INTERNATIONAL IRCA RADIO CLUB

DX Monitor

Devoted Exclusively to Broadcast Band DXing

November21, 1981 • Volume 19, Number 10 • Issue Number 597

In This Issue

Flash Tips

Sat Nov 28 WGCH-1490, Greenwich, CT, will test from 0000EST til whenever w/TT & IDs. May be rescueduled for 12/5. Send reports to Frank Hajdu, WGCH, 1490 Dayton Avenue, Greenwich, CT 06840.

Mon Dec 7 WHEO-1270, Stuart, VA, will test 0100-0130 EST w/pop mx, 1000 Hz TT every 7 minutes, and IDs. Send reports to C. Lemont Bryant, CE, WHEO, Route 1, Box 24, Stuart, VA 24171.

Mon Dec 14 WKDW-900, Staunton, VA, will test 0005-0030 EST w/1000 Hz TT, mx, & voice & code IDs. Will use only 250 watts during the last 10 minutes. Send reports to Bill Betlej, Director of Engineering, WKDW, P.O. Box 2189, Staunton, VA 24401.

Mon Dec 21 WLS-890, Chicago, IL, will be off 0100-0600 EST.

Mon Dec 28 KADE-1190, Boulder, CO, will test 0200-0300 EST w/1000 Hz TT, mx, & voice IDs. Phone:(303)444-5600. Reports go to Bob Greenlee, KADE, 4840 Riverbend Rd., Boulder, CO 80301.

Odds & Ends

Another radio equipment outfit has come out with their latest catalog. Grove Enterprises has just come out with a 20 page catalog of receiving accessories and books. Although they cater mainly to shortwave and VHF/UHF scanner enthusiasts, they have a few things that may interest BCB DXers (such as a 10kHz-30MHz antenna tuner). For a free copy write Grove Enterprises, Dept C-12, Brasstown, NC 28901 or call toll-free 1-800-438-8155.

A DX CONTEST....Of sorts... I've decided to hold a short competition during December and January. Two lucky DXers will each receive: 1) a computer printout showing the loop bearings & distances from their home to over a hundred other domestic & foreign cities, plus the sunrise & sunset times (for the 1st & 15th of each month) for those cities, and 2) a cassette tape with airchecks of various Alaskan stations, recorded (originally) in 1960. These prizes will go to the individual who reports the most graveyard channel stations to DX Roundup or DX Worldwide between the 12/5 & 1/30 issues, inclusive , and the person who reports the most clear-channel daytime-only stations to those columns during the same period. The rules are: 1)Loggings must be of stations more than 50 miles from your DX site, and must be made on or after 11/15/81. 2)Reports must be definite loggings (no tentatives) and must include some sort of "convincing" pgm info, such as ID wording, format, etc. 3)Graveyard freqs are 1230,1240,1340,1400,1450,1490; clears are 540,640-780,800-900,940,990-1140,1160-1220,1500-1580. 4)Loggings can be made any distance from your home, provided they meet rules 1-3. 5)Other rules may emerge as time goes on, depending on what transpires. Note also---this contest is being done at my own "expense" (I have a zillion extra cassettes, hi) rather than from the club treasury and is being done, in part,as an experiment. It should be interesting to see the results! So crank up the rigs, gang, and report to your favorite column. 73 for now, ...bp.

EASTERN DX ROUNDUP

Bob Lazar 1711 Wainwright Dr. Reston, VA 22090

Deadlines: Tuesdays

OF SPECIAL INTEREST

1290*WKIB*KY*Manchester, 11/3 0535 freak check w/ 1000 hz TT. Fair. (WPT-DC)
(This is a new r/c for this new station--ed)
1380 WNSI FL St. Petersburg, 10/27 thru 10/30 Traces of this on all days. In as early as 1736 on 10/27. Has CBS nx and features on new all news format. Ex-WLCY. (HJH-PA)
1470 WWQT FL Dunedin , 10/30 1802 this hrd tentatively signing off w/ new calls. "..QT Clearwater" was all that was hrd. Ex-WDCL.(HJH)

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860 WLBG SC Laurens, 10/29 1800 believe I hrd this playing Taps before s/off. S/off hrd followed by SSB. (HJH-PA)
1060 WNOE LA New Orleans, 10/29 1828 strong w/ C&W mx w/ KYW nulled. "The new WNOE." (HJH-PA)
1070 CBA NB Moncton, 10/7 0436 fair w/ time given, talk on fishing in PEI, ID. (RSR-ON)
1270 WTNT FL Tallahassee, 10/30 1843 w/ ad for Carlisle Co. in Tallahassee Mall. (HJH-PA)
1280 WEXI FL Jacksonville, 10/27 1759 hrd w/ s/off. Weak signal. "New radio." (HJH-PA)
WGSO LA New Orleans, 10/30 1854 hrd mixing w/ unid EZL stn. Fair, weak signal. "Newswatch New Orleans." Auroral cx wiped out most else on channel. (HJH-PA)
1380 WAOK GA Atlanta, 10/24 0333 fair w/ spot for O'Jays concert, ID, into soul mx. (RSR-ON) 10/27 1920 strong w/ spot for United Negro College Fund then soul mx. (HJH-PA)
WYNK LA Baton Rouge, 10/30 1824-1830 hrd strongly w/ trivia contest about Gomer Pyle show, song then ad for local channel 9 and American Country Countdown, then s/off. QRMed by WNVP and probable WNSI by s/off time. (HJH-PA)
1410 WUNI AL Mobile, 10/30 local-like at 1800 w/ C&W. (HJH-PA)
WLAQ GA Rome, 10/27 2138 this in on nite pattern w/ QRM from probable WUNI. (HJH-PA)
1420 WDBF FL Delray Beach, 10/28 1800 hrd ending sports, into CBS nx "Sports Giant." (HJH-PA)
1440 WCDL PA Carbondale, 11/1 this local hrd signing off 45 minuted late at 1730. (HJH-PA)
1490 WARK MD Hagerstown, 11/8 1240 several ID's by man w/ ment of Redskins football. Fair o/ WCVA. (WPT-DC)
1570 WTWB FL Auburndale, 10/30 1740-1748 hrd w/ slow southern type of C&W. Nonfading, fair signal. Community Calendar and ID's at 1745. (HJH-PA)
WHLP TN Centerville, 11/6 1746 s/off by man w/ ment of 5000 w power. Fair. (WPT-DC)

EASTERN DXERS

HJH - Harry J. Hayes, 9 Henry St., Wilkes-Barre, PA 18702
(HQ-180, Superadio, SW-2)
RSR - Robert S. Ross, Box 4373, Stn. C, London, ON N5W 5J2
(Panosonic RF1115, Realistic TRF, RCA AR88LF)
WPT - Bill Townshend, 4500 Connecticut Ave. N.W., #901, Washington, DC 20008
(Realistic TRF, Sony ICF-S5W)

In early of October, some of the Far East stations for foreign service were on the air as follows.

630 R.Moscow *09:00-14:00* / 09:00-09:30 Korean & 09:30-14:00 WS
720 (Sakhalinskoe R.) *09:30-16:00* /09:30-16:00 JJ, 13:00-14:00 WS, 14:00-15:00 JJ 15:00-16:00 WS & 16:30-08:30 M2.
1251 R.Moscow *09:30-09:00*/ 09:30-13:00 JJ, 13:00-14:00 WS, 14:00-15:00 JJ, 15:00-16:00 WS, 16:00-09:00 R.Moscow/R.St Peace & Progress.
1476 R.Moscow -08:30-20:30-/ -09:00 CC, 09:00-12:00 KO, 12:00-13:30 CC, 13:30-14:00 KO 14:00-14:30 CC, 14:30-15:00 P&P,(CC pro), 15:00-17:30 CC, 17:30-18:00 P&P in CC, 18:00-19:30 CC, 19:30-20:00 P&P in CC & 20:00- CC.

*P&P = R.Station Peace and Progress, KO = Korean and JJ = Japanese
WS = World Service, CC= Chinese (Masao Oikawa)

CENTRAL DX ROUNDUP

Robert Kramer
6416 N. Richmond
Chicago, IL 60645

UnIDed, Special, Changes, et. al.

1550 UnIDed 11/3 0150-0200 Somebody here carrying Larry King, gone @ 0200. DW-WI (KKJO, ed.)

1560 UnIDed Top 40 format, Andy Gibb "Stars of 45" mx, WPAD way off in background,10/24 2036. JS-IL

1600 UnIDed 10/18 0036 ET OC & TT, good signal KCRG/WEUP in background. JS-IL

All da Rest

550 KTSA TX SAN ANTONIO, 11/2 0213 rok mx ending, male ancr W/ID, Wx, into old Beatles mx, gave phone # 470-5555. Fair sig W/semi-local WSAU on OC. DW-WI

600 KROD TX EL PASO, 10/21 good rock mx, ID, local KCSJ-590 splat, 2255. CK-CO

610 WIOD FL MIAMI, 10/30 2346 weak but readable ID mixing W/SS stations. Sounded like promo. DF-IL

620 WSUN FL ST. PETERSBURG, 10/30 2342 W/C&W mx "Coalminer's Daughter" and "Sun Country" IDs, fair W/mod. QRM. DF-IL

740 KVFC CO CORTEZ, 11/9 0130½ fair W/ID, C&W mx, promo as the "Voice of the 4 Corners", a real suprise, was looking for KSSS. RK-IL.

860 KKOW KS PITTSBURG, 10/20 1933-38 W/"Tx State of Mind", "Car Stars" promo, & 2 local ads. RG-IL

WNOV WI MILWAUKEE, 10/26 1112 good w/male ancr "WNOV Public Affairs program, our phone number is 799-1660". JS-IL

910 WSBA PA YORK, 10/26 0200 fair W/male announcer "You're tuned to Central PA's late night showcase of late night entertainment, WSBA, York, your station for entertainment and information." JS-IL

920 KYST TX TEXAS CITY, W/promo & T40 format at 0430 on 11/2, I&C. Slogan "AM 92, KYST". JJR-WI

940 KFRE CA FRESNO, 0110 10/22 poor but clear in KIXZ OC W/song dedications, K-Free slogan, XEQ QRM. CK-CO

960 KGKL TX SAN ANGELO, 0105 10/22 good O/KARZ w/rr mx & ID. CK-CO

980 WCUB WI TWO RIVERS, now fulltime, ex-Manitowoc, C&W format, IDs as "Country 98" or "98 Country/WCUB" or "CUB COUNTRY". JJR-WI (Sorry, this should have been in the Special section. Hogie, I'll take the biggest one, ed.)

1060 WKNG GA TALLAPOOSA, 11/2 0730 poor in heavy QRM W/GA Net nx then C&W mx & the Birthday Club in "the KING". REM-IL

1110 WSLV TN ARDMORE, 10/31 0740 briefly O/KFAB W/PSA & lcl spot. REM-IL

KDRY TX ALAMO HEIGHTS, 11/1 1815 W/C&W mx, doing well in KFAB null, some KMOX slop but faded down to almost nothing at what sounded like S/Off. DF-IL

1140 WASG AL ATMORE, 11/1 0154 male ancr gave ID one time & female ancr the next. Full ID & that they were on the air testing @ 0159. Good sig. DW-WI

1190 WHIY AL MOULTON, 11/2 0759 weak U/QRM W/ID & into ABC nx. REM-IL

1190 KOKK SD HURON, 11/4 0114 TT W/ID @ 0115, more steady TT, WOWO no problem. DW-WI

1230 CKMP ON MIDLAND, 11/7 1914 fair W/spot. RK-IL

1260 KVSF NM SANTA FE, 0154 10/22 good W/rr mx, S/Off, according to DJ, stn. S/Off is @ 0200 weekdays, 0300 Fridays. CK-CO

1270 KFJZ TX FT. WORTH, 11/4 0128 mx by 4 lads ending, ID, wx, promo for their new MoYL format, on top of freq. pesty WHBF quiet. DW-WI

1290 KCUB AZ TUCSON, 2226 10/21 fair-good W/C&W mx, "Smokey Mountain Range", wx, "K-Cub" slogan. CK-CO

1310 KZZP AZ MESA, 2220 10/21 good W/rr mx, ID, ad. CK-CO

KEIN MT GREAT FALLS, 11/9 0232 fair W/AT40, SID: "Keen 1310", psa, promo. RK-IL

1330 WKKR IN EVANSVILLE, 10/18 2019 fair W/female DJ W/ID, C&W mx. JS-IL

1340 WTWN MI GRAND RAPIDS, 11/7 2108 good W/spot & ment. of "Hometown Radio". RK-IL

1350 KTIQ OK TALEQUAH, 10/31 1845 poor but O/QRM W/S/Off W/ FM 102 promo. REM-IL

KTXJ TX JASPER, 11/1 1817 weak in heavy QRM W/S/Off ment. PSA of 500 w & day power of 5 kw. REM-IL

1360 KXOL TX FT. WORTH, 10/25 1755 poor W/male ancr W/ PSA from "Safety Council and KCOL" C&W mx. JS-IL

1370 KTPA AR PRESCOTT, 11/1 1815 very good W/S/Off ending W/song "Adios Amigos". REM-IL

WMGO MS CANTON, 10/31 1830 fair w/SSB & S/Off. REM-IL

KSOP UT SALT LAKE CITY, 0232 10/22 W/C&W mx, ad, ID: "Right Here on KSOP". Heavy Mexican QRM. CK-CO

1380 KGMS CA SACRAMENTO, 0211 10/22 EZL mx & ID, KTSM QRM. CK-CO

KTSM TX EL PASO, 0206 10/22 good W/NBC nx & Larry King Show, KGMS QRM. CK-CO

1390 KGER CA LONG BEACH, 10/22 0129 good peaks W/IDs then into Rel. pgm, new. CK-CO

KENN NM FARMINGTON, 0130 10/22 good W/rr mx & ID. KGER QRM & also from UnIDed mexican stn. CK-CO

1400 WCYN KY CYNTHIANA, 11/9 2300 good W/Wx & full ID. RK-IL

Continued on Page 6

WESTERN DX ROUNDUP

Nancy Hardy
2301 Pacific Avenue
Aberdeen, WA 98520

All times are Eastern Local

Phone for hot WDXR tips: (206)532-6827 till 10:30pm(PLT)--no collect calls

DEADLINES: Wednesday 11/25, Thursday 12/3, Wednesdays 12/9, 12/16, 12/23--

REPORTERS FOR THIS ISSUE:

(WJH) Bill Harms-University Station P.O. Box 7428-Provo, UT 84602
DX'ing at Rock Canyon, UT
TRF, 1500' terminated West Beverage

(EH) Ed Hoffman-P.O. Box 125-Burlington, WA 98233
RF-2900, SM-2

(AJR) Andrew J. Rimmington-559 Clarke Road-Coquitlam, BC V3J 3X4
DX-160, 4' loop

(RS) Rick Svajdenka-3417 S. 252nd Place-Kent, WA 98031
FRG-7000, 50' longwire, 4½' wedge

(RT) Rich Toebe-556 Santander Drive-San Ramon, CA 94583
Grundig 3400, Radio West loop

(RET) Randy Tomer-1969-27th Street-Arcata, CA 95521
Realistic TRF, Shotgun loop

(RW) Robert Wien-1309 Dentwood Drive-San Jose, CA 95118
GE long-range portable, SM-2

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530 Pirate CA, Bay Area? first noted this Su 11/8 2005; weak signal looping E/W, most likely a Bay Area location; played recordings of Black comedians telling dirty jokes (practically all of George Carlin's 7 words you can't say, hi); later that night playing hard rock mx. Still going next morning w/hard rock. Still going as I write this 11/10 0210. Never IDs, not so much as any sort of annct., just short pauses as if someone is changing tapes or records. (RT-CA)

540 ---- WA, Kent 1130-1230 & 1400-1500 a church about 1/4 mi. SE of my QTH has a stn that broadcasts its services to people in its parking lot. Carrier comes on & goes right into organ mx. No IDs are given. Pwr & ant. unknown. (RS-WA)

570 KCNO CA, Alturas 1031 0920 good w/local ads into C&W mx. KVI nulled.

600 KNYO CA, Lone Pine 11/5 1918 local ads & a program called "Free Market" (like Tradio). Fair signal & o/QRM. (WJH-UT) (EH-WA)

610 KAVL CA, Lancaster 11/5 1945 local ads, ID & nx. The signal faded out at 1946 (pattern change). Good, but w/KFRC/KVNU QRM. (WJH)

620 CKCK SK, Regina 10/30 0559 good w/rr mx into local nx on hour. (EH)

630 KIDO ID, Boise 10/30 0605 fair w/nx, "K-I-Dee-Oh" slogan, into C&W mx. (EH-WA)

660 KFAR AK, Fairbanks good steady signal 11/8 2330-0000 w/ABC "Issues and Answers," then ABC nx, followed by T-40 mx. (RET-CA)

670 (KBOI) ID, Boise 11/4 0530 noted totally off. (EH-WA)

710 *KMPC* CA, Los Angeles 11/9 0320 noted w/TT. Someone way u/them, but too weak to ID. (RW-CA)

740 KBRT CA, Avalon 11/5 1945 putting out some signal to the north, caught a KBRT ID u/KCBS. (RET-CA)

KYME ID, Boise blasting in at 1910 11/5 w/jazz. Long, elaborate, philosophical s/off 1915, still loud o/KCBS. Never hrd w/such a strong signal before. (RET-CA)

750 KFQD AK, Anchorage 11/8 2335 fair u/KXL w/ID. KXL had Satellite net talk show at this time, KFQD had MOR. (RET-CA)

760 KGU HI, Honolulu 9/20 0455 good loud signal well o/KFMB. Had football, then ID & start of the KGU Jazz Show. (RET-CA)

800 KPDQ OR, Portland a completely unexpected surprise 11/5 1915. A relig. program that sounded like being sponsored by an American Indian Mission. Fair, but w/a lot of QRM. (WJH-UT)

KQIN WA, Burien has switched from BTFL to EZL (big change, eh?) as of 11/2. They have a talkative anncr. that has to say something every one or two songs. They might have dropped their old-time radio programs w/this change. (RS-WA)

CKOK BC, Penticton 10/30 0630 good o/CJJC w/rr mx. (EH-WA)

850 KTAC WA, Tacoma 11/5 1912 local ads, ID into rr mx. Good o/KOA. (WJH)

910 CJDV AB, Drumheller Su 11/1 0830 now IDs as "The New 91" & seems to have dropped "Big Country R." slogan, but sounds like the Old 91 to me: C&W mx // CKBR & CHOA AN. (AJR-BC)

920 KVEC CA, San Luis Obispo 11/5 2000 ID into network nx thru various QRM. (WJH-UT)

930 *KSEI* ID, Pocatello 11/9 0308 good w/TT, rr mx, ID. (RW-CA)
KSWB OR, Seaside 11/9 0858 weak, caught s/on w/500w PSA w/full ID and ment. 1000w daytime. They said something about how 1kw goes a long way at night. Probably telling listeners why they have to shut down at night. Lost to static about 1 min. later. (RS-WA)
950 KMTX MT, Helena 11/3 1859 fair w/EZL mx, into nx on hour. KJR nulled. (EH-WA)
KYES OR, Roseburg 11/4 0535 o/KJR briefly w/ID. When did they go fulltime? (EH-WA)
960 KDOT UT, Provo 11/2 0259 good w/K-Dot slogan into rock song. (EH-WA)
970 KREM WA, Spokane 11/2 0250 good w/rr mx, "A-M KREM" slogan. KYTE nulled. (EH-WA)
1030 *KTWO* WY, Casper 11/2 0255 noted w/OC. (EH-WA)
KTWO 11/9 0316 noted AN this particular MM w/trucker's show. (RW-CA)
1060 KRSP UT, South Salt Lake City 11/3 0610 good w/ID into rr mx o/KPAY and CFCN. (EH-WA)
1090 *KBOZ* MT, Bozeman 11/9 0334 good w/TT, ID in XEPRS null. (RW-CA)
1140 KMJJ NV, North Las Vegas 10/30 1925 very good signal w/"Magic 11" slogan, rock mx. (EH-WA)
1180 KOFI MT, Kalispell 11/8 0100 during long ID they told listeners that they don't reduce pwr; said they were 10kw all day long. Must not be running 50kw as of 11/8. (RS-WA)
1190 CFSL SK, Weyburn 11/3 0558 fair w/ID, rock mx, nx on hour. KEX nulled. (EH-WA)
1210 KDNF? CA, Ventura County first noted 11/9 0230 w/PST TC, request show but couldn't catch the phone number. Said they'd be going till 3am, gave ID "K-D-N-F 1-2-1-Oh, Ventura County" at 0325, also used Radio 12-10 slogan. Weak signal, faded out totally numerous times. Played oldies. (RT-CA)
1250 (KKFX) WA, Seattle Sa 10/31 off 0208 tune-in to 0230. 2 unIDs in heavy QRN. (AJR-BC)
1260 KPOW WY, Powell 10/30 0701 good w/nx, ID, rr mx, wx. Someone here at 0700 w/SSB. (EH-WA)
1340 KATA CA, Arcata Su 11/1 0557 NBC nx, legal ID "24 hrs. a day, the sounds of K-A-T-A Arcata." How long has this been going on (phoned stn, but DJ Ron Brown had been there just 3 days & didn't know)? Noted later w/pop mx & "13-40 Kayta" ID. Big signal for the distance--will probably be a pest AN. (AJR-BC)
?KPRK? MT, Livingston Su 11/1 0854 C&W mx, several "Park R." IDs hrd but legal ID lost to CKBR. (AJR-BC)
CKBR AB, Brooks Su 11/1 0820 // CJDV w/"The New 91" slogan until 0900, then changed pwr/pattern & went to own studio w/this non sequitur: "This is cattle country, & you're listening to 13-40 CKBR." Thought I had KATL there; they just do it to annoy us. Xlnt on day pwr/pattern. (AJR-BC)
1350 KSRO CA, Santa Rosa 10/30 2143 o/u KRLC w/Jailhouse Rock. (EH-WA)
1360 KFIV CA, Modesto Sa 10/31 2030 a regular here, but surprised to hear them suddenly boom in as though changing pattern after being nearly inaudible. Aren't they 5/1kw? If so, night pattern must be aimed right at me! "K-5" ID & "K-F-I-V" SID, ment. Wolfman Jack Halloween special 2100-2400, into rr oldies. (AJR)
KOHU OR, Hermiston Sa 10/31 2003 unID network nx, TC, "K-O-H-U" ID, local nx. First def. ID but many tent. loggings on SSS in recent months even w/KMO on. (AJR-BC)
?KUIK? OR, Hillsboro Sa 10/31 2022 seemed to be signing off as anncr. apologized at length for this necessity, made a sarcastic-sounding remark about "Hillsboro's Daytime station...in Hillsboro & (??) when they let us..." (AJR-BC)
KROR OR, Myrtle Creek Sa 10/31 2011 noted IDing as "K-Roar--Already a Legend." (AJR-BC)
(KMO) WA, Tacoma Sa 10/31 off 2003 tune-in to 2034. (AJR-BC)
1370 KEEN CA, San Jose 10/30 2133 good w/ment. of Bay Meadows Track. C&W mx. (EH-WA)
CFOK AB, Westlock 10/30 0731 good o/CHPQ w/"OK Country" slogan into song. (EH-WA)
1400 KKBZ CA, Santa Paula 11/9 0300 good at s/off in KRE null w/full details. (RW-CA)
1440 KVON CA, Napa 11/3 0415 good o/KPRO w/Larry King. (EH-WA)
KODL OR, The Dalles 11/2 0415 ET'ing w/tones & OC. (EH-WA)
CFCP BC, Courtenay 10/30 0759 fair w/"Coast Radio" slogan, ID, into song. Covered by KBRC s/on 0800. (EH-WA)

1520 KACY CA, Port Hueneme (pronounced Why-knee-me) 10/27 1930-2013 totally blowing away KYXI on SSS. Pop/T-40 mx. New. (RS-WA)

1560 KFWY WA, ?? this one has been ID'ing strangely at the top of the hour lately. Sometimes they announce their location as Sumner and sometimes as Federal Way. Spoke to the GM who said they were granted 1kw D-3; not fulltime as reported in BC info column. Xmtr will remain in Sumner. Pattern protects KPMC. (RS-WA)

1590 KTIL OR, Tillamook 10/30 1953 good w/ment. of Beaver football into rr mx. KZOK QRM. (EH-WA)

1600 KOHI OR, St. Helens 10/30 1958 fair w/C&W mx, local ads. KASH QRM.

1610 TIS WA, Wenatchee NF 11/9 2343-0013 w/ment. of how (EH-WA) campfires could cause damage to forest when left. Also said something about fishing. Gave an address & phone number, but was a little too weak to copy that. I have it on tape. At times an S1+ signal. No calls given. (RS-WA)

1630 VAK BC, Victoria 11/9 0917-0921 hrd this wx stn giving wx, navigational hazard, & shipping lane info. S3-S4 signal; strongest ever hrd. ID as "Victoria Coast Guard Radio."(RS-WA)

Nov. f/c heard:
1st MM KKAA-1560 SD 0225-0230 (EH-WA)

Calvin Neal of Jerome, ID says that his local KART-1400 does indeed carry Idaho State Bengals football.

No Stiff Penguin Flipper Award this week, so I'll let Seattle fill the rest of this page with any penguins they may have on hand (flipper?). ♡

Central DX Roundup.....continued from page 3.

1410 KHOL ND BEULAH, 11/7 1814 fair W/S/Off & SSB, my 2nd most wanted stn. RK-IL

1430 KEES TX GLADEWATER, 11/1 1835 fair-good O/QRM W/SID & C&W mx W/female DJ. REM-IL

1430 WIVE VA ASHLAND, 10/17 1940 very poor W/ad, ID, wx & VA wx. RG-IL

1440 KSKX KS TOPEKA, 11/3 0114 C&W mx ending, male ancr W/ID & "Kicks Country" ID, into Crystal Gayle mx, fair-good W/some WDLB splatter. DW-WI

1480 KUUX NM HOBBS, 0250 10/22 ads, KWX slogan, ex-KWEW. CK-CO (Hogie, make that 2, ed.)

1490 KBAB IA INDIANOLA, 1930 W/clear ID & Ae mx, 11/1, C&W format. JJR-WI

1500 WKZN IL ZION, 10/26 1953 poor, ID only hrd, wanted to get this stn bad because of its close distance & low power. JS-IL (Jim nice one, this is one of the toughest IL stns, even in most of the Chicago area. Of course, I get them all the time up here, but at my old QTH they were hrd only twice, ed.)

1550 WBSC SC BENNETTSVILLE, 10/24 2025 fair W/Country mx, fading sig. JS-IL

1590 KRRK MN EAST GRAND FORKS, hrd L&C 11/1 lcl wx & road info & spot, IDed W/slogan "Double R" at times. Apparently day power as power & pattern was switched at 1853. New. JJR-WI

They're From Barcelona:

DF.... David Faulkner Box 602 Witt, IL 62094
RG.... Rob Gerardi, address misplaced
(DXing in his car between Mt. Vernon & Benton, IL)
CK.... Chris Knight 598 S. Clarion Dr. Pueblo West, CO 81007
RK.... Guilty as charged
(R-1000, HQ-129X, Radio West loop, spiral loop, rare Siberian Hamster)
REM... Robert McKinney RR # 2 Box 120 Clinton, IL 61727
(Superadio, R-300, SM-1)
JJR... John J. Rieger 529A S. 71st Milwoky, WI 53214
RF-2900, Radio West "Shotgun LooP", bullets)
JS.... Jim Surin 236 E. Morningside Ave. Lombard, IL 60148
DW.... David M. Wurl 908 W. 14th St. Marshfield, WI 54449
(SPR-4, R-1000, Radio West loop)

RK's Progress Report

	Last Week	This Week	# New	To Go
Heard	2983	2989	6	11

CADX XXII

Just what is a Hogie ? And what about a Jezzy ? What does Earl Higgins think of the Turks ? Find out at this year's edition of the CADX holiday get togather, now, unfortunately, in its 12th year. The event is taking place 12/26-12/29 & the World's Famous "DXathon Weekend" starting at 6:00 PM CST on 12/31 & ending 1/3/82. There will be invaders from all points everywhere, so why not join them & come. It is taking place at the offical residence of the CDXR editor. For more info, give him a call at (312)-262-6299. Ask for Spike.

DX WORLDWIDE EAST

Neil Kazaross, Editor
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TRANS ATLANTIC DX ROUNDUP (all from Matt Stutterheim)

1375 CARRIERS two carriers here about 100Hz apart @ 2340 Oct.30. One could possibly be the mystery 1377 signal from last night..... I think one is St. Pierre & the other is the unID LA in this vicinity -ed.

1377 UNID Woman singing in lang.; man talking in what sounded like FF Not 1375. 0609-0611 Oct.30.... Almost certainly Lille, France-ed.

1404 UNID probably Conakry @ 2335 Oct.30 w/man talking in unID lang.

1566 UNID think Switzerland; slow male vocal @ 2253 then what sounded like nx in EE @ 2303, followed by piano mx@ 2305. Very fluttery.

PAN AMERICAN DX ROUNDUP (all Stutterheim except where noted)

543 NICARAGUA Managua YNOW noted off freq. w/ SS nx by 2 men & 1 woman from 0220-0300 Nov.11. Noted again 1100 Nov.11.

600 CUBA San Antonio de las VegasCMCA in w/R.Moscow chime IS @ 0158 Nov.1 f'll'd by opening anemt " This is N.A. svc. of R.Moscow" hollow sounding audio (SW pickup) Then R.M. nx.

685.5 UNID organ mx 0058 Oct.30, then man in EE, but unable to understand much..... I'll bet that this is that NYC area college carrier current stn. on 685; I can't remember the details but Paul Mount knows them-ed.

690 ANGUILLA Carib. Beacon- first time noted on this freq. w/end of NXcast @ 0120, "then"The Good Word", then GMT-4 TC, then mx. Oct.30

735 UNID weak sig. 0150-0155; on recheck at 0223 Oct.30 heard female vocal, but gone by ID time..... R.Melodia -ed.

830 VENEZUELA Caraas YVLT R.Sensacion heard w/good sigs. 0359-0409 w/mention of Santo Domingo, @ 0401 heard ID for R.Sensacion, followed by mention of "tres minutos", a pattern that I've heard repeated since (i.e.- ID- then"--- minutos".... Interesting that the YV w/ mention Santo Domingo, perhaps just an incidental reference, perhaps HIJB was in,too -ed.

885 MONTSERRAT ZJB in w/ good signal despite WCBS splatter w/ a capella singing (Temptaions?) 0225 -0301, then ID, then more instr. mx. Oct30

915 ECUADOR Machala HCRO-3 heard w/ ID @ 0145 Oct.31. Strong-really strong for listed power! Call letters didn't include the (3) LA mx before & after ID.... I recall reading that they're 5 kW now -ed.

944 UNID HRYW presume w/soft mx & YL ancr 0241-0245 Oct.31. Organ mx noted at 0303 Oct.30.

*****965**** ECUADOR Sto. Domingo de los Colorados HCOT-1, logged // 3394 SW around 0200 Nov.11.... Matt called in w/info about stn. on 965 & I asked him to check 3394 & they were //. Has anyone heard Panama here recently? -ed.

971 CARRIER het at 0200 Oct.31, again later & also next eve at 2255.... This has been here a while but nobody's pulled an ID yet -ed.

1354 CARRIER het- very weak- in & out. Definate that it's not the 1353.3 TVI. Couldn't loop. 0552 plus on Oct.30... HRKW is here -ed.

1430 CUBA Moron CMIN Oct.28 2339 talk in SS by OM. Song in SS by OM vocal. Xlnt. (Townshend-DC) Bill! What's wrong?!? This is two weeks in a row that you've DXed from home! -ed. (Townshend-DC)

1530 CUBA Moron CMIM Oct.28 2330 Nx by OM/YL, sx. ID as R. Moron. Good

So ends another DXWW-E. Everybody clap your penguin flippers in praise of your editor who managed to put every item in the proper order this week!

DYNAMIC DUO

Matt J. Stutterheim RD1 Box 702 Glenford, NY 12433-0371, 51J3, R390A's R388's, R390A, FRG-7 w/ 1300' Bev, 1000'Bev, 500'LW

Bill Townshend 4500 Conn. Ave. NW #901, Wash. DC 20008 , ICF-S5W

73's and wish me good luck at the Ano Nuevo Pt. Beverage DXpedition

- KAZ -

Western DX Forum ★★★★

IRCA—Serving the Broadcast Band DX'er Since 1964

Editor: Ric Heald, P.O. Box 4861, Santa Rosa, CA 95402-4861 *(707) 865-1260*

1981/2 Deadlines—Weekly on *Wednesday,* 10 Days Prior to Publication Date

(Note: Tuesday *Deadlines Prior to U.S. 3-Day Weekends)*

TERRY A. KLASEK, 9720 VICKIE PLACE, ST. LOUIS, MO 63136 (314) 868-7274 ppd.

After re-reading seven months of DX Monitors, I see that many IRCAns are crazy. I'm a little slow in the uptake, but I finally figured it out. (Slow is putting it mildly, hi-RtH.) The key for me was Rob Harrington, Esq. Rob suggests that I donate funds for his Country Estate. Hey Rob, my donation should have reached you by now.

Mike Hardester, your order was delayed by a broken machine. I will be obtaining your equipment by mid-November and thanks for waiting.

I know that Rich Overman is a spirit. I have talked to Rich on the phone three or four times now, but have never laid eyes (or fists) on him yet. He supposedly lives about five miles from my home. Rich, prove you exist - Forum now. Rich Eddie, prove you exist - Forum now or have you forgotten how to write? Walt, oh baby oh, Breville, are you changing your name to Jesse James soon? You do work for the U.S. Postal Service, right? (This was totally unsolicited, but I love it, hi-RtH.)

The frequency of publication at the nonce is in perfect agreement with me. Rob Harrington (him again) propound nilination is impossible what with me bordering on profound impicunity. Why is there so little humor in DXM. Oh yes, we do have Rob Harrington, hi. What IRCA needs is a few choice MW articles by SCIDX's head crazy person, Alotto Crappolo, to liven up the bulletin.

I'm current enjoying fine classical music over KAPL 1030. Don't look for KAPL in your books for the station is my shack. Yes, another arbogast. I got a Gates four-pod board from WRTH 590 and away I go.

I hope to meet many crazy and somewhat sane IRCAns at St. Louis IRCA-'82. I hope the bid goes to St. Louis.

Ric Heald, am I sending enough forums or should I double my output? Should I learn to type and write legibly? Who asked you anyway, hi. (The answer is: Yes, no, yes, hang it up, hi. We finally found a replacement for Eric Rittenhouse, hi-RtH.)

See you all good DX'ers next week. . .yes, you too Harrington, hi. 73 de TAK

ERIC COOPER, 24191 SPARTAN, MISSION VIEJO, CA 92691

Happy Halloween (and November, too.)

KRLA 1110 Pasadena, held an on-air reunion of the "11-10 Men" who were big-time L.A. DJ's around 1964-66. Included were the now superstar Casey Kasem and TV's Bob Eubanks, as well as some familiar LA names (Dave Hull, Humble Harv, "Reb" Foster and newsman, Richard Beebe.)

Also on 31 October was NBC's little promoted radio drama "spectacular" done live from the Magic Castle (restaurant, I believe). Broadcast time was 7.07 to 7.58 PM PLT, but only two stations picked it up live (KMPC 710 and KPNW 1120). KNBR said they would have it after the Warriors games, presumably most affiliates did air it at least on a delayed basis.

Writer's Digest magazine mentioned the demise of another syndicated drama out of KFMB 760 San Diego. Said its title was "Bakersfield" and was on since last May. A San Joaquin Valley "J.R." soap, maybe? No further details provided.

New DX includes a tentative XEJM 1450 Monterrey, Mexico, 250 watts.
73 de Eric.

STEVE MITTMAN, 2248 W. 37th ST., SAN PEDRO, CA 90732 (213) 833-1010

It's hard to DX now with work and school, but I did manage to flip on the 'ole receiver on 20 September 0025 ELT and managed to hear KRIG 1410 Odessa, Texas, during regular nighttime reception. Conditions were absolutely fantastic to the east at the time (many of the east coast clears were bombing in), and KRIG was heard right through KCAL and KERN! I was extremely excited to hear them, but they were even more excited to hear from me. They answered immediately and mentioned that they are 1 kw with their signal beaming mainly northeast. (NRC Night Pattern book shows NNE with a small lobe SSW-RtH.) In the letter they also said, ". . .Fully 80% of all employment in Odessa is oil industry. About 30% of domestic gasoline production comes from Odessa," which explains their call letters. They also sent me a folder filled with stickers,

a copy of their station log which included the details I reported (I had never seen a log before) and returned my postage. (And of course no two station logs are the same; will try to send a sample from KPLS for comparison-RtH)

Seventeen October I met Neil Kazaross and we went down to a SCADS GTG. Neil is a real nice person, and it's great that SoCal has another active DX'er. Afterwards, I stopped by his house and we happened to come across a pirate on 840 relaying album rocker KLOS 95.5. (KABC's FM.) Of course, per Murphy's Law, they went off while I was racing home to log them, hi. Neil and I are trying to get a Beverage DX'pedition going, so if you're interested, get in touch with us.

Finally, a couple of new mystery TV stations have appeared. A channel 33 mysteriously came on the air in the past month (educated guess is from Tijuana) relaying channel 2 from Cd. Mexico. Albert Lobel tells me that sometimes after midnight they show X-rated movies. Also, one Sunday afternoon I noted a new channel 65 on the air from San Diego (estimate 100 watts) giving weather conditions to people out on their yachts. Anyone know of anything about either of these mystery stations? 73 de SMM. (Conclusion of last week's forum-RtH.)

W. GEORGE ELLIOTT, c/o CKOK, 33 CARMI AVE., PENTICTON, BC V2A 3G4 (Part III)

Now some information about CKOK and CKDR-FM. CKOK 800 Penticton is on the air 24 hours (including Jim French 0000-0600 PLT) and is the mother station to CKOR-FM 97.1, CKSP 1450 Summerland, CKOO 1240 Osoyoos and CKOO-1 1490 Oliver.

Note: In answer to a question in WDXR a few issues back, CKGF 1340 Grand Forks, is no longer owned and operated by Okanagan Radio Ltd. It was bought by Boundary Broadcasters about five years ago although it's still partially owned by the president of Okanagan Broadcasting. The station ID's at the time 'GF was still part of the group were, "Okanagan Boundary Radio." Now they are just "Okanagan Radio."

CKOR-FM is 24 hours with most of the day automated along with Jim French AN, CKSP is contemporary C&W live from 0600 to 1400 with the rest of the day simulcasted from CKOK. However, 'SP plans to extend their live broadcast day to 1800 then join 'OK from there to midnight, but they also pick up Jim French AN. CKOO is MoR and just pick up 'OK's newscasts and AN'er. Of course, CKOO-1 is CKOO's satellite. CKOK is MoR daytime turning to ADC and rock in the afternoon and evening. CKOR-FM is EZL with an audience believed to be from the age of 65 and up.

As far as Penticton radio is concerned, a new FM station has appeared on the scene. It's CIGV-FM. The GV stands for the company name, Great Valley Radio, Ltd., and the station went on the air at 1400 Monday, 19 October. It's format is contemporary C&W and is located in CKOK's old radio building and is owned by CKOR's old PD.

Well, that wraps it up for this three-part forum. Until next time, good DX de WGE.

GENE MARTIN, 3303 E. EVANS AVE., DENVER, CO 80210

After pondering what to di with this cute little Sony ICF-S5W AM-FM radio, I've decided to present it to my son, Pete, as a Christmas gift. He has almost no interest in DX'ing, but admired its cuteness and I imagine will keep it on his desk at the USGS where he works as a writer.

The Sony cost me $58.50 and supplying it with an AC cord cost $9.95 at Radio Shack. A Song dealer in Dallas wanted $11 for Sony's AC cord to this radio. What I got was Radio Shack's AC home adapter, a transformer which supplies voltages of 9, 6, and 4.5 volts, along with a set of four plugs and the claim it can deliver up to 32 different power combinations. In my view, the lack of a Sony-supplied AC cord with the ICF-S5W is a major drawback to this radio. That, combined with its poor quality as a DX'ing tool makes it a poor buy for any DX'er who is not located out in the boondocks. The old TRF and the GE Superadio came equipped with their own AC cords and cost substantially less than the Sony. The Sony's zone dial is a gimmick of no partuclar value to the DX'er although it may help sell the thing to the general public.

Anyway, I've learned something. . .not to buy any much-ballyhooed hot new portable until I have checked it out for images and AC cords beforehand. The Sony, I noted, performed better in Dallas than it does in Denver inasmuch as Dallas is not cursed with so many locals. But it would be a poor buy even in Dallas if you don't like images. 73.

FRANK ADEN, JR., 4514 SE 83rd #5, PORTLAND, OR 97266

I've been getting in some DX and am looking forward to even more in the next few months. No new catches yet but I'm keeping my fingers crosses.

Haven't started on an amp for the loops yet as I'm still looking at different circuits to see what is best.

Bill Frahm reports that KBOI 670 should have gone 50 kw non-directional by now. They were running it at 0630 PLT 06 November. I'm sure they would appreciate reports, especially if any noticeable difference is heard. Send your reports to Bill Frahm, KBOI, Box 1280, Boise, ID 83701. Bill also reports KBRJ 950 is now KKIC.

If anyone is interested in an Oregon coast DX'pedition I may have found the spot. Beverly Beach State Park is located just a few miles north of Newport and has a campground that runs along a creek. I believe that during periods of few visitors it may be possible to erect a Beverage antenna along the creek. The good thing about this location is it is right next to the ocean but a seawall does separate part of the park from the ocean, cutting down on the wind. The area is wooded and many of the campsites have AC power. There's a store within walking distance and the park has full restroom/shower facilities. I was there for the first time last April and could have set up a Beverage without problem if I had prepared. Both Bill Block and I have 9x12 cabin tents and if anyone is interested, drop me a line. The same goes for any kind of coastal DX'pedition, motels included, as the Oregon coast has some excellent motels located right on the beach that would be great for DX'ing. 73.

(Now the moment you've all been breathlessly waiting for. Due to a diminshing number of requests, WDXF once again proudly presents: JAISUN'S JOURNAL!)

JEF JAISUN, BIG ZUCCHINI CHICKEN RANCH, 12860 136th AVE NE, KIRKLAND, WA 98033

First a word to Mark Strickert from a 1968-ish character. (You knew it was coming, right Ric? (I knew we'd get you to report one way or another, hi-RtH.) Ahem, my man. . .show a little respect for your elders, hi. I'll have you know that it was in that very same KPFA studio that the very first debut of the definitive version of "Friendly Neighborhood Narco Agent" assaulted the airwaves. KPFA had a Folksingers Circle once a week (Wednesday nights, I think), and I was invited to participate. I can still see Eric Frandsen falling off his chair when the "helicopter dropped a paddy wagon." (Live out here on The River, and that's not too far from the truth, hi-RtH.) After that session I think they had to shut down the transmitter for maintenance, hi. It was, indeed, late '68 or early '69. (Incidentally, I crossed paths with Frandsen for the first time in 12 years at the Cambridge Folk Festival this past summer.)

RtH, I most certainly do remember Bob Bennett. An astute and admirable fellow he is. To fill you in on his Seattle background, Bob was the transistional PD of KAYO about a year ago when the station was slowly easing out of CW and into newstalk. He had a show of his own, on which I was once a guest. When KAYO finally took the talk plunger (Intentional typo, hi-RtH) fulltime, Bob was relegated to weekends and traffic reports. A real mistake if you ask me, as he has an excellent radio voice and was a far better host than anyone who superceeded him. Perhaps if Bob had stayed around, KAYO wouldn't have bottomed out in the ARB and switched back to cowbell country. He must have an affinity for 1150 kHz, what with KAYO and KPLS being there. (And an affinity for K-Plus; KPL7 in Seattle-RtH.) At least he was smart enough to head south. . . he could have wound up in Kelowna or Showhegan, Maine, hi.

So Ric, you think there's nothing to hear during KGO's SP? (That's not quite what I said. I didn't hear anything but CHQR, but that was the car radio and for less than five minutes listening time-RtH.) This time, 18 October, I nulled CHQR to hear KBHB Sturgis, South Dakota and R. Sutatenza, Bogota. (Oh, that pest, hi-RtH.) Both have been heard here before. On the SP of 08 February 1981, I grabbed XEFW, XERSV, KAFE, KWSR. On 02 March 1980, it was CKJS, WGY and XERSV. So you can see, even with the usual pests there, it's possible to score some good DX. (Continued next week-RtH.)

RIC HEALD, P.O. BOX 4861, SANTA ROSA, CA 95402 or 19050 RIDGECREST DR., GUERNEVILLE, CA 95446 Tele-Forum: (707) TOpaz 5-1260 to 2200 PLT and ppd.

Greetings from the cold and damp River. I have this sinking feeling that this will be the year for the Russian River to go on a rampage.

Speaking of The River. Jef, it's amazing how many new-found friends you have when you tell them you now live at the River. Like the entire "new" sales staff at KPLS, and all but one of the jocks. First set of questions goes something like: How much, and is it any good?-Hi.

New CE at KPLS, a CE who really cares and is really gungho. Reception reports (good luck, hi) go to Larry Dittman, CE or John Harvey, Music Director. Main lobe (finally got a good answer on this one) is 285°, so you might hear us if your out to sea on a fishing boat west of Jenner, hi. That is how we got a reception report from a Japanese fisherman, who estimated he was 200 miles out to sea. Nice tape, too.

Terry, thanks for all the forums. They'll be used in consecutive issues. And thanks for the pep talk. I'd like to get a ton of forums from the Mid-west, west of the Mississippi. And once again a reminder, if you'd like to save some time and postage, feel free to include multiple forums in one envelope and I'll run them in consecutive issues; just mark them accordingly.

On a somewhat sad note, Al Collins' last west coast radio show was last Sunday morning, 08 November. I heard his swan song on the way to work. He's off to WNEW New York. Al has been a longtime friend of IRCA and I'm sorry to see him degrade himself by moving to New York, hi. (Don't send any letters, I lived back there, remember?-Hi.)

Well, because I wrote most of my forum in Jaisun's forum (hi), I'll sign off here so Seattle (EVERYONE) can forum. 73 de RtH. .

Bruce Portzer-6546 19th Avenue Northeast-Seattle, Washington 98115

Actually,Ric, most of the forums on this page are from non-Seattlites,hi. The weekend of 11-14/15 saw Seattle hit by the worst windstorm in ages, with gusts up to 80 mph. It was good for DX though, as KQIN-800,KJR-950,KBLE-1050,KAYO-1150,KKFX-1250,KGAA-1460,KKNW-1510,&KJZZ-1540 all had unscheduled SPs because of power failures! KJR was actually off for about 8 hours & KGAA was noted off at 8 am & never returned until 6 am the next day. As luck would have it, we'd planned a Beverage DXpedition for those days, which we went through with, anyway (fortunately, the antenna was in a relatively wind-free briar patch,hi). See next week's WDXR for the exciting results. 73,bp.

EDXF

Richard C. Evans
P. O. Box 1294
North Wales, Penn. 19454

Deadlines: Sundays thru the end of the year

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NIEL WOLFISH, 45 Donwoods Grove, Toronto, Ontario M4N 2X4

Hi. I haven't sent in a forum in a while, but I hadn't seen a DXM for a while either! Got 5 out of the first 6 bulletins in Volume 19 yesterday. First off, I want to thank everybody who helped elect me to a BoD position. I'm looking forward to serving you. Secondly, I want to thank Paul for a great job done in EDXF and congrats on his new board position in GWDXA. Lastly, welcome to EDXF, Rick. Very little DX done lately due to school. Seems like I've missed or squandered all the good opportunities so far. November has always been my big month, so hopefully I'll have some DX to report soon. 73's for now.

GERRY THOMAS, P.O. Box 2036, Pensacola, Florida 32503 (904) 432-8208. And the new portables just keep appearing. Both Sony and Panasonic have recently introduced, or are in the process of introducing, new SW portables that might be of interest of MW DX'ers. The new Sony of note is the ICF-6500W, a fairly compact portable that features LCD readout and covers MW, FM, and SW from 3.9 - 28 MHz (there's a gap between 10 and 11.7 MHz). I suspect that this is the ICF-5900W with digital instead of analog readout. My 5900 has served me well under very heavy use for over three years and MW performance is commendable (except for image rejection) so, if indeed the 6500 is the 5900 re-worked, the 6500 should be worth a close look for MW DX (Charlie Barfield and I have a line on one for test purposes). The price of the 6500 is a reasonable $199.95 which means a discount price of about $160 or so. The 6500 will, therefore, replace Panasonic's discontinued RF-2600 as the lowest priced portable on the market. Panasonic has introduced the RF-3100, a step up from both the 2600 and 2900, which features full SW band coverage as well as MW and FM--list price is $369.95. Another new generation Panasonic portable is the RF-6300, an apparently high tech model with 12 memories, etc. Price on this one is $749.95. Incidentally, I've found a new source for Panasonic products at discount prices. It's Communications Electronics, Consumer Products Division, 854 Phoenix, Box 1002, Ann Arbor, Mich. 48106 (They have the 3100 for $269 and the 6300 for $499 and offer a 31-day trial period). Finally, I've been delayed in getting out the COMQUEST info (the cabinet manufacturer in Calif. is three weeks behind schedule and says it will be another three weeks) so don't give up hope, hi, and thanks for the tremendous response. 73's---GT. (Gerry, did you ever find out where Galva, Iowa is located?--rce)

G. CARL MITCHELL, P. O. Box 1003, Fairfield, Connecticut 06430

Recently joined IRCA. Member of NRC for short while. Been listening to BCB for many years but not till 1981 made decision to start QSLing hrds. Need the QSLs. Paper! No desire for 3 acres of tapes. Paper is evidence; lawyer style. Otherwise amateur radio DXer for 20+ years especially 1800 khz band. But ...its just too much QSLing hrds from ground zero. Like 300 stns at one time? I try. Have to send some out months later. Hope it works. Anyway return ratio terrible! Noted your never reported column. Have QSLs from WJOY-1230 VT, WKYR-1490 VT, WVNR-1340 VT (250 w. 18 hours a day now), hrd WLTN-NH--no QSL yet--WSCM-1190 NY QSL rcvd. The QSL says WSCM!!! Hrd WTGC-1010 PA, WBRX-1280 PA; no QSLs yet on PAs.--Move often and regs say QSLing that way taboo so one knows not what to think. As an amateur like everyone, I operate from most ideal spots; Ocean; mountains, etc. Can not listen to BCB?!!! Anyway like to collect QSLs and had no interest in awards until I saw IRCA ones and it seems like a lot of fun adding up for awards. But I have zero interest interest in being on top of ego list. My QSL collection is my pride. (continued next week)

LEE GROVES, Route 1, Box 35, Friendly, West Virginia 26146

I would like to greet all IRCA members from the great state of West Virginia. The first order of business is to congratulate Rick Evans for his recent appointment as EDXF editor. I wishRick good luck in the future. Recently I received instructions for building a loop antenna. At the time, I didn't realize the amount of effort it took to string that wire around the loop. Remember? (I could hear the groans out there, hi.) It took a total of 6 hours to string that wire through. The instructions manual said to connect the inside wire to the variable capacitor. The crazy thing was that neither my father nor myself knew where the variable capacitor was or what it was. So my father and I looked at the schmatic for a long time, but we couldn't find it. After that, we guessed at where it was and soldered it in. It was apparent we guessed wrong, for it didn't work as expected. On that same night, though, I got Tulsa, Okla. and Wichita,Kansas,so I'm not sure how it works. I reached a 3-month old goal in the month of October. I tried to 90 stations in a 30-day period. In August, I fell just 5 stations short with 85. In September, I was way off with 65, but in October, I started off fast with 50 stations in 10 days, but the pace was considerably slowed when conditions went bad. Suddenly, on the 22nd, conditions picked up and stayed there until the end of the month where I ended up with 93. Next goal is 100 in a month. Well, I know I took up more space than I should have so I might as well quit right here. 73's to everybody and see ya next time.

RICHARD C. EVANS, P.O.Box 1294, North Wales, Pennsylvania 19454

First, thanks to Paul Mount for doing such a good job with EDXF these past couple of years. Thanks to Niel, Gerry, and Lee for the nice words above. Lee, switch the ground and antenna connection wires around where they hook up with your rx. Many times, that will make a difference on quality of reception. My loop was made for me, so I didn't have your problems. An intro for those who have never heard of me: I am 36, divorced, live alone with a 5-year-old cat. I'm a transplanted Michigander, who spent 12 years in the Chicago area before moving out here in April, 1978. Location here is about 15 miles north/northwest of Philadelphia, about 10 miles north of Valley Forge National Park. Currently, I am working with industry trying to reduce their transportation costs (without telling them how I do it). Boiled down, I post-audit freight bills, attempting to recover excess freight charges. I also moonlight at times in the trucking industry as a rate clerk. Since joining IRCA in Feb., 1965, I've twice handled the CDXR column, twice handled the contests, served one term on the BoD, and two terms as club president. My first report to the EDXF was printed in 7/65, so I'm not a stranger to this column. Tried for the WKLB-1290 test, but only tones hrd here; did get an ID from needed WNBF-1290 so not a total wipeout, hi. 73.

CONSTRUCTING A PHASING UNIT

by Mark Connelly, WA1ION

This article is presented to describe the actual construction of a versatile phasing unit and to delineate methods of using the unit to produce nulls of unwanted stations or noise signals, allowing desired DX to be heard. The following works should be read as a preface to this article:

Analysis of Beverage Antennae	Chuck Hutton	NRC Reprint A28
Practical Phased Beverages	Chuck Hutton	DX News 17 DEC 1979
Phased Longwires	Mark Connelly/ Nick Hall-Patch	IRCA Reprint A28
More Thoughts about Phased Antennae	Mark Connelly	DX News 21 JAN 1980
Improve your Latin-American DX by Phasing Non-Identical Antennae	Mark Connelly	IRCA Reprint A33, DX News 8 JUN 1981, DX Monitor 13 JUN 1981
Phasing Unit Design Modifications	Mark Connelly	DX News 26 OCT 1981, DX Monitor 24 OCT 1981

The construction article to follow is the first article to actually outline a step-by-step procedure to build a versatile phasing unit which can be used by itself to phase wires of 30 m/98' length (or greater) or, when fed to an RF amp., to phase wires as short as 5m/16'. The amplified shortwire concept will be covered in the next article of this series. The phasing unit to be built incorporates several recent improvements such as flexible LC module design.

Starting the Project

The prospective builder should have rudimentary tools and shop accessories such as a soldering pencil, rosin core solder, screwdriver & nutdriver sets, 6-32 tapping tool, longnose pliers, diagonal cutters, regular 'gas' pliers, hacksaw or jigsaw, drill with a reasonably good assortment of bits (see Figure 6 in main body of article), ruler/scale, calipers or micrometer, wire stripper, push-pin insertion tool (e. g. Vector P91-DP),vise, solder sucker, file, and X-Acto (or similar) knife set. The author does not like wire-wrapping for RF work, but some would rather wrap than solder.

A volt-ohmmeter comes in handy for verifying switch connections and wiring runs. A well-stocked hardware cabinet is useful. A candle will be used to dribble wax over the two toroidal transformers when they have been assembled. Glue or rubber cement applied to the toggle switches will hold them into place more securely than the manufacturer-supplied nut & lockwasher arrangements could do alone.

When the builder has marshalled all of the necessary tools & accessory items together into a suitable work area, parts acquisition is the next phase. At the outset, you must realise that Radio Shack won't have many of the needed parts. Electronic parts retail stores must be located. In the Boston area, You-Do-It Electronics in Needham Heights, MA. has many (but not all) of the necessary components. Those in rural areas will have to shop by mail. Consult QST and other hobby publications for parts suppliers. When you buy components new, you are paying 'top buck'. Ham auctions &'flea-markets' are a much cheaper way to obtain necessary parts.

IMPORTANT NOTE: The drilling drawing, component layout drawing, and wiring drawing are laid out for the specific parts listed. Parts electrically equivalent to those listed, but possibly different from a mechanical standpoint, may certainly be used -- as long as the builder adjusts all assembly drawings to reflect component variations, before any actual drilling or assembly is undertaken.

Table 1: Parts List for Phasing Unit

Component Designation(s)	Quantity Required	Description	Manufacturer	Manufacturer Part #	Approx. Price
C1,C2,C3,C4	4	10-365 pF variable capacitor	Calectro	A1-232	$2.70/1
C5,C6	2	47 pF fixed mica capacitor	Sprague	QCP-1171-01	$1.40/1
J1,J2,J3,J4,J5,J6,J7	7	insulated banana jack	H. H. Smith	1463	$2.10/2
L1x,L2x	2	470 uH inductor	Nytronics	WEE-470	$2.75/1
L1y,L2y	2	270 uH inductor	Nytronics	WEE-270	$2.75/1
L1z,L2z	2	120 uH inductor	Nytronics	WEE-120	$2.75/1
R1,R2	2	100K pot w/switch	Radio Shack	271-216	$1.69/1
R3,R4,R7	3	1K pot w/switch	Calectro	B1-660	$1.10/1
R5,R6	2	1K fixed resistor	Radio Shack	271-023	$0.19/2
SW1,SW2	2	SPDT toggle switch, centre-off	or(Alco	MST105E	?
			or(Radio Shack	275-325	$2.39/1
SW3	1	3-pole,4-position switch	G. C. Electronics	35-379	$2.15/1
SW4	1	4-pole,3-position switch	G. C. Electronics	35-380	$2.15/1
SW5,SW6,SW7	3	DPDT toggle switch, no centre position	or(Radio Shack	275-663	$2.99/1
			or(Radio Shack	275-1546	$2.69/1
			Alco	MST205N	?

Component Designation(s)	Quantity Required	Description	Manufacturer	Manufacturer Part #	Approx. Price
T1,T2	2	toroidal core	J. W. Miller	T-106-2	$1.50/1
" "	≈25'	#28 solid enamelled magnet wire	Columbia Electronic	10023-13	$2.49/375'
" "	8	push-pins for lead attachment	Keystone Electronics	1499PK	$2.49/100
" "	4	tie-wraps to secure T1,T2	Waldom "speedy tys"	65001	$3.30/100
		(Metal Hardware Assemblies)			
H1,H2,H3,H4,H5	5	6-32 X 1¼" threaded spacer	*	*	*
" " " " "	10	6-32 X 3/8" binder-head screw	*	*	*
" " " " "	9	6-32 internal tooth lockwasher	*	*	*
H5	1	6-32 solder lug	Waldom	KT-197 or KT-194	?/15
		(Nylon or Plastic Hardware Assemblies for mounting C1-C2-C3-C4)			
HC1,HC2,HC3,HC4	4	4-40 X 3/8" screw	*	*	*
" " " "	8	4-40 hex nut	*	*	*
		(Miscellaneous parts - no designation numbers)			
	1	Vectorboard 4.8" X 8.5" .062" dia. holes on .1" square grid (84 columns X 47 rows = 3948 holes)	Vector	85H48WE DP	$3.30/1
	1	ground plate, 8" X 10" bare metal	LMB	(8 X 10 Cap Cover)	$2.98/1
	1 roll	insulated hookup wire, #22 solid	Columbia Electronic Cables	10010-13	$2.49/90°roll
	2	single-line knobs for SW3,SW4	Archer	274-407	$1.29/2
	5	calibrated knobs for R1, R2, R3, R4, R7	Archer	274-413	$1.39/2
		(Optional Support Leg Assembly)			
	2	solid metal, wood, G-10, or plastic cylindrical dowel 4½" long X 3/4" dia.	*	*	*
	2	6-32 X 3/8" binder-head metal screw	*	*	*
	2	6-32 internal-tooth lockwasher	*	*	*
		(Balanced Cable Assembly, from phasing unit to receiver balanced inputs)			
	≈ 1 m/3.3'	TV Twin-Lead or AC "zip cord"	*	*	*
	2	banana plug	Radio Shack	274-730	$0.99/2
	2	receiver connectors (e. g. spade lugs)	*	*	*
		(Unbalanced Cable Assembly, from phasing unit to receiver unbalanced input & rx. ground)			
	≈ 1 m/3.3'	RG174 coaxial cable	*	*	*
	2	banana plug	Radio Shack	274-730	$0.99/2
	1	receiver input connector (e. g. PL-259, BNC, phono plug, etc.)	*	*	*
		(Balanced-Mode Ground Jumper (from phasing unit ground to receiver ground))			
	≈ 1 m/3.3'	insulated hookup wire, #18 stranded	*	*	*
	1	banana plug	Radio Shack	274-730	$0.99/2
	1	alligator clip or spade lug (to rx.)	*	*	*

NOTE: Asterisk (*) indicates that there are many different suppliers of this product at varying prices. Consult local hardware stores and electronic parts outlets for availability. Some small pieces of hardware may be available at the builder's place of employment.

Table 2 Functional Descriptions of User-Adjustable Controls on Figure 1 to follow.

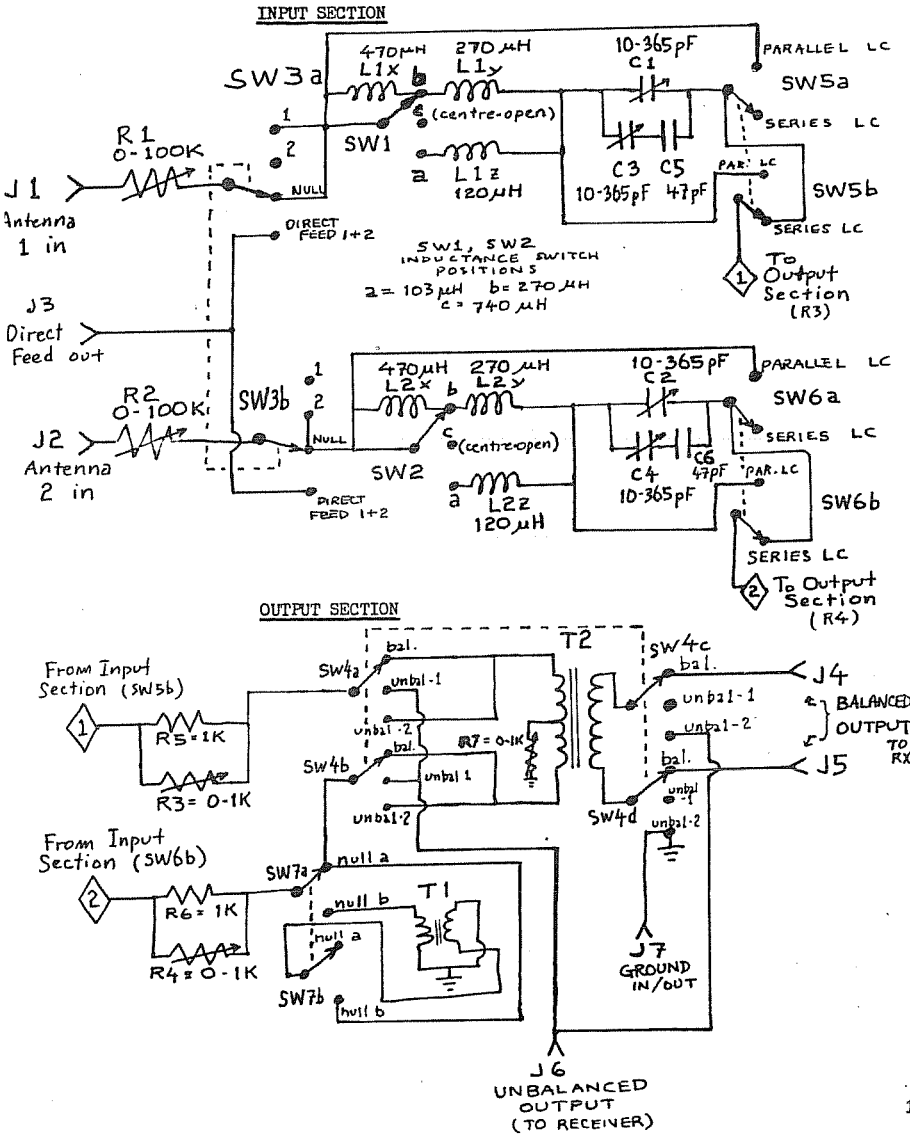
Component Designation	Functional Name	Notes
	CONTROLS ON ANTENNA #1 LINE	
R1	#1 main (level) pot.	adjust signal level from Antenna 1
SW1	#1 L switch	3 possible inductances (e.g. 103, 270, or 740 uH)
SW5	#1 LC switch	choose series or parallel LC
C1	#1 main tune cap.	
C3	#1 trim cap. (a. k. a. vernier cap, fine-tune cap.)	
R3	#1 trim pot.	
	CONTROLS ON ANTENNA #2 LINE	
R2	#2 main pot.	adjust signal level from Antenna 2
SW2	#2 L switch	choose one of 3 inductance values (as done with SW1)
SW6	#2 LC switch	choose series or parallel LC

(controls list continued next page)

Table 2 (continued) User-Adjustable Controls

Component Description	Functional Name	Notes
	CONTROLS ON ANTENNA #2 LINE	
C2	#2 main tune cap.	
C4	#2 trim cap.	
R4	#2 trim pot.	
SW7	null-mode switch	switches phase-reversing transformer, T1, in or out of Antenna #2 line.
	CONTROLS SIMULTANEOUSLY EFFECTING BOTH ANTENNA LINES	
SW3	antenna switch	choose Ant. 1 only, Ant. 2 only, both, or none
SW4	bal./unbal. switch	select balanced output or one of two unbalanced output configurations (unbalanced with balun (unbal-2) or unbalanced without balun (unbal-1))
R7	ground pot.	used for fine-nulling in balanced or unbal-2 output modes.

Figure 1 : Schematic Diagram of "MWDX-1" Phasing Unit



Outline for Construction

(1) Wind T1, T2.
(2) Preliminary Vectorboard drilling.
(3) Ground plate preparation.
(4) Preparation of (optional) support legs.
(5) Final Vectorboard drilling.
(6) Mount components onto Vectorboard.
(7) Wiring of components.
(8) Inspection of completed wiring, checking of switch connections.
(9) Final mechanical assembly: attach Vectorboard to spacers on ground plate.
(10) Connect appropriate antennae to completed unit. Run cable from phasing unit to receiver.
(11) Commence DXing.

1. Wind T1, T2

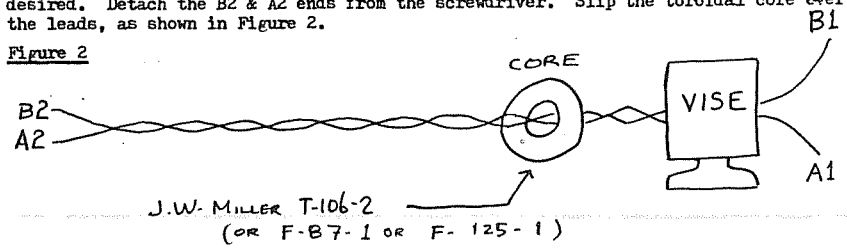
T1 is used as a phase-reversing transformer which yields phase shifting required to establish some nulls.

Cut 2 pieces of #28 enamelled solid magnet wire to a length of approximately 2 metres/6½'. Label one end of one of the wires 'A1'. Label the other end of that wire 'A2'. Label one end of the second wire 'B1' & label its other end "B2'.

Tape the 2 wires together 10 cm./4" from the A1 & B1 ends. Insert the taped part of the wires into a bench vise. Stretch the wires out taut and tape the A2 & B2 ends to the blade of a large screwdriver. Ensure that the labels do not become detached from the wires! If the gummed label method is too clumsy, other ways to differentiate the 'A' wire from the 'B' wire may be devised: these include knotting each end of one wire, leaving the other wire unknotted; or, stripping enamel varnish from each end of one of the wires and not stripping the other.

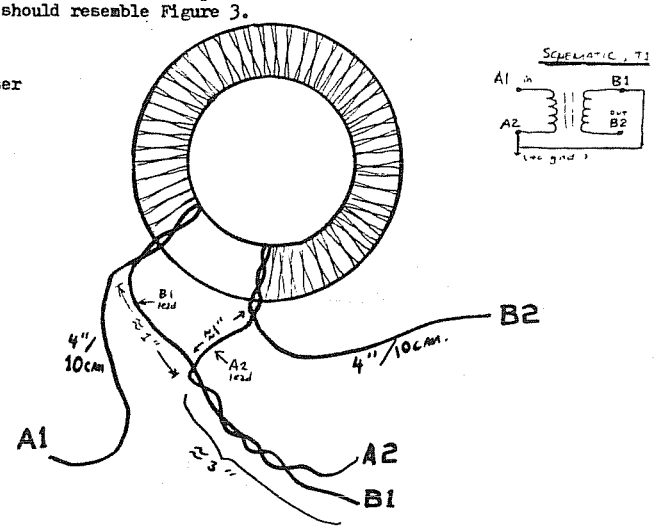
Turn the screwdriver slowly & evenly such that a twisted pair of leads is formed. One or two twists per inch along the entire length of the paired wires is the result desired. Detach the B2 & A2 ends from the screwdriver. Slip the toroidal core over the leads, as shown in Figure 2.

Figure 2



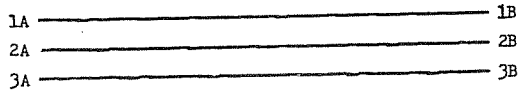
Wind 40 to 50 turns of twisted pair on the core. After that, untwist the wires between the A2 & B2 ends and the toroid. Re-label the B wire such that B2 is now 4" from the toroidal core. Cut off B wire more than 4" from the core. Similarly, re-label the A wire so that A2 is now 4"/10 cm. from the core. Detach the A1 & B1 leads from the bench vise & untape them. Twist lead A2 with lead B1. Temporarily retain all labels on lead ends. Drip candle wax over final T1 toroidal coil assembly. The T1 assembly should resemble Figure 3.

Figure 3
T1, Phase-Reverser



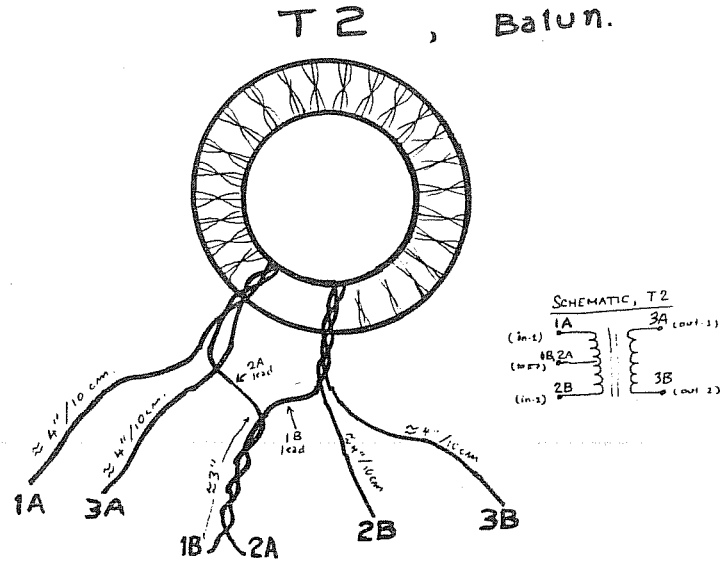
T2 is the balun transformer, necessary to provide balanced outputs. Cut three #28 magnet wire leads to 1-m./3.3' each. Using the practices employed in fabricating T1, label the leads, as in Figure 4.

Figure 4



Tape the 3 leads together, 10cm./4" from the 1B/2B/3B ends. Insert this taped section into a bench vise. Tape the 1A/2A/3A ends to the blade of a large screwdriver. Stretch the wires straight & taut, then turn the screwdriver slowly & steadily to twist the leads. Wind 25 turns of twisted triple wire onto a J. W. Miller T-106-2 (or F-87-1 or F-125-1) toroidal core. Untwist the leads between ends 1A/2A/3A and the core. Move the three labels (1A, 2A, 3A) in towards the core along their respective leads such that each label is 4"/10 cm. from the core. Cut off wires greater than 4" from the core. Release the 1B/2B/3B ends from the bench vise. Twist the 2A lead and the 1B lead together. Leave labels on all leads for now. The T2 assembly should resemble Figure 5. Drip candle wax over final T2 coil assembly.

Figure 5



Completed T1 & T2 assemblies may now be set aside until they are required later.

2. Preliminary Vectorboard drilling

Observe the drilling master, Figure 6. The .062" diameter holes on the Vectorboard are arranged in an 84 column by 47 row array. Consider the left-most, or first, column on the board to be Column #0 (zero). The right-most, or last, column will be considered Column #83. Similarly, the top, or first, row is Row #0 and the bottom, or last, row is Row #46. The distance between any two adjacent columns is 0.1"; the distance between any two adjacent rows is also 0.1". There is 0.1" of board material between the edges of the board and the closest end row or column.

Use a felt-tipped marker to make vertical lines on the Vectorboard at columns 0, 10, 20, 30, 40, 50, 60, 70, 80, & 83. Make horizontal lines at rows 0, 10, 20, 30, 40, & 46. These lines will aid in locating holes to be drilled. Note that all holes on the drilling master are specified by two numbers in parentheses: (column # first, row # second). Mark the five 'A' series holes shown on Figure 6. Locations are (2,44); (8,13); (42,18); (73,1); and (73,44). Drill these out, using one of the bits prescribed in the table accompanying the drilling master.

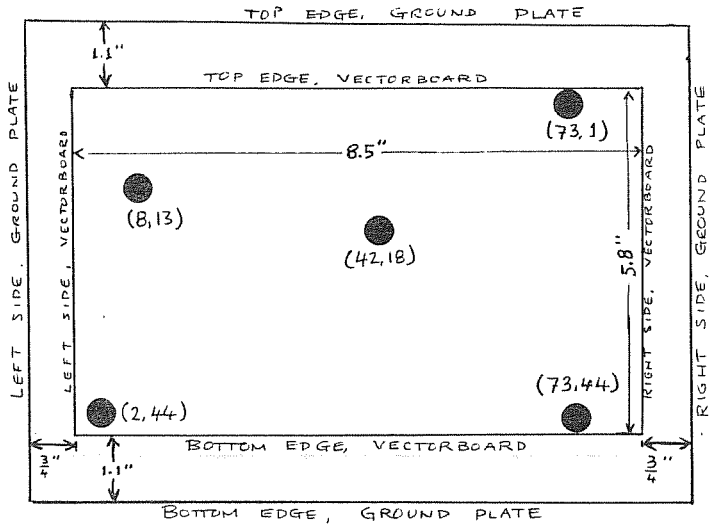
The Vectorboard with the 5 A-series holes will now be used as a template to prepare the ground plate. Other holes shown in Figure 6 will be drilled later, after the ground plate has been completed. (See page 23 for an explanation of why you can't find figure 6....bp)

3. Ground Plate (LMB "8X10 Cap Cover" or equivalent)

The ground plate is an 8" by 10" (20.32 cm. X 25.4 cm.) bare metal sheet of approximately 0.05" to 0.1" thickness. This will eventually be attached 1¼" behind the circuit board by means of hardware assemblies H1 through H5. The ground plate serves 3 purposes: (1) to make a mechanically stable assembly (2) to protect the components and the wiring to be built onto the backside of the Vectorboard (3) to reduce the effect of hand capacitance on tuning & nulling.

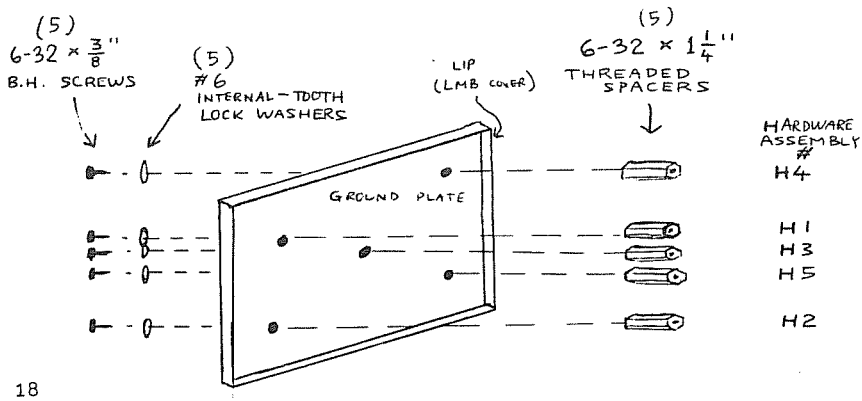
To prepare the ground plate, place the Vectorboard over the 8" X 10" metal plate. The LMB plate has an edge lip projecting ¼" perpendicular to the surface on one side. Consider the side with the lip to be the front side of the ground plate. The Vectorboard (with only "A" series holes drilled) is centred over the front side of the ground plate, in accordance with Figure 7.

FIGURE 7:



Hold the Vectorboard in place with Scotch tape. Use a pencil to mark the 5 A-series holes onto the ground plate. Then, remove the Vectorboard. Drill the 5 pencil-marked points on the ground plate: use the same drill bit as that which was used to drill the A-series holes on the Vectorboard. Using the holes just drilled, mount five 6-32 X 1¼" threaded metal spacers on the front of the plate, with 6-32 X 3/8" metal screws & #6 lockwashers on the back, as shown in Figure 8.

FIGURE 8



4. Support Leg Assembly (optional)

Drill 2 holes in the ground plate, each 4" from the top & bottom edges. One hole is to be $2\frac{1}{2}$" from the left side, the other should be $2\frac{1}{2}$" from the right side. Refer to Figure 9A. Start with two $4\frac{1}{2}$" long, 3/4" diameter solid cylindrical dowels, preferably metal. In the centre of one end of each dowel drill a small pilot hole no more than $\frac{1}{4}$" deep (drill bit size same as that used for A-series board holes). Insert a 6-32 tapper into each pilot hole to produce 6-32 threaded holes at least $\frac{1}{2}$" deep. At the end of each dowel opposite to that which was tapped, mark a point 3-5/8" from the tapped end. On the exact opposite side (180° around) from the point just marked, mark a point 4-3/8" from the tapped end. Stretch a thin string around the untapped end of each dowel, so that both of the marked points are on the string. Use a pencil to scribe a line around the dowel connecting the points, by following the string. Use a hacksaw or jigsaw to cut each dowel along the lines just drawn. Mount the legs on the back of the ground plate using 6-32 X 3/8" screws & #6 lock-washers on the front. Each of the two legs should appear as in Figure 9B.

FIGURE 9A
VIEW FROM FRONT

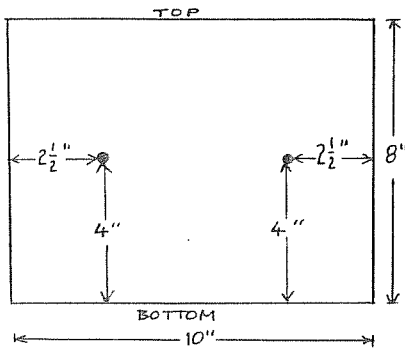
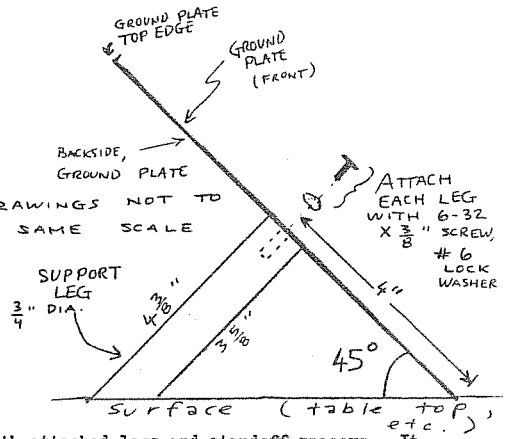


FIGURE 9B
VIEW FROM LEFT SIDE



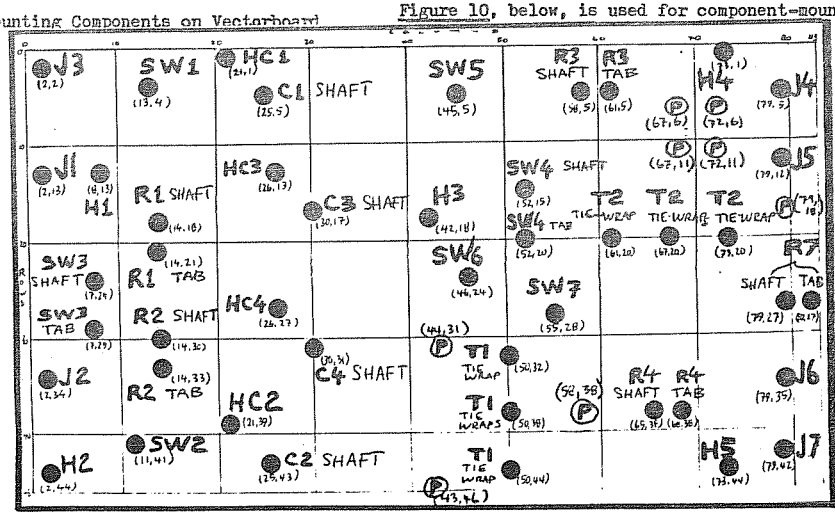
At this time, set aside the ground plate with attached legs and standoff spacers. It will be needed later.

5. Final Vectorboard Drilling

Observe Figure 6, the drilling master. Use a felt-tipped marker or pencil to mark all B-series holes on the Vectorboard. Drill B-series holes with one of the prescribed bits listed in the table on Figure 6. Mark, then drill, C-series holes with an appropriate bit. Mark, then drill, D-series holes. Mark, then drill, E-series holes. Mark, then drill, F-series holes. Mark, then drill, G-series holes. This completes all of the necessary drilling.

6. Mounting Components on Vectorboard

Figure 10, below, is used for component-mounting.



6. Mounting Components on Vectorboard

Throughout the following component-loading sequence, it will be necessary to refer repeatedly to the component-location front-of-board "roadmap" drawing (Figure 10) and to the parts list (Table 1, beginning of article).

From the front side of the board, load a 4-40 X 3/8" nylon screw into each of the "HC" holes: HC1 (21,1); HC2 (21,39); HC3 (26,13); & HC4 (26,27). On the back of the board, attach & tighten a nylon 4-40 hexnut to each of these 4 screws.

Remove tuning knobs, manufacturer-supplied solder lugs, and nuts from the C1, C2, C3, & C4 shafts at this time. Load the four variable capacitors from the back of the board. Shafts should go into the holes specified by Figure 10. The small mounting holes on the capacitor bodies should go over the protruding nylon screws on the back of the board. Attach a 4-40 nylon nut to each of the nylon screws to hold the capacitors in place. There should now be 2 nylon nuts on each 4-40 screw. Place a manufacturer-supplied internal-tooth solder lug over each of the threaded sections of the capacitor shafts on the front of the board. Attach, then tighten, the metal nuts supplied with each capacitor, over each of the shaft solder lugs. Do not attach the capacitor tuning knobs at this time. Strip a piece of #22 hookup wire to produce four bare lengths, each about 3"/7.6 cm. long. Save the stripped-off insulation for possible later use.

Solder one end of one bare wire to each variable capacitor shaft solder lug (front of board). Push these wires through convenient Vectorboard holes to the back side. Locate the rotor lug on the back of each capacitor: this lug should measure zero ohms to the wire just soldered to the corresponding shaft lug. The stator lug, the other lug on the back of the capacitor, should measure nearly infinite resistance to the shaft lug wire. After establishing which lugs are rotor lugs, fish each bare wire through the small hole in its corresponding rotor lug. At each rotor lug, solder the wire just attached. Cut off excessive length. The rotor lug to shaft lug connections are necessary because the rotor lug makes a rather tentative connection to the rotor, one which tends to deteriorate with frequent capacitor adjustment and with age. The rotor makes a much better connection to the shaft lug. At this time, the tuning knobs may be installed on the capacitors by using the manufacturer-supplied hardware.

Load the seven banana jacks with manufacturer-supplied hardware - jack openings on the front of the board, solder pins on the back: these are J1 (2,13); J2 (2,34); J3 (2,2); J4 (79,5); J5 (79,12); J6 (79,35); & J7 (79,42). Load the rotary switches and potentiometers, observing proper shaft and tab locations. Nuts & lockwashers supplied with these parts are to be used to secure the parts to the front of the Vectorboard. Shafts should protrude out of the front of the board at the following locations: SW3 (7,24); SW4 (52,15); R1 (14,18); R2 (14,30); R3 (58,5); R4 (65,38); & R7 (79,27). After these pots & rotary switches are firmly mounted, knobs may be attached to their shafts. Use a hacksaw to remove excessive shaft length. SW3 & SW4 get single-line knobs; R1, R2, R3, R4, & R7 get calibrated knobs.

With a push-pin insertion tool, insert Keystone 1499PK or Vector T28-DP push-pins at points designated (P) on Figure 10. These are loaded from the front of the board at locations (44,31); (43,46); (58,38); (67,6); (67,11); (72,6); (72,11); & (79,18). These will eventually be used as tie points for toroidal transformer leads.

Load the toggle switches with manufacturer-supplied nuts & lockwashers. Electrical connection blocks are to be on the back of the board, switch levers on the front of the board. Levers should go up & down, not right to left. The toggle switches of concern and their respective locations are SW1 (13,4); SW2 (11,41); SW5 (45,5); SW6 (46,24); & SW7 (55,28). Ensure, by checking parts list, that proper switch types have been installed at each of the 5 locations. Put a few drops of rubber cement or glue over nuts to improve mechanical stability.

Place T1 on the front of the Vectorboard such that the T1 centre-hole (50,38) is exactly in the centre of the toroid's "doughnut hole". From the front of the board, insert two tie-wraps through that centre-hole. Run the end of one of the tie-wraps along the back of the board to the T1 top hole (50,32). Fish it through that hole back to the front of the board and pull it through the eyelet on the opposite end of the same tie-wrap until the tie-wrap holds T1 tightly to the board. Similarly, route the other tie-wrap from the front of the board through the T1 centre-hole (50,38), along the back of the board to the T1 bottom hole (50,44), back to the front, & through the eyelet on that tie-wrap's opposite end. Pull the tie-wrap tight: it will hold the side of T1 opposite to that held by the first tie-wrap. Cut off excessive tie-wrap portions protruding beyond the eyelets.

Place T2 on the front of the board by positioning the centre of its "doughnut hole" over the T2 centre-hole (67,20). Affix T2 to the board using 2 tie-wraps in the same manner as undertaken to attach T1. One T2 tie-wrap goes through the T2 left hole (61,20); one goes through the T2 right hole (73,20); the ends of both are brought through the centre hole at (67,20).

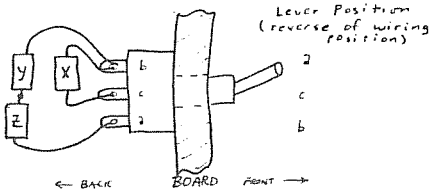
This completes the mounting of all front-side components. Screws & miscellaneous hardware are to go in the H1, H2, H3, H4, & H5 holes at a later step in the procedure. Mounting of additional back-side components C5, C6, L1x, L1y, L1z, L2x, L2y, L2z, R5, & R6 will be done as a preliminary part of the wiring section.

Turn the board to the back side while keeping the same vertical orientation (e. g. T1 at bottom, J3 at top).

7. Wiring (back side of board)

Assemble the two inductance switches, SW1 & SW2 with appropriate inductors as in Figure 11.

Figure 11 Installation of L1x/L1y/L1z on SW1; L2x/L2y/L2z on SW2



Assembly Drawing Designation	Inductor Value (uH.)	Designation (SW1)	(SW2)
x	470	L1x	L2x
y	270	L1y	L2y
z	120	L1z	L2z

Solder all leads to switch pins indicated. Solder the junction of L1y & L1z and that of L2y & L2z. Ensure that none of the exposed leads can be pushed into a position which could cause an undesired shorted connection.

Locate pots R3 & R4. On each pot, ascertain which two terminals are those to be used: do this by checking for zero ohms on a volt-ohmmeter with that pot turned fully counter-clockwise (as observed from the front of the board) and by checking for approximately 1K with that pot turned totally clockwise. Place a 1K fixed resistor (R5) across the two terminals to be used on R3. Place 1K fixed resistor (R6) across the two terminals to be used on R4. Solder these in place after slipping plastic insulation over the leads (or after making leads sufficiently short to prevent adjacent undesired connections). Cut off excessive fixed resistor leads.

On the back side of the board, connect a 47-pF mica capacitor (C5) from the stator lug og C1 to that of C3. Connect a 47-pF mica capacitor (C6) from the stator of C2 to that of C4. Put plastic insulation stripped from hookup wire over any mica capacitor lead greater than $\frac{1}{4}$" long.

Ascertain which two terminals of R1 are to be used: the resistance between the correct terminals should be zero ohms with the pot adjusted fully counterclockwise as observed from the front; the resistance should be about 100K with the pot fully clockwise. Determine the two terminals of R2 to be used by the same method. Establish which two terminals on R5 are to be used: resistance between the proper terminals should be zero ohms with its knob adjusted fully counterclockwise as viewed from the front; the resistance becomes 1K with the knob set fully clockwise.

Use the wiring run list (Table 3), the schematic (Figure 1), and the backside wiring drawings (Figures 12A & 12B) to wire the components together, using #22 insulated hookup wire of the shortest length consistent with neat layout & ease of servicing. Ends to be connected should have about 3/16 " of insulation stripped away. Good solder joints should be made at every connection point.

If different colours of wire are available, a coding scheme may be useful for later troubleshooting - e. g. wire runs 1 to 5 black, 6 to 10 brown, 11 to 15 red, 16 to 20 orange, 21 to 25 yellow, 26 to 30 green, 31 to 35 blue, 36 to 40 violet, and 41 to 46 grey.

Table 3: Wiring Runs (number given corresponds to sequence of installation)

INPUT SECTION

#	From	To
1	J1	R1 in
2	R1 out	arm, SW3a
3	1, SW3a	3 (null), SW3a
4	1, SW3a	c (arm, centre), SW1
5	c (arm,centre), SW1	top (par.), SW5a
6	jct. L1y/L1z	C1 rotor
7	C1 rotor	C3 rotor
8	C1 rotor	top (par.), SW5b
9	C1 stator, jct. C5	arm/centre, SW5a
10	arm/centre, SW5a	bottom (ser.), SW5b
11	J3	4 (dir.), SW3a
12	4 (dir.), SW3a	4 (dir.), SW3b
13	J2	R2 in
14	R2 out	arm, SW3b
15	2, SW3b	3 (null), SW3b
16	2, SW3b	c (arm, centre), SW2
17	c (arm,centre), SW2	top (par.), SW6a
18	jct. L2y/L2z	C2 rotor
19	C2 rotor	C4 rotor
20	C4 rotor	top (par.), SW6b
21	C2 stator, jct. C6	arm/centre, SW6a
22	arm/centre, SW6a	bottom (ser.), SW6b

OUTPUT SECTION

#	From	To
23	arm/centre, SW5b	R3 in, jct. R5
24	R3 out, jct. R5	arm, SW4a
25	1 (bal.), SW4a	3(unbal-2), SW4a
26	1 (bal.), SW4a	push-pin (67,11)
27	1 (bal.), SW4b	3(unbal-2), SW4b
28	1 (bal.), SW4b	push-pin (72,11)
29	2 (unbal-1), SW4a	2(unbal-1), SW4b
30	2 (unbal-1), SW4b	3(unbal-2), SW4c
31	arm/centre, SW6b	R4 in, jct. R6
32	R4 out, jct. R6	arm/centre, SW7a
33	top (null b), SW7a	push-pin (44,31)
34	push-pin (58,38)	J7
35	arm/centre, SW7b	push-pin (43,46)
36	bottom (null a),SW7a	top(null b),SW7b
37	bottom(null a), SW7a	arm, SW4b
38	J6	3(unbal-2), SW4c
39	arm SW4c	push-pin (67,6)
40	arm SW4d	push-pin (72,6)
41	3 (unbal-2), SW4d	J7
42	J4	1 (bal.), SW4c
43	J5	1 (bal.), SW4d
44	R7 in	push-pin (79,18)
45	R7 out	J7

The final backside wire to be attached is wire-run #46. This consists of a $1\frac{1}{2}$ " lead with one end soldered to J7. The other end should be soldered to a #6 internal-tooth solder lug. The lug will be attached to hardware assembly H5 at hole (73,44) later.

Figure 12A: Input Section Wiring (back of board, refer to Table 3)

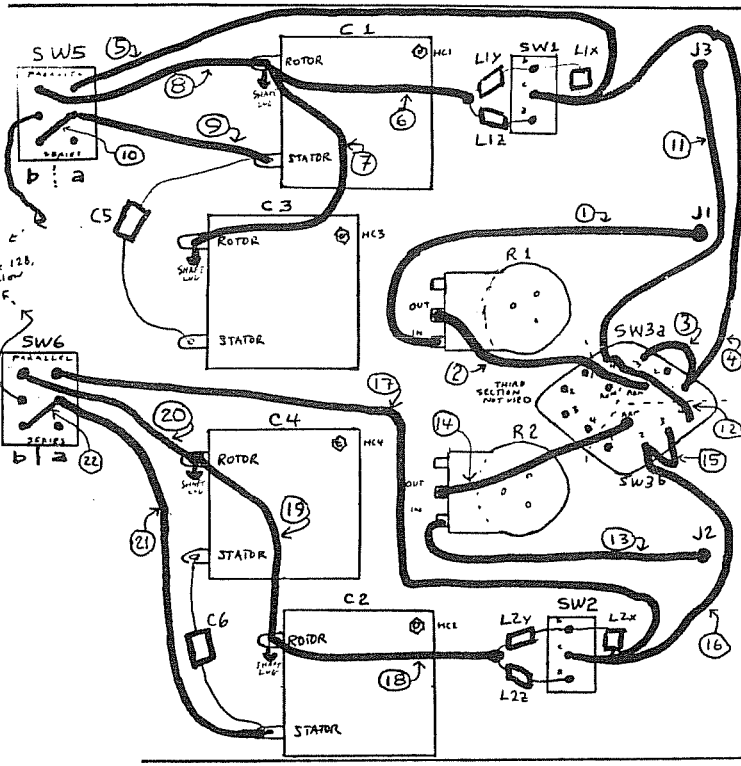
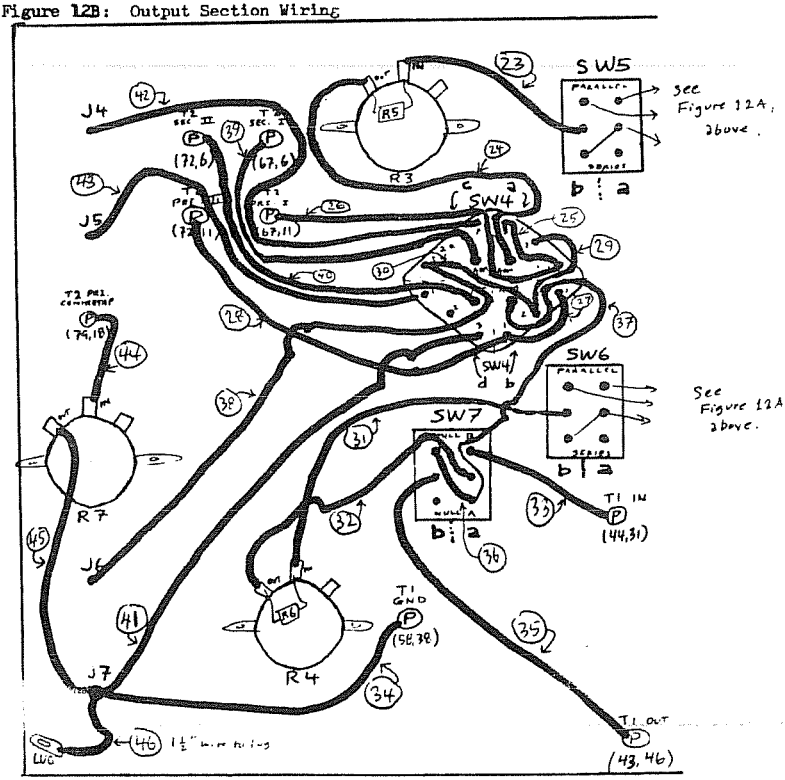


Figure 12B: Output Section Wiring



After the 46 wiring runs have been completed, the T1 & T2 leads may be connected on the front of the board to the push-pins to which leads have already been affixed on the back of the board.

These are connected in accordance with Table 4.

Table 4: connections between push-pins (front side) and T1/T2 leads

Toroidal Transformer	Lead Name	Lead(s) # (Figures 3 & 5)	To Push-Pin at Hole #
T1	in	A1	(44,31)
"	ground	A2 & B1	(58,38)
"	out	B2	(43,46)
T2	primary-I (in-I)	1A	(67,11)
"	primary-II (in-II)	2B	(72,11)
"	primary centre tap	1B & 2A	(79,18)
"	secondary-I (out-I)	3A	(67,6)
"	secondary-II (out-II)	3B	(72,6)

Cut leads to proper length, consistent with a neat layout and short runs. Strip about $\frac{1}{4}$" (maximum) of enamel varnish from lead ends & solder bared toroid lead ends to the appropriate Table 4 push-pins. Soldering should be done quickly so as not to loosen the push-pin leads which were connected on the back of the board. This completes phasing unit wiring.

8. Inspection of wiring, checking switches, etc.

Reference actual physical assembly to appropriate drawings. Visually inspect each component to ensure correctness of assembly. Check wiring runs visually and with an ohmmeter. Verify proper potentiometer & switch connections with an ohmmeter. Ensure that there are no unwanted connections (such as two adjacent pins on a switch accidentally touching). Flux may be cleaned from solder joints with alcohol & a cotton swab or with a commercial de-fluxer.

9. Final Mechanical Assembly

Refer to Figures 7/10 for hardware assembly hole locations. From the front of the Vectorboard, load a 6-32 X 3/8" metal screw with a #6 internal-tooth lockwasher on it through each of the following holes: H1 (8,13); H2 (2,44); H3 (42,18); & H4 (73,1). Place the #6 internal-tooth solder lug,attached by wire run #46 to J7, over the end of a 6-32 X 3/8" metal screw. From the front of the Vectorboard, load this screw with attached lug to the H5 hole (73,44). Place the back of the Vectorboard upon the spacers on the front of the ground plate so that each of the 5 screws protruding from the back of the Vectorboard may be screwed into its corresponding ground plate spacer. Turn all screws such that tight fits are made with the spacers.

PHASING UNIT IS NOW COMPLETED !

10. Connect Phasing Unit to Receiver, Antennae

The following discussion applies to use of the phasing unit in a "stand-alone", or unamplified, configuration. Solder banana plugs to the input leads of two longwire aerials, preferably of similar length. Each wire should be at least 30 m./98' long for optimal performance. Nulls can be produced with shorter wires, but signal strengths of wanted stations tend to be quite low by the time pest-nulling is completed, if the phasing unit output is not amplified. Plug one longwire into J1; the other into J2.

If a receiver with unbalanced (single-ended) input is to be used, run an approximate 1 m./3.3' length of coaxial cable (RG-174 or equivalent) from J6 (centre, or 'hot' conductor) & J7 (shield/ground/outer conductor) to the receiver input & to receiver ground. The coaxial cable to be used should be fitted with banana plugs on the end attached to the phasing unit & with the appropriate receiver input connector(s) at the opposite end.

If a receiver with balanced (dual) inputs is to be used, run about 1 m./3.3' of TV Twinlead or "AC zip cord" from J4 & J5 of the phasing unit to the appropriate balanced inputs of the receiver. The phasing unit end of the cable should be fitted with banana plugs; the other end should have the proper receiver input connector(s). If the balanced cable is used, a wire tying phasing unit ground to receiver ground is also necessary. Once all connections have been made to the finished phasing unit, interesting DX should now be possible.

NEXT WEEK: Part 2, in which you find out how to use the phasing unit. In the meantime, you can have fun tweaking the knobs to see what happens,hi. The elusive figure 6 will also appear. This is a drilling layout, which is basically the same layout as figure 10, parts layout, except it shows what sized holes to drill. If you're smart enough to build this thing before you get next week's DXM, then you're smart enough to figure out what sized drills to use to make the holes, hi. --bp

THE INTERNATIONAL RADIO CLUB OF AMERICA

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

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