, Select-a-Tenna |
| RJ-NC | Russ Johnson | Lexington NC - Superadio III, RS 639 & 12-174, Select-a Tenna, 160-m. inverted V, LW's |
| SK-PA | Steve Kennedy | Coal Township PA - Superadio III |
| WM-MD | William McGuire | Cheverly MD - DX-380 |
| DP-HI | Dale Park | Honolulu HI - UnID help |
| MS-ON | Morris Sorensen | Scarborough ON - YB-400 barefoot |
| BT-IN | Blaine Thompson | Fort Wayne IN - Aiwa CSD-ED26 "Boombox" |



International Jim Renfrew JimRenfrew@delphi.com

61 Wilcox Street
Rochester, NY 14607-3832

DX Digest

Foreign DX Catches. Times are UTC; for ELI, subtract 5 hrs.

We have this late word from former NRC member Wayne Plunkett via Werner Funkenhauser that CBL-740 is likely to sign-off medium wave for good on June 19. As was the case with CBF and CBM, there may be a tape loop on for a day or so informing listeners where to find the CBC signal on FM. Many of us have been hearing good stuff on 690 and 940, so park your receiver on 740, especially during the sunset period, and you may be rewarded with some interesting receptions. It's not really the best time of year for it, but an empty 740 channel allows for better TA receptions on 738 and 747, so east coasters should look there as well, especially if the frequency remains open in the fall.

And Tim Hall reports that a Mexican X-bander has appeared: XEUT 1630 in Tijuana. Give it a try! Summer IDXD deadlines will be July 4, August 1, and September 5.

Jim

TRANS-ATLANTIC DX

- 531 ALGERIA Ain-El-Beida, APR 29 0147 - // 549 with AA dramatic production (like a soap opera) with several speakers. [Connelly*R-MA]
- 549 ALGERIA Les Trembles, APR 18 0035 - // 891 with slow male AA vocal & violins; to good peak. [Connelly*D-MA] APR 29 0055 - slow AA talk by man, seemingly part of a dramatic presentation; fair. [Connelly*R-MA]
- 585 SPAIN RNE1, Madrid, MAY 16 0029 - man in SS; in WEZE slop. [Connelly*D-MA]
- 603 SPAIN RNE5, Sevilla / Palencia, APR 29 0145 - // 684 with "Dock of the Bay" by Otis Redding; fair through CKCL slop. [Connelly*R-MA] MAY 16 0029 - SS discussion, laughter; fair. [Connelly*D-MA]
- 612 MOROCCO Sebaa-Aioun, APR 17 2350 - African drumming and shouting, then a more AA-sounding vocal; to good peak. This station had been inactive for several months. MAY 16 0028 - woman in AA; good. [Connelly*D-MA] + APR 29 0030 - AA talk; good. [Connelly*R-MA]
- 621 CANARY ISLANDS // SPAIN RNE1 synchros, APR 17 2352 - female stage-show style vocal & steel guitar; fair to good. MAY 1 2340 - SS commentary, then a folk song; loud, at least equal to adjacent WZON-620. [Connelly*D-MA] APR 29 0034 - // 738 with man & woman in SS; poor to fair. [Connelly*R-MA]
- 639 SPAIN RNE1, La Coruna, APR 29 0150 - // 621 with man & woman in SS; good. [Connelly*R-MA] MAY 16 0025 - excited SS talk. [Connelly*D-MA]
- 657 SPAIN RNE5, Madrid, APR 18 0038 - SS talk; poor with slop from partially nulled WFAN. [Connelly*D-MA] APR 29 0152 - // 684 with SS talk. [Connelly*R-MA]
- 666 SPAIN SER R, Barcelona, Barcelona, APR 29 0127 - SS teletalk // 1044 (man on phone, woman in studio); briefly atop the pile here. [Connelly*R-MA]
- 684 SPAIN RNE1, Sevilla, APR 17 2339 - // 855 with Broadway-type male vocal (western US theme), then SS talk; through WRKO slop. [Connelly*D-MA] APR 29 0028 - emotional SS talk by woman, then orchestral music; loud. [Connelly*R-MA]
- 693 AZORES RDP, Santa Barbara, APR 29 0102 - PP news at a very low audio level on a very strong carrier. UK and Spain audible in the background. APR 29 0141 - guitar jazz (Al DiMeola or similar), then "Here Comes the Rain Again" by the Eurythmics; excellent. [Connelly*R-MA]
- 711.04 WESTERN SAHARA Laayoune, APR 17 2257 - female AA vocal at low audio level on a fair-strength carrier. MAY 1 2335 - AA chant in echoey room; huge carrier, thin audio. [Connelly*D-MA]
- 729 SPAIN RNE1, Oviedo et al., APR 28 0009 - // 774 with folk vocal. [Connelly*R-MA]
- 738 SPAIN RNE1, Barcelona, APR 29 0034 - // 621 with man & woman in SS; fair through CHCM slop. [Connelly*R-MA]
- 756 SPAIN R, Euskadi, Bilbao, APR 29 0001 - SS news; to good peak. [Connelly*R-MA]
- 765 SENEGAL Dakar, APR 17 2333 - high-energy (soca-like) African music; HUGE! [Connelly*D-MA] APR 29 0003 - AA phone-in. [Connelly*R-MA]
- 774 SPAIN RNE1 synchros, APR 29 0006 - // 729 with folk vocal and whistling accompaniment, then SS talk;



- good. [Connelly*R-MA] MAY 1 2346 - // 621 with SS female vocal; poor to fair, mixing with apparent AA station. [Connelly*D-MA]
- 774 unID APR 17 2359 - monster blank carrier atop Spain; it went off abruptly at 0000 UTC. [Connelly*D-MA]
- 836 AZORES RDP, Pico da Barossa APR 17 2330 - "She Came in Through the Bathroom Window" by the Beatles, then "The Letter" by the Box Tops; picking up strength and eventually beating Canaries-837. Audio was a bit light, but the carrier got up to a strong level. [Connelly*D-MA] APR 29 0049 - "Cool Operator" by Sade; good. [Connelly*R-MA]
- 837 CANARY ISLANDS // SPAIN COPE synchros, APR 17 2254 - SS teletalk; to good peak over het from weaker Azores-836. MAY 1 2349 - // 882 with slow romantic SS vocal, then fast SS talk; over low growl & 836 het. [Connelly*D-MA] APR 29 0003 - SS news by woman; loud. [Connelly*R-MA]
- 855 SPAIN RNE1, Murcia et al., APR 17 2252 - Billy Joel singing "I Love You Just the Way You Are"; fair with WEEI nulled. MAY 1 2352 - // 621 with operatic vocal; fair. [Connelly*D-MA] APR 29 0122 - news about events in Spain; to excellent peak. [Connelly*R-MA]
- 882 CANARY ISLANDS // SPAIN COPE synchros, APR 17 2251 - fast SS talk. MAY 1 2332 - SS newstalk; fair. [Connelly*D-MA] APR 29 0104 - SS news by woman; excellent. [Connelly*R-MA]
- 891 ALGERIA Algiers, APR 18 0035 - // 549 with AA vocal and strings; fair through WBPS/Cuba slop. [Connelly*D-MA] APR 28 2358 - flutes, strings, uptempo vocal. [Connelly*R-MA]
- 918 SPAIN R, Intercontinental, Madrid, MAY 1 2355 - bits of monotone-delivery SS talk by man; poor. [Connelly*D-MA]
- 954 SPAIN R, España, Madrid, APR 29 0043 - SS teletalk show; good. [Connelly*R-MA]
- 981 ALGERIA Radiodif. Algerienne, Algiers, APR 17 2249 - AA vocal, then talk; starting to overpower the 980 domestics. MAY 1 2357 - AA male vocal at low audio level on monster carrier. [Connelly*D-MA] APR 28 2237 - het fading up, well before sunset. [Connelly*R-MA]
- 999 SPAIN COPE, Madrid, MAY 1 2358 - fast SS talk by man; strong, but heavily stopped by CKBW. [Connelly*D-MA]
- 1008 CANARY ISLANDS Las Palmas, R. Las Palmas / RadioVoz, APR 18 0007 - SS discussion / newstalk (not SER net); very good with WINS nulled. [Connelly*D-MA]
- 1035 PORTUGAL R, Nacional, Lisboa, APR 18 0011 - festive PP vocal; good (at least during pauses in talk on local WBZ). [Connelly*D-MA] APR 28 2356 - uptempo PP group vocal; to good peak with WBZ phased. [Connelly*R-MA]
- 1044 MOROCCO Sebaa-Aioun, APR 28 2308 - female vocal & flutes; fair. [Connelly*R-MA] MAY 1 2318 - in the clear with shrill vocal & drums. Carrier audible as early as 2245 (well before sunset). [Connelly*D-MA]
- 1044 SPAIN SER synchros, APR 18 0008 - SS talk with interludes of music; fair. [Connelly*D-MA]
- 1053 MOROCCO Tanger, APR 17 2322 - AA vocal in & out of a melange of signals. MAY 1 2321 - AA female vocal & violins; good, dominant over others. [Connelly*D-MA]
- 1098 SPAIN RNE5 synchros, APR 18 0013 - dramatic SS male talk, then romantic instrumental music; fair, dominant. [Connelly*D-MA] APR 29 0106 - // 1107 with SS news, then SS vocal music; good. [Connelly*R-MA]
- 1107 SPAIN RNE5 synchros, APR 18 0016 - // 1125 with organ music & SS vocal; fair, through WBT/YVQT slop. [Connelly*D-MA] APR 29 0106 - // 1098 with SS vocal; to fair peak. [Connelly*R-MA]
- 1116 ANGOLA E. P. do Kuanza-Sul, Sumbe, MAY 2 0007 - African music; poor, but briefly over SER-Spain. [Connelly*D-MA]
- 1125 SPAIN RNE5 synchros, APR 18 0016 - // 1107 with SS talk, organ music, vocal; to fair peak. [Connelly*D-MA]
- 1134 CROATIA HR, Zadar, APR 28 2240 - Slavic talk, then folk music with harp and bird sounds. [Connelly*R-MA]
- 1134 SPAIN COPE synchros, APR 17 2318 - woman in SS, interlude of piano music, then man in SS with telephone interview; fully dominant and loud. [Connelly*D-MA]
- 1152 SPAIN RNE5 synchros, MAY 1 2324 - fast SS talk; fair to good with WNFT phased. [Connelly*D-MA]
- 1179 CANARY ISLANDS // SPAIN SER synchros, APR 17 2316 - pop-folk vocal in EE, then woman in SS // 1575; huge, with almost no trace of 1180 stations. MAY 16 0003 - SS news by man & woman; to good peak. [Connelly*D-MA]



- 1197 MOROCCO RTM, Agadir, MAY 16 0001 - AA news by man; over others. [Connelly*D-MA]
 1215 SPAIN COPE synchros, APR 17 2325 - // 837 with SS talk, fair. [Connelly*D-MA] APR 29 0048 - // 837 with music, then SS teletalk. [Connelly*R-MA]
 1224 SPAIN COPE synchros, MAY 2 0019 - SS talk; poor, in mix with others. MAY 15 2359 - SS talk with slight echo; tough slop. [Connelly*D-MA]
 1251 LIBYA Tripoli, APR 17 2314 - AA male vocal & strings; good to excellent. MAY 2 0010 - excited AA political address or sermon; local-like ! MAY 15 2358 - female AA vocal; fading up. [Connelly*D-MA]
 1296 SPAIN COPE, Valencia, APR 17 2313 - fast SS talk by man; very good. [Connelly*D-MA]
 1305 SPAIN RNE5 synchros, APR 17 2312 - SS talk; over growl and something sounding like AA strings. MAY 15 2357 - SS vocal, talk; over bad growl. [Connelly*D-MA] APR 29 0050 - man & woman with SS discussion and laughing; good. [Connelly*R-MA]
 1413 SPAIN RNE5 synchros, APR 17 2309 - fast SS talk; in & out of CIGO slop. [Connelly*D-MA] APR 28 2325 - SS discussion; fair. [Connelly*R-MA]
 1422 ALGERIA Algiers, APR 17 2308 - AA male vocal at low audio level on a good-strength carrier. [Connelly*D-MA]
 1422 GERMANY DeutschlandRadio, Heusweiler, APR 28 2324 - male blues vocal; dominant. APR 28 2341 - Rolling Stones song "You Can't Always Get What You Want"; loud. [Connelly*R-MA]
 1458 ALBANIA RTV Shqiptar, Fllake, MAY 2 0015 - eastern European talk; poor in CKRB/WBET/WGNA slop pile. [Connelly*D-MA]
 1502.0 ANGOLA (t) E.P. de Benguela, APR 17 2242 - probably this with bits of talk and 1 kHz het against the 1503 jumble. [Connelly*D-MA]
 1521 SAUDI ARABIA BSKSA, Duba, MAY 1 2235 - bits of AA music; starting to fade up. [Connelly*D-MA]
 1548 KUWAIT VOA, Kuwait City, APR 29 0052 - US EE talk; to fair peak. [Connelly*R-MA]
 1550 ALGERIA RASD clandestine, Tindouf, APR 17 2335 - AA news by man; good with WNTN nulled. MAY 15 2352 - group AA vocal, drums, and guitar-like instrument; very good, over 1548 het. [Connelly*D-MA]
 1575 SPAIN SER synchros, APR 17 2301 - SS world news report, LOUD! MAY 15 2343 - folk vocal, then woman in SS; one of the earliest Europeans with good audio (15 minutes pre-sunset). [Connelly*D-MA] APR 28 2322 - SER newstalk, fast SA11. [Connelly*R-MA]
 1583.6 CEUTA RadiOlé, APR 17 2238 - SS group vocal; fair. This was stronger than Spain-1584 at the time. MAY 15 2344 - SS talk; fading up. [Connelly*D-MA] APR 28 2321 - rhythmic music; good. [Connelly*R-MA]
 1584 SPAIN SER synchros, APR 17 2302 - // 1575 with SS news mentioning Bogota, Colombia. QRM'ed by Ceuta on 1583.6. [Connelly*D-MA]
 1602 SPAIN EL Vitoria, APR 17 2303 - non-SER SS news; evenly mixing with the SER synchros. [Connelly*D-MA]
 1602 SPAIN SER synchros, APR 17 2303 - SS news // other SER's; over/under EI Vitoria. [Connelly*D-MA]

PAN-AMERICAN DX

- 530 TURKS & CAICOS R. Vision Cristiana, MAY 1 2344 - SS preaching & piano music; fading up from its threshold daytime level. [Connelly*D-MA]
 535 GRENADA GBC, St. George's, MAY 1 0859 - Caribbean EE talk by woman, then segments of hymn; to fair peak. [Connelly*Y-MA]
 540 MEXICO XEWA, San Luis Potosí - Monterrey, MAY 1 0909 - SS talk, ranchera accordions; mixed with WQTM-FL and others. [Connelly*Y-MA]
 555 ST. KITTS & NEVIS ZIZ, Basseterre, APR 18 0036 - Caribbean-EE sportstalk; fair to good, through WGAN splash. [Connelly*D-MA]
 570 CUBA R. Relój, MAY 1 0855 - Reloj clock ticks and code "RR's"; mostly under WMCA. [Connelly*Y-MA]
 590 CUBA R Musical Nacional, Santa Clara, Villa Clara, MAY 9 1040-1106 - running Rebelde overnight audio, finally potted down Nat & Natalie Cole's "Unforgettable" at 1102 (7:02 a.m. ET), into brief orchestral NA, then SS man with Musical ID and opening announcements, usual classical music format thereafter. Excellent. [Krueger-FL]
 600.06 COLOMBIA R. Libertad, HJHJ, Barranquilla, MAY 1 0228 - two slightly-reverberated R. Libertad ID's; over growl from the stations closer to the correct 600.00 kHz. [Connelly*Y-MA]



- 620 CUBA R. Rebelde, Colon / Moa, MAY 1 0916 - SS news about the Cuban economy. [Connelly*Y-MA]
 640 CUBA R. Progreso, Guanabacoa / Las Tunas, MAY 1 0918 - // 660 with slow SS female vocal; mixed with domestics. [Connelly*Y-MA]
 650 COLOMBIA RCN Antena Dos, HJKH, Bogotá, MAY 1 0224 - mention of a bank in Rio Cauca, then Antena Dos ID; good. [Connelly*Y-MA]
 660 CUBA R. Progreso, CMHG, Santa Clara, MAY 1 0918 - // 640 with slow SS vocal; under WFAN. [Connelly*Y-MA]
 670 CUBA R. Rebelde, CMQ, Arroyo Arenas, MAY 1 0922 - // 710 with SS political speech; over/under WMAQ. [Connelly*Y-MA]
 690 ANGUILLA Caribbean Beacon, The Valley, APR 29 0012 - Gene Scott show with preaching and mentions of experiences on a recent plane trip. APR 29 0100 - interspersed preaching and light jazz, talk "You are listening to Dr. Gene Scott, call toll-free 1-800-3383030 in the US and 1-818-2408151 outside the US." Loud (no Brazil QRM like I get down at the Duxbury site). [Connelly*R-MA]
 690 BRAZIL R. Dragao do Mar, ZYH587, Fortaleza, APR 17 2355 - man in 1/P, slightly over Anguilla. [Connelly*D-MA]
 700 JAMAICA RJR, Montego Bay, APR 29 0128 - reggae vocal; good with WLW phased. [Connelly*R-MA]
 710 CUBA R. Rebelde synchros, MAY 1 0922 - // 670 with Cuban political speech; under WOR. [Connelly*Y-MA]
 730 MEXICO XEX, Mexico City, MAY 1 0852 - SS dramatic program including wolf howls, then local advertising including various medical products; over/under CKAC. [Connelly*Y-MA]
 750 VENEZUELA RCR, YVKS, Caracas, APR 17 2357 - usual SS sportstalk with mentions of Copa Mundial, Mexico, futbol, and Manchester United. Local adverts followed. [Connelly*D-MA]
 759.8 CUBA R. Relój, Las Mercedes & Guanabacoa, MAY 16 0039 - Relój here about 200 Hz low; hetted by various 760.0 kHz South Americans. [Connelly*D-MA]
 760 BRAZIL R. Record, ZYH888, Fortaleza, APR 17 2334 - PP talk / preaching; over several others. APR 17 2359 - energetic PP preaching with slight reverb.; very good, way over the Reloj Cuban. [Connelly*D-MA]
 760 COLOMBIA RCN, HJAJ, Barranquilla, APR 18 0042 - SS news // 770; mixed with Brazil, Cuba, & others. [Connelly*D-MA]
 770 MEXICO XEFTA Los Mochis, Sinaloa, no date 1215 - playing a mariachi version of the Beatles "Yesterday". ID at 1215 and slogan "La Primerissima". [Danneskjold-AZ]
 770 COLOMBIA RCN, HJJX, Bogota, APR 18 0042 - // 760 with world news by man & woman in SS; atop WABC. [Connelly*D-MA]
 780 BRITISH VIRGIN ISLANDS ZBVI, Roadtown, Tortola, APR 18 0002 - Caribbean EE talk, then Caribbean music; in dogfight with CFDR and probable R. Coro. [Connelly*D-MA]
 800 NETHERLANDS ANTILLES Trans-World Radio, PJB, Bonaire, APR 18 0044 - SS talk "Bonaire ... Antilles Holandesas, Radio Transmundial", then Beethoven's "Ode to Joy" on trumpet; huge / totally dominant. [Connelly*D-MA]
 810 BAHAMAS (t) ZNS3, Freeport, MAY 1 0939 - probably this with black gospel male vocal; over/under CJVA with WGY nulled. [Connelly*Y-MA]
 820 unID APR 18 0046 - Latin American station with very bad hum and FM'ing; trashing WNYC. A 1 kHz het from likely Morocco-819 made things even messier. [Connelly*D-MA]
 830 CUBA R. Reloj, MAY 1 0930 - usual Relój news and time show; initially good, then it faded. [Connelly*Y-MA]
 830 ST. KITTS & NEVIS TBN, Basseterre, APR 17 2337 - US EE preacher; very good with WCRN nulled. [Connelly*D-MA]
 890 CUBA R. Progreso, CMDZ, Santiago de Cuba, MAY 1 0936 - woman in SS (// 640); mixing with other SS station that was possibly WBPS. [Connelly*Y-MA]
 895 ST. KITTS & NEVIS VON, Bath Village, APR 18 0032 - drums & vocal; poor. MAY 1 2353 - soca vocal and heavy percussion; fair. [Connelly*D-MA]
 900 MEXICO XEW, Mexico City, MAY 1 0943 - showtune-style SS vocal; briefly over Canadians. [Connelly*Y-MA]
 940 BRAZIL R. Brasil AM, ZYJ453, Rio de Janeiro, MAY 16 0045 - PP talk and "Mundial" mentions briefly atop the stew on the CBM-vacated channel. This station, affiliated with "Sistema LBV Mundial", is most likely. MAY 16 0106 - PP man bellowing into reverb; sinking down into the co-channel mush. Static crashes (from storms off Cape Hatteras, NC) got worse as

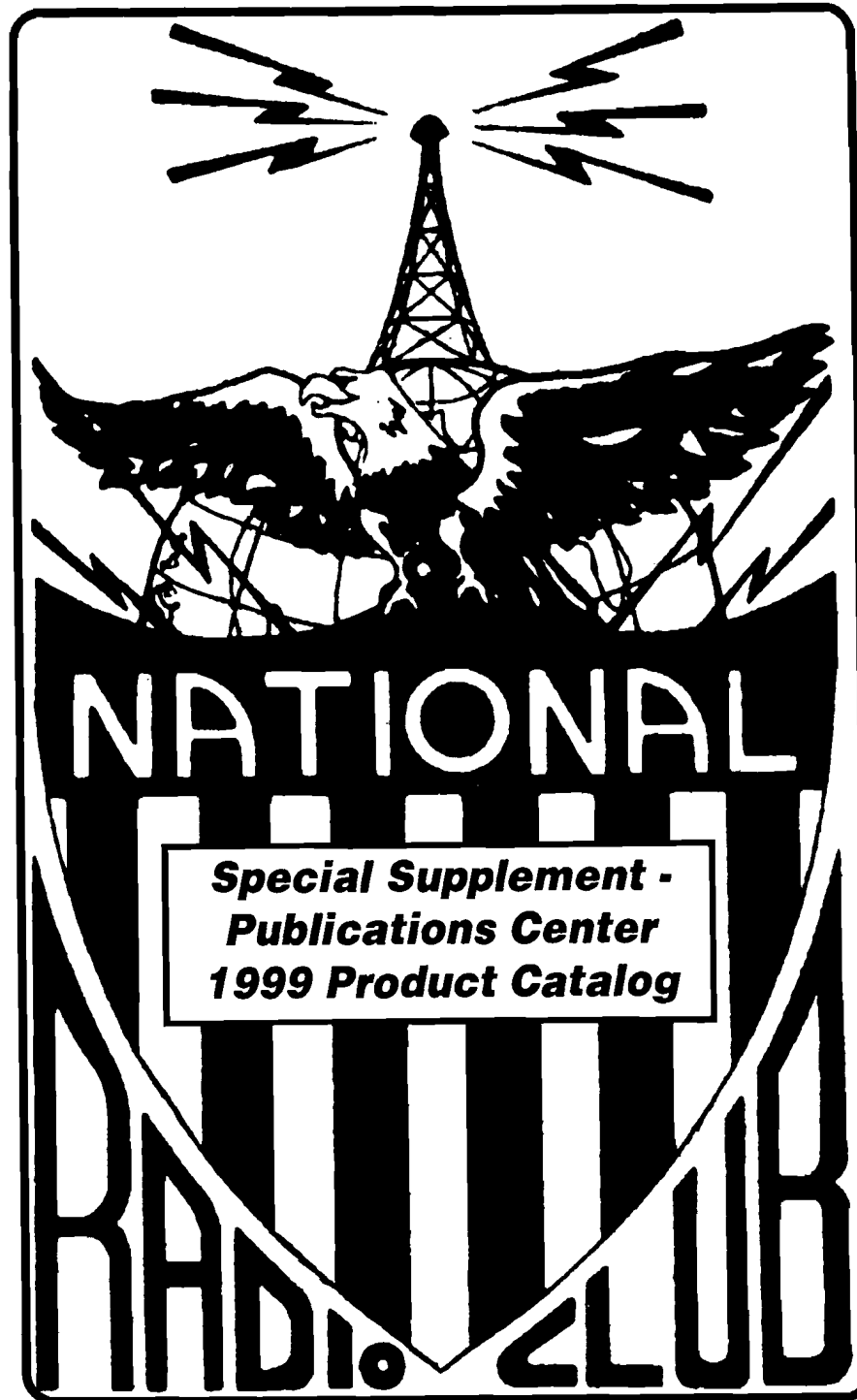


- time went on [Connelly*D-MA]
 940 COLOMBIA (I) RC'N, HJGB, Cali, MAY 16 0103 - maybe this with "colombiana" mentions; in jumble. [Connelly*D-MA]
 940 CUBA R. Reló; MAY 16 0104 - Reló; code RR's; battling at least 4 other stations. [Connelly*D-MA]
 940 MEXICO XEQ, Mexico City, MAY 1 0946 - SS shouting & local mentions, followed by tropical-style vocal. There was a low background growl from something slightly off frequency. [Connelly*Y-MA]
 940 PUERTO RICO WIPR, San Juan, MAY 16 0110 - this came up to a good strength and dominated the channel with numerous SS adverts for businesses in Mayaguez and San Juan. [Connelly*D-MA]
 940 VENEZUELA (t) R. Punto Fijo, YVNN, Punto Fijo, MAY 16 0103 - probably this with Venezuela mentions in news; in mess. [Connelly*D-MA]
 990 MEXICO XECL Mexicali, BN, MAY 9 0530 - playing music and ID. [Danneskjold-AZ]
 1020 PUERTO RICO WPJC Adjuntas, APR 27 2328 - Spanish polka music, strong under KDKA. Female announcer gave call letters that sounded like "WPGC". Lost to pattern change at 2330? [Kennedy-PA]
 1020 VENEZUELA R. Margarita, YVRS, La Asunción, APR 18 0010 - Venezuela and Margarita mentions; through WBZ-1030 stop. MAY 16 0117 - folk-style music, then man mentioned "música margariteña"; strong, over KDKA. [Connelly*D-MA]
 1110 VENEZUELA YVQT, Carupano, APR 18 0030 - woman mentioned Carupano, then dance music (in the style of Gloria Estefan) followed; over/under WBT. [Connelly*D-MA]
 1130 BRAZIL R. Nacional, ZYJ460, Rio de Janeiro, MAY 16 0123 - probably this with excited PP talk; over low rumble with WBBR in cardloid phase null. [Connelly*D-MA]
 1170 COLOMBIA CARACOL, HJNW, Cartagena, MAY 2 0008 - "en CARACOL" mention; over others. [Connelly*D-MA]
 1220 MEXICO XEB Mexico City, DF Mexico, MAY 8 0503-0505 - with ID and national anthem. [Danneskjold-AZ]
 1300 MEXICO XEXW Nogales, Sonora, MAY 8 0500 - Sounded like a kid giving a legal ID at TOH "con mil watts de potencia". [Danneskjold-AZ]
 1375.02 ST. PIERRE ET MIQUELON RFO, MAY 2 0012 - EE group vocal with Caribbean influences; huge. [Connelly*D-MA]
 1470 CUBA R Ciudad Bandera, Cardenas, Matanzas MAY 10 1436-1457 - thought I'd give 1470 a check in lieu of local WTBL's (Dunedin, FL) absence [they are currently almost never active—mostly on only when the Tampa Bay Lightning games are in progress]. Tune/in to SS man and woman with long, jovial readings of events in mostly Villa Clara and Matanzas provinces, then at 1444, a telco audio feed of woman from "Instituto Meteorologica" with the national weather for the day (most cities were "claro"). At 1456, nice clear live ID by the W DJ. Very happy to hear this Cuban local station! [Krueger-FL]

STATION NEWS

CUBA: R Rebelde - Most interesting: Rebelde is now on additional shortwave frequencies, some of which are parallel to medium wave, others not. Unlike the new local morning relays on 6140 and 9600, the 6120 0300 GMT transmission is not a live relay of the national network. The 6120 program ("Antena Rebelde") as monitored May 12 is taped, and rebroadcast at this time. The carrier came up at 0253, immediately with a 10-note chime interval signal (one I've never before heard on Rebelde—a near-clone of Hrvatski Radio's interval signal), followed by a man with canned "Once de la noche, hora de Cuba" into singer/songwriter icon Silvio Rodriguez' huge classic (and beautiful) hit "Como Esperando Abril" as the theme. Then some audio breaks, with interval signal continuing, followed by canned woman "Esta es R Rebelde..." along with a URL address a couple of times, and finally into formal programming 0259, consisting entirely of Cuban and Latin American news with many actualities, spiced with the interval signal and filler music. This was occasionally punctuated with the "regular" six-note Rebelde theme, as well as a new reverbing version of same. Closing announcement from 0358 with a promo for the morning broadcast over the Silvio song until the piano interlude, then carrier from 0400. Excellent signal here, of

(continued on page thirty-one)



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Publications

AM Radio Log 20th Edition - Order Item ARL
(Note: the 19th edition of the Log is sold out; the 20th Edition will be available shortly after October 1, 1999.)

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Verie Signers List - Order Item VSL

NRC Night Pattern Book - Order Item NPB - 200+ pages with patterns for stations in the U.S. Canada and parts of Mexico! Three-hole punched and updated through January 1, 1996. This book is designed to be used with the AM RADIO LOG.

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Newly Revised for 1999! Edited by Bill Hale. Contains maps for all frequencies with locations noted for every station in the USA and Canada. 8 1/2 X 11 format, three hole punched. Now INCLUDES Latitudes & Longitudes for every station in the U. S. A. and Canada. Large type with formula and instructions by NRC'er Dave Sundius. Designed for use with the AM RADIO LOG.

FM Atlas - Order Item FMA

17th Edition (Note: the 17th edition of the FM Atlas is sold out; the 18th edition is expected to become available sometime during summer, 1999.) From Dr. Bruce Elving. Contains listings by frequency and alphabetical listings by state. state by state location maps. Translators are listed by state. Entries include power, antenna height and format.

Getting Started in Medium Wave DX'ing - Order Item NMB

Updated in 1995. This booklet is designed to assist the novice DX'er in pursuit of the hobby. It includes introductory articles on foreign and domestic DX'ing. Articles on QSL'ing, safety and DX gear are also included. (This book is FREE with a new membership in the National Radio Club)

Beverage and Longwire Antennas Design and Theory - Order: BAM

This manual is a compilation of numerous articles on the subject of design and theory of the beverage and longwire antennas that have appeared through the years in *DX News*. Some articles are available as reprints. This book gives details information on the theory of operation, construction and maintenance of a beverage antenna. Serves as an enhancement to Antenna Reference

Manuals Volume 1 and 2. 5 1/2" X 8 1/2" booklet format.

Partial Contents:

Analysis of the Beverage Antenna
Part 1- Basic Theory
Part 2- Two-Wire Phased Antennas

Loop Antenna Design and Theory - Order Item LAM

Revised and updated in 1996. This manual is a compilation of numerous articles on the subject of design and theory of the loop antenna that have appeared through the years in *DX News*. This book gives detailed information on the theory of operation, construction and maintenance of a loop antenna. Serves as an enhancement to Antenna Reference Manuals Volume 1 and 2. 8 1/2" X 11" bound book format.

Partial Contents:

Multi-Rod Ferrite Loop Antennas
Roll Your Own! (Loop)
Loop Antenna Theory and Practice
Long Wave Converter Detail
BPE-C Loop Amplifier Card
The Hot Rod- Ferrite Loop Antenna
High Precision Direction Finding of MW Skywave Signals

Antenna Reference Manual Volume 1 - Order Item ARM1

Revised and updated for 1996. This manual is a compilation of numerous articles on the subject of antennas for medium wave DX'ers. Originally published between 1969 and 1974 in *DX News*. Includes articles on air-core and ferrite core loops, antenna tuners for longwire and beverage antennas and antenna couplers. This is the original book which has been available for several years. 8 1/2" X 11" bound book format.

Partial Contents:

NRC FET Altazimuth Loop
Balanced FET Amplifier
NRC Two Foot Loop
Tips on Loop Construction
One Transistor Loop amplifier
Balanced and Unbalanced Loops
Direct Coupled Loops
A "Collapsible" Loop for Travel
BCB DX'ers Beverage
Antenna Tuning Devices for Longwires on MW
Alternative Methods of Air Core Loop Amplification

Antenna Reference Manual Volume 2 - Order Item ARM2

Revised and updated in 1996. This manual is a compilation of numerous articles on the subject of antennas for medium wave DX'ers. Originally published between 1974 and 1981 in *DX News*.

Some articles were formerly available as reprints. Includes articles on air-core and ferrite core loops, antenna tuners for longwire and beverage antennas and phasing units for use with beverages and longwires. 8 1/2" X 11" bound book format.

Partial Contents:

A Good Loop is Easy (and Cheap) to Make
Antenna Coupler for Portable Receivers
AC Power Supply for FET Loop Amplifiers
Antenna Phasing FET Loop Amplifier with Coaxial Output
Practical Phased Beverages
Phasing Unit Construction and Use
Floor Stand and Mounting Arrangements for Loops

NRC County Cross Reference - Order Item CCR.

Compiled by Bill Hale. This handy reference has a complete lists of counties in the USA and Canada. These are listed alphabetically and cross referenced by state. A great way to ID those unID'ed stations that mention a county name! Also a complete list of counties listed by state and/or province. A perfect reference for Amateurs too.

The Challenging Crystal Set - Ray Cole - Order Item CCS

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The DX'pedition Handbook - Shawn Axelrod - Order Item DPH

With features by Mark Connelly WA1ION. A complete guide to planning and participating in a DX'pedition. Includes the results of the 1991 and 1993 Newfoundland DX'peditions. Recommended for those interested in exotic DX and using Beverage and mini-Beverage antennas

The Season of DXpeditions - Autumn 1996 Order SDP

Compiled by Chuck Hutton, Bruce Conti and Mark Connelly. An exciting compilation of DXpedition loggings and comments from around the World during the Bottom of the Sunspot cycle.

DX'ers 'Accessories and Aids

Sunrise/Sunset Maps - Order Item SSM

A set of 12 maps (8 1/2" x 11") with instruction sheet showing the average monthly sunrise/sunset times for the United States. An invaluable aid for DX'ing sunrise and sunset skip.

Map of U.S. & Canada - Order Item MAP

Map of the U.S. and partial Canada with state and provincial borders. Cities are not shown.

Broadcaster's Guide to DX - Order Items EEG (English) SSG (Spanish) - FFG (French) - FMG (FM DX)

Tri-fold guides for use with reception reports explaining the broadcast band DX hobby, the history of the NRC and the importance of verifica-

tions to DX'ers. Sold 20 per order.

Log Sheets - Order Items ... LG (110 sheets) LGS (20 sheets)

Organize by frequency with 25 entries per sheet possible. Space is available to add additional columns. Punched for a three-ring binder. 8 1/2" x 11". Sold 110 sheets per pack. (Additional pages are available in 20 sheet packs).

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After Dark Volume 4 - Order ADC4

Four 90-minute cassettes in a plastic album. Featuring an EXCLUSIVE! DXAS Interview with Wolfman Jack!!! "A Walking Tour of WWV" featuring Mindy Drayer. An exclusive interview with AM Stereo pioneer Leonard Kahn. Two successful blind DJ's and MUCH, MUCH more!

After Dark Volume 5 - Order ADC5

A 12-Cassette Collection in a plastic album featuring an in-depth interview with VOA's John Vodenik on the closing of the Bethany transmitter site. Airchecks from 1230 and 1240 stations, Interviews with Mark Connelly and Bruce Conti on TA DX and many more audio magazine features!

After Dark Volume 6 - Order ADC6

Four 90-minute cassettes in a plastic album. A look at Talk Radio - 1340 kHz Travelog - Battle of the Century, the WJY story from radio's early days. Interviews on scanning and Longwave DX'ing. Sports on Radio, a history of radio and sports, plus lots more!

After Dark 7 - Order ADC7

Four 90-minute cassettes in a plastic album. Stories of KVET Austin TX and WJJD Chicago IL. Pirate Radio in the US. Captain Flintstone is Grounded. International DX Report. Broadcast Pioneers by State and more

After Dark 9 - Order ADC9

The 1400 Travellog" by John Bowker. "Radio Bemis". "Filing your Comments". with the FCC "Sex and Deception". The Dr. Laura picture scandal. "Screening Calls" This article is about screening your telephone service, and was from Associated Press. "Selling of Sports" Ken Onyschuk and more!

After Dark 10 - Order ADC10

A Visit to WODI-1230" About small market radio. "Radio from L.P.B." (Low Power Broadcasting Inc.

After Dark Volumes 1,2 and 3 are listed in the NRC Archived Publications list. Order reprint ZAL for more information

For Members Only!

Member Logo Stationary - Order Item STA
Logo Reception Report Forms - Order item EERF (English) Items FFRF (French), SSRF (Spanish) - available as sample form only.

Membership Certificate - Order Item CERT - New with NRC Logo Red and Blue on White

Articles Reprints List

This list supercedes all previous lists and order forms, which should no longer be used. The number of pages in each article is indicated by ().

ANTENNAS

Many articles formerly in this section are in the Loop and Beverage Manuals.

- A2 A ZERO SHARPENING DEVICE FOR A BCB LOOP. T. Holmes. If you're having trouble obtaining sharp nulls with a standard loop, this simple device may help. (1)
- A3 A VERSATILE LONGWIRE ANTENNA COUPLER. R. Foxworth. How to get the maximum amount of signal from your longwire. (3)
- A9 DOWN TO EARTH GROUNDS. G.P. Nelson. How to make low resistance ground connections for terminating a Beverage (2)
- A10 A CALIFORNIA BEVERAGE. Fr. Jack Pejza. Results obtained at this Beverage site. (2)
- A12 THE VERTICAL PICKUP PATTERN OF THE MW LOOP ANTENNA. G.P. Nelson. Information for those doing horizon blockage experiments with a loop antenna. (4)
- A13 USING TWO ANTENNAS TO GENERATE ASYMMETRICAL RECEIVING PATTERN. M. Levintow. Shows a simple way to skew your loop's pattern to effect a null that will permit reception of a station impossible to receive on a figure-8 loop antenna by itself. Reprints A5 and A6 are a requirement for understanding this technique. (3)
- A14 A NEW MEDICAL BREAKTHROUGH FOR LONGWAVE TA'S. C. Clayton. Instructions on how to build an inexpensive loop antenna for LW. (1)
- A15 REVIEW OF THE DYMEK DA-3 ANTENNA. Pete Taylor, with notes by R. J. Edmunds. Evaluation of this MW antenna. (4)
- A16 MORE ON BEVERAGE ANTENNAS. Wes Boyd. Beverage antenna theory and application. (2)
- A17 MORE FERRITE LOOP ANTENNA INFO. Dallas Lankford. Inconsistencies in ferrite-core loop antenna theory. (3)
- A19 NEBE: THE NEBRASKA BEVERAGE. D. Fischer, C. Dabelstein, R. Mitchell. Results at the Nebraska Beverage site. (7)
- A20 THE LSCA-1. Ron Schatz. Construction plans for the Loop Sense Cardioid Array. Should yield a unidirectional receiving pattern when operated properly. (10)
- A25 A NOVEL APPROACH TO BUILDING YOUR OWN BCB LOOP. M. Maloney. Ideas for improvements in operation and sturdiness of loop antennas. (4)
- A27 SEVEN PASSIVE TUNERS. Mark Connelly. This article will introduce you to many different tuner designs and how they are used. (10)
- A29 REMOTELY-CONTROLLED ANTENNA TUNER RT-1. Mark Connelly. An introduction to the design of remote tuning for loop or wire antennas from distances of 50 feet or more. Use w/ A43 (7)
- A30 REMOTELY TUNED DIRECTIONAL LOOP ANTENNA. E.L. Cummins. Loops ideas for building where interior mounted loops will not work. (11)
- A31 SIMPLE CHEAP AND EFFECTIVE PRESELECTION LONGWIRE TUNER-AMPLIFIER. B. Sherwood. Schematic and brief instructions are given. (3)

- A33 ANTENNAS FOR AM BROADCASTING. Steve Kennedy. A brief history of early and current station antenna systems. (4)
- A34 SOME ANTENNA EXPERIMENTS - PART 1. W.R. McIntosh. Ever heard of a Helical longwire? This article deals with compact antennas for use where space is limited. (3)
- A35 THE PHASE ONE - A Delay Line Phasing Unit. Gerry Thomas. Description of an improved phasing unit design that can be built or is available in kit form. (3)
- A36 LOOP-LONGWIRE COMBINED ANTENNA. P. Swain. "Sensing" antennas for DXing and direction finding. (3)
- A38 EXTREMELY LINEAR ELECTRICALLY TUNABLE ACTIVE RECEIVING ANTENNA. Hopf and Lindenmeier. Technical discussion of an antenna system that is the optimum solution towards allowing undisturbed reception near transmitters. (5)
- A39 SIMPLE PASSIVE LONGWIRE TUNER. Mark Connelly. A basic tuner that can eliminate mixing spurs caused by strong locals. (2)
- A40 AMPLIFIED PHASED SHORTWIRES. Mark Connelly. Construction article. Utilizing an SM-2, phasing unit and short wire antenna. (8)
- A41 THE KOWALSKI LOOP. Neal Perdue with comments from Paul Kowalski. A first-hand account of this ferrite core loop antenna. A non-technical review, with comparisons to the SM-2. (2)
- A42 THE MWT-1 FAMILY OF ANTENNA TUNERS. Mark Connelly. Construction plans for the MWT-1, Mini MWT-1A, 1B and 1C antenna tuners (28)
- A43 RT-1 REMOTELY-TUNED ANTENNA TUNER. Mark Connelly. Description and construction plans. (10)
- A44 THE MINI MWDX-3. A simple, Effective Phasing Unit. Mark Connelly. Construction plans for a one-box phasing unit. Order also A55 (21)
- A45 THE MWDX-4 FAMILY OF PHASING UNITS. Mark Connelly. Construction and use of two similar series of phasing units. (25)
- A46 WIND A COMPLETE-COVERAGE COIL FOR THE RADIO WEST LOOP. Fritz Mellberg. Eliminate the need to change coils during tuning of the entire MW band on this antenna. (1)
- A47 TEST OF THE MITCHELL LEE LOOP AMPLIFIER. Mark Connelly. A new low impedance input, 3-transistor amplifier used with series tuned loops is detailed, along with improvement ideas. (6)
- A48 YAD ANTENNA GIZMO Jerry Starr. A simple-to-build antenna switching device. Will ground the antenna not in use while using the other; designed for 2 antennas and 1 receiver. (1)
- A52 COMPUTER-AIDED ANTENNA TUNER DESIGN. Mark Connelly. This BASIC computer program determines which component values are used in your antenna tuner. Tuner schematics included. (7)
- A53 IMPORTANT LOOP, TUNER AND PHASER DESIGN CONSIDERATIONS ("Q" DEMYSTIFIED) Mark Connelly. Technical article. The importance of "Q" and a BASIC program to find antenna tuner component values in light of the "Q" (7)

- A54 THE MITCHELL LEE AMPLIFIER: TWO TUNER IMPLEMENTATIONS. Mark Connelly. Technical article. Tuner circuits using this amplifier. Reference also A47. (5)
- A55 HOTRODDING THE MINI-MWDX-3 PHASING UNIT. Mark Connelly. Technical article. More on the Mini-MWDX-3. Requires reprint A44. (3)
- A57 MICRO-MWDX-4A LOOP VS WIRE PHASER. Mark Connelly. Connelly. Technical Construction Article. (11)
- A59 LIL-1. Dallas Lankford. Construction plans for a new circuit for combining a loop and inverted L antenna to generate a cardioid pattern. (3)
- A60 MEDIUM WAVE, A PRACTICAL APPROACH. Graham Maynard. This is a consolidation of articles that were first published by the Medium Wave Circle of England. It outlines the authors construction of his MW DX receiving set-up. (12)
- A61 MWDX-5 PHASING UNIT. Mark Connelly. The latest series of Phasing Units. Construction article. (11)
- A62 MINI-MWDX-5. A SIMPLE PHASING UNIT. Mark Connelly. Construction article. Similar to the MWDX-5 but simpler. A61 recommended (3)
- A63 RIBBON CABLE LOOPS. Mark Connelly. A new loop concept. (5)
- A64 QUANTUM LOOP Gerry Thomas & Mark Connelly. A new ferrite core loop. Reviewed and modified. (9)
- A66 SUPER BOOSTER BAR. Gerry Thomas. For portable receivers. (2)
- A67 BUF-A AMPLIFIER. Mark Connelly. A building block for many Connelly construction projects. (9)
- A68 HIGH PERFORMANCE LOOP AMPLIFIER. Dallas Lankford (6)
- A69 NOISE & INTERFERENCE REDUCING ANTENNAS. Wraight, Lankford & Connelly. (10)
- A70 REMOTELY TUNED LOOP RTL-1 & RTL-1A. Mark Connelly. Also Contains the latest BBA-C1 Amplifier Card. (20)
- A73 THE MWT-2 REGENERATIVE TUNER. Mark Connelly (21)
- A75 BEVMATCHER. A broadband Antenna Matching and combing Unit. Mark Connelly. (8)
- A77 The RTU-1. Mark Connelly. A remote tuning unit for active antennas. (11)
- A78 Coupler & Upgrades for the Quantum Loop. G. Thomas (2)
- A79 SUPER MWDX-5 PHASING UNIT. M. Connelly. Upgrade of Reprint A61 (16)
- A80 ANOTHER LOOK AT NOISE REDUCING ANTENNAS by Mark Connelly (3)
- A81 ONE CHIP ACTIVE ANTENNAS by Mark Connelly (3)
- A83 THE RTL-2 REMOTELY TUNED LOOP by Mark Connelly (24)
- A84 THE DCP-1 DUAL CONTROLLED PHASER FOR REMOTELY TUNED ACTIVE ANTENNAS by Mark Connelly (12)
- A85 DL-1 DELAY-LINE PHASE UNIT by Mark Connelly (9)
- A86 THE MWT-3 REGENERATIVE TUNER CONTROLLER by Mark Connelly A passive and Active broadband amplification control of remotely tuned loops and whips. (21)

- A87 ULTRALINEAR 2N5109 AND 2N3053 AMPLIFIERS. D. Lankford. Technical article with instructions/schematics. (15)
- A88 ULTRALINEAR AMPLIFIED ONE METER WHIP ANTENNAS. Dallas Lankford. 1994 - complete instructions & diagrams for 2 one meter antennas. (19)
- A89 THE FULL-SIZE, FULL-PERFORMANCE LOOP. R. Moore. A history & explanation of Loops & the author's current design. (10)
- A90 ANTENNA EXPERIMENTS - summer 1994. Mark Connelly. Tests to help you choose for your needs. (5)
- A91 KIWA/QUANTUM LOOP COMPARISON by Elliot Straus. (1)
- A92 PHASED NOISE REDUCING ANTENNAS by Russell Scotka (7)
- A93 THE QUANTUM (OR Q-STICK). A PASSIVE ANTENNA BOOSTER PLUS ADVANCED Q-STICK DXING TECHNIQUES by Jerry Thomas (8)
- A94 THE MWDX-6 PHASING UNIT by Mark Connelly (24)
- A95 DL-2 DELAY LINE PHASING UNIT by Mark Connelly (10)
- A96 TWO REMOTE ACTIVE ANTENNAS - RL-1 REMOTELY TUNED LOOP AND RW1 REMOTELY TUNED WHIP by Mark Connelly (15)
- A97 INVESTIGATION OF REGENERATIVE TUNER DESIGN THE MWT-3S by Bruce Conti - edited by Mark Connelly (6)
- A98 TEST REPORT - THE JPS ANC-4 ANTENNA NOISE CANCELLER by Mark Connelly (3)
- A99 LOOP SHOWDOWN KIWA VS RSM-105 by Mark Connelly (4)

DOMESTIC DX

- D2 IT TAKES TWO TO VERIFY, PLUS HELPFUL HINTS. J. Murley and R. Schüller respectively. Article on the station's attitude toward reception reports and veteran DX'er Schüller's tips on increasing your returns. (4)
- D3 THE DX TEST FROM A STATION'S VIEWPOINT. Bill Croghan. Hints from a broadcaster arranging DX tests and obtaining more verifications. (1)
- D4 WHAT IS A PRE-SUNRISE AUTHORIZATION? R. J. Edmunds. An Explanation of psra's. (3)
- D5 LONG DISTANCE RECEPTION OF DX TESTS. F. Dailey. Proven techniques. (1)
- D6 MAKING THE BEST OUT OF PREPARED-CARD VERIES. Kelly Andrews. The verie collector's last resort, with numerous samples. (3)
- D9 THE NSF SITUATION. J. Starr. A look at this problem from the broadcaster's side of the fence. (2)
- D10 DX FROM THE TWILIGHT ZONE. P. Sullivan. Sunrise and Sunset Skip explained (4)
- D11 GRAVEYARD DX, R. Foxworth, with additions by M. Levintow. DX'ing the local channels with results. (15)
- D12 CANADIAN FAMILY LIFE...IT'S TWINS. J. Oldfield. Explains station "families" in Canada. List of Station groupings as of 1980 (3)
- D13 THE POST-SUNSET AUTHORITY, A DAYTIMER'S DILEMMA Jerry Starr. A discussion on "PSSA's". (4)

(Continued on page twenty-six)

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NMB - Getting Started in MW DX'ing \$5.75 (\$10.95)
BAM - Beverage Antenna Design, Theory \$5.95 (\$7.95)
LAM - Loop Antenna Design & Theory \$8.50(\$12.95)
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MAP - Map of U.S. & Partial Canada- 5 for \$1.00 (\$1.50)
EEG - English Broadcaster's Guide to DX-20 for \$2.95 (\$3.50)
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(Continued from page twenty-three)

- D16 SUNRISE SKIP. R. Kramer. Practical how to info includes pre-sunrise authorities (psra), station allocations on clear channels and auroral effects. (7)
- D17 THE WORLDS HIGHEST-POWERED STATIONS. Mike Burden. From Radio Luxembourg's 1933 150KW transmitter to the mega-watters of today, includes WLW, Doc Brinkley, and more. (3)
- D18 QSL'ING THE LOCALS. Skip Arey. Extracting veries from your local stations. (1)
- D19 HOW TO "UP" YOUR TOTALS! John J. Rieger. An antidote to "DX burnout" and proof that there is DX after the first 1000 catches! (3)
- D20 WHO'S ON FIRST? Bruce Conti. Who was the first broadcasting station in history...? (4)
- D21 WHAT MAKES FOR A DX TEST? Wayne Heinen. A look at what happens at a radio station during a DX test (1)
- D22 FORMAT FUTURES. Chris Cuomo. What radio formats may look like in the 1990s. (2)
- D23 SATELLITE PROGRAMMING. Ed Ryan. A look at how it works. (2)
- D25 A SEVENTEEN-POINT PLAN FOR AN IMPROVEMENT. Doug Smith. A fix to the AM broadcasting service as we know it? (3)
- D26 ONCE UPON A TIME. Ben Dangerfield. What hap-pened years ago in DX, the NRC, and the world! 1963 was an amazing year. (3)
- D27 THE STEVENSON LOG. Gene Martin. The Broadcast Band in February 1926. (1)
- D28 SUNSET DX'ING FROM THE WEST COAST. Guy Kudlemeyer. Becoming a pro at catching stations at sunset. (6)
- D29 DX'ing Tips Using Satellite Services. D. Schmidt (2)
- D30 TRAVELERS INFORMATION STATIONS. Rules and Regulations governing these numerous low-power broadcasters. (2)
- D32 U. S. A. DIGITAL RADIO (IN-BAND, ON-CHANNEL). Official descriptions. (6)
- D33 BAD WEATHER! USE IT TO YOUR ADVANTAGE. by Dave Schmidt. (2)
- D34 PIRACY ON THE MEDIUM OR HIGH FREQUEN-SEAS (AND NOT WALK THE PLANK) by John D. Bowker. (5)

FOREIGN DX

- F1 DX'ING CENTRAL, SOUTH AMERICA AND THE CARIBBEAN. Mark Connelly. Listings, by frequency, of the best bets from these areas, along with the original Connelly, DeLorenzo, Kazaross article DX'ing Latin America and the Caribbean. (9)
- F2 TA TIPS FOR BEGINNER. Dave Yocis. Your first Trans-Atlantic receptions! (2)
- F3 PORTUGUESE FOR DX'ERS. R.Schatz. Describes the important features of this language. (2)
- F4 TA DX'ERS GUIDE TO SUNRISE-SUNSET TIMES. Mark Connelly. Reference to SRS-SSS times with extensive tables for many locations. (4)
- F5 HUNTING LATINS BY MUSIC. R.Schatz. Describes types of LA music from various countries and how to ID stations using this information. (5)
- F6 ZONAL-ANALYSIS APPROACH TO TA DX. Mark Connelly. A systematic method of group-

ing TA countries to help the DX'er recognize different types of openings and improve TA reception. (4)

- F7 ZONAL-ANALYSIS APPROACH TO PAN-AMERICAN DX. Mark Connelly. Similar to F6, with the emphasis on the Eastern U.S. loggings of LA and South American stations. (5)
- F8 STATION IDENTIFICATION. Tips on how to ID stations in nearly 50 languages! (2)
- F9 SOME EASY TA'S. Dallas Lankford. (2)
- F10 ID'ING JAPANESE BROADCAST STATIONS. Charles Taylor. Hints to help, without actually knowing the language! (2)
- F11 COMMON SENSE TA DX STRATEGY. Mark Connelly. Practical hints are given for hearing Trans-Atlantic stations. (2)
- F13 THE ODDS ON EVEN TA'S. Mark Connelly. The possibility of hearing TA's on channels shared with domestic stations. (10)
- F14 YOUR FIRST 30 COUNTRIES IN ENGLISH. Mark Connelly. Listed by country. (3)
- F15 CARIBBEAN MW DX GUIDE. Mark Connelly. Listed by country. (4)

HOBBY REFERENCE LISTS

- Some reprints formerly in this section are found in Station Location Mapbook (SLM)
- HRL1 National Radio Club Common Abbreviations List (6)
- HRL2 Cuban Medium-Wave Broadcast Stations (This list recently revised) (4)
- HRL3 U.S. Postal Service 3 digit ZIP codes (2)
- HRL4 North American Time Zones to UTC Conversion Chart. (1)
- HRL5 Frequency and Power Relationship Chart. Shows average coverage radius for various powers at BCB frequencies. (1)
- HRL8 NRC Countries List edited by Al Merriman (2)

MISCELLANEOUS ARTICLES

- M1 LOCAL SIDEBAND SPLASH: HOW MUCH IS TOO MUCH? G.P. Nelson. This article describes FCC regulations on sideband radiation on the Medium Wave band and types of station-originated spurious radiation. (1)
- M2 MODULATION ARCING J. Starr. Describes a frequent but rarely discussed cause of medium wave interference originating at the station. (1)
- M3 SUNRISE-SUNSET TABLES. G.P. Nelson. These charts allow determination of accurate time of sunset and sunrise at any point in the world on any date. (9)
- M4 RF INTERFERENCE AND THE HOME COMPUTER. Bill Krause, ANARC. Home computers will cause interference on your DX rig unless precaution are taken; solutions are discussed. (2)
- M5 UNRESTRICTED RADIATION. G.P. Nelson. Discussion of carrier current stations and how to hear them. (3)
- M6 RF POLLUTION. G. Hauser. General discussion of the radio interference problem and steps necessary to control it. (2)
- M7 PATTERNS, PARTS I, IIA, IIB. P. Hart. These articles explain in detail what patterns mean and understanding their relationship to DX'ing! (34)
- M9 MORE ON HOW DIRECTIONAL ANTENNA PATTERNS ARE PRODUCED. Wes Boyd.

Supplementary information to the articles contained in the 1980 edition of the NRC Night Pattern Book. (1)

- M10 SUPERMODULATION AND EFFECTS ON DX'ING. Steve Kennedy. Discussion on the problem and its affect on DX'ing. (3)
- M11 TERRAIN CHARTS FOR PROPAGATION PREDICTIONS. M. Connelly. This article details how to prepare a chart of a DX'er's surrounding terrain which can help enhance or diminish reception. (3)
- M12 NOISE LEVELS AND USABLE RECEIVER SENSITIVITY. C. Hutton. Technical Discussion of the effect of noise on receiver sensitivity. (5)
- M13 GREAT CIRCLE CALCULATIONS REVISITED. Mike Tuggle, with an addendum by R.N. Allen. An explanation, how to figure distance and direction of stations mathematically, with a computer program to figure the Great Circle paths. (4)
- M17 SOME THOUGHTS ON INTERFERENCE. Skip Arey. A simple modification to eliminate noise from light dimmers. (1)
- M18 MANMADE INTERFERENCE ON THE BCB. Dallas Lankford. A systematic approach for evaluating a current or future DX'ing location in terms of man-made noise levels. (3)
- M20 THE LOG BOOK. John J. Rieger. Organizing your log book. (3)
- M23 WBBM RADIO: YESTERDAY AND TODAY. Chuck Schaden. A book review (1)
- M25 MUSIC IN THE AIR, by Philip K. Eberly. Reviewed by Armand DiFilippo. (1)
- M30 THE GOLDEN AGE OF DX'ING. John Clements. Were the years 1969 thru 1975 the Golden Age of DX'ing? You decide. (4)
- M31 ALL ABOUT WAVELENGTH. John D. Bowker. Wavelength versus frequency. An explanation. (2)
- M32 STANDARDS TIME AND FREQUENCY. via Pete Kemp. Time and frequency stations located on longwave. List by frequency. (3)
- M33 AM RADIO IN HIGH FIDELITY. John D. Bowker. Find out the reason why AM sounds so bad and what can be done to fix it. (1)
- M34 MYSTIQUE OF THE THREE-LETTER CALL. Thomas White, via CompuServe, via Pete Kemp. The Historic Roll Call and Current Status. (12)
- M37 NOISE Some Causes and Some Cures. Wayne Heinen (4)
- M39 FOUR SOFTWARE PIECES FOR MW DX'ers G. Kudlemeyer. Review of programs for Macintosh Computer Owners. (6)
- M40 PIONEER BROADCASTING STATIONS IN THE US. Thomas White A comprehensive history of U. S. Radio including the oldest 127 stations still in operation with starting dates. (12)
- M41 RFI FROM HOUSEHOLD ELECTRONICS by Perry Crabill, Jr (2)
- M42 AN INTRODUCTION TO LONGWAVE DX'ING by Shawn Axelrod (3)

PROPAGATION

- P1 MEDIUM WAVE SIGNAL PATHS, PARTS I, II, III, AND IV. G. P. Nelson. Discusses Great Circle paths, seasonal absorption patterns, auroral effects and the Mid-Winter Anomaly. (29)
- P2 SOLAR CONTROL OF DAWN E-BLANKETING ON THE MW BCB. G. P. Nelson. Explains how the position of the sun controls the fadeout

time of TA's and TP's. (3)

- P3 EAST-WEST SYMMETRY AND THE FADE-IN PROBLEM. G. P. Nelson. Explains how the sun controls the fade-in times for MW stations. (2)
- P4 SUMMER RECEPTION ON THE BROADCAST BAND. G. P. Nelson. First article describing the seasonal patterns in solar terminator location which makes summer MW reception from deep South America and Africa possible. (3)
- P5 METEOROLOGICAL EFFECTS ON MW GROUNDWAVE RECEPTION. R. J. Edmunds. Short term variations in groundwave propagation at MW frequencies and their relationship to weather conditions. (7)
- P6 AURORAL EFFECTS AND THE 1969 TRANS-ATLANTIC LISTENING TEST. G. P. Nelson. A description of how the geo-magnetic and auroral phenomena control TA reception from various stations. An introduction to auroral effects. (5)
- P7 THE AURORA OF NOVEMBER 6-9, 1970. G. P. Nelson. Traces a classic auroral attack from its origin on the sun to its effect on MW reception. (3)
- P8 COMPARATIVE MEASUREMENTS OF GEOMAGNETIC INDICES. R. J. Edmunds. A three month comparison of A-index measurements as reported by several major observatories as they relate to each other. (3)
- P9 SKYWAVE OR GROUNDWAVE RECEPTION? G. P. Nelson. How to tell whether the signal from a station is arriving via ground wave, skywave, or both. (3)
- P10 A BEGINNER'S GUIDE TO THE IONOSPHERE. Fr. Jack Pejza. This article explains the processes which change the ionosphere and the effects of these changes on radio wave propagation. (10)
- P11 THE LIMITS OF MIDDAY MW DX. G. P. Nelson. Comprehensive article describing the factors which influence radio wave propagation and reception during the late morning and early afternoon hours. (16)
- P12 LIMITATION ON THE USE OF THE A-INDEX. G. P. Nelson. An explanation of the A-index as a DX'ers tool. (3)
- P13 BCB RECEPTION DURING PERIODS OF HIGH AURORAL ACTIVITY. G. P. Nelson. Describes research into the effects of the aurora on MW propagation. (8)
- P14 SKYLINE BLOCKAGE Fr. Jack Pejza. Mathematical derivation of the formulas needed to calculate the effect which terrain has on signals. (10)
- P15 SKYLINE BLOCKAGE, SOURCES OF UNCERTAINTY. G. P. Nelson. Takes into account the possibility of signal propagation by some less common modes which are subject to blocking by the horizon. (9)
- P16 HORIZON BLOCKAGE: CAN FRESNEL DIFFRACTION BE IGNORED? G. P. Nelson. This article shows how signals that should be blocked by the horizon can sometimes be heard. (10)
- P17 TRANSPOLAR DX RECEPTION. R. J. Edmunds. This technical article relates to the trans-polar reception of central and eastern Asiatic stations at sunset in North America. (27)

- P18 OBSERVATIONS OF TRANS-ATLANTIC MW RADIO SIGNALS. C. W. Bailey. The results of a lengthy survey of TA receptions made over a one-year period. (3)
- P19 PROPAGATION AT MW FREQUENCIES. P. Sullivan. Discusses some aspects of the factors which control signal reception on the BCB. (6)
- P20 FACTORS OF MW PROPAGATION. F. Dinning. Discussion of the nature of MW propagation. (6)
- P21 DOMESTIC PROPAGATION-ANSWERS TO FREQUENTLY ASKED QUESTIONS. R. J. Edmunds. A discussion on some of the propagational factors that affect domestic reception. (1)
- P22 REVIEW OF SOLAR ACTIVITY FOR THE MW DX'ER. R. J. Edmunds. An explanation of the Fredericksburg A-index as well as its use in the hobby. (2)
- P23 MEDIUM WAVE IONOSPHERIC PROPAGATION PLUS THE SEQUEL TO R.Schatz. These articles take a different approach to propagation and presents new terms and theory. (11)
- P24 TERMINATOR TRANSIT MECHANIX R.Schatz. Parts I, II, III, IV AND IV-A of a series which the author states features practical techniques to hear new stations; techniques never before available. (33)
- P25 SUNSPOT CYCLE 21 - THE PEAK - HOW MUCH AND WHEN. O. Oklehen, H. R. REPORT. This article, through careful predictions, shows how the next peak in solar activity will be one of the most severe in recent history: Includes additional comments by R. J. Edmunds. (3)
- P26 ATMOSPHERIC AND GALACTIC NOISE ON THE BCB. Dallas Lankford. A discussion on the amounts of various types of noise. Compared to receiver sensitivity (3)
- P27 ON THE NATURE OF SCIENCE AND THEORIES OF BCB PROPAGATION. Dallas Lankford. Discussion of several theories, concentrating on the controversy concerning the degree of the arrival angle of signals propagated over long distances. (3)
- P28 DXING THE 1984 SOLAR ECLIPSE. Gerry Thomas. One DX'er's experiences during this rare DXing opportunity. (3)
- P29 ON OBLIQUE PROPAGATION. Dallas Lankford. Very technical discussion on the theory of oblique incidence nighttime ionosphere at BCB frequencies. (12)
- P30 MEDIUM-WAVE OBLIQUE PROPAGATION - ANOTHER VIEW. Randall J. Seaver. Some different interpretations are presented on this subject, as well as examples of MW propagation analysis using the Knight Wave-Hop method. (9)
- P32 RELATIONSHIPS BETWEEN SOLAR ACTIVITY, THE EARTH'S MAGNETIC FIELD, AND MW DXING. Randy Seaver. General characteristics of geophysical phenomena are addressed, in order to understand relationships between the sun, the geomagnetic field, and high-latitude DX. (15)
- P33 SEA GAIN. Randy Seaver. A discussion of the propagation phenomena. (11)
- P36 M.F. PROPAGATION: A WAVE-HOP METHOD FOR IONOSPHERIC FIELD STRENGTH PREDICTION. P. Knight. A method for calculating the strength of medium-wave frequency sky-wave signals at night. (9)
- P37 BEAMIAC-A -DELUXE+ GREAT CIRCLE BEARING DISTANCE COMPUTER PROGRAM. Mark Connelly. A "basic" computer program. (6)
- P38 THE EFFECTS OF WEATHER ON THE IONOSPHERE. Jack Woods. A discussion on weather and MW propagation. (2)
- P39 GROUND WAVE, SKY WAVE. John I. Bowker. A simple explanation of these terms. (1)
- P40 TRACKING THE 1994 SOLAR ECLIPSE BY RADIO by Ken Chatterton (3)

RECEIVING EQUIPMENT AND TECHNIQUES

Some articles previously in this section are available in "The Challenging Crystal Set"

- R1 SPURIOUS SIGNALS & SPURIOUS SIGNALS REVISITED. R. J. Edmunds and G. P. Nelson. Many DX'ers hear stations on frequencies where they don't belong. Article describes causes and cures of spurious MW signals. (10)
- R2 SINGLE SIDEBAND RECEPTION ON THE BCB WITH MECHANICAL FILTERS. G. P. Nelson. Few commercial receivers covering the MW band have adequate selectivity to cope with MW interference—particularly in the presence of powerful local stations. Explains how to add mechanical filters to an existing receiver for the ultimate in adjacent channel rejection. (21)
- R3 SUBAUDIBLE HETERODYNES ON THE MW BCB. G. P. Nelson. Details on a technique to permit the MW DX'er to detect and characterize signals too weak to hear at the time; allows the DX'er to count the number of stations on a channel—even if no programming is audible and permits direction-finding on channels with several stations present. (6)
- R5 THE TRACKING PROBLEM AND HOW TO CURE IT. G. P. Nelson and T. Holmes. Many excellent receivers are poorly designed for MW DX operation. This article describes one of the most common design faults and how to cure it. (4)
- R6 ELECTRONIC VERNIER TUNING. R. Moore. Detailed instructions on how to fit a varactor to a MW receiver to provide fine bandspread. (4)
- R9 RECEIVER/ ACCESSORY INTERFACES MADE SIMPLE AND CHEAP. R.J. Edmunds. A discussion of methods of interconnecting DX equipment. (7)
- R10 UP THE CARRIER. W. Bailey. Dig the weak DX out of the mud with this form of exalted carrier reception. (1)
- R11 PRECISION FREQUENCY MEASUREMENT. R. Schatz. How to use the frequency counter. (3)
- R13 SINGLE SIDEBAND RECEIVING ADAPTERS. T. Sundstrom. How to sharpen your receiver's IF bandpass using a B&W 370 receiving adapter. (2)
- R14 REVIEW OF THE AUTEK Q-BOX. T. Sundstrom. Describes the uses of this noise filtering device and its applications in MWDX. (3)
- R17 BUILD YOUR OWN AUDIO FILTERS. P. Sullivan. A technical theory and construction article on inexpensive homebrew audio filters. (7)
- R19 A BRIEF REVIEW OF THE AUTEK QF-1

- AUDIO FILTER. C. Hutton. A non-technical review of this noise and interference filter. (2)
- R20 A FREQUENCY COUNTER FOR RECEIVER TUNING. R. Foxworth. A very thorough paper on digital readouts and what to look for in various models. Discusses technical theory and provides circuitry to enable the Experimenter to build a counter for use as a "digital dial". (13)
- R22 THE LYNODYNE CRYSTAL WIRELESS RECEIVER. R.W. Tuggle. The concepts of vintage crystal radio are incorporated in these construction plans for a simple receiver, offered as a sporting alternative to modern receivers; yet it has the potential for real DX. (4)
- R23 DIVERSITY RECEPTION. C. Hutton. Using more than one antenna and receiver in an effort to reduce fading and interference on one frequency. (1)
- R24 TIPS ON REMOTE TAPING. R. J. Edmunds. This article explains several methods you can use to turn your receiver and recorder on while you are otherwise occupied. (2)
- R25 STRONG SIGNAL HANDLING. C. Hutton. This technical article explains that sensitivity and selectivity are not the only, nor the most important, considerations in a receiver. (6)
- R26 RECORDING JACKS FOR RECEIVERS. Dave Arbogast. A simple step-by-step procedure is outlined for adding a tape jack to almost any receiver. (1)
- R27 TAPE RECORDING HINTS. Mark Connelly. A complete method of radio-to-tape interfacing for portable radios is detailed, complete with schematics and parts lists for construction. (4)
- R28 CONVERTING THE R-390A POWER SUPPLY TO SOLID STATE. Charles Taylor. A conversion process to change the older high voltage tubes to solid state diodes is described step-by-step. (7)
- R29 R-390A ALIGNMENT CHART. Charles Taylor. A step-by-step procedure for aligning the R-390A. (5)
- R30 MCKAY-DYMEK DP-40 PRESELECTOR. R. Foxworth. A non-technical description of this useful filter accessory plus some modifications to improve its performance. (2)
- R31 THE SUPER HQ-180. Dallas Lankford. Add a Collins mechanical filter to your "180". While not a "how-to" article, problems and results are discussed. (4)
- R32 HQ-180A ALIGNMENT WITHOUT A 60 KHZ SOURCE. Dallas Lankford. Although most RF signal generators do not tune below 100 KHz., the HQ-180A's 60 KHz IF can be aligned with a 455 KHz RF source. (4)
- R33 R-390A/URR PTO ALIGNMENT. Dallas Lankford. The alignment procedure to achieve exact end-point alignment in the R-390A PTO tuning is detailed. See R34, (3)
- R34 INSIDE THE R390A PTO. Dallas Lankford. An in-depth article that explores the PTO tuning in the R-390A and shows how to improve its performance up to specifications. See R33. (4)
- R35 THE R-390A ON LONGWAVE. Craig Healy. A simple and inexpensive method to modify the R-390A effective amplifier for loops to tune below 500 KHz. (2)
- R36 THE BBA-1 BROADCAST AMPLIFIER. Mark Connelly. A simple and other antenna. Complete construction details. (11)
- R37 THE GENERIC HQ-180 IF ALIGNMENT William Marvin. A non-technical procedure that requires no test equipment. (4)
- R38 VARACTOR DIODE APPLICATIONS FOR DX'ERS. Mark Connelly. Discussion of the Advantages and disadvantages of substituting the varactor diode for the variable capacitor in various DX projects. (10)
- R39 A "KNOCK-YOUR-SOCKS-OFF" REGENERATIVE PREAMP. Ray Cole. A simple-to-build preamp that promises to nearly double your receiver's ability to dig weak signals out of the noise. (1)
- R41 THE DX TIME-MACHINE. Craig Healy. Use your VHS VCR to record all or part of the AM Band for later listening! It may have started as an April Fool's joke, but with the modifications described, it really does work!! (3)
- R42 NOISE AND SIGNAL LEVELS ON THE BCB. Marc Bergman. How much sensitivity does a receiver need? A practical view of signal level vs. BCB noise levels (15)
- R43 CERAMIC FILTERS. Marc Bergman. A listing and description of the most commonly available ceramic filters, with data from tests. (9)
- R44 THE HQ-180 SERIES RECEIVERS SENSITIVITY TEST. Dallas Lankford. A simple diagnostic test. (2)
- R46 SURPLUS MECHANICAL FILTERS. Marc Bergman. Test results of several reasonably-priced and available mechanical filters. (3)
- R47 ADD A TUNING METER TO YOUR RECEIVER. Ray Cole. Shows how to add a meter to your radio for accurate tuning. (1)
- R50 R71A SPEAKER MODIFICATION. Herman Plew. Throw that sound in the right direction with this modification. No technical knowledge needed! (1)
- R51 SELECTIVITY VS. FIDELITY FOR THE DOMESTIC BCB DX'ER. Neal A. Perdue. What is selectivity? What is fidelity? Why do you need both? (1)
- R52 YET ANOTHER USE FOR THE AUTEK RESEARCH QF-1A ACTIVE AUDIO FILTER. Neal A. Perdue. Clean up your DX catch tapes, even old records with these techniques. (1)
- R53 THE RBL AND THE R-392/URR, A SYMBIOTIC RELATIONSHIP OR NEW USES FOR TEST POINT E203. John H. Rose III. Technical article using these receivers in a series of experiments. (3)
- R54 COLLINS 51J4 REVIEW. Dallas Lankford. A detailed review. (3)
- R55 COLLINS 51J4 TECHNICAL NOTES. Dallas Lankford. A comprehensive technical review. (10)
- R56 MORE COLLINS 51J4 TECHNICAL NOTES. Dallas Lankford. A continuation of Reprints R 54 and R 55 (4)
- R57 COLLINS R390A, THE WORLD'S BEST RECEIVER? G.S. Mayard. This review gets into the details of another fine DX receiver. Technical. (6)
- R58 A SIMPLE HIGH-PASS AF FILTER. Gerry Thomas. Hear those "in-the-mud" stations better on that speaker. (1)
- R59 R-5000 MODIFICATIONS. Eric Roskos via Peter Kemp. (3)

- R60 COMMENTS ON G. MAYNARD'S SYNCHRONOUS DETECT. Wayne Heinen. This reprint should be used in conjunction with reprint R-57. (1)
- R61 ADD A Q-MULTIPLIER & A SB-620 TO THE R390A. Wayne Heinen. (1)
- R62 PHASING UNIT DESIGNS: SIMPLE TO COMPLEX. Mark Connelly. (5)
- R63 HQ-180 AGC MOD. Dallas Lankford. AGC overshoot on the HQ-180 can be cured. (1)
- R64 51J/R-388 BAND 1 MOD AND AGC MOD. Dallas Lankford. Increases MW sensitivity. (1)
- R66 R390A AGC/BFO MODS. Dallas Lankford. Technical article. (4)
- R67 R390A KHZ FILTERS FOR THE HQ-180. Dallas Lankford. How to use Collins DB filters in your HQ-180 receiver. (2)
- R68 R-390A AUDIO OUTPUT IMPEDANCE MATCHING. Dallas Lankford. Improve the audio quality of your R-390A. (2)
- R69 COLLINS R390A - THE ORIGINAL "WORLD'S BEST". Graham Maynard. More tips and modifications. (7)
- R70 NRD-525 AGC Mod. & AGC Mod 2 Dallas Lankford (6)
- R71 DRAKE R-8 MW ATTENUATOR MOD. Dallas Lankford. (1)
- R72 MODIFICATIONS FOR THE NRD-525. John R. Tow (5)
- R73 HOTRODDING THE RADIO SHACK 12-625. Ray Cole (1)
- R74 COLLINS TORSION MECHANICAL FILTER FOR THE R-390A. D. Lankford (7)
- R75 DRAKE R-8 TYPE B SPURS ELIMINATION. D. Lankford (3)
- R76 DRAKE R-8 INCREASED DYNAMIC RANGE. D. Lankford (4)
- R77 MODIFICATIONS FOR THE SANGEAN ATS-803A. G. Maynard (3)
- R78 IMPROVEMENTS TO REGENERATIVE RECEIVER DESIGN by Mark Connelly (2)
- R79 R-390A WON'T TURN OFF AGAIN (?) by Dallas Lankford (2)
- R80 NRD-525 FILTER MODS by Dallas Lankford (7)
- R81 DRAKE R-8: ENCODER SHAFT STATIC ELIMINATION. by Dallas Lankford (1)
- R82 DRAKE R-8: LOW HEADPHONE VOLUME & BROKEN FEET by Dallas Lankford. Cures for Same! (1)
- R83 RACAL RA6790GM NOISE BLANKER NOTES by Dallas Lankford. (6)
- R84 DRAKE R8 MORE ON IMPROVING IMAGE REJECTION by Dallas Lankford (5)
- R85 R-390A FILTER MOD #3 by Dallas Lankford (3)
- RR8 McKAY-DYMEK DR-22J. Clements. A non-technical pre-production review. (3)
- RR9 ICOM IC-R70 COMMUNICATIONS RECEIVER. Vincent Pinto. An in-depth, technical review. (9)
- RR10 THE GE SUPERADIO-CASSETTE. Michael Sapp. The GE Superadio with an integral tape recorder. (4)
- RR13 THE SONY SRF-A100. Greg Monti and Albert S. Lobel. Two looks at this AM-stereo portable receiver. (5)
- RR14 THE ICOM IC-R71A RECEIVER - From the Australian DX CALLING Magazine. User review with commentary. (7)
- RR15 UNIDEN CR-2021 VS. SONY ICF-6500W Gerry Thomas. A Comparison. (3)
- RR16 NRD515 Review by Bob Foxworth. (7)
- RR18 SURVEY OF HAMMARLUND RECEIVERS. Dallas Lankford. A summary of the full line of Hammarlund receivers suitable for BCB DX; with comparisons, modifications and hints when purchasing one. (7)
- RR19 KENWOOD R-5000. Don Moman. Includes performance results against the ICOM R71 and SONY ICF-2010. (5)
- RR20 THE GE SUPERADIO-PLUS. Dick Truax. User first impressions and opinions. (1)
- RR21 THE COLLINS 51J-4 GENERAL COVERAGE RECEIVER. Fritz Mellberg. (2)
- RR22 DENON AM-FM TUNER, MODEL TU-800. Doug Allen. A great radio for FM DX'ing! (2)
- RR23 ICOM IC-R70, A QUICK REVIEW. John J. Rieger. Non-technical review. (2)
- RR25 REALISTIC 12-625 Ray Cole, Paul Swearingen, César Objio. (4)
- RR28 REALISTIC DX-440 VS SONY ICF-2010. Mark Connelly. An MW DX evaluation of these two popular portable receivers. (2)
- RR29 DRAKE R-8 Reviews by Rob Keeney, John Tow, Dallas Lankford and Ronald Hunsicker. (18)
- RR30 GE SUPERADIO III, Gerry Thomas (2)
- RR31 The NRD 525 -A TECHNICAL REVIEW. D Lankford (7)
- RR32 NRD-525 FILTER LEAKAGE. Continuation of RR31 D. Lankford (5)
- RR33 RECEIVER SHOWDOWN Comparing ICOM R-9000, R-71A / JRC NRD-525D / Drake R-8 and Collins R-390A. by Gerry Thomas (6)
- RR34 THE DENON TU-680 NAB SUPER RADIO (2)
- RR35 RA 6790/GM: A REVIEW. Dallas Lankford - 1993 (8)
- RR36 SONY SRF-42 AM STEREO WALKMAN REVIEW. Frank Aden, Jr. (1)
- RR37 PANASONIC RQ-V60 REVIEW. John Hanz. (1)
- RR38 RAMSEY AM-1 TRANSMITTER KIT - REVIEW. Christopher Cuomo. (3)

RECEIVER REVIEWS

- RR1 RECEIVER COMPARISONS - WHAT DO THEY MEAN? R. J. Edmunds. Certain problems arise when comparing product summaries and receiver reviews. The author explores these comparisons with an emphasis on MW DX. (2)
- RR2 QUALITATIVE REVIEW OF THE YAESU FRG-7 RECEIVER. G. Hauser. A non-technical review (3)
- RR3 DRAKE R7-A REVISITED. Craig Healy. Reviewed and compared to the R-390A. (2)
- RR5 BARLOW-WADLEY XCR-30. M. Hardester. (2)

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(continued from page eighteen)

course. Meanwhile, 5025 remained parallel the domestic national network on medium wave during the 0300-0400 broadcast. Tipped to this frequency and time courtesy (and thanks to) R Habana Cuba's "DX'ers Unlimited" May 11th edition, which confirmed that Rebelde operates 1100-1400 GMT daily with the morning show on 6140 (beamed to the Caribbean) and 9600 (to Central America), and also with an evening relay segment 0300-0400 GMT on 6120 (to Central America). The first day of broadcast was indeed Saturday, May 8, per Coro. These two frequencies have been confirmed her and are easily heard parallel to the medium wave network frequencies. Also per Coro, reception reports should be directed to Radio Rebelde Shortwave Service, PO Box 6277, Habana, Cuba 10600, or via arnie@radiohc.org, who will relay the reports. Of some interest is Rebelde's revamped URL (some links are still under construction or just plain broken) at <http://www2.ceniai.inf.cu/noticias/rebelde/index.htm>. I didn't copy the announced URL at the opening, so not sure if this is the same. [Krueger-FL]

- IRELAND: Five new radio licenses are being advertised for the Dublin area. There is also one AM licence on offer with 5 kW, probably the 1278 frequency. This could be a special interest forum or traffic, talk based or a Christian station. [Contact via Dxc1 990308 in ARC APR 19]
- ITALY: I've heard RA1 2 // 846 kHz at 1475.16 kHz this and yesterday evening, MAY 22 & 26, around 1800z with a strong signal here in southern Germany. [Christoph Mayer e-mail in *Medium Wave News* e-mail]
- NETHERLANDS ANTILLES: The new "Trans World Radio" magazine says that TWR Bonaire will turn off their 500-kW 800kHz transmitter later this year. It will be replaced by a 100-kW solid-state transmitter (manufacturer unknown, but Continental likely) and a 4-tower directional array, to cover primary target areas of Cuba, Venezuela, the Dominican Republic and the Amazon region. The reason is to reduce operating costs, as the 500-kW rig uses LOTS of electricity. [Glen Kippel KF6LXI via hard-core-dx]
- RUSSIA: Here is one change on mediumwave here at St.Petersburg: Radio Rossii has moved from 873 to 801 with 600 kW at 0100-2100. The 873 transmitter is out of use at present. All Radio Rossii relay on 801 is parallel to our shortwave relays of this station via well-known St.Petersburg-Popovka transmitting centre as follows: 9845: 0100-0600; 12045: 0630-1700; 7445: 1730-2100. [Timofeyev, St.Petersburg, via *Medium Wave News* e-mail]
- VATICAN: Radio Vaticana has a new special program about war in Kosovo and Balkan situation, you can hear it every day on 1611 kHz (S.Maria di Galeria Transmitter, Rome, Italy) from 1900 to 2000 UTC in Albanian and Italian. [Andrea Borgrino IW1CXZ in hard-core-dx]
- VENEZUELA: Margariteña 11-40 changes its name to Radio Parlamar 11-40, "La Voz del Caribe", broadcasting from Isla de Margarita and his transmitter is located is near island "Isla de Coche", Director name is Antonio Antepaz. The real legal name of this station is "Radio Virgen del Valle C.A but they only use that name for legal purposes. If you want to obtain a qsl-letter send me your report and I will do all possible to obtain it as I help If you usually monitoring YV stations do not get confused with Radio Margarita 1020 (ex-Mundial Margarita). [Winter Monges, P.O.Box. 1.116, Barquisimeto 3001-A, Lara Venezuela <venezuelanqslhelp@yahoo.com> in hard-core-dx]
- YUGOSLAVIA: Yesterday afternoon (May 27, I believe - Jim) the main MW transmitter site of Radio Beograd south of Belgrade suffered heavy damage and has been off the air since. No stand-in transmission has been noted yet. As a precise damage report is very difficult to come by, I don't know whether the mast itself was damaged or just the transmitter building, or both. [Igor Pifat YT1MM in hard-core-dx] Summary of Readable Active MW transmitters from Serbia (dates indicate last day on air): 666 Beograd 1-Sombor (May 3), 684 Beograd 1-Beograd (May 3), 837 Beograd 1-Sombor (May 3), 882 Podgorica 1-Podgorica (May 3), 1008 Beograd 1-Aleksinac (Apr 29), 1062 Beograd 1-Jagodina (Apr 30), 1107 Beograd 1-Novı Sad (May 3), 1503 Podgorica 1-Ulcinj (Apr 30). [Roberto Ciappi, Italy, in *Play-DX* 1026]

CONTRIBUTORS (@ = via e-mail)

- @Mark Connelly WA1ION, DXing from Duxbury MA ["D"], Rockport MA ["R"], West Yarmouth MA ["Y"], Antenna systems: W. Yarmouth - Quantum Loop; other sites - BBL-1 loop in "K9AY" cardioid mode phased against APW-1 active whip (using DXP-1 phasing unit). <WA1ION@ix.netcom.com>
- Ragnar Danneskjold, Mesa AZ, Kenwood R-1000 with Zepp antenna, also Realistic DX-440.
- @Steve Kennedy, Coal Township PA.
- @Terry L Krueger, Clearwater FL.

REPORT FROM LANZAROTE, CANARY ISLANDS

By Steve Whitt, Medium Wave News (UK) (large excerpt from Steve's full report)
Using Sony 2001D barefoot, Easter week, 1999.

Daytime from Lanzarote

- 531 Madeira in // with 603.
- 540 Morocco // 711.
- 576 RNE1 not listed in WRTH99 // 621.
- 603 // 531
- 621 // 576 RNE1
- 711 Morocco // 540, monster signal day and night (but own programming after approximately 1800 UTC when seemingly not // with any other Moroccan MW outlets.
- 720 "Radio Cinco todos noticias"
- 747 // 720
- 774 Morocco - low level modulation
- 837 local ID "COPE Las Palmas"
- 882 // 837
- 936 Morocco // 540, always very low modulation.
- 1008 IDs as "Cadena Radio Voz", no IDs as R. Las Palmas heard. Cadena SER IDs rare; seemed to be mainly local programmes (I can't confirm if this is 24 hours).
- 1053 Morocco - bad FM on this carrier sounded like mains hum audible in 2001D synch mode.
- 1098 RNE5 unheard during daylight despite regular checks at Tahiche and Play Blanca but listed in WRTH 99 and listed in local paper. After dark impossible to check due to strong RNE5 outlets from Spain on 1098 kHz - I think it must be silent.
- 1179 Lots of local stuff, ads mainly for Santa Cruz area businesses, Cadena SER IDs rare.
- 1269 (weak) "Radio Eccla Las Palmas"
- 1530 Madeira (weak)

Missing Presumed Silent (or micro-power)

- 828/827 Oujda, Morocco; listed 100 kW, totally clear frequency 24 hours/day.
- 1071 Guinea-Bissau; no trace but channel blocked by Bilbao, Spain.
- 1098 RNE5 Santa Cruz, not heard, see daytime scan above.
- 1206 Sierra Leone; still in WRTH99; totally clear 24 hours a day.
- 1197 Lesotho, nothing heard here at night.
- 1325 Safi, Morocco, no trace, no het.
- 1349 ORTM Mauretania, still in WRTH99, totally clear 24 hours a day.
- 1404 Guinea.

"RADIO FRECUENCIA
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"VOZ Y MENSAJE DE LOS RITOS PROTESTANTES"
FRANZELIN R. ROTOS CUBRO
DIRECTOR - GERENTE
JR. VILLAVIEVA FIBELLOS Nº. 330
SAN IGNACIO (CAJAMAHA) - PERU

Also: no shortwave parallels to Angola 945, Guinea 1386 or Senegal 765 at night.

Out of Africa

- Apart from the numerous Moroccan and Algerian signals there was a noticeable lack of African stations. Despite many attempts I could not catch a confirmed Nigerian (tentative on 918 kHz).
- 171 Morocco - ID "Medi-Un" // 9575 but not // 1044 (WRTH99 error)
 - 648 Gambia - poor in mix, EE talk, local news with BBC items (tentative ID heard)
 - 711 Morocco - biggest signal around.
 - 747 Burkino Faso - ID as "R. Burkina" in FF // 4815.
 - 765 Senegal - FF and ethnic languages, ID as "R. Senegal", clear and strong at night.
 - 918 Nigeria - tentative in nulled Spain.
 - 945 Angola moved from 944 kHz. International service EE at 2110, 2220, 2237, FF at 2048. Surprise catch.
 - 1044 Morocco - listed in WRTH99 as Medi-Un, but heard // 774 Network C.
 - 1251 Libya - // 15435 and 15415 (not found on 15235).
 - 1386 Guinea - ID heard "R. Rurale" and "R. Nacional; moved frequency to 1385.9 kHz +/- 100 Hz; regular clear signal, mostly FF, sign off seems to be 2300 UTC; muffled audio.
 - 1475 Benin - variable level of modulation // 4870 (good modulation)
 - 1530 Sao Tome - VOA, variable from day to day, not a block buster signal.
 - 1544 Powerful Jammer - spreads 1540-1551 kHz, peak about 1543 kHz; is Morocco jamming Polisario's old frequency of 1544 and not noticed they've moved to 1550? Or is this jamming aimed at VOA Kuwait on 1548?
 - 1550 Clandestine - Polisario second strongest signal after 711 kHz, only heard with Arabic, full ID at top of hour +/- 2 minutes!, affected by jammer on 1544; sometimes low modulation.
 - 1583.5 Presumed Ceuta.

BBL-1 Broadband Loop Antenna

Mark Connelly, WA1ION - 30 APR 1999

Part 1: Introduction

This section of the article describes the construction of the loop head, including details of "whip module" boxes.

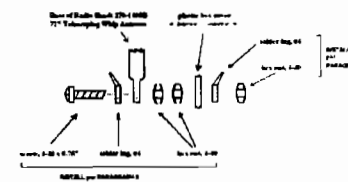
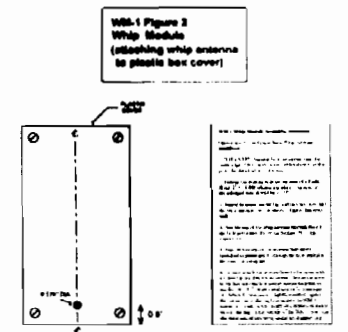
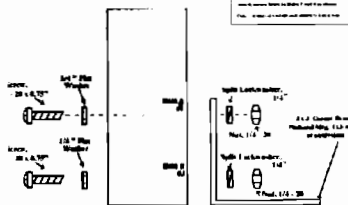
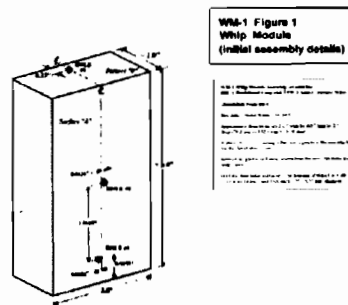
The BBL-1 Broadband Loop Antenna System was developed primarily for DXpedition use, though it may be used at home or at other fixed-site locations. The antenna head can provide the normal figure-of-eight directional pick-up pattern familiar to users of tuned loops (such as the Kiwa).

For a loop to provide adequate signal level in an untuned (broadband) application, it must be physically larger than a tuned loop. Though a broadband loop isn't as easy to tilt or to rotate as a smaller tuned loop of comparable gain, tilting and rotating can be done when it's deemed absolutely necessary. The best way to accomplish this is to bolt or clamp the loop head bottom-side center to a heavy-duty photographer's tripod.

I usually position the BBL-1 loop on the roof of my car. I use strong spring clamps to attach the loop base to Thule roof racks for a secure mount, even during strong gusts of wind at seaside or mountaintop DXpedition sites. Since I'm not physically tilting or rotating the loop, I obtain nulling by phasing the loop's RF contribution against that from an active whip such as the MFJ-1024. Suitable phasing units include the homebrew DXP-1, the Wellbrook APU 100, or a modified MFJ-1026. The loop-versus-active whip combination can develop a cardioid (heart-shaped) pattern useful to DXers trying to hear stations in the opposite direction of "pest" signals to be nulled. Electrically-rotatable nulls can also be produced by phasing two similarly-oriented BBL-1 loops spaced about 164 ft. (50 m) apart; or by phasing two closely-spaced loops aimed at a right angle to each other.

The construction of the BBL-1 loop head is a bit novel. A wooden board 6 ft. (1.83 m) long serves as the base. Two "whip modules" are installed, one at each end of the board. Each of these modules has a plastic case with an attached 6 ft. Radio Shack telescoping whip. The whips act as the vertical sides of a square loop in the vertical plane. An obvious benefit of using the telescoping whips is that they can be "scoped down" (collapsed) for transporting the antenna system from place to place. For those with vehicles too small to fit a 6 ft. long board inside during the transportation process, the board may be cut at its center and then connected together (during stationary rooftop DXpedition use) by a steel "joinder" plate, screws, and wing nuts. If separated back into two 3 ft. halves, the set-up should be easily transportable in almost any car.

The top horizontal member of the square loop is formed by a 6 ft. wire fitted with "alligator" clips. During operation, this wire is clipped from the top of one whip to the top of the other.



The square loop horizontal bottom is formed by two 3 ft. wires, one from each whip base. These leads are run towards the center of the loop head base board. For a very simple connection to the receiver or phaser input, the two bottom leads can go to the primary terminals of a Mini-Circuits TI-6-X65 (or equivalent) 1:1 transformer. The secondary of the transformer would then connect to the 50-

ohm coaxial cable going back to the operator's position.

In many cases, the passive connection scheme described above won't provide quite as much signal as you want. For this reason, and also to allow the implementation of the useful "K9AY Antenna" mode, a head-unit balun / amplifier box, the BA-1, was designed.

Additional articles that are likely to follow may provide information about further designs involving the broadband loop concept.

Part 2: BA-1 Balun / Amplifier extends versatility of the BBL-1 Loop

Part 2 gives details about the BA-1 Balun / Amplifier assembly that greatly enhances the versatility of the loop head. A coupler unit (to be used at the operator's position to feed DC and RF from the BA-

1 head-end amplifier) is also documented.

Part 1 of the BBL-1 Broadband Loop article described the construction of the loop head. In that section of the article, it was stated that the ends of the single-turn winding could be coupled passively through a 1:1 transformer to a coaxial feedline back to the operating position. At night, especially in urban areas of the northeastern USA and western Europe, the passive antenna connection may provide adequate signal strengths to a good communications receiver. For daytime DX, or nighttime DX in lower signal regions (or during aurora), amplification is highly desirable.

The BA-1 Balun / Amplifier module, housed in a 5" x 4" x 3" (127 x 102 x 76 mm) chassis box, is to be situated at the base of the loop. The BA-1 is connected between the two loop leads and the coaxial cable to the receiving position. When amplification is desired, 12 to 18 volts DC (coupled to the coaxial line at the receiver end) powers a suitable amplifier in the BA-1 assembly. A switch on the BA-1 allows passive operation when amplification is not required.

WM-1 Whip Module Revised: Tuesday, 16 March, 1999

WM-1 Revision: A

Bill Of Materials 16 March, 1999 07:00:00

Item	Quantity	Reference	Vendor: Stock Number	Part Description
1	1	ANT1	RS: 270-140B	Telescoping Whip Antenna, 72"
2	1	H_BX1	RS: 270-180A	Plastic Chassis Box, 3" x 6" x 2"
3	1	H_CB1	HM aka # 0487879	Center Brace, National Mfg. 113-186 1.125" x 1.25" x 0.75"
4	2	H_FW1 - H_FW2	REID: H1W-0050	Flat washer, 1/4"
5	2	H_LW1 - H_LW2	REID: H1W-0050	Lock washer, split, 1/4"
6	2	H_N1 - H_N2	REID: H1N-050	Hex Nut, 1/4-20
7	3	H_N3 - H_N5	MOU: 5721-440	Hex Nut, 3-40
8	2	H_SC1 - H_SC2	REID: M1-1714	Screw, 1/4-20 x .75"
9	1	H_SC3	MOU: 5721-440-3-4	Screw, 3-40 x .75"
10	4	H_SC4 - H_SC7	MOU: 5721-6-1-2	Screw, Sheet Metal, #6 x .5"
11	2	H_SL1 - H_SL2	MOU: 534-7311	Solder lug, #3, internal tooth
12	1	WI	RS: 278-1218	Wire, 22AWG insulated, length 3 ft
13	1	PI	RS: 270-1545	Alligator clip, miniature

Vendor Codes

HM: HomeMart.com: <http://www.housemart.com>
 MOU: Mouser Electronics <http://www.mouser.com>
 REID: Reid Tool Supply Company <http://www.reidtool.com>
 RS: Radio Shack: <http://www.radioshack.com>

BBL-1 Broadband Loop Revised: Friday, 30 April, 1999

BBL-1 Revision: A

Bill Of Materials 30 April, 1999 07:00:00

Item	Quantity	Reference	Vendor: Stock Number	Part Description	Notes
1	1	BA1_1	* separate parts list *	BA-1 Balun / Amplifier module assembly	optional
2	1	BID	(local supply store)	Wooden Board, approx 72" x 12" x 3/8" in 1183 x 9 x 3/8" size	
3	4	H_FW1 - H_FW4	REID: H1W-0050	Flat washer, 1/4"	
4	4	H_N1 - H_N4	REID: H1N-2	Wing Nut (thumb nut), 1/4-20	
5	4	H_SC1 - H_SC4	REID: M1-1718	Screw, 1/4-20 x 1.5"	
6	2	PI	RS: 270-1545	Alligator clip, miniature	use with item 8
7	1	T1	MCL: T1-6-X65	1:1 RF transformer	optional, use if no item 1
8	1	WI	RS: 278-1218	Wire, 22AWG insulated, length 6 ft	connects loop of extended whips
9	2	WM1_1 - WM1_2	* separate parts list *	WM-1 Whip Module assembly	

Vendor Codes

MCL: Mini-Circuits <http://www.minicircuits.com>
 REID: Reid Tool Supply Company: <http://www.reidtool.com>
 RS: Radio Shack: <http://www.radioshack.com>

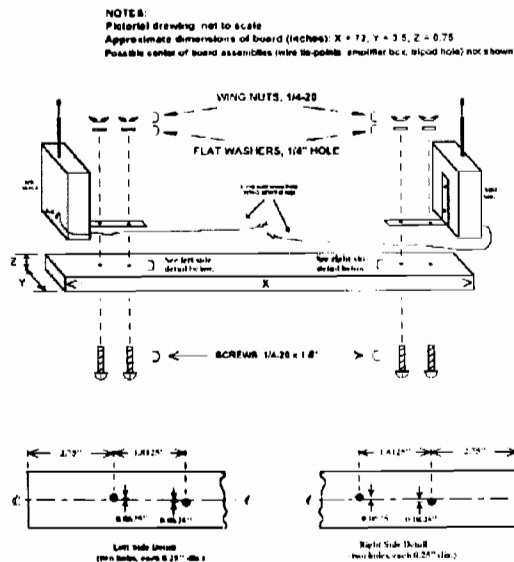
In addition to amplification, the BA-1 allows the loop to be operated not only in its "normal" balanced mode, but also in the unbalanced "K9AY" configuration. Those who have read Al Merriman's comments, or the original QST articles by Gary Breed, K9AY, know that a cardioid pattern can be generated by the interaction of the magnetic and electric fields when one end of a loop antenna is connected to ground through a variable resistance. I had my doubts that a 6-ft. per side square loop mounted atop a car (and using only the car chassis / battery negative as a "ground") could come close to providing K9AY loop operation. When field tests were performed at several coastal sites in Massachusetts, the results were often surprisingly good. As long as the loop is aligned such that stations to be nulled by the cardioid pattern are located in, or nearly in, the plane formed by the loop, nulls of at least

15 to 20 dB should be achievable. Some very effective reduction of New York stations (to the southwest) was possible. Quite often, at local sunset, WCBS - 880 could be made weaker than the adjacent Canary Islands station on 882. Several times WBBR - 1130 was nulled below the level of the Croatia / Spain mix on 1134. Real phasing of a loop versus an active whip can get deeper nulls with less critical orientation of the loop; still, however, the miniature car-roof-mounted version of a K9AY loop, for a single-element antenna, did a creditable job of creating the cardioid pick-up pattern so useful to Trans-Atlantic DXers on either side of "the pond". The variable resistance required for the K9AY termination is provided by means of voltage-controlled resistors known as "Vactrols". These are mounted on a subassembly, the VACT-A card, inside the BA-1 enclosure. Variable DC of 0 to 10 volts is required to adjust the Vactrol card resistance from a low of 50 ohms to a high value in excess of 10K. When the amplifier is in use, the Vactrol control voltage must be passed up a separate cable; during passive operation, the 0 to 10 volt control may be sent up the main coaxial feed.

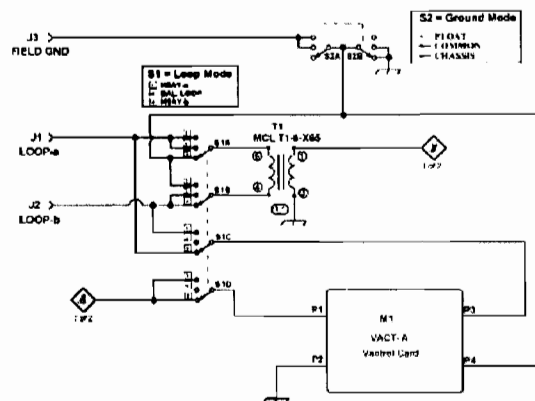
Al Merriman's discussion of the K9AY Terminated Loop may be found at "HtmlResAnchor <http://home.inforamp.net/~funk/termloop.html>" and Vactrol data may be obtained from EG&G Vactec at "HtmlResAnchor <http://www.egginc.com/Opto-110/vtl5c3.htm>".

There are several amplifier circuits that will perform well in the BA-1. I tried several and I considered factors such as noise floor / minimum discernable signal, strong-signal handling / spur & intermod rejection, current drain, stability, and the availability and cost of components. BBA-C1 and BBVA-A, used on other antenna projects, were usable but had more noise, intermodulation distor-

BBL-1 Broadband Loop
 Drawing BBL-1_f1: Attaching Whip Modules to Base Board



BA-1 Balun / Amplifier Module
 Drawing BA-1_f1: Input Section



tion, or instability (tendency to oscillate) than deemed optimum. Best noise figure appeared to be when using a step-up transformer to a high-impedance buffer-type amplifier. Certain parts, such as LH0033CG buffers and 40673 MOSFET's have become either expensive or difficult to obtain. Several new-generation buffer chips were evaluated. National's LM6221 / LM6321 series did well in several noise and IMD evaluations. The Harris 11A3-5002-5 also delivered promising results. I've developed an amplifier card, the BUF-E, around the LM6221. To match the input impedance of the amplifier, a 1:36 transformer (Mini-Circuits T36-1-X65) is placed, in step-up configuration, between the signal line and the BUF-E amplifier input.

Drawings in this part of the article include schematics of the BA-1 module, including its subassemblies BUF-E and VACT-A. Also there's a sketch of a coupler to be used at the operator's position.

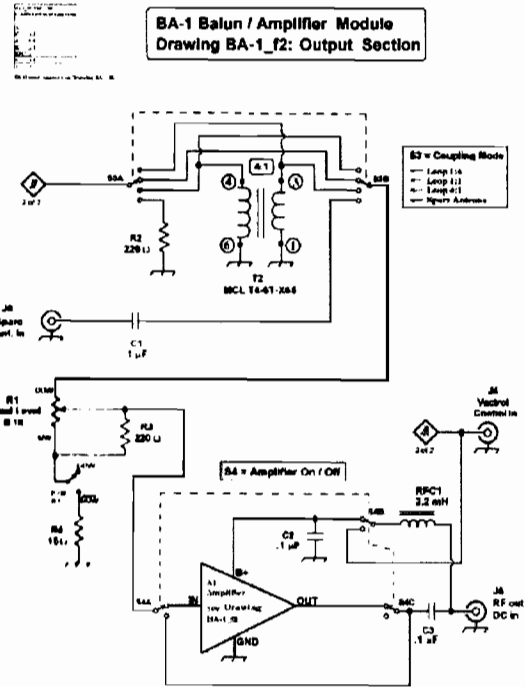


Table BA-1_HL: BA-1 hole-drilling list

X = Horizontal distance, in inches, from the vertical centerline (VCL) on the side observed. Negative values of X are left of VCL, positive values of X are right of VCL.

Y = Vertical distance, in inches, from the bottom horizontal edge of the side observed.

D = Hole diameter in inches.

Hole loci are first marked on the box with a scriber and are then drilled with a .125" bit. Subsequently, as required, the holes are enlarged to the proper size by using progressively larger bits up to that corresponding to the final desired diameter.

Chassis Box = Mouser # 537-TF-779: 5" X 4" X 3"

Left Side

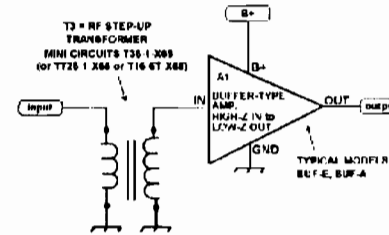
Hole #	Comp. Desig.	Description	X	Y	D
1	G1	grounding H/W - int.&ext.lug	-1	1.25	0.125
2	J1	Loop-a in (banana jack)	-0.75	0.4375	0.3125
3	J2	Loop-b in (banana jack)	0	0.4375	0.3125
4	J3	Field GND in (banana jack)	0.75	0.4375	0.3125
5	M1	VACT-A card mounting H/W	1	1.25	0.125

Top Side

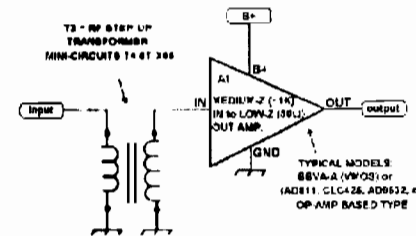
Hole #	Comp. Desig.	Description	X	Y	D
1	S1	Ground Mode switch - tab	-2	3.125	0.125
2	S1	Ground Mode switch - shaft	-1.5	3.125	0.375
3	G2	grounding H/W - int.lug	-0.625	3.125	0.125
4	S3	Loop Mode switch - shaft	-0.5	0.75	0.375
5	S3	Loop Mode switch - tab	0	0.75	0.125
6	S2	Amplifier switch - tab	0	3.625	0.125
7	S2	Amplifier switch - shaft	0	3.375	0.25

BA-1 Balun / Amplifier Module Drawing BA-1_f3: Possible Amplifier Configurations

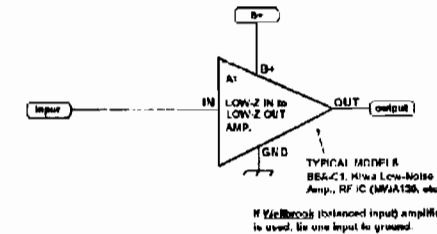
CASE 1: USE OF STEP-UP TRANSFORMER AND BUFFER AMPLIFIER



CASE 2: USE OF STEP-UP TRANSFORMER AND MEDIUM-IMPEDANCE-IN AMP.



CASE 3: LOW-IMPEDANCE IN & OUT AMPLIFIER



8	J6	Spare Antenna in (BNC jack)	0.125	2	0.375
9	S4	Coupling Mode switch - shaft	0.75	0.75	0.375
10	S4	Coupling Mode switch - tab	1.25	0.75	0.125
11	R1	Signal Level pot - tab	0.9375	3.375	0.3125
12	R1	Signal Level pot - shaft	1.25	3.375	0.125

Right Side

Hole #	Comp. Desig.	Description	X	Y	D
1	A1	BUF-B amplifier card- H/W 2	-1.3	1.5	0.125
2	A1	BUF-B amplifier card- H/W 1	-0.7	0.5	0.125
3	J5	RF Out / Remote B+ In (BNC-f)	0	0.5	0.375
4	J4	Vactrol Control in (RCA)	0.875	0.5	0.25

BA-1 Balun / Amplifier module Revised: Monday, May 10, 1999
 BA-1 Revision: A

Bill Of Materials May 10, 1999
 12.00.00

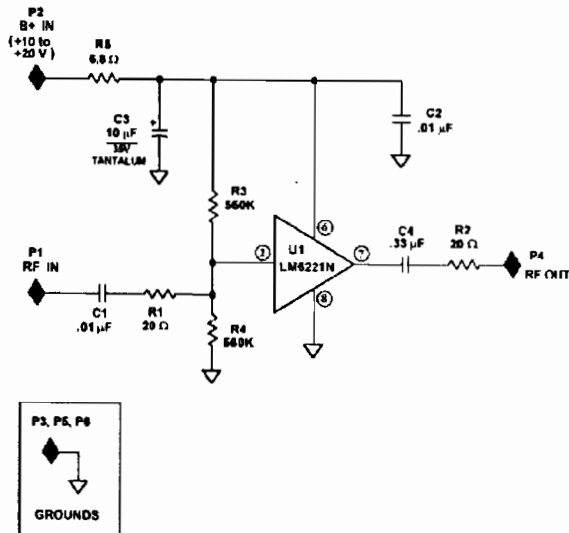
Item	Quantity	Reference	Vendor Stock Number	Part Description	Notes
1	1	A1	* separate parts list *	BU-E-1 Buffer Amplifier card	
2	1	C1 - C2	C.S. C405104K	Capacitor, 0.1 uF	
3	1	H BK1	MOU 537-11-279	U Buffer Box, 5" x 4" x 1"	
4	4	H KN1 - H KN2	MOA 45K2013	Knob, 0.94" dia	for RL, SL, SP, ST
5	3	H LW1 - H LW2	MOA 43211 W502	Split lockwasher, #4	to mount AL, ML
6	2	H SL1 - H SL2	MOA 45211 440	Hex Nut, 4-40	grounds G1, G2
7	1	H SP1 - H SP2	MOA 45211 440-1 4	Screw, 4-40 * 1/2"	to mount AL, ML
8	2	H SA1 - H SA2	MOA 45211 440-3 B	Screw, 4-40 * 1/2"	grounds G1, G2
9	1	H SI1 - H SI2	MOA 441 5411	Solder lug, #4, internal tooth	grounds G1, G2, G3
10	2	J1 - J2	RS 774 007	Banana jack binding post, red	
11	2	J3	RS 774 007	Banana jack binding post, black	
12	1	J4	RS 774 040	RF A phono jack	
13	2	J5 - J6	RS 774 013	UNC jack	
14	1	M1	* separate parts list *	VACU-A Vactrol card	
15	1	R1	MOA 451 100	Pentometer, 1k linear taper with switch	
16	2	R2 - R3	C.S. RA 70	Resistor, 220 ohm	
17	1	R4	C.S. RA 8	Resistor, 15 ohm	
18	1	RL1	DK 900 4895	RF Choke, 2.2 mH rated to 250 mA DC	
19	1	S1 - S2	C.S. SA V104	Rotary switch, 4 poles * 4 positions	
20	1	S3	C.S. SA V104	Rotary switch, 3 poles * 4 positions	
21	1	S4	C.S. TB3	Toggle switch, SPDT	
22	1	T1	MOA 441 6 A65	RF transformer, 1:1 ratio	
23	1	T2	MOA 441 6 A65	RF transformer, 1:4 ratio	
24	1	T3	MOA 441 6 A65	RF transformer, 1:1 ratio	

Misc. items hook-up wire, buss wire, solder, labels "AS REQUIRED"

Vendor Codes

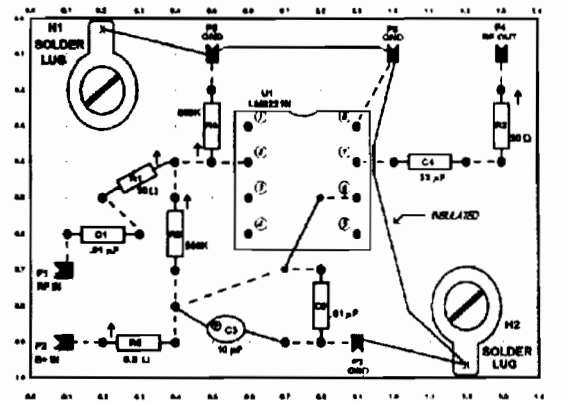
CG Circuit Specialists: <http://www.cir.com>
 MCL Min Circuits: <http://www.minicircuits.com>
 MOU Mouser Electronics: <http://www.mouser.com>
 RS Radio Shack: <http://www.radioshack.com>
 TA Tech America: <http://www.techam.com>

BUF-E BUFFER AMPLIFIER CARD
 Drawing BUF-E_F1: Schematic



BUF-E BUFFER AMPLIFIER CARD

Drawing BUF-E_F2: Assembly



NOTES

- ↑ = Long lead side of vertically-mounted component
- = Buss wire on solder side of board
- = Buss wire on component side of board
- = "Flux clip" terminal pin
- = OPEN SIDE

BUF-E Buffer Amplifier Revised: Thursday, February 25, 1999
 BUF-E_f1 Revision: A

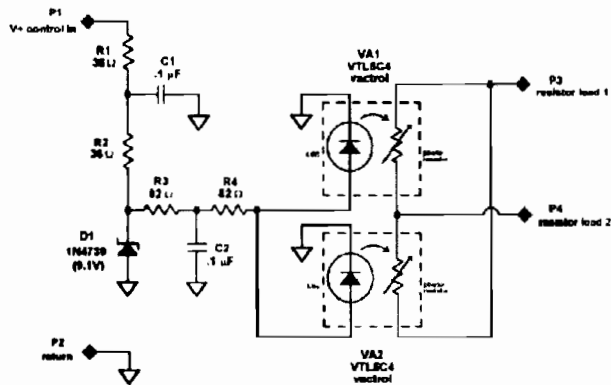
Bill Of Materials February 25, 1999 13:29:59

Item	Quantity	Reference	Vendor Stock Number	Part Description	Notes
1	1	C1 - C2	C.S. C405104K	Capacitor, 0.01 uF	
2	1	C3	C.S. TA4 008	Capacitor, Tantalum, 10 uF, 35 V	
3	1	C4	DK P4926-N1	Capacitor, 0.33 uF	
4	1	H FB1	RS 276-1366	PCB board	cut size 1.5" x 1.5"
5	2	H SC1 - H SC2	MOU 375-440-1 4	Screw, 4-40 * 1/2"	stock num. 100 pieces
6	2	H SL1 - H SL2	MOU 334-7331	Solder lug, #4, internal tooth	
7	1	H BO1	C.S. CA-8	Socket, 8-pin DIP	for U1
8	2	H SP1 - H SP2	MOU 534-1450C	Spacer, 3-20 * 5"	
9	4	J1 - J4	C.S. TA2-3/100	Flux-clip Terminal Pin for 1042" hole	
10	2	R1 - R2	C.S. RA20	Resistor, 20 ohm	
11	2	R3 - R4	C.S. 560K	Resistor, 560K	
12	1	R5	C.S. RA6.8	Resistor, 6.8 ohm	
13	1	U1	DK LM6221N-N1	National LM6221N Buffer Amplifier, 8-pin DIP	

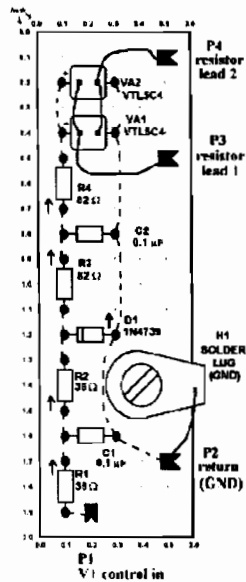
Vendor Codes

CG Circuit Specialists: <http://www.cir.com>
 DK Dig-Key: <http://www.digkey.com>
 MOU Mouser Electronics: <http://www.mouser.com>
 RS Radio Shack: <http://www.radioshack.com>

VACT-A Vactrol Card
Drawing VACT-A f1: Schematic



VACT-A Vactrol Card
Drawing VACT-A f2: Assembly



NOTES

- ↑ = Long lead side of vertically-mounted component
- = Busse wire on solder side of board
- = Busse wire on component side of board
- ◀ = "Flare-rip" terminal pin
- ◀ OPEN SIDE

VACT-A Vactrol Card Revised: Monday, May 10, 1999
VACT-A Revision: A

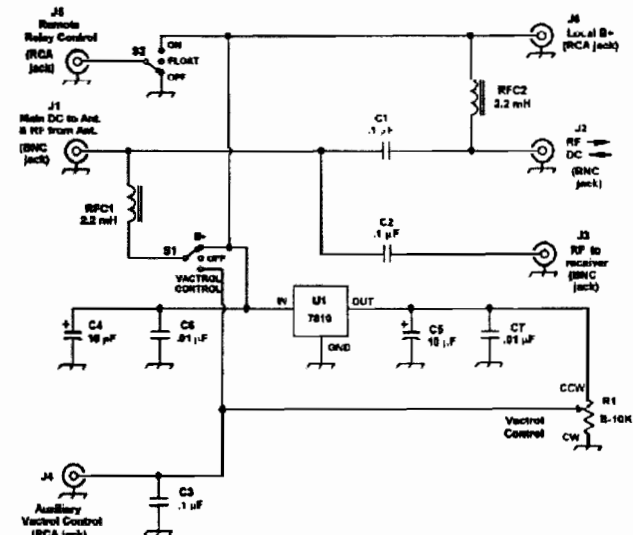
CM (K Materials) May 10, 1999 12:00:00

Item	Quantity	Reference	Number	Stock Number	Part Description	Notes
1	1	VT-1	2K	K1104K	Capacitor, 0.1 uF	
2	1	DI	100	104-1N4739A	Zener Diode, 1N4739, 9.1 V, 1W	
3	1	PI	100	276-1106	PerBoard	cut size 0.6" x 2.0"
4	1	WT	100	1721-440-114	Screw, 4-40 x .25"	stock num 1100 posite
5	1	WT	100	314-7111	Solder lug, #4, internal thread	
6	1	SP	100	314-1450	Spacer, 4-40 x .5"	
7	1	TR	100	143-17100	Flare-rip Terminal Pin for 042" Hole	
8	1	BT	100	RAV	Resistor, 36 ohm	
9	1	BT	100	RA2	Resistor, 82 ohm	
10	1	VA1, VA2	100	431 953	EG&G Vactrol, VTL5C4 Vactrol	

Vendor Codes

- CS: Circuit Specialists: <http://www.csi.com>
- MOU: Mouser Electronics: <http://www.mouser.com>
- NEW: Newark Electronics: <http://www.newark.com>
- RS: Radio Shack: <http://www.radioshack.com>

Coupler (Controller)
Drawing COUP1_f1: Schematic



NOTES

- Chassis bus - Radio Shack 270 238.
- RFC1, RFC2 should be capable of handling at least 100 mA DC.
- Detailed assembly and parts list documentation is not supplied for this simple unit.
- A more complex coupler may be developed and documented subsequently.
- J3 and S2 are included for use with other designs (not required for BB1-1 operation).

Professional Sports Networks
Barry S. Finkel bsfinkel@ANL.gov
 10314 S. Oakley
 Chicago, IL 60643-2409
Network listings for team sports stations

I received a Baltimore Orioles' list from the Orioles' Fan and Ticket Services (via e-mail) on June 2. This list does not contain 540 WDMV-MD, but it claims to come from the Orioles' Media Guide; the Media Guide has 540 WDMV-MD.

I still have not received any of the Major League Baseball network lists that I lacked last month, but Tom Sanders reports these are some of the stations that are on the Detroit Tigers' network:
 980 CFPL-ON, 1280 WFYC-MI, 1380 WPHM-MI, 1450 WIBM-MI, 104.7 WKJC-MI

Here are MLB announcers that I did not have in my last column; these come from the "1999 Baseball America Directory" via Tom Sanders.

Arizona Diamondbacks (EE) - Thom Brennaman, Greg Schulte, Rod Allen
 Arizona Diamondbacks (SS) - Miguel Quintana
 Atlanta Braves - Skip Caray, Don Sutton, Pete Van Wieren, Joe Simpson
 Houston Astros - Alan Ashby, Bill Brown, Jim Deshaies
 Los Angeles Dodgers (EE) - Vin Scully, Ross Porter, Rick Monday
 Los Angeles Dodgers (SS) - Jaime Jarrin, Pepe Yriguez
 Philadelphia Phillies - Larry Andersen, Scott Graham, Harry Kalas, Andy Musser, Chris Wheeler

Tom Reiser reports that the SS flagship for the Tampa Bay Devil Rays is 760 WDBN-FL; the play-by-play announcer is Eleuides Nunez.

Here is Minor League Baseball information for the 1999 season from "1999 Baseball America Directory" via Tom Sanders (e-mail).

International League (AAA)

Buffalo Bisons - 1520 WWKB-NY; Jim Rosenhaus
 Charlotte Knights - station info unavailable; Matt Swierad, Tommy John
 Columbus Clippers - 103.1 WSMZ-OH; Gary Richards, Terry Smith
 Durham Bulls - 620 WDNC-NC; Steve Barnes
 Indianapolis Indians - 1260 WNDE-IN; Brian Griffin, Howard Kellman
 Louisville Riverbats - 970 WLKY-KY; Mark Gorsky, Jim Kelch
 Norfolk Tides - station info unavailable; John Castleberry, Rob Evans
 Ottawa Lynx - station/announcer info unavailable
 Pawtucket Red Sox - 790 WSKO-RI; Don Orsillo, Mike Logan
 Richmond Braves - 910 WRNL-VA; Robert Fish
 Rochester Red Wings - 1280 WHTK-NY; Joe Castellano
 Scranton-Wilkes Barre Red Barons - 1400 WICK-PA; John Westling
 Syracuse Sky Chiefs - 620 WHEN-NY; Ted DeLuca, Steve Hyder
 Toledo Mud Hens - 96.1 WMTR-OH, 900/99.1 WPRO-OH; Frank Gilhooley, Jim Weber



Pacific Coast League (AAA)

Albuquerque Dukes - station info unavailable; Russ Langer, Jim Lawwill
 Calgary Cannons - station/announcer info unavailable
 Colorado Springs Sky Sox - 1240 KRDO-CO; Dick Chase, Norm Jones, Dan Karcher
 Edmonton Trappers - 630 CHED-AB; Al Coates
 Fresno Grizzlies - 1300 KYNO-CA (EE?), 1600 KGST-CA (SS?); John Daskow, Jess Gonzalez
 Iowa Cubs - 940 KXTK-IA; Brett Dolan, Deene Ehls
 Las Vegas Stars - 920 KBAD-NV; Tim Neverett, Jon Sandler
 Memphis Redbirds - 560 WHBQ-TN; Tom Stocker
 Nashville Sounds - station info unavailable; Steve Selby, Chuck Valenches
 New Orleans Zephyrs - 870 WWL-LA, 1350 WSMB-LA; Ron Swoboda, Ken Trahan
 Oklahoma Red Hawks - 640/104.9 WWLS-OK; Jack Damrill
 Omaha Goldenseps - 1490 KOSR-NE; Kevin McNabb

Salt Lake Buzz - 1320 KFNZ-UT; Steve Klauke
 Tacoma Rainiers - 850 KTHO-WA; Mike Curlo
 Tucson Sidewinders - 990 KTKT-AZ; Dave Brady
 Vancouver Canadians - no radio broadcasts

Eastern League (AA)

Akron Aeros - 1350 WTOU-OH; Todd Bell, Jim Clark
 Altoona Curve - station info unavailable; Rob Egan
 Binghamton Mets - 1290 WBNF-NY; Dave Schultz
 Bowie Baysox - 1430 WNAV-MD; Dave Collins
 Erie Seawolves - station/announcer info unavailable
 Harrisburg Senators - 1230 WKBO-PA, 1000 WIOO-PA; Brad Sparesus, Mark Mattern
 New Britain Rock Cats - 1120 WPRX-CT; Jeff Dooley
 New Haven Ravens - 1300 WAVZ-CT; Bill Schweizer
 Norwich Navigators - 980 WSUB-CT; Shawn Holliday, Mark Leinweaver
 Portland (ME) Sea Dogs - 970-WZAN-ME; Steve Pratt, Andy Young
 Reading Phillies - 1340 WRAW-PA; Steve Degler
 Trenton Thunder - 1680 WTTM-NJ; Andy Freed, Tom McCarthy

Southern League (AA)

Birmingham Barons - 1070 WAPI-AL; Curt Bloom
 Carolina Mudcats (Zebulon, NC) - 98.5 WSAY-NC; Pat Kinas
 Chattanooga Lookouts - 98.9 WQMT-TN; Larry Ward, Todd Agne
 Greenville Braves - 104.9 WCCP-SC; Stephen Grubba, Mark Hauser
 Huntsville Stars - 1450 WTKI-AL; Steve Kornya
 Jacksonville Suns - station info unavailable; Dave Schultz
 Knoxville Smokies - 104.9 WQLA-TN; Tim Grubbs
 Mobile Baybears - 105.5 WNSP-AL; Tom Nichols
 Orlando Rays - no radio broadcasts
 West Tennessee Diamond Jaxx (Jackson, TN) - 101.5 WNWS-TN; Matt Park

Texas League (AA)

Arkansas Travelers (Little Rock, AR) - 920 KARN-AR; Bob Harrison
 El Paso Diablos (EE) - 600 KR0D-TX; Matt Hicks, Brett Pollack
 El Paso Diablos (SS) - 1150 KSVE-TX (Radio Unica); Miguel Flores, Juan Gonzalez
 Jackson (MS) Generals - 620 WJDX-MS; Bill Walberg
 Midland Rockhounds - 550 KCRS-TX; Bob Hards
 San Antonio Missions - 680 KKYX-TX; Roy Acuff
 Shreveport Captains - 1130 KWK11-LA; Dave Nitz
 Tulsa Drillers - 1430 KQLL-OK; Mark Neely
 Wichita Wranglers - 1480 KQAM-KS; Dennis Higgins

California League (A)

Bakersfield Blaze - 1230 KGEO-CA; Dale Parsons, Mark Roberts
 High Desert Mavericks (Adelanto, CA) - 1590 KROY-CA; Bryan Goldwater
 Lake Elsinore Storm - 92.9 KFRG-CA; Sean McCall
 Lancaster Jethawks - 1470 KUTY-CA, 1380 KKHJ-CA; Dan Hubbard
 Modesto A's - 970 KANM-CA; Adam Fox
 Rancho Cucamonga Quakes - 1510 KMSL-CA; Rob Buska
 San Bernardino Stampede - station info unavailable; Mike Saeger
 San Jose Giants - 90.5 KSJS-CA; announcer info unavailable
 Stockton Ports - 1230 KWG-CA; Doug Greenwald
 Visalia Oaks - no radio broadcasts

Geator Gold Radio

1540 AM

Carolina League (A)

Frederick Keys - 820 WXTR-MD; Bob Socci
 Kinston Indians - 960 WRNS-NC; Josh Wetzel
 Lynchburg Hillcats - 1050 WBRG-VA; Matt Provence
 Myrtle Beach Pelicans - 94.5 WRNN-SC; Garry Griffith
 Potomac Cannons (Woodbridge, VA) - 1200 WAGE-VA; announcer info unavailable
 Salem Avalanche - 1240 WGMN-VA; Bob McElligot

Wilmington (DE) Blue Rocks - 1290 WJBR-DE; Steve Lenox, Mark Nasser
Winston-Salem Warthogs - 100.9 WIFM-NC; announcer info unavailable

Florida State League (A)

Brevard County Manatees - no radio broadcasts
Charlotte Rangers (Port Charlotte, FL) - no radio broadcasts
Clearwater Phillies - no radio broadcasts
Daytona Cubs - no radio broadcasts
Dunedin Blue Jays - no radio broadcasts
Fort Myers Miracle - 770 WWCN-FL; Rob Malec
Jupiter Hammerheads - no radio broadcasts
Kissimmee Cobras - no radio broadcasts
Lakeland Tigers - no radio broadcasts
St. Lucie Mets - 1590 WPSL-FL; Paul DeCastro
St. Petersburg Devil Rays - no radio broadcasts
Sarasota Red Sox - no radio broadcasts
Tampa Yankees - no radio broadcasts
Vero Beach Dodgers - 1370 WAXE-FL; announcer info unavailable

South Atlantic League (A)

Asheville Tourists - no radio broadcasts
Augusta Greenjackets - no radio broadcasts
Cape Fear Crocs (Fayetteville, NC) - no radio broadcasts
Capital City Bombers (Columbia, SC) - station info unavailable; Mark Bryant
Charleston (SC) Riverdogs - 1450 WQNT-SC; David Raymond, Jim Tocco
Charleston (WV) Alley Cats - 950 WQBE-WV; Dan Loney
Columbus (GA) Redstixx - no radio broadcasts
Delmarva Shorebirds (Salisbury, MD) - 1320 WICO-MD; Shane Griffin
Greensboro Bats - 950 WPET-NC; Jeff Daniels
Hagerstown Suns - 1410 WHAG-MD; Karl Schalk
Hickory Crawdads - 92.1 WMNC-NC; Evan Malter
Macon Braves - no radio broadcasts
Piedmont Boll Weevils (Kannapolis, NC) - no radio broadcasts
Savannah Sand Gnats - 1400 WSGA-GA; announcer info unavailable

New York-Penn League (A) [Short Season Class A, June 16 - September 2]

Auburn Doubledays - 89.1 WDWN-NY; Kevin Nicholson
Batavia Muckdogs - 89.1 WBSU-NY; announcer info unavailable
Hudson Valley Renegades (Wappingers Falls, NY) - 1260 WBNR-NY; 1420 WLNA-NY, 1340 WALL-NY; Rick Schultz
Jamestown Jammers - station/announcer info unavailable
Lowell Spinners - station/announcer info unavailable
Mahoning Valley Scrappers (Niles, OH) - station/announcer info unavailable
New Jersey Cardinals (Augusta, NJ) - 1360 WNNJ-NJ, 106.3 WHCY-NJ; Paul Mitabella, Phil Pepe
Oneonta Tigers - no radio broadcasts
Pittsfield Mets - 101.7 WBRK-MA; Robert Shade
St. Catharines Stompers - station/announcer info unavailable
Staten Island Yankees - station/announcer info unavailable
Utica Blue Sox - no radio broadcasts
Vermont Expos - station/announcer info unavailable
Williamsport Crosscutters - 95.5 WMYL-PA; Rim Williamson

Northwest League (A) [Short Season Class A, June 18 - September 5]

Boise Hawks - 1340 KITK-ID; Rob Simpson
Eugene Emeralds - 590 KUGN-OR; announcer info unavailable
Everett Aquasox - 90.7 KSER-WA; Pat Dillon
Portland (OR) Rockies - 1520 KKSX-OR; announcer info unavailable
Salem-Keizer Volcanoes - 1430 KYKN-OR; Pat Lafferty
Southern Oregon Timberjacks (Medford, OR) - 94.7 KRRM-OR; announcer info unavailable
Spokane Indians - station info unavailable; Bob Robertson
Yakima Bears - station/announcer info unavailable

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Appalachian League (A) [Short Season Class A, June 18 - August 29]

Bluefield Orioles - 1440 WHIS-WV; Larry McKay
Bristol Sox - no radio broadcasts
Burlington Indians - 1150 WBAG-NC; announcer info unavailable
Danville Braves - no radio broadcasts
Elizabethton Twins - 1240 WBEJ-TN; Frank Santore
Johnson City Cardinals - station/announcer info unavailable
Kingsport Mets - 1320 WKIN-TN; Tom Taylor
Martinsville Astros - no radio broadcasts
Princeton Devil Rays - no radio broadcasts
Pulaski Rangers - no radio broadcasts

Pioneer League (A) [Short Season Class A, June 16 - September 5]

Billings Mustangs - 970 KCTR-MT; Joe Dominey
Butte Copper Kings - 1370 KXTL-MT; announcer info unavailable
Great Falls Dodgers - 1310 KEIN-MT; Gene Black
Helena Brewers - 1240 KBLL-MT; Dan Peterson
Idaho Falls Braves - 980 KUPI-ID; announcer info unavailable
Medicine Hat Blue Jays - no radio broadcasts
Missoula Osprey - station/announcer info unavailable
Ogden Raptors - 800 KSOS-UT; Phill Ellison

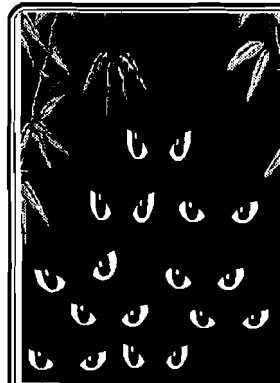
Midwest League (A)

Beloit Snappers - station/announcer info unavailable
Burlington Bees - 1490 KBUR-IA; Dan Vaughn, Randy Wehofer
Cedar Rapidsernels - 1600 KCRG-IA; John Rodgers
Clinton Lumber Kings - 1340 KROS-IA; Mark Weaver
Fort Wayne Wizards - 1380 WHWD-IN; Alan Garrett, Kent Hormann
Kane County Cougars (Geneva, IL) - 95.9 WKKD-IL; Scott Franzke
Lansing Lugnuts - 1240 WJIM-MI; Jeff Walker
Michigan Battle Cats (Battle Creek, MI) - 930 WBCK-MI; Ken Ervin, Terry Newton
Peoria Chiefs - 92.3 WBGE-IL; Ed Beach
Quad City River Bandits - station info unavailable; Cory Dann
Rockford Reds - no radio broadcasts
South Bend Silver Hawks - station/announcer info unavailable
West Michigan Whitecaps (Grand Rapids, MI) - 1300 WOOD-MI; Rick Berkey, Rob Sanford
Wisconsin Timber Rattlers (Appleton, WI) - station/announcer info unavailable

Northern League (Independent)

The Directory indicates that no independent minor league teams, including those in the Northern League, have radio broadcasts.

Expiring? Time to renew? Not sure when?
Check the back page - the label will tell you!



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Río San Juan - Laguna Gri-Gri Tour

By César Objío

Taking advantage of a tour prepared by the Museo de Historia y Geografía in Santo Domingo in order to help people to see and know our country, we started out at 5 am on Saturday, February 13, in four buses in order to spend the day on the northern coast of our island and visit the places around the area.

As this is a place I have never visited before I took with me my TRF in order to investigate how was the receiving situation of radio stations in the area.

I was surprised to hear some Dominican stations stronger than others with supposedly less power, but in this country it happens that station owners usually deny the information requested by me as they say that they can't reveal it (?) as if it were a military top secret or classified information. They say it is secret information and won't give it. One of the reasons is that most of the stations in this country are illegal, and they do not have legal permission from the government to operate a radio station; others usually buy (yes, in this country it is usual to BUY) a frequency; the government does not own any frequency at all here, as they all have been sold to friends by any of the former Directors General de Telecomunicaciones (and we have had too many of them during all the different governments we have had after Trujillo was killed in 1961); that is the advantage of that government position, that they can make a lot of money by selling frequencies.

I was surprised to hear R. Caracas on 750 from the other side of the island. Naturally they operate with 100 kW, day, on a free frequency, and R. Alegre, Santiago, was not on the air. Then I heard R. Bahamas on 1540 even though it was very weak, but alone on the frequency.

So here is what I heard at Río San Juan, just by the Laguna Gri-Gri. This is a natural lagoon close to the town. I can say that this is more a river than a lagoon, as there is a spring with clean water running down to the sea. In this place you can ride on a boat with outboard motor and several persons on board, and follow the current down to the sea and back for about three dollars. A round trip usually takes about half an hour. I did not take the trip. I needed the time for DX'ing, hi. We were given two hours to walk around until one o'clock.

After one we were moved to Playa Carte, about 50 kms. to the west and closer to Puerto Plata. And here I saw the most beautiful beach I have ever seen on this island with an extremely fine sand and many persons riding over the waves on surfboards with sails - very beautiful scenery. The temperature was warm under a clear sky and with a mild breeze.

As usual the number between parentheses (below) means the strength with which I heard them. Time was from 11 am to 1 pm.

Signal strength: 5 - Local; 4 - Good; 3 - Fair; 2 - Weak; 1 - Extremely weak

- 530 R. Visión Cristiana Internacional, Turks & Caicos Islands (4)
- 540 R. ABC, Santo Domingo (4)
- 550 WPAB, Ponce, Puerto Rico (2)
- 560 R. Ritmos, Santiago (2)
- 570 R. Cristal, Santo Domingo (3)
- 580 R. Monte Cristi (3, new frequency)
- 590 R. Santa María, La Vega (4)
- 600 WAEL R. 600, Mayagüez, Puerto Rico (3)
- 610 R. Acción, Santiago (5)
- 620 R. Televisión Dominicana, Santo Domingo (4)
- 630 WSKA, La Súper Cadena, San Juan, P. R. (3)
- 650 R. Universal, Santo Domingo (5)
- 660 R. Quisqueyana, Santiago (4)
- 680 WAPA, R. Guapa, San Juan, P. R. (3)
- 700 R. Mao (3)
- 710 WKJB, Mayagüez, P. R. (3)
- 720 R. Norte, Santiago (4)
- 730 HIZ, Santo Domingo (4)
- 750 R. Caracas, Venezuela (2)
- 760 WORA, La Súper Cadena, Mayagüez, P. R. (4)
- 770 R. Águila, Santiago (4)
- 790 La Voz del Trópico, Santo Domingo (4)
- 810 WKVM, San Juan, P. R. (3)
- 820 R. Santiago (5)

- 830 R. HIJB, Santo Domingo (5)
- 850 R. Clarín, Santiago (5) / WABA, Aguadilla, P. R. (4)
- 860 R. Clarín, Santo Domingo (5)
- 870 R. La Vega (5)
- 880 R. Santa Cruz, Mao (3)
- 890 R. Continental, Santo Domingo (4)
- 900 R. Puerto Plata (5)
- 920 R. 920-AM Stereo, Santo Domingo (4)
- 930 WFKO, R. Eco, Cabo Rojo, P. R. (3)
- 940 WIPR, La Emisora del Pueblo, San Juan (3)
- 950 R. Popular, Santo Domingo (3)
- 960 La Voz del Atlántico, Puerto Plata (5)
- 970 R. Olímpica, La Vega (3)
- 990 R. Cibao, Santiago (3)
- 1010 R. Comercial, Santo Domingo (3)
- 1040 Cadena de Noticias, Santo Domingo (3) / WCXQ, Súper Q, Moca, P. R. (2)
- 1050 R. Hispaniola, Santiago (3)
- 1060 R. Iniciativa, Juana Díaz, P. R. (3)
- 1070 HIBI Radio, San Francisco de Macorís (4) / R. Arecibo, P. R. (2)
- 1090 R. Amistad, Santiago (4)
- 1130 R. Fxistos CDN, Santiago (5)
- 1160 Radiolandia, Santiago (4)
- 1180 R. Mil, Santo Domingo (3)
- 1190 R. Azul, Santiago (3)
- 1210 R. Merengue, San Francisco de Macorís (3)
- 1230 R. Ideal, Moca (2)
- 1250 La Voz del Progreso, San Francisco de Macorís
- 1280 R. Centro, Arecibo, P. R. (3)
- 1300 R. Útil, Mayagüez, P. R. (2)
- 1330 R. Visión Cristiana, Santo Domingo (2), relaying 530
- 1380 R. Nacional, Santiago (3)
- 1410 R. Gri-Gri, Río San Juan (local station, not in operation)
- 1450 UnID (2)
- 1470 UnID (2)
- 1480 UnID (3)
- 1540 R. Bahamas, Nassau (2)
- 1570 R. Amanecer, Santo Domingo (5) (Or is it a Santiago relay? It was too strong for a station to be heard from Santo Domingo.)

Musings

of the Members

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P. O. Box 3111

Scranton, PA 18505-0111

Times are local per Muse; submit double-spaced only.

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.

G. Harley DeLeurere - P. O. Box 10 - Hendricks, West Virginia 26271-0010

It has been awhile since I've sent a musing. Truly work has kept my nose to the grindstone. I'm too old for this. Anyway quickly is there anyone out there in radioland who has the correct address for WDMN (1520) of Toledo, Ohio? My letter to it was returned from the post office stating that its forwarding order had expired. I called the 419/555-1212 information operator and was given 419/243-7052 as AM-1520's telephone number. Also it was listed as WJCM (sic). That number is no good. I was told that it had been disconnected. I called the Toledo Convention and Visitors Bureau. The kind lady there never heard of WDMN. WDMN is one mystery, isn't it? Here let me say that several years ago I was in Scranton and visited Steamtown. Also I'm under the impression that my great-grandpa DeLeurere emigrated to the United States from Zulzeke, Belgium, and "settled" first in Scranton. Years ago I discovered a "DeLeure" in the telephone book there. I guess the final "re" had been dropped. Anyway it's not listed now. Anyway thank you for your kindness. Yes, I do appreciate you and the other members who have been so helpful.