

The SPARK GAP

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PRESIDENTS CORNER

by Gale, WD9HFT

We continue to have good attendance for a new club. Because several of those in attendance have a distance to come or are pressed for time we will continue with the the revised schedule. We will be ordering off the menu at 6:30 and start the club meeting in the area of 7:15 PM. Connell's at the airport seems to be a favorable place to have our meetings. Please note that you are more than welcome to arrive for the 7:15 meeting time but if we want to continue to use the facility we have to have 5 to 10 people order off the menu to offset the cost of the room for the meeting.

CVARC MEETING MINUTES

by Ron, W9RJW

Meeting Feb 19, 2004 - The meeting was called to order at 7:23 PM by President Gale Sorum. At our last meeting we handed out copies of the Constitution and the Bylaws/Policies. If anyone wants a hard copy just email me and I will see one is sent to you. As a matter of fact if you have any questions about either document or comments please let me know. As of this moment (2/26/04 @ 14:45CST) we have grown to 28 members. If any member has not received their membership card please let me know and I will see to it that one is sent out to you posthaste.

NEXT CLUB MEETING

The next club meeting will be March 18, 2004 at 7:15 PM. at Connell's in the Airport. For those wanting to eat, we will be ordering at 6:30 PM. Topics – will be

CLUB HAPPENINGS

The CVARC now has 28 members. The club Application for Membership and Interest Sheet are both posted on the web for download. Please take the time to fill out an Interest Sheet and return it to the club so that we can get an idea of where everyone's interests fall.

Anyone interested in submitting news line for the paper, please send it to the club email address for inclusion. What you know can also benefit others – lets share the knowledge. If you would like to author one of the major newsletter topics, they are also available.

AMATEUR RELATED NEWS BITES

by John, W9SWL

New Digital Mode - Domino

<http://www.gsl.net/zl1bpu/MFSK/domino/>

The name **ZL2AFP domino** is that given to this first software realization of these modes. Since the modes are in their infancy, and many improvements are hoped for, no claim is made that either the modes or program are any more than steps along the way to communications excellence.

The main aim of **domino** is to provide a simple to use, but slick to operate, digital chat mode for HF, especially the lower bands (160/80/60/40/30m) where multi-path is such a problem. It was designed for beginners with limited skills, and perhaps equipment with limited performance, especially in the drift and offset department (old FT101s for example!).

AREA HAMFEST ACTIVITIES

by John, W9SWL

March (14 - WI QSO Party 10 am)

13 - Red River ARC, West Fargo, ND

21 - Tri-County ARC, Jefferson, WI

27 - Mid-Winter Madness, Buffalo, MN

27 - Sioux City, IA

28 - North Shore Radio Club; Grayslake, IL 8-12

April

2-3 - AES Superfest, Milwaukee, WI

18 - Madison Area Rptr Assoc - Stoughton, WI

24 - Moose Lodge, Fairbault, MN

ARRL News

CW PRACTICE on the WEB

The ARRL W1AW Code Practice is on the web at <http://www.arrl.org/w1aw/morse.html>.

CONTEST BUZZ

by John, W9SWL

ARRL Contest Calendar can be found here:

<http://www.arrl.org/contests/calendar.html> a more complete list follows.

MARCH 2004

| | |
|-------------------------------|------------------------------|
| ARS Spartan Sprint | 0200Z-0400Z, Mar 2 |
| AGCW YL-CW Party | 1900Z-2100Z, Mar 2 |
| ARRL Inter. DX Contest, SSB | 0000Z, Mar 6 to 2400Z, Mar 7 |
| Makrothen RTTY Contest | 1000Z, Mar 6 to 0959Z, Mar 7 |
| DARC 10-Meter Digital Contest | 1100Z-1700Z, Mar 7 |
| Pesky Texan Armadillo Chase | 0200Z-0400Z, Mar 11 |

| | |
|------------------------------|--|
| YL-ISSB QSO Party, SSB | 0000Z, Mar 13 to 2400Z, Mar 14 |
| RSGB Commonwealth Contest | 1000Z, Mar 13 to 1000Z, Mar 14 |
| AGCW QRP Contest | 1400Z-2000Z, Mar 13 |
| Oklahoma QSO Party | 1400Z, Mar 13 to 0200Z, Mar 14 and 0800Z-2000Z, Mar 14 |
| SOC Marathon Sprint | 1800Z-2400Z, Mar 13 |
| North American Sprint, RTTY | 0000Z-0400Z, Mar 14 |
| UBA Spring Contest, CW | 0700Z-1100Z, Mar 14 |
| NSARA Contest | 1200Z-1600Z, Mar 14 and 1800Z-2200Z, Mar 14 |
| Wisconsin QSO Party | 1800Z, Mar 14 to 0100Z, Mar 15 |
| 10-10 Int. Mobile Contest | 0001Z-2359Z, Mar 20 |
| BARTG Spring RTTY Contest | 0200Z, Mar 20 to 0200Z, Mar 22 |
| SARL VHF/UHF Contest | 1000Z, Mar 20 to 1000Z, Mar 21 |
| Russian DX Contest | 1200Z, Mar 20 to 1200Z, Mar 21 |
| AGCW VHF/UHF Contest | 1600Z-1900Z, Mar 20 and 1900Z-2100Z, Mar 20 |
| CLARA and Family HF Contest | 1700Z, Mar 20 to 1700Z, Mar 21 |
| Virginia QSO Party | 1800Z, Mar 20 to 0200Z, Mar 22 |
| UBA Spring Contest, 6m | 0700Z-1100Z, Mar 21 |
| 9K 15-Meter Contest | 1200Z-1600Z, Mar 21 |
| Spring QRP Homebrewer Sprint | 0000Z-0400Z, Mar 22 |
| CQ WW WPX Contest, SSB | 0000Z, Mar 27 to 2359Z, Mar 28 |
| UBA Spring Contest, 2m | 0600Z-1000Z, Mar 28 |

This month I would like to share a chart for quick reference in cutting wire antennas for different wavelengths. As indicated, it was written by W3NI and forwarded to me by Gordy, W9PVD. These are the little things that we can all use.

Antenna Dimensions - from W3NI

| Band | Freq | 234/F | 468/F | 585/F | 1005/F |
|------|--------|-------|-------|-------|--------|
| | | 1/4 W | 1/2 W | 5/8 W | Loop |
| 160 | 1.800 | 130.0 | 260.0 | 325.0 | 558.3 |
| 160 | 2.000 | 117.0 | 234.0 | 292.5 | 502.5 |
| 80 | 3.500 | 66.9 | 133.7 | 167.1 | 287.1 |
| 75 | 4.000 | 58.5 | 117.0 | 146.3 | 251.3 |
| 40 | 7.150 | 32.7 | 65.5 | 81.8 | 140.6 |
| 30 | 10.125 | 23.1 | 46.2 | 57.8 | 99.3 |
| 20 | 14.250 | 16.4 | 32.8 | 41.1 | 70.5 |
| 17 | 18.140 | 12.9 | 25.8 | 32.2 | 55.4 |
| 15 | 21.350 | 11.0 | 21.9 | 27.4 | 47.1 |
| 12 | 24.930 | 9.4 | 18.8 | 23.5 | 40.3 |
| 10 | 28.200 | 8.3 | 16.6 | 20.7 | 35.6 |
| 10 | 28.500 | 8.2 | 16.4 | 20.5 | 35.3 |
| 10 | 29.600 | 7.9 | 15.8 | 19.8 | 34.0 |

TECHNICAL TIDBITS

by John, W9SWL

This column is designed to offer hints and tips dealing with projects, tools, kits, and anything else as relates to Amateur Radio. I hope to provide those things that you will find useful.

Here is a link for calculating **RF Power Density**. This will help you determine a safe distance from your antenna to your operating position. Good for mobile and home operation. <http://n5xu.ae.utexas.edu/rfsafety/>

Last month we showed Ohms Law for DC Circuits. If you cannot remember EIR for Voltage, Current, Resistance try this **VCR – Voltage, Current, Resistance**. Joe Eide (KB9R) suggested this tip. It was what his wife Sue (KB9EUP) used to recall the relationships.

Build a hanging dipole for two meters – VK1PK

Described here is a simple omni directional, vertically polarized dipole for two meters. Made from coaxial cable, it can be rolled up and stored in a small container. It may be used as is indoors, or waterproofed for use outside. No extravagant gain claims are made; this dipole has no more gain than any other. However, it should be significantly more effective than the antenna that came with your handheld. The cost of building the project is around five to ten dollars. Allow about 20 minutes to construct and erect the antenna. A single length of 50-ohm coaxial cable forms both the antenna element and the feedline. The antenna is made by removing a quarter wavelength of outer jacket and bending the braid back along the cable towards the transceiver to form a vertical dipole. This means no

BOAT ANCHOR DOCK

by John, W9SWL

Do you have gear that is not “state of the art”? Does it allow you to enjoy the hobby of amateur radio? How about sharing with the members at the next club meeting, what type of gear you are running, and why you enjoy it. Do you have any issues with your gear? Would you like to chair a SIG dealing with the “care and feeding” of older radios? Do you have some gear that might make a member functional on the HF bands, (to share not sell), since we all know how nice the “older” radios really are.

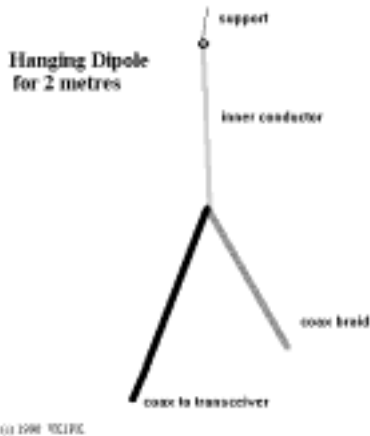
Learn to be a good operator of a radio before you get buried in menus and features you may never use. New is not always better, but it is definitely more costly.

ASK ELMER ??

by John, W9SWL

Do you have all the answers??? Neither does anyone else. But most of us have questions. If you have a question about some aspect of ham radio, drop a note with your name and call, and I will post it here and the web page, to get an answer for you. **Who will be first, send it now.** Lets all help each other become better hams.

metal work or wiring is required (apart from attaching the BNC or PL259 plug).



Parts required

The following is required to complete the project:-

- 3-4m RG58 coaxial cable (not critical - use longer length if height is needed or the operating position is distant from the antenna)
- PL259 or BNC plug (to suit transceiver)
- small metal lug, washer or nut
- tape measure, scissors, small screwdriver, long-nosed pliers, multi-meter, fishing line, soldering iron

Construction

- Solder the PL259 or BNC plug to one end of the RG58 cable.
- From the other end of the cable remove 48 cm of the black plastic outer covering to expose the braid.
- With a small screwdriver (Phillips head is best) gently part the braid to make a small hole near where it ceases to be covered by the plastic jacket. Aim to make it about 5mm in diameter.
- Use either pliers or a screwdriver to pull the inner conductor out from inside the braid through the hole in the braid (Fig 2c).
- Fold the braid back along the cable towards the plug. Solder the end of the braid to prevent fraying.
- Remove about 5mm insulation from the inner conductor.
- Solder the end of the inner conductor to a small metal lug or nut.
- Thread fishing line through the lug or nut and hang the antenna in its desired position.

The antenna is now operational. You may wish to check the SWR and make it longer or shorter if the SWR is above about 1.5:1 at 147 MHz.

Erection and use

The antenna should be hung vertically for best performance. Keep it away from metal objects and have it as high as possible. Where signals are weak, hang the antenna near a window facing the repeater. If you intend to use the antenna outside, apply sealing compound to stop moisture entering the cable. Not doing this will mean poorer performance over time as cable losses increase.

CVARC OFFICERS

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