



DX NEWS

*the magazine of the
National Radio Club*

SINCE 1933

Volume 56, No. 9 - Monday, November 28, 1988 (ISSN 0737-1659)

DX Tests ...

December 5, Monday - 2:30-3:00 am EST: WPYK-1010, with tones and coded ID's, at 5 kW
D1. V/s: Bob Uptain, GM - P. O. Box 460 - Dora, AL 35062 (Wayne Heinen, NRC)
December 12, Monday - 2-2:30 am EST: WTBF-970, at 5 kW. V/s: Joey Meredith, Program
Director - P. O. Box 747 - Troy, AL 36081 (Jeff Tynan and Wayne Heinen, NRC)
December 19, Monday - 2:30-3:00 am EST: WASG-550, including Morse code ID's, at 5 kW.
V/s: R. Dale Gehman, General Manager/Chief Engineer - 1210 S. Main - Atmore, AL 36502
(Wayne Heinen and Jeff Tynan, NRC)

Inside ...

2 - AM Switch	9-16 - Special Section: NRC Reprints
3 - Station Address Changes	17 - DDXD-W
4 - Frequency shifts	18 - IDXD
5 - DDXD-E	19 - Formats
8 - City Quiz	21 - 94Q - WQXI
	22 - WCNN; WMJM/WTJH
	23 - Ray Briem DX Special

From the editor ...

No, the infamous November, 1988 Topeka tornado didn't come close to me or my house, although I did spend almost an hour in a hot, smelly boiler room with close to 1,000 other scared people. And the only "whirlwind" I want to be involved with in 1989 is Labor Day weekend when NRC'ers and others breeze into town for *Topeka DXCon '89*.

Tests ... Wayne and Jeff would like to see more of YOU involved in helping them arrange tests. If you'd like for them to try to arrange a test for a specific station at a projected date and time, send them the information and two 25-cent stamps. If you'd like to support their activities in writing letters to stations and don't mind pot luck, send them two 25-cent stamps per station. They'll write the letters and mail them ... as they have already been doing this season, on their own nickel.

Reprints ... The eight pages in the center of this issue are in a special pull-out section, for your convenience. Or leave it in, if you prefer.

Any problems? Write to the appropriate editor/manager. Remember, there's about a three-week delay in time between the time you mail your renewal check to Ron Musco and the time you see a change in the label, which comes to me from Mike Knitter. If your *DX News* arrives in unacceptable condition, write me; no need to send the remains as proof!

DX Time Machine

From the pages of *DX News*

Ten years ago ... from the December 11, 1978 issue of *DX News*: Chuck Hutton reported only a few frequency changes from the new 9 kHz spacing ... Norm Maguire's 5,000-mile catch of KTOH-1490 Lihue, HI from E. Hartford, CT led GYDXA (edited then by Bill Hale) ... Brian Vernon logged 1484-AFRTS from Keflavik, Iceland.

Twenty-five years ago ... from the November 30, 1963 issue of *DX News*: In Memorium: "We respectfully dedicate this issue to the memory of John F. Kennedy, 35th President of the U. S., whom we mourn as this issue is being prepared. All levity has been deleted, accordingly. We do not feel capable of eulogizing so great a man as the late President Kennedy, so we will merely put this issue forth with heavy hearts, keeping pace with the world of DX." From Ernest R. Cooper's Musing: "I'd like to pay tribute to Radio as a whole for the remarkable coverage and most poignant music on just about every station in the U. S. that I could hear. A couple stuck to pop mix, like WHN-1050 and WNOR-1230, and one on 1600 who s/on on SM 11/24 @ 6 am with "Dixie", and then followed with many commercials."

Forty years ago ... from the December 4, 1948 issue of *DX News*, courtesy of the "Old Timer": 37 tests were listed. Sid Steele reported being up to 140 veries. Bob Brown, Goshen, IN, reported having 21 veries from stations over 7,000 miles away. Herb Campbell said in a Musing that "What we need, now, is more DIFFERENT reporters to *DX News* ..." Leo Herz resigned as a member of the NRC Board of Directors and was replaced by Alexander F. Malley.

AM SWITCH

Jerry Starr

c/o WHOT Radio, 4040 Simon Road, Youngstown, OH 44512

CALL LETTER CHANGES

Old call:		New call:
640 WRPJ MI Kingsley		WDRQ
740 WKQD TN Tullahoma		WDFZ
970 KGHR MN Austin		KQAO
1240 WLCF FL Eustis		WKIQ
1250 WNER FL Live Oak		WQHL
1470 WMPP IL Chicago Heights		WCFL

APPLICATIONS FOR NEW STATIONS

None

GRANTS FOR NEW STATIONS

1200 NC Atlantic Beach: 5000/1000 U4 (corrects power from prior AMS)

APPLICATIONS FROM EXISTING FACILITIES

- 730 WACE MA Chicopee: night power to 500 watts, antenna to U2
- 880 KGHT AR Sheridan: powers to 50000/220 (31000 CH). This is a CP, station still in operation on 1540 kHz
- 1600 WIDU NC Fayetteville: day power to 5000, antenna to U3

GRANTS TO EXISTING FACILITIES

- 770 WWBC FL Rockledge: powers to 1000/490 watts (CP, still on 1510 kHz)
- 1230 WDJO OH Cincinnati: relocate XR (another old rooftop antenna gone)

OTHERNESS

- 840 KVEG NV North Las Vegas: new station is ON THE AIR
 - 870 WJBO ME Gorham: expects move here from 1590 kHz in "early 1989"
 - 920 CFLS PQ Levis: station is SILENT
 - 1210 KOKK SD Huron: moved here from 1190 kHz 10-31-88
 - 1510 KFNN AZ Mesa: this silent station has just been sold and will most likely be returning to the air in the near future
 - 1580 WBGB FL Mount Dora: another silent station with new ownership, same comments as KFNN-1510 above apply
- 73 and Good DX, *Jerry & B K F* Jerry Starr & Buffalo K. Foonman

KGBX, the oldest station in Springfield, MO, will be sold at public auction. The station was last on the air June 30th. An interesting side note, its studios are of historical significance, as the building was built in 1948 to resemble a two-story jukebox.

-via Pete Kemp

SPORTS NETWORKS

Barry S. Finkel

10314 S. Oakley Avenue, Chicago, IL 60643

In my last column some of you may have noticed a repeat of a baseball network list; I had sent an old page to Paul. I have only one NHL list this week, courtesy of Andy Rugg. I have very little with respect to NHL and NBA flagship stations, announcers, and network lists. Please send me any information that you may have. Thanks.

Quebec Nordiques (NHL) 1988-89

550 CHLN-PQ	730 CKAC-PQ	1220 CFVM-PQ	1270 CFGT-PQ	1350 CHAL-PQ	1420 CKTL-PQ
560 CKCN-PQ	800 CHRC-PQ	1230 CJLP-PQ	1310 CHGB-PQ	1380 CFDA-PQ	1450 CHRT-PQ
580 CHLC-PQ	900 CKVD-PQ	1240 CJAF-PQ	1330 CKLD-PQ	1400 CKFL-PQ	1480 CHRD-PQ
610 CHNC-PQ	970 CKCH-PQ	CJMD-PQ	1340 CJAN-PQ	CJFP-PQ	
620 CFRP-PQ	1000 CFLP-PQ	CFLM-PQ	CFED-PQ	CKRN-PQ	
630 CHLT-PQ	1150 CHGM-PQ	CKLS-PQ	CHAD-PQ	1420 CJMT-PQ	

STATION ADDRESS CHANGES

Jerry Starr

c/o WHOT Radio, 4040 Simon Road, Youngstown, OH 44512

570 WFRN FL PINELLAS COUNTY	11000 10TH AVENUE, SUITE 110	PIERSBURG, FL 33743	RV-VA
570 FLDD TX DALLAS	2001 DALLAS CENTER BLVD, BOX 50189	75250	WA-TX
510 WMSB CT TORRINGTON	1000 MAIN STREET		GHD-WV
610 WYVD OR MEDFORD	1000 11TH STREET		
660 KSLP CA ORLANDO	1000 11TH STREET, SUITE 110	97591	TH-CA
660 WJBN NY NEW YORK	1000 11TH STREET, SUITE 110	97591	TH-CA
680 WFLA FL TALLAHASSEE	1000 11TH STREET, SUITE 110	97591	
680 WMEB CT GAITHERSBURG	1000 11TH STREET, SUITE 110	97591	
680 WJOP GA LORRY	1000 11TH STREET, SUITE 110	97591	
730 WDDS NY ORANGETA	1000 11TH STREET, SUITE 110	97591	GHD-WV
730 WJLE WA EPHRATA	1000 11TH STREET, SUITE 110	97591	TH-CA
790 WGHZ WA BELLINGHAM	1000 11TH STREET, SUITE 110	97591	TH-CA
800 CPST MD LARGELY	1000 11TH STREET, SUITE 110	97591	TH-CA
840 WJCI MD DENTON	1000 11TH STREET, SUITE 110	97591	JS-OH
860 WJCI MD DENTON	1000 11TH STREET, SUITE 110	97591	TH-CA
860 WJCI MD DENTON	1000 11TH STREET, SUITE 110	97591	TH-CA
860 WJCI MD DENTON	1000 11TH STREET, SUITE 110	97591	TH-CA
890 WYVD OR MEDFORD	1000 11TH STREET, SUITE 110	97591	JW-CO
900 WYVD OR MEDFORD	1000 11TH STREET, SUITE 110	97591	JW-CO
900 KEYE WA WENATCHEE	210 Code Change only-	98807	TH-CA
920 WJOP GA LORRY	P.O. BOX 185	830 224	GHD-WV
930 KAFB AZ FLAGSTAFF	BOX 1939	86002	JW-CO
960 WJLE WA EPHRATA	Zip Code Change only-	99302	TH-CA
970 WJBN OH ASHTABULA	Zip Code Change only-	44004	RV-VA
970 WJBN OH ASHTABULA	1229 WEST CORPORATE DRIVE		WA-TX
1000 WJBN OH ASHTABULA	1542 HANCOCK ROAD	86440	JW-CO
1050 WJBN OH ASHTABULA	552 LANEY-WALKER EXT.	30901	GHD-WV
1080 WJBN OH ASHTABULA	774 ROSWELL STREET	30061	KR-
1090 WJBN OH ASHTABULA	Add "SUITE 1" to address.		TH-CA
1110 WMMX OH XENIA	P.O. BOX 1110, FAIRBORN, OH	45324	GHD-WV
1110 CKTY OH CLEARWATER	1415 LONDON ROAD	N75 1P6	OH-NH
1120 WJOP GA LORRY	5050 MURPHY CANYON ROAD	92123	TH-CA
1120 WJOP GA LORRY	P.O. BOX 2849	30503	GHD-WV
1140 KHMZ WY GREYBULL	P.O. BOX 352	82426	RV-VA
1150 WJOP GA LORRY	* This is correct spelling of city. *		TH-CA
1170 WJOP GA LORRY	* This is correct spelling of city. *		GHD-WV
1190 WJOP GA LORRY	P.O. BOX 370		GHD-WV
1200 KFNN AZ MESA	P.O. BOX 6008, FARGO, ND	58108	TH-CA
1210 KEBR CA ROCKLIN	3108 FULTON AVENUE, SACRAMENTO, CA	95801	TH-CA
1210 WJOP GA LORRY	P.O. BOX 1733	45417	GHD-WV
1220 WJOP GA LORRY	P.O. BOX 269	22404	RV-VA
1240 WJOP GA LORRY	CENTER CITY PLAZA, 433 STATE STREET	12305	GHD-WV
1240 WJOP GA LORRY	Zip Code Change only-	98507	TH-CA
1260 WJOP GA LORRY	14800 LASSAN STREET, HISSON HILLS, CA	91345	JW-CO
1270 WJOP GA LORRY	717 NORTH MOONEY BLVD.	93274	JW-CO
1280 WJOP GA LORRY	ONE 2, BOX 500	97401	TH-CA
1290 WJOP GA LORRY	P.O. BOX 414		GHD-WV
1290 WJOP GA LORRY	4022 WEST CAPITOL DRIVE, SUITE 1290		
1290 WJOP GA LORRY	MILWAUKEE, WI	53216	GHD-WV
1340 WJOP GA LORRY	14 200 PRAIRIE WAY	95460	TH-CA
1310 WJOP GA LORRY	BOX 5159	85201	JW-CO
1310 WJOP GA LORRY	800 PARK AVENUE SW., ALBUQUERQUE, NM	87102	JW-CO
1320 WJOP GA LORRY	BOX 632	81067	JW-CO
1330 WJOP GA LORRY	805 STEWART	83501 (Missing from Log # 8)	TH-CA
1330 WJOP GA LORRY	3001 WEST FIFTH STREET		WA-TX
1390 WJOP GA LORRY	152 BANK STREET		GHD-WV
1400 WJOP GA LORRY	c/o CREE, BOX 1170, FERNIE, BC	V0B 1M0	TH-CA
1450 WJOP GA LORRY	341 SOUTH BLUFF STREET, BOX 819	84770	JW-CO
1490 WJOP GA LORRY	P.O. BOX 26, LANCASTER MOTOR INN	03584	HK-NH
1500 WJOP GA LORRY	Zip Code Change only	98501	TH-CA
	** Ed. Note *	Received both of the following changes. Don't know which is correct. (Help ?)	
1540 KSVZ TX FORT WORTH	BOX 210-329 BEVERLY HILLS STATION		
	DALLAS, TX	75211-0339	JW-CO
1540 KSVZ TX FORT WORTH	3105 W. ARKANSAS LANE, ARLINGTON, TX	76016	WA-TX
1550 WJOP GA LORRY	P.O. BOX 448		GHD-WV

MAIL ROOM: 111 COLORADO SPRINGS...
MAIL ROOM: 111 COLORADO SPRINGS...
MAIL ROOM: 111 COLORADO SPRINGS...

William Hale

2160 Farm To Market Road, Johnson City, NY 13790

NEEDN HAVE RANBLINGS

A few issues ago I offered to send the complete list of up-to-the minute Graveyard lists to anyone who sent me 50c. Boy, did I underestimate!! First class postage alone is \$1.70! After all, there are 37 pages. So any further orders for these gems will cost \$2.25, 1st Class only. Remember, when reporting use Eastern Listening Time, divide your DX into the groups seen here, and print neatly or type. And don't forget the time and date on your catches. All that makes it easier for me. But the first rule to remember is...report. The turnout the past couple of weeks has been great!! Keep up the good work, guys and gyyettes.

PROGRAMMING AND OTHER SPECIAL NOTES

- 590 WROW NY ALBANY - 11/1 0855 noted on, with ID>news; had been reported silent (DV-NY)
680 WXIC OH WAVERLY - 10/25 1759 good with REL, ID:The Gospel Radio Giant; format change?; thru WMAQ splash (WPF-IN)
920 KDHL MN FARIBAULT - must have done some XR work, as are again hrd nitely or in early AMs; polka mx & lots of local nx (RW-IN)
CFRY ON SAULT STE MARIE - now is Power 92 AM (RW-IN)
930 WRVC WV HUNTINGTON - 11/10 noted with TalkNet (RW-IN)
970 KNEA AR JONESBORO - sometimes quite good with 44 watts and GOS; number given as 972-9797 for request line; I tried, but was busy! (RW-IN)
980 WSIX TN NASHVILLE - 11/10 noted with TalkNet (RW-IN)
1150 KEZQ AR NORTH LITTLE ROCK - 10/17 0138-0318+ with Travelers Information Radio slogan, no mx, just tourist info; full power TIS?; invite after you've found the info you're looking for to tune to FM 100 KEZQ for EZL mx; good, 1st-timer (WPF-IN)
1180 KSL UT SALT LAKE CITY - 10/22 0408-30 now noted with BW & Talknet; over woefully weak 'JJD (WPF-IN)
1470 WMBD IL PEORIA - has Sally Jessie Rafael weeknights @ 1900 (RW-IN)
CHWD ON WELLAND - is now a nighttime regular; maybe some XR work (RW-IN)
1550 WLVX CT BLOOMFIELD - 11/4 1800 ContChr mx, Christian 1550, Bloomfield-Hartford ID>nx; DJ thanked listeners for cards & letters; ex:WGAB (DB-DE)
1580 WAMJ IN SOUTH BEND - has Sally Jessie Rafael; weak for 500 watts (RW-IN)

DX/EQUIPMENT TESTS

- 560 WIND IL CHICAGO - 10/21 0411 noted off; CJKL only thing noted; back on by 0434 re/ (WPF-IN)
1420 WIMS IN MICHIGAN CITY - 10/12 0807 noted on, testing; phoned and engineer said they were having problems with XR staying on; also, stn was sold abt 2 months ago and 50 watt synchro in La Porte is in limbo (thought it was in La Porte, hi-WRH) as new owners don't know if they're gonna keep it (WPF-IN)

UNIDS & UNIDS TOO

- 840 WNNZ? MA WESTFIELD - 10/30 1708 good with OLD, ment of Mass; ID sounded like WFRK or WSRK; has WNNZ changed CLs?; also hrd ment of Z-Rock, which really doesn't fit an OLD format; gone @ 1715 pattern change (RK-IL)
CKLI? ?? - 11/8 0721 good briefly with ID which sounded like this; looped N-S; possibly a CL change for CFOB?; fair thru line noise (RK-IL)
890 UNID ?? - 10/19 2003-08 with CBS Nx, then-World Series; looped N>S; SS also noted underneath; in WLS null (WPF-IN)
1070 UNID ?? - 11/8 0855 United Stns R. Net Solid Gold Scrapbook Salute to Veterans Day; lost to WHYZ/WKDR sign-ons; lcl WSCP not hrd (DV-NY)
1220 UNID ?? - 10/22 1835 someone with Indiana FB Net over/under WGAR; assume WSLM (DB-DE)
UNID ?? - 10/22 1859 fair with North Carolina Nx Net, in WGVAR null (DB-DE) (Log sez WENC Whiteville is on the NC Net-WRH)
1350 WLRQ FL COCOA - unID hrd by Kerl Jeter (Issue 5) is this; they carry Dolphins FB and are located right next to Merritt Island (TH-CA)

136 Ford Street
Braintree, MA 02184
1988 November 15

Editor, DX News Magazine
3132 S.E. Irvingham St.
Topeka, KS 66605-2948

Dear Paul,

(First-time writer.) In reference to "Found: The Immediate Cause of AM Band Apparent Frequency Deviations" in Vol. 56 No. 3 p. 11, by R.F. Cole, his explanation is very ingenious for this effect, and may very well be the underlying cause. It would seem to violate, however, some aspects of conventional modulation theory.

Using the values Mr. Cole gives (sorry I don't know his first name), a very strong 8 kHz local signal could easily overload the front end of a receiver and produce the shift of a 1220 kHz. station to 1228 kHz. as a sum frequency. However, there would also be an equally strong new signal at the difference frequency, 1212 kHz., and I am wondering if this was observed. Moreover, unless the modulation effect was of the balanced mixer variety (highly unlikely), there would also be a larger component at the original frequency 1220 kHz., meaning no observed frequency shift at all. Have any of these effects been seen in practice?

I have found that to move a set of frequencies to another place is not an easy task without introducing other unwanted signals. In the somewhat analogous single-sideband case it involves a balanced mixer followed by a sharp filter, or in the phasing method two balanced mixers in conjunction with two phase-shifting networks which are complicated in themselves. In a lower-frequency case a servo-type resolver can be used to shift a frequency higher or lower. None of these features, however, appear to be present in the effects noted.

I would be interested in Mr. Cole's comments on the above, as well as those of any others. It looks like a good field for experimenting. Fortunately I don't live in an earthquake-prone area, except for a massive one due they say in the next century.

Yours truly,

[Handwritten signature]

Paul B. Sawyer

FM Station Address Book

New NRC publication
ONLY \$8.95

(Canada, U\$9.45) to the Pub Center
(Foreign orders, please write for price)

•Listed by state, city

•8.5x11 inches, 3-hole punched

•Full-size type

PIRATES & OTHER ILLEGAL ACTIVITIES

1820 WENJ NJ ????? - 10/29 fair with ID; gave #201-525-7955 or a Hawaii address; called & rec'd QSL 11/3 mailed from NJ (DV-NY)

MIDNIGHT TO MIDDAY

610 CHNC PQ NEW CARLISLE - 11/2 0450 FF Canadian POP mx, PSA, sps, SID; CHNO-CHGM (JN-NY)

640 CFGH ON RICHMOND HILL - 11/8 0102 good with country ROK mx, SID (RK-IL)

700 CHSJ NB ST JOHN - 11/7 0635 fair in WLW null with news from Canada's papers (DB-DE)

820 WXEZ IL CHICAGO - 11/3 0614 on top with ID & Call the E-2 Line 440-3279 (DV-NY)

880 CKLQ MB BRANDON - 10/29 0323-30+ dominating the frequency, easily cutting thru WLS splash with C&W mx; in WCBS null & over SS; 1st-timer (WPF-IN)

920 WHOK IL METROPOLIS - 10/25 0700 fair+poor with sign-on (RK-IL)

KYFR IA SHENANDOAH - 11/8 0700 news+You're tuned to the all-day, all-night Family Radio, this is KYFR Shenandoah, IA, 9-20 on your dial; KRIA nulled (JB-TX)

930 WKCT KY BOWLING GREEN - 11/10 0005 noted with sign-off, no SSB (RW-IN)

WRVC WV HUNTINGTON - 10/23 0200 fair+good with ID in WAUR null (RK-IL)

960 KZIM MO CAPE GIRARDEAU - 11/8 0753 good with DJ tlk, wx, ID (RK-IL)

1020 WNTK NH NEWPORT - 10/31 0859 very good with ID; NewsTalk 1020 WNTK, Newport-New London+NH nx; over KDKA (DV-NY)

1050 WUKQ NY NEW YORK - 10/20 0404-0500+ good with SS; easy to get confused with XEG; 1st-timer (WPF-IN)

1070 WKDR NY PLATTSBURG - 11/8 0700 good with SSB+detailed sign-on (DV-NY)

WHYZ SC GREENVILLE - 11/8 0657 sign-on, no SSB, ment power & location (Hwy 25) (DV-NY)

1090 WJKM TN HARTSVILLE - 10/24 0703 good with sign-on (RK-IL)

1100 WWWE OH CLEVELAND - 10/30 0545 with Three W-E Newstime with Jim McIntire; ads for Big A Auto Parts & Churchill Downs Leader Cup Race, post time 12:30; KDRY off (JB-TX)

1130 WCXI MI DETROIT - 11/8 0017 popped up under WNEW with ID in promo; C&W mx; poor signal (EB-GA)

WNEW NY NEW YORK - 11/8 0008 very good with BBD, 11-3-0, WNEW ID, Giants FB promo (EB-GA)

1180 WEEO PA WAYNESBORO - 10/25 0730 poor with ID+local ad (DV-NY)

1220 WHJM TN KNOXVILLE - 11/3 0700 fair with sign-on (RK-IL)

KVSA AR M'GHEE - 10/28 0700 fair with sign-on (RK-IL)

WKRS IL WAUKEGAN - 10/29 0800 poor with sign-on (RK-IL)

WLSD VA BIG STONE GAP - 10/28 0800 fair with sign-on (RK-IL)

CKSM PQ SHAWINIGAN FALLS - 10/21 0432 poor+good with FF (only FF listed on the frequency); WGAR very weak...only 2nd stn to cut thru WGAR @ nite here (WPF-IN)

1230 KSIX TX CORPUS CHRISTI - 11/5 1128 with Polka Party pgm, \$10,000 cash & trip to Europe on Concord Sweepstakes, KSIX P.P.B. 202, Corpus Christi @ 1130+MBS Nx; over KERV (JB-TX)

1240 WTAX IL SPRINGFIELD - 10/25 0430 up, ever so briefly, with ID by Jim Bohannon who was filling for LK; 1st time anywhere over mush (WPF-IN)

1250 WXOX MI BAY CITY - 11/4 0800 fair with sign-on (RK-IL)

KBTC MO HOUSTON - 11/1 0700 fair with sign-on (RK-IL)

WKBL TN COVINGTON - 11/2 0700 fair with sign-on (RK-IL)

1260 WIBV IL BELLEVILLE - 10/20 0558 fair with sign-on (RK-IL)

WDKN TN DICKSON - 10/21 0701 fair with sign-on (RK-IL)

1290 WCBL KY BENTON - 10/31 0700 good with sign-on (RK-IL)

1300 WLXG KY LEXINGTON - 11/7 0800 good with ID, NBC Nx (RK-IL)

1310 WDOC KY PRESTONBURG - 11/4 0800 sign-on+CNN Nx (RW-IN)

1330 KFCA AR CONWAY - 10/21 midnight poor+fair & real fadey with long Ark nx, wx + local ads (RK-IL)

WELW OH WILLOUGHBY - 10/21 0800 poor with sign-on (RK-IL)

KHIL TX CAMERON - 10/20 0701 fair with sign-on (RK-IL)

1340 WJPF IL HERRIN - 11/1 0210 good with nx, wx, sps, & sign-off (RK-IL)

KORQ TX ABILENE - 11/7 0653 with 1340 AM, KORQ, Good Morning, it's seven minutes before six O'Clock+wx (JB-TX)

KPDN TX PAMPA - 11/7 0901 We're KPDN, Pampa, the news & information station+nat'l & lcl nx (JB-TX)

1380 WPPA PA POTTSVILLE - 10/30 0815 in nicely with nx (RW-IN)

WMOV WV RAVENSWOOD - 10/17 0800 fair with sign-on (RK-IL)

1370 KCRV MO CAUTHERSVILLE - 10/22 0700 fair with sign-on (RK-IL)

1400 KJCF MO FESTUS - 10/23 0107 fair+poor with sign-off (RK-IL)

1420 KIXT AR HOT SPRINGS - 10/22 0700 poor with sign-on (RK-IL)

WQBC MS VICKSBURG - 11/8 0800 poor with SSB & sign-on (RK-IL)

1480 WROY IL CARMi - 10/19 0701 fair with sign-on (RK-IL)

WCHB PA HARRISBURG - 10/24 0419 with OLD, mixing with KSO; hadn't been hrd for over 2 years; #WEHP pgmmg (WPF-IN)

1480 WJBM IL JERSEYVILLE - 11/5 0700 fair with SSB & sign-on (RK-IL)

1520 KMPL MO SKESTON - 11/8 0800 fair with sign-on (RK-IL)

KMAV ND MAYVILLE - 10/24 0730 good with sign-on; apparently they sign-on with full power at Buffalo LSR (RK-IL)

WITF TN ELIZABETHTOWN - 10/25 0730 fair with sign-on (RK-IL)

1540 WHYFT NH EXETER - 11/12 0802 ads for Exeter Casuals in downtown Exeter & a restaurant; nx with Radio New England IDs; probably this; faded to CHIN by 0810 (JN-NY)

1550 WEVR WI RIVER FALLS - 10/24 0701 good with SSB & sign-on (RK-IL)

1570 WBGZ IL ALTON - 11/8 0701 poor with SSB & sign-on (RK-IL)

MIDDAY TO MIDNIGHT

600 WTAC MI FLINT - 11/3 2358 into Van Morrison; sounded like rock rather than country; gone to WHI/WREC (RW-IN)

640 WPBD GA ATLANTA - 10/27 1837 fair with ad, ID & soul mx (RK-IL)

WPBD GA ATLANTA - 10/30 1814 Rhythm of Atlanta slogan, BLK OLD; 1st new one in Standard Time; with WCRV/WHLO...no Cuban yet; was going for CFGM but...640 sounds like 1240 now (WPF-IN)

WPBD GA ATLANTA - 10/30 1900 on late with full power; ID, then gone; nice Rhythm of the City slogan; no Cuban (RW-IN)

680 WFAN NY NEW YORK - 10/24 2018 good with ID, wx sports-talk (RK-IL)

680 CJOB MB WINNIPEG - 10/24 1903 current temp of -11/30F; 1st-timer (WPF-IN)

740 CBL ON TORONTO - 11/4 2144 over/under KTRH with traces of WSB splash with war story (EB-GA)

790 CKSO ON SUDBURY - 11/10 1800 Canadian POP mx by Big Bang; nx, Sudbury wx, ID; Favorite Hits AM 790, CKSO (JN-NY)

WTAR VA NORFOLK - 11/2, 3 (no times) with OLD; 1st time I've hrd this bird...usually CKSO; maybe they did some XR work (RW-IN)

810 WJPW MI ROCKFORD - 10/27 1959 good with sign off (RK-IL)

820 WZYQ MD FREDERICK - 11/8 1722 ads for car dealer & insurance, SID, jx, C&W mx; new; WIQT gone (JN-NY)

830 WADU LA NORCO - 10/31 1903-18 power change with nx, traffic & 1 local ad (RW-IN)

850 KOA CO DENVER - 11/8 2159 with WYDE & WHAS splash with election coverage promo, local nx; fair+poor (EB-GA)

890 WLS IL CHICAGO - 11/8 1429 poor, but alone on channel in mid-afternoon with slight WBKZ splash with wx 4Cast, ID, ROL OLD (EB-GA)

910 WDFD MI FLINT - 11/3 2341 with wx in between BBD numbers (RW-IN)

960 CFFX ON KINGSTON - 10/30 1922 with wx and Beyond the Limits; female DJ (RW-IN)

980 WTRY NY TROY - 11/3 2051-2115 with OLD, Great 98 jx; local nx @ 2000; a complete shock, 1st time since 1985; no WONE (RW-IN)

990 WVSct PA SOMERSET - 11/10 1810 ads for Giant Eagle Market & Somerset Sewing Center at two locations; Rte 31 in Somerset & Rte 58 in Johnstown (JN-NY)

1020 WPEO IL PEORIA - 10/28 1915 fair with sign-off (RK-IL)

1060 WHFB MI BENTON HARBOR - 10/30 1800 good with sign-off (RK-IL)

1100 KLLL MO WEBB CITY - 10/24 1928 poor with sign-off (RK-IL)

1120 KMOX MO ST LOUIS - 11/8 1420 fair over WQXM in mid-afternoon with tlk pgm, ad for Christian Hospitals, stn promo; KBOA-830 also in (EB-GA)

1130 KAAB AR BATESVILLE - 10/24 1948 good with sign-off (RK-IL)

1140 WKWH MI KENTWOOD - 10/27 1900 good with sign-off (RK-IL)

1150 WELC WV WELCH - 11/11 1704 with WV wx, business nx; just atop noise (JN-NY)

1180 WLDS IL JACKSONVILLE - 10/18 1930 good with sign-off (RK-IL)

WHJM TN KNOXVILLE - 10/30 1800 OLD+sign-off; And now one of America's great stns leaves the air mentd studio address and U1 10000 (RW-IN)

1190 WLIB NY NEW YORK - 10/30 1830 fair briefly with ID (RK-IL)

1220 CKCW NB MONCTON - 11/3 1832 OLD mx, Music Star Trivia Contest with hockey tickets as prize; #858-1234; new (JN-NY)

1240 WEDC IL CHICAGO - 10/29 1800 XLNT with sign-off (RK-IL)

WCRW IL CHICAGO - 10/29 1800 XLNT with sign-on (RK-IL)

1310 CHGB PQ LA POCATIER - 11/4 1745 assumed them; poor over mess with FF tlk (DB-DE)

1320 WOBL OH OBERLIN - 10/31 1935 with HS FB promo; 1320 is DXable again with no CFGM; #3031 in log (RW-IN)

(8)

- 1330 WSSY IL EVANSTON - 11/3 2100 good with sign-off (RK-IL)
- KFH KS WICHITA - 11/1 1840 simul with KXLK-FM; C&W mx, KXLK Best Country Mx sign @ 1800, K-F-H 1330 AM (JB-TX)
- 1340 WMID NJ ATLANTIC CITY - 11/11 1830 Washington Getaway contest, enter at the Grease Monkey; BBD mx, atop GY mess; also a regular at Cape Hatteras (JN-NY)
- 1380 WNRI RI WOONSCKET - 11/4 1730 very good @ times over WAMS & unID 55 (WKDM?) with many ads, then lcl phone-in tik (DB-DE)
- 1390 WFHJ OH YOUNGSTOWN - 10/22 1830 fair over WM2Q with college FB scoreboard+NBC Spz (DB-DE)
- 1430 WEEF IL HIGHLAND PARK - 10/28 1900 XLNT with sign-off; this one is often off <1800 & never noted on @ 0700; exact hours not known (RK-IL)
- 1450 WKXJ KY MANCHESTER - 10/24 2024 fair in GY mess with ID (RK-IL)
- 1530 WRPH MS POPLARVILLE - 11/8 1804 very good in WCKY null with New Orleans Saints FB, many N.O. ads||WRNO-Worldwide, stn promo (EB-GA)
- 1580 WPGC MD MORNINGSIDE - 11/9 1705 IDs: Business Radio Net, Business Radio 1580; their FMer (95.5) is DC's best-sounding format (JN-NY)
- 1580 WNZT PA COLUMBIA - 11/1 1505 fair with ID: 1580 TalkRadio WNZT; rare day visitor (DV-NY)
- 1600 WT2Q NC HENDERSONVILLE - 11/2 1900 good with dual ID, Hendersonville-Ashville local mx (DV-NY)
- WAYC PA BEDFORD - 11/9 1652 with Giant Eagle ad, Bedford Cnty ad, T40 mx (JN-NY)
- WNST WV MILTON - 11/2 2000 L&C with ID+C&W mx; all alone and at a good level (RW-IN)

REPORTERS:

- RK-IL Robert Kramer//Chicago, IL//R-1000, HQ-120X + RW Loop, Kowalski Loop
- DV-NY Don Voorhies//Owego, NY//FRG 8800 with Gilfer Mod + LW
- RW-IN Roger Winsor//Hobart, IN//
- WPF-IN Wendell Ford//Westville, IN//ICF-2010
- TH-CA Tim Hall//Chula Vista, CA//Sharp eyes
- JN-NY Jay Novello//Endicott, NY//CRF-1 or Sony XR-70 Caradio
- EB-GA Eric Buenaan//Woodstock, GA//DX-200, TM-152, SM-2
- JB-TX Jim Boehm//San Antonio, TX//IC-R71A + 18" Coax Loop
- DB-DE Dave Braun//Dover, DE//R-2000 + Palomar Loop

SOME ABBREVIATIONS & SPECIAL SYMBOLS USED IN DDXX-E

TT: test tones OC: open carrier TC: time check QRM: interference QTH: location
 SID: singing ID CID: code ID jx: jingle lcl: local lgl: legal mx: music nx: news
 wx: weather sps: sports HS: high school FB: football BB: baseball BKB: basketball
 HKY: hockey >: after <: before @: stereo =: equal with or equal to
 OO: on the hour ||: parallel with *: to or into SS: Spanish FF: French EE: English
 POL: political GOS: gospel REL: religion or religious BBD: big bend
 OLD: oldies ROK: rock 'n' roll EZL: easy listening C&W: country & western AC: adult contemporary
 UC: urban contemporary tlk: talk ContChr: contemporary Christian CHR: contemporary hit radio AP: Associated Press Radio UPI: United Press International
 MBS: Mutual Broadcasting System MRN: Motor Racing Net USRN: United States Radio Net MCRN: Music Country Radio Net IRN: Interstate Radio Net
 LK: Larry King BW: Bruce Williams PH: Paul Harvey s/on: sign on s/off: sign off SR: sunrise SRS: sunrise skip SS: sunset SSS: sunset skip LSS: local sunset
 SSB: Star Spangled Banner

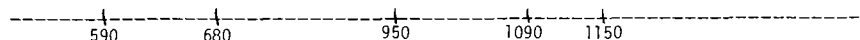
73, Bill

CITY QUIZ

John S. Bowker, Valparaiso, IN

QUIZ # 12

Only one city in the United States has stations operating at the five dial positions shown below. Of course, there may be other stations in this city too! Can you spot the city?



Here is a hint; it is one of these: Boston, Baltimore, San Francisco
 (The answer will appear at the end of the next City Quiz in DX News.)
 The answer to City Quiz # 11: Seattle

National Radio Club Reprints November, 1988

SUPERSEDES ALL PREVIOUS LISTS AND ORDER FORMS WHICH SHOULD NOT BE USED. Number of pages indicated by ().

ANTENNAS

A1 HIGH PRECISION DIRECTION FINDING ON THE BCB, PARTS I & II. G.P. Nelson. Part I uses Maxwell's equations to derive the equations describing MW direction finding with a loop. Part II is a non-technical discussion of how a loop antenna operates and how to get the most out of a loop. (12)

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. This 1965 forerunner of the Pattern Controlled Loop. (1)

A3 A VERSATILE LONGWIRE ANTENNA COUPLER. R. Foxworth. How to get the maximum amount of signal from your longwire. (3)

A4 ROLL YOUR OWN (LOOP THAT IS...) D. Fischer. Loop won't tune the entire band? This article describes what's wrong and how to cure it. (3)

A5 LOOP DISTORTION: WHY GET SKEWED? G.P. Nelson. Discusses origin of distorted loop patterns. Unique technical material not available elsewhere; a must for those interested in designing MW loop antennas. (4)

A6 PATTERN CONTROLLED LOOPS, PART I & II. G.P. Nelson. Introduction to theory and practice of pattern controlled and cardioid loops. (9)

A7 THE FLORIDA BEVERAGE. J. Conrad. Jerry describes the fantastic results with a Beverage antenna and compares it with others he has used. (3)

A8 THE CARE AND FEEDING OF A WAVE ANTENNA. J. Starr. Practical construction hints for a Beverage antenna. (3)

A9 DOWN TO EARTH GROUNDS. G.P. Nelson. Hints on making low resistance ground connections for terminating a Beverage antenna. (3)

A10 A CALIFORNIA BEVERAGE. Fr. Jack Pejza. Another article describing the spectacular results obtained with a Beverage antenna. (2)

A11 THE SUPER SIGNAL SNATCHER. D. Fischer. Article describes the theory of the Beverage antenna. Includes equations, tables, many diagrams. (14)

A12 THE VERTICAL PICKUP PATTERN OF THE MW LOOP ANTENNA. G.P. Nelson. Helpful information for those doing horizon blockage experiments with a loop antenna. (4)

A13 USING TWO ANTENNAS TO GENERATE ASYMMETRICAL RECEIVING PATTERN. M. Levintow. Shows and describes 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. Reading of 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. Evaluates this recent development in MW antennas and its application to Medium Wave DXing. (4)

A16 MORE ON BEVERAGE ANTENNAS. Wes Boyd. An update on Beverage antenna theory and application. (2)

A17 MORE FERRITE LOOP ANTENNA INFO. Dallas Lankford. Several inconsistencies in ferrite-core loop antenna theory are discussed. (3)

A18 THE BOB FLICK LOOP. Bob Flick. Complete construction details for this variation on the standard air-core box loop - one that is octagon-shaped. (7)

A19 NEBE: THE NEBRASKA BEVERAGE. D. Fischer, C. Dabelstein, R. Mitchell. A discussion of the Nebraska Beverage and the results of its use. (7)

A20 THE LSCA-1. Ron Schatz. Complete construction plans for building the Loop Sense Cardioid Array. Not a project for Beginners!! This antenna system is complex to build and operate. Should yield a unidirectional receiving pattern if operated properly. (10)

A21 THE APT-2 ACTIVE ANTENNA TUNER. Mark Connelly. Complete construction details to build his active parallel tuner with regeneration capacity - a worthwhile addition to your shack; further improved version described in A22. (19)

A22 THE APT-3: AN IMPROVED DESIGN ACTIVE PARALLEL L-C TUNER. Mark Connelly. A companion piece to A21 that makes several improvements to the APT-2 that simplify it's operation. ()

A23 MODULAR PHASING SYSTEMS. Mark Connelly. Introduction to and theory of an improvement in phasing system design that will outperform previous systems. (10)

A24 A LARGE APERTURE FERRITE CORE LOOP ANTENNA FOR LONG AND MW RECEPTION. J. Hagan. Details and theory for the construction of this new type of DX antenna. (14)

A25 A NOVEL APPROACH TO BUILDING YOUR OWN BCB LOOP. M. MALONEY. New ideas for improvements in ease of operation and sturdiness of loop antennas. (4)

A26 THE MWDX-2 PHASING UNIT. Mark Connelly. Construction of this versatile phasing unit is explained; this unit outperforms it's predecessor, the MWDX-1. Includes latest design enhancements. (13)

A27 SEVEN PASSIVE TUNERS. Mark Connelly. If you live near strong locals, and/or use a lower-priced solid state receiver, this article will introduce you to many different tuner designs that can help you dig out that DX. (11)



A28 ANALYSIS OF THE BEVERAGE ANTENNA. C. Hutton. This lengthy article is divided into two parts: the first giving basic theory of the Beverage antenna and the second dealing with two wire phased antennas. Filled with calculations and features 15 illustrations. (26)

A29 REMOTELY-CONTROLLED ANTENNA TUNER RT-1. Mark Connelly. An Introduction to the design of a device that allows remote tuning of a loop or wire antenna from distances of at least 50 feet or more. (7)

A30 REMOTELY TUNED DIRECTIONAL LOOP ANTENNA. E.L. Cummins. Shows how the limitations of a very poor shack, in this case a mobile home, can be overcome by use of an outdoor, remotely controlled, loop antenna. Mr. Cummins gives many practical points for others wishing to experiment with remote antenna installations. (11)

A31 SIMPLE CHEAP AND EFFECTIVE PRESELECTION LONGWIRE TUNER-AMP. B. Sherwood. This construction project will result in a device which not only will tune your longwire, but will amplify the signal as well. Schematic and brief instructions are given. (4)

A32 THE MWDX-2A PHASING UNIT. Mark Connelly. Improvements on the design of the MWDX-2 unit described in A26. This is a companion piece as construction procedures in A26 remain essentially the same. Contains new schematic and instructions for use. (7)

A33 ANTENNAS FOR AM BROADCASTING. Steve Kennedy. Gives a brief history of early station antenna systems and explains what types are in use today. (4)

A34 SOME ANTENNA EXPERIMENTS - PART 1. W.R. McIntosh. Ever heard of a "Helical longwire"? This article shows how DXers with limited space can use this experimental design for a compact antenna with good results. (3)

A35 THE PHASE ONE - A Delay Line Phasing Unit. Gerry Thomas. Description of an improved phasing unit design that can be home-built or is available in kit form. (3)

A36 LOOP-LONGWIRE COMBINED ANTENNA. P. Swain. A look at the use of "sensing" antennas for both DXing and direction finding. (3)

A37 LOOP ANTENNAS — THEORY AND PRACTICE. Dallas Lankford. A technical discussion on loop antennas that surveys other available literature and develops guidelines for loop design. (9)

A38 EXTREMELY LINEAR ELECTRICALLY TUNABLE ACTIVE RECEIVING ANTENNA. Hopf & 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, yet effective tuner that can eliminate mixing spurs caused by strong locals — a big help for urban/suburban DXers. (2)

A40 AMPLIFIED PHASED SHORTWIRES. Mark Connelly. A must for the apartment or trailer DXer. This detailed construction article explains an effective antenna utilizing an SM-2 and a phasing unit to create a viable DXing system. (8)

A41 THE KOWALSKI LOOP. Neal Perdue with comments from Paul Kowalski. A first-hand account from a satisfied user of this new-generation ferrite core loop antenna. A nontechnical review, with comparisons to the SM-2. (2)

A42 THE MWT-1 FAMILY OF ANTENNA TUNERS. Mark Connelly. Description and construction plans for the MWT-1, Mini MWT-1A, 1B and 1C antenna tuners. (28)

A43 RT-1 REMOTELY-TUNED ANTENNA TUNER. Mark Connelly. Complete description and construction plans. (16)

A44 THE MINI MWDX-3, A simple, Effective Phasing Unit. Mark Connelly. Description and construction plans for a superior one-box phasing unit are discussed. (21)

A45 THE MWDX-4 FAMILY OF PHASING UNITS. Mark Connelly. Construction and use of two similar series of phasing units for reception enhancement. (25)

A46 WIND A COMPLETE COVERAGE COIL FOR THE RADIO WEST LOOP. Fritz Mellberg. A simple project to eliminate the need to change coils during tuning of the entire MW band on this popular 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)

RECEIVING EQUIPMENT AND TECHNIQUES

R1 SPURIOUS SIGNALS & SPURIOUS SIGNALS REVISITED. R.J. Edmunds and G.P. Nelson. Many DXers hear stations on frequencies where they don't belong. Article describes causes and cures of spurious MW signals. Especially valuable if you have powerful locals nearby. (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 fit mechanical filters to an existing receiver for the ultimate in adjacent channel rejection. This technique is widely used by many top MW DXers. (22)

R3 SUBAUDIBLE HETERODYNES ON THE MW BCB. G.P. Nelson. Details on a technique which permits the MW DXer to detect and characterize signals too weak to hear at the time; also allows the DXer 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)

R4 THE ICOM IC-R70 PBT & PREAMP MODIFICATIONS. Don Moman - Canadian Int'l DX Club. Step-by-step instructions that will allow this receiver's SSB PBT filter to be used for improved performance. (2)

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. Very useful if you have strong locals. (4)

R6 ELECTRONIC VERNIER TUNING. R. Moore. Detailed instructions on how to fit a varactor to a MW receiver to provide fine bandspread. (4)

R7 MECHANICAL FILTERS FOR THE HQ-180. Jerry Starr. Complete details on the conversion of the popular Hammarlund HQ-180 receiver to mechanical filter operation. Order with R2. (6)

R8 SONY ICF-6500W SELECTIVITY MODIFICATION. Gerry Thomas. This DX portable described in 'RR6' is made even better through the installation of a narrower IF ceramic filter — instructions included. (4)

R9 RECEIVER/ACCESSORY INTERFACES MADE SIMPLE AND CHEAP. R.J. Edmunds. A discussion of methods of interconnecting DX equipment. (6)

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, an instrument now within the budget

of the average serious DXer. (3)

R12 THE FM-3 FREQUENCY MARKER STANDARD. R. Foxworth. A review of operation, how to make the proper connection to the receiver, and some modifications incorporated by the author to permit full use of the unit's capabilities. (8)

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 new noise filtering device and its applications in MW DX. (3)

R15 REVIEW OF THE HEATH SB-620 SPECTRUM ANALYZER. R. Foxworth. A comprehensive and detailed analysis of the unit's operation and uses as related to MW DX'ing. (32)

R16 THE WORCESTER LONG DISTANCE AM RECEIVER. J. Worcester. A stage by stage description of the construction, theory and circuitry of a new type of AM DX receiver. (25)

R17 BUILD YOUR OWN AUDIO FILTERS. P. Sullivan. A somewhat technical theory and construction article on inexpensive homebrew audio filters for the DXer. (8)

R18 TWO METHODS OF DIGITAL READOUT FOR THE TRF. C. Hutton, Bill Block, and Frank Aden, Jr. You've already "souped-up" your TRF with the numerous other modifications - now add digital readout! One method for a built-in, and another for an outboard readout are explained. (5)

R19 A BRIEF REVIEW OF THE AUTEK QF-1 AUDIO FILTER. C. Hutton. A non-technical review of this new noise and interference filter. (2)

R20 A FREQUENCY COUNTER FOR RECEIVER TUNING. R. Foxworth. A very thorough paper on digital readouts & 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". Very thorough. (13)

R21 AM STEREO - FOUR SYSTEMS IN AN OPEN MARKET. Armin Littek. If you've been wondering about the various systems now available, this article explains the strengths and weaknesses of each, complete with diagrams of how each system works. (6)

R22 THE LYNODYNE CRYSTAL WIRELESS RECEIVER. R.W. Tuggle. The concepts of vintage crystal radio are incorporated in these detailed construction plans for a simple receiver, offered as a sporting alternative to modern receivers; yet it has the potential for real DX. (2)

R23 DIVERSITY RECEPTION. C. Hutton. Using more than one antenna and receiver in an effort to reduce fading and interference on one frequency. This article deals briefly but concisely with the basics of "DR" and how it can be applied to Medium Wave DX. (1)

R24 TIPS ON REMOTE TAPING. R.J. Edmunds. Are you going away during that rare DX Test? This article explains several methods you can use to turn your receiver and recorder on while you are otherwise occupied. Useful with R9. (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 optimizing your R-390A's performance. (5)

R30 MCKAY-DYMEK DP-40 PRESELECTION. 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. This reprint tells how. (4)

R33 R390A/URR PTO ALIGNMENT. Dallas Lankford. The alignment procedure to achieve exact end-point alignment in the R-390A PTO tuning is detailed. See R28, R29, R34, & R35. (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 also R28, R29, R33, & R35. (4)

R35 THE R-390A ON LONGWAVE. Craig Healy. The author tells of a simple and inexpensive method to modify the R-390A to tune below 500 KHz. (2)

R36 THE BBA-1 BROADCAST AMPLIFIER. Mark Connelly. A project suitable for beginners which will increase the gain from your loop antenna. With it's simple operation, you can get those catches that would have been lost in the receiver's noise. (11)

R37 THE GENERIC HQ-180 IF ALIGNMENT. William Marvin. Now, the non-technical DXer can keep his HQ-180 in top performance at all times with this procedure that requires no test equipment. (4)

R38 VARACTOR DIODE APPLICATIONS FOR DXERS. 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)

R40 THE TUGGLE CIRCUIT. Ray Cole. Build yourself a simple but sensitive signal snatcher — a super crystal set! See R22. (2)

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 by the author. (9)

R44 THE HQ-180 SERIES RECEIVERS SENSITIVITY TEST. Dallas Lankford. Weak or bad tubes are the cause of many receiver problems and this simple test will help pinpoint them. (1)

R45 REPLACING THE R70's PBT FILTER. Gerry Thomas. Step-by-step instructions to put in a better ceramic filter in your R70's passband tuning circuit. (3)

NRC Reprints

NRC Reprints

R46 SURPLUS MECHANICAL FILTERS. Marc Bergman. Test results of several reasonably-priced and available mechanical filters. (3)

DOMESTIC DX

D1 1570-1580 STATION LOCATION MAPS. Two maps pinpointing the locations of all domestic stations operating on these superb sunrise/sunset skip channels. A valuable aid to the sunrise/sunset DXer. Updated in 1983. (2)

D2 IT TAKES TWO TO VERIFY, PLUS HELPFUL HINTS. J. Murley & R. Schiller respectively. If you are unhappy with your domestic QSL returns, read this article on the station's attitude toward reception reports. Also, veteran DXer Ron Schiller gives tips on increasing your returns. (4)

D3 THE DX TEST FROM A STATION'S VIEWPOINT. Bill Croghan. A broadcaster gives some hints from his vantage point to help you arrange more DX tests and obtain more verifications. (1)

D4 WHAT IS A PRE-SUNRISE AUTHORIZATION? R.J. Edmunds. Some U.S. stations are authorized to operate with powers such as 14.3 watts during certain hours this article explains why. (3)

D5 LONG DISTANCE RECEPTION OF DX TESTS. F. Dailey. Are you thinking about asking a station to do a DX test? Here are some proven techniques that, if used by the station, could make it easier for DXers to hear the test. A must for novice CPC members. (1)

D6 MAKING THE BEST OUT OF PREPARED-CARD VERIES. Kelly Andrews. Ideas to show you how to obtain those elusive veries through imaginative and creative prepared cards. With numerous samples. (3)

D7 ACCURATE DISTANCE DETERMINATION FOR GY DX'ERS. Bill Hale. A method for determining distance of local-channel stations for the listener is presented, along with a table of geographic coordinates for every U.S. city with a GY station. (17)

D8 ALASKAN RADIO. Rod O'Conner. Most recent information on Alaskan MW stations, including a map. Also includes a supplement on Alaskan Forces Radio Network. (5)

D9 THE NSP 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. For various reasons, some stations are audible at sunrise and sunset only. This article explains the reasons. (4)

D11 GRAVEYARD DX. R. Foxworth, with addition by M. Levintow. This article tells you how to DX those cluttered local channels and get results. (15)

D12 CANADIAN FAMILY LIFE...IT'S TWINS. Explains why many station "families" exist in Canada. List of station groupings as of Nov. 1978, with 1979 - 1980 updates. Includes LPRTs and other stations of better DX potential. (6)

D13 THE POST-SUNSET AUTHORITY — A DAYTIMER'S DILEMMA. Jerry Starr. Light is shed on the confusing situation of "PSSA's" with first-hand information from the FCC. (4)

D14 GRAVEYARD STATION MAPS. Bill Hale. Useful maps for those who like the challenge of "dead" frequency DX. Includes station listings for each graveyard frequency. (13)

D15 SOME TIPS ON IDENTIFYING UNIDS'S. R.J. Edmunds. Offers practical tips on how to ID stations using reference materials and deductive logic. (2)

D16 SUNRISE SKIP. R. Kramer. Practical explanation of how to add stations to your log through understanding of pre-sunrise authorities, 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-wattors of today, a concise history of the "high boys" in broadcasting. Includes WLW, Doc Brinkley, and more. (3)

D18 QSL'ING THE LOCALS. Skip Arey. Some novel approaches and ideas for extracting a verie from your local stations. (1)

D19 DXING: HOW TO "UP" YOUR TOTALS! John J. Rieger. An anecdote to "DX Burnout" and proof that there is DX after the first 1,000! Tips to help the seasoned pro with these problems as well as good advice for the novice. (3)

D20 WHO'S ON FIRST? Bruce Conti. A controversy has always existed as to what was the first broadcasting station in history... was it really KDKA? This article answers that question. (4)

STATION LISTS

L1 FREQUENCY CHECK LIST. Joe Fela. Many U.S. stations run equipment tests at regular intervals and times. This list is a valuable aid to new loggings. Updated yearly. (4)

L3 CUBAN STATION LIST. This up-to-date listing is a handy resource for the international DXer. Updated yearly. (4)

L4 NONDIRECTIONAL AERONAUTICAL BEACONS. D. Davis. An explanation of the types of beacons found in and near the MW band, plus updated listing of aeronautical beacons. (6)

L5 BROADCASTING IN GERMANY. Armin Litek. Beside a detailed listing of MW operations in Germany, there is included an overview of German broadcasting and networks, plus hints to help hear German stations in the U.S. (6)

FOREIGN DX

F1 DXING CENTRAL, SOUTH AMERICA AND THE CARIBBEAN. Mark Connelly. New listings, by frequency, of the "best bets" from these areas, along with the original Connelly/delLorenzo/Kazaross article, "DXing Latin America and the Caribbean". (9)

F2 TA TIPS FOR BEGINNER. Dave Yocis. Valuable information is offered here from a practical standpoint to the DXer trying for his first Trans-Atlantic receptions. (2)

F3 PORTUGUESE FOR DX'ERS. R. Schatz. Describes the important and unusual features of this language; a must if you DX Brazil. (2)

F4 TA DX'ERS GUIDE TO SUNRISE-SUNSET TIMES. Mark Connelly. A handy reference to SRS-SSS times with extensive tables for many locations to aid the TA DXer. (4)

F5 HUNTING LATIN BY MUSIC. R. Schatz. Describes types of LA music indigenous to various countries and tells how to ID stations using this information. (5)

F6 ZONAL-ANALYSIS APPROACH TO TA DX. Mark Connelly. A systematic method of grouping TA countries to help the DXer 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 helping the Eastern U.S. DXer log LA and South American stations. (5)

F8 STATION IDENTIFICATION. An invaluable aid to the foreign DXer with tip on how to ID stations in nearly 50 languages! (2)

F9 SOME EASY TA'S. Dallas Lankford. A guide for the beginning TA DXer to some of the most easily-heard TA's. (2)

F10 ID'ING JAPANESE BROADCAST STATIONS. Charles Taylor. A must for the West Coast DXer - Helpful hints to make a seemingly difficult task much simpler, without actually knowing the language. (3)

F11 ITU FREQUENCY ALLOCATIONS AND THEIR IMPACT ON TA DX'ING. Mark Connelly. Trying for TA's on their new frequencies? What are your chances of logging a specific station? All Region 1 Medium Wave frequencies are listed and what should be heard under good conditions. (6)

F12 COMMON SENSE TA DX STRATEGY. Mark Connelly. Practical hints are given for newer DXers to hear Trans-Atlantic stations. (2)

F13 THE ODDS ON EVEN TA'S. Mark Connelly. A frequency-by-frequency look at the possibilities of hearing Trans-Atlantic stations on channels shared with U.S. and Canadian stations since the new Eastern hemisphere plan took effect. (10)

F14 YOUR FIRST 30 COUNTRIES IN ENGLISH. Mark Connelly. A useful guide to novice or expert DXer alike; with a listing of the best bets by country. (6)

F15 CARIBBEAN MW DX GUIDE. Mark Connelly. A Country-by-Country guide to what stations to listen for. A companion to F1. (4)

MISCELLANEOUS ARTICLES

M1 LOCAL SIDEBAND SPLASH: HOW MUCH IS TOO MUCH? G.P. Nelson. Many DXers complain about certain local stations overmodulating and producing large amounts of interference. 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 that can wreak havoc on the Medium Wave band. (1)

M3 SUNRISE-SUNSET TABLES. G.P. Nelson. These charts permit the DXer to determine accurate time of sunset and sunrise at any point in the world on any particular day. Very useful for international DXers. (9)

M4 RF INTERFERENCE AND THE HOME COMPUTER. Bill Kruse, ANARC. Unfortunately, your home computer will cause interference on your DX rig unless precaution are taken; several 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, II, III, IV. P. Hart. An understanding of the directional patterns used by North American Medium Wave stations is vital for the active domestic DXer. This series of articles explains in authoritative detail what patterns mean and how the DXer can fatten his log by understanding them. (35)

M8 RETAIL ELECTRONICS PARTS SUPPLIERS. Compiled by Mark Connelly. A MUST for the experimenter and project-builder: a comprehensive listing of parts suppliers who sell in small quantities to the public; with addresses, phone numbers, and specialties of each source. (5)

M9 MORE ON HOW DIRECTIONAL ANTENNA PATTERNS ARE PRODUCED. Wes Boyd. Supplementary information to the articles contained in the current edition of the NRC Night Pattern Book (1)

M10 SUPERMODULATION AND EFFECTS ON DX'ING. Steve Kennedy. Discussion why there is overmodulation and how this problem will affect the DXing hobby for some time to come. (3)

M11 TERRAIN CHARTS FOR PROPAGATION PREDICTIONS. M. Connelly. This article details a method to prepare a chart

of a DXer's surrounding terrain which can help enhance or diminish reception. (3)

M12 NOISE LEVELS AND USABLE RECEIVER SENSITIVITY. C. Hutton. Discussion, in technical terms, of the effect of noise on receiver sensitivity. (5)

M13 GREAT CIRCLE CALCULATIONS REVISITED. Mike Tuggle, with an addendum by R.N. Allen. If you like to do calculations, this is the article for you! Mike explains how to figure distance and direction of stations mathematically. Richard Allen has written a computer program for use with the new "home computers" to figure the Great Circle paths. (4)

M14 HOME COMPUTERS AND DX'ING. Mark Connelly. An introduction to the use of the new generation of home computers as an aid to DX record-keeping and calculations, plus additional programs for most popular computers. (5)

M17 SOME THOUGHTS ON INTERFERENCE. Skip Arey. Got a light dimmer around that kills DX whenever it's on? A simple modification is explained to stop the noise. (1)

M18 MANMADE INTERFERENCE ON THE BCB. Dallas Lankford. Presents a systematic approach for evaluating a current or future DXing location in terms of man-made noise levels. (3)

M19 DXING SAFETY TIPS? Anon. (April Fools type fun) Protect your TRF with this simple modification. A redundancy safety fuse. (1)

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 trans-atlantic and trans-pacific stations. (2)

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 is discussed. (7)

P6 AURORAL EFFECTS AND THE 1969 TRANS-ATLANTIC LISTENING TEST. G.P. Nelson. Brief simple description of how the geomagnetic and auroral phenomena control TA reception from various stations. Best general introduction to MW 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. The author compares on a daily basis for three months the various A-index measurements as reported by several major observatories. He tells how the indices are related to each other. (3)

P9 SKY WAVE OR GROUND WAVE RECEPTION? G.P. Nelson. How to tell whether the signal from a station you are listening to is arriving via ground wave or skywave, or both. (3)

NRC Reprints

NRC Reprints

P10 A BEGINNER'S GUIDE TO THE IONOSPHERE. Fr. Jack Pejza. Radio Wave propagation is influenced greatly by the conditions in the ionosphere. This article explains the processes which change the ionosphere and the effects of these changes on radio waves. (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. While the A-index is a valuable tool, it is easily misinterpreted. This article shows why. (3)

P13 BCB RECEPTION DURING PERIODS OF HIGH AURORAL ACTIVITY. G.P.Nelson. Describes the author's 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. No, it can't!! This article shows how signals that should be blocked by the horizon can sometimes be heard. (10)

P17 TRANSPOLOR DX RECEPTION. R.J.Edmunds. Are you looking for Asian DX more exotic than Urumchi-1525? 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. Further discussion of the nature of MW propagation. (6)

P21 DOMESTIC PROPAGATION-ANSWERS TO FREQUENTLY ASKED QUESTIONS. R.J.Edmunds. A brief 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. A concise explanation of the Fredericksburg A-index as well as its use in the hobby is given in this article. Goes with P1, P6, P7, P10, P12, P13, P19, and P20. (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. An introduction to P24. (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. Amounts of various types of noise are compared to receiver sensitivity in this technical discussion. (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. A "play-by-play" account of 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. (8)

P31 A SURVEY OF AVAILABLE MW FIELD STRENGTH PREDICTION METHODS. Randy Seaver. A look at what the broadcasting industry and its regulating bodies are doing and have done in the field of frequency propagation. (12)

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. Why do many DXers living in coastal areas hear truly exotic DX? It is because of the ocean itself...find out why. (11)

P34 A SURVEY OF AVAILABLE MW FIELD STRENGTH PREDICTION METHODS. Randy Seaver. A summary of what the broadcasting industry and its regulating bodies have been doing over the past 50 years in the field of medium frequency propagation. (14)

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 detailed non-technical review of this popular communications receiver. (3)

RR3 DRAKE R7-A REVISITED. Craig Healy. Comments from a satisfied user who found this modern-technology receiver an excellent replacement for his older R-390A. (2)

RR4 HEATH GR-78. R.Schatz. (2)

RR5 BARLOW-WADLEY XCR-30. M.Hardester. (2)

RR6 SONY ICF-6500W - THE PERFECT PORTABLE? Gerry Thomas. This versatile and easy-to-operate portable is detailed, and put through a side-by-side comparison with the TRF & superadio - is it the perfect portable? See R8 for recommended modification. (4)

RR7 A NON-TECHNICAL REVIEW OF THE WORCESTER LONG DISTANCE RECEIVER. J.Starr. A user's critical commentary of this revolutionary receiver. Built in limited quantities, this receiver is not readily available to most DXers. (4)

RR8 McKAY-DYMEK DR-22. J.Clements. A detailed, non-technical pre-production review. Mentions features, performance and how it measures up to receivers now in use. (3)

RR9 ICOM IC-R70 COMMUNICATIONS RECEIVER. Vincent

Pinto. An in-depth, technical look at a recent entry in the new breed of receivers - a surprising rig at a surprising price. See R4 for recommended modifications. (11)

RR10 THE GE SUPERADIO-CASSETTE. Michael Sapp. The famous GE Superadio with a new twist - an integral tape recorder! But is it as good as the original model? Read this article to see. (4)

RR11 ESKA RX 12 PL. Rafael Calabuig (for DSC/WI). From Denmark comes a new portable built especially for DX applications. (2)

RR12 REALISTIC DX-400 TEST REPORT. Bruce A. Conti. A user-report on how this lightweight general coverage receiver performs as compared to the portable DX standard - the TRF. (3)

RR13 THE SONY SRF-A100. Greg Monti and Albert S. Lobel. Two looks at the first low-cost AM-sterco portable receiver on the market. (5)

RR14 THE ICOM IC-R71A RECEIVER - From the Australian "DX CALLING" Magazine. User review with commentary by the "DX Australia" Technical Team. (7)

RR15 UNIDEN CR-2021 VS. SONY ICF-6500W A COMPARISON. Gerry Thomas. Two good digital-readout, microprocessor-controlled portables for under \$100 are compared performance-wise. Also, how to install a simple high-pass AF filter in the ICF-6500W is described. (3)

RR16 NRD-515 REVIEW. Bob Foxworth. A detailed review and commentary on Japan Radio Corporation's newest receiver. (7)

RR17 REALISTIC TM-152 AM/AM STEREO TUNER. Eric Bueneman. A brief, non-DX oriented review of what is touted as the "tuner of tomorrow". (1)

RR18 SURVEY OF HAMMARLUND RECEIVERS. Dallas Lankford. This article should be read in conjunction with the Receiver Reference Manuals I and II. A summary of the full line of Hammarlund receivers suitable for BCB DX; with comparisons, modifications and hints when purchasing one. (8)

RR19 KENWOOD R-5000. Don Moman. A complete review of this new breed of receiver; includes performance results of it stacks against the ICOM R71 and SONY ICF-2010. (5)

RR20 THE GE SUPERADIO-PLUS. Dick Truax. User first impressions and opinions of this digital-readout version of the popular GE "Superadio". (1)

PRODUCT SUMMARY

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DOMESTIC DX DIGEST - WEST

(17)

Nancy Hardy

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The Colorado members are again active at the dials!

SPECIAL

1530 KXTD OK WAGONER - 11/8 0824 ex-KTCR. Fair under KFEK with ad for Muskogee food drive. (JT-CO)

MIDNIGHT TO MIDDAY

630 KOH NV RENO - 11/7 2200 "Your news station for northern Nevada, KOH," fair in KHOW null. (JT-CO)
850 KBBM OR WALDPORT - 11/1 1900 Fair with ID, news, local spots, BBD. First time heard this location. (JW-OR)
1460 KCKX OR STAYTON - 11/1 1927 fair/good with ID, BBD. (JW-OR)

MIDNIGHT TO MIDDAY

780 WJAG NE NORFOLK - 11/3 0800 fair under WBBM. CWM. NE #27. (JT-CO)
KSPI OK STILLWATER - 10/28 0918 in & out with WJAG and WBBM. Local news & sports with spots. (WH-CO)
790 KGHL MT BILLINGS - 11/6 0612 fair with C&W, ID, over/under unID talk show. (JW-OR)
940 KWBV OR WOODBURN - 11/10 1140 good with C&W, local area spots. Not really DX but good for 250 watts. (JW-OR) (This changed from KWRC to KWBV a few months ago.--NH)
960 CFAC AB CALGARY - 10/27 0741 C&W music loud cutting through KYGO-950 slop. (WH-CO)
980 KDSJ SD DEADWOOD - 10/27 0838 long sought after T-40 music and local spots. (WH-CO)
1190 KWMB MN WABASHA 10/25 0738 ending local news with spots. (WH-CO)
1200 WBCE KY WICKLIFF - 10/31 0732 relig. music with female anncr., no sign of WOAI. (WH-CO)
1230 KBCR CO STEAMBOAT SPRINGS - 10/31 0800 up briefly at s/on & quickly gone. (WH-CO)
1240 KCCR SD PIERRE - 11/5 0913 in most of the morning with local news & features. (WH-CO)
1300 KGLO IA MASON CITY - 10/25 0821 Iowa Day Today local news & sports, with local spots. (WH-CO)
1310 KDLS IA PERRY - 10/25 0733 mixing with WIBA & the group with local Iowa News. (WH-CO)
KEINT MT GREAT FALLS - 11/6 0640 poor with mention of Great Falls, area weather, AdCon. Not sure of ID due to QRM. (JW-OR)
WIBA WI MADISON - 10/25 0833 in briefly with local news on a good Central Mid-west morning. (WH-CO)
1370 KLBA IA ALBIA - 11/3 0847 "It's 340 in downtown Albia." Weak under KGNO & KSHY. IA #16. (JT-CO)
1400 KEDO WA LONGVIEW - 11/9 0600 fair through the GY mess with ID and into news. Last time heard was 1980 during Mt. St. Helens ash eruption. (JW-OR)
1470 KWSL IA SIOUX CITY - 11/5 1100 amazed, "Stereo Country 1470" still going strong at 9am MST! (WH-CO)
CJVbt BC VANCOUVER - 11/9 0620 fair-good. Much Asian language talk, maybe SE Asian. Also vocals same language with western-type (not C&W) tunes. No ID on the hour. Assume this to be CJVB, but signal poor for 50kw. (JW-CO)
1520 KOMA OK OKLAHOMA CITY - 11/6 0602 poor over KSGO, with ID & rock oldies. Heard about once a year. (JW-OR)
1530 KTCR OK WAGONER - 11/5 0630 full data s/off. (WH-CO) (S/off?--NH)

REPORTERS

WH-CO/Wayne Heinen, Aurora, CO

JT-CO/Jeff Tyman, Parker, CO/Sony 2002 with JT-4 loop

JW-OR/Jack Woods, DX'ing at Corvallis, OR/ICF-2010, Barlow Wadley XCR-30, Sony AN-1 active antenna

The F.C.C. is planning a number of rule changes that should have an effect upon our hobby: 1- To allow class IIa and IIb stations to establish separate nighttime antenna systems without having to meet minimum operating schedule, power city coverage requirements. 2-To replace the current AM Skywave Propagation model with a newly developed one, better able to reflect variables causing possible interference problems and 3-To institute a revised method of calculating nighttime patterns for AM stations.

-via Pete Kemp

INTERNATIONAL DX DIGEST

Chuck Hutton

1237 Lanier Blvd., Atlanta, GA 30306

Times are GMT (UTC), for ELT subtract 4 hours. (404) 573-2795 Before 2300 ELT

- 567 IRELAND Tullamore 11/1 0038 vocals by man, EE talk, poor. (Hakiel)
 585 SPAIN Madrid 2246 10/31 SS talk by man, pop tunes // 684. (Hakiel)
 666 PORTUGAL Lisbon 0119 10/28 EZL mx w/male vocalist, PP talk, fair. (Hakiel)
 684 SPAIN Sevilla 0212 10/6 SS talk, pleasant ballads, good. (Hakiel)
 693 ENGLAND Droitwich 0109 10/28 pop tunes, EE talk, fair. (Hakiel)
 693 AZORES Terceira 2245 10/7 PP talk by man, fair. (Hakiel)
 700 CUBA unid city 0014 10/18 news in SS, R. Reloj ID, fair. (Hakiel)
 700 VENEZUELA Maracaibo YVMH 0347 10/24 SS vocals, R. Popular ID, good (Hakiel)
 747 NETHERLANDS Flevoland 0143 10/24 rock mx, EE vocals, DD talk, fair (Hakiel)
 750 NICARAGUA Managua R. Sandino HTA750 11/7 0309 poor in super-tight of WSB w/Latino mx. Tight nulls of WSB are possible at night, even SSS, 30 miles NW of Atlanta. (Bueneman)
 774 SPAIN synchros 2343 10/4 long winded talk by man. (Hakiel)
 846 ITALY Rome 0010 10/29 woman in operatic aria, II talk, good. (Hakiel)
 864 EGYPT Santah 0248 10/31 AA chants and talk, poor-fair. (Hakiel)
 882 ENGLAND Washford 0047 10/28 light concert mx, EE talk, fair w/ WC phased. (Hakiel)
 963 FINLAND Pori 0440 10/3 light mx, man with Finnish talk, poor. (Hakiel)
 1080 HAITI Port au Prince 4VDN 0038 10/31 Creole FF talk, call-in talk (Hakiel)
 1089 ENGLAND Brookman's Park and others, 0025 10/28 rock mx, EE talk, (Hakiel)
 1098 CZECHOSLOVAKIA 0433 11/2 Czech talk, folk mx, vocals, poor-fair. (Hakiel)
 1107 EGYPT Batra 2231 10/5 AA talk, chanting, fair-good. (Hakiel)
 1134 YUGOSLAVIA Zadar 0033 10/28 some vocals in EE // 1125, xint. (Hakiel)
 1143 USSR Kaliningrad 2337 10/28 talk in EE about USSR, EE pgm, fair. (Hakiel)
 1165 ANTIGUA St. Johns Caribbean Radio Lighthouse 11/3 22357 poor with from R. Taino/WAMB-1160 and WACV/KVOO-1170 with religious program, ly unreadable except for references to God. (Bueneman)
 1179 SWEDEN Solvesborg 0511 10/28 long talk by Swedish woman, fair. (Hakiel)
 1188 HUNGARY Szolnok 0425 11/2 light mx, Hungar talk, poor. (Hakiel)
 1215 ALBANIA Lushnje 0419 11/2 Slav talk by woman, fair. (Hakiel)
 1314 NORWAY Kvitsoy 0410 10/25 US pop tunes EE vocals, Norse talk, good (Hakiel)
 1520 PUERTO RICO San Juan WRAI 2333 10/16 SS talk, R. Aeropuerto ID, g (Hakiel)
 1521 SAUDI ARABIA Duba 2232 11/7 AA chants and talk, good. (Hakiel)
 1540 BAHAMAS Nassau ZNS1 2319 10/12 political talk, ID, xint. (Hakiel)
 1565 DOMINICAN REPUBLIC Sto. Domingo HIAJ 2355 10/13 religious format, Amanecer ID, good. (Hakiel)
 1575 PORTUGAL Porto Canideio 11/2 PP talk 2202, ID, chimes, fair. (Hakiel)

Eric Bueneman - Woodstock, GA DX200, SM2
 George Hakiel - W. Islip, NY Raca1 6790, R71A, LWs, loops, phasing us

WANTED: A few GOOD voices! If you presently work in radio, or have worked in radio, and you have some spare time once per month, the NRC's DX Audio Service could use your help. DXAS needs several people to voice short articles and stories on tape for the blind. Any help would be appreciated, and you will be sent a copy of the current DXAS for your trouble. Anyone interested should contact Fred Vobbe - NRC's DX Audio Service - 706 MacKenzie Avenue - Lima, OH 45805-1835.

FORMATS

Tony Fitzherbert

356 Jackman Avenue, Fairfield, CT 06430

A "560-WPEN"?? A possibility, according to Dave Schmidt, ex-editor of DDXD, who is one of our contributors to this issue of FORMATS. Dave reports that WFIL is up for sale, and WPEN is taking a look at this floundering station...as possibly a new setting for its very successful big band and nostalgia format. WPEN, of course, is on 950 now, and its signal basically goes up the east coast, and is audible regularly in Maine at nights. Along with Dave (DS), other contributors are present DDXD Editor Bill Hale (BH), who updates us on Binghamton, N.Y. radio, Geov Parrish (GP), and the M Street Journal (M). In addition, Mark Strickert (S) provides us with an update on what he hears on the AM band in Chicago.

Two notes..two more Hawaiian AM stations go silent, and WHK-1420, former rocker of days of yore in Cleveland is now relegated to broadcasting BRN Business News!??? How the mighty have fallen!! Here is the latest from here....

- | | | | | |
|------|------|----|------------------|--|
| 540 | WYLO | WI | Jackson | - REL/ETHNIC (S). |
| 560 | WIND | IL | Chicago | - Spanish AC (S). |
| 620 | WTMJ | WI | Milwaukee | - Talk, Info, AC (S). |
| 640 | WFOF | FL | Wildwood | - New station, REL (M). |
| 670 | WMAQ | IL | Chicago | - All News "Give us 22 minutes" (Group W) (S). |
| 680 | WCBM | MD | Baltimore | - Talk as of 11/1, with many of the old WFBR crew (DS). |
| 680 | WINR | NY | Binghamton | - BBD/NOS, CBS NX, 24 hours (BH). |
| 720 | WGN | IL | Chicago | - Info/AC/Talk (S). |
| 740 | WRPX | WI | Hudson | - Back on air w/ oldies (M). |
| 750 | WNVZ | IN | Portage | - REL (S). |
| 760 | WSJL | TX | San Antonio | - SMN Z-Rock (M). |
| 770 | WVNN | AL | Athans | - Ex-WJMN, now news/talk. (M). |
| 780 | WBBM | IL | Chicago | - News (S). |
| 820 | WXEZ | IL | Chicago | - EZL//FM WXET 100.3 (S). |
| 840 | WPGS | FL | Mims | - Sun - Talk (M). |
| 850 | WAIT | IL | Crystal Lake | - AC, ethnic on WE's (S). |
| 860 | WNOV | WI | Milwaukee | - UC(S). |
| 890 | KPTO | CA | Citrus Heights | - New, to be on the air in six months to a year, to be REL (GP). |
| 890 | WLS | IL | Chicago | - Info/Talk, some talknet (S). |
| 890 | WFQA | PA | Nicholson | - Will be non-commercial REL (GP). |
| 910 | WLLJ | MI | Cassopolis | - Black "Heart and Soul" feed (S). |
| 950 | WJPC | IL | Chicago | - UC/Jazz/AC//FM WLNR 106.9 (S). |
| 950 | KJJO | MN | St Louis Park | - SMN Z-Rock (M). |
| 1000 | WLUP | IL | Chicago | - Talk, "Loop AM 1000" (S). |
| 1030 | KKSA | CA | Folsom | - Silent again (GP). |
| 1030 | WNVN | IL | Vernon Hills | - News/talk/BRN feed.(S). |
| 1030 | WDRQ | MI | Sterling Heights | - New station, CHR to Detroit (GP). |
| 1050 | WLIP | WI | Kenosha | - AC/Info (S). |
| 1060 | WHFB | MI | Benton harbor | - CWM (S). |
| 1110 | KHEI | HI | Kihei | - Silent (M). |
| 1110 | WMBI | IL | Chicago | - Spanish. REL, some // w/ FM (S). |
| 1160 | WJJD | IL | Chicago | - Adult standards (S). |
| 1200 | WMXA | IL | Chicago | - Not on the air yet, was expected on 9/1/88 (S). |
| 1220 | WKRS | IL | Waukegan | - Info/Talk (S). |
| 1230 | WEEX | PA | Easton | - SMN Oldies (M). |
| 1240 | WGGA | GA | Gainesville | - CWM (M). |
| 1240 | | IL | Chicago | - Three ethnics share time here (TF from S). |
| 1240 | WVKZ | NY | Schenectady | - Ex-WVWD, now CHR // FM (GP). |
| 1260 | WCRT | AL | Birmingham | - Oldies (M). |
| 1270 | WWCA | IN | Gary | - REL/GOS(S). |
| 1270 | WFHM | NJ | Vineland | - Transtar AM, standards and lots of sports, drops Spanish (DS). |
| 1280 | WMRO | IL | Aurora | - Info/Talk (S). |
| 1290 | WBNF | NY | Binghamton | - AC/Old., Talknet 1900-2400, NBC Nx, 24 hours, NSP (BH). |

1300	WTAQ	IL	LaGrange	- Spanish AC and MOR "Radio Fiesta" (S).
1300	WFBR	MD	Baltimore	- Oldies, "Good Time Rock and Roll" (DS).
1320	WHHO	NY	Hornell	- Talk (M).
1330	WSSY	IL	Evanston	- AC and sold blocks of time (S).
1330	WRRR	IL	Rockford	- Adult standards (GP).
1330	WEBO	NY	Owego	- Transtar oldies, CNN NX, S/off at 2200 (BH).
1330	KTYL	TX	Tyler	- AC/FM (GP).
1340	WJOL	IL	Joliet	- AC/Information (S).
1340	WOOW	NC	Greenville	- Gospel, R & B (M).
1340	WPLJ	PA	Wilkes-Barre	- CWM (M).
1350	KLYD	CA	Bakersfield	- CWM (M).
1360	WLBK	IL	DeKalb	- AC/info (S).
1360	WRGS	NY	Binghamton	- Old "Rockin Solid Gold" (Check call), USA Net, L. King 2300-0500, 24 hours, NSP (BH).
1370	WLTH	IN	Gary	- UC (S).
1380	KLNI	HI	Pearl City	- Silent (M).
1380	WBEL	IL	South Beloit	- AC/info (S).
1390	WGCI	IL	Chicago	- UC/Gospel (S).
1400	WWRK	GA	Elberton	- CWM // FM (M).
1410	WWRN	IL	Elgin	- MOR/talk/ethnic (S).
1420	WHK	OH	Cleveland	- Pins hopes for financial success on BRN Business News (M).
1430	WEEF	IL	Highland Park	- Ethnic (S), amazing as this station is in the middle of Chicago's wealthiest suburbs (TF).
1430	WENE	NY	Endicott	- Oldies, A(i), 24 hours, NSP (BH).
1450	WCEV	IL	Cicero	- Ethnic, on 1300 to 2200, polkas and other delights (S).
1450	WVON	IL	Cicero	- Blocks of sold time, mostly ethnic, on from 2200 to 1300 (S).
1490	WPNA	IL	Oak Park	- Ethnic, mostly Polish and Spanish (S).
1500	WKGA	IL	ZION	- Spanish MOR, "Radio Borinquen."
1530	WKDC	IL	Elmhurst	- MOR/Ethnic (S).
1560	WPAD	KY	Paducah	- CWM w/ Interstate Radio Network overights (GP).
1560	WSQR	IL	Sycamore	- CWM (S).
1570	WBEE	IL	Harvey	- Jazz (S).
1570	WBUE	NY	Fredonia	- Back on the air w/ AC (M).
1590	WONX	IL	Evanston	- Spanish AC, other ethnic including Pakistani programming (S).
1600	WAOS	GA	Austell	- Spanish (M).

A big thank you to our contributors. The AM band continues to have some amazing programming. What happened to all weather, all horse news, and all childrens' programming? Get your formats in!!!!

73's.

WHK switching to business format

By DAVID SOWD
STAFF WRITER

Cleveland's oldest radio station, WHK-AM/1420, will abandon its oldies rock format Nov. 14 to become the city's first business-oriented broadcaster.

Program director Chip Binder said yesterday that the station, whose ratings have been disastrous in recent years, hoped to find "a niche in the market" by switching from music to a mix of news, talk and sports with an emphasis on business. WHK went on the air July 28, 1921.

Binder said the station, which ranks 16th according to audience size among Cleveland's 28 stations, will air national and world news and features from two satellite-fed

networks: NBC Radio and Business Radio Network, a service based in Colorado Springs, Colo., that provides stock market reports and financial analysis.

"The programming won't be directed strictly at CEOs," he said. "It's aimed at the personal investor and the homeowner, as well."

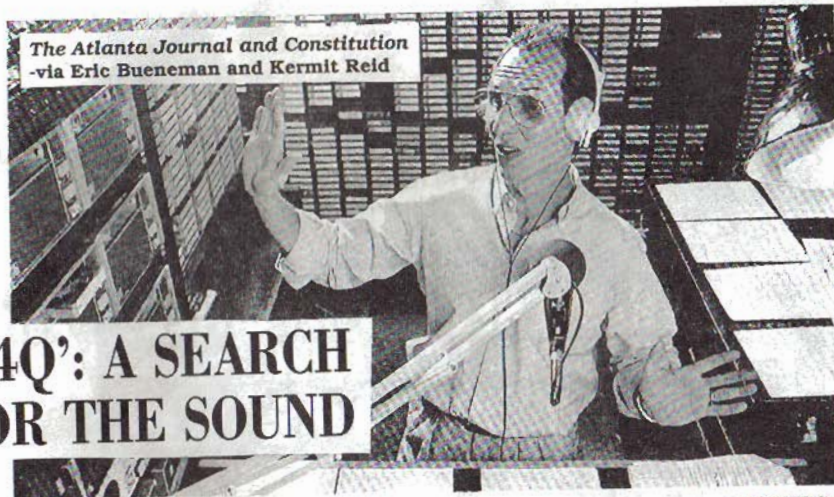
The station will expand its local news coverage, Binder said, to about 35 minutes each hour during morning and afternoon drive times — 5:30 to 9:30 a.m. and 4 to 6 p.m. — with veteran reporters Cliff Baechle and Mike Olszewski as anchors.

The Cleveland Plain Dealer
-via Gayle Yeager

Former morning anchor Jim Butler, though, jumped ship last Thursday for rival news-talker WERE-AM/1300. And some industry sources see his move as an indication that WERE is about to follow suit and change to an all-business format. New owner Metroplex-Robinson Broadcasting is expected to take possession Thursday.

Metroplex partner Norman Wain, who had hinted at such a format shift last July when he and partners Bob Weiss and Larry J.B. Robinson bought WERE and its sister station WNCX-FM/98.5, said yesterday that he contemplates no major changes.

The Atlanta Journal and Constitution
-via Eric Bueneman and Kermit Reid



'94Q': A SEARCH FOR THE SOUND

WILLIAM BERRY/SLM

Disc jockey Gary McKee during his morning show: At one time it held 18 percent of the Atlanta audience.

By L. Eric Elle
Staff Writer

Jerry Blum's office — black floor tiles, purple chairs beneath a mirrored ceiling, red neon sculpture on a black lacquer stand — would scream radio even if they turned off the sound at WQXI.

Mr. Blum, station general manager, sporting black reptile shoes and a pair of Gazelle sun glasses like the New York rap musicians wear, looks every inch a czar of the sound waves.

And that he was. During the 1970s and early 1980s WQXI FM "94Q" was top of the charts among Atlanta radio stations. "Quixie" had the highest ratings, highest revenues and best attendance at events sponsored by the station.

To top it all off, WQXI was the model for the CBS sitcom "WKRP in Cincinnati."

"The station had an aura," said one advertising agency executive who asked not to be identified. "QXI owned the town."

But the WQXI story of the past few years is a very different one, and statistics compiled by Arbitron Ratings Co. tell it vividly.

As recently as 1985, WQXI FM had an 18 percent share of all morning drive radio listeners between the ages of 12 and 49. Its nearest FM competitor then, WZGC (Z-93), had a 9.7 percent share during that time slot.

But by the spring of 1988, WQXI FM had dropped to a 5.7 percent share of morning drive listeners while WVEE (V-103) had a 9.9 percent share. WSB AM (750) had a 9.8 percent share. WSB FM (98.5) had a 8.2 percent share and WZGC had a 6.9 percent share.

"As goes morning drive so goes the rest of your day," Mr. Blum said.

From 1979 to 1985, WQXI led all Atlanta radio stations in advertising revenues. "Then we got careless, we got fat, we got too successful," Mr. Blum said.

According to Kalamazoo, Mich.-based Duncan Media Enterprises, a radio market research firm, the combination of WQXI AM and FM led the Atlanta market in revenues in 1985, taking in \$12.6 million. In second place was WSB AM and FM with a combined \$11.4 million in revenues.

By 1987, those two had switched positions and WSB had combined revenues of \$18.7 million to lead the market. WQXI's combined revenues were unchanged at \$12.6 million.

There are several reasons for the decline, Mr. Blum and several local radio industry observers agree. New stations have begun to chip away at QXI's dominance; several of the station's most popular disc jockeys left, and the station had trouble finding a program director who could turn things around.

To bolster itself, WQXI has hired a new program director — the third this year. It is also concentrating on "the basics," Mr. Blum said, meaning that the station recently has cut back on the number of commercials it plays and the amount of talking its disc jockeys do.

The station is also searching for an identity that will attract new listeners but not alienate its current audience. This has been one of its most difficult struggles.

Fleetwood Gruver, who had been program director for the past four years, was fired last spring.

"Essentially, we were not getting the results," Mr. Blum said.

Next came Bob Linden, who wanted to turn the station to a virtually all-jazz format, mixing in more and more of the programming from the station's popular evening Jazz Flavors show.

"I cut that out before it could happen," Mr. Blum said.

The station is now looking to Travis "Jan" Jeffries, the new whiz-kid program director hired in August, to turn things around.

When he arrived at Chicago's WCKG in 1984, the station was just going on the air. When he left, a year later, it was tied for No. 1 with two older Top 40 stations.

Mr. Jeffries has been doing a study of Atlanta listeners to help the station decide what type of programming would be the most popular.

But Mr. Jeffries won't have the old air staff to work with.

Afternoon drive-time jockey Jack Diamond left last month to join San Diego's KSON, which, like WQXI, is owned by Jefferson-Pilot Communications Co. He was replaced by Ken Cooper.

Bill Murray, who had been the midday disc jockey, also left last month, because of the turmoil at the station, Mr. Blum said. He was replaced by John David. And Russ Davis, who developed one of QXI's biggest programming successes — Jazz Flavors, left to work for New York jazz station WQCD.

Despite its success, Jazz Flavors has caused the station a programming dilemma. It is so different from the station's regular programming that its daytime listeners turn their dials away at night, said Mr. Davis.

The station has had problems outside the disc jockey's booth as well.

Last summer, in an effort to move its 5,000-watt AM signal to a 50,000-watt channel, Jefferson Pilot contracted to buy WPBD, the station owned by Air Atlanta founder Michael Hollis. Jefferson Pilot had agreed to buy the station for \$4 million, but when it came time to close the deal, Mr. Hollis said he wanted \$5 million, according to Jefferson Pilot. Stuck with a 5,000-watt AM signal and an oldies format that was not drawing much of an audience, the station began to simulcast its FM programming on its AM airwaves about a month ago.

Determining exactly which new sound will turn QXI's fortunes around will not be easy, Mr. Jeffries said.

"We have to come in and find out what the market really wants. Give it to them and super-serve them," Mr. Jeffries said with the air of a cheerleader. "We feel that there is a hole in this market for a mass appeal contemporary radio station which is what WQXI was when it was on top."



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The Atlanta Journal and Constitution
-via Kermit Reid

Radio License Case Stems From '83 Dispute

By L. Eric Elie *The Atlanta Journal and Constitution* -via Eric Bueneman
Staff Writer

In revoking the licenses of two Georgia radio stations, the Federal Communications Commission Review Board has unearthed a 5-year-old dispute involving allegations of everything from abuse of a federal minority participation program to sexual harassment.

The license revocations, announced this week, came after James S. Rivers, the owner of four radio stations, chose to sell the stations to a black investor under the FCC's "distress sale" provision. Those rules allow the sale of radio licenses to minorities at 75 percent of their market value. They are designed to promote minority ownership of broadcast stations, according to FCC documents filed in the case, and they require the buyer to hold the license for at least a year.

But, according to the FCC, Mr. Rivers wanted to keep control of the stations in his family, so he asked the investor, John Robert E. Lee, immediately to sell two of the stations back to his son, Ronald Rivers, and a female employee of the stations who had threatened to file a sexual harassment suit against the elder Mr. Rivers.

The FCC found this arrangement to be "a callous abuse of the distress sale process, the singular goal of which is to promote the diversity of control of broadcast stations in the hope of increasing content diversity."

Dr. Lee intends to appeal the license revocations, his lawyer said.

Willie J. Nunnery, Dr. Lee's attorney, said Dr. Lee did not willfully violate the FCC's rules and was upset about his desire to sell the two stations.

"It is very, very important to point out that there was no finding that Dr. Lee misrepresented anything to the commission," Mr. Nunnery said.

The case began in 1983 when the FCC planned to review the licenses of Mr. Rivers' four radio stations: WMJM-AM and WPAV-FM in Cordele, Ga.; WTJH-AM in East Point; and WJIZ-FM in Albany, Ga.

Rather than undergo the review, Mr. Rivers, who is now deceased, found a buyer in Silver Star Communications-Albany Inc., which is owned by Dr. Lee of Tallahassee, Fla., who bought all four stations.

According to the review board finding, Dr. Lee was "agreeable to an immediate resale" of two of the stations — WMJM and WPAV — back to Ronald Rivers, James Rivers's son; and Sara Howell, an employee of Southeastern Broadcasting System Inc., Mr. Ri-

vers's company.

Ms. Howell, according to the finding, contends that she underwent sexual harassment that was "purposefully and deliberately conceived, contrived, created and concocted" by James Rivers to deny her her 30 percent interest in the sale.

Ms. Howell made an agreement with Dr. Lee not to file any action if she were made a part of the resale deal, the FCC documents say.

On Nov. 8, 1984, three weeks before the sale went through, the FCC adopted its policy requiring the purchaser of a broadcast license under a distress sale to hold on to the property for at least a year.

On Nov. 30, 1984, Mr. Lee bought the four stations for a total of \$2.1 million.

But the FCC states, "Silver Star did virtually nothing to assume control over the Cordele stations. ... Silver Star provided absolutely no start-up funds for the ... stations, such start-up funds (approximately \$10,000) being provided exclusively by Ronald Rivers."

The FCC began investigating the stations in 1985, just a few months after the sale. In 1986, an administrative law judge for the FCC found that Silver Star had "willfully and repeatedly violated" the distress sale provisions, fined the company \$20,000, but allowed Dr. Lee to keep the licenses of the two stations.

However, an FCC review board last month reversed the judge's decision and revoked the licenses of the Cordele stations.

ABC Talkradio Ray Briem Show - "DX Special"

Saturday, January 7, 1989 - 0806 UTC

Once again, the airwaves come alive with news and views from our panel of DXperts! Join Ray and our guests, Steve Miller of Radio West; Stewart Mackenzie of the American Shortwave Listeners' Club; George Jacobs, world-renowned shortwave engineering consultant; Tom Kneitel, editor of *Popular Communications*; and Larry Magne, publisher of the *Passport to World-Band Radio*. Call in and ask questions, or tell tales about your experiences in any area of DX'ing, whether it's longwave, medium wave, shortwave, utes, FM/TV/VHF/UHF, Microwave (sorry, no ovens included!), or satellite DX'ing. Listeners from outside the Los Angeles area may dial 1-(213) 879-8255 to join in - just let the connection ring, until we answer. Then it's your turn to go on the air, with Ray and the panel. Remember, we want to hear from you! (Starting times may vary - check local stations.)

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