



VOLUME 13 NO. 11

DX MONITOR

PUBLISHED BY
THE INTERNATIONAL RADIO CLUB OF AMERICA
WHOLE NO. 394 DECEMBER 6, 1975

DX CALENDAR DX CALENDAR DX CALENDAR

ELT

IRCA Mon. 12-15-75	0100-0200	WKTJ-1380	Farmington, ME	1kw
NRC	0115-0200	WWNS-1240	Statesboro, GA	1 1/4
IRCA	0130-0200	WDLM-960	East Moline, IL	1kw
IRCA	0200-0230	WRAM-1330	Monmouth, IL	1kw
NNRC	0300-0315	WKLF-980	Clanton, AL	1kw
IRCA	0300-0330	KXRB-1000	Sioux Falls, SD	10kw
NNRC	0400-0500	WSOY-1340	Decatur, IL	1 1/4
NRC Mon. 12-22-75	0100-0200	KATE-1450	Albert Lea, MN	1 1/4
NRC	0300-0500	WCCP-1560	Clemson, SC	1kw
NNRC	0400-0500	WENN-1320	Birmingham, AL	5kw
NNRC Mon. 12-29-75	0100-0200	WGIL-1400	Galesburg, IL	1 1/4
NRC	0200-0230	WHEB-750	Portsmouth, NH	1kw
NRC	0300-0330	WFRX-1300	W. Frankfort, IL	1kw
NRC	0330-0400	WBAW-740	Barnwell, SC	1kw
NNRC	0400-0500	WMAG-850	Forest, MS	1/2kw
NNRC Tue. 12-30-75	0400-0500	WIRE-1430	Indianapolis, IN	5kw
NNRC Mon. 1-5-76	0100-0200	WBSM-1420	New Bedford, MA	5kw
NRC	0330-0400	WDSL-1520	Mocksville, NC	5/1
NRC Mon. 1-12-76	0300-0330	KKYN-1090	Plainview, TX	1kw
NRC	0300-0500	WVOY-1270	Charlevoix, MI	5kw
IRCA Mon. 1-19-76	0300-0330	WSUB-980	Groton, CT	1kw
NNRC Mon. 2-9-76	0200-0300	WBRW-1170	Somerville, NJ	1/2kw
NNRC Mon. 2-23-76	0200-0300	WCVS-1450	Springfield, IL	1 1/4

"Both" means joint IRCA/NRC

WKTJ-1380 (daytime only) will run the "Dave Michaels Country Caravan," // FM at this time. No v/s given. Address is Radio WKTJ, P.O. Box 590, Farmington, ME 04938. Arranged by Karl Forth.

WWNS-1240 will have r/s for first 15 mins. consisting of Dixieland music and IDs, then probably TTs, band music and Morse IDs and SIDs. V/s Scott Pendergraft, CE, P.O. Box 958, Statesboro, GA 30458. Arranged by Ernie Cooper

WDLM-960 (daytime only) will have IDs every 5 min, 1kw except 0145-0150 with 500w. V/s Glenn Rogerson, CE, WDLM, P.O. Box 149, East Moline, IL 61244. Arranged by Karl Forth.

WRAM-1330 (daytime only) will use 1000 hz and 500 hz tones and IDs. V/s Neil Jackmeyer, P.O. Box 367, Monmouth, IL 61462. Arranged by Karl Forth.

WKLF-980 (daytime only) will have popular music along with IDs and time after each song. Will use 1kw ND. V/s Morgan Reynolds II, CE, P.O. Box 110, Clanton, AL 35045. Arranged by Kenneth Van Tassell.

KXRB-1000 (daytime only). No details, or v/s. Radio KXRB, 100 N. Phillips Ave., Sioux Falls, SD 57102. Arranged by Karl Forth.

WSOY-1340, no program details. Reports to Mr. Larry Ward, WSOY Radio, 1100 East Pershing Road, P.O. Box 2250, Decatur, IL 62526. Arranged by George Davis III.

WTBJ-1090, Monticello, FL was not on due to Thanksgiving. The CE plans on re-scheduling the test for sometime in January. He would like tapes.

KWIP-1580 seemed to be on at 0300, but did stay on to 0400 as scheduled. He was heard very well in Seattle after KUUU-1590 signed off, and he was also heard in South Carolina.

It's suggested that everyone who have heard a test to send a thank you card, even if you don't intend to report them.

CHICAGO AREA DXers GET-TOGETHER

The 6th Annual CADX get-together will take place at the home of Robert Kramer starting at 12:00 noon on December 26 and continuing until who knows when on December 30. Four all-night DX sessions are planned. Anyone is welcome to come for the entire time or an hour or two. Please let Robert know if you plan on spending the night(s). There will be a refreshment cost of about \$1.00 per night to pay for beer, pop, and taco chips, or whatever. Please write to Robert Kramer at 3406 W. Pierce, Chicago, IL 60651, or call at 312-235-5188.

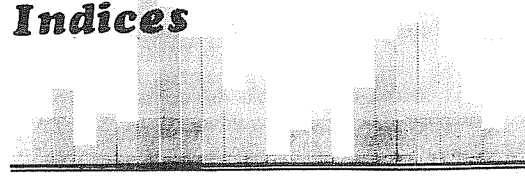
FROM THE EDITOR-IN-CHIEF'S KITCHEN TABLE

The general consensus of opinion reaching us here in Seattle is that we should change to the booklet format. After considering the pros and cons, we have pretty well decided to change as of Volume 14, Number 1, which will happen around September 1976. There are two main reasons why we would not change before then. First, I myself do not think it would be in good form to change in the middle of a volume; and second, all of the mastheads we have left have cost the club a lot of money which we are not about to waste. We will still end up with quite a few of them left, but we can sell them as stationery, or something. Also we expect to have all the details on column headings and formats worked out by then so the change-over should be smooth.

On another matter, everyone probably knows by now that a proposal has been made to the BOD to raise the dues to \$12.00. This is \$1 less than the old air mail dues. Even though the air mail rate and the new first class rate will be the same (13c), we are able to save some as we don't have quite as much of a printing expense here.

Also, the New Member Booklet is at the printer.

Geomagnetic Indices



Nov. 12-18 9 2 2 2 6 10 6
Radio conditions are expected to become significantly depressed about 29 November.

The Inside Story

EDXR - - - - 128	CDXF - - - - 129, 130
WDXR - - - - 128, 129	WDXF - - - - 131
DXWW - - - - 133	
Ad-Visor - - - - -	138
"International Radio Week Tests," chap. 2	134
Joe Worcester's Long Distance Receiver	
(last 3 pages of 6) - - - - -	135 - 137
Sunrise, Sunset, and the Shortest Day of the Year (Special Features) - - - - -	132

eastern dx roundup

Editor: Mike Millock, Box 533 Lorain, OH 44052

DEADLINE: 12/6; 12/13; 12/20 12/29

***** OF SPECIAL INTEREST: *****

From PRM in Teaneck NJ: "Stations also carrying "Nitecap" (w/Herb Jepko) are: WEIC-1270; WJBO-1150; WHOO-990; WBIZ-1400; and WAAB-1440." Many thanks for the tip, Paul, and now, onto the DX:

- 630 CJET ON, SMITH FALLS fair 10/30 w/talk show 2347-0000 ID, CBC Nx all in EE. (PRM-NJ)
830 KBOA MO, KENNETT in good 11/10 1740-1745. "Turkey Shoot" contest ann., Malco movie quiz answer, and s/off at 1745 w/invite to KTMO on 98.9, FM. (GVH-OH)
850 KEYH TX, HOUSTON excellent sig 11/9 1815-1820 w/nx, & then into "World of Travel" at 1820.(GVH-OH)
880 KRVN NE, LEXINGTON 11/14 beautiful sig 1735-1800 w/no trace of WCBS..1739: "KRVN Entertainment Guide", 1743; ID, "KRVN plays more music every day" sung w/c&w flavor. 1745-1800 Glen Nappa(?) Sports Show. (GVH-OH)
930 WMGR GA, BAINBRIDGE poor w/sunset QRM 11/17 1358 w/GA Nx & wx followed at 1400 w/SID & rr mx.(GA-NC)
970 WWSW PA, PITTSBURGH finally, "pests" WAVE/WPLA/WWDJ all off at once so I could get ex. sig 11/17 0428 w/MoR. (GA-NC)
WTFB AL, TROY 11/9 1744 fair w/contest promos until pattern/power change. (SF-TN)
1000 WXTN MS, LEXINGTON way o/WCFL 11/10 1752-1800 w/nx & sports. "Day by Day with Jesus" at 1754 until s/off @ 1800, w/"WXTN, more news, more sports, more often". (GVH-OH)
1260 WWDC DC, WASHINGTON 11/17 briefly o/WEZE/WBUD w/program notes, ID, & mention of Washington area 0254-0258. (RA-MA)
1270 WHEO VA, STUART 11/14 ex sig w/c&w mx, s/off 1715 w/SSB. S/off mentioned Patrick County. (GA-NC)
1280 WGBF IN, EVANSVILLE r&r mx in good 11/17 0357 w/live ID 0400. Amcr kept saying "In the River City". What River? The Barren?(GA-NC) (How about the OHIO River????...mrm)
1280 WKST PA, NEW CASTLE poorly w/rr mx 1710 11/14.(GA-NC)
1390 WHMA AL, ANNISTON 11/10 1734 atop w/pop mx & PSAs. (SF-TN)
1400 WLLH MA, LOWELL-LAWRENCE 11/15 atop WICK w/rock, few spots, nx 0131, contest, 0100-0200 Drake type jingle. (PRM-NJ)
WOND NJ, ATLANTIC CITY 11/14 even w/WICK w/rock, "Radio 14" IDs, DJ is Joe D. Rose, 0151-0227. First time hrd on RS. (PRM-NJ)
WICK PA, SCRANTON 11/14 good w/Nitecap Show 0145-0227, MBS Nx 0200, local spots, even w/WOND. (PRM-NJ)
1520 WANR OH, TOLEDO 11/17 first time w/these calls heard u/WEXY DX 0325-0333. (RA-MA)
1600 CHNR ON, SIMCOE 11/14 0025-0045, even w/WRRL w/MoR. SID @ 0030 & voice ID @ 0039. (RA-MA)

FROM THE "DX CALENDAR":

- 550 WSAU WI, WASAU 11/17 DX Test tried, but not heard, 0000-0025. (RA-MA)
600 WVOG LA, NEW ORLEANS 11/17 NRC DX tentative thru severe QRM from CFCF & Cuban. IDs and bits of TT heard @ 0210-0212, 0215-0217 & 0220-0221. (RA-MA)
1010 WSID MD, BALTIMORE 10/22 DX TEST extremely weak u/CFRB/KRLA w/r&b oldies noted sporadically between 0200-0300. No IDs heard, had to call stn to get conformation of record titles. (SF-TN)
1050 WLYC PA, WILLIAMSPORT 11/10 DX Test fair/good w/pop mx & ID 0222 o/u/WHN. (SF-TN)
1170 WHLW NJ, LAKEWOOD 10/31 DX Test heard weakly u/WVVA w/banjo mx & short ID 0032. (SF-TN)
1260 WNDE IN, INDIANAPOLIS 11/17 NNRC Test tried, but not heard 0300-0310 & 0350-0400....just WEZE/WBUD/WWDC. (RA-MA)
1520 WEXY FL, OAKLAND PARK 11/17 Test heard in brief WKWB SP 0325-0333 mixing w/WANR. Test had varying TT-IDs, mentions of address & phone #.(RA-MA)

PER THE LIST:

- 860 WAMI AL, OPP 11/12 0500-0514 r/c heard poorly w/much QRN. Dial Tone w/frequent voice IDs.(RA-MA)
1580 WORV MS, HATTIESBURG 11/17 conclusion of r/c 0312-0315 w/IDs & organ mx. (RA-MA)

BROUGHT TO YOU THIS WEEK BY:

- (PRM)-Paul Mount/471 Emerson Ave., Teaneck NJ 07666/Panasonic R-1551 & 40' longwire
(GVH)-Gregory Henson/Route 1, Box 279-A1, Albany OH 45710/Lafayette AM-FM w/50' longwire
(GA)-Gregg Allinson/919 N. Kerr Ave., Wilmington NC 28401/Hallicrafters S-38C & longwire
(SF)-Stephen Francis/1620 Lodge St., Alcoa TN 37701/Realistic TRF & loopstick
(RA)-Ray Arruda/48 Woodlawn St., New Bedford, MA 02744/SX-122; 1976 TRF; SM-1

Please note the DEADLINES at column head. Next 3 are for Saturday Deadlines, for the expected Christmas Mail slowdown, and with no more airmail, and past experience with the Postal Service, I figured I'd better move up the dates a bit! 12/29 is the next Monday deadline. Keep reporting, and keep DXing! '73 until next week!

NANCY HARDY, Editor

2301 PACIFIC AVE.

ABERDEEN, WA 98520

western dx roundup ALL TIMES EST

REPORTERS FOR THIS ISSUE:

- (JAB) Jeff Brasier-10341 Shirley Ave.-Northridge, Hammarlund HQ-129X, 2' loop CA 91324
(DEB) Don Erickson-6059 Essex St.-Riverside, CA Collins R-388, Sanserino loop 92504
(BLH) Brett Hanavan-845 1st Ave.-Chula Vista, CA HQ-180C, SPR-4, Sanserino loop, 92011 100' amplified long wire
(BH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA Lafayette HE-30, SM-1 98520
(NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA Lafayette HE-30, SM-1 98520
(JDK) Jim Korn-969 Burnett Ave. Apt. 4-San Fisher 90-T AM-FM tuner, Francisco,CA 4' spiral loop 94131
(FJP) Father Jack Pejza-212 S. Carpenter Road, SPR-4, Sanserino Modesto, CA 95351 loop
(GP) Gary Penley-1103 "H" St.-Centralia, WA 98531 Lafayette Explore Air Mark V, 3' unamplif-
(bp) Bruce Portzer-7021 Sand Pt. Way / ied loop NE # 215-Seattle, WA 98115 Hammarlund HQ-180A, SM-2

- 540 *WGTO* FL, Cypress Gardens ET 11/24 w/rr mx 0245-0250. ID at 0250 "W-G-T-O Super 50-4," then carrier off. (JAB-CA)
545 unID unID here looping NE/SW 11/15 0210-0235+ relaying Radio Canada International EE service. Good signal w/fading every 3 minutes or so but couldn't tell if that was in the signal I was hearing or the SW Bdcst that was apparently being relayed. Not heard since. (bp-WA)
550 KRAI CO, Craig 11/9 2345 w/wx report. Barely broke through KOY. (BLH-CA)
550 KSD MO, St. Louis 11/17 0642 deep u/KOY, w/mention of KSD News. (BLH-CA)
550 *unID* TT 0411 11/24 looping u/KOY. Who?(JAB)
590 KFXM CA, San Bernardino off most of MM 11/17 but testing w/OC occasionally. usually NSP! (DEB-CA)
590 KID ID, Idaho Falls 11/16 2110 spot for store in Idaho Falls. (FJP-CA)
590 KUGN OR, Eugene MM 11/17 0355-0408 mixing w/assumed Cuban & KGBM. (DEB-CA)
620 CKCK SK, Regina 11/17 fair 0526 w/wx, C&W mx. (JDK-CA)
660 KPAR AK, Fairbanks 11/17 0306 w/"Free Man in Paris" then KPAR ID. (JAB-CA)
660 KRJC CA, Modesto heard w/Modesto JC football game 11/1 2340, ID 2400. Station run by Modesto JC; operates 0800-1600 local time on school days, and on Saturday nights for home football games. Runs 10 watts into longwire strung up around inside of gym. Distance is about 1.6 miles. (FJP-CA)
660 KSKY TX, Dallas 11/17 0802 just came out of the middle of nowhere in the middle of a newscast. End of nx at 0805. PSA for safe boating. Full ID, into relig.

710 WGBS FL, Miami 11/17 Yahoo! a / (BLH-CA) new state 0527-0543, good to avg signal w/"WGBS nx time" & Florida-area nx till 0530, wx & quick ID, then MOR mx till tune-out. KIRO & KNPC both off this week so this was a real surprise. (BH)

730 KBOY OR, Medford 11/17 1920 rr mx, spots for stores in Medford, Ashland. U/CKLG. (GP-WA)

740 *KYNE* ID, Boise 11/24 0315 hrd well on DX test. Oldies mx and many complete IDs, requesting reports. (GP-WA) Good on DX test 0306-0330 s/off w/rr songs from the late 60's and frequent IDs. (bp-WA) 11/24 0325 thru KCBS OC on IRCA DX test, asking for "cards and Letters". (JDK-CA) We even heard it while KCBS was still on, 0304. (NH&EH-WA)

740 KTRH TX, Houston 11/23 0500 ID, promo for fishing program, in well. (NH-WA)

750 KMMJ NE, Grand Island relogged 11/22 0820-0835 w/Farm News & auction rpts. Good w/no QRM. (JAB-CA) 11/17 0420 this one a regular almost every MM, after sunrise in Atlanta. (BLH-CA)

790 CFCW AB, Camrose fair 11/17 w/C&W mx 0319-0330. KABC off. QRM from KJRB & unID. unID testing w/EZ listening / (JAB) mx 0400, s/off at 0510 mentioned 5000 watts. The Hawaiian? (JAB-CA) (Date?NH)

800 CHAB SK, Moose Jaw w/rock mx, request line, ID 0434 11/9. (FJP-CA)

810 CHQR AB, Calgary w/MOR mx, ID 11/9 0417. KGO off. (FJP-CA)

830 KIKI HI, Honolulu blasting in 11/17 w/WCCO. Usual rock music. (JAB-CA)

850 KGOE CA, Thousand Oaks 11/14 0920 w/rr. (JDK)

860 CJBC ON, Toronto w/sports, ID, song; all in FF 0610 11/17. (JDK-CA) 11/17 0630 freq & location given in FF "Huit cent deux trentes de Toronto". Weak to fair on clear frequency. (NH-WA)

870 KAIM HI, Honolulu 11/9 0445 w/class. mx.

870 unID 11/17 0852 mixing w/JOGB and / (ELH) slightly audible WWL, w/jazz or Big Band mx. KJIM? (BLH-CA)

920 KORK NV, Las Vegas 11/23 0440 jingle ID, EZ listening mx, fair. (NH-WA)

970 KOOK MT, Billings 11/9 0312 MST TC, rock mx, ID. (FJP-CA)

970 KOIN OR, Portland s/off 11/9 0305. (FJP-CA) (Typing is unclear, might be 0305-NH)

990 CBW MB, Winnipeg 11/16 2130 hockey, CBC ID, local ID at 2138. Strong sig. (GP)

1010 *KHCS* AZ, Phoenix on PoP 11/21 0350-0415. Used 1000 cycle tone & Gospel mx. ID at 0402 mentioned PoP. (JAB-CA)

1010 *KIQT* CA, San Francisco another ET 11/21 during KHCS PoP. Xlnt w/IDs at 0350, 0415. (JAB-CA)

1140 KSOO SD, Sioux Falls 11/17 0604 s/on w/complete anct. good signal. KGEM w/occasional TT. (GP-WA)

1140 WRVA VA, Richmond 11/17 0600 religion, ID at 0559, nx at 0600. Fair signal until KSOO s/on ruined it. (GP-WA)

1230 KYVA NM, Gallup 11/10 0730 time given in EE, then into Navajo. Mentioned KYVA & "This is Navajoland." (ELH-CA)

1260 KPOW WY, Powell s/off 2013 11/16 w/Orch. SSB. The sidewalks in Powell must get pulled in really early Saturday nights. hi. Good sig. w/KYA nulled. (bp-WA)

1300 KQOR CO, Colorado Springs 11/10 0805 coming out of CBS news. (BLH-CA)

1320 KXYZ TX, Houston 11/24 0418 ID good, rr.

1350 KCKC CA, San Bernardino off MM 11/17 / (NH) leaving just a jumble. Is this their regular SP? (DEE-CA)

1370 WFDR GA, Manchester MM 11/10 s/on 0300 w/SSB; good. (DEE-CA)

1370 WRGS TN, Rogersville s/on 0302 MM 11/10 w/SSB, into nx, spot for something on Main Street 0324, very poor. (DEE-CA)

1380 *KGMS* CA, Sacramento w/ET w/mx 0530-0542. ID at 0541. Xlnt, no QRM. (JAB-CA) (Date? -NH)

1380 KPOI HI, Honolulu in well MM / (NH) 11/17 0321 w/phone # 941-1380. (DEE-CA)

1390 *KGER CA, Long Beach s/on w/SSB MM 11/17 0801, followed by John Brown Hour. (FJP)

1390 CKKC BC, Nelson 11/17 0330 w/ID. (JAB-CA)

1420 KCCN HI, Honolulu 11/24 hrd w/EZ listening mx and s/off at 0500. Good w/usual KSTN QRM. (JAB-CA)

1440 KKXL ND, Grand Forks 10/27 0430 noted w/rr and ID partly atop mess. (bp-WA)

1440 KMED OR, Medford 11/11 0304 NBC News then ID at 0306. (BLH-CA)

1450 KTIP CA, Porterville hrd 11/24 w/spot at 0424, then rock mx to 0430 when lost to KONE and the mess. (JAB-CA)

1470 *KSIR* CO, Estes Park test 11/24 was on per phone call, using 500 watts. Not hrd here, but will test in Dec for club using 1000 watts. (JAB-CA)

1470 CFRW MN, Winnipeg 11/24 0337 call given clearly twice between top 40 records. Fair signal thru CJVB & weak unID. (BH)

1480 KBOX TX, Dallas 11/24 0327 ending sports "on the Big X" & a country KBOX jingle. Good to fair sig on open freq.

1550 KRG0 UT, Salt Lake City s/on / (BH-WA) 0756 MM 11/17, fair. (FJP-CA)

1550 *unID* unID 0405 11/24 ETing w/inst mx o/u 4QD who was blasting in. (JAB-CA)

1600 ?KLAT? UT, Centerville may be the one 11/22 w/Utah nx 0837, then NIS nx 0840-0900. (JAB-CA)

Nov. f/c per the list:

3rd MM KUDI-1450 MT (bp-WA)

The US Postal Service enjoyed my column so much last week that they kept it an extra day, thus it arrived in Seattle too late to be included in last weeks issue. As a result, the reports that were in it (including reports for Brett Hanavan, Don Erickson, and Bill's FL catch) I retyped into this weeks column. On the subject of deadlines-- since it took the Postal Service an extra day last time, I'll have to move the deadlines which fall during the holidays back a day from the usual Saturday deadline. Instead of the deadlines of Dec. 20 and Dec. 27, those deadlines will be moved to Fridays, Dec. 19 and Dec. 26. 73

~~~~~Editor: John Zondlo

## central dx forum

6617 Maryland

Hammond, IN 46323

Allen W. Ogrizovich-3836 Sleepy Hollow Ln.-Fort Wayne, IN 46804

Hi all! Well I have some rotten news at this end of the line, I've stopped DXing due to other things keeping me busy, including a pet skunk and a newly acquired wife. I may at some point come back and DX but really doubt if I will. I'm also looking for a new radio job, so if you are in the biz and need a 1st phone jock contact me at the above address. Also have been cleaning the archives out here and noticed bunches of goodies I need to get rid of. So if anyone collects SC's, cm's or radio junk please write. I will trade you that for either sc's or bumper stickers, or even buttons from stations. Well world take care and even if I'm not in the DX mood you could at least take my place. 73.

John A. Callarman-1122 Maple-Mt. Vernon, IL 62864  
I believe from the tenor of the comments in recent pages of the IRCA bulletin the active membership generally agrees that dues should be raised if necessary to meet operation costs and that there should be no merger with the NRC. I agree with those points also. The question still to be resolved, it seems, is that of magazine or loose leaf. Personally, I consider it a drawback from the standpoint of permanent storage of the bulletins that NRC and several other clubs went magazine style. Presentation, though, is of secondary importance compared to content. I expressed at the Columbus convention my feeling that the down cycle was attributable to three factors...1) getting used to the delay between the time a contribution is sent and it sees print; 2) unfortunate delays that came from the second class mail experiment; and 3) the turnover in editors. In no way is the latter point to be taken as criticism of the efforts turned in by those who have served. Contributing is partly

nabit as well as effort, and I find it a bit difficult at times to make that effort. It is important that the medium wave DX'er who, for some reason, is limited to one club have an alternate choice. For me, there are valuable and different items that both clubs present. If I were forced to choose one club only, I'll have to be honest and say it'd be the NRC, but fortunately, I don't have to make that choice. IRCA has already turned the corner, and the negatives who see either merger or death for the club should turn around and help the editors and contributors to make it grow again.

Larry V. Flegle-25 NE 185th Terrace-N. Miami Beach, FL 33179

Thought I'd send in a few lines. DXing is good now if I had time to take advantage of the conditions. I have sent in reports for several of the recent tests, but no QSL's as yet. By the way, if any of the members would like some old air checks 1955-1962, I have one from each year, (also 1967) all rock, and yours for a C-90/two and return postage. (Stations like WIBG-Philly + WKBW-Buffalo) Let's all work to make IRCA a great club! Each member needs to do his part...so, DO IT! 73's

Paul R. Mount-471 Emerson Ave.-Teaneck, NJ 07666

The day after I sent in my questioning Forum I received a DXM w/a CDXR and stuff, sorry gang. If four issues was a little anarchy, I'd hate to see a lot, hi. Jim Pogue has a sharp looking typer there. The following is not meant to look like EDXR, just a report of what's been heard here. CPC tests heard have been WJIC WVCH WMTR and WWJC, tnx Rob, I missed it last year. Too bad I didn't catch the one I co-arranged, WHLW-1170. I'm trying to get it to be sked during a WWVA silent period. I had seen loads of reports about great cx this year though I hadn't noticed much myself due to inactivity, and I don't bother to try for TAs, since I can't measure frequencies further than 10kHz at best. (I hear you laughing, Ron Schatz & CAT). Plus all the TTers it could be, and local spurs, and SW spurs doesn't make it quite worth the effort of listening to a het hoping audio will come out. BUT, twice while driving in the car I noticed auroral cx, especially notable in the 800s and 600 khzs. But the cx last MM, 11/17, were like nothing I've witnessed before. What do you call it when you get Ohio, Alberta, Ontario, New York, and Colombia on the same frequency? An opening to everywhere. The frequency was 960 by the way, also Kansas City in WIP-610 land. I only DX MMs usually, due to schoolwork, so I try for the CPCs then. Why is it though that the MMs when stuff is coming in and you feel like DXing is the MM you have school at 8AM? Veries in from WRRH and WCAM. Until next week, 73 and good DX.

Tom Butas-5612 Alta Dena Dr.-Huntsville, AL 35802

Hi all. Just finished the Fall quarter here so now I have 2 weeks to do some serious DX'ing. I would like to invite all members to apply for Achievement Awards before postage goes up at the end of the year. A copy of the NEW REVISED rules should be appearing in an upcoming issue of the DXM. Not much DX lately, but I would like to trade bumper stickers for ones I do not have or buy others. Well, this is all for now. Till next time...73.

Ronald F. Schatz-Box 592814 AMF-Miami, FL 33159-AC305-945-4915

Peace, brothers! Well, it seems that IRCA & NRC will not merge anytime soon, but at least my efforts to scare IRCA out of its deathbed have been worthwhile. Now, if we are going to make it on our own, decidedly as a viable alternative to the "other club", we must abandon naive attitudes and get to work. First we must stop those things we're doing that have almost halved our membership rosters, then we must recruit new members afterwards. I propose these steps be taken: 1) redesign & reformat DX Monitor based on a membership "questionnaire" on the matter, 2) switch DX Monitor to the "booklet" format, regardless of any previous investments, 3) adopt a new, simpler, more-efficient set of Constitution & By-laws to replace the cumbersome bureaucrats' delight we have now, 4) "sell" IRCA like no club has ever

been sold before. First, tho, let's make ourselves into something worth selling. No merger? Then let's get off our arse and move!! On DX, I finally bagged R. Antilles-740, making Montserrat roughly country #20 that I have "cleaned up". The "madrugada effect", believed caused by "space dust" bombarding the ionosphere, is responsible for improved long-distance reception noted after local midnight. This is why Brazil & Chile are rarely heard before then. 73 de RFS.

Robert Kramer-3406 W. Pierce-Chicago, IL 60651

To whom it may concern: If this doesn't concern you, then don't read it. Well, I'll bet you are surprised to hear from me, maybe you're not, since I dropped out of IRCA & quit DXing for a while. Well, here I am again & for those fortunate ones who have never heard of de sheik (JZ, do you really think such a person exists?)(de who?-jz) here is an intro. I am 22 years old, a freshman at Northeastern Illinois University, with a major in broadcasting. I have been DXing since November of 1968, on CGB since May 1970. I was a member of IRCA from September of 1970 until September of this year when my lack of finances and lack of DXing interest caused me to drop my membership. My present totals are stations 1796/1302, states 48/48, Canadian provinces 9/9 & countries 22/16. My primary interest is domestic DX, with a specialty in frequency checks and equipment tests. My receiving equipment consists of a Hammarlund HQ-129-X hooked up to a 4' X 3' spiral loop. I also have a SM-2 deluxe model that doesn't work very well. For recording purposes, a Realistic CTR-20 cassette recorder is used. For redubs I have a junky Passport cassette recorder. In case I'm too lazy to get up I have a timer that I have my receiver & recorder plugged into, I can use this for DX tests or sign-ons without getting out of bed. How convenient. Well, gotta go. Catch you later if I don't catch a fish first (?). Anybody I owe letters or SC & CM traders please be patient. They're coming some day. CMers please write. Until next time Sententia y tres.

Ray Arruda-Cove Motel-Box 278-Orleans, MA 02653

This address is only temporary because I'm working on the lower end of Cape Cod until the end of the year. Fortunately, I can still DX at my New Bedford location on MMs which is the only time for DX with this work schedule. I've had some great results with DX Specials in November and have also purchased a 1976 TRF portable. The TRF (as so many have already found out) is a fine receiver for the price. It will be interesting to see how well Joe Worcester's MW RX moves in this country. I'd like to own one but the price is too steep for me even though it's worth that much. DX Specials received and reported on the TRF are: WAMI-860, WSNW-1150, WEAG-1470 & WAGL-1560. Tests heard and reported on the SX-122 are: WVOG-600 (TENT.) WBTX-1470 & WEXY-1520. Veries are finally arriving with these new ones: WAMI-860, WEAV-960, WILK-980, WSNW-1150, WKST-1280 & WBTX-1470. WAMI PD James Heath wrote in my v/1 that I was the first person to hear the station in Maine, so what happened here is that he was confused by the two letter postal abbreviation for Mass. (MA) & Maine (ME). Now they think they have a listener in New Bedford, Maine instead of New Bedford, Mass! Here are some other brief DX notes: WBTX-1470 r/c heard atop frequency 12-12:15 (all times are AM), 11/10 WLYG-1050 Test not heard 2:15-2:35, 11/17 WSAU & WNDE tests were tried but not heard, 11/23; WIOO Test tried but not heard 12-12:20, were they on later? MM 11/24 was disappointing: WMMT-1520 Test was heard with fair signal in WKBW SP 3:06-3:15 w/TT-IDs-C&W. Tests from KYSM, KYME, & KSIR did not make it here. Also on 11/24 WEEZ-1590 logged with Oldies program 3:20-4:01 for report. It's good to see many new people reporting to the fold lately. Hope everyone had a Happy Thanksgiving & Best Wishes for a Merry Christmas & a New Year with plenty of good DX.

RADIO 140 **WIN**  
NOW FOUR TIMES MORE POWER!

DEADLINES

**western  
dx forum**

EDITOR: RICK HEALD

EVERY

534 WELDON AVENUE  
OAKLAND, CA. 94610

FRIDAY

Ph: (415) 452-4816

ERIC C. RITTENHOUSE-GRIFFITHS HALL #106-2650 HASTE-  
BERKELEY, CA. 94720

Greetings DXers and other strange things of the night. Your Berkeley correspondent has once again seen fit to make an appearance in these hallowed pages and to that end, I report. Latest DX session was MM 11/03. Had I been able to stay awake past 0230 PST it could have been a good morning as I had JJ u/750, 770 and 830 as early as 0100 PST. W/my first MM class at 10 AM I have to get up at 0630 to make the bus and getting much sleep after DXing is impossible. If this hits print before Thanks-giving then it will do some good for me to remind everyone to come and BARF, er to BARF; otherwise it's totally useless. (Oh well, next time---Rth) While on the subject of conventions and get-togethers I should announce that BARF has decided to bid for the '76 Convention. It's the West Coast's turn for a convention next year and the San Francisco site would make it the first every centrally located WC Convention. We have a lot of interested people and many good ideas and the potential exists for a really fantastic affair. I'll be going to Stanford for the Big Game, 11/22 and will try to squeeze in some DX around everything else. As of now I've heard no new stations this month and if I can't get any then or at BARF it will be the first month since 07/73 w/no new loggings. (Hopefully I'll get something at BARF. I got new stns and states at the first two and expect to get another this time, though DE on a SM may be somewhat difficult, hi.). I've got studies impending and have nothing else of interest to mention at this time so I'll s/off here thus ending the shortest ECR DXF in recorded history. Remember, while reality may be a fuchsia, it is nevertheless true that it will remain obscured by the bat guano. (hic) 73 de ECR de UCB and SAN FRANCISCO in '76!!!

BILL HARANG-811 NEVADA AVE-SAN JOSE, CA. 95125  
Ph: (408) 292-8198

KMBY 1240 Monterey, CA does not subscribe to the Pulse because the new owner did not want to spend the money on it. Although KDON covers 30% more people w/their signal than KMBY can, KMBY remains the #1 stn overall in the Monterey County ratings, according to the March-May 1975 Pulse. The Monterey Bay Area ARB ratings were all messed up, with some mathematically impossible things, and only KDON, among the local stns, had any audience of significance. KLOK, KGO, KCBS (#1 in Bay Area ratings-Rth) and KDON were the big winners in it. KWAU-FM made a trip back to Beltsville, MD to look at the diaries to try to figure out how it got so messed up, but couldn't find any one thing responsible. On our 10/01 DX prgm on KDWN, we mentioned that one of the new MW XR sites planned for Saudia Arabia is actually capable to transmitting THREE MILLION watts on a single frequency, although output will be limited under normal circumstances to two million watts. On that prgm, Jack London mentioned that KDWN rec'd a reception report from Omaha, NE. Apparently, someone heard it on SSS while they were still 50kw non-directional. Some of you people in the Midwest may want to give KDWN a try on SSS. How to pick up stns East of the Miss. River was the main topic on our 09/24 prgm. On our 10/15 prgm, we told a little bit about the club history and general information about the people of our club. (Bill-Thanks for reprinting Eric Norberg's knowledgeable comments in the last two Forum re KMBY. Do you know anyone that knows anything about KTOM or KIDD??-Rth)

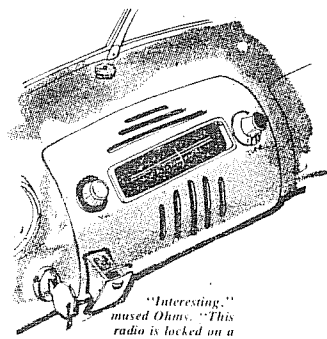
MARC J. STEINER-13224 S. SPINNING AVE-GARDENA, CA.  
90242

Well, belated first greetings of the '75-76 DX season to all who cast their eyes upon this literary masterwork. One thing I will speak on is someone's idea of a proposed merger of IRCA w/NRC. For one thing, what could we call the club? IRCNRC (pronounced Urk-nurk?) Forgive me if I sound like Harry Reasoner, hi. There seems to be a certain close-

knittedness in IRCA which might be lost in a merger. I'm not much up on NRC affairs, but for the meantime, do whatever is necessary to keep two separate well functioning clubs. Well, getting away from Cicero's orations against Cataline (keep on your toes Latin students) we'll get to the heavy stuff. (Clunk-Rth) I was rather surprised to hear KVNU u/KFRC 610. Also included in the cornucopia are CKBI/CJVI 900, WJR w/KFMB off, KOH 630 which is remarkable. what w/all that KFI slop, and KOIN 970, which isn't too bad. Well I hope to contribute a little more in the future. Oh, if anyone would like to talk a little DX the number is (213) 321-8606. No collect and pls keep reasonable hrs. Also open to correspondence if anyone likes. If there are any DXers who are members of the Jr or Sr or Amer Classical League, AKA, JCL, SCL, or ACL, it would be interesting to hear from you. See you later and 73. (Marc-is that bowling by any chance?-Rth)

RICK HEALD-534 WELDON AVENUE-OAKLAND, CA. 94610  
Ph: (415) 452-4816 before 2230 PST

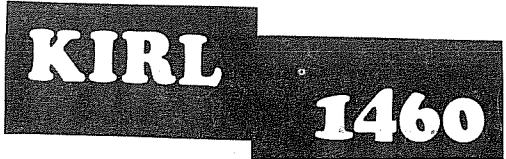
Greetings! Thanks to local DXers, Charles Wolff and Jim Korn, who helped make my moving day a little smoother. Seems Wolff was an expert at loading a truck with 6 rooms of furniture. Back into the metro area again, and surprisingly DX not as bad as had been anticipated. Only 4 mi to KABL, KDIA, KIQI, KRE, KPRC, 6 mi to KNEW, and 10 to KYA, KSFO, KEST and KFAX night XR. All but KPRC can be nulled!!! Interesting situation on 910, as KNEW is nulled, I get a beaut of a signal from KIQI thanks to KABL-960. Slight noise problem, more so at night than daytime. Haven't done much dial spinning since the move, but w/4 day weekend, did do a little DXing, cx not exactly conducive to DX. The moment many of us have waited for, KNBR WAS OFF THE AIR!!! That was Thanksgiving morning @ 0250 PST, waited for a s/on of whoever in CST zone, and wouldn't you know KNBR carrier on at 0257, then TT at 0302. Guys, you think KNBR has slop w/audio? You should hear that tone. From KFI to KCBS. Did hear, however, during KNBR OC, beautiful signal and ID from KGEI the SW stn!! KNBR and KGEI are next door to each other near Foster City. Now then, does XETRA TT? Mexicans not noted for their ET's, but did hear TT on 690, 11/28 @ 0035 PST, no sign of XETRA, and a very weak CBU way/u/the tone. Well gang, be prepared to help San Francisco celebrate its Bi-Centennial along w/the country's Bi-Centennial with the big IRCA Convention, first ever in Northern California. That's right, 1776 when Mission Dolores was built and San Francisco began. Details in full very soon. Save your \$\$\$\$ now. Report on BARF-III next time around. See u in 7. 73.



"Interesting,"  
mused Otho. "This  
radio is locked on a  
strange frequency, used  
only by WACY, Kissimmee,  
Florida. But it would be possible  
for a local transmitter to beam  
a hypnotic tone through it, and I  
fear that is what has been done."

**WVOK**

50,000 Watts  
Voice of Dixie  
P. O. Box 1926  
Birmingham, Alabama  
35201





**SUNRISE, SUNSET, AND THE SHORTEST DAY OF THE YEAR**  
by IRCA Special Features Editor Bill Hardy

Everyone knows that it gets dark earlier in the day during the fall and winter months than during the spring and summer months. And most folks know that sunrise comes later in the winter than it does during the summer. For DXers, of course, the shorter days and longer nights lead to better overall DX conditions on the AM broadcast band, plus more nighttime hours to actually DX.

Those of you who have your complete set of 12 sunrise/sunset maps for each month of the year can readily see the earlier sunset times and later sunrise times in months such as November, December, and January. These times are computed by the FCC for each community, based on sunrise and sunset on the 15th day of each particular month rounded off to the nearest 15 minutes. (The FCC lists the times in each station's license, so that some enterprising station doesn't come up with a way of computing sunrise/sunset to give itself longer hours!)

There is little variation in sunrise/sunset times for a given day from one year to another (what little variation there is, is primarily due to leap year coming up every four years). Thus, sunset on Feb. 15, 1975, is within a minute or two of the same time as sunset on Feb. 15, 1976, and thus the FCC can apply the sunrise/sunset standard year after year without change.

I always used to wonder why sunrise times for some stations were 15 minutes later in January than in December. I was brought up believing that December 21st was the shortest day of the year, and that June 21st was the longest. So why a later sunrise on January 15th than December 15th?

The explanation is really fairly simple.

Almanacs, such as the World Almanac, have tables listing sunrise and sunset times (real times, not the FCC rounded-off times) for various latitudes on each day of the year. These are based on the time meridians (75°, 90°, 105°, 120°) used for the standard time zones. If you live east or west of these meridians, you add or subtract 4 minutes for each degree longitude. I live almost exactly at 124°W longitude, so I add 16 minutes to each time in the table; if you live east of the meridian, you subtract. There's also a varying corrector to interpolate times between the listed parallels of 30°, 40°, 50°, etc., north latitude. Since the times are accurate within one or two minutes each year, it really doesn't matter if your almanac isn't for the current year.

Let's use 40°N latitude as an example, as this runs centrally through most of the U.S. midway between the Canadian and Mexican/Gulf Coast borders. At this latitude, the earliest sunrises and the latest sunsets are NOT on December 21st. The earliest sunsets are a clump of several days with the same early time, centering around December 8th. The same is true of the latest sunrises. Several days tie for the same late time, centering around January 5th. The reason for this evidently has something to do with the earth's orbit, which is not perfectly circular around the sun.

So why is December 21st considered the "shortest day of the year," if there are several days with later sunrises and several days with earlier sunsets? Well, because the "day" is the time between sunrise and sunset. And on December 21st, there is less time between sunrise and sunset than on any other day.

On December 8th, when sunset is as early as it will be all year, sunrise continues to occur a minute or so later each morning. Between December 8th and 21st, sunrise continues to subtract more daylight in the morning than is added at sunset each evening. On December 21st, the loss and gain are even. From December 21st to January 5th, more daylight is added at sunset than is being lost at sunrise, so even though sunrise is later, the total day is getting longer.

The dates used above are based on 40°N latitude, the nation's approximate midpoint. Further south and further north, the same thing happens, although the dates for the earliest sunset and latest sunrise

may be a little different. At 50°N (southern Canada), the earliest sunrises center on December 13th, and the latest sunsets center on December 31st. At 30°N, the earliest sunsets center on December 2nd, and the latest sunrises center on January 10th. You can interpolate your own values - the dates for 35°N would be halfway between those for 30°N and 40°N, etc.

And, of course, the same holds true in June and early July, with the earliest sunrise times occurring just before June 21st and the latest sunsets just after June 21st, although the difference is not so pronounced as in the winter.

I hope this information on late sunrise times and early sunset times will be interesting and possibly helpful to DXers, whether beginning or experienced DXers. If you want to try for a most-wanted daytimer on sunset skip when the sunset time is earliest and nighttime conditions prevail the most, you'll know that you have to try before December 21st. And if you want to try on sunrise skip in the morning, maximum nighttime conditions will prevail after December 21st. Actually, since the difference between true sunrise/sunset and licensed sunrise/sunset is less at these turnaround points in December than it is at the beginning or end of some of the other months, you might be best trying on the first days of January, February, March, April, or May, or the last days of July, August, September, October, or November. Then you'll find stations still using day power/pattern as much as a half hour or more before actual sunrise and after actual sunset.

Good luck! -BH.

CROOKSTON, Minnesota  
1000 watts Day — 500 watts Night 1260 Kc.

# KROX

Studios in the Eagles Building

Confirming Reception of KROX by Hal Christianson  
on 7/12/74 19 11:50 EST.  
"THE CROOKSTON BROADCASTING CO."  
William J. Kiewel Wiley, Manager

1,000 WATTS AM 1470  
14,070 WATTS ERP. FM

AM **WILY** WEXX-FM  
1210 KC P-M  
95.3

CENTRALIA, ILLINOIS

Verifies Reception of WILY ---AM- By

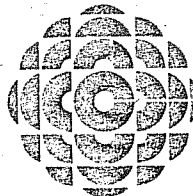
Hal Christianson

Winnipeg, Manitoba, Canada

Date October 14, 1974 Time 6:15 a.m. to 6:22

Remarks Thanks for your letter. Distance approx. 380 miles

Certified by Randy Henderson



**CBC RADIO**  
**990**

**DX****Worldwide**

BRUCE PORTZER,  
Editor  
All times GMT/UTC  
Deadline Saturdays

7021 Sand Point Way NE, #215 - Seattle, WA 98115 - 206-522-2521

PAN AMERICAN DX ROUNDUP

- 575 COSTA RICA, San José, R Cucu ID & coocoo IS logged 0220 11/20. Does not seem to be the high powered unit rptd testing here by Variety. (Stanbury,ON)
- 580 MEXICO, Chihuahua, Chih., XEFT 10/17 0353 w/R. Mexicana ID hrd in KMJ null. (Lobel,CA)
- 610 TRINIDAD, Port-of-Spain logged w/some difficulty 11/25 at times between 0110 (when first tuned in after noting 730 at good level) and 0402 s/off. Auroral cx strongly favored reception, but lots of fading nonetheless. Quite a bit of interference, mainly from WIOD, presumed Colombian around 0300 & WAYS, along w/WIP. Had mixture of MoR mx, slow 50s rock hits, woman ancr who was nearly unintelligible (there's also a girl on WIOD, this wasn't her), wx forecast on half-hour agreeing w/WRTH & def ID as Port-of-Spain, Trinidad & Tobago taped. Besides "Radio 6-10" they used another slogan which may or may not be "R. Guardian", I did not definitely hear this slogan and don't know if in use. Recheck at 0359 (after long period of no reception) found girl reading mx, still poor copy, then brief devotion & into anthem at 0402. No s/off armt was copied, but if the girl did it, it was unreadable. Promo, done during mx, w/man's voice plugging "the nxroom of 6-10", was hrd OK. Haven't seen this one rptd since they did a DX & were hrd in Texas about 15 years ago. Think I'll send them a rpt. (Foxworth,NY) (Great catch! Hope they verify. bp)
- 690 MEXICO, Tijuana, XETRA spurs have appeared on 646, 668, 712, 734 kHz. Noted 11/21. (Seaver,CA)
- 690 DOMINICAN REPUBLIC, Santo Domingo, HIAW easy in CMEC null w/R. Guarachita ID 0923 11/24. (Francis,TN)
- 700 COSTA RICA, San José, TIHB fair in the WIV silence (their first of the 70's, I believe) 0557 11/17 w/sub-dued "R. Reloj de Costa Rica" ID. (Francis,TN)
- 810 COLOMBIA, Bogotá, HJCY hrd 0922 11/24 w/chimes & SS talk. No QRM from CHQR. (Orren,WA)
- 900 BARBADOS, Bridgetown noted well around 2330 11/24 and into 11/25 (GMT of course) w/schmalz mx, bingo by radio, etc. IDs only as "CEC Radio" and faded quite a bit but was very good & clear on peaks w/only slight CHML in background and, in contrast to other auroras; no sign of either Mexico City or any S.A. stn. (Foxworth,NY)
- 908 COLOMBIA, stn here IDed as Emis. Puentes, Cartagena at 0048 11/18, also at 2355 11/22. Fairly clear the first date, but bad FMing, distorted other times hrd. (Foxworth)
- 920 DOMINICAN REPUBLIC, Santo Domingo, HIBA fair/good u/ KARN/WBEL w/meragne mx & "la hora popular" AST TC 0926 11/24. (Francis,TN)
- 1015 EL SALVADOR, San Salvador, YSC, R. Internacional made it w/fair signal & mx 1115 11/24. (Peterson,CA)
- 1030 COLOMBIA, Cali, HJER weak u/XBOR 0800 11/24 w/"RCN de Colombia" mention. Also noted fair & alone in aurora 0100 11/26 w/a R. Pacífico ID in addition to the RCN spels. (Francis,TN)
- 1036 v MEXICO, Cd. Camargo, Chih., XECC is the stn hrd here recently. IDed 11/19 0328-0400 s/off as "X-E-doble-C"; ment of Cd. Camargo & Hidalgo de Parrel. Plays some EE rock songs. Nominal 960; as I recall it was hrd around 1005v back in late 1960's. (Seaver,CA) (At that rate they'll be QRMing XEPRS by 1985. bp)
- 1075 COSTA RICA, San José, TIFC, Faro del Caribe in very weak 1105 11/17. Mostly just a carrier but some peaks w/singing. (Peterson,CA)
- 1085 HONDURAS, hrd again 11/19 from 0315 tunein but audible only off & on as usual due to TVI, WTIC, WBAL & CKKW. Schatz rpts this as R.Aeropuerto at San Pedro Sula; however, R. Swan, which announces its MW freq as 1100 is believed by most SWLs to be at SPS (rather than Swan Island as implied in its QSLs). If so R. Aeropuerto & R. Swan would interfere w/each other locally. (Stanbury,ON)
- 1150 DOMINICA, Roseau, me too, Jumbo has been blasting in 11/22-3-4 eves here, hrd s/off 0207 11/23, carrier off 0209, but don't know if this time is valid every night. Completely wipes out WRUN/WCOP/CKOC usual mess on this freq; often is entertainment level, a polyglot of mx, tho. Starts coming in around 2230 or so. (Foxworth,NY)
- 1165 t ANTIQUA, Caribbean R. Lighthouse assumed the one w/strong carrier & periods of voice (unintelligible) 0958-1010 11/24. Freq meas'd 1164.989 (+0.5 Hz+gating error) at 1005. Will someone on EC measure this one for comparison? Will not log this one until I get something more definite. KSL makes it hard along w/ KLOK. (Peterson,CA) --- Unid, surely Dominica (Antigua?)

- Never better than S6. No IDs hrd. Checked at 1000 but had only very weak carrier. (Seaver,CA)
- 1265 ST. KITTS, R. Paradise hrd first time well this season w/S6 signal 11/24 0915. (Seaver,CA)
- 1300 MEXICO, Cd. Juarez, Chih., XEP hrd w/calls & "R. Trece" ID 11/21 0325. Must be careful here since KWKW also IDs as "R. Trece". (Seaver,CA)

PACIFIC DX ROUNDUP

- 584 RSFSSR, Svobodnyy blasting in at times around 1135 11/17. Measured 584.000 at 1145. (Peterson,CA)
- 615 CHINA, loc. unk. rptd by Rittenhouse hrd 1147-1200+ 11/17. KFRC popped off RS to OC just as I was tuning by, China sig was good. A brief KFRC tone blast at 1149 then China okay till KFRC came back on 1200. After 1200 China carrier still detectable thru KFRC barrage. Measured 615.129 just before 1200. (Peterson,CA)
- 705.9 S. KOREA, Seoul, HJKA, KBS nice signal 1210 11/17 w/only a little slop from 710. (Peterson,CA)
- 770 JAPAN, Akita, JOUB, NHK2 blasting in way o/KOB 1035 11/17 w/EE lessons. (Peterson,CA)
- 890 JAPAN, Sendai, JOHK hrd w/NHK1 pgm 11/17 0909-1001. At 1000 OM said, "Sendai, J-O-H-K" & NHK pips. (Seaver)
- 1040 HAWAII, Honolulu, KHVH hrd 11/24 0952 w/MBC NNIS u/WHO. Later, at 1045, they were o/WHO w/NNIS ID. No KHVH ID hrd but assume it was them due to format. (Orren,WA)
- 1130 JAPAN, Tokyo, JOQR, Bunka Hosu assumed to be the JJ behind CKWX 1115 11/10. Surprising since TPs poor that morning. (Peterson,CA)
- 1178 OKINAWA, VOA was in w/nx in EE at 1115 11/17. Assume this started at 1100. (Peterson,CA)
- 1140 JAPAN, Sapporo, JOWF was in w/moderate signal 1135 11/10. (Peterson,CA)

DOMESTIC INTERNATIONAL ROUNDUP

- 620 CA, Hanford, KNGS 10/17 0430 hrd w/strange sounding lang & mx. S/off right after pgm at 0503. Anyone hrd this before & know what the language is? (Lobel,CA) (75 BYB lists them as having some SS & PP pgms. bp)
- 1116 NY, New York, WNEW-1130 occasionally has a spur + 16 kHz, hitting 1114 and 1116 w/1116 louder. Usually seems like an CG, weak smudgy audio on it. (Foxworth)

CONTRIBUTORS

Either everyone was busy preparing for thanksgiving or else conditions are worse than I thought, hi. Just the same, a big thanks this time to:

Bob FOXWORTH - Mineola, LI, NY - HQ-150, GPR-90, IW, SM-2  
 Stephen FRANCIS - Alcoa, TN - TRF  
 Albert LOBEL - El Cajon, CA - DX-150, Sanserino loop  
 Jon ORREN - Seattle, WA - DX-160, SM-1  
 Art PETERSON - San Pablo, CA - HQ-180, SM-1  
 Randy SEAVER - Chula Vista, CA - HQ-180A, Sanserino loop  
 C.M. STANBURY - Crystal Beach, ON - HQ-200

Father John P. Pejza

Thank you for your reception report of

Sept. 20, 1971. (1832-1905 JST)

We are pleased to confirm that the station you heard is Radio Japan, operating on

NHK's Home Service, JOIB (Sapporo Station), 750 kc/s.

Your further reports as well as comments on our programs will be much appreciated.

**RADIO JAPAN****NIPPON HOSO KYOKAI**

Japanese Festivals  
 Japan Broadcasting Corporation  
 Tokyo, Japan

December 6, 1975

Chapter 2  
(Continued from page 110)

Broadcasting for the public had started only three years earlier at KDKA, and people still tended to be more interested in the miracle of receiving a station than in its programming; the programs generally consisting of unpaid local talents. Broadcasters in each city would usually set aside one night a week during which they would refrain from broadcasting for a few hours, clearing the airwaves of interference to the long distance "auditor" in search of "DX." So, staying off the air to aid auditing was, at that time, a common feature of a station's responsibilities.

The stations chosen to broadcast for the test worked hard to line up suitable programs for trans-Atlantic reception. It had been hoped that President Coolidge would broadcast his greeting to the English people, but there was not enough time to make the arrangements. Hopes to have the Prince of Wales and Prime Minister Baldwin address the United States met a similar fate. However, many other famous personalities made addresses during the week. Henry Ford spoke over his station in Dearborn, Wisconsin, while Frank Conrad spoke along with the British Vice-Consul over the station Conrad helped start, KDKA. Owen D. Young, Chairman of the Board at General Electric and RCA, Major-General James G. Harbord, President of RCA, and Charles Evans Hughes, the Secretary of State, also made addresses. And, from the English side of the Atlantic, Guglielmo Marconi spoke of the day when crystal sets in America would be able to pick up English programs.

On Sunday night, November 25, the tests began. All around the country persons tuned up their radios, straining for a hint of the English signals. Radio Broadcast had special 6-tube receivers at their HQ in Garden City, Long Island, and many other publications, radio stations, and manufacturers set up their own listening posts.

Radio Broadcast wrote about their experiences on the first night. For the first 15 minutes nothing was heard. Then, faint, illegible speech was picked up. A cable, using the special direct telegraph line installed at Garden City, was quickly sent to the BBC asking for a piano solo. Three minutes later the notes of a piano were heard, followed by the words, "Hello America."

During the week thousands of persons tried for the signals, although few heard more than parts of a musical selection or two, that left them wondering if they had really heard Britain. Even fewer persons in England had been able to hear the American signals.

The main interference during these tests had come from stations that stayed on the air. However, another source of interference were the receivers themselves. Many of the radios used an inexpensive system of amplification called "regeneration." When radios of this type were turned up too high, they sent out a high pitched "bloop" on the wavelength they were tuned to, that was audible up to two miles away. Inexperienced operators, who thought the brighter their radio tubes burned the better, were the main offenders. Listeners in Britain were luckier, because regenerative sets were illegal there.

For all the problems and failures that the tests had, the public was still interested in trying again.

They got their chance a year later, when what was now called the "Second Annual International Tests" took place. The 1924 programs were much more involved than those of the previous year. The transmissions were still during a week long period, November 24 to November 30, but had been expanded to two hours a night.

The number of stations participating had also been increased. In the United States about forty stations from coast to coast were chosen to take a part, compared to 1923 when only East Coast and Midwest broadcasters were involved. England now had 14 stations, including a longwave one. And Continental European broadcasters were included this year, with a mixture of longwave and mediumwave stations from France, Holland, Belgium, Germany, Italy, and Spain involved.

This year American broadcasters had an hour each night, from 10:00 to 11:00 PM EST, to send over their programs. From 11:00 to 12:00 all of the 535 U.S. and 50-odd Canadian stations stayed off the air to clear the way for the European transmissions. The English stations broadcasted during the silent hours on Tuesday, Thursday, and Sunday nights, while the Continental stations had Monday, Wednesday, Friday, and Saturday.

(To be continued in next available space.)

There were 723 licensed broadcasting stations in the U. S. at the beginning of 1938; also 20 licensed experimental television stations.

Number of network stations as of Feb. 1, 1938 were: NBC, 143; CBS, 115; Mutual, 76.

# CANADA

## STATIONS—REGULATIONS—SURVEY

The following list of stations is arranged in call letter alphabetical order giving page number for complete station data.

Every effort has been made to present accurate and complete information in a self-explanatory method. Data was obtained from questionnaires sent to the stations early in December and corrections were made up to the time of going to press to insure the inclusion of late developments.

Canadian network facilities covered in full on page 158.



| Call Letter | City                    | Frequency in Kilocycles | Power in Watts |
|-------------|-------------------------|-------------------------|----------------|
| CBF         | Montreal, Que.          | 910                     | 50000          |
| CBL         | Toronto, Ont.           | 840                     | 50000          |
| CBM         | Montreal, Que.          | 1050                    | 5000           |
| CBO         | Ottawa, Ont.            | 880                     | 1000           |
| CBR         | Vancouver, B. C.        | 1100                    | 5300           |
| CBW         | Windsor, Ont.           | 600                     | 1000 d. 500 n. |
| CFAC        | Calgary, Alta.          | 930                     | 1000           |
| CFCF        | Montreal, Que.          | 500                     | 500            |
| CFCH        | North Bay, Ont.         | 930                     | 100            |
| CFCN        | Calgary, Alta.          | 1030                    | 10000          |
| CFCO        | Chatham, Ont.           | 630                     | 100            |
| CFCT        | Victoria, B. C.         | 1450                    | 50             |
| CFCY        | Charlottetown, P. E. I. | 630                     | 1000           |
| CFGP        | Grand Prairie, Alta.    | 1200                    | 100            |
| CFJC        | Kamloops, B. C.         | 880                     | 1000           |
| CFCL        | Prescott, Ont.          | 930                     | 100            |
| CFNB        | Fredericton, N. B.      | 550                     | 1000 d. 500 n. |
| CFPL        | London, Ont.            | 730                     | 100            |
| CFPR        | Prince Rupert, B. C.    | 580                     | 50             |
| CFQC        | Saskatoon, Sask.        | 840                     | 1000           |
| CFRB        | Toronto, Ont.           | 690                     | 10000          |
| CFRC        | Kingston, Ont.          | 1510                    | 1000           |
| CFRN        | Edmonton, Alta.         | 960                     | 100            |
| CHAB        | Moose Jaw, Sask.        | 1200                    | 100            |
| CHGS        | Summerside, P. E. I.    | 1450                    | 50             |
| CHLN        | Three Rivers, Que.      | 1420                    | 100            |
| CHLP        | Montreal, Que.          | 1120                    | 100            |
| CHLT        | Sherbrooke, Que.        | 1210                    | 100            |
| CHML        | Hamilton, Ont.          | 1010                    | 100            |
| CHNC        | New Carlisle, Que.      | 960                     | 1000           |
| CHNS        | Halifax, N. S.          | 930                     | 1000           |
| CHRC        | Quebec, Que.            | 580                     | 100            |
| CHSJ        | Saint John, N. B.       | 1120                    | 100            |
| CHWK        | Chilliwack, B. C.       | 780                     | 100            |
| CJAT        | Trail, B. C.            | 910                     | 1000           |
| CJBR        | Rimouski, Que.          | 1030                    | 1000           |
| CJCA        | Edmonton, Alta.         | 730                     | 1000           |
| CJCB-CJCX   | Sydney, N. S.           | 1240                    | 1000           |
| CJCF        | Calgary, Alta.          | 690                     | 100            |
| CJCS        | Stratford, Ont.         | 1210                    | 100            |
| CJGK        | Yorkton, Sask.          | 1390                    | 100            |
| CJIC        | Sault Ste. Marie, Ont.  | 1500                    | 100            |
| CKKL        | Kirkland Lake, Ont.     | 1310                    | 100            |
| CKLS        | Yarmouth, N. S.         | 1310                    | 100            |
| CJOC        | Lethbridge, Alta.       | 950                     | 100            |
| CJOR        | Vancouver, B. C.        | 600                     | 500            |
| CJRC        | Winnipeg, Man.          | 630                     | 1000           |
| CJRM        | Regina, Sask.           | 540                     | 1000           |
| CKAK        | Montreal, Que.          | 730                     | 5000           |
| CKBI        | Prince Albert, Sask.    | 1210                    | 100            |
| CKCD        | Vancouver, B. C.        | 1010                    | 100            |
| CKCH        | Hull, Que.              | 1210                    | 100            |
| CKCK        | Regina, Sask.           | 1010                    | 1000           |
| CKCL        | Toronto, Ont.           | 580                     | 100            |
| CKCO        | Ottawa, Ont.            | 1010                    | 100            |
| CKCR        | Kitchener, Ont.         | 1510                    | 100            |
| CKCV        | Quebec, Que.            | 1310                    | 100            |
| CKCW        | Moncton, N. B.          | 1370                    | 100            |
| CKFC        | Vancouver, B. C.        | 1410                    | 50             |
| CKGB        | Timmins, Ont.           | 1420                    | 100            |
| CKIC        | Wolfeville, N. S.       | 1010                    | 50             |
| CKLW        | Windsor, Ont.           | 1030                    | 5000           |
| CKMO        | Vancouver, B. C.        | 1410                    | 100            |
| CKNX        | Wingham, Ont.           | 1200                    | 100            |
| CKOC        | Hamilton, Ont.          | 1120                    | 1000 d. 500 n. |
| CKOV        | Kelowna, B. C.          | 630                     | 100            |
| CKPC        | Brantford, Ont.         | 930                     | 100            |
| CKPR        | Fort William, Ont.      | 730                     | 100            |
| CKSO        | Sudbury, Ont.           | 780                     | 1000           |
| CKTB        | St. Catharines, Ont.    | 1200                    | 100            |
| CKUA        | Edmonton, Alta.         | 580                     | 500            |
| CKWX        | Vancouver, B. C.        | 1010                    | 100            |
| CKX         | Brandon, Man.           | 1120                    | 1000           |
| CKY         | Winnipeg, Man.          | 960                     | 15000          |
| CRCK        | Quebec, Que.            | 950                     | 1000           |
| CRCS        | Chicoutimi, Que.        | 1120                    | 100            |



A simplified schematic of the circuit is shown in Figure 9. Not shown are the various trimming, padding, and temperature compensating capacitors. In addition to the latter, oscillator drift is minimized by operating at unusually high power; 75 supply volts at 20 ma total drain current, and by zener regulation of the bias applied to the bottom transistor. Temperature drift at the high frequency end of the band is minimized by making a portion of the trimming capacitance max-negative and at the low frequency end by doing the same to a portion of the padding capacitance. Both of these compensations combine in the middle of the band to produce a drift characteristic that is somewhat over compensated as shown in Figure 10. This drift is entirely unnoticeable in practice as the receiver can be tuned to a station from a cold start and no observable improvement in tuning occurs after a period of time. This satisfactory performance of a free-running oscillator makes unnecessary the use of complicated and expensive synthesis or digital AFC schemes that introduce problems of their own.

Between the I.F. output shown in Figure 9 and the dual sideband I.F. amplifiers is a 455 khz amplifier module, the primary purpose of which is to provide AVC control. This is shown in Figure 11 and is probably the most sophisticated AVC control system available today. The 9 volt supply shown at the extreme left, supplies forward bias to each of the 5 silicon diodes across each of the 5 tuned circuits. The voltage applied to the diode across the last transformer is that of the two series connected silicon diodes at the extreme right, about 1.1 volts. The voltage applied to the other control diodes increases progressively due to the added voltage drop across each of the 10 ohm resistors. These forward biases applied to the anodes are bucked by the positive AVC voltage applied to the cathodes, as shown. With no-signal this voltage is approximately 2 volts and with the application of signal this voltage is made to drop by the amplified DC of the detector output until with 0.1 volt applied signal (100 db), the AVC voltage has dropped to about 1.1 volts. Thus,

as the signal increases the decreasing AVC voltage permits the loading diode on the first transformer to conduct first, since it has the highest positive anode voltage, and the other diodes conduct sequentially as the signal strength continues to increase. This results in an output signal that remains essentially constant over the entire dynamic range of the receiver. This characteristic is shown in Figure 12. The attainment of AVC control by the process of "Q" reduction as just described is much superior to amplifier bias change from the dual standpoints of dynamic range and freedom from cross-modulation.

A few remarks regarding the digital readout may be of interest. This operates by counting the oscillator frequency but displaying the signal frequency. This is accomplished by using presettable counters (74192) so that the count starts at 9545. After counting 455 (the I.F. frequency) the count reaches 10,000; but since only four digits are displayed the 1 does not appear. After completing the oscillator count, the displayed count is now the frequency of the signal (in khz). A crystal controlled clock circuit is used to initiate and stop the counting procedure. Since the individual cycles are counted but the display is in kilohertz it would seem that a counting period of 1 millisecond is in order. This, however, presents a problem. There is no correlation between the time when an oscillator cycle begins and when the clock circuit initiates the count. Accordingly, the last digit fluctuates plus-or-minus one count, which of course, not only makes an accurate frequency reading impossible but is visually annoying, as well. To combat this, one more decade is counted (.1 khz) but not displayed. This requires the counting period to be 10 times as long or 10 ms. To further insure that the last displayed digit does not fluctuate, the crystal frequency is made a hertz or two high so that the count at resonance can fluctuate between 2 and 3, for instance, rather than between 0 and 9 which would produce a count reaction down the line. If the counting period is made 10 milliseconds, the off period is made this long, also, so that the display can be updated and the counter resets accomplished. The complete clock cycle thus totals 20 milliseconds or the clock frequency is 50 hertz.

In this receiver, the basic crystal-controlled oscillator frequency is 16 khz. A divide-by-16 counter, 7493, reduces this to 1 khz. This is followed by a 7490 divide-by-ten counter, connected BCD, so that the various conditioning pulses can be obtained from the remaining outputs. This is followed by 1/2 of a 7474 flip-flop to provide the final clock signal of a 50 hz square wave. The clock chain can be followed on the top line of the block diagram shown in Figure 13. Below this on the left is a discrete amplifier-limiter. The oscillator pick-off signal to be counted is applied to the input. The back-to-back diodes square this signal off so that there is no need for a Schmitt trigger I.C. The two amplifying transistors, being unidirectional devices, serve to isolate the steep front of the clock signal from affecting the oscillator's output. The gain provided by this amplifier permits the use of a low amplitude oscillator signal which permits additional decoupling of the counter pulses from the oscillator to the point where no observable problem has been noted. The output of the amplifier connects to the input of a NAND gate (1/2 7420) to which also is connected the clock pulse. The output of this gate will now feed oscillator pulses to the counter during the period when the clock signal is positive and turn them off during the negative portion of the clock cycle. The counter comprises one 7490 and four 74192's. The former does not drive a display as discussed previously. Each 74192 drives a 7475 latch which in turn drives a 7447 decoder-driver and this drives an LED readout. The purpose of the latch is to immunize the display during the counting period and to update the displayed digit during the quiescent period by means of the ENABLE pulse. This pulse is derived by the 7420 section shown on the extreme right. These are quad-input NAND gates, all inputs of which have to be high (plus) in order to produce an output pulse. It will be noted that one input is driven by the inverse of the gating signal clocking the oscillator pulses. This is to insure that the ENABLE pulse is produced only during the quiescent period and not while the count is proceeding. Also driving the inputs of this NAND gate are the Q1, Q2, and Q4 outputs of the 7490 in the clock chain. However, the Q4 output has its polarity reversed by an inverter (1/6 7404) and thus an output pulse is produced when Q1 and Q2 are high, Q4 low, and of course, the clock count in its quiescent state.

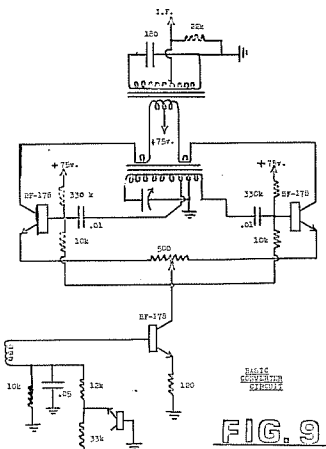


FIG. 9

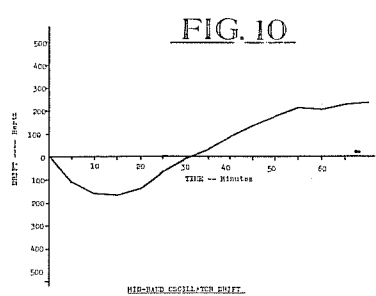


FIG. 10

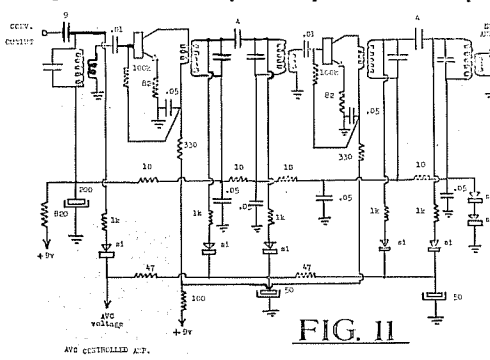


FIG. 11

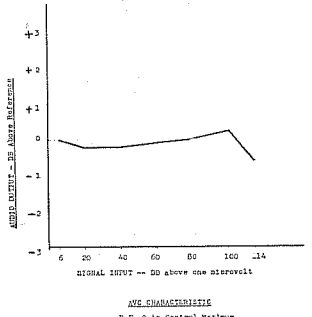


FIG. 12

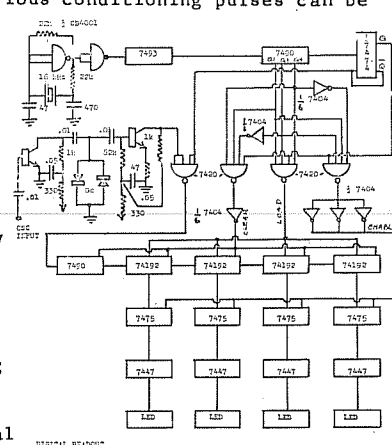


FIG. 13

This means that the ENABLE output pulse is produced during the 3 count of the 7490 (Q1 plus Q2 equals 3). Since a NAND inverts the polarity, it is necessary to further invert the output pulse in order to obtain the required HIGH ENABLE. Three parallel connected inverters ( $\frac{1}{2}$  7404) are necessary in order to drive four 7475's.

Now that the ENABLE pulse has updated the displayed count, it is next necessary to apply a CLEAR pulse to the 74192's to reset them to zero. This is done on the 5 count by inverting Q2 (Q1 plus Q4 equals 5). The necessary CLEAR pulse is also HIGH so that an interter is required in the output of this gate, also. This must be followed by a negative LOAD pulse in order to preset the counters to 9545. This is produced on the 7 count by leaving all the Q inputs high (Q1 plus Q2 plus Q4 equals 7).

With so many pulses flying around, it is necessary to use some care in the layout and construction of the counter to eliminate the possibility of interference. As noted previously a two stage discrete amplifier is used to prevent direct conductive interference with the oscillator. Headaches are also avoided by not attempting to use gaseous-discharge nixie tubes as displays. As will be noted by Figure 14, the various I.C.'s are Elmered belly-up to a printed circuit board. Strips of printed-circuit board material are laid over the rows of I.C.'s to provide the B-plus bus lines. In order to "sink" the high current output spikes, a liberal sprinkling of .01 bypass capacitors is necessary (one for each I.C.). The board is then shielded as can be seen from the chassis photograph, Figure 15.

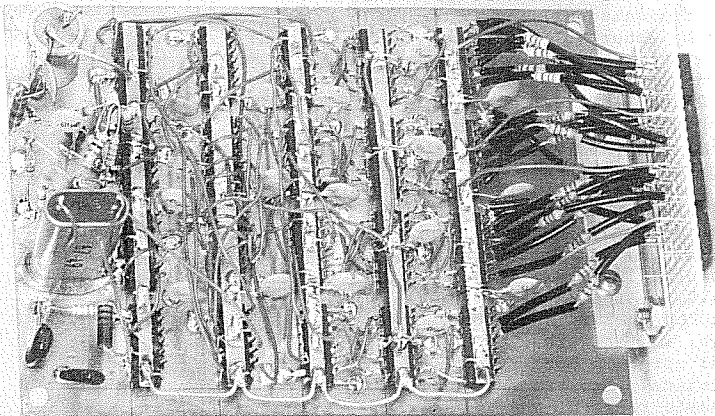


FIG. 14

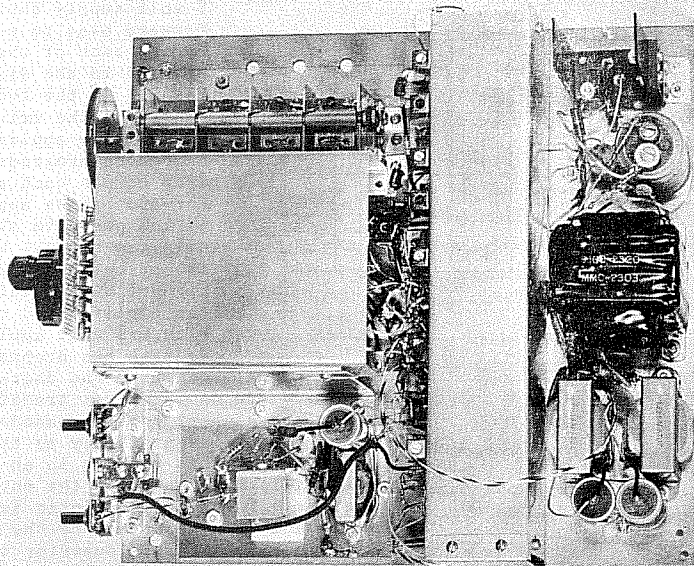


FIG. 15

This concluding paragraph will cover a few loose ends that still remain. The audio amplifier is conventional and uses a high voltage output transistor similar to RCA 40321. The power output is 1 watt at 10% distortion and 1.35 watts maximum output. The overall audio frequency response of the receiver is 150 to 2000 hertz at the 6 db points. The power transformer has dual secondaries; one to provide 100 volts DC to supply the output transistor and the high voltage R.F. and converter transistors. The other winding provides a 9 volt supply for the I.F. amplifier and auxiliary circuits and a regulated 5 volt supply for the digital readout. The power consumption is 26 watts.



RECEIVER DESCRIPTION

The cabinet material is aluminum and the various panels are masked at the edges during the painting process so that a reasonably good electrical shield is provided. The cabinet dimensions are approximately 11 1/4" length, 5 1/4" height, and 12" depth (28x13x30cm).

Looking at the front panel, the control at the extreme upper left is the ANT TUNING switch which compensates for variations in longwire characteristics. It will be remembered from the report, that the longwire antenna is part of the Antenna Transformer circuit and this control, which has 6 positions adds additional series capacitance to provide the required 220 pf. The switch position should be selected that provides the highest reading on the tuning meter for a weak station at the low frequency end of the band for the longwire in use.

Next to the ANT TUNING switch is the ANT SELECT switch. This is also a 6 position switch which permits the selection of any desired loop, longwire or beverage attached to the 4 antenna posts at the rear of the cabinet. These are selected as follows:

- A - Loop L1 (or beverage)
- C - Longwire A1
- E - Longwires A1 plus A2
- B - Loop L2 (or beverage)
- D - Longwire A2
- F - Disconnects antennas and grounds receiver input.

This switch should be left in position F when the receiver is not in operation to prevent possible damage from high voltage spikes from lightning and other sources.

At the center of the front panel is the digital readout display and below it the tuning control. As described in the report it reads to the nearest kilohertz. The large meter on the right indicates signal strength and is calibrated approximately in decibels above one microvolt divided by 10. Below the tuning meter on the left is the R.F. Gain control which is maintained in the extreme clockwise position unless distortion is encountered on very strong signals. For best reception of weak signals it is essential that this control be in the extreme clockwise position. Below the meter on the right is the A.F. Gain control. This is the conventional volume control and should be adjusted to the volume level desired. Between these two gain controls is the jack to accommodate headphones. The jack normally provided parallels stereo headphones, but a jack can be supplied for monaural phones, if desired. In this connection, an external loudspeaker (8 ohm) is required (and can be supplied) and this plugs into an RCA type jack on the rear panel. Another RCA jack permits the operation of a tape recorder.

It will be noted that no heterodyne elimination control is provided and the elimination of this is made possible by the DIFFERENTIAL SIDEBAND DETECTION system which automatically provides a 30 db attenuation of a carrier 1 khz removed and nearly 60 db attenuation of one 2 khz away. Regardless of whether a Het Elim notch filter takes the form of a Twin-Tee, Wien Bridge, or potentiometer-tuned network, the realizable attenuation is a theoretical 40 db if all components are precise and held to a 1% tolerance. Practically speaking, it will be less than 40 db and an unwelcome guest is an undesirable frequency distortion of the audio signal.

To the left of the main tuning control are the words PROPERTY OF. Below this, the name of the owner can be inscribed if he wishes. This personalization may serve as an effective deterrent to theft. However, if it is not wanted, this area will be left blank.

The writer would like to thank Bob Mahrenholz for valuable help in adapting to the world of digital integrated circuits and also to list the following credits:

WIRELESS WORLD Dec. 1971 - C. ATTENBOROUGH - "Displaying Frequency Digitally."

WIRELESS WORLD Nov. 1974 - G. Lomas - "Signal-Frequency Meter."

LANCASTER, Donald E., - TTL Cookbook

NOTICE

Free license to use the novel features of this receiver is given to DXers who wish to construct for their personal use. If profit motives are involved, write for licensing details.

It has been the writers experience that very few DXers are interested in doing their own construction which applies particularly to something with this degree of complication. In view of this, 6 receivers have been built, aligned and tested. Each has had at least 10 hours burn-in time on stations including TA's. PRICE - \$795.00 each plus transportation.

J.A. Worcester  
R.D. 1  
Frankfort, NY 13340

|     |     |     |    |      |    |      |     |
|-----|-----|-----|----|------|----|------|-----|
| C   | F   | C   | F  | C    | F  | C    | F   |
| 39= | 102 | 19= | 66 | -1=  | 30 | -21= | -6  |
| 38= | 100 | 18= | 64 | -2=  | 28 | -22= | -8  |
| 37= | 99  | 17= | 63 | -3=  | 27 | -23= | -9  |
| 36= | 97  | 16= | 61 | -4=  | 25 | -24= | -11 |
| 35= | 95  | 15= | 59 | -5=  | 23 | -25= | -13 |
| 34= | 93  | 14= | 57 | -6=  | 21 | -26= | -15 |
| 33= | 91  | 13= | 55 | -7=  | 19 | -27= | -17 |
| 32= | 90  | 12= | 54 | -8=  | 18 | -28= | -18 |
| 31= | 88  | 11= | 52 | -9=  | 16 | -29= | -20 |
| 30= | 86  | 10= | 50 | -10= | 14 | -30= | -22 |
| 29= | 84  | 9=  | 48 | -11= | 12 | -31= | -24 |
| 28= | 82  | 8=  | 46 | -12= | 10 | -32= | -26 |
| 27= | 81  | 7=  | 45 | -13= | 9  | -33= | -27 |
| 26= | 79  | 6=  | 43 | -14= | 7  | -34= | -29 |
| 25= | 77  | 5=  | 41 | -15= | 5  | -35= | -31 |
| 24= | 75  | 4=  | 39 | -16= | 3  | -36= | -33 |
| 23= | 73  | 3=  | 37 | -17= | 1  | -37= | -35 |
| 22= | 72  | 2=  | 36 | -18= | 0  | -38= | -36 |
| 21= | 70  | 1=  | 34 | -19= | -2 | -39= | -38 |
| 20= | 68  | 0=  | 32 | -20= | -4 | -40= | -40 |

Touch that dial



music country

1240

Get it on!

GET YOUR WINDOW STICKER  
NOW. THE KSON WIN-IT-WAGON  
HAS CASH & PRIZES FOR YOU!

EL CAJON CALIFORNIAN

\*\*\*\*\*  
**AD-VISOR**

247 N. FIRST STREET, APT. 27  
EL CAJON, CA USA 92021  
TELEPHONE: (714) 440 - 2544

EDITOR: ALBERT S. LOBEL/ DEADLINES ARE TUESDAY NIGHTS.  
\*\*\*\*\*



IRCA Headquarters has lots of Foreign Log Volume 2's and 3's for only \$2.75 & \$3.50, respectively, or both for \$5.25. IRCA HEADQUARTERS, P.O. BOX 21462, SEATTLE, WA 98111.

IRCA HQ also has only volume 1's of the Foreign Log left for only \$2.00, or all three volumes for \$6.75. Hurry before they run out.

IRCA HEADQUARTERS, POST OFFICE BOX 21462, SEATTLE WA 98111.

Red and blue IRCA stationery is still available for only \$2.00 for 70 sheets, or \$2.75 for 100 sheets, postpaid.

IRCA HEADQUARTERS, POST OFFICE BOX 21462, SEATTLE WA 98111.

IRCA rubber stamps with the IRCA emblem are available for \$3.00, postpaid.

IRCA HEADQUARTERS, POST OFFICE BOX 21462, SEATTLE WA 98111.

Index to DXM Vol. 12 (as compiled by Fred McClelland) for 25¢ and a legal size SASE.  
IRCA HEADQUARTERS, POST OFFICE BOX 21462, SEATTLE WA 98111.

Radio Shack DX 160 5 band (.15 - 30 mHz) w/ 8 ohm matching speaker. Good physical condition and working condition, have put a passive booster in it so it can be used with a space magnet antenna. Want \$145.00, PPD & Insured.  
C.R. WEINSTEIN, POST OFFICE BOX 52 GOLDEN CITY MO 64748; PHONE: (417) 537-8604, after 7:00 p.m. CST.

Heathkit GR-64 Receiver in good condition, only needing slight repairs. \$30 or the best offer plus shipping charges.  
MICHAEL HOGAN, 4811 EUCLID AVENUE, EAST CHICAGO IN 46312.

## Wanted

General-coverage, communications type-receiver, used, in satisfactory mechanical condition, and repairable if inoperative. Am willing to pay about \$150.  
CHARLES A. TAYLOR, 939 EASTERN AVENUE, INDIANAPOLIS IN 46201; PHONE: (317) 638-4166, between 2330 to 0300 GMT except sunday 1300 to 0300 GMT.

### THE INTERNATIONAL RADIO CLUB OF AMERICA, INC.

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

OFFICERS: President - Richard C. Evans, Box 392, New Buffalo, MI 49117 (616-469-3866). Secretary-Treasurer - H. John Clements. Board of Directors - Robert L. Foxworth, Nancy Hardy, Grant Manning, Father Jack Pejza, Bruce Portzer, Ronald F. Schatz, John Zondlo.

DX MONITOR: The official bulletin of IRCA, published 34 times a year; weekly from November to March, 3 times in October, 2 times in April, May, and September, and monthly in June, July, and August.

MEMBERSHIP RATES: \$9.50 First Class to Canada, Mexico, and the U.S.; printed matter rate to the rest of the world. Air Mail to Mexico, \$13.00; rest of the Americas, \$20.00; rest of the world, \$25.00. Sample copies, 50¢ or 3 International Reply Coupons. Make all checks and money orders payable to "IRCA." Members outside the U. S., please use money orders payable in U. S. funds.

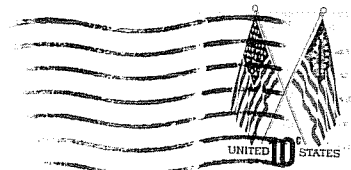
PUBLISHING STAFF: Editor - in - Chief - Michael G. Worst (206-632-3608), Publisher - Phil Bytheway (206-525-8736), Bruce Portzer, Jon Orren, Tim O'Hare, Gary Kayser.

Permission is granted to publish, broadcast, or otherwise reproduce any of the material in DX MONITOR (except for items which acknowledge that they appear by permission from other sources, or material that is copyrighted), provided credit is given to DX MONITOR and the author or contributor if listed.

Opinions appearing in DX FORUMS are those of the contributors and do not necessarily reflect those of IRCA, the publishing staff, or the DX FORUM editors.

DX MONITOR is printed by Save-On Printing, Seattle, WA

**IRCA**  
P.O. BOX 21462  
SEATTLE, WA 98111  
U.S.A.



## First Class

Dave Williams 2  
Box 615, Hwy. 101  
Astoria, OR 97103