



October 13, 2001 - Volume 39, Number 5 - Edition 1227 - ISSN 899-9733

## Publisher's Note

Congratulations to Dennis Gibson and his bride Susie, who were married on September 22. They honeymooned in Maui, and Dennis sends word he even did a little DXing. Best wishes to both of you! Tim Kreidel and his wife Judy were married October 6, congratulations! The WJNT-1180 test happened a week late. Lynn Hollerman received word from Stan Carter that it was rescheduled for 10/6/01, midnight - 1 am CDT, and it did run then.

## DX Test

PLEASE NOTE: Even if you don't hear a test, be sure and drop a card, letter, or e-mail to the station personnel, thanking them for going to the trouble to run a test!

Sunday, November 4, 2001 - WODI-1230, Brookneal, VA will conduct a DX test from 1:00 am - ?? EST. The test will consist of Morse code, distinctive music, and voice announcements. Reception reports (with return postage) may be sent to:

Dave Marthouse E-Mail: [wodi@lynchburg.net](mailto:wodi@lynchburg.net)  
 WODI Radio  
 1230 Radio Road  
 Brookneal, VA 24528

(Arranged by Dave Marthouse for the NRC / DXAS.)  
 Also, if you hear a test, PLEASE, PLEASE let me know, via either e-mail or in [rec.radio.shortwave](mailto:rec.radio.shortwave)! And if you send a reception report to a station, please remember to include return postage with your report...—Lynn Hollerman

## Editors Needed

The following columns need editors. If you would like to participate in YOUR club, contact

Lee Freshwater at [engwtrs@aol.com](mailto:engwtrs@aol.com)

DX Worldwide – EAST Sports Information

## IN THIS ISSUE:

Broadcasting Information.....	2
Western DX Roundup.....	3
Central DX Roundup .....	4
Eastern DX Roundup .....	5
Technical Column .....	6
DX World Wide -West.....	10
DX World Wide -East.....	12
Western DX Forum.....	12
My First 25 States .....	13
Club information - FAQs.....	16

## Web Sites for AM DX Stuff

The IRCA website has a fresh new look; the site is located at [www.geocities.com/Heartland/5792](http://www.geocities.com/Heartland/5792). Be sure to look at the link for the New Member packet; everything you want or need to know about the club is located there, including the Constitution, updated 12/2000, the Editorial Policy, the history of the club, the conventions and awards offered, a code of ethics, guides to overseas DXing from the East Coast, hearing Pan-Americans, Trans-Atlantics and Trans-Pacifics, times to listen for BCB DX, what various abbreviations mean, dealing with harmonics and other spurious emanations, writing reception reports, verifications, how do you rate your best catch, equipment used, IRCA and other DX publications, useful logs which are available, and Travelers Information Stations. There are links to "hot DX" and info for DXers new and old. Various links to other DX sites are available.

One site I like to use regularly is the Broadcast Information site; it's great for determining how far away stations are from my listening post. It's at [www.radiostation.com/kodis/](http://www.radiostation.com/kodis/) -RT

## BROADCASTING INFORMATION

Lee J. Freshwater - 414 SE 3rd St. - Ocala, FL 34471

E-mail: ENGWTRS@aol.com

### CALL SIGN CHANGES

FREQ.	CALL- CITY	NEW CALL	
900	WDLS- WISCONSIN DELLS, WI	WIBU	1
970	WBCG- CANTON, NC	WWIT	
1180	WSAF-TRION, GA	WZQZ	
1240	WIBU- WISCONSIN DELLS,WI	WHFA	1
1310	WJRA- PRICEVILLE, AL	WQAH	
1350	WTAZ- PEORIA, IL	WOAM	
1370	KCNB- HOLDENVILLE, OK	KLIS	
1570	KMYZ- PRYOR, OK	KMUR	
1680	KRJO- MONROE, LA	KVEA	

### FORMAT CHANGES

FREQ.	CALL - CITY	NEW INFO
640	WBOW- TERRRE HAUTE, IN	SILENT *
810	WDDD- JOHNSTON CITY, IL	ADDS FOX SPORTS
900	WILC-WASHINGTON, DC	SS HITS "VIVA 900"
	WURD- PHILADELPHIA, PA	SILENT
	KFLP- FLOYDADA, TX	CONT. CHRISTIAN
	WDLS-WISCONSIN DELLS, WI	WIBU - A. STNDS 1
930	KAPR- DOUGLAS, AZ	REL TEACH. // KGMS
1050	KCHN - BROOKSHIRE, TX	ETHNIC
1060	WKMQ- TUPELO, MS	TALK
1080	WFTD- MARIETTA, GA	REG. MEX. // WPLO
1100	KZKL- MILAN, NM	JONES CLASSIC C&W
1140	WL0D- LOUDON, TN	TALK-SPTS// WKVL
1230	KSTC- STERLING, CO	ADDS JONES OLDIES
	WBUZ- TERRE HAUTE, IN	SILENT *
	WOIC- COLUMBIA, SC	ESPN SPORTS
1240	KJAA - GLOBE, AZ	REL. TEACH. // KGMS
	WIBU-WISCONSIN DELLS,WI	WHFA - CATHOLIC
1290	WATO- OAK RIDGE, TN	50'S OLDIES
1340	KACH- PRESTON, ID	ADDS ABC OLDIES
1370	WBYE- CALERA, AL	BLK GSPL- S. GSPL
1400	KART- JEROME, ID	ABC REAL C&W
1440	KMED- MEDFORD, OR	NEWS-TALK
1540	WBNL- BOONEVILLE, IN	+45 SOFT AC

### CONSTRUCTION PERMIT ACTIVITY

900	WURD- PHILADELPHIA, PA	CHANGES SITE TO 39-55-02 75-13-17
1410	WNER- WATERTOWN, NY	DECREASES TO 3500 WATTS DAYS, 58
		NIGHTS, CHANGES SITE TO 43-56-47
		75-56-52

\* - TWO TERRE HAUTE STSTIONS HAVE BEEN SILENCED BY THE FCC FOLLOWING THEIR OWNERS FELONY CONVICTIONS. LICENSES WILL BE AUCTIONED OFF IN DECEMBER BY THE FCC

1- INFO FROM TIM NOONAN

## WESTERN DX ROUNDUP

Editor: Nancy Johnson -265 Waterton Way- Billings, MT 59102-7755

E-mail: NancyJohnson@prodigy.net

WDXR DEADLINES: Each Friday. Please use Eastern Time.

### REPORTERS FOR THIS ISSUE:

- (AB) Art Blair-DX'ing from McDermitt, NV artblairca@prodigy.net  
NRD-515 and Kiwa loop
- (PM) Patrick Martin-P.O. Box 843-Seaside, OR 97138-0843 mwdxer@webtv.net  
Drake R8, EWE antenna, 1500' eastern Beverage term.
- (RT) Rich Toebe-2103 Sargent Ct.-Davis, CA 95616 richtoebe@jps.net  
Sony ICF-2010, internal antenna  
(RT-CA1) Using the Delco AM-FM-CD stereo in the '97 Pontiac Grand Prix
- (JW) John Wilkins-Wheat Ridge, CO peakbagger@juno.com  
Drake R-8, 4' box loop

\*\*\*\*\*

### OF SPECIAL INTEREST

- 1190 KTRA TX, Dallas 10/1 with KEX off once again, KTRA with Fox Sports at 0355, then promo for Dallas Cowboys live on KTRA (Extra) "Sports 1190" then ID by female. "You are listening to all sports 1190 Sportsradio KTRA Dallas." back into Fox Sports, under/over jumble. I seem to log every call change on this station, with KEX off often. (PM-OR)
- \*\*\*\*\*
- 590 (KTHO) CA, South Lake Tahoe 10/2 noted completely off while visiting Lake Tahoe on a day trip. Checked at various times of the day. (RT-CA1)  
KSUB UT, Cedar City 9/29 0839 political ad (Raymond Green for City Council); then ID as "Full Service for 5 counties, 590 KSUB" and back to talk show. Good signal. (JW-CO)
- 660 ?KZTU? OR, 9/26 0935-0945 alone on channel, slight KSTE slop, with news, mentions of Oregon and KPAM, good signal. I understand this one is // 860 KPAM. Will keep checking. Next morning nothing but noise on channel. (RT-CA)
- 690 KRCO OR, Prineville 9/26 0933 finally, after many attempts, with CWM music over/under CBU, no XETRA. Call ID between two songs. Best signal level noted. New. (RT-CA)
- 950 KKIC ID, Meridian 9/30 2052 man with KKIC ID, into Gospel music. (AB-NV)  
KMTX MT, Helena 9/30 2054 man with KMTX ID followed by Tony Bennett tune "Smile" co-frequency QRM from KKIC. (AB-NV)
- 980 KICA NM, Clovis 9/25 0859 nice ID at 0859:53 "New Mexico's second oldest station, since 1933 this is AM 980 KICA Clovis" and into USA Radio news. Fair. (JW-CO)
- 1010 KGUY OR, Milwaukie 9/26 0855-0903 faded up and over CBR "CBC 10-10" with country music, ID'd on the hour as "Country Hits Radio, KGUY Milwaukie-Portland." Excellent signal at this point, clobbering channel. New. (RT-CA)
- 1110 KSPN CA, Pasadena I have not hear this in years since it was KRLA. Heard 9/29 under/over other stations with LA Kings Hockey game playing Colorado, many spots for LA area, and "ESPN 1110" ID's and promo for "Sports on KSPN, ESPN 1110" at 2322. This was a surprise, as they put little signal this way. One of the tougher LA area stations to hear. (PM-OR)
- 1140 KSFN NV, North Las Vegas 9/29 0505 man with "Hot Talk 11-40" slogan. Thanks for the help, Rich Toebe. (AB-NV)
- 1180 ?KGOE? TX, Humble 10/1 possibly buried in the jumble at 0259:50 with ID which sounded like "KGOE," no sign of KOFI tonight. I may send a taped report. (PM-OR)

- 1240 KNRV CA, Monterey 10/1 man with "AM 12-40 KNRV" ID. (AB-NV)  
 1250 KEYT CA, Santa Barbara 9/29 2335 fair on top with news and weather for the Santa Barbara area, log down on road, etc. (PM-OR)  
 1300 KOLY SD, Mobridge 9/29 song by Nino Tempo & April Stevens; then full ID at 2059:53 as "Great songs, great memories on AM 1300 KOLY Mobridge, a member of the Dakota Radio Group," 2100 ABC news. Fair in the group. (JW-CO)  
 1380 KSRV OR, Ontario 9/30 1545 NFL football, Baltimore Ravens vs Denver Broncos. (AB-NV)  
 1400 (KBDB) NV, Sparks 10/1 0230-0245 station not on yet. (AB-NV)  
 KWNA NV, Winnemucca 10/1 0800 "Good times, great oldies" slogan. (AB-NV)  
 1450 KVSI ID, Montpelier 10/1 0900 man with KVSI ID. Poor. (AB-NV)  
 1470 "KCFL" CO, Arvada? 9/30 2300 OLD music (Jim Croce, ABBA, etc). At 2103 announcer Captain Fahrenheit said "You're listening to Super CFL in the Rocky Mountain Esplanade Hit Parade." Slogan after each song, e.g. "Denver's Real Oldies station is on the air again." At 2129:30 ID as "The Music Station KCFL Boulder." First time I've heard an ID with city from this guy, although actual location may be in Arvada, a NW Denver suburb. (JW-CO)  
 1600 KSGO UT, Centerville 10/1 0850 "Radio Fiesta" slogan & Mexi-Tunes. Poor. (AB-NV)  
 1630 KKWY WY, Cheyenne 10/1 0653 C&W music, man with KKWY ID at 0654. (AB-NV)  
 1650 KBJD CO, Denver 10/1 0650 "Today's best Christian music" slogan, loud. (AB-NV)

Thanks to our WDXR reporters this week!

Nancy 10/5 2300

## CENTRAL DX ROUNDUP

*Editor: John C. Johnson*

E-mail: [John\\_Johnson@prodigy.net](mailto:John_Johnson@prodigy.net) CDXR reports ONLY: [cdxr@prodigy.net](mailto:cdxr@prodigy.net)

### RIDING GAIN

- [LH-LA] Lynn Hollerman, Lafayette, LA  
[Lynnhollerman@globalreach.net](mailto:Lynnhollerman@globalreach.net)  
 YB-400 with internal antenna
- [PAL-MN] Paul A. LaFreniere, Grand Marais, MN  
[Plafren@boreal.org](mailto:Plafren@boreal.org)  
 McKay Dymek DR-22, Superadio III
- [TN-WI] Tim Noonan, Madison, WI  
[DXing2@aol.com](mailto:DXing2@aol.com)  
<http://www.angelfire.com/wi/dxing>  
 Kenwood R-1000, Radio West Loop.
- [JJR-WI] John J. Rieger, South Milwaukee, WI  
[JohnJRieger@webtv.net](mailto:JohnJRieger@webtv.net)  
<http://DX-midAMerica.com>  
 Icom IC-R75, Kiwa loop, GE Superadio III, Terk AM 1000 loop.

### DOWN THE DIAL

- 970 WJMX SC, Florence. 9-27 fair. 20:06 with ABC News, spot, Michael Medved(?) Show on "News talk 9-70 WJMX." [JJR-WI]  
 990 CKGM PQ, Montreal. 10-5 good, no sign of CBW. 04:49 with sports and mention of "Team 9-90 Sporting News Radio." No call letters. [PAL-MN]  
 1080 WNWI IL, Oak Lawn. 10-5 fair to excellent, no sign of KRLD or anyone else. 05:15 with soft rock format, some in a foreign languages. 05:30 complete ID over music, "Chicago's Super Ethnic Station, we're AM 10-80 WNWI"

- Oak Lawn, Chicago." 06:00 into news in Polish or Russian language. First time heard. [PAL-MN]
- 1090 CKKW ON, Kitchener. 10-5 good to excellent over a weak KAAY. 06:04 with "Team 10-90" and mention of the Waterloo area. First time heard. [PAL-MN]
- 1170 KVOO OK, Tulsa. 9-29 messy signal. 00:15 ID. [LH-LA]
- 1180 KGOL TX, Humble. 9-29 strong along with strong signal from SS "Rebelde La Habana," no sign of WJNT DX Test. 00:36 with North Shore vs. Deer Park high school football game. North Shore won 29-26. [LH-LA]
- 1200 CFGO ON, Ottawa. 10-5 good, no sign of WOAI. 06:13 with "The Team" slogans and talk of Ottawa Senators hockey. [PAL-MN]
- 1210 WPHT PA, Philadelphia. 10-5 excellent. 06:18 with Imus then "The Big Talker, AM 12-10." Local spots. [PAL-MN]
- 1410 KLFD MN, Litchfield. 9-28 fair to good. 20:27 with spots, ID, and football. [TN-WI]
- 1440 KDIZ MN, Golden Valley. 9-28 fair, dominating. 01:23 with Radio Disney. Very unusual. Who in target audience is up at this hour? [JJR-WI]
- WPRS IL, Paris. 10-6 poor. 07:00 with Sporting News, legal ID including city and state, ABC News. [JJR-WI]
- 1450 WRCO WI, Richland Center. 9-27 fair in fade up. 22:02 with Brewers baseball and ID. [JJR-WI]
- 1680 KYEA LA, Monroe. 10-6 poor in WJNZ null. 02:00 with legal ID, Black Gospel format. New! LA#33. [JJR-WI]

## 25 YEARS AGO

October 16, 1976 issue of IRCA's "DX Monitor" ... C. M. Stanbury of Crystal Beach, ON discussed Family Stations plans to buy KFNF-920 ... Don Kaskey of San Francisco, CA told about getting his wife to translate Chinese for him during DX sessions ... Gary Larson of Lincoln, CA discussed how KROQ-1500 operates.

## OPEN MIKE

Thanks to all that reported this week! This column was typed 10-06-01. 73, John

## EASTERN DX ROUNDUP

*Lee J. Freshwater - 414 SE 3rd St. - Ocala, FL 34471*

E-mail: [ENGWTRS@aol.com](mailto:ENGWTRS@aol.com)

Deadlines are : 8 AM SUNDAYS

## STARS OF THE WEEK

(WM-MD) William McGuire 2412 59th Place, Cheverly MD  
DX-398

## LOGGINGS

610	MO	WDAF	Kansas City 9/25 2115 C&W mx hrd; ID	(WM-MD)
680	NC	WPTF	Raleigh 9/25 2258 Station promo; "News-Talk 680"; ID	(WM-MD)
800	ON	CKLW	Windsor 9/20 0030 Station promo; ID	(WM-MD)
830	PA	WEEU	Reading 9/23 1930 Philadelphia Eagles/Seattle NFL	(WM-MD)
900	ON	CHML	Hamilton 9/21 1955 Toronto Blue Jays BB hrd	(WM-MD)
910	VA	WWWR	Roanoke 9/21 2025 High School FB hrd. "3-W-R"	(WM-MD)
940	FL	WINZ	Miami 9/26 2100 "Super Talk 940"; ID; traffic rpt	(WM-MD)
1040	PA	WSKE	Everett 9/23 1941 C&W mx hrd; ID	(WM-MD)
1070	TN	WFLI	Lookout Mtn 9/25 1928 "Brand new Southern Gospel Music First"; ID	(WM-MD)
1290	PA	WFBG	Altoona 9/26 1919 NOS mx hrd; ID	(WM-MD)

1310	ON	CIWW	Ottawa 9/20 0020 "We Live for the Sixties"; "Good Time Oldies"	(WM-MD)
1360	OH	WCKY	Cincinnati 9/19 2200 ID; CNN Radio News	(WM-MD)
1420	OH	WCLV	Cleveland 9/25 2042 NOS mx hrd	(WM-MD)
1550	IN	WGOK	Mobile 9/21 Weather ; ID	(WM-MD)
1620	IN	WHLY	South Bend 9/19 2150 "Great Songs & Great Memories on AM 1620 WHLY"; // 1580 WJVA	(WM-MD)

**UNIDEN**

910	??	????	9/26 2155-2200 Southern GSPL mix hrd; then ESPN Radio finally CBS news at 2200	(WM-MD)
920	??	????	9/25 2100 Radio America hrd	(WM-MD)
1380	??	????	9/25 1935 Ad for Patriot Dodge in Somersville faded up	(WM-MD)

---

That's a wrap for this week. Thanks to William. Lets hear from the rest of you !!!!! 73s and all the best ....G.B.A.....fresh 10/4/00 0900.....

---

**IRCA TECHNICAL COLUMN**

*Nick Hall-Patch - 1538 Amphion St. - Victoria, BC V8R 4Z6 CANADA*

E-mail: [nhp@ieee.org](mailto:nhp@ieee.org)

**Loop Shoot-Out at East Harwich**

(with special emphasis on Kiwa versus Quantum)

(Mark Connelly, WAIION - 29 Aug 2001)

The most popular antennas among medium wave DXers are loops of a relatively compact size. These are often ferrite-rod based in the case of the Quantum models from RadioPlus (Gerry Thomas) as well as the Worcester Space Magnet and loops made by Palomar, Radio West, McKay-Dymek, and others. Compact air-core loops ("frame aerials" in older parlance) can be considered those under 50 cm / 20" diameter (round) or per side (square). The Kiwa Loop, considered by many as the best commercially-available medium wave loop, is a compact air-core design with a coil diameter of about 33 cm / 13".

Note that, in all the above cases, the loop head is relatively small and, therefore, a good deal of amplifier gain is required. This differentiates these loops from much larger ones that can operate passively through a coupling coil or ones that need only a slight boost from a lower gain amplifier, such as one of Dallas Lankford's, having superlative noise-figure and intermodulation-rejection performance.

Since many of us can't manage a hulking behemoth of a loop in our shacks, models such as the Quantum and the Kiwa have enjoyed a great deal of popularity.

High amplification, a "necessary evil" with physically-small antennas, has two principal limitations.

The first limitation, and with high-Q tuned circuits the more important, is noise floor. One cannot judge a high-impedance FET loop amplifier noise floor in a non-peaked condition. The LC-tank formed by the loop head coil and the tuning capacitor must be tuned to resonance (peaked) on an unoccupied frequency during non-skip midday conditions at a very electrically-quiet location. The ideal noise floor test site would be in an RF-shielded "screen room" of the type used by professional testing laboratories. Once the S-meter reading of amplifier noise at a given frequency is known, the weakest usable signal level can be estimated as being about 6 dB (or one S-unit) above this level. Anything weaker (at least

AM signals) will not have recoverable audio and will only be detectable as a CW note or "het" against the receiver's BFO.

The second limitation of amplifiers is inadequate strong signal handling ability. Excessive input to the amplifier will cause harmonics to be generated. If two or more strong signal frequencies are present, mixing products can result, possibly covering up weaker "real" signals on the intermodulation distortion (IMD) frequencies. Except at the worst urban sites, this isn't too much of a problem with high-Q tuned loops properly peaked at the desired frequency.

The evaluations in this article concentrate mostly on weak-signal sensitivity and on overall gain. Urban DXers should probably stick to passive loops, possibly followed by a second stage of tuned preselection (and/or a wavetrapping notch filter to weaken the strongest local signal).

My home location in Billerica, MA often has too much electrical noise to permit serious low noise testing. I am fortunate to have the occasional use of a relative's house in East Harwich, MA on Cape Cod. RF noise is usually very low at this site since electrical power is delivered via underground conduits instead of overhead wires. This low noise environment and fairly close proximity (2 - 3 km) to the ocean mean that many long-distance medium wave and longwave signals can be heard, even during the daytime.

The 2250 km / 1400 mile distant groundwave of Radio Vision Cristiana (Turks and Caicos) on 530 kHz makes a good sensitivity test target. The car radio just gets a carrier at its noise threshold, but on my Drake R8A with a 30 m sloper from the top of a pine tree to the house, I get an S7 signal with readable audio (internal R8A preamp on; sloper to high-impedance receiver input).

The quiescent daytime noise floor on an open frequency when using the sloper is about S1 to S2. This is a combination of R8A built-in preamp noise and residual external "band noise" captured by the sloper. This is approximately equal to a -130 dBm signal level.

Active loops will have considerably higher open-channel peaked noise levels. The true measurement of interest is how much capture the loop's head has on very weak signals to push these signals over the amplifier's hiss. In the realm of signal audibility, a loop with a noise floor at S3 and a given weak signal reaching S4 is the same as a loop with a noise floor of S8 and the signal at S9. The only advantage the higher gain loop would have would be when operating into insensitive receivers (where an S4 "good receiver" signal would be down in the mud).

The Kiwa and Quantum Loops are pretty much state-of-the-art in squeezing weak signals out of a relatively small head. Their amplifiers are well-designed but still the overall packages are not going to be able to retrieve super-weak signals that could be heard with a considerably larger loop or, for that matter, a properly-matched wire antenna of 30 m length or greater.

Test data that follow focus on these attributes:

- (1) Weak Signal to Noise (Sensitivity) Evaluation (*particularly important with good receivers*)
- (2) S-Meter Gain (*of primary interest with less sensitive receivers*)

The Quantum Loop was tested with three different head types. These are:

- Normal head: plastic enclosure length = 8.5" / 21.6 cm
- QX Pro head: plastic enclosure length = 15" / 38.1 cm
- Large head (a prototype that Gerry made about 10 years ago): plastic enclosure length = 17" / 43.2 cm

The QX Pro Head covers longwave and medium wave (as selected by a switch). The longwave setting was used for medium wave tests below 650 kHz. Using the LW rather than the MW setting increases sensitivity about 3 dB on the low end of the broadcast band. I did minimal longwave testing; basically I just verified that the QX Pro does operate reasonably well down to 150 kHz and possibly lower. Numerous US and Canadian aerobeacons could be logged at any time. In the evening European and North African LW broadcasters were easily heard.

An old Quantum Loop base was compared to the newer QX base. The older base had slightly higher noise floor and slightly higher gain: the net difference in usable sensitivity was negligible. Quantum Loop measurements that follow are for the present QX / QX Pro base.

Regeneration on both the Kiwa and Quantum Loops raised both signal and noise floor about 20 dB (before oscillation) versus the non-regen. condition. Regeneration did not improve or reduce actual signal-to-noise ratio to any noticeable extent. The chief value of regeneration is to improve upon the receiver's IF filtering by giving, in essence, continuously-variable bandwidth. Cheaper receivers benefit more from this than do the better tabletop communications receivers.

Tests were performed during no-skip midday conditions, mostly in August 2001, at East Harwich, MA (GC = 70.021 W / 41.713 N) using a Drake R8A receiver set to 2.3 kHz bandwidth, AM mode, Preamp On.

Section 1: Weak Signal to Noise (Sensitivity) Evaluation

Antenna	Meter reading	Comment
Kiwa	S-5.5	
QX / QX Pro	S-8	with any head used
sloper	S-2	30 m, to R8A high-Z in

Antenna	R.V.C - 530 over TIS's	WLUX/WDMV - 540 over CBT	CHTN - 720	CBA - 1070	Logan Airport TIS - 1650 over WHKT
Kiwa	+4	+15	+15	+15	+10
QX Normal head	\$	+11	+14	+6	0
QX Pro head	+3	+14	+17	+9	+6
QX Large head	+5	+16	+20	+12	+10
sloper	+30	+36	+40	+33	+36

\$ = below noise



Section 2: Gain Evaluation

	<u>WEZE - 590</u>	<u>WBZ - 1030</u>	<u>WBAE - 1490 (over WHAV)</u>
Kiwa	S9 + 30	S9 + 28	S-8

<u>Antenna</u>	<u>WEZE - 590</u>	<u>WBZ - 1030</u>	<u>WBAE - 1490 (over WHAV)</u>
QX Normal head	+9	+11	+9
QX Pro head	+14	+13	+12
QX Large head	+16	+15	+14
sloper	0	+4	+6
MFJ-1024 Whip	+4	+9	*
1.8 m per side square broadband loop with ALA-1530 amplifier	0	-8	*
* = <i>data not recorded</i>			

**Conclusions and Additional Comments**

In terms of weak medium wave station signal to noise (sensitivity), the ranking of the loops tested (best to worst) is as follows:

1. Quantum QX with Large (17") head
2. Kiwa Loop
3. Quantum QX with QX Pro (15") head
4. Quantum QX with Normal (8.5") head

The differences between #1 and #2 or between #2 and #3 of the above list were very slight and would not make any difference in 99% of listening situations. The Quantum QX with the Normal head is a bit lower in signal-to-noise sensitivity (4 to 8 dB) than the front-runners, but it is still very capable for its size.

The Kiwa Loop has less "raw output" than the Quantum models, but unless you're using a mediocre receiver, it's signal to loop-amp noise that matters. In that department, as noted above, it's a very close horse race. The Kiwa is varactor-tuned; the Quantums are tuned with a conventional variable capacitor. That the Kiwa has very good weak-signal pick-up indicates that speculations about varactors introducing objectionable noise seem unfounded.

The Kiwa has some advantages in terms of the head unit being separate from the control base (you'd put the head in a window or on a balcony if in a hotel, for instance), more precise rotation and tilting for nulls, and a fine-tuning control that's particularly worthwhile when using regeneration.

An important advantage of the Quantum QX Pro is that it can be used on longwave as well as on medium wave. Also, the QX Pro head has an input for an external wire antenna. This can be useful in transforming the loop into a regeneration-capable tunable preselector for longwires. This is often done when the loop itself cannot be used because it's located in a vehicle, mobile home, or steel-framed commercial building.

As the "East Harwich Loop Shoot-Out" showed, the Kiwa and Quantum loops are worthy "power tools" for the avid DXer. Prospective purchasers will do well to consider how the features, size, price, and performance specifications all interact to determine the wisest choice.

#### Kiwa Loop information

(web) <http://kiwa.com/>

#### Quantum Loop information

(e-mail) [radioplus@pcola.gulf.net](mailto:radioplus@pcola.gulf.net)

(This article is also posted on the web, at  
[http://www.qsl.net/walton/loop/harwich\\_loop\\_shootout.pdf](http://www.qsl.net/walton/loop/harwich_loop_shootout.pdf))

\* \* \* \* \*

#### Tech filler bits

R.L. Measures submitted the following Beverage antenna tip to the Topband Reflector (<http://lists.contesting.com/mailman/listinfo/topband>):

"I used to run a 3-wavelength 8-ft. high beverage for 80m longpath into N. Europe. I found that there was a change in ground conductivity depending on rainfall. To be able to adjust the terminating resistance remotely, I put a series string of fwd biased silicon diodes in series with a fixed resistor and adjusted the DC current through the beverage wire until I got the deepest null on signals off the back. When the diodes were reverse biased, the beverage was bi-directional. Note: the forward biased resistance of a silicon junction is approximately  $30 / \text{current in mA}$  -- i.e. 2mA makes for  $30/2 = 15$  ohms per diode."

For those not on the IRCA e-group (info from [mirca-owner@yahoogroups.com](mailto:mirca-owner@yahoogroups.com)), the following from Chris Cuff ([amstereoguy@hotmail.com](mailto:amstereoguy@hotmail.com)) may be of interest:

"If anyone is interested, I have AM Stereo decoder modules available, fully assembled. They are the size of matchbook covers, and will work in any superhet with an IF freq of 450 to 456Khz. VDC in can be 6 to 24 VDC, as these have on board regulation. To see one, go to [www.amstereoradio.com](http://www.amstereoradio.com) and click on "Chris Cuff's Handmade radios and Decoders". Cost is \$25 each. Email me with any questions"

### **DX WORLDWIDE - WEST / TROPICAL BAND DX**

**Editor: Patrick Martin - P.O. Box 843 - Seaside OR 97138**

**E-mail: [mwdxer@webtv.net](mailto:mwdxer@webtv.net)**

DX conditions this week for TP DX has dropped off a lot after the excellent cx in late September. A few DUs, but not too many of those. KEX-1190-Portland was off and I did log 2NZ-Inverill, NSW, that I haven't heard in years. So away we go.

## PAN-AMERICAN DX ROUNDUP

- 1060 MEXICO, Mexico DF, XEEP. I finally logged this after trying for many years. Strong AU cx wiped out CKMX leaving XEEP on top and mixing with AZ. Hrd with Romanic ballads to light Jazz tunes, Announcements every 20 minutes or so after several songs. Many "Radio Educacion" and one "XEEP". Call letters given plus another mention of "1060 kHz" in SS. Really nice to hear this one. Nice format too. Noted at 1040 UTC 10/3. New. (PM-OR)
- t1180 CUBA, Radio Rebelde 10/6 0558-0601 while listening in tight KOFI null for WJNT, a Spanish speaker faded up; female mentioned "noticias", then a sound effect, into musical signature, then male voice; then KOFI faded up. Signal was choppy and fadey. Ron Gitschier told me by e-mail he heard exactly the same thing from FL, and that it was Rebelde. I will try again for this one, but this would be the first time Cuba was heard from Davis. (RT-CA)
- 1300 MEXICO, Cd. Madeira, Chih. XESW, 9/25 0537, using the slogan "La Primera" and playing Corridos o/u KKSC (KR-AZ)
- t1320 PERU, Lima, Radio La Cronica at 1015 10/7. Andean Flute mxbreak followed by "onica presenta" and female doing nx story of police roadblocks. Very severe QRM from Mexico City, Sacramento, and other domestics, soon faded. (CB-HI)

## TRANS-PACIFIC DX ROUNDUP

- 531 AUSTRALIA, Kempsey, 2PM presume the one with soft adult standards at 1012 10/3, but it sounded like a "2MC" ID at one point. I wonder if they have changed to 2 PM. Rather poor. (PM-OR)
- 540 WESTERN SAMOA, Apia, 2AP good o/XEJAZZ at 0910 10/5 with male and woman in Samoan. (PM-OR)
- 558 FIJI, Suva with man in Fijian in passing at 1334 10/6. (PM-OR)
- 570 HAWAII, Lifue KQNG good on top of KVI with anmt for benefit and "KONG Radio at 0920 9/5 (PM-OR)
- 594 JAPAN, Tokyo JOAK, man in JJ rather poor at 1320 10/6. A vast change over what the signal sounded like a couple weeks back. (PM-OR)
- 675 AUSTRALIA, Albury 2CO good in 680 splash with ABC News at 1401 10/6. (PM-OR)
- 702 AUSTRALIA, Sydney 2BL, fair with ABC News at 1403 10/6 (PM-OR)
- 792 AUSTRALIA, Brisbane 4RN, fair the discussion on terrorists in the World. at 1345 10/6 (PM-OR)
- 1062 AUSTRALIA, Renmark, 5MV good on top at 1355 10/5 with man with "5MV" ID (PM-OR)
- 1188 AUSTRALIA, Inverill, 2NZ good with ID at 1004.30 UTC 10/5, "Right here on 1188 2NZ" (PM-OR)

## THANKS TO THESE REPORTERS

CB-HI CHUCK BOEHNKE, KEAAU HI

<[kale@juno.com](mailto:kale@juno.com)>

KR-AZ KEVIN REDDING, MESA AZ

<[amfntvdx@qwest.net](mailto:amfntvdx@qwest.net)>

Kenwood R-1000 and 85' wire

PM-OR PATRICK MARTIN, PO BOX 843, SEASIDE OR 97138-0843

<[mwdxer@webtv.net](mailto:mwdxer@webtv.net)>

Drake R8, Kenwood R-1000 (modified)

EWE, K9AY, Eastern Beverage

RT-CA RICH TOEBE, DAVIS, CA

<[richtoebe@jps.net](mailto:richtoebe@jps.net)>

Sony ICF-2010, Internal antenna

## **DX WORLDWIDE – EAST**

**Editor: Phil Bytheway – 9705 Mary NW – Seattle, WA 98117-2334**

**E-mail: phil@radiodx.com**

ALL TIMES IN UTC (days too!). Thanks to Bogdan for the tips this time. I know there are a lot of East folks DXing the foreign stuff, so please send me your loggings... and see your name in print!!! pb

- 640 VENEZUELA Union Radio, YVQO, Puerto La Cruz, Anzoatequi, 09/29 0141 nx in SS read by woman. Poor signal, later lost under WNNZ as the AU effects diminished in intensity. (BC-PQ)
- 750 VENEZUELA RCR, YVKS, Caracas, Dto Federal, 10/05 0028 strong signal; SS sports, talk about baseball, mention of the Expos which is my local baseball (maybe they will play in Venezuela against the Leones?) (BC-PQ)
- 760 COLOMBIA RCN, HJAJ, Barranquilla, 09/28 0026 fair to good signal; "RCN, la radio de Colombia" jingle followed by "en el Atlantico, H-J-A-J 760 kilohertz, RCN Barranquilla" ID, continued by the "el Carnaval de Alegria" pgm. (BC-PQ)  
+ 10/05 0126 – HUGE! monstrous local signal this evening; booming in with news and "H-J-A-J" ID. They were audible a bit even on the alarm clock radio and a weak het was detectable on my walkman. Just as strong as they were the past season during similar auroral enhancements. (BC-PQ)
- 770 COLOMBIA RCN, HJJX, Bogota, 09/28 0136 fair and steady signal; SS talk with several "Bogota" mentions, "RCN Bucaramanga" ID. (BC-PQ)
- 1130 VENEZUELA Ideal Maiquetia, Dto Federal, 09/28 0144 very tentative; bits of woman SS talk, heard way under WBBR. (BC-PQ)
- 1500 VENEZUELA YVRZ, Cumana, Sucre, 09/27 2240 sunset reception: sports play-by-play; ID @ 2241 as "radio Vision dos mil." Weak, but atop an unID religious domestic. Later in the evening both this and the rel dom were lost under WTOP. This new catch makes Sucre a new YV state for me. (BC-PQ)

### **REPORTER:**

Bogdan Chiochiu – chiochiu@colba.net

RX: Sanyo MCD-S830 portable w/internal ferrite bar

## **WESTERN DX FORUM**

**Reid Wheeler – 5910 Boulevard Loop SE – Olympia, WA 98501-8408**

**E-mail: WMA001@home.com Phone 360-786-6756 Fax 360-753-3824**

**Tim Kridel — 6043 Buena Vista Street — Fairway, KS 66205-3108 — KCOKEK@arrl.net**

It's been a good five years since I last wrote a forum, so here's a brief re-intro: I'm 31 and an IRCA member for most of the past 15 years, with lapses during college and grad school. I edited Eastern DX Roundup for a few years in the late 1980s, when I still lived on Long Island. I now live in Fairway, KS, a suburb of Kansas City. The main drawback to this QTH is that I'm about one mile from the studios of Entercom's Kansas City stations, which include KMBZ and WDAF. As a result, I've got to DX around their harmonics, which afflict the MW band and then some. This past winter, I finally knuckled down and got my ham license: KCOKEK. I'm now studying to upgrade with the help of CW guru and fellow IRCA member Karl Zuk. A ham on the next block has two Yagis and an HF beam on a 30-foot tower, so this city and neighborhood seem to be fairly accepting of antennas. I currently use an indoor active dipole for SW DXing and an active loop for MW. I had hoped to have a longwire for MW and a vertical for the ham bands up by now, but those plans were put on the back burner while I focused on my Oct. 6 wedding. It's not uncommon to have a dusting of snow here by late October, so I'll have to hustle on the antenna projects after I get back from the honeymoon. My wife, Judy, works in commercial underwriting for an insurance

company in Overland Park, KS, and I write for The Net Economy, where I cover the wireless telephony industry. The magazine is based in New York City, but I telecommute from my home office, so I look forward to another winter of lunch-hour DXing. 73.

**Gary Larson - 2806 Lincoln - Burbank CA 91504 818-843-5200**

[10/1] Sorry to see Robert Wien step down as Br. Info Editor. Really appreciated all he'd done to help keep us up to date on stations. Thanks to Lee for taking over the column, and to Mark for his long period as editor of DX WW East. Doubt if I'll hear new 890 Arroyo Grande - lots of 900 KALI + 870 KRLA slop usually, but when its on, I'll try to get it. Happy Birthday to R. C. Watts - hope you'll remain with us for a long time. Good to see Herbert Newberry return to IRCA as well as NRC. I can identify with your health problems, since I now have Addison's disease, but am health to run or walk most days, work a job and do many other things. Hope you'll be OK as years progress, and keep DXing. I'd like to find out where 1050 Loma Linda site will be. Hope they air a decent format. 73.

\*\*\*\*\*

**My first 25 states from Northern California  
(without using a loop)  
by Rich Toebe**

Although I've been a regular DXer since 1970, our move to Davis is the first significant one since 1980. Prior to that, my various Bay Area locations have all been within a 25 mile radius (using Concord as the center), so I've kept one master logbook. With this move, I have started over again. "Starting from scratch" is quite different today compared to the days before the clear channels were broken down, the advent of almost universal 24/7 station operation, and the additional sources of interference because of widespread adoption of computers and other electronic devices.

My schedule has been such that much of my listening has been done in the car. For most of the time I have been living here, my next-door neighbor had a high speed Frame Relay connection which caused severe interference to my AM radio reception, centered on about 770 kHz, but noticeable down in the LW range and up to about 4 MHz. Only recently has that disappeared, when she changed jobs and shut off that connection.

This is an informal explanation on how, in today's environment, it is still possible to hear DX from half the United States in Northern California fairly easily, using a decent receiver and the internal antenna supplied. Many of the receptions have been with the use of a Delco stock AM-FM stereo-CD receiver, which is in my opinion a pretty hot signal inductor but is woefully inadequate on selectivity. Both co-channels to a local are completely unusable because of splash, and often the second co-channel would suffer some interference too. I was never able to hear a signal on 730 or 750, for example, in the greater Bay Area; near Sacramento, 1520 and 1540 suffer the same effect.

I have collected a number of receivers over the years, and among various portables, I have used the Grundig Concert Boy 1100, purchased in 1975, the Grundig 3400 Satellit in 1980, the GE Superadio II in 1981, the Sony ICF-2010 in 1986, the Sony M40W Walkman (1986 or '87?), and the Grundig Yacht Boy 300 in 1997. I previously had the Grundig Music Boy, which was my first DX receiver, purchased in 1970, but it literally was so abused that in the end I junked it. It was a great signal inductor; I heard WBZ-1030, WNBC-660, WABC-770, WCBS-880, Cuba 640 under KFI, KORL-650, KGU-760, KFAR-660, CKLW-800, CFRB-1010, PJB-800 etc. many times with it. I never had a loop attached to it. I didn't even know they existed at the time. I wish I had taken better care of it, but then, what does a 12 year old know?

So, it's mid-November 1999, and I am starting over with my logbook. As it's a new location, here is the chance to reacquaint myself with the radio neighborhood. I look through my old logs and wonder if I'll be able to hear many of them again. So I set myself an initial goal of

25 US states, with logs within 25 miles of home when in the car; how long would it take to accomplish that without a loop? The stations specifically mentioned were heard without a loop, but the totals mentioned include those with one.

#### State #1: California

Of course, it's the home state, and being the biggest in population, it has a station on virtually every AM frequency. What is surprising is how many relatively close stations are still unheard after 2 years. I've not been able to ID 1580 Merced, presently KRAN, though they are only 112 miles away. Their new X-band twin, 1660, is easy to hear day and night. 1370 in Quincy, KPCC, is another no-show; they are on-air, as Tim Hall has recently logged them while on one of his road trips. They're 105 miles from here.

I have one disadvantage to living in Davis; it's on the west side of Sacramento, and that means most of the local stations' directional patterns pour their power in my direction. Even so, it's possible to null some stations pretty effectively. 1470-KIID, for example, can be nulled almost 100% by placing the radio at one specific point in my office/shack, at a very specific angle. Move it a  $\frac{1}{4}$ ", and the effect disappears.

Of course a lot of interesting receptions happen at sunset, and that's usually when I'm in the car. The Central Valley has pretty good ground conductivity, and some weird effects will happen; I've had 1380 KHJJ in Lancaster come up to be equal KTKZ's strength while driving in the car between Dixon and Vacaville, about 25-30 miles west of Sacramento. This would be a good time to try for KRAN, right? No, KMIK in Tempe, AZ, KGAL in Lebanon, OR, or KBLA in Santa Monica usually pound the channel, and often take turns dominating the frequency. Every frequency except for 660, 690, 720, 730, 750, 780, 820, 840, 850, 890, 1060, 1160, and 1700 has been noted with California stations from Davis. 660, 850, 890 (KLFF CP) and 1700 (TIS) are possible. 1060 opened up with KPAY's move to 1290.

#### State #2: Oregon

KGAL is one of many Oregon stations that are common catches here; in fact, as California makes up my #1 most heard state, Oregon is #2, and from here on, I will rank the states by number of stations heard. The stations most likely to be mentioned as catches would be the clear channels, 1120 KPNW and 1190 KEX, and they are potent, but both suffer co-channel interference nowadays; 1120 KZSJ-CA puts out a good nighttime signal, and 1190 gets help from KXMX Anaheim, KDYA Vallejo, which has been on at night a few times, and a Spanish talker other than KXMX, which I suspect is Mexican but I never have ID'ed. The most reliable signal is in fact KXL 750, whose co-channel interference is at a null to Portland. I have 44 stations logged from Oregon.

#### State #3: Washington

Washington, with 33 stations logged, is almost as ubiquitous. The most reliable signals are clear channels: KOMO-1000 and KGA-1510, but KGA has been known to almost disappear when we've had (rare) auroral conditions, as we did earlier this year when the northern sky here was red from the aurora. Other common signals include KVI 570, KHHO 850 and KKOL 1300.

#### State #4: Utah

The Beehive State has quite a few strong signals pointed at California, likely to protect stations to the east. The most reliable signal is, of course, KSL 1160, but KNRS 570, KDXU 890, and KKOL 1660 are regulars. The newest station, KBJA 1640, puts a signal over semi-local KDIA in the early mornings. 24 stations heard so far.

#### State #5: Arizona

This state is both more and less common than I remember; many of the old reliables like KOY 550 (now KFYI) and KTAR 620 aren't as common now, but others come in more strongly; KTNN 660, KDUS 1060, KFNN 1510 and KMIK 1580 are quite powerful. KPXQ 1360 is a good choice for sunset DX. I've got 16 Arizona signals ID'ed.

#### **State #6: Idaho**

A state with a small population, it still yields a good number of catches; I've got 15 so far, plus one tentative. KBOI 670 is the obvious choice, but 1620 KBLI is a close second even with local KSMH on. Other common catches include KSEI 930, KUPI 980 and KRXR 1480, all heard in the car as well.

#### **State #7: Nevada**

Although closer to my location than any other state, Nevada is relatively sparse with signals. One Reno station, the closest Nevada city to Davis, at 122 miles away, is still unheard: 1550 KXTO. The best choices here for Nevada are the clears: KKOH 780 and KDWN 720. 15 Nevada stations are ID'ed positively.

#### **State #8: Montana**

Now the numbers dwindle off; Montana has yielded only seven positive ID's so far. The most common are KBOZ 1090 and KOFI 1180, but KMON 560 and KBUL 970 are good choices. KMON frequently is just under KSFO.

#### **State #9: Colorado**

KOA 850 is the obvious choice; they advertise being heard in 33 states at night, and are easily heard here. Stations that were fairly common years ago have eluded me so far: KLZ 560 and KKFN (ex-KIMN) 950 are no-shows. Clear channel busters KLTT 670 and KTLK 760 have been heard fairly regularly. KDDZ 1690 was common until local KSXX came on, but KBJD 1650 puts in a good appearance nightly.

#### **State #10: Texas**

Texas is represented by five catches on four channels here. WOAI 1200, the "original" Clear Channel station (the company, that is) is an almost nightly occurrence here, and common in the car as well. WBAP 820, which was the most common in the old days, suffers a lot of co-channel interference now from XEMVS Mexicali and KGNW in WA. KRLD 1080 is a good one to look for, and both X-banders on 1700 have been heard. Colorado is ranked above Texas because KOA has a stronger signal here than, and was logged before, WOAI.

#### **State #11: New Mexico**

KINF 1020 in Roswell is the most reliable of the four signals heard, but KKOZ 770 Albuquerque, formerly holding that spot, comes in well after KCBC goes off. KKIM 1000 was heard here too, probably on day power; it was never previously heard. The fourth station is on 1330, KGAK with Navajo programs. That was a one-time event so far.

#### **State #12: Wyoming**

Three stations represent Wyoming. The most reliable is KTWO 1030, as it has always been, but 1360 KRKK is fairly common. 1410 KWYO makes an appearance every so often.

#### **State #13: Illinois**

When I first started DX'ing in 1970, four Windy City clears made the list: WMAQ 670, WGN 720, WBBM 780, and WLS 890. Today, only WMAQ (now WSCR) has not been heard. WBBM is the most reliable now, often heard just under KKOZ, where WLS would have held that spot 20 years ago.

#### **State #14: Iowa**

The two most reliable stations are still heard here: WHO 1040 and KXEL 1540, but both are harder to hear than they were. 1540 was logged during a KFBK silent period; WHO is fairly common at sunset, but at late night tends to be drowned out by Vancouver's CKST "The Team". KBGG 1700 rounds out the list, for three stations. Illinois' signals are more reliable in general, so gets ranked above Iowa.

#### **State #15: Oklahoma**

The most reliable station used to be 1210 KGYN; now it's 1170 KVOO. #2 is still 1520 KOMA. 1210 is a jumble now, but I expect to hear Guymon eventually. Tulsa on 740 is another former catch that I expect to hear. So far, only the two heard here.

**State #16: Florida**

This was heard early on, and in the car a number of times to boot: WTIR 1680 was very strong at sunset, when they ran their testing programs, likely at the full 10kW. Now Radio Disney in Fresno is pretty strong. At this point, ranking is chronological.

**State #17: Michigan**

Another early catch, WJNZ "1680 Jams" was booming in on the car radio, practically a local. Again, KAVT Fresno is on 24/7 but there are always silent periods to look out for. I missed out on hearing New Jersey, I think: I had talk under WJNZ but couldn't make it out. No sign of previously common WJR 760. One time I thought I had it, but it was KTLK-CO.

**State #18: Ohio**

WLW 700 is the obvious choice and the only one so far. "Newsradio 700" has been heard in the car and at home on a number of occasions, often over co-channel stations.

**State #19: Louisiana**

New Orleans' WWL 870 is still the most common, though it's harder to hear through KIEV/KRLA and KLSQ in Laughlin. If KHTK 1140 would go off, KWKH 1130 is a strong possibility.

(To be continued next issue)

\*\*\*\*\*

**THE INTERNATIONAL RADIO CLUB OF AMERICA (IRCA)  
P.O. Box 60241, Lafayette LA 70596**

The IRCA is a non-profit organization devoted to the hobby of hearing distant stations on the Broadcast Band (510-1720 kHz). DX Monitor, the official publication of the IRCA, is published in "soft" form 40 times a year (weekly from September to April, twice monthly from May to August) and in printed form 35 times a year (weekly September to April, monthly 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.

**CLUB ADDRESSES AND OFFICERS**

President: Lee Freshwater, 414 SE 3<sup>rd</sup> Street, Ocala FL 34471 (proposals/gripes),  
e-mail: [ENGWTRS@aol.com](mailto:ENGWTRS@aol.com)

Secretary-Treasurer: Lynn Hollerman, (dues/address changes, see address above)  
e-mail: [lynhollerman@yahoo.com](mailto:lynhollerman@yahoo.com)

Board of Directors: Phil Bytheway (chairman), Nick Hall-Patch, John C. Johnson,  
Nancy Johnson, Patrick Martin, Mike Sanburn and Pete Taylor

Editor-in-Chief: Rich Toebe, 2103 Sargent Court, Davis CA 95616-7621  
e-mail: [richtoebe@jps.net](mailto:richtoebe@jps.net) (all material for publication goes here)

**MEMBERSHIP DUES (DXM=printed DX Monitor, SDXM=soft e-mailed version)**

Destination	SDXM	DXM	DXM+SDXM
USA	\$10	\$25	\$30
Canada & Mexico (group 2)	\$10	\$31	\$36
Western Europe (group 3)	\$10	\$45	\$50
Australia/NZ/Japan (group 4)	\$10	\$46	\$51
Rest of world (group 5)	\$10	\$43	\$48

**TRIAL MEMBERSHIP TO USA-CANADA-MEXICO only: \$10 DXM, \$12 DXM/SDXM**  
Installment Rate: 2 payments a year of one-half dues plus \$1

**Make checks and Money Orders in US funds payable to IRCA**

**Send all dues and address changes to: IRCA, PO Box 60241, Lafayette LA 70596**

Sample copies of DX Monitor are available for 34c to USA addresses, 60c to Canada and Mexico, or 2 International Reply Coupons each to other countries, and are available from 2103 Sargent Court, Davis CA 95616-7621.

Unless otherwise noted, permission is granted to publish, broadcast, or otherwise reproduce non-copyrighted material appearing in DX Monitor provided credit is given to the IRCA and the original contributor. Opinions in DX Monitor are those of the original contributors and do not necessarily reflect those of the IRCA, its publishing staff, editors or officers. Pb