

# DX MONITOR



THE OFFICIAL PUBLICATION OF THE INTERNATIONAL RADIO CLUB OF AMERICA

DEVOTED EXCLUSIVELY TO BROADCAST BAND DXING

MARCH 21, 1992 - VOLUME 29 - NUMBER 27 - EDITION 952 - ISSN 0899 - 9732

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DRAKE R8	MEMBERSHIP INFO	

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**RENEWALS:** DAVID OWENS, RAYMOND MOORE.....THANK YOU.73

\*\*\*\*\*  
**ADDRESS CHANGE:** FOR THE REPRINT SERVICE: STEVE RATZLAFF 1885 E BAYSHORE ROAD SPACE 90 E PALO ALTO CA 94303. GOOD LUCK IN YOUR NEW DX SPACE...

\*\*\*\*\*  
**BOOKSTORE:** PHIL BYTHEWAY 9705 MARY AVE NW SEATTLE WA 98117. WRITE HIM.

\*\*\*\*\*  
**IRCA POSITIONS AVAILABLE:** ACHIEVEMENT AWARDS CHAIRPERSON, CONTEST CHAIRPERSON, DX TECHNIQUES EDITOR, GRAVEYARD/HEARD/VERIFIED DX RECORDS EDITORS AND A PUBLICITY CHAIRPERSON. CONTACT PRESIDENT PHIL BYTHEWAY.....

\*\*\*\*\*  
**HAMVENTION REP:** IRCA PRESIDENT PHIL BYTHEWAY IS LOOKING FOR SOMEONE TO REPRESENT THE IRCA AT THE ANNUAL DAYTON HAMVENTION APRIL 24-26, 1992. SEND PHIL A NOTE IF INTERESTED.....

\*\*\*\*\*  
**IRCA AM-FM ALMANAC UPDATERS ARE NOW AVAILABLE!**

Updater 5.4 coming soon - updated NBA and college basketball, ABC-AP-UPI-USA network updates, ESPN and SEN sports talk, Canadian music networks, and more.

Still available: Updater 5.1 - Almanac index, AM slogans. Updater 5.2 - Satellite Music Network, Unistar/Transtar, talk updates, BRN, 1991 baseball. Updater 5.3 - Rush Limbaugh, TIS/Highway Radio update, NHL hockey, NFL and college football.

20 pages each, \$2 U.S. and Canada, \$3 elsewhere, payable to IRCA, from Bill Hardy, 2301 Pacific Ave., Aberdeen, WA 98520. Thank you!

\*\*\*\*\*  
THE TEST BELOW ARE COURTESY OF THE NATIONAL RADIO CLUB.....THANK YOU.....

WWOL-780, 1263 West Main St., Forest City, NC 28043 will conduct a DX test from 0430 to 0500 EST on Sunday Morning April 5, 1992. This test will consist of tones, music and Voice & Code ID's. Our thanks to Mr. Julius Blanton CE for this test. Arranged by the Courtesy Program Committee of the National Radio Club.

WCKB-780 P.O. Box 789, Dunn NC 28335 will conduct a DX test from 0530 to 0600 EST on Tuesday Morning April 7, 1992. This test will consist of test tones and ID's. This test is an extension of their normal 1st Tuesday frequency check. Our thanks to Mr. Ron Tart GM for this test. Arranged by the Courtesy Program Committee of the National Radio Club.

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**DRAKE R8;** DRAKE CHANGED THE ROM IC AND THE RECEIVE SHOULD BE MORE USER FRIENDLY. YOU CAN PROGRAM TUNING STEP SIZE, DISPLAY RESOLUTION AND BANDWIDTH FOR EACH MODE. I WAS TOLD THAT ENGINEERING IS WORKING AWAY. R8A ???

# BROADCASTING INFORMATION

EDITOR: ROBERT WIEN 1309 DENTWOOD DR SAN JOSE CA 95118

DEADLINES: 2nd & 4th Saturdays.

Compiled: 3/05/92

Much of this information was compiled from M Street Journal, DXM, and various other sources.

## NEW STATION APPLICATIONS:

(NONE)

## NEW STATION GRANTS:

NC. Greensboro 1470 khz. 5000/3400 DA-2

## CONSTRUCTION PERMIT ACTIVITY:

(NONE)

## FACILITY AND PARAMETER APPLICATIONS

CA. San Francisco KIQT-1010 decrease day power to 30 kw.  
NY. New York City WNYC-820 decrease night pwr to 1 kw.  
OR. Eugene KDUK-1280 decrease night power to 700 w.

## FACILITY AND PARAMETER GRANTS

(NONE)

## CALL LETTER CHANGES

AL. Daleville	WRDJ-1560	becomes	WTKN
CA. Bakersfield	KBAD-1350	becomes	KBID
San Luis Obispo	KATY-1340	becomes	KGLW
Santa Barbara	KTUN-990	becomes	KSSM
GA. Augusta	WFXA-1550	becomes	WTHB
HI. Honolulu	KOR1-650	becomes	KHNR
MI. Kentwood	WMAX-1480	requests	WGUV
Saline	WNRS-1290	becomes	WIQB
NY. Rochester	WKQG-1280	becomes	WFXY
OR. Coos Bay	KYNG-1420	becomes	KYYG
TN. Memphis	WODZ-680	becomes	WEZI
Tullahoma	WDFZ-740	becomes	WJIG
TX. Brenham	KTTX-1280	becomes	KWHI
Rollingwood	KKMJ-1370	requests	KKGY
UT. Salt Lake City	KUTR-1320	becomes	KCPX
WI. Oshkosh	WLKE-690	becomes	WXOL
ON. Hamilton	CKOC-1150	becomes	CKMO

AL. Lexington	WKNI-620	was country, now silent
Muscle Shoals	WLAY-1450	was oldies, now country //FM
AZ. Bullhead City	KBAS-1490	was SMN country, now SMN AS
CA. Bakersfield	KBID-1350	was KBAD, silent, now AS
Palm Springs	KDES-920	was AS, now SMN Kool Oldies
CO. Denver	KNUS-710	was nx/talk, adds BRN business
CT. Waterbury	WWCO-1240	was classic hits, now AC
FL. Gainesville	WAJD-1390	was CHR, sports talk, now CHR/talk
GA. Tifton	WWGS-1430	was oldies, now BRN bus/talk
IN. South Bend	WAMJ-1580	was nx/talk, adds SUN talk
KS. Abilene	KABI-1560	was country/talk, adds Unis. country
KY. Louisa	WVKY-1270	was country, now silent
MD. Bethesda	WGMS-570	was classic//FM, to be all-sports
Brunswick	WTRI-1520	was country, rptd. silent
MA. Marlborough	WSRO-1470	was AS, adds SMN stds.
MI. Saline	WIOB-1290	was WNRS, stds., now rock //FM
MN. Fosston	KKCQ-1480	was AC//FM, now Unis. AS
MS. Biloxi	WVMI-570	was nx/talk, adds SMN Real C&W
Starkville	WSSO-1230	was AC//FM, now rock//FM
MT. Missoula	KGRZ-1450	was country/talk, now jazz
Whitefish	KJJR-880	was country, adds Unis. country
NY. Rochester	WPXY-1280	was WKQG, oldies, now CHR //FM
Rome	WZLB-1450	was country, now SMN Kool Oldies
OR. Medford	KYJC-610	was AC//FM, now country //FM
Phoenix	KTMT-880	was KMFR, country, now CHR //FM
PA. Wellsboro	WNBT-1490	was SMN Kool Oldies, now SMN AC//FM
SC. Hemingway	WKYB-1000	was silent, now country
TX. Greenville	KGVL-1400	was nx/talk, adds Sun talk
Port Arthur	KOLE-1340	was Unis. stds., now Unis. country
Rollingwood	KKMJ-1370	was AC//FM, now KGGY, oldies //KATG
UT. Salt Lake City	KCPX-1320	was KUTR, Mormon cont., now AC//FM
VA. Suffolk	WLPM-1450	was oldies, now gospel/urban/blues
WI. Menomonie	WMEQ-880	was nx/talk, now Unis. country
Minocqua	WMQA-1570	was WMYM, stds., now JSA soft AC//FM
WY. Wheatland	KYCN-1340	was SMN country, now country, SMN AC//FM
AB. Calgary	CHQR-770	was EZL, now full service AC/talk
Edmonton	CJCA-930	was full service AC/talk, now nx/talk
ON. Hamilton	CKMO-1150	was CKOC, CHR, now oldies
Midland	CKMP-1230	was AC, now country
Sault Ste. Marie	CFYN-1050	was AC, now country

Dennis Gibson in Goleta, CA. passes on the following (adds to info above):

CA. Santa Barbara	KTUN-990	now KSSM, slogan used is "SAM 990", format remains stays same
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Hank Holbrook of Dunkirk, MD. passes on the following (adds to above info):

DC., Washington	WGMS-570	is ex-WTEM, in April will switch to 24 hr./day of nx/talk/event coverage, and will carry Washington Redskins (switch from WMAL-630)
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Ye editor (and Dennis Gibson) pass on the following:

CA. San Jose	KSJX-1500	was hard rock, now 'international' format, tends to carry Asian pro- gramming, call change in works??
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Thanks to all, and myself (whoops, I can't thank myself enough).  
I think I'll treat myself to a large chocolate Sunday (or Monday?).  
Tips are always welcome here, and I'll even print your name (unless  
your name is Anonymous, hi). Till next column..... 73's



WESTERN  
DX  
ROUNDUP

Nancy Hardy  
2301 Pacific Ave.  
Aberdeen, WA 98520

DEADLINE FOR WDXR TIPS IS MONDAY - March 30, April 13, May 4, June 1, July 6. PLEASE USE EASTERN TIME.

REPORTERS FOR THIS ISSUE:

- (DG) Dennis Gibson-442 Ellwood Beach Dr. #3-Goleta, CA 93117  
GE Superadio II, Select-a-tenna
- (BH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA 98520  
FRG-7, Radio West loop
- (JH) Jim Hilliker-1705 Withers Ave. #12-Monterey, CA 93940  
GE Superadio
- (CM) Curtis McMenamin-2917 Georgia St.-Vallejo, CA 94591  
Sony ICF-2010, Radio West loop  
(CM-NV) DX'ing from Reno, NV with GE Superadio II
- (SMM) Steve Mittman-2248 West 37th Street-San Pedro, CA 90732  
(SMM-CA1) DX'ing midday along the Central CA coast (Lompoc/  
Pismo Beach/San Luis Obispo) with car radio
- (bp) Bruce Portzer-6546 19th Ave. NE-Seattle, WA 98115  
Racal RA-17 with Radio West loop
- (MS) Mike Sanburn-P.O. Box 1256-Bellflower, CA 90707  
GE Superadio
- (RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118  
GE Superadio, GE long-range portable, SM-2

- \*\*\*\*\*
- 530 TIS CA, Los Altos 3/2 1015 good in San Jose airport TIS station null with ID "This is the city of Los Altos radio station WNAP-463..." promo to listen for road conditions & ment. the station complies with FCC rules. New. Must have come on recently. (RW-CA)
- (TIS) CA, Pismo Beach Sa 1/25 1558 sign at city limits advised tuning radio to 530 AM, but nothing was on the air. (SMM-CA1)
- 680 KNBR CA, San Francisco Sa 1/25 1738 very weak midday with NBA game. (SMM-CA1)
- 700 KSUR CA, Soledad Sa 1/25 1739 very weak with BFL music (presumably // with KJQI-540). (SMM-CA1)
- 720 \*KDWN\* NV, Las Vegas 3/2 0744 with OC sounding like the surf of the ocean. (RW-CA)
- 740 KCBS CA, San Francisco Sa 1/25 1741 fair midday with news & ID. No sign at all of KBRT. (SMM-CA1)
- 770 KPLA CA, Riverbank Sa 1/25 1743 very weak midday with trivia game, with winner winning tickets to local rodeo. Caller/contestant on the line from Carmichael. I thought KPLA was all-religious, no? (SMM-CA1)
- 840 (KVEG) NV, North Las Vegas 3/2 totally off. (RW-CA)
- 1000 KKIM NM, Albuquerque 3/2 0830 good in KOMO null with ID into "Focus On The Family." I think KIDN-CO is silent. (RW-CA)
- 1140 KLUC NV, North Las Vegas per call made on 2/29, still not sure when they will be changing calls to KZAP. (RW-CA)
- 1150 KKEY OR, Portland 3/2 1000 way on top of freq. with ID "Key Radio, KKEY, Portland," into inspirational talk show, after Oregon state news. Still in at 1030! (RW-CA)
- 1250 KTIM AZ, Wickenburg 3/1 0600 fair-good over KTMS with C&W music, ID. Later with ID "Country favorites 24 hours a day on 12-50, KTIM." New. (JH-CA)
- 1310 KEIN MT, Great Falls 3/7 0600 loud with KDIA apparently off. Oldies music, into legal ID "Your Kool Gold station, 13-10, KEIN, Great Falls." More oldies. New. (JH-CA)
- 1320 KCPX UT, Salt Lake City 3/2 0115 coming in good with ID "98.7 and AM 1320 KCPX." Call change, ex-KUTR. (CM-NV)

- 1360 KNNS AZ, Glendale 2/29 0300 logged call change ex-KLFF, KRUX for me. Still music format (Abba, Carpenters, Nilsson), NBC Radio News on hour. (MS-CA)
- 1370 KSOP UT, So. Salt Lake City 2/29 2022 dominant with C&W music, "Country 104.3 KSOP" ID. (bp-WA)
- 1380 KTSM TX, El Paso 2/5 0245-0307. NBC Talknet from 0245-0259, legal ID "KTSM El Paso" at 0300, CBS news 0300-0307. At 0307 "It's 39 degrees in El Paso. KTSM El Paso." More Talknet after 0307. Only 500 watts at night. KOTM usually strongest on the frequency, was either very weak or off the air. Very little fading on KTSM, very easy copy. (DG-CA)
- 1440 KDIF CA, Riverside 3/7 0457 fair-good with legal ID in Spanish. Not heard in a while. (JH-CA)
- 1450 KOZZ NV, Reno 3/1 0211 finally picked up this call change, ex-KONE, with contest promo, ID "KOZZ Reno's classic rock 'n roll." Into Bob Seger tune. (MS-CA)
- KEYY UT, Provo 3/7 0645 poor with ID heard 3 times during a promo, but way under unID EZL or big band type station, probably Escondido, heard often here now. New. (J.I-CA)
- 1510 KIRV CA, Fresno 2/29 2053 blasting my speaker with Josh McDowell Radio Show. S/off at 2100. (MS-CA)
- 1550 KXTO NV, Reno 3/2 0100 noted that station is running at night now. I guess they are not a daytimer anymore? Heard Spanish programming with "Radio Exitos" slogans. (CM-NV)

#### DX TESTS

- 620 (WTRP) GA, La Grange 2/24 0000 DX test tried, not heard. (MS-CA)
- 650 KMTI UT, Manti 3/9 0230-0302 in fair to good with IRCA DX test, mixing with KRDX/CISL, best 0240-0246. Started right at 0230 with voice ID, tones 0230, 0234, 0238, 0244, 0248 spelled out KMTI etc. Polka and big-band music; polka music in English similar to ranchero music in Spanish on KRDX! Signed off 0302. New for me thanks J.D.! (BH-WA)
- +3/9 0230-0302 easy on DX test with voice & code IDs, test tones, polka music, mixing with CISL/CKOM. S/off at end gave 5:55 s/on time. (bp-WA)
- 970 (WDAY) ND, Fargo 2/17 0300 DX test tried, not heard. (MS-CA)
- 1020 (WRIX) SC, Homeland Park 3/2 0230-0300 tried, not heard under KTNQ/RCKN. (RW-CA)
- 1040 (WSKE) PA, Everett 1/27 0200-0300 tried but not heard. (CM-CA)
- 1090 (KTNS) CA, Oakhurst 3/9 0304-0320 tried but not heard, just potent KING with Dr. Joy Browne on Daynet and potent XEPRS with Spanish. Occasional snippets of current pop music (CHR-adcon) underneath, suspect CHEC. Oakhurst is not on my Calif. map; where is it? (BH-WA)
- +3/9 0303-0317 no luck on test, just weaker than normal XEPRS with KING nulled. (bp-WA)
- (WILD) MA, Boston 2/17 0200 DX test tried, not heard. (MS-CA)
- 1250 ?WMTR? NJ, Cedar Knolls 1/27 0100-0200 thought I might have heard a test tone at 0115, than at 0135 heard what sounded like Morse code. Very faint signal was heard, then lost signal. I am not sure that was them. Called station & man said he ran test tone, and also couple of Morse code IDs. Most of program was adcon music, he informed me. (CM-CA)
- (WMTA) SC, Charleston 2/24 0300 DX test tried, not heard. (MS-CA)
- 1350 (KDIO) MN, Ortonville 1/27 0100-0230 tried but not heard. (CM-CA)
- 1450 ?KBBS? WY, Buffalo 3/1 0200 possible code ID, weak in mess. (MS)
- (KBBS)+3/1 0300-0400 tried, not heard under mess. KOZZ strong in KEST null. (RW-CA)

#### LOCAL CHANGES

- 1240 KNRY CA, Monterey as of 3/2, KNRY is now 24 hours NSP. Also, much of CNN Headline News is dropped, but not completely. KNRY now carries Larry King again weeknights 2300-0500. Other times, runs old Sun Net shows, now on Independent Broadcasters Network & Craig Smith's World View. KNRY runs "For The People" M-F 1200-1700 & Sonny Bloch 1700-1900. Also Sat. morns 0700-0900 The Handy Man & 0900-1200 Sat.

runs "A u o Answers" show (heard hosts ment. KWNK-670 as an affiliat ). During talk shows, KNRY runs USA Radio net news, Mutual during Larry King. (JH-CA)

- 1360 KKMO WA, Tacoma may be back on 24 hour sked, as noted several times recently after old 0300 s/off time with ethnic programs. (bp-WA)
- 1540 KBLV WA, Bellevue is now finally // KJUN-1450/KTOL-1280 and has added live DJ's. Apparently had some technical delays in getting the network hooked together. (bp-WA) (Bill says KBLV was noted on 2/2 1204-1336 // KJUN/KTOL for Geisla's Original German Hour, and later that week for noontime old time radio shows, but separate for music. He didn't understand why.--NH)

- UNID
- 600 Sa 1/25 1732 something extremely weak here midday. KKLQ-San Diego, or maybe KNYO-Independence? (SMM-CA1)
- 1010 2/7 0630-0635 poor, o/u unID Spanish (KIQI?) with what sounded like religious-type PSA's, all with 800 phone number. Possibly KXEG-AZ? (JH-CA)
- 1130 3/7 0944 unID relig. program o/u CKWX, probably KRDU. (bp-WA)
- 1230 3/1 0500 fading in & out. Poor-fair with legal ID, but couldn't make out the calls. Only "102.5 FM...and 12-30 AM, Phoenix." Lost to KLAV-NV with legal ID into Spanish. (JH-CA)
- 1230 3/2 0440 unID TT weak in mess, looping SE. (RW-CA)
- 1340 CA, San Luis Obispo? Sa 1/25 1947 call change for someone, probably KATY. Local signal in Pismo Beach with "This is the ESPN Radio Network--Sports Radio, KSPN!" 2/15/92 DXM shows KATY with ESPN. KATY was supposed to become KGLW, but apparently chose these calls instead. (SMM-CA1)
- 1470 3/2 0130 heard newstalk format. (CM-NV)

Welcome to WDXR, Dennis. You had an excellent first report! Just a reminder to everyone, please check the WDXR deadlines at the beginning of the column--we're not weekly any longer.

## Central DX Roundup



EDITOR: John C. Johnson

979 Neptune Boulevard Billings, Montana 59105-2129 FAX: 406-252-9938

### FOR THE RECORD

Report all times as Eastern. Computer & Fax accepted. Deadlines: 3/28, 4/11, 5/2.

### RIDING GAIN

- [SA-MB] = Shawn Axelrod, 30 Becontree Bay, Winnipeg, Manitoba R2N 2X9  
Icom IC-R70, Box loop, 100' wire.
- [TML-IN] = Tom Laskowski, 1334 East Miner Street, South Bend, Indiana 46617  
Icom IC-725, 60 foot inverted "L".

### SPECIAL INTEREST

- 1020 CKVH AB, High Prairie. 2/23 strong. 0740 with "You're in tune with the North Central Alberta Radio Network. CFOK, CKWA, CKDA, CKDH, CLIW, CHLW, CJDI." Into "Star Country" C&W programming. Not in log, but on 4-sure. [SA-MB]

### DOWN THE DIAL

- 760 KSJL TX, San Antonio. 2/24 poor to fair u/WJR while trying for WVNE test. 0415 with rock music. "KSJL" ID. New for me, TX#36. [SA-MB]
- 1140 KLUC NV, North Las Vegas. 2/29 good. 0730 with rock music. "98.5 FM" and "Rock 98.5 KLUC" IDs. Local spots. [SA-MB]
- NOTE: STILL KLUC, NOT YET KZAP. Robert Wien of San Jose, CA tells me this call change won't be for awhile as per phone call to KLUC. Thanks Robert! John.
- 1240 WATN NY, Watertown. 2/24 weak in mess. 0104 with quick ID "WATN Watertown."

- Possibly with Best Of King. New and a nice surprise. [TML-IN]  
 1400 **KSPT** **ID**, Sandpoint. 3/1 good. 0759 with "...keeping you up to date with news, this is KSPT Sandpoint." New sign on time, or they are NSP. Not 1000 Sunday sign on as per log. New for me, ID#23. [SA-MB]  
 1480 **CKAN** **QN**, Newmarket. 2/29 good. 0730 with local news report. Local announcements into oldies music. New for me, ON#88. [SA-MB]  
 1600 **KTTN** **MQ**, Trenton. 2/26 very poor, alone on frequency or about 30 seconds. 0759 with "KTTN Trenton" ID. [SA-MB]

### TESTS TESTS TESTS

- 620(WTRP) **GA**, Lagrange. 2/24 test not heard. WTMJ with talk, WTRP should have been relatively easy. [TML-IN]  
 760(WVNE) **MA**, Liechaster. 2/24 test not heard due to WJR and KSJL. [SA-MB]  
 1020(WRIX) **SC**, Homeland Park. 3/2 test not heard, due to KDKA, KTNQ, & CKVH. [SA-ME]  
 1250 **WTMA** **SC**, Charleston. 2/24 strong. 0300-0308 with code ID "CHARLESTON SC WTMA WTMA WTMA." Voice announcement mentioned IRCA. Test ended 0308. Not needed [TML-IN]

### unID

- 1450 unID 2/22 good. 0510 with Mexican-style music, SS talk. 0515 "Non stop back to back every Sunday night for two hours only, La Musica Mexicana (unda?)..... 14-50 your official (de how?) super jam (numer hora?) during it just for you you've got it." This was in English by man, then back into Mexican music. Best looped SE. [SA-MB]

### 25 YEARS AGO

March 25, 1967 issue of DX Monitor...Included with this issue was a Conditions Of Frequency List...840 showed only 2 NSPs: PRH9 and HJBI....George Junak of Pasadena, CA mentioned he was 14....Larry Godwin of Berkeley, CA said the suprise of the season is 4ZA-R 0.

### OPEN MIKE

The secret of success is constancy of purpose. Note deadline dates! 73, John.



## Western DX Forum

★ ★ ★ ★

REID WHEELER 5910 BOULEVARD LOOP SE OLYMPIA WA 98501

Deadline: Each Saturday

[19]

As many expected, included herein are some belated anniversary Forums - rcw

### Bill Harms. SUSLAK Box 60. PSC 303 Box 49. APO AP 96204-0049

Hi again! Just a few more comments about DXing in Korea. As expected, reception of large numbers of Japanese, Korean, PRC, Taiwanese, and Russian stations is fairly easy. I have logged all listed Korean stations and many Japanese, PRC, Taiwanese stations. Most Japanese stations are good QSLers and have received several dozen from them. I haven't bothered to QSL many of the Chinese stations yet. That will be a project for the future. Mongolian stations also trickle in here as well. Stations from countries beyond those listed above are a bit more difficult. With KBS One stations (South Korea), and NHK One stations running 24 hours per day, many frequencies are tied up. Additionally, many Japanese commercial stations are also 24 hours per day, but fortunately they have silent periods for two to five hours per week on Monday mornings. This helps some at least. Most Russian and Taiwanese stations are 24 hours per day also, which also ties up many channels. With all of these channels tied up, it is difficult to log stations from relatively close countries like the Philippines, let alone more distant countries. On the bright side, PRC stations sign off nightly. Even with these "problems", DXing here in Korea is both fun and a challenge. Chil-ship-sam (73's in Korean) de wjh in the "Land of the Morning Calm".

**Patrick Martin, P.O. Box 843, Seaside, OR 97138-0843**

(2/22) Hi Everybody: Had a real nice time at Bruce Portzers' yearly Get-To-Gether. Nice to see you again, Reid. I always enjoy the trip up to the Emerald City. Dave Williams went along too. DX continues to be somewhat on the slow side. I did get a nice logging of CKNL-Ft. St. John, B.C. recently. Sent a taped report. That one I would like to QSL. I haven't heard them since 1966, when I lived in Seward, Alaska. I think I finally have all my beverages (antennas) in order now. If conditions every improve I'll be ready. Ralph, the bulletin sure looks great these days. The club is in better shape than it has been in years, and we are picking up more new members. Nice to see reports from Harry Rea-Portland. Hope to meet you sometime. Found out at the Get-To-Gether that Vancouver-1040 is silent. CKST-800 is going to move to 1040 any day now. KPLS-830 sure does a number on KIKI alot of the time now. KIKI is still on top, but QRM'd alot. That 1KW sure gets out in this direction. Sent a f/up out to XEKAM-950, per the address from Gary Larson in the Forum. I'm keeping my fingers crossed this time. I have been trying to QSL them since the days of XEGM back in the late 60s. That's it for this time. Good DX.

**Duncan Shaw, 3560 S Hoover St #224, Los Angeles, CA 90007-3614**

(2/27) Happy Anniversary IRCA! (If this makes it, hi!) A re-intro - I'm 18, a Journalism major at USC, and work at Smith Barney. I also have a DJ shift at the student radio station here. Nice to meet Mike Sanburn at the February SCADS meeting, complete with sample DXM's to give out! Some silent periods for local LA stations (all updates to NRC log, times are ELT): 540-KJQI 24hr NSP; 870-KIEV 24hr NSP; 1110-KRLA 24hr, SP 1st MM 0400-0800; 1190-KORG plans SP in Sept 1992; 1220-KTSJ SP 0400-0800 7days/wk; 1300-KAZN SP 0400-0800 M-F, 0400-0945 Sat, 0400-0930 Sun; 1600-KMNY SP Sat/Sun 0100-0900. Went on a cruise to Avalon & Ensenada last weekend; only DX'ing done was a bandscan at Avalon - most LA, Santa Barbara, and San Diego/Tijuana stations get in pretty well there, but reception of KGIL-1260 was better there than here (they are only a few miles from home QTH). Finally, I have been appointed to revive the SPORTSCENTER column as of Baseball season. Send any info you may have to me in LA. 73's de DSJ.

**Gary Larson, 2806 Lincoln, Burbank, CA 91504**

(818) 842-3999/846-5540

Time again to wish the IRCA a happy anniversary. Great club to be involved in. I've been a member since the 70's. Currently I work in security doing a grave shift locally and have Th & Fri mornings off. I'm single and correspond with several people via cassette tapes (locals, etc.) plus talking radio and various other things by letters. I do a good deal of running each day for health as well as helping out in different track & cross country meets each season. I've had occasion to go to different transmitter sites and sometimes stations over the years. I always like to see different ones. I always like to talk with other dxers in IRCA or from anywhere else. Continued support and good luck in the future to IRCA. 73.

**John Ryer, 275 Ester Dr, Fairbanks, AK 99709**

[originally directed to Ralph & Phil and passed to me - rcw]

Hello from the frozen north. Here's a new member application and some comments for your Western DX Forum. I'm wondering where IRCA has been all my life. I started chasing AM DX with a crystal radio kit when I was eight years old. Thirty years later I discover the International Radio Club of America - I'm one excited new member! I'm using a surplus Watkins-Johnson receiver with a tuned random wire antenna. With all its shortwave receiving capability I still find myself searching the AM band for a phantom exotic. Anybody got a better idea for antenna? I am 400 miles inland, sit on 100 feet of soil and have quite a bit of room. Four local AM stations grace my spectrum - the rest of the world is comfortably far away. Any help would be appreciated - I'm sitting on top of the world and long to hear the other side. For a bit of local Alaska "color", tune into 1170 khz - KJNP (King-Jesus-North-Pole) the "Gospel Voice of the Arctic." Its programming is a bit tedious (unless you are into a heavy dose of the deity), but, at 9:20 P.M. each evening (10:20 Pacific) they run a message program for the isolated residents of the Alaska bush. Very real, often heart warming, it's worth your time to listen in. Remember, we don't have any significant night here from the end of March through early September. Anyway, that's it from the icebox - I'm delighted to be a new member of your organization. [John - Welcome to IRCA; please write often and directly to my Olympia address - rcw]



# EASTERN DX FORUM

RICHARD C. EVANS  
PO BOX 21883  
MILWAUKEE WI 53221

Reports from members living east of the Mississippi River  
Deadlines: 3/28, 4/11, 5/2, 5/30, 7/4, 8/1.

Ernest Cooper, 5 Anthony Street, Provincetown, Massachusetts 02657

I started DXing way back in 1932, and my very first verie was a typed card from WFIW-970, Hopkinsville, KY (now WAVG-970). The second was one of our earliest "pests", the 50-watt WEXL-1310, Royal Oak, MI. There were very few all-night broadcasters in the 30's, mainly the two or three Mexican border stations, selling all sorts of merchandise, including shot guns, and even "autographed pictures of Jesus Christ": The earliest sign-ons in the New York City area were WFAF-660 and WOR-710 (0645)! The other two principal stations, WJZ-760 and WABC-880 didn't hit the airwaves till 0730! There were four stations in my old hometown, Brooklyn, on 1400: WBBC, WCGU, WLTH & WSGH. WSGH became WFOX and later, WCFW. There were two more Brooklyn stations on the GY channel of 1500: WMIL (later WCNW) and WMBQ "The Home Sweet Home Station". They shared time with WCLB Long Beach and WWRL Woodside. There were four NYC stations sharing 1010 then: WRNY, WPAP, WQAO & WHN. Four more on 1350: WCDA, WBNY (later WBNX), WMSG (Madison Square Garden) & WKBQ which was later bought out by the Pillar of Fire and became WAWZ, Zarephath, NJ. One station that some regarded as a pest was WMMN-880, Fairmont, WV, which ran a DX program every Sunday morning for about three hours, thus blocking that channel. Almost every station on the GY frequencies had to run monthly frequency checks which were monitored by the FCC, and all other stations which could possibly interfere were ordered to remain silent between 0200 & 0500, the week of the f/c's, on the GY channels. I was able to log and verify two west Coast 50 watters: KPPC-1210 and KRKO-1370. Some Maritime Canadian stations also ran frequency checks in those days, lasting 8 minutes - they'd play one march, ID, then switch to their backup crystal and play another march, ID, and sign off! There were a few amateur broadcast stations in Canada running 15 and 25 watts. I logged 10-BQ-1210 Brantford ON & 10-AK-1210 Stratford, ON. A couple other low-power catches I got and verified were WGBY-1450 Guantanamo Bay (30 watts), WXLQ-1240 Fort Bell, Bermuda, a U.S. Armed Forces station, which signed on every morning at 0430 with the SJB followed immediately by "Milkman, Keep those bottles Quiet!" (50 watts); HP5B-730 100w. Panama; VOUS-1490 (logged on 1487) Ft. Pepperell, NF and VOHF-1480 (logged on 1483) Harmon Air Force Base, NF. There'd been disagreement as to which was being heard at 0500 - I soled it, finding both of them off frequency. Each was, I think, 100 watts. Those were fun days at the dial! Forward - March!

Rick Evans, 4841 South 26th Street, Milwaukee, Wisconsin 53221

I don't go back as far as Ernie Cooper, since I was only born in 1945, but I found some of my memories of what I've heard that was fun and interesting, like the time in 1967 when I caught KHIL-1250 Ariz. with a song, ID, song, and off for a five minute ET. In 1970, I heard KRKC-1380 Wash. on regular schedule so strong I could have heard them on a car radio while driving around. In late 1969, I was listening to a test from WINH-1470 SC, but didn't think much about it. The verie said they had been installing a new transmitter-tower site, and my test was the first one from the new site. They thanked me for letting know it worked! My favorite? Probably the Saturday afternoon on SSS when I was listening to KLTR-1530 Okla. They were switching to a remote broadcast at a local grocery store only to have the guy at the store insist he wasn't on the air. Even twenty-odd years latter, I can still remember "OK you're on the air"; "NO I'm not"; "Yes, you're on the air"; "No, I'm not". The verie a couple of weeks later said the announcer still didn't believe it! That's it for this week. 73.

# Verification Signers



Editor: TIM HALL, 350 G St. #P-1, Chula Vista, CA 91910-4559  
 Deadline: Last Friday of the month

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FREQ	CALL	SIGNER'S NAME / TITLE	ADDRESS	WHAT	WHEN	WHO
610	KVNU	[ ILLEGIBLE ], CE	Logan, UT	P	20f	OW
650	KRDx	Gerald Susoeff, CE	5301 Madison Ave #402/Bx417250	L	19	PM
690	KGGP	Al Diller, CE	306 W. 8th St. / P.O. Box 1087 Coffeyville, KS 67337	LM		ME
780	KAZM	Joseph P. Tabback, P/GM	3400 W. Hwy 89-A / Box 1525 Sedona, AZ 86336	L		MS
790	WKWY	Jeff Leonard, PD	Louisville, KY	L	9	OW
810	KKGD	Dave Richards, OP MGR.	400 S. 7th St., #200 Rifle, CO 81650	L	7	OW
	KSWV	Anthony Gonzales, PD	121 Sandoval St. / Box 1088 Santa Fe, NM 87501	LM		MS
820	WPNT	Dave Dybas, WPNT-PM CE	Chicago, IL	L	5	OW
	WSCR	Mark Nielsen, CHIEF OP.	4949 W. Belmont Ave. Chicago, IL 60641	LB	5	OW
830	KPLS	Leopoldo Ramos, GM	1592-1 Batavia St. Orange, CA 92667	L	21	PM
870	KOWA	"KOWA Staff"	2235 E. Flamingo, #209 Las Vegas, NV 89119	L	15f	PM
910	KECR	Fern Burns	312 W. Douglas St. El Cajon, CA 92020	L		MS
	WRNL	Mike Friedman, ASST ENG.	3245 Basie Rd. / P.O. Box 9608 Richmond, VA 23228	LMB		ME
1010	KBBW	Bernarr Howell, ENG.	Waco, TX	PLMB	32f	OW
1130	KRDU	David L. Hofer, PRES.	597 N. Alta Ave. Dinuba, CA 93618	LMB		MS
1140	CFXX	Jerry Pendree, TECH DIR.	Calgary, AB	Q	13	OW
1150	KWKY	Howard Kling, CE	P.O. Box 662 Des Moines, IA 50303	QB		MS
1180	WHAM	Tara Howard	207 Midtown Plaza / Box 40400 Rochester, NY 14604	L	10f	PM
1290	KMEN	Steve Virissimo, GM	2001 Iowa, #200	L	12	PM
		David Wolfe, CE	Riverside, CA 92507	L	16	PM
1410	KTME	Gregg L. Peterson, PRES.	1109 N. Patterson Ave. Santa Barbara, CA 93111	LM		MS
1490	KRKC	Frank Allen, EVENING ANNCR	1134 Broadway, P.O. Box "B" King City, CA 93930	LB		MS
1510	WJIC	Ben Ferguson, VP/CE	P.O. Box 132, Salem, NJ 08079	LM	10	RS/ME
1560	KKID	Cliff Casteel, CE [DXer]	Sallisaw, OK	L		LLH
1570	KMYZ	Joe Hancock, CE	5810 E. Skelly Dr. #801 Tulsa, OK 74135	LB	15	TRH

RANDY STEWART: KDWN used to be excellent verifiers, but I don't know of anyone else who's tried to get a verie from them lately.

WELCOME this month to Leonard Hyde of Virginia. My apologies for the late column this month; my work schedule has been IMPOSSIBLE!

# THE QUANTUM LOOP

## A COMPACT, HIGH GAIN FERRITE ROD ANTENNA

Gerry Thomas

With the price of ferrite rods going through the roof, I decided to see if I could design a loop antenna using a minimum of ferrite and a maximum of amplifier. The result of this experimentation is a loop I call the *Quantum Loop* ("quantum" - a small packet of energy; "loop" - well, you know loop).

Whereas most loop amplifiers for antennas using 10"-16" rods put out between 15 dB and 25 dB of gain, my more modest 8" rod antenna would require an additional 6-12 dB of gain. So, I was shooting for amplification in the 30-35 dB range. As it turned out, I was able to design an amp that delivers between 42-48 dB of gain across its tuning range. Of course, this degree of amplification would be of little benefit if you had 20 dB of amplifier hiss to go along with it. So, low-noise components were chosen and the result is quite satisfying. Also, because this level of gain is not always desirable (overloading problems can occur in receivers with lesser front-ends/mixers), a gain control was included in the design.

In addition to the preceding requirements, I also have a few preferences of my own regarding loop operation: (1) I prefer the tuning knob to be on the stationary loop base and not on the revolving loop head; (2) I like a loop head which rotates continuously (without stops) and, of course, tilts; (3) I also wanted a loop head that was removable so that the antenna could easily be placed in a suitcase; and (4) for the sake of domestic tranquility, I desired a finished loop which looked sufficiently attractive to spare me from the critical comments which loops usually evoke from my wife.

### BRIEF DESCRIPTION

The *Quantum Loop* measures approximately 10"(H) x 7"(D) x 8-1/2"(W) at its maximum points (see Figure 1). The loop head housing is constructed of black plexiglas and is connected to the black, sloped-front amplifier base by a chromed tube pedestal. The amplifier is a two-stage, balanced input/unbalanced output design with low-noise JFETs in the first stage and a low-noise MOSFET in the second; both stages are arranged in a common-source configuration.

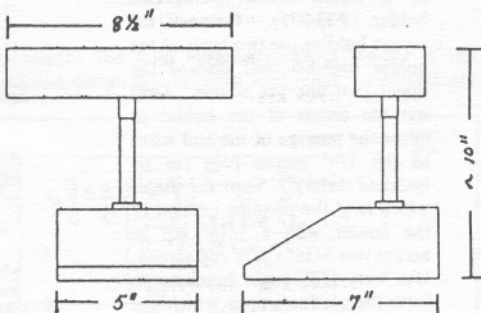


Figure 1. *Quantum Loop* dimensions.

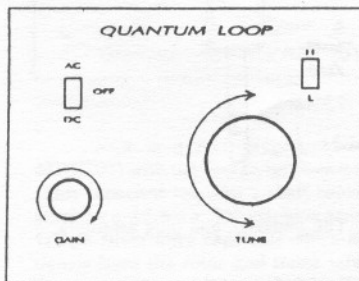


Figure 2. Front panel controls.

The loop tunes from 530 kHz to 2000 kHz in two ranges and has a variable gain control and on/off switch. Power is supplied by either a 9VDC battery or an AC wall adapter (switch selectable). Figure 2 shows the front panel layout.

## CONSTRUCTION DETAILS

Be aware that the construction of the *Quantum Loop* is LABOR INTENSIVE! If this project is beyond your available time or abilities, see the last paragraph of this article.

### A. Loop Head Housing --

The overall dimensions of the housing are 8-1/2"(L) x 1-3/4"(H) x 2-1/2"(D). The *Quantum Loop's* ferrite housing is constructed of black plexiglas; all panels are 1/8" thick with the exception of the base panel which is a sturdier 3/16" in thickness. The pieces are cut to the dimensions illustrated in Figure 3.

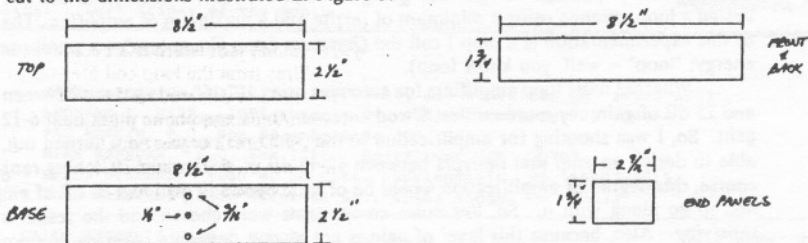


Figure 3. Loop housing panel dimensions.

One hole (1/8" diameter) is drilled in the base panel to allow the passage of the loop coil's wires down to the amplifier base and two 3/16" holes are drilled to permit the fastening of the tilting assembly. The panels are glued together to form the box-like housing with the front panel left off until the od/coil assembly is installed.

### B. Tilt Assembly --

The tilt assembly is constructed of the stationary part of a Radio Shack microphone holder (#33-371). Remove the screws holding the two parts of the holder together and discard the upper part and the screws. Drill out the center of the holder to allow the passage of the coil wires to the 1/4" phone plug (to be installed later). Tap the holes which held the pivoting portion of the holder with the 5/16" tap to accept two 5/16" x 3/8" cap screws. Use two 1/2" angle brackets to form the platform upon which the base of housing will be attached and fasten to the tapped mike holder with the tap screws (nylon washers can be added to make tilting smoother, if you wish). The holes in the angle brackets will have to be enlarged and the right angles of one end rounded to permit unobstructed tilting. Figure 4 illustrates the tilt assembly, the chromed tube pedestal, and phone plug bearing.

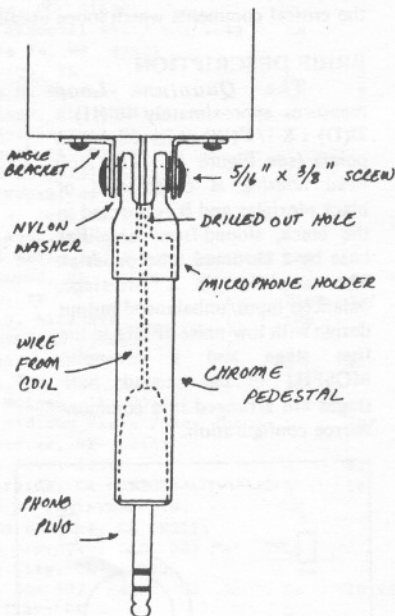


Figure 4. Tilt, pedestal, and plug assembly.

### C. Chrome Pedestal and Base --

The chrome tube pedestal is a threaded microphone tube and screws into the

microphone holder (preceding section). I bought the 6" model (Atlas Sound AD-8B) and cut it in half to provide a 3" pedestal. I also used a chrome base collar (Atlas Sound AD-11B) to add lateral stability. Unfortunately, these collars have an interior urea-d which must be removed by filing or reaming before the pedestal tube can rotate freely. Because the chrome tube is grounded and because it shares ground with loop coil and electronic circuitry, it is noticeably "RF hot" in some situations (e.g., deep nulls). To remedy this, I slid a 1-1/2" length of 5/8" (ID) clear vinyl tubing onto the tube to insulate it and provide a comfortable grip for loop head rotation.

#### D. Phone Plug Bearing -

The loop head rotates on a standard 1/4" phone jack which has been epoxied into the interior of the chrome tube (see Figure 4). Wires from the loop coil are routed down through the microphone holder and chrome tube and are soldered to the plug's terminals. Don't waste your time with the Taiwanese/Korean/Japanese phone plugs and jacks; they are generally constructed of inferior materials and will break or wear out in relatively short order. Use only American-made Switchcraft components (#12B and #297); they are heavy, nickel-plated brass and are still going strong after six years in my loops.

#### E. Loop Amplifier Base -

I chose a sloped-front aluminum cabinet (which allows more comfortable tuning) to house the loop's amplifier. The LMB752 (from Mouser) fits the bill nicely but comes in a beige/tan color scheme which I changed to satin black. First, mount the Switchcraft 1/4" phone jack in the center of the top of the cabinet, then mount the chrome collar (which reinforces the chrome pedestal) so that it too is centered (sheet metal screws are fine). Drill holes in the rear of the cabinet to accommodate the battery holder, patch cord connection, and AC adapter jack and install these components. The other holes in the cabinet depend on your lay-out of the electronic circuitry, so I won't give specific dimensions for those. I have found the sloped front of the cabinet to be ergonomically effective in permitting fine tuning knob adjustments and reducing arm/wrist fatigue so a sloped front cabinet is definitely recommended.

#### F. Amplifier Details -

Figure 5 provides the schematic of the loop amplifier. Parts lay-out is not particularly critical as long as straight-line design and minimal lead length principles are followed.

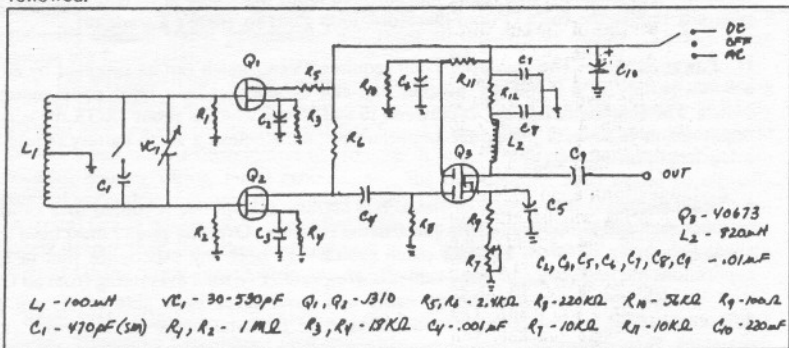


Figure 5. Loop amplifier schematic.

VC1 is a dual-ganged, 15-266 pF polyvaricon variable capacitor (Mouser # 24WC001) with the two gangs connected to provide a capacitance range of about 30-530 pF. (This capacitor requires a shaft extension -- a .625" x .25" nylon spacer glued and held in place by a 2.5mm x .75" machine screw; VC1 must be mounted on a plastic base). C1 is a 470 pF silver mica capacitor which is switched across VC1 to allow low-end tuning. The signals from the rotor and stator tabs of the VC1 are routed to the gates of Q1 and Q2. Transistors Q1 and Q2 are J310 JFETs. These are extremely low noise devices and provide approximately 20 dB of gain across the tuning range. They are arranged in a common source configuration with source by-pass capacitance (C2 and C3). The signal is taken off

the drain of one transistor and capacitively coupled (C4) to Gate 1 of Q3. Transistor Q3 is a dual-gate, diode protected, low-noise MOSFET (40673); it, too, is in the common source configuration with gain being controlled at the source by R7. [NOTE: After designing and testing this circuit, I learned that Motorola and RCA were ceasing production of the 40673 MOSFET; the recommended substitute is the 3N201, but I have not yet tried it]. L2 is an inductor measuring 820 uH which resonates with the stray capacitance of the components and circuit to provide an amplification peak at the low end of the tuning range. Actually any choke in the 800 - 1200 uH range should be suitable because the stray capacitances can vary a bit depending on a number of factors. The output of Q3 is taken off the drain and is capacitively coupled to the output jack for connection to the receiver. You may notice that there is no impedance matching network or low impedance emitter-follower circuitry in this amplifier design. The gain of the amplifier is such that I decided to design for a medium impedance output to adequately match either high (500-1000 Ohm) or low (50 Ohm) receiver inputs. The gain of the *Quantum Loop* is sufficiently high that I didn't feel it was worth it to perfectly match impedances to gain a couple of dB.

#### G. Coil Winding/Ferrite Rod --

The ferrite rod I used has a permeability of 125 mu and is 8" in length and 3/8" in diameter. The coil is of litz wire (64") resulting in 31 turns (with a center tap at turn 16) on a 1/2" polystyrene coil form (this tubing is available from aquarium supply houses). If you are using the more popular Amidon 7-1/2" rod, you will need 66-68" of litz and 33 turns to cover the tuning range. The overall inductance of the coil is 100 uH when centered on the ferrite rod. It is **extremely** important that both legs (to ground) be exactly equal in inductance in order to attain perfect loop balance. (An inductance meter is invaluable here and is well worth the \$125-\$150 outlay to the inveterate experimenter.) The coil's center tap and ends are soldered to a three-lug terminal strip mounted in the loop housing and RG-174U coax continues the signal path out of the housing, down the chrome tube to terminate on the lugs of the 1/4" phone jack. RG-174U coax then routes the signal from the jack to the circuit board and the rotor and stator of VC1. Equal lengths of coax from each side of the coil must be used throughout this routing to preserve the balance of the coil.

The ferrite rod/coil assembly is shock-mounted in a length of pipe insulating foam (available from hardware stores) which fits snugly in the loop housing. At this point, you can wrap a width of conductive tape (aluminum or copper) 3/4ths of the way around the foam which, when connected to the terminal strip's ground lug, will provide shielding for the loop. Quite frankly, I've found that shielded loops work only in certain situations and generally reduce the coil's Q (and therefore, loop gain) so, there's a trade-off.

H. Power Supply -- The *Quantum Loop* requires 9VDC which can be supplied by either a 9-volt battery or a 9-volt AC adapter and can be selected by a front panel-mounted switch. The *Quantum Loop* draws between 10 and 15 mA which is about 2X-3X the current requirements of some of my earlier amplifiers but, nonetheless, a 9-volt battery should last a fair length of time.

I. Signal Output -- The output of the JFET/MOSFET amplifier is routed to a cabinet-mounted jack and ultimately fed via cable to the receiver. Over the years I must have tried about two dozen different kinds of patch cables. It's been my experience that in loop applications the impedance of these cables is irrelevant. I've used everything from 50 Ohm coax to high impedance microphone cable and have never been able to discern any difference at all. What is important, however, is the amount of shielding the cable possesses. Coax cable shielding runs from about 70% to 100%; choose 100% shielded cable and your site/night/vertical effects will be minimized. The best cable I've found is computer Local Area Network trunk cable such as "Ethernet." Unfortunately, this stuff is really expensive and hard to find in short lengths. There exists 100% shield RG-8/M, RG-58, and various microphone cables; use one of these.

### LOOP OPERATION

A. Set-up -- Plug the loop head fully into the amplifier base and connect the patch cable to both the loop base and receiver. Install a 9-volt battery or plug in the AC adapter and

turn the loop and receiver on. Position the loop away from the radio's digital display (if it has one) and as far away from electrical wiring and other antennas as is practical. Positioning the *Quantum Loop* too near radios with poorly shielded cabinets (e.g., portables) could result in antenna/circuitry interactions and a resulting oscillation.

**B. Tuning** -- The *Quantum Loop* tunes in two ranges: 530-700 kHz in the "L" position; and 700-2000 kHz in the "H" position. In lieu of a vernier tuning dial, I opted for a dual diameter tuning knob. This is nothing more than a skirted knob measuring 1-1/2" at the skirt and about 7/8" at the grip. The smaller diameter grip allows for fast tuning while tuning by using the wider skirt permits easier fine tuning. Tuning of the *Quantum Loop* is very sharp and should be done carefully.

**C. Gain Setting** -- The *Quantum Loop* possesses more than adequate gain for most of my DXing situations. I've found that most radios (at least those I own) tend to perform best if the station of interest is producing no higher than an S-9 on the S-meter. Running the *Quantum Loop* so that most signals are in this ball park will take a load off your radio's front-end and mixer. As you are adjusting the gain, you will notice that the range of adjustment does not allow you to completely eliminate moderately strong and strong stations. This was a design decision on my part because I've never had the need to completely eliminate the signal (via gain setting) of a desired station. A brouhaha by users, however, would cause me to change the design. On a related topic, the dynamic range of the front-end J310 JFETs is in excess of 100 dB (according to the manufacturer and my own tests). I've not measured the present JFET/MOSFET amplifier for dynamic range because I've only used it in loop applications where signal levels are pitifully low.

**D. Nulling** -- I usually position the loop so that my elbow rests on the desktop and my fingers grip and rotate either the insulated vinyl tube or the microphone holder; I don't use the loop housing to rotate the antenna because the height is a little less comfortable and because the added leverage could strain the plug/jack.

To null weak to moderately strong stations, simply rotate the antenna for a minimum signal. As the null approaches, slow down, the null is very sharp and the deepest null is at a single point in the semi-circular rotation. On strong stations, especially locals in the daytime, it will probably be necessary to both rotate and tilt the loop. For this, I usually grip the loop housing to simultaneously tilt and rotate the loop. Here too, the deepest null will occur at a precise combination of tilt and rotation. I have no problem completely eliminating all of my locals but the strongest is only 10 kW; it is possible that a station producing unusual signal polarization will resist all attempts at nulling. Luckily, these stations are fairly rare.

On a related note: If the *Quantum Loop* is constructed as described, i.e., ensuring identical inductances in each leg of the coil path, you will end up with a nearly perfectly balanced loop (except for the fact that I've found a very slight measureable difference in the rotor's and stator's capacitances to ground). If you were to operate this loop far from antennas, housing wiring, metal cabinets, etc., the two opposite nulls would be virtually identical in depth and exactly 180 degrees apart. However, this ideal DXing location is not the typical one. Consequently, depending upon your location, you may find one null to be slightly deeper than the other and one null to be slightly skewed by a few degrees. In practical DXing terms, there's little you can do about this.

**E. Routine Maintenance** -- I've been using this basic design since about 1986 with no major failures. About the only thing I do to maintain the loop is occasionally remove the loop head from the amplifier base and clean and lubricate the phone plug with WD-40. I similarly clean and lubricate the stabilizing collar on the top of the base periodically.

All in all, I'm quite satisfied with the overall design and performance of the *Quantum Loop* but am open to suggestions for improvement. As I mentioned earlier, this is a very labor intensive construction project which requires tools and test equipment that may not be available to everyone. For this reason, I've assembled the components to make about 20 *Quantum Loops*. The price for one of these initial 20 is \$125 (plus \$4 UPS). This includes the AC adapter, patch cord, and connector of your choice (specify standard UHF, BNC, RCA, or alligator clips). You can contact me at 3635 Chastain Way, Pensacola, FL 32504. 73's....GT

# THE INTERNATIONAL RADIO CLUB OF AMERICA (IRCA)

The IRCA is a non-profit organization devoted to the hobby of hearing distant stations on the AM Broadcast Band (510 - 1630 khz). **DX Monitor**, the official publication of the IRCA, is published 34 times a year, weekly from October to March, twice in September and April, and monthly from May to August. **DX Monitor** contains members' loggings, articles on radio stations, receiver reviews, technical articles, DX tips, and other material of interest to Broadcast Band DX hobbyists. IRCA is a member of ANARC, the Association of North American Radio Clubs.

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