

October 26, 1996 - Volume 34 - Number 06 - Edition 1099 - ISSN 899-9733 ********************** IN THIS ISSUE: DX Test..2, Broadcasting Information..3, Geomagnetic Indices..4, DX Worldwide West..5, DX Worldwide East..6, Western DX Central DX Roundup..10, Eastern DX Roundup 11, Western B, Eastern DX Forum 13, Advanced Q-Stick DXing..14, Two Roundup..8, DX Forum..13, Eastern DX Forum 13, Updated Remote Active Antennas..17 (This is the first of many pages). RENEWALS: Please note the numbers above your name on the address label this is your expiration number, a 34-06 means your membership in IRCA will expire with this issue. I will rubber stamp a reminder on the front page of your DXM. I will try to remind you 2 or 3 issues before you expire. If you have not renewed on time your name will be removed from the address list, so please try to renew early ***** IRCA MEXICAN LOG = 4th EDITION: The IRCA is proud to announce the release of the 4th edition of its MEXICAN LOG. The IRCA MEXICAN LOG log lists all AM Stations in mea. by frequency, including call letters, state, city, day/night power, formatic natuorks and notes. In The IRCA MEXICAN LOG log lists all AM stations in Mexico slogans, schedule in UTC/GMT, formats, networks and notes. In addition, stations that have changed frequency since 1990 are crossreferenced on the old frequency. The call letter index gives call, frequency, city and state. The city index (listed by state, then city) completely updated from the 1994 edition and carefully cross-checked by IRCA members in Mexico and the US. This is an indispensable reference for anyone who hears Mexican radio stations. Size is 8 1/2" x 11" and three hole punched for easy binding (optional). IRCA/NRC members - \$6.50 (US/Canada/Mexico/seamail), \$7.50 Prices: (rest of the Americas airmail), \$8.00 (Europe/Asia airmail), \$8.50 (Australia/New Zealand airmail). Non-members: add \$2.00 to the above prices. Order TODAY from: IRCA Bookstore, 9705 Mary NW, Seattle WA 98117-2334 DX WORLDWIDE EAST: Mark Connelly has volunteered to be the temporary editor of DXWW-E. Thank you very much Mark..... ****** PUBLISHER: The IRCA is still looking for a DX Monitor publisher. You can contact Phil Bytheway if you would like the job SOFT DX MONITOR: IRCA members who have access to the Internet can now receive the "soft DX Monitor" which contains CPC info, all three Roundups and other information. It is "published" each Thursday. To receive the SDXM, send your email address to: bytheway@atk.com. Only IRCA members can receive the SDXM.



DX TEST BULLETIN

** DX TESTS ARRANGED BY IRCA, NRC, AND OTHERS **

NOTE: EVEN IF YOU DON'T HEAR THE TEST, BE SURE AND DROP A CARD, LETTER, OR E-MAIL TO THE STATION PERSONNEL, THANKING THEM FOR THEIR TROUBLE.

SUNDAY, NOVEMBER 3, 10, 17, AND 24, 1996 - WWCN-770, P.O. BOX 9600, ESTERO, FL 33928 WILL TEST AT 1,000 WATTS DIRECTIONAL BETWEEN 3:00 & 4:00 AM EST. THE TEST WILL INCLUDE MORSE CODE ID'S, TEST TONES, & BIG BAND MUSIC. NOTE: THIS TEST WILL BE REPEATED EVERY SUNDAY MORNING AT THE SAME TIME DURING THE MONTH OF NOVEMBER. RECEPTION REPORTS MAY BE SENT TO: MR. "JOEY C." - PROGRAM DIRECTOR. (ARRANGED J.D. STEPHENS FOR THE IRCA CPC).

MONDAY, NOVEMBER 4, 1996 - WIMN-1220, 104 NORTH MAIN ST., STILLWATER, MN 55082 WILL TEST AT 254 WATTS NONDIRECTIONAL BETWEEN 1:30 & 2:00 AM EST. THE TEST WILL INCLUDE MORSE CODE ID'S AND OLDIES MUSIC. RECEPTION REPORTS MAY BE SENT TO: MR. DOUG SMITH - PRESIDENT & GENERAL MANAGER. (ARRANGED BY J.D. STEPHENS FOR THE IRCA CPC).

E-Mail:DSRadioman@aol.com

SATURDAY, NOVEMBER 9, 1996 - WYTI-1570, P.O. BOX 430, ROCKY MOUNT, VA 24151 WILL CONDUCT A RESCHEDULED DX TEST AT 5,000 WATTS NONDIRECTIONAL, USING A NEW 200+ FOOT TOWER, BETWEEN 12:00 & 12:30 AM EDT. THE TEST WILL INCLUDE MORSE CODE ID'S, TEST TONES, VOICE ID'S & BLUEGRASS MUSIC. RECEPTION REPORTS MAY BE SENT TO: MR. EARL SHELTON - OPERATIONS MANAGER. (ARRANGED BY J.D. STEPHENS FOR THE IRCA CPC).

SUNDAY, NOVEMBER 10, 1996 - WJCE-680, 5904 RIDGEWAY CENTER PARKWAY, MEMPHIS, TN 38120 WILL TEST AT 10,000 WATTS NONDIRECTIONAL BETWEEN 1:00 & 7:00 AM EST. THE TEST WILL INCLUDE MANY SLOGANS AND VOICE ID'S, PLUS 70'S RHYHTM & BLUES MUSIC. RECEPTION REPORTS MAY BE SENT TO: MR. MR. SKIP REYNOLDS - CHIEF ENGINEER, (ARRANGED J.D. STEPHENS FOR THE IRCA CPC).

MONDAY, NOVEMBER 11, 1996 - CIGM-790, 880 LASALLE BOULEVARD, SUDBURY, ON P3A 5W7, CANADA WILL TEST BETWEEN 1:00 & 1:30 AM EST. THE TEST WILL INCLUDE COUNTRY MUSIC, PLUS MORSE CODE & VOICE ID'S BETWEEN EACH SONG, AND WILL BE RUN AT A POWER OF 50,000 WATTS AT 135% MODULATION USING A DAYTIME ANTENNA PATTERN. RECEPTION REPORTS MAY BE SENT TO: MR. SCOTT SLOAN -DIRECTOR OF ENGINEERING. (ARRANGED BY J.D. STEPHENS FOR THE IRCA CPC).

E-Mail:Ssloan@osiris.isys.ca

MONDAY, NOVEMBER 18, 1996 - KALM-1290, P.O. BOX 15, THAYER, MO 65791 WILL TEST AT 1,000 WATTS NONDIRECTIONAL BETWEEN 1:00 & 1:30 AM EST. THE TEST WILL INCLUDE MORSE CODE. RECEPTION REPORTS MAY BE SENT TO: MR. DAVE WATSON (KB0YF) - PROGRAM MANAGER. (ARRANGED BY J.D. STEPHENS FOR THE IRCA CPC).

E-Mail: Watson@enet.net

MONDAY, NOVEMBER 18, 1996 - KKOJ-1190, P.O. BOX 29, JACKSON, MN 56143 WILL TEST AT 5,000 WATTS DIRECTIONAL DAYTIME PATTERN BETWEEN 1:30 & 2:00 AM EST. THE TEST WILL INCLUDE MORSE CODE ID'S AND OLDIES MUSIC. RECEPTION REPORTS MAY BE SENT TO: MR. DOUG POTTER - ENGINEER. (ARRANGED BY J.D. STEPHENS FOR THE IRCA CPC).

IRCA Reprints

The IRCA maintains a large file of articles which have appeared in past issues of DX Monitor. These articles cover a wide variety of topics, including: antenna theory and construction, tips for the foreign BCB DXer, how to improve your DXing skills, history of DXing and broadcasting, lists of stations by subject, construction projects and receiver modification, receiver reviews, medium wave propagation, and more. Copies are available for a nominal charge. For a list of reprints, send \$1.00 to:

IRCA Reprints, c/o Steve Ratzlaff, 1885 E Bayshore Rd Sp 90, E Palo Alto CA 94303.

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BROADCASTING

Editor: Robert Wien 1309 Dentwood Drive San Jose, CA 95118

<u>DEADLINES</u>: 2nd & 4th Saturdays. Compiled: 10/11/96 Much of this information was compiled from <u>M Street Journal</u>, DXM, and various other sources.

FACILITY & PARAMETER APPLICATIONS:

AK.	Nome	KICY-850	inc. to 50000/10000 DA-N, 50000DA 11 PM -4 AM (Nome time)
co.	Durango	KIUP-930	
CT.	Ridgefield	WREF-850	inc. to 10000/500 DA-2

FACILITY & PARAMETER GRANTS:

CA.	San Francisco	KIQI-1010 mod. CP to 10000/1500 DA-2
FL.	Melbourne	WMMB-1240 dec. to 940/940 ND
GA.	Savannah	WSGA-1400 dec. to 650/650 ND
TX.	Mineola	KVCI-1510 change to DA-D
PQ.	Cabano	CJAF-1240 move to 98.3 FM

CALL LETTER CHANGES:

AZ.	Phoenis	KVVA-860	requests	S KMVI	P
CA.	Modesto	KBEE-970	becomes	KBUL	"K-bull 970"
CT.	Hamden	WXCT-1220	becomes	WOUN	
KS.	Atchinson	KERE-1470	becomes	KAIR	
KY.	Louisville	WHKW-1080	becomes	WKJK	"KJ-1080"
MS.	Southaven	WAVN-1240	becomes	WBLZ	"Memphis Blues"
MO.	Blue Springs	KBEQ-1030	becomes	KOWW	"The Cow"
MN.	Albuquerque	KDZZ-1520	becomes	KHTZ	
PA.	Philadelphia	WPTS-1210	becomes	WPHT	"Philadelphia's Talk"
UT.	Salt Lake City	KAPN-860	becomes	KCNR	
WY.	Cheyenne	KSHY-1370	becomes	KJJL	

FORMAT CHANGES:

AL.	Fairhope	WELX-660	was gospel/R&B oldies, now Children's net
AZ.	Phoenix	KPXQ-960	was KOOL, oldies//FM, now religion
CA.	Port Hueneme	KTRO-1520	was regional Mexican, now talk
CT.	Hamden	WQUN-1220	was WXCT, tropical, now silent, Quinn- ipac college will announce new format soon)
FL.	Miami	WINZ-940	was nx, sports, now nx/talk (adds Rush & Dr. Laura)
	Miami	WOAM-560	was sports, rush, drops Rush
	Plant City		was 70's oldies//WCOF, now ABC Urban gold
	St. Petersburg	WSUN-620	was soft AC//WWRM, now ABC AS
	Tempe Terrace	WQBN-1300	was SS AC, now tropical
GA.	Alma		was s. gospel, now nx, talk
	Fitzgerald		was soft AC//FM, now s. gospel
ID.	Gooding	KRXR-1480	was oldies, now classic country
	Payette		was rock, talk, now nx, talk
IL.	Freeport	WFRL-1570	was talk//WROK, now talk
	Highland	WINU-880	was soft AC, now nx, talk
IN.	Muncie	WXFN-1340	was WLBC, country, now 1 on 1 sports
IA.	Estherville		was AC//FM, talk, now oldies, talk 2

FORMAT CHANGES (CONT.):

MD.	Morningside	WPGC-1580	was urban, talk, adds black gospel
MI.	Grand Rapids	WRCV-1410	was ABC Real C&W, adds ABC Moby
MS.	Louisville	WLSM-1270	was country//FM, now Prime sports
	Tupelo	WNRX-1060	was nx, adds USA Daybreak
MO.	Kansas City	KFEZ-1190	was AS, now JSN AS
NC.	Burgaw	WVBS-1470	was religion//WOTJ, rptd. silent (lost
			xmtr site to wind, will return to new
			site soon)
OH.	Cincinnati	WSAI-1530	was AS, adds JSN AS
		WAZU-1360	was children's, now brokered talk (fills
			in w/CNN Headline nx)
OK.	Lawton	KKRX-1050	was stds., talk, now black gospel
OR.	Corvallis	KEJO-1240	was JSN oldies, now JSN AS
	Eugene	KKNX-840	was nx, talk, now JSN oldies
PA.	Barnesboro	WNCC-950	was religion //WCRO, now silent pending
			sale
	Chester	WPWA-1590	was AS, now CSN Children's net
	Ebensburg	WRDD-1580	was religion//WCRO, now silent pending
			sale
SC.	Bennettsville	WBSC-1550	was soft AC, now talk
TN.	Colonial Heights	WPWT-870	was silent, now talk "Power Talk" (uses
			talk shows from Salem & USA networks)
	Murfreesboro		was nx, sports, now JSN AS
TX.	Corpus Christi		was SS AC, now regional Mexican
	El Paso	KHEY-690	was ABC oldies, now ABC Real country
	Kingsville	KINE-1330	was regional Mexican, adds SS religion
			(6 AM -2 PM CLT)
UT.	Delta		was country, now talk
VA.	Lynchburg		was dance-CHR//FM, now ABC Urban gold
WA.	Silverdale		was country, adds talk PM drive
WV.	Montgomery	WMON-1340	was JSN soft AC//FM, now JSN CD C&W//FM

Gary jackson of Sacramento, California sends allowing an article mentioning several Sacto area stations have been sold, including: KXOA-1470, KMJI-1380, KCTC-1320, and KHTK-1140 on the AM side. What this means is TBD...

Thanks, Gary! I week till my trip to so. CA. to visit various DX'ers, unfortunately a friend of mine who was supposed to go with me had to cancel out due to work commitments, so I'll be soloing this time... What I will find, stay tuned! 73's.

GEOMAGNETIC INDICES

Tabulated from WWV at ~0518 GMT nightly

Geomagnetic Summary October 10 1996 through October 16 1996

GEO maf mas mis		flare	activ	vity	pca SA spe ss	 polar cap absorpt Solar Activity satellite proton severe storm 	
Date	FLUX	A	к	SA		GEO	OTHER
10/10	68	8	2	very	low	quiet-active	-
11	67	7	4	very	low	quiet-active	-
12	67	12	2	very		quiet-active	-
13	68	11	3	very		quiet-active	-
14	69	12	1	very		quiet-active	-
15	69	4	1	very		-	-
10/16	69	7	0	very	low	quiet-unsettled	-



Just a short column this time around. I just returned from the NAB convention in LA for several days. There are some reports Via the Internet, but I haven't been able to access it again. I checked briefly when I arrived home, but later when I tryed to get the tips, the line has been busy. I hopefully will beable to include those tips next time. We have a report this time from Steve Ratzlaff. Glad to have you onboard. Report when you can. Other reports from Art Peterson, Shawn Axelrod So away we go.

TRANS-PACIFIC DX ROUNDUP

153	RUSSIA, FE 1400 10/12, // 180,243, 279. Hrd most AMs sometimes
	loud. (SR-CA)
576	RUSSIA, FE Midnight in Moscow chimes 1000 10/7,6 pips (AWP-CA) UNID, 10/12 1309 Pop mx, weak (SR-CA)
594	UNID, 1344 10/12, Ort. talk (SR-CA)
648	UNID, Ort. talk 1314 10/12 (SR-CA)
711	UNID, Ort. talk 1315 10/12, poor (SR-CA)
756	UNID, Ort. talk poor 1317 10/12 (SR-CA)
774	JAPAN, Akita-JOUB 1246 10/12. Loud EE lessons. Very interesting(SR)
	AUSTRALIA, Melbourne, 3L0 10/4 1224 Poor w/man in accented EE doing
	nx (SA-MB)
828	UNID, 1320 10/12 Ort. talk faint (SR-CA)
846	UNID, 1322 10/12 Ort. talk faint (SR-CA)
850	HAWAII, Hilo KHLO 1415 10/12 "Oldies 850 KHLO" ID oldies song, only
	stn on freq. (SR-CA)
855	UNID, 10/4 1226 Poor signals of man talking in accented EE.Suspect
	4QB/4QO, but (SA-MB)
891	UNID, 1324 10/12 Ort. talk (SR-CA)
972	UNID, 1330 10/12 Ort. talk medium signals (SR-CA)
1143	UNID, 10/4 1243 Light rr mx and man in accented EE, suspect 4HI,
1500	but (SA-MB)
1566	SOUTH KOREA, 1249 10/12 weak Ort. talk (SR-CA)
1638	UNID, 10/4 1233, Good het, no audio (SA-MB) AUSTRALIA, Greek radio here weakly 1106 10/16 (PM-OR)
1674	UNID, quite a strong OC at 1120 10/16. Maybe another new expanded
10/4	band Aussie, no audio hrd tho. (PM-OR)
	band Aussie, no addio nid cho. (FM-OR)
THANKS	TO THESE GREAT REPORTERS
IIIAIKD	
SA-MB	SHAWN AXELROD, 30 BECONTREE BAY, WINNIPEG MB R2N 2X9
	Icom ICR-70 w/Plam Board, Filter mods

	Icom ICR-70 w/Plam Board, Filter mods	
SR-CA	STEVE RATZLAFF, 1885 EAST BAYSHORE RD #90, EAST PALO ALTO	CA
	94303	
	AR7030 with Outdoor active loop	
PM-OR	YOUR EDITOR	
	Drake R8, Terminated "U" antenna, Ground system	

AWP-CA ART PETERSON, 851 31ST STREET, RICHMOND CA 94804

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DX WORLDWIDE EAST

Temporary Editor: Mark Connelly, WAllON 30 William Road Billerica, MA 01821-6079, USA

E-mail = MarkWAllON@aol.com

This column is for international DX loggings (no US/Canada station logs by US/Canada DXers) by members in the time zones from Central (winter: UTC-6) eastward to UTC+6. Others: report to Pat Martin's DX Worldwide West.

Please report in the format I've used for my DXWW-E reports. Times are UTC. Dates should use 3-letter month abbreviations (rather than all numbers).

Please use E-mail or mailed PC disk if possible. Non-electronic (handwritten or typed paper) logs should not exceed one page per issue.

Report from Mark Connelly - DX from Rowley, MA (GC= 70.825 W / 42.75 N) <end of Stackyard Road at Parker River Nat. Wildlife Res.: salt marsh>

Receiver used: Drake R8A

Antenna systems: RL-1 Remotely-Tuned Loop, RW-1 Active Whip, DCP-2 Dual Controller / Phaser

DATES: 1996 (UTC/GMT)

TIMES: UTC/GMT

* TRANS-ATLANTIC DX *

549	ALGERIA, Les Trembles / unID, OCT 9 0107 - female AA talk; well o/
	unID (German or Russian ?) w/ classical music.
576	SPAIN, RNE5(/1), Barcelona / ALGERIA, Bechar, OCT 9 0110 - woman
	in SS o/u AA music; fair.
585	SPAIN, RNE1, Madrid, OCT 9 0111 - woman in SS; fair to good.
684	SPAIN, RNE1, Sevilla, OCT 9 0113 - SS talk, vocal; good.
702	SPAIN, RNE1, Zamora, OCT 9 0114 - dominating this usually jumbled
	channel: SS talk & music // 684.
711	WESTERN SAHARA, Laayoune, OCT 9 0058 - female a cappella AA vocal;
	excellent.
738	SPAIN, RNE1, Barcelona, OCT 9 0114 - // 684 w/ mellow SS vocal; in
	CHCM slop.
765	SWITZERLAND, RSR, Sottens, OCT 9 0116 - classical music; good to
	excellent.
774	EGYPT / SPAIN, OCT 9 0117 - AA vocal o/u SS talk & piano music.
783	SYRIA Tartus, OCT 9 0117 - AA music; poor, in CFDR slop.
819	EGYPT, Batra, OCT 8 2326 - AA vocal; in mess.
836	AZORES, RDP, Barossa, OCT 8 2326 - light pop vocal; stronger than
	837 stations.
846	ITALY, R. Due, Roma, OCT 9 0118 - classical music, opera vocal;
	fair.
855	SPAIN, RNE1 synchros, OCT 9 0057 - SS talk by woman; just o/

probable Romania.

EGYPT, Santah, OCT 8 2324 - male Koranic vocal; good. 864

- 873 SPAIN, SER, Zaragoza, OCT 9 0119 - SS talk; dominant o/ jumble of others.
- UNITED KINGDOM, BBC, Washford et al., OCT 9 0120 EE financial report by woman; o/ Canary Islands SS station. 882
- ALGERIA, Algiers, OCT 9 0056 wild drumming, flutes, strings. 891 UNITED KINGDOM, BBC R. 5, Moorside Edge et al., OCT 9 0055 - fair 909 w/ EE talk about writers guilty of plagiarism.
- SPAIN, R. Espana, Madrid, OCT 9 0121 man in SS; fair. 954
- SPAIN, COPE, Madrid, OCT 9 0122 monotone SS talk by man; good, 999 some CKBW/CFLP/WLUP slop.
- 1026 SPAIN, SER synchros, OCT 8 2315 - fast SS talk; good w/ WBZ phased.
- 1044 SPAIN, SER synchros, OCT 9 0123 - SS news by man; excellent.
- SLOVAKIA, Nitra / SPAIN, RNE5 synchros, OCT 8 2312 Slavic talk mixed w/ SS talk and growl. 1098
- 1125 SPAIN, RNE5 synchros, OCT 9 0125 - woman w/ SS teletalk show; good.
- 1134 CROATIA, Hrvatska Radio, Zadar, OCT 9 0124 - a crazy blend of doo-wop and disco music (with a bit of hip-hop and "techno / industrial" dance music thrown in as well); loud signal, way o/ Spain.
- unID, OCT 8 2309 jumble w/ possible SS talk (but maybe FF -1188 Morocco ?). A het from something on 1187 was noted at times.
- 1197 SPAIN, EI, Vitoria, OCT 9 0100 pips, SS news; o/ others. 1206 unID, OCT 9 0047 - bits of teletalk that seemed to be in a language resembling AA (maybe Hebrew ?); Israel possible, but reception was too dodgy to rule out France entirely. Noted again at 0127 w/ shallow audio on teletalk show.
- SPAIN, COPE / UNITED KINGDOM, Virgin Radio, OCT 9 0127 even-1215 strength "duke-out" between SS and EE programs.
- LIBYA, Tripoli, OCT 9 0129 AA vocal at low audio level on 1251 monster carrier. Other stuff (including fast talk by man: believed to be Portugal) noted just a bit under.
- 1296 SPAIN, COPE, Valencia, OCT 9 0044 - SS teletalk; atop apparent BBC (Orfordness).
- 1305 SPAIN, RNE5 synchros, OCT 9 0044 - man & woman in SS; fair.
- NORWAY, Kvitsoy, OCT 9 0011 old-time music, woman in Norwegian; 1314 very good.
- MAURITANIA, R. Mauritanie, Nouakchott, OCT 9 0042 usual huge carrier and thin audio: AA talk by man. 1349
- unID (FRANCE or UKRAINE likely), OCT 9 0043 monster open 1377
- carrier w/ other stuff under. St. Pierre-1375 totally absent. unID, OCT 9 0018 - Greece, Kaliningrad, or ?? here briefly w/ 1386
- 'Balkan-sounding' male vocal.
- NETHERLANDS, JazzRadio, Lopik, OCT 9 0020 Latin-American style 1395 jazz and vocal; fair.
- SPAIN, RNE5 synchros, OCT 9 0022 SS talk o/ several others. 1413
- VATICAN, Vatican R., OCT 9 0028 "wall to wall" orchestral easy-1530 listening instrumentals, including the "Star Trek" theme (!); way O/ WSAI.
- ALGERIA CLANDESTINE, Tindouf, OCT 8 2352-2353 in foreign 1544 service w/ accented SS talk, then soul-type music; good.
- KUWAIT, VOA, Kuwait City, OCT 8 2337 VOA interview about 1548 schools; fair.
- SWITZERLAND, Sarnen, OCT 9 0036 Alpine-sounding orchestral 1566 music was most likely this; fair and pretty much alone on channel, WQEW slop a problem some of the time.
- SPAIN, SER synchros, OCT 9 0037 woman in SS w/ teletalk show // 1575
- 1584; good o/ SAH. SPAIN, SER synchros, OCT 9 0038 SS teletalk // 1575; good o/ 1584 others.
- * PAN-AMERICAN DX *
- COLOMBIA, HJCT, Barranquilla, OCT 9 0104 La Voz de la Costa ID 1190 surfaced o/ a jumble of many stations. NOTHING! ST. PIERRE & MIQUELON seem to be off the air. Checked
- 1375 on OCT 9 @ 0014 and several other times.



980 CKRM		SK, Regina 10/8 0600-0605 "KRM," country music, solid signal at this time. Was not on my master list for the Boise Bandscan. A surprise. (FA-ID)			
1020	KCKN	<u>NM</u> , Roswell 10/9 2305 strong atop KYXE. ABC news into promo for "Bruce Williams weeknights at 6 on your News Authority, 10-20 KCKN." (TW-BC)			
1150	KKEY	<u>OR</u> , Portland 10/9 2059 strong above CKFR & KEZX, promo for Mason in the Morning on KKEY radio. New. (TW-BC)			
1230	KVAS	<u>OR</u> , Astoria 10/8 2105 strong above numerous others with CBS news into ID "The north coast's favorite music on 12-30 KVAS" into country music. Haven't heard this one for years. (TW-BC)			
1440	CKJR	AB, Wetaskiwin strong 10/11 at 2300. Man ID'd several times as "1440 KJR Wetaskiwin-Camrose," once as CKJR "New Way of Life" program about vegetarian diet followed. (LBG-MT)			
1450 KVSI KFIZ		<u>ID</u> , Montpelier 10/12 0758 s/on with SSB, male announcer, on top. (LBG-MT) <u>WI</u> , Fond du Lac was, I'm convinced, my unID 10/1 at 2300, with KGRZ off. I listened to tape a few more times and deciphered call ID. New. (LBG-MT)			
	KVOW	WY, Riverton on top 10/6 2300. Ended Sports By-Line USA, mane gave legal ID, then ABC news. KGRZ off, KLBM QRM. Also gave legal ID 10/11 0000, one second before KBBS-WY. (LBG-MT)			
	CFHC	AB, Canmore 10/8 2000 gave call ID and began CBC Radio News. KGRZ off, KCLX QRM. (LBG-MT)			
1480	KGOE				
1630	KXBT	<u>CA</u> , Vallejo 10/5 0000 with legal ID on the hour "1630 KXBT Vallejo- San Francisco." This one sure gets out. (MS-AB)			
1700	HAR	CA, Anaheim 10/9 0710 appears to have changed format. Male announcer saying "Anaheim Highway Advisory Radio," soon lost in mess. No longer any time & date by woman with 1-2-3-4-5-5-4-3-2-1." Heard date mentioned. Very weak, S meter only 1-2+. My verie a year ago gave power of 10 watts & I could hear it on car radio going to work. Power could be lower now. (GJ-CA)			
DY TI	EETE	energy and a second			

DX TESTS

- 980 (WAPF) <u>MS</u>, McComb 10/7 0200-0230 nothing heard as expected, CKNW dominant. (FA-ID)
- 1570 (WYTI) VA, Rocky Mount 10/5 0000-0030 nothing heard, CHUB dominant. (FA-ID)

UNIDS

- 1450 10/12 0800 man seemed to say "You're listening to all the news, KIZ." Maybe KFIZ-WI. (LBG-MT)
- 1640 Music type & signal strength same as KXBT, but content was different. Any ideas? Looped same direction. (MS-AB)

HELP WITH UNIDS

1640.30 Robert Wien's unID Medfer beacon "R" has to be Jim Vandemaaten's beacon, located in San Jose. It is solar powered. (GJ-CA)

Robert sends along a note that in early 1997 there should be two new stations to try to hear, KZTU-660 OR and KZTW-860 OR. The new DX season is here. If you hear a good catch be sure to report it to one of the editors!

A DXers TECHNICAL GUIDE

Now in its 2nd edition, this 120 page book answers questions on receiver and antenna theory (how to improve their performance), how audio filters and loop antennas can improve DX (and hints on their construction), how to build a beverage and phasing unit, and much more. Only \$5.50 for IRCA/NRC members, \$6.50 for non-members (overseas airmail add \$2.50).

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	Line: JohnJ53816 Saturdays	CompuServe:	74444,3075 Please re	Prodigy: MPNN49A port all times as Eastern.
		RIDING GA		See Youvan
[SA-MB]	Shawn Axelrod, Winn Icom IC-R70 with filter 4' box loop, Quantum I	mods and Palm bo	bard.	mb.sympatico.ca
[EB-MO]	Eric Bueneman, NOUI Sangean ATS-803A, R	H, Hazelwood, Mis ealistic DX-400, T	M-152, Worcester	Space Magnet 2.
[JcJ-MT]	III, 2 "Radio West" Loo	ps.		e HE-30, GE Superadio
		SPECIAL INTE		
620 KBZS	CO, Grand Junction. weather, talk. "KBZS"	ID. New for me. [S	SA-MB]	- vd
1550 KQWB 1640?KWJC	? WA, Green Acres. 10 reported in the west.	-7 very good. Pirat 0158 with Mountai nental EZL music f	e station finally he n TC, ID "This is K ormat. Good signa	old KQWB ID. [JcJ-MT] ard here, widely WJC AM and KBCK FM II, don't understand why
630 KIDO	ID, Boise. 10-3 fair. 08			181
		u/CFCO. 0630 wit		, talk 6-30 KWRO." New
640 KGVB	MT, Belgrade. 10-3 go "KGVB" ID. [SA-MB]	od o/u/KFI. 0803 w	ith USA Radio Net	twork News and a
660 KEYZ	Country" slogan, count	ry music. Weather	and spots for Will	
	AC and DJ talk. [EB-M	D]	Constant (1980) (1	2. 0405 with ABC Urban
680 WJCE	TN, Memphis. 10-11 go oldies, Memphis area s	pots. Gone at 193	0 power cut/patter	n change. [EB-MO]
920 KARN	AR, Little Rock. 10-6 fa forecast. "KARN news	radio 9-20" ID into	Art Bell program.	[EB-MO]
KDHL	spots, "KDHL Polka Pa	rty" promo into Po	ka show. [EB-MO]	
	WI, Milwaukee. 10-6 pc 20 WOKY" ID and adul	t standards format	. [EB-MO]	
980 CKRM	SK, Regina. 10-7 good country music format. [I while trying for D.	X Test. 0156 with
	90 Rocks" slogans. Thi [EB-MO]	s one is rumored t	o be going to FM,	ed with AOR format. "10- glad I have this verified!
1150 KCPS	IA, Burlington. 10-11 go News, spots for Burling			

1190 WHMT TN, Humboldt. 10-10 good in WOWO null. 0504 noted with satellite fed Hot AC, "V-105 and K-94" slogan. This is supposed to be daytime only, someone keeps forgetting to turn this one off at night! [EB-MO] {Eric, I show WHMT has a 230 watt PSRA. Perhaps this is what you heard, or they may be on at night with lower power. Numerous daytimers are on 24 hours, I have 2

of them here in Billings! -- John.}

- 1250 KCNZ IA, Cedar Falls. 10-10 good to poor w/WEMP. 0227 noted with call ID in promo, Dr. Dean Edell, "News radio 12-5-0 KCNZ Cedar Falls, Waterloo" legal ID at 0230, more promos and a PSA. [EB-MO]
- 1480 KRXR ID, Gooding. 10-7 on top 1480. 0227 with ID in rock oldies format. [JcJ-MT] UnIDS
- 1610 unID 10-4 poor signal. 0810 unID TIS with woman giving information on the Lewis & Clark Visitor Center. Beaming west and south. [SA-MB]

25 YEARS AGO

October 30, 1971 issue of IRCA's "DX Monitor" _ Kevin L. Slater of Salem, OR said he got a long wire up at college to help with his DX there _ Albert S. Lobel of San Diego, CA said he was 22 and attended San Diego Evening College _ John Oldfield of Edmonton, AB explained the Northwest Territories _ Bill Hardy of Astoria, OR logged OKJ-1550.

OPEN MIKE

There are two kinds of statistics, the kind you look up and the kind you make up. October is almost over! The new DX season is here. Turn on those receivers and report all your DX to EDXR, WDXR, or CDXR! Eric is back online, see his new e-mail address above. 73, John.



Looks like deadlines will be every WEDNESDAY @ 6 PM..Seems to work best for me..FAX 352-732-7223 E-mail LFreshwate@aol.com OR pre-paid at 352-732-6408...Please prior to 9 PM EST..Another <u>ALL E-MAIL</u> column......

(LF-F	L) V	our	<u>STARS OF THE WEEK</u> friendly editor- Hammarlund HQ-180A/145A w/ KIWA Loop	
			editor at Days Inn Resort, Jekyll Island, GA Patomic FIM 41 w/internal loop ant.	
			Stephens 106 Anita Dr. Madison, AL 35758-7163 Drake R-8, SRII, Panasonic RF-2600, Rad Shack dipole, Shotgun Loop, 75' l.w. <u>VIA E-MAII</u> e-mail JSteph6711@aol.com	
			Bueneman NOUIH, Hazelwood, MO <u>VIA E-MAII</u>	
(LH-A	L) L	ynn 1	Hollerman 514 Carrsbrook Rd, Huntsville, AL 35803	
			YB-400, DX-400 w/Q stick+ VIA E-MAIL	
*****	*****	****	***************************************	
			LOGGINGS	
560	KLVI	TX	Beaumont 10/14 0705 Fair with Local News, ID, and local spots. Should be able to hear this one in Ocala. (LF-G)	
	KLVI	TX	Beaumont 10/16 0630 Up with, "Good Morning its 5:30, for KLVI Newstalk 560" back into the mudVery poor.	
570	WVNI	MS	Will have to keep trying for a better logging (LF-FI Biloxi 10/14 0708 Another one thats eluded my Ocala logbook In w/local news mixing w/KLIF (LF-G2	
1	KLIF	TX		1

580	KLBG	LA	Alexandria 10/14 0715 w/S. Gspl Music, local mentions, and ID. (LF-GA)
610	WTVN	OH	Columbus 10/16 0702 Fair with local news, wx, traffic
			report. (LF-FL)
700	WIZBt	AL	Abbeville 10/15 2251-2305 Hootie & Blowfish mx, other
			new mx. WLW overpowering 2300, but can just barely hear
			DJ. More mx 2301. Thx JD Stephens for the tip &
			confirmation! (LH-AL)
740	WMBL	NC	Moorhead City 10/13 1820 Good signal w/Adlt Stnds,
			Local Spots, ID as "Unforgetable 740 W-M-B-L" (LF-GA)
920	WGNUt	IL	Granite City 10/12 0200-0205 "You're listening to talk
			radio W???", ments of St. Louis, phone #. (LH-AL)
	KYSTt	TX	Texas City 10/12 0216-0227 SS DJ, mx, instrumentals.
			Last time I logged this, it was SS. (LH-AL)
930	WYNI	AL	Monroeville 10/05 1855-1900. In a jumble of stations,
930	HINT	an	popped up w/ "930 WYNI" (JD-AL)
980	WJMX	SC	popped up a, see and
980	WJMA	SC	dealer. Long promo for News Talk 970ID as "W-J-M-X
			News Talk 970, our Rush Limbaugh Connection" & "W-J-M-X
			News Talk 970, our Rush Limbaugh Conneccion a woonex
1080	WKGX	NC	Lenior 10/16 0712 Good w/local news and typical small
			market "Birthday Club" (LF-FL)
1140	WQBA	FL	Miami 10/14 0200 SS vocals, instrumentals. EE ID
			"WQBA-Miami" 0200. (LH-AL)
1150	WTMP	FL	Temple Terrace (no date) 2020-2030. Good w/Urban Cont.
			"Radio Scope" entertainment feature, "WTMP" jingles.
			(JD-AL)
1420	WACT	AL	Tuscaloosa 10/15 2230 In w/ Sat delivered S.Gspl mx.
			Not a note worthy logging, except that signal was SO
			strong it could NOT have been low power of 108 watts
			Might be another station not paying attention (LF-FL)
1460	WRAD	VA	Radford 10/15 2200 with Adlt Stnds, "AM Stereo 1460
			W-R-A-D" No legal ID TOH. Fair signal New (LF-FL)
1470	WLNC	SC	Georgetown 10/14 0638 mixing w/others Blk Gspl Mx,
			Local PSA by "WLNC Radio" Fair (LF-GA)
1500	WGTT	AL	Alabaster 10/16 0715 Fair w/S.Gspl mx. ID as "W-G-T-T,
1000	1011		AM 1500 Alabaster" (LF-FL)
1530	WOBR	NC	Wanchese 10/05 1937-1950. Strong and swamping WSAI at
1220	MODK	NC	times with R&B (Ohio Players, E W &Fire, etc), local
			spots, slogans as "Soul Generation Radio". (JD-AL)
			spors, slogans as "Soul Generation Radio". (0D-RL)
****	*****	****	***************************************

SPECIAL INTEREST

A local DX'er informs me that WRHC-Coral Gables, FL HAS made the move from 1550 TO 1560 KHZ. I have not confirmed this, but did hear SS programming mixing w/WPAD 10/15. Have not got a good ID yet, so can not confirm. Power was also presumed to be raised from 10k/500 to 45k/4.4k.

HELP WITH UN-IDEN:

1190 WHMT TN Humboldt is J.D. unID on 1190. They're licensed as a 420 watt DAYTIMER! Yet, some forgetful engineer has kept this on overnight. (hey-Don't blame the engineers, they probably don't even HAVE one!-ed) They simulcast two FM's which ID as "V-105" and "K-94", and run a hot AC format via satellite. They have almost ruined WOWO here and has made hearing KBCO and CFSL impossible. (EB-MO)

DX TESTS A note from JD : The WYTI test DID NOT run, and has been re-scheduled for early November. Also according to the CE at WAPF, their test DID RUN but he has offered to rerun it later in the season. Still have seen no logs of this one..... (JD-AL)

Well, I finally am finding "some" time to DX and have been able to add a couple of NEW stations to the logbook. Thanks again to my "regulars", J.D. and Lynn.Nice to hear from Eric again too.....Hope all is well. See you all in 7.....fresh



Western DX Forum $\star \star \star \star \star$

Reid Wheeler 5910 Boulevard Loop SE Olympia, WA 98501

Deadline: Saturday 2 weeks before publication

Peter Taylor, 6002 Bayview Dr NE, Tacoma WA 98422-1227

206-566-8669

Greetings from Tacoma - and our new home. We have been looking around for a house between Olympia and Redondo for nearly three months and are at the above location as of 10/21. It is line-of-sight and 9/10th of a mile from KKMO and the 2001 is overloaded from all the 50kw outlets (KIRO, KNWX, KGNW, KIXI, KOMO, KRPM and soon, if not already, KJR) but it's a new house with no dimmer switches and I'm counting on the R390 to get around some of this. In the meantime, KTTZ-1400 is back on as of 9/27 (C&W), KKBY-1450 is ex-KJUN and KBLV-1540 is ex-KJUN slave and is running motivational programming. Driving around our most recent location (University Place), KNWX's harmonic frequency frequently cuts through KBLV and KIRO is not shy about its 1420 presence. Because of my business (advertising/PR), I received some forwarded mail from Radio Korea saying their programs are ex-KVTO-1400 and now on KTOB-1490 and KEAR-106.9 subcarrier. Verie in for July SF reception of CKKY-830 (QSL and balloon). 73

Larry Godwin. 2390 Clydes Dale Lane, Missoula, Montana 59804

(E-Mail to lbg@selway.umt.edu)

[10/11] Greetings! The big news here is that my local KGRZ-1450 has been off the air since October 1, and expects to return the 14th after moving its transmitter site. I have parked my radio on 1450 at 0600, 0700, 0800, 1800, 1900, 2000, 2100 and 2200 MDT almost every day in search of DX. Ironically I've heard only three new catches, all the first day of the silent period. I've logged twelve stations in all on 1450 during this time. Mostly the frequency has been an amorphous jumble of countess signals from which no one stands out. At other times, there are two or three distinct, readable stations that I can affect by turning the loop. Twice I heard IDs at the same hour for three stations. It's been a frustrating but productive experience for learning more about the nature of the graveyard channel. Next week I will return my attention to the rest of the band. 73 and good DX to all.

-34-06 ---

EASTERN		
		Richard C. Evans
DX		237 Laurel Meadows Drive
		West Columbia, SC 29169
FORUM		as a set of the Price of the set
DEADLINES:	SATURDAYS	Phone: 803-926-9809

Rick Evans. 237 Laurel Meadows Drive, West Columbia, South Carolina 29169 Unless something goes wrong in the next three or four hours, this I just talked with Bell South and my phone will be my new address. number will remain the same. On the tower locations, I came across a sign for WVOC-560 over on Bush River Road and went looking for it. Turns out to be three towers, basically northwest/southeast. I will be living about three miles from them. There was also a WCOS-1400 sign in front of the building. Saturday, I found a sign for WQXL-1470 on the north side of downtown Columbia. I didn't feel like driving down a one lane dirt road, but I could see the single tower real well. It's pretty short. Also, now that it's dark when I go to work, I can see two tall towers from the road to the office. They aren't on that road, but perhaps three miles from there, so that's another project for a couple weekends down the road. Now up to 114 heard, and I will probably start sending out some reports in a week or so once I get settled into the house. Last week, I mentioned the thought of three digit heard records for this week with tongue in cheek. I meant four digits, hi. How about some reports from you guys !! 73.

ADVANCED Q-STICK DXING TECHNIQUES

Gerry Thomas

The original article on the QUANTUM STICK (Q-STICK) gave brief construction details and rudimentary operating instructions. I alluded to more advanced operating techniques so I'd like to provide a little more information on these techniques so you can use your Q-STICK and portable radio to improve reception quality and increase your probability of nabbing some tough DX.

NULLING

With some radios, mounting the Q-STICK directly on the radio's cabinet has little if any effect on the radio's nulls of stronger stations. With other radios, however, because the gain of the Q-STICK is so high, its magnetic field can couple with not only the radio's ferrite antenna, but also with front-end circuitry and components. The result is: shallow, less useable nulls. The solution is to *not* permanently mount the Q-STICK on your radio if you anticipate ever needing to null a strong station. Instead, use the Q-STICK unattached and position it at a distance (an inch or so) from the radio so that both the radio's null and the Q-STICK-induced signal peak are preserved. Later in this article I'll describe a method of deepening your radio's null (through "phasing") using the Q-STICK.

MINOR & CONTROL

As mentioned in the original article, changing the distance of the Q-STICK from the radio alters in an inverse fashion both gain and tuning sharpness, or "Q." While this Q control does not provide the degree of sharpening of, say, a Q-multiplier, it can be useful in some situations. For example, the Superadio III has two IF bandwidths, "wide" and "ridiculously wide," with the result being slop from even moderately strong stations appearing on adjacent channels. Here in Pensacola, WVTJ-610 kHz (a low-powered and over-modulated fire-and-brimstone station across town) splatters its signal distractingly when I'm trying to listen to the sports station, WSUN-620 kHz, down in St. Petersburg eventhough I have WVTJ in a partial null and the SRIII in its less wide IF position. De-coupling (i.e., increasing the Q of) the Q-STICK by moving it out onto the folded-down SRIII carrying handle and re-peaking WSUN results in a clean signal from the station downstate.

G-MULTIPLICATION WITH THE QUANTUM LOOP AND STICK

If you happen to own both the QUANTUM LOOP (or any other loop with gain control) and Q-STICK, you can invoke Q-multiplication (or regeneration) by carefully manipulating a couple of variables. For easiest manipulation, all of the components (i.e., radio, loop, coupler) should be small enough to allow their relative positions to be easily controlled. The theory underlying the technique is really very simple: Signal gathered by the QUANTUM LOOP is routed to the Q-STICK which re-radiates the signal to the radio's internal ferrite rod; if this radiation field is sufficiently strong to also extend back to the QUANTUM LOOP's head, the QUANTUM LOOP will re-tune and re-amplify the signal. This cyclical process results in a stronger, sharper signal. By carefully controlling the amount of Q-STICK-radiated signal the QUANTUM LOOP's head picks up, the degree of signal gain and sharpening can be controlled. In practice, the technique is straightforward:

1. Connect the QUANTUM LOOP's output to the external antenna jack of the Q-STICK and place the Q-STICK in its normal peaking position near your portable radio.

Tune to a station and peak the QUANTUM LOOP with the Q-STICK in either its "bypass" or "tuned" mode (your choice).

3. Slowly increase the gain of the QUANTUM LOOP until squealing or "motorboating" occurs.

4. Then carefully reduce the gain of the OUANTUM LOOP until the squealing or

"motorboating" just stops.

You should now notice an increase in the gain of the signal and, by tuning your radio back and forth, above and below, the station's frequency, note a tightening of the passband. This sharpening of Q can be of potential use in reducing adjacent channel slop as well as in digging out split-frequency foreign DX.

If you were not able to get oscillation (squealing) even with the QUANTUM LOOP's gain wide open, simply move the QUANTUM LOOP a little closer to the radio/Q-STICK set-up. The coupling of the Q-STICK's radiated signal back to the QUANTUM LOOP's head can also be controlled by the relative orientations of the QUANTUM LOOP's head and Q-STICK (maximum coupling occurs when the two are parallel, of course). The possible combinations of Q-STICK and QUANTUM LOOP variable settings are too numerous to detail in this article and are situation-dependent, so experiment. You'll note that this technique increases both gain and Q simultaneously (unlike the preceding Q-control technique where there is an inverse relationship between the two variables).



POOR MAN'S PHASING

Over the years, numerous articles have appeared in the DX press on the joys and benefits of "phasing." Pattern controlled loops described by Nelson, Litnow, and others and a series of excellent articles by Connelly, Lankford, Schatz, et al. have detailed techniques of using, and methods of building, devices to manipulate the relative phases and amplitudes of two combined signals. Even I've tinkered around with various phasing schemes and can attest to the desirability of adding this capability to your DX arsenal. If you have the patience and a reasonably steady pair of hands, you can effect exactly the same kinds of results with a Q-STICK and your portable radio.

Successful phasing with the Q-STICK requires that the level of the signal coupled to your portable radio be exactly equal to the level of the signal being picked up by your radio's internal ferrite rod antenna. Therefore, you must move the O-STICK farther from the radio than usual, then manipulate its angle relative to the radio's ferrite rod antenna, and finally, "touch up" the tuning of the Q-STICK to effect the null. My first attempts with this technique of controlling the combined cosine patterns of two loops met with very nice success. For example, the biggest slopper in Pensacola is WRNE-980 kHz, a 10 kW rhythm & blues/gospel station directly across the bay from me. It so decimates the vicinity of 980 kHz that DXing from 970 to 990 kHz requires extreme nulling antics when I'm using my QUANTUM LOOP. On my first attempt at using the Q-STICK as a "poor man's phasing device," I was able to totally eliminate WRNE on 980 kHz and hear Nashville (this used to be WSIX but I haven't logged it in a while) battling a Cuban on the frequency. Let me quickly state, though--this was not quick and easy! As phasing always is, it was a touchy proposition, but it can be done. Practice has made it quicker and somewhat easier and a radio with an S-meter is almost a necessity, especially while learning the technique. I used the Sony ICF-2010 (and its 10-LED signal indicator) for these initial tests and managed to hear WQXI, Atlanta and R. Reloj, Cuba under local WSWL-790 kHz; neat zydeco music on KVOL, Lafayette, LA under semi-local WEBY-1330 kHz (these two are about 180 degrees apart making KVOL impossible with a standard loop); WIOD, Miami under local WVTJ-610 kHz; and several unIDs on local station frequencies of 1230, 1370, and 1450 kHz. (These loggings are identical to those I get with my "serious" desktop communications rxs and phasing unit set-up, so "poor man's phasing" refers only to equipment costs, not to diminished performance.)

So, how do you do it? Following are the general steps I followed to "phase out" a dominant station.

 Clear off your desktop so that you have enough room to rotate your radio and move the Q-STICK about.

2. Tune to your dominant "to-be-phased" station and peak the Q-STICK for maximum signal.

3. Without touching the tuning knob of the Q-STICK, remove it from the immediate vicinity of

your radio and rotate the radio for a maximum null of the dominant station. On strong stations that peg the S-meter, lower RF gain (if your radio has that provision) so that you get a more responsive S-meter reading; don't forget to increase the gain once the nulling process is complete.

4. Place the Q-STICK on the desktop about 3" from the top of the radio and slowly vary the distance ("d") between the radio and Q-STICK while simultaneously varying the angle ("a") between the Q-STICK and radio. At some combination of "d" and "a" there will be a maximal deepening of the radio's null. With me, this process looks like I'm steering the Q-STICK as I grip both ends and slide it around the desktop. The null point is very sharp and sudden and a close eye must be kept on the S-meter. I have not yet worked out the trigonometry on angle "a," but intuition and practical results suggest that 45 degrees is a good point at which to start your search for the maximal null.

5. Once this null deepening point is found, a *very* minor adjustment of the Q-STICK's tuning knob or a very slight adjustment of the orientation of your radio (whichever is easier) effects the final phase tweaking and should send your dominant station the rest of the way into the noise. Aural cues (signal fluttering, noise increase, etc.) in both Steps 4 and 5 can also let you know that you are zeroing in on the proper point. At night, when signal levels are higher, you may never get a "0" reading on your S-meter because the "underneath" stations' signals will take over. A sharp ear to the dominant station's presence must supplement the nulling procedure, therefore.



The preceding is not a pretty process. It is almost guaranteed to draw looks of perhaps sympathy or concern from family and friends as you "divine" your way around the desktop with this DXer's equivalent of the Quija planchette. Fortunately, there is an easier way...

PHASING WITH THE QUANTUM LOOP AND STICK

Using an external loop that has a gain control can make the preceding set of steps significantly easier. The steps are essentially the same but instead of steering the Q-STICK around the desktop, place it near the radio in its normal peaking positions and manipulate "d" with the QUANTUM LOOP's gain control and "a" by rotating the loop head...much easier. (If the range of control of "d" by the gain control is insufficient, move the Q-STICK farther from the radio and start over.)

Although I have yet to try it, it would seem possible to connect a nondirectional antenna (i.e., a whip or short longwire) to the radio's external antenna jack (if plugging it in didn't disconnect the ferrite rod) thereby making the ferrite rod antenna nondirectional. This would allow combining the nondirectional signal source with the loop's figure-8 pattern to create a cardioid. Then you would also have a very easy-to-control "steerable null" that you could swing through 360 degrees (by rotating the QUANTUM LOOP's head) in order to not only null a dominant pest but also, conversely, to perhaps clean up a desired dominant station's signal by placing the null on a weaker offending station. All of the portable radios I use for DXing disconnect the ferrite rod when an external antenna is plugged in so I connected a nondirectional whip to the Q-STICK's external antenna jack. Unfortunately, my first series of tests were not very fruitful. I tried using an unamplified 34" whip as well as a 19" active whip (MFJ-1022) but never got total nulling of my local stations. I think that this may have been due to either an interaction between the whip and Q-STICK (they, in my test set-up, had to be located in close proximity)

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or I needed to add an in-line pot to the whip to help with the phasing. I'll have to spend a little more time on this; in theory, this whip set-up should work though....

CLOSING REMARKS

So, there you have it, a series of techniques that should surely aid you in your pursuit of DX. In my humble opinion, these techniques will place the "portable radio MW DXer" on near equal footing with the well-equipped megabucks communications rx DX shack. In fact, these techniques with my modified Sony ICF-2010 allow me to out-DX my Drake R-8 when it's equipped with only a longwire or conventional loop (adding phasing capabilities, however, pushes the R-8 back out in front). Yeah, the 2010 is not quite an R-8 but adding a Q-STICK gives me a passive antenna booster, a tuned external antenna coupler, and Q sharpening and phasing capabilities. Add a QUANTUM LOOP and I get even more gain, a regeneration mode, and easier phasing...all in all, a sort of "Swiss Army knife" assortment of DX tools for the serious portable radio MW DXer...

Construction details for both the QUANTUM LOOP and Q-STICK have appeared in past club bulletins. If you'd rather just purchase an already assembled unit, request a catalog from me at RADIO PLUS+ ELECTRONICS, 3635 Chastain Way, Pensacola, FL 32504 ((904) 432-8208). Best of DX and 73's...GT

Two Updated Remote Active Antennas RL-1 REMOTELY-TUNED LOOP and RW-1 REMOTELY-TUNED WHIP

Mark Connelly, WAIION / 04 JUN 1996

Remotely-tuned antennas, operated by a controller such as DCP-2 or MWT-3, can give DX receptions that would otherwise not be possible. Operating positions in vehicles and in steel-frame buildings usually require outdoor antennas that are compact, placed away from structural shielding and electrical noise sources, and capable of delivering sufficient signal-to-noise for serious DX listening, including medium wave operation during low-signal daytime and auroral-nighttime conditions at rural sites. Furthermore, at high-signal urban locations, if amplifiers are used at the remote antenna head-ends, they must be able to deliver desiredfrequency weak DX signals free of intermodulation distortion / mix spurs from local transmitters on different in-band and out-of-band frequencies. This is a "tall order" and many of the commercially-available broadband active whips are not up to the task. The "Ultralinear" active whip design by Dallas Lankford is about the best. For many, whips made by Dressler, Rohde & Schwarz, RF Systems, MFJ, and others will suffice. A broadband design offers frequency-agile listening, but for a given amount of gain, a properly-designed remotely-tuned antenna - whip or loop - will outperform a broadband active antenna in terms of freedom from spurious responses. Often the receiver itself, as it is hit with many strong signals at once, is just as likely to generate spurs as is the antenna's untuned head-end amplifier. Thus, even remotely-tuning a very "crunchproof" antenna amplifier can still improve the final "as heard" signal. The perfectionist will consider a motordriven variable capacitor at the remotely-tuned antenna instead of moreoverloadable varactors. For that matter, he will probably eschew the front-end amplifier altogether in favor of an antenna of sufficient size ... such as a 1 m. loop or 10 m, wire ... to deliver adequate drive to a 50 ohm coaxial line after having been coupled through a very efficient tuning / impedance-matching tank circuit that includes that motor-driven capacitor. Since my main interest involving remotelytuned antennas is DXing on car trips to good DXing locations that are NOT in the shadow of multiple local-station transmitting towers, my overload immunity considerations are somewhat less stringent than those of a DXer in a Manhattan high-rise. Varactors do work well for my needs and the circuits are much simpler to implement than those supporting motorized capacitors.

The high cost and lack of common availability of some of the buffer amplifier chips (such as the National Semiconductors LH0033CG) at the heart of the RTL-2 Remotely-Tuned Loop and other prior designs led me to investigate other amplifier options. The BUF-B amplifier which uses a 40673 (or equivalent NTE222) MOSFET followed by a 2N5109 output bipolar transistor (see RTL-2 article) did an adequate job, but I figured that further improvements were possible. Anyway, the dual gate MOSFET's seem to be getting less available and more expensive. Dallas Lankford's ultralinear whip amplifier looked good on paper, except for my own bias against those wind-'em-yourself transformers. Also, the circuit's gain seemed less than what is required for small antennas used at rural sites. After a bit of research, the BUF-D design evolved. This card uses a low-noise JFET input (2N4416 or J310 can be used) and a VMOS FET (VN10KM) for the output power amplifier. No RF transformers are required, so nagging worries about core saturation IMD on strong signals could be put aside. The 2N4416's (or J310's) are widely available and the VN10KM power FET is available at Active Electronics (and at my local Electronics Superstore in Woburn, MA). Thomson SK9155, equivalent to the VN10KM, is available from Allied and other mail-order vendors. Achieving optimum transistor biassing for lowest intermodulation distortion is a bit of a "black art" and is best done with two-tone testing on a spectrum analyzer, although the component values I've chosen (as a result of single-tone oscilloscope testing) should be reasonably close to optimum values.

To keep antenna circuitry simple, I designed one unit, the RL-1, to amplify a plug-in loophead (ferrite such as the Quantum and Palomar heads, or homebrew air-core) and I designed a second unit, RW-1, to amplify a wire or BNC-equipped whip (such as the now-unavailable 30-inch / 76 cm Radio Shack 20-008). Having two simple different-use units reduces wiring complexity and the likelihood of unexpected coupling and oscillation: these problems have occurred with the rat's nest of wiring required inside some prototype combination-loop/whip bases having high-gain amplifiers.

Each remote base (RL-1, RW-1) contains a varactor / relay card and a BUF-D amplifier card. Other contents are specific to the task of loop or whip/wire operation.

The RW-1 has bandswitch inductors that resonate with the varactor to permit tuned operation on longwave, medium wave, and tropical band ranges. Each range is divided into two sub-ranges controlled by the relay on the VRLY-B card: LW-low = 130 - 220, LW-high = 220 - 475; MW-low = 475 - 830, MW-high = 830 - 1720; TB-low = 1720 - 2700, TB-high = 2700 - 5500 (up to \sim 7500 kHz with short whips). The RW-1 also has an attenuator pot to keep overloading under control at strong-signal urban / suburban locations. RW-1 can be used for broadband whip amplification in addition to remotely-tunable operation. It works at least as well as an MFJ 1024 in this regard.

The BUF-D amplifier in both the RL-1 and RW-1 can be operated at low gain or at high gain. Low gain operation will give somewhat better freedom from mixing spurs; high gain will give the signal levels often required for successful phasing through the delay-line circuitry in a DCP-2 Dual Controller / Phaser located at the receiver - operator "shack" position.

Tank circuit Q can be reduced, if desired, on both the RL-1 and RW-1. Doing this can sometimes improve null stability and effective null bandwidth when

phasing; however, reduction of signal-to-noise margin can be a trade-off.

Because of the simplicity of the RL-1 and RW-1, detailed comments and operating instructions are not included. The tables and drawings which follow should provide enough information to allow a DXer to run either unit in conjunction with a suitable controller such as MWT-3, DCP-1, or DCP-2. For more thorough discussions of remotely-tuned antennas, see the various National Radio Club and International Radio Club of America reprints of RTL and RTU style remotely-tuned antennas and of DCP and MWT style controllers. These articles refer to useful additional works by Ken Cornell, Dallas Lankford, Joe Farley, E. L. Cummins, and others.

Systems comprised of an RL-1 (with Quantum loophead), RW-1 (with BNCplug-equipped whip), and DCP-2 Dual Controller / Phaser (with necessary "umbilical" cables and 12 VDC power source) are being used successfully by me and by Bruce Conti on car DXpeditions to beaches, salt marshes, and other advantageous DX sites. Antennas may be vehicle-mounted for use at locations not having space and/or privacy for proper longwire installations. When electrical noise and shielding are not too bad, the system can be used indoors as well. Phased loop-versus-whip systems can produce the cardioid patterns most suitable for transoceanic DX reception.

A system with a DCP-2 and two RL-1's (with loopheads aimed 60 to 120 degrees differently) also works well. At rural sites, you can use two RW-1 bases, preferably in tuned mode, each connected to a moderate-length (up to 100 m / 330 ft.) wire. The two wires (like the loopheads mentioned in the "two RL-1" case) should have a bearing difference of 90 +/- 30 degrees for best results.

An RL-1 remotely-tuned loop, if set to the lower-Q mode, can also be phased against a broadband-mode RW-1 active whip or against an untuned longwire (fed directly to the DCP-2, or through an RW-1) with reasonable results. This is commonly done on DXpeditions, as it allows "band cruising" and parallelchecking when the DCP-2 controller is switched to the untuned antenna.

All these variations on the same theme are systems which outperform a loop used alone. They are the modern (and compact) versions of the LIL (Dallas Lankford) and LSCA (Ron Schatz) loop / vertical cardioid set-ups that have worked so well in fixed "base station" home applications.

RL-1 and RW-1 CONSTRUCTION DATA

Table 1: RL-1 hole-drilling list

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

D = Hole diameter in inches.

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