

October 26, 2002 - Volume 40, Number 7 - Edition 1264 - ISSN 899-9733

Publisher's Note

Welcome to new member Gary Hitchcock of Hollywood, FL. -- RT

2003 IRCA Convention Planning

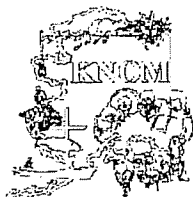
Bids to host the 2003 IRCA Convention are now being accepted. We do have one bid on hand. For more information, please contact IRCA president Lee Freshwater at engwtrs@aol.com.

DX Tests

PLEASE NOTE: Even if you don't hear a test, be sure and drop a card, letter, or e-mail to the station personnel, and thank them for going to the trouble to run a test! Please remember, what's listed as being on, say, Monday morning "may" be what you think of as Sunday night! (THE TIME OF THE TEST IS IN THE LOCAL TIME OF THE STATION)

Monday, October 21, 2002 - WLCR-1470, Louisville, KY (COL Shepherdsville, KY) According to an e-mail received from Vince Heuser of WLCR, the DX test that morning DID run, but due to unforeseen circumstances, the code was not played, and it ran at only 54 watts. I have asked him if he'd like to try to run the test again sometime soon - I'll try and let everyone know if he decides to!

Saturday, October 26, 2002 - KNOM-780, Nome, AK will conduct a DX test from 12:00am-1:00am Alaska Local Time (e.g. 4-5 am EDT). From Les Brown, who arranged the test: "We are currently planning to go from nighttime power (14 kW) up to 25 kW within a minute or two after midnight on 10/26, a Saturday. Morse ID's will be frequent." KNOM decided not to stay at 25 kW until 6 am Alaska Time, but rather until 1 am. Here's what Les e-mailed a few days ago: "Yes, the actual test hour is already "recorded". We use a Prophet Systems NexGen automation system and I voice-track my 9pm-6am thing two weeks ahead. Lots of polkas, about 2.5 minutes each, with ID in between each pair, voice, Morse, or both. All regular PSA's (we're non-commercial) have been pulled and replaced with station promos which are sort of ID's in themselves. I've had a couple of messages asking that we try to extend from the 1am cutoff toward the original 6am proposal. I'll talk to management today and see if they'll let me keep the power up. IF we do that, I'll load in extra ID opportunities but won't be able to run polkas the whole time. We have a very vocal audience for Casey Kasem's Top 40 that normally runs 12-4 Saturday mornings. Lately we've been cutting it to three hours, eliminating the music with the filthy lyrics, the drug culture messages, and (most important) the many popular pieces that are denigrating to and encouraging of violence against women. We have a terrible spousal and child abuse problem in Western Alaska (mostly alcohol related) and don't want to encourage it. If we do come up with an extension I'll let you know immediately by e-mail. Thanks, Les"



In This Issue:

Broadcasting Information.....	3
Western DX Roundup	4
Contest Update.....	5
Central DX Roundup.....	5
Eastern DX Roundup	6
DX Worldwide - West.....	7
Eastern DX Forum	8
Technical Column.....	8
Sports on Radio.....	14
Official Club Information....	16
This issue mailed October 24	

Reception reports (with return postage) may be sent to:

Les Brown
KNOM-AM
P.O. Box 988
Nome, AK 99762

EMAIL: rfn@nook.net
WEB: <http://www.knom.org>

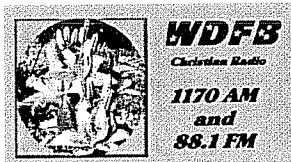
(Arranged by Les Brown for the benefit of all DXers)

Saturday, November 2, 2002 - WDFB-1170, Danville, KY (COL Junction City, KY) will conduct a DX test from 12:00am-?? EST. The station's regular format is Christian; they go by "WDFB Christian Radio". Songs such as "Amazing Grace" "Sweet Beulah Land" and "My Country, My Flag (by the Hoppers)" will be played, along with voice and/or Morse code IDs.

Reception reports (with return postage) may be sent to:

WDFB Christian Radio
P.O. Box 106
Danville, KY 40423-0106

EMAIL: music@searnet.com
WEB: <http://www.wdfb.com>
ICQ# 38796683



(Arranged for the IRCA CPC)

Friday, November 8, 2002 - KTNS-1060, Oakhurst, CA will conduct a DX test from 9:00pm-10:00pm PST (12:00 am-1:00 am EST). The test will consist of "Music of your life" and Morse code IDs. The test will be run at KTNS's full daytime power of 5000 watts and a non-directional antenna pattern will be used. Reception reports may be sent to:



Mr. Larry W. Gamble
General Manager
KTNS-AM
40356 Oak Park Way
Oakhurst, CA 93644

Email: mtkaat@sierratel.com

(Arranged by Lynn Hollerman for the IRCA CPC.)

If you try for (or hear) any of these tests, PLEASE post a message letting me know, and please, drop the station personnel a note, via e-mail or snail mail, thanking them for running the test! Lynn (ircamember@ircaonline.org)

Presidential MEMO

The following proposal has been approved by the BOD. All BOD members voted In favor of the proposal.

20.1.7 At the request of IRCA member Risto Kotalampi, I would like to propose a partnership between IRCA and Hard-Core-DX which consists primarily of the addition of a "channel" for IRCA on their new web site. This channel would have in it messages from IRCA's mailing list, [IRCA], as well as links back to the IRCA web site and to information on joining IRCA. IRCA, in return, would allow direct access to this channel thru the "Members Only" section of our website (an indirect link is already available in our "links" section). This partnership will allow for increased visibility of IRCA; the Hard-Core-DX site is popular with SW DXers, many of whom also have an interest in MW. Further, IRCA will have control over the content that is shown on the channel; should we prefer to list hot news, particular articles, or [IRCA] as is currently programmed, IRCA will determine that.

Submitted by Lynn Hollerman

10/20/02 Lee J Freshwater IRCA President

BROADCASTING INFORMATION

Editor: Lee J. Freshwater – 414 SE 3rd St. – Ocala, FL 34471

E-mail: ENGWTRS@aol.com

COMPLETE LIST AVAILABLE AT [HTTP://WWW.GEOCITIES.COM/AMLOGBOOK/MAIN.HTM](http://www.geocities.com/AMLOGBOOK/MAIN.HTM)

CALL CHANGES

OLD CALL	CALL CHANGES	NEW
850	WYDE – BIRMINGHAM, AL	WDJC
990	KXXL – FARMERSVILLE, TX	KCAF
1030	KLLU – REEDSPORT, OR	KDUN
1090	KKYN – PLAINVIEW, TX	KVOP
1280	KKOM – ARROYO GRANDE, CA	KXTK
1390	WKDR – BURLINGTON, VT	WVAA
1480	WTDA – MADISON, WI	WLMV
1490	WHAV – HAVERHILL, MA	WCCM
1600	KIVA – ALBUQUERQUE, NM	KANM

FORMAT CHANGES

FREQ.	CALL – CITY	NEW INFO
560	KLZ - DENVER	SPORTS – ESPN
610	KARV – RUSSELVILLE, AR	C&W
700	WGOP – WALKERSVILLE, MD	TALK
800	WCHA – CHAMBERSBURG, PA	// HOT AC WIKZ-W.ENDS
	KSOS – BRIGHAM CITY, UT	SPORTS // KZNS
940	KNNZ – CEDAR CITY, UT	NEWS - CNN
950	WCLB – SHEBOYGAN, WI	OLDIES “COOL 950”
1000	WIOO – CARLISLE, PA	CL. C&W – SPORTS
1080	KNDK – LANGDON, ND	C&W
1240	WFTM – MAYSVILLE, KY	ADLT. STNDS - JRN
1270	WWCA – GARY, IN	TO BE RELIGION
1280	WHVR – HANOVER, PA	CL. C&W - SPORTS
	KZNS – SALT LAKE CITY	SPORTS
1310	WXDX – DEARBORN, MI	NEWS-TALK
1320	WJKM – MAYFIELD, KY	REPORTED SILENT
1380	WSCG – GREENVILLE, MI	NEWS - CNN
1440	WKJN – CARBONDALE, PA	NEWS-TALK // WARM
1450	WTHU – THURMONT, MD	AD. STNDS – TALK WW1
1460	WJCI – RANTOUL, IL	SPORTS - ESPN
1470	WTTR – WESTMINISTER, PA	OLDIES/SPORTS
1480	WZJY – MT. PLEASANT, SC	RELIGION - TALK
	WTDA – MADISON, WI	WLMV – SPANISH
1490	WAZL – HAZELTON, PA	NEWS – TALK // WARM
1530	KSMM – SHAKOPEE, MN	RELIGION
1580	WSNE – GEORGETOWN, KY	SPORTS - FOX

TECHNICAL CHANGES

1260	KSUR – BEVERLY HILLS, CA	INCREASE TO 20K/7.5K DA-2 MOVES SITE TO 34-14-58 118-27-15
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1600 WISO - PONCE, PR
KAKK - WALKER, MN

INCREASE TO 2.5K/2.5K NDA
MOVES TO 1570 KHZ.

-Send your Info to me at : ENGWTRS@AOL.COM73's to you all. 10/13 0800 fresh
Deadlines are SUNDAY @ 0800.

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:

- (PM) Patrick Martin-P.O. Box 843-Seaside, OR 97138-0843 mwdxer@webtv.net
Drake R8, EWE antenna, 1500' Eastern Beverage
- (BN) Bill Nittler-Box 824-Mancos, CO 81328 nittlers2@frontier.net
Drake R8A
- (DP) Doug Pifer-3410 Marion St. SE-Albany, OR 97321 oregon4wd@attbi.com
Yaesu FRG-7000, Kiwa loop

OF SPECIAL INTEREST

- 960 KKNT AZ, Phoenix 10/17 2040 heard with new calls "AM 960 News Talk KKNT."
EX-KPXQ. (BN-CO)
- 970 KUPL OR, Portland back to these calls and now C&W music (again). 10/13 2201
"We know what you want and you know where to get it. We're KUPL AM &
FM Portland" followed by a "98.7 KUPL" jingle. Ex talk/AOR and KUFO
calls. Changed a few days ago. (PM-OR)
- 1030 KDUN OR, Reedsport back to these calls, ex-KLLU. Still "Real Country." ID at
2149:45 10/13 "Serving the Oregon coast from the Heart of the Dunes. This
is KDUN Reedsport, K-DUN (K-Dune)." (PM-OR)
- 1100 KRKE NM, Milan new calls for Milan station heard while driving thru Grants. (BN-
NM)
- 560 KLZ CO, Denver 10/16 now on with ESPN. (BN-CO)
- 720 KSAH TX, Universal City 10/16 2200 ID in English on top with "Nortena" slogan.
(BN-CO)
- 940 CJGX SK, Yorkton 10/13 2130 mixing "GX 940" ID's and C&W music. (PM-OR)
- 970 KGET CA, Bakersfield 10/18 0245 good on top with "Now back to Rush on
Newsradio 970, KGET" and "Bakersfield's News Station." (PM-OR)
- 990 KHBZ HI, Honolulu 10/18 0248 good on top of jumble with Dr. Laura show and
"Keep listening to 9-90 KHBZ." (PM-OR)
- 1080 KASL UT, Price still giving primarily KASL calls, but gave both KASL and KSLI on
hour tonight at 1900 10/17. (BN-CO)
- 1270 KJUG CA, Tulare 10/17 0300 fair mixing with CHAT and KBZZ. "AM 1270, KJUG,
Tulare & King Counties classic country station." AP network news. (DP-OR)
- 1400 KVSV NM, Santa Fe now on with ESPN, heard while in Albuquerque. (BN-NM)
- 1510 KTIM CA, San Rafael 10/15 1019 good on top with "K-Time" traffic. Best I have
heard them in some time. (PM-OR)
- 1480 KYOS CA, Merced 10/17 0433 good with "Newstalk 1480 KYOS," into spot with
Bob Barker. Last logged in 1996. (DP-OR)
- 1490 KTOB CA, Petaluma 10/17 0400 Spanish music. Lucky catch with KBZY the
biggest pest of the bunch. ID in English at top of the hour. (DP-OR)
- 1500 KUMU HI, Honolulu 10/18 0254 fair with "Sixteen Candles" and "KOO-MOO" ID's.
(PM-OR)

1580 KVVY CA, Merced 10/18 0306 fair on top of jumble with WW1 NOS format "Spanish Harlem" "You're listening to Merced's...of the greatest songs of all time AM 1580, The Valley." (PM-OR)

Remember, there is still time to enter the IRCA contest for this season. Nancy 1/18 2100

2002-2003 IRCA DX CONTEST

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

E-mail: NancyJohnson@prodigy.net

Standings as of October 15, 2002

1. Bill Nittler	149	4. Dave Braun	65	7. Pete Taylor	6
2. Paul Swearingen	111	5. Nancy Johnson*	30	8. Dale Park	4
3. John Tudenham	101	6. John C. Johnson	9		

*Contest manager is not eligible to win.

You can join this year's contest at any time. The rules are on the IRCA web site. Send your contest entries to the address above.

CENTRAL DX ROUNDUP

Editor: John C. Johnson

E-mail: John_Johnson@prodigy.net CDXR reports ONLY: cdxr@prodigy.net

RIDING GAIN

[TN-WI] Tim Noonan, Madison, WI

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

<http://DX-midAmerica.com>

<http://DXMW.com>

Icom IC-R75, Kiwa loop, GE Superadio III, Terk AM 1000 loop.

DOWN THE DIAL

550 KFYZ ND, Bismarck. 10-13 poor. 07:43 with "K-fire" promo for the morning show into oldie. [JJR-WI]

680 KNBR CA, San Francisco. 10-13 poor. 07:48 with ESPN radio and TV promos, "6-80 KNBR" ID. [JJR-WI]

710 KUET AZ, Black Canyon City. 10-13 poor with fades. 07:35 with "7-10 KUET" heard twice during NOS format. New, trying for KXMR. [JJR-WI]
{John, this is quite a pest for us here in Montana. John.}

740 KRMG OK, Tulsa. 10-17 poor in CHWO null. 06:49 with ID, spots. [JJR-WI]

750 CKJH SK, Melfort. 10-13 fair. 07:34 with "Saskatchewan's new CK-750." Oldies format. [JJR-WI]

790 KGHL MT, Billings. 10-13 fair. 07:26 with many local spots, call ID into oldies country music format. [JJR-WI]
{John, Nancy and I can see their 75 year old self supporting towers blinking away at night from our front window. John}

970 KNFX MN, Austin. 10-17 poor. 07:36 with "K-fan" slogan and mention of KWEB 1270 into local spots. [JJR-WI]

1110 WBCA IL, Springfield. 10-10 poor over unID. 20:06 with calls. [JJR-WI]
 WBCA AL, Bay Minette. 10-17 poor. 06:00 with ID into ABC News. Country
 music format. [JJR-WI]
 1150 WLOC KY, Munfordville. 10-10 poor over CKOC. 20:02 with ID, news. [JJR-WI]
 1320 WMSR TN, Manchester. 10-10 poor. 21:03 out of oldie with ID into delayed AP
 News broadcast. 79W. [JJR-WI]
 1410 KGRN IA, Grinnell. 10-14 fair to good. 06:59 with calls during a promo for the
 news tip hotline. IA#50. [TN-WI]
 1490 KQDS MN, Duluth. 10-12 poor. 22:29 with station promo, calls, CNN News. Rare
 here. [JJR-WI]
 1700 WEUV AL, Huntsville. 10-10 poor over KTBK. 20:37 with ID, quick fade. [JJR-WI]

UNIDs

610 unID 10-1 unID poor. 07:00 with SSB and possible ABC News bump. Who is this? Looped south. Need WRUS-KY. [JJR-WI]

25 YEARS AGO

October 29, 1977 issue of IRCA's "DX Monitor" ... Bill Harms of Spokane, WA was listed as being a new member ... Gary Larson of Burbank, CA told about KGFJ changing to KKTT, The Kat ... Gene Martin of Denver, CO mentioned with 11 Denver stations being AN that DX was more and more difficult ... Nick Hall-Patch of Victoria, BC told about staying up late trying to catch TAs before European sunrise.

OPEN MIKE

It's an all Wisconsin CDXR this week! This column was typed 10-19-02. 73, John

<p>EASTERN DX ROUNDUP <i>Editor: Lee J. Freshwater – 414 SE 3rd St. – Ocala, FL 34471</i> E-mail: ENGWTRS@aol.com</p>

Deadlines are : Sunday 8 AM

STARS OF THE WEEK

(HN-GA) Herb Newberry 405 JH Whittaker Rd, Newborn, GA 30056-3033
 Kenwood R-5000, Quan Loop , 600' "L" shaped l.w.

LOGGINGS

600 TN WREC Memphis 10/11 2000 at TOH "Newstalk 600, WREC" w/WBWL
 nulled on loop. Good . New (HN-GA)
 620 GA WTRP LaGrange 10/11 2006 Weak "620 WTRP" in slop on loop/ rare
 at 8 PM. New (HN-GA)
 730 TN WLIL Lenoir City 10/11 2037 U of TN FB Show. Good on top of slop on
 loop. Rare at 8 PM (HN-GA)
 1010 TN WHIN Gallitin 10/11 2126 HS FB. Local ads. In WINS null. New (HN-GA)
 1030 TN WQSE White Bluff 10/11 2134 HS FB Halftime. Local ads. On top of
 slop on loop. New (HN-GA)
 1130 FL WWBF Bartow 10/11 2345 "Oldies 1130, W-B-F" Good on loop. Sat fed
 Oldies. New (HN-GA)
 1390 SC WXTC Charleston 10/12 0049 "Join us in Heaven 1390 AM" Lop in
 NE/SW direction. GOS fmt. New (HN-GA)
 1420 KY WVTS Owensboro 10/12 0114 "12-30 WTCJ-WVJS" WTCJ is in Tell
 City, IN and is // w/ WVJS. Good on top on Loop (HN-GA)
 1460 KY WBPA Elkhorn City 10/12 0140 ID "1240, The Buzz" WBPD // WPKE

Well, thats a wrap for this week..Thanks to Herb this week.....73 and see you all next
time!!!.....fresh10/20 0800

DX WORLDWIDE – WEST / TROPICAL BAND DX

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

E-mail: mwdxer@webtv.net

all times UTC

A nice bunch of Latins from Steve Wiseblood and Doug Pifer this week.

PAN AMERICAN DX ROUNDUP

- 840 MEXICO, Tamazula, Jal. XEXXX at 1211 10/15 "Fiesta Mexicana" jingle, musica ranchera (SW-TX)
- 1040 MEXICO, Zapopan, Jal. XEBBB at 1035 10/16 "Radio Mujer", musica romantica (SW-TX)
- 1070 MEXICO, Tancanhuitz de los Santos,SLP, XEANT at 0008 10/19. Woman in SS reading messages to listeners in the local villages. (SW-TX)
- 1080 CUBA, Habana, Radio Cadena, 0134 10/19 man in SS with world news and commentary. 0202 old style Cuban vocal/romantic music (SW-TX)
- 1120 MEXICO, Puebla, Pub. XEPOP, 0123 10/17 lite pop/romantic mx, man between songs with slogan "PRECIOSA" (SW-TX)
- 1160 MEXICO, Acambaro, Gto. XEVW, 1151 10/15 "Radio Sensacion" slogan by male in SS. Mexican pop/dance mx (SW-TX)
- 1170 MEXICO, Aguacalientes, Agua, XEUVA, 1002 10/20. "La Rancherita" slogan and tc by man in SS, musica romantica/ranchera jingle at 1012 "Radio Rancherita". (SW-TX)
- 1270 MEXICO, Tijuana, BCN, XEAZ 10/17 at 0611 UTC, poor. Hrd several slogans "Radio Zeta Treinte...(un lider) en accion". Easy SS mx (DP-OR)
- 1300 MEXICO, Villa Cuauhtemoc, Ver. (Tampico), "Radio Trece" slogans, ad for the Tampico newspaper "El Sol De Tampico". Mexican pop music/musica tropical 10/16 (SW-TX)
- 1410 MEXICO, Mexico City, DF, XEBS 1210 UTC musica nortena/tejano, SS male ancr "La Perrona" 10/16. (SW-TX)
- 1470 MEXICO, Tijuana, BCN, XERCN, 10/17 0840 UTC poor to strong "Radio Unica" slogans. Sounded like about six in studio guests laughing a little too long at their own jokes. (SS version of the Bob and Tom Show). Ads for Chevy Silverado and Direct TV. (DP-OR)
- 1530 MEXICO, Mexico City, DF XEUR 0100 UTC 10/17, SS News "Nuestras Noticias de N-N" slogan "La Mexicana la mas Picuda" ID "con 50 mil watts de potencia", "una emisora de Radio-Rama" (SW-TX)

TRANS PACIFIC DX ROUNDUP

- 540 WESTERN SAMOA, Apia 2AP, very very good with lots of Island pop mx at 0900-1000, 10/18 lots of "Samoa" mentions, male ancr in Samoa. Really a beautiful signal at peaks of S9+10 DB, wiping out everything else on the channel. S/off at 1001 with NA. (PM-OR)
- 621 TUVALU, Funafuti, fair with KIPA-620 on lp for some reason,noted with Island mx and native talk at 0750 on 10/18. KIPA was back strong by 1000 and after. (PM-OR)

THANKS TO THESE REPORTERS

DP-OR DOUG PIFER, Albany OR.
<oregon4wd@attbi.com>
DXing with Yaesu FRG-7000 and Kiwa loop

SW-TA STEVEN WISEBLOOD, Boca Chica Beach, TX
<stevenwisebl@hotmail.com>
DXing with DX-399 and 250 foot NE LW

PM-OR PATRICK MARTIN, PO Box 843, Seaside OR 97138-0843
<mwdxer@webtv.net>
DXing with Drake R8, 2 EWE antennas

EASTERN DX FORUM

Richard C. Evans – 7416 Hearthstone Way – Indianapolis IN 46227-7923

E-mail: REvans5435@aol.com

DEADLINES: Sundays

R. C. Watts, 4109 Graf Drive, Louisville, Kentucky 40220

It's been a long time since I wrote something and Halloween is not far off. I think Hawg Radio may run a DX Test this year so dust off your XTAL sets. Have not gotten out and about this year but I did visit Lynn's first DX Test station: WLCR-1470. Just got around to mounting the pix and stix. Pix didn't turn out so good but there wasn't a whole lot there to photograph. Next month the Senior Citizens are touring the Public Radio Partnership (WFPL-89.3, WFPK-91.9, WUOL-90.5) on 4th Avenue. Lunch and concert included. Colonel; XYL doesn't feel up to it so I have to go it alone. It's frightening - so few guys and so many little (or not so little) old ladies. Saw an item in the NASWA Journal saying the VOA station Belize has closed for good. I heard both frequencies at sea in the Pacific some years ago and had them verified. I hoped some commercial outfit would buy or lease it. The power company put in a bunch of new poles and created a horrible interference. Their techs found and fixed but I noticed last night some had sneaked back in. Have a great DX season. -- Col. DX.

IRCA TECHNICAL COLUMN

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

E-mail: nhp@ieee.org

Flag Antenna Construction and Test Results

Mark Connelly, WA1ION – 18 JUL 2002

The Flag Antenna is in the family of terminated loops that can yield a cardioid (heart-shaped, single-direction null) pick-up pattern. Its name comes from its horizontal rectangular shape. Length of the upper and lower horizontal wire members is typically about 2 to 3 times the height of the two vertical sides. Original "relatives" include the Ewe antenna developed by Floyd Koontz, WA2WVL and Gary Breed's K9AY Loop. These rely to some extent on ground conductivity to perform at their best. A "ground independent" terminated loop concept was subsequently developed by Jose Mata Garriga, EA3VY and Earl Cunningham, K6SE. The Flag, Delta, Kaz, and Pennant antennas are in this category.

I set up a Flag Antenna at my home QTH in Billerica, MA (25 km northwest of Boston). Alignment was for a feedpoint on the northeast side and termination on the southwest side. The null to the southwest is advantageous here to reduce interference from broadcasters and 160-m hams (and even storm static) along the "I-95 corridor" of large cities throughout RI, CT, NY, NJ, PA, DE, MD, DC, and VA. By reducing the strong groundwave and short-skip

signals from that densely-populated region, European stations (in the opposite direction) can be heard with improved readability.

The K6SE article on Pennants and Flags suggests a horizontal dimension of 8.84 m / 29 ft. and a vertical (side) dimension of 4.27 m / 14 ft. The VE6WZ web site has data suggesting that, as long as the horizontal-to-vertical (H/V) ratio is kept the same, performance in nulling will be comparable with antennas of different sizes. Signal capture, of course, is greater as the area enclosed by the antenna is increased. The K6SE ratio of 29/14 or 2.07 was arrived-at by EZNEC analysis. Ken Alexander had good results with a Pennant measuring 16.45 m horizontally by 5 m vertically for a ratio of 3.29. It would seem that there's a certain amount of "budge room" in the H/V ratio.

The Flag Antenna I installed (see Figure 1) used a horizontal dimension of 10.36 m / 34 ft. and a vertical dimension of 4.88 m / 16 ft. Its H/V ratio, 2.125, is quite close to K6SE's 2.07 value. At first I had the bottom wire of the antenna about 2 m off the ground. Since the antenna was fairly close to the house, pick-up of TV and computer hash tended to be a problem. Raising the bottom wire to 7 m / 23 ft. above the ground helped considerably in reducing electrical noise pick-up. This put the top at 11.88 m / 39 ft. with the supporting ropes going over the tops of black locust trees at the (approximately) 17 m height level. The added antenna height also improved nulling and low-angle DX pick-up a bit. The Flag is probably an easier antenna to raise to a good height than are some of the other designs if you have two decent size trees or masts available.

As in my previous tests of Pennant and Kaz antennas at sites in West Yarmouth, Billerica, and East Harwich, MA, I used a remotely-controlled termination resistance scheme. A controller box in the "shack" operating position injects a DC voltage into the coaxial cable. A feedpoint box provides a necessary balanced antenna / high impedance to unbalanced cable / 50 ohm impedance transformation. It also couples the DC control voltage onto the upper and lower halves of the antenna. The termination box contains the Vactrol which changes its resistance as a function of the current passing through the internal LED coupled to its photoresistor.

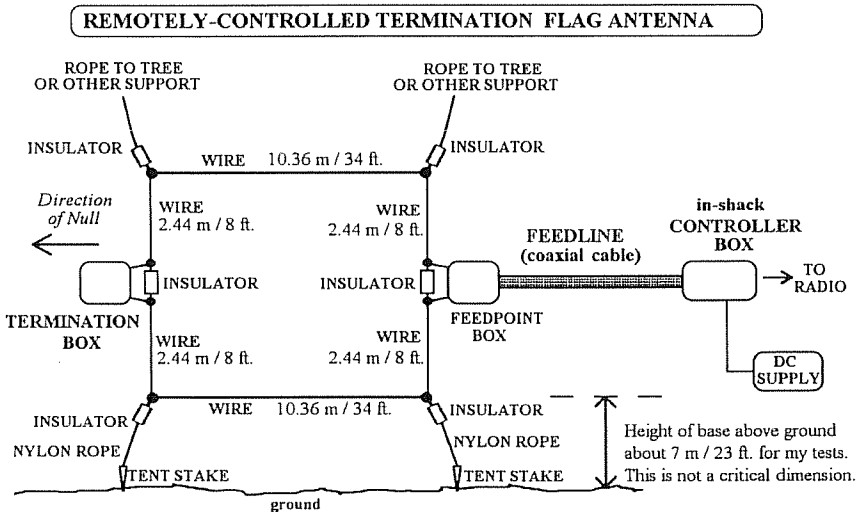


Figure 1: Flag Antenna System Drawing

The three boxes in the Flag Antenna system are somewhat modified (improved) versions of corresponding boxes used in the previous Pennant Antenna tests. Either the old or the new set of boxes would work for any of the balanced terminated loop antenna designs.

The controller box (Figure 2) is straightforward in concept. Regulated 10 VDC is divided by a 1K linear potentiometer (preferably a multi-turn wirewound type) and R-L coupled to the coaxial feedline. Antenna RF is capacitively coupled to the receiver (or phasing unit) input. An optional amplifier, such as the W7IUV (2N5109-based) design, may be added as shown.

I tried two different styles of feedpoint box. One uses a Mini-Circuits T16-6T-X65 "off the shelf" 16:1 RF transformer (Figure 3) and the other uses a "do-it-yourself" transformer based on an Amidon FT140-43 core (Figure 4). The split high-impedance winding of the Amidon core "DIY" transformer decreases any unbalancing effects caused by the choke-coupling of DC to the antenna elements from the coaxial feedline. Also, the large FT140-43 core is likely to create less distortion in the presence of strong signals than the little Mini-Circuits transformer that contains much less ferrite. Tests show the "DIY" transformer to have greater coupling efficiency in many cases, especially below 1 MHz. Most likely because of coaxial cable to antenna interaction differences between the two styles of feedpoint box, slight variations in null depth and optimum termination value were observed on a given station during testing (depending on the feedpoint box used). The nulling and gain advantages of the homebrew transformer design are discussed more in the test results part of this article.

The termination box (Figure 5) has a switch in it that can separate (RF-wise) the "test point" input from the upper antenna wire jack. This would be done in the case of a twisted-pair Beverage where you'd connect the test point jack to field site ground. For Flag, Pennant, etc. use, the switch would be set to connect the upper antenna wire to the test point through the 0.1 uF DC-blocking capacitor. With a current of about 30 mA through the Vactrol LED, the pot arm back at the

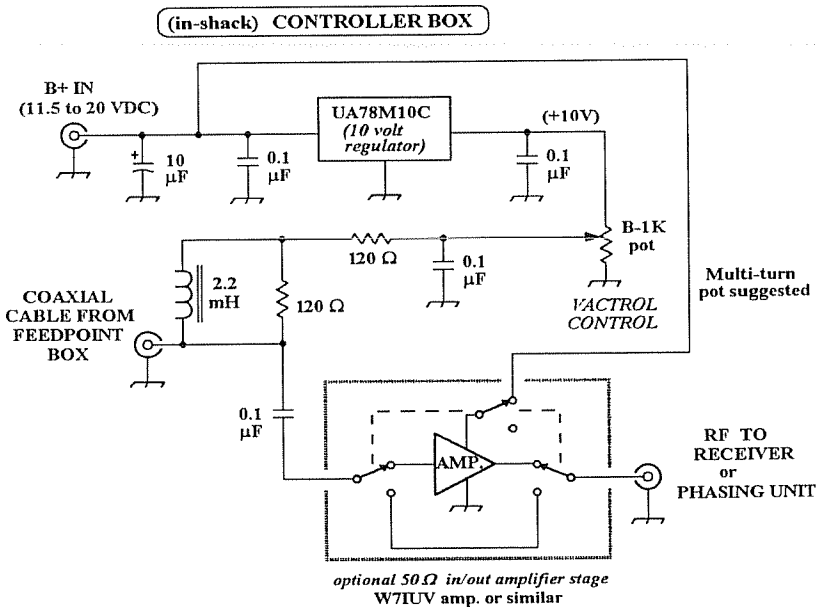


Figure 2: Controller Box Schematic

controller would be close to +10V and the DC voltage between the upper and lower sections of the antenna would be about 6 V (because of the series resistors and chokes in the control and termination boxes). The voltage at the Vactrol LED is clamped to a maximum of about 2.1 V by the three series 1N4003 diodes. This protects it from being damaged by inadvertent application of too high a voltage. Resistance of the Vactrol photoresistor is about 55 ohms at full current and greater than 20K ohms at zero current and voltage. The 100 ohm resistor in series with the Vactrol photoresistor makes adjustment in the often-used 700 to 1500 ohm range less "touchy". Because of that resistor, typical minimum resistance measured between the test point and the lower antenna input jack is about 155 ohms. I developed a table of control voltage versus measured resistance (not included here). With this I can determine the approximate termination resistance yielding a null by measuring the controller box's DC voltage at the operating position and then referring to the V-versus-R spreadsheet.

Testing

Rather than presenting a lot of charts and graphs, results will be summarized in text form.

Several medium-wave AM broadcast stations on various bearings were used to evaluate the antenna's directivity during stable midday conditions. For stations in the 180 degree (= due south) to 270 degree (= due west) quadrant designed to be the "kill zone", a peak signal usually occurred at one extreme of the control pot setting or the other: in other words with a termination approximating either a short or an open. Nulling occurred with termination resistances in the 700 to 1500 ohm range with 900 ohms a good "ballpark" value if one had to resort to a fixed resistor instead of Vactrol control. This is pretty much in agreement with K6SE's article. I feel that the Vactrol method is essential for best performance because, for minor differences in bearing and frequency, different termination values are needed to squeeze out those "last few dB" of null.

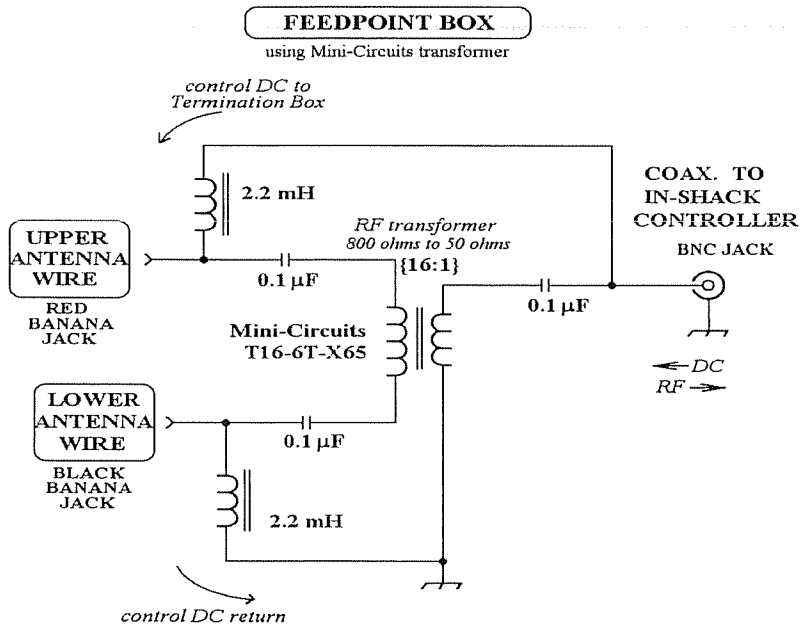


Figure 3: Feedpoint Box with Mini-Circuits Transformer

Using a ballpark value may get you a consistent 15 dB of null in the quadrant of interest, but will only give a deeper null on a handful of ideally-suited signals.

To see how much deviating from the "sweet spot" value degrades null depth, consider the following case study: WORC-1310, Worcester, MA nulls better than 5 S-units (more than 30 dB) with a termination of 808 ohms. This degrades to 25 dB at 742 and 847 ohms, 20 dB at 694 and 911 ohms, 15 dB at 568 and 1104 ohms, and 10 dB at 305 and 1740 ohms.

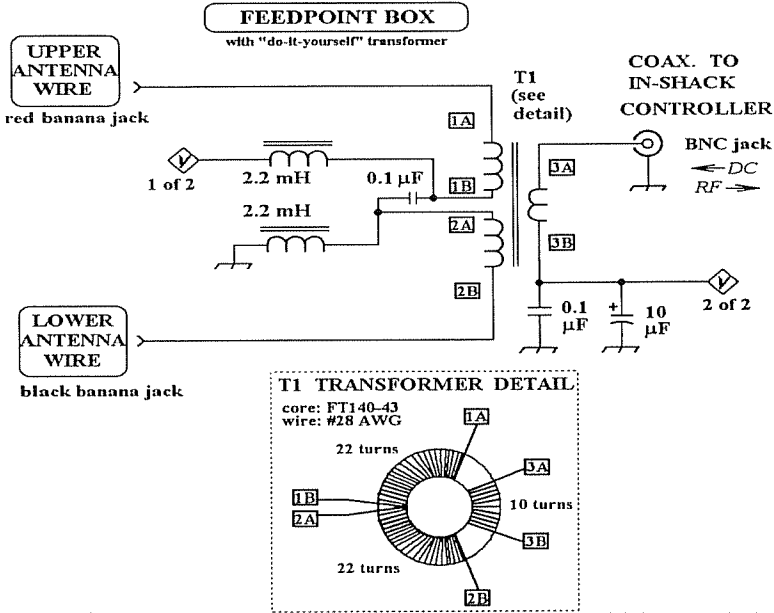
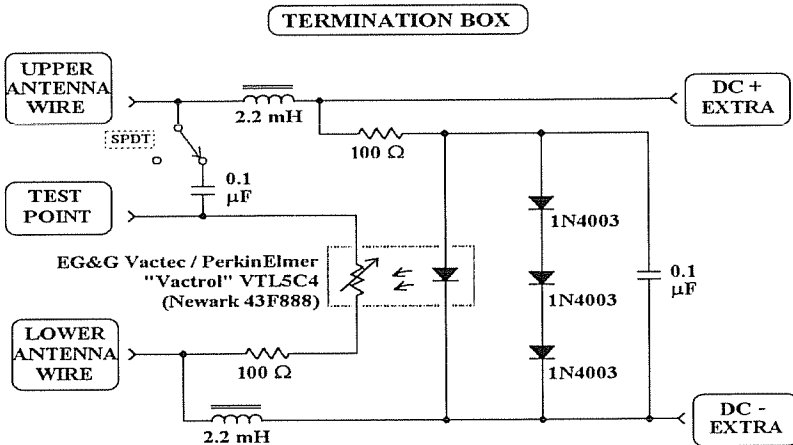


Figure 4: Feedpoint Box with "Do It Yourself" Transformer



Note

1N4003 diodes clamp maximum voltage to ≈ 2 VDC, corresponding to ≈ 30 mA through Vactrol LED. This sets photoresistor to minimum value, about 54Ω .

Figure 5: Termination Box schematic

I get typical good-depth nulls with as little as 700 ohms and as much as 1500 ohms depending on the station. From the previous null-degradation analysis, you can see the importance of hitting the proper termination "spot on", something you can only do with the Vactrol approach.

Nulls of selected stations in the design sector (south to west) were typically 18.8 dB with the Mini-Circuits T16-6T-X65 based feedpoint box and 22.6 dB with the "DIY" transformer based version. This says that the stray coupling effects of the coaxial feedline were reduced by the "DIY" design. In a few individual cases, the Mini-Circuits box showed a deeper null (but, more often, not). Previous Kaz and Pennant tests (with the Mini-Circuits based feedpoint box) showed somewhat shallower average design-zone nulls: 14.9 dB Pennant, 16.6 dB Kaz.

Some nulls exceeded 30 dB. For many stations on southwesterly bearings, a 25 dB null was not uncommon. Even at night on high-angle skip pests like WQEW-1560 NYC, nulls of better than 15 dB could be maintained for a long time.

When you attempt to null stations 45 or more degrees off the main null axis, the null resistance setting migrates towards either a short or an open. What happens is that the cardioid gradually degrades to a pattern with two shallower nulls clockwise and anticlockwise of the design null axis. Eventually, with the two nulls close to a right angle to the axis, you develop a figure-of-eight pattern just like a normal loop antenna. This finding was also noted in the Kaz and Pennant studies.

Stations close to the opposite direction of the design null bearing show little signal variation with changes in the termination resistance. WESX-1230 and WNSH-1570 to the east and WNBP-1450 to the northeast are in this category. These stations, and some of the Maine and Canadian Maritimes stations, are among the few domestic stations I like to see enhanced by antennas being tested. That's because the bearings to them continue on towards desired DX targets in Europe, North Africa, and the Middle East.

Sensitivity on peaked signals with the 4.88 m by 10.36 m Flag Antenna with the Mini-Circuits based feedpoint box averaged 16 dB below the reference sloper. The Flag using with the "DIY" transformer feedpoint box was 11 dB below the sloper. Again, this shows an advantage to using the homebrew transformer.

The previous Kaz and Pennant tests showed 23 dB less sensitivity than the sloper: those antennas had an enclosed area of only about half as much as the area of the Flag.

I can use the antenna as a "straight" broadband loop either by setting the Vactrol to minimum resistance or, even better, by removing the three boxes and just using a 4:1 transformer at the feedpoint. In this case, the two leads that normally go to the termination box would be shorted together. This large broadband loop has a good amount of pick-up in its figure-of-eight pattern. It is even less susceptible to local electrical noise than the Flag configuration. Two of these broadband loops at a right angle can be presented to two phasing unit inputs for versatile nulling. Also, one of these vertical-plane broadband loops could be phased against a non-directional antenna such as a broadband-transformer-matched vertical ground plane, vertical dipole, or horizontal loop.

The Flag Antenna, especially if made a reasonably-large size and mounted at a good height, is a very effective antenna. Though claims of it being a "backyard Beverage" may be exaggerated, it can have a commendable front-to-back ratio for situations requiring that kind of directivity. Refinements such as Vactrol termination and in-shack amplification are worthwhile performance-enhancers to consider.

Further Reading

The following articles and other potentially useful ones are available from links at <http://www.qsl.net/wa1ion/index.html> . Some may also be available on paper through the reprints services of the National Radio Club and the International Radio Club of America. These articles have references and links to other published material. The Hard Core DX and ARRL web sites also have useful material that can be located through common Web search engines.

- * Remote Termination of Beverage and Ewe Antennas
- * Phasing Improves Kaz Antenna Nulls
- * W7IUV Amplifier Card
- * VTL5C4 / VTL5C3 Vactrol Data Sheet
- * Pennant and Kaz Antenna Tests
- * "Kaz Antenna" Tests by John Bryant
- * Pennant Antenna with Remote Termination Control
- * K9AY antenna links
- * Flag and Pennant antenna links
- * Flag and Pennant Antenna Compendium
- * Is this Ewe for You ?
- * More Ewes for You
- * K9AY Loop

SPORTS ON RADIO

Compiled by Art Blair and Phil Bytheway

DA PRO FOOTBALL

Buffalo Bills - [www.buffalobills.com]

590 CJCL Toronto, ON
 610 CKTB St. Catharines, ON
 680 WINR Endwell, NY
 950 WIBX Utica, NY
 1160 WPIE Trumansburg, NY
 1240 WGVA Geneva, NY
 1240 WWSE Jamestown, NY
 1260 WNSS Syracuse, NY
 1290 WNBH Binghamton, NY
 1300 WTMM Albany, NY
 1410 WELM Elmira, NY
 1410 WNER Watertown, NY

1420 WACK Newark, NY
 1590 WUAB Auburn, NY

 93.3 WJTN Jamestown, NY
 95.7 WPIG Olean, NY
 96.5 WBKX Fredonia, NY
 96.5 WCMF Rochester, NY
 96.9 WGRF Buffalo, NY
 98.3 WVIN Bath, NY
 100.1 WBRR Bradford, PA
 101.1 WZKZ Alfred, NY

Carolina Panthers

560 WVOC Columbia, SC
 590 WCAB Rutherford, NC
 630 WIRC Hickory, NC
 630 WMFD Wilmington, NC
 730 WOHS Shelby, NC
 910 WSTK Jacksonville, NC
 1050 WLON Lincolnton, NC
 1070 WCSZ Sans Souci, SC
 1150 WBAG Burlington-Graham, NC

1230 WLNR Kinston, NC
 1230 WNNC Newton, NC
 1240 WJNC Jacksonville, NC
 1260 WKXR Asheboro, NC
 1340 WQSC Charleston, SC
 1400 WSIC Statesville, NC
 1450 WGNC Gastonia, NC
 1450 WHKP Hendersonville, NC
 1530 WASC Spartanburg, SC

1590 WCSL Cherryville, NC

94.1 WCRS Cross Hill, SC

94.5 WWCC Eden, NC

97.9 WRUP Bayboro, NC

98.3 WCZI Washington, DC

99.7 WRFX Kannapolis, NC

102.7 WPUB Camden, SC

107.1 WRHM Lancaster, SC

107.3 WTKF Atlantic, NC

107.3 WVSZ Chesterfield, SC

Late game...

November 17 at Tampa Bay 4:00PM

Dallas Cowboys

560 KLVI Beaumont, TX

600 KROD El Paso, TX

600 KTBB Tyler, TX

690 KPET Lamesa, TX

710 KGNC Amarillo, TX

710 KURV Edinburg, TX

740 KCMC Texarkana, TX

760 KTKR San Antonio, TX

770 KKOB Albuquerque, NM

860 KFST Fort Stockton, TX

860 KPAN Hereford, TX

910 KNAF Fredricksburg, TX

950 KJTV Lubbock, TX

950 KPRC Houston, TX

1090 KKYN Plainview, TX

1150 KZNE College Station, TX

1200 WOAI San Antonio, TX

1230 KSST Sulphur Springs, TX

1240 KVLV Alpine, TX

1240 KVSO Ardmore, TX

1240 KXOX Sweetwater, TX

1260 KKSA San Angelo, TX

1300 KVET Austin, TX

1380 KBWD Brownwood, TX

1430 KTBZ Tulsa, OK

1440 KEYS Corpus Christi, TX

1450 KCTI Gonzales, TX

1460 KENO Las Vegas, NV

1470 KEAN Abilene, TX

1510 KSTV Stephenville, TX

1520 KOMA Oklahoma City, OK

1580 KRZI Waco, TX

88.1 KHOY Laredo, TX

92.3 KCUL Marshall, TX

92.5 KBLK Burnet, TX

92.7 KASR Conway, AR

94.7 KIXY San Angelo, TX

94.9 KBIM Roswell, NM

95.3 KFRO Gilmer, TX

95.3 KNEL Brady, TX

95.7 KBST Big Spring, TX

96.7 KXOX Sweetwater, TX

97.1 KVRP Haskell, TX

97.9 KODM Odessa, TX

98.3 KYK Palestine, TX

98.7 KLUV Dallas, TX (Flagship Station)

99.9 KSHN Liberty, TX

102.3 KLJT Jacksonville, TX

104.3 KGAS Carthage, TX

104.7 KYI Burkburnett, TX

104.9 KRIG Nowata, TX

104.9 KYCX Mexia, TX

106.1 KBAL San Saba, TX

106.3 KPAN Hereford, TX

107.7 KPLT Paris, TX

107.7 KTBQ Nacogdoches, TX

Late games...

November 28 at home vs Washington 3:05PM

December 15 at NY Giants 3:15PM

December 21 at home vs Philadelphia 7:30PM

December 29 at Washington 3:05PM

Indianapolis Colts

860 WGOM Marion, IN

930 WHON Centerville, IN

1190 WOWO Fort Wayne, IN

1270 WXGO Madison, IN

1340 WBIW Bedford, IL

1340 WTRC Elkhart, IN

1490 WDAN Danville, IL

1590 WKPT Kingsport, IN

92.7 WJCP Austin, IN

94.7 WFBQ Indianapolis, IN (Flagship Station)
 94.9 WKRI Mount Carmel, IN
 95.7 WSHP Attica, IN
 95.9 WEFM Michigan City, IN
 96.7 WORX Madison, IN

98.1 WIBN Earl Park, IN
 103.3 WAXL Santa Claus, IN
 105.5 WWVR West Terre Haute, IN
 106.5 WWBL Washington, IN
 107.7 WMRS Monticello, IN

Late games...

October 21 at Pittsburgh 9:00PM
 October 27 at Washington 8:30PM
 November 24 at Denver 8:30PM
 December 1 at home vs Houston 4:05PM
 December 29 at home vs Jacksonville 4:05PM

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 OFFICERS AND CONTACT INFORMATION

President: Lee Freshwater, 414 SE 3rd Street, Ocala FL 34471
 e-mail: ENGWTRS@aol.com (proposals/gripes)
Secretary-Treasurer: Lynn Hollerman, P.O. Box 60241, Lafayette LA 70596
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 Nancy Johnson NancyJohnson@prodigy.net, Patrick Martin mwdxer@webtv.net,
 Mike Sanburn mikesanburn@hotmail.com, and Pete Taylor ptdx@att.net
Editor-in-Chief: Rich Toebe, 2103 Sargent Court, Davis CA 95616-7621
 e-mail: richtoebe@jps.net (all material for publication goes here)

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THE INTERNATIONAL RADIO CLUB OF AMERICA
P.O. Box 60241, Lafayette LA 70596
<http://www.ircaonline.org>