

UP-LiNK



W2CRA

THE OFFICIAL PUBLICATION OF THE CHERRYVILLE REPEATER ASSOCIATION II, INC.

"Community Service Through Communication"



February 2000

BOARD MEETING February 7 8:00 PM

CLUB MEETING February 9 7:00 PM

IT'S ELECTION TIME AGAIN

Barry Campbell, W2CGX, nominating committee

Yes, it is that time of year again that the club elects new officers to carry us through 2001. As required by the Cherryville by-laws, this year's nominating committee, Patrick Mauro, N2ZVY and Barry Campbell, W2CGX have come up with a slate of candidates. The slate is published in the February and March, and ballots mailed to all members before the April meeting. The ballots received by the secretary before the meeting are brought to the April meeting, but members may also turn them in at the meeting, no later than five minutes after the official start. That is to say, the ballots brought to the meeting must be turned in by 7:35 p.m.

The four officers, President, Vice President, Secretary and Treasurer are up for election as well as three Member-at-Large positions. The 2001 nominations are:

- For President – Rob France, N3QDC
- For Vice President—Pete Russo, KD2EL
- For Secretary— Pete Sneed, K2YSY
- For Treasurer—Bill Greenhalgh, W2NCN
- For Member-at-Large (3 to be elected)
 - Roberto Matos, K2PA
 - Derry Galbreath, W2XT
 - Tom Deegan, AB2DW
 - John Crovelli, W2GD

As always, additional nominations can be submitted in two ways. A member can nominate another member at either the February or March meeting (the person nominated must be present and agree to be nominated for the office), or a member can nominate him or herself to a specific position. The latter nomination must be made in writing and given to the secretary at either the February or March meeting.

Elections in the CRA II are always important, for it is the 9-member Board of Trustees (four officers, five members-at-large) who govern the affairs of the corporation. Be sure to vote when the ballot is mailed to you, but before you can vote, your dues must be paid.

PUBLIC SERVICE

de WB2NQV

The next event is the March of Dimes WalkAmerica, Sunday April 29th. We need at least 5 operators. See Marty, W2CG at the next meeting or e-mail at W2CG@arrl.net or myself at WB2NQV@arrl.net.

The other confirmed dates for the year 2001 are; Bucks County Horse Park May 19, Special Equestrian June 16, Lebanon Parade July 4, Bucks County Horse Park August 12, October 7 and November 10th. More when we have confirmed dates.

We had a very successful year in 2000 so let's make this year even better.

BOY SCOUT EVENT

de K2IQN

A new public service event is scheduled for the weekend of March 24 and 25. There will be an "advancement" campout at Echo Park in Stanton NJ located just off Route 31. The scouts will have a chance to earn merit badges in Radio, Electronics, Communications and Emergency Preparedness. Vhf and hf stations are planned as part of the demonstrations and activities. The objectives are not only to give scouts a merit badge opportunity but to introduce them to amateur radio and encourage them to pursue a license. Harry Hochman, K2IQN is coordinating this event through the scouts. If you are interested in volunteering equipment and/or time he can be reached at 908-534-3488.

"Anytime you don't want something, you get it," said Calvin Coolidge. In fact, it became known as Coolidge's Law.

THE FCC NEEDS YOU!

This is a special advisory from the Federal Communications Commission. The FCC is requesting that any hams who discover illegal radio gear being advertised for sale on the various on-line auction sites such as eBay send this information to them at a new electronic address. This is:

FCCINFO@fcc.gov <mailto:FCCINFO@fcc.gov>

Using this e-mail address will help expedite investigation of information provided.

NEW RFI SOURCE

Numerous industry publications (IEEE, for example) have written about the interference problems to and from ADSL and VDSL high-speed networking products, specifically noting their interference problems with HF radio.

At the Comdex computer industry trade show in November, a consortia of 60 technology companies announced their plans to roll out "powerline" home networks in 2001. The industry group is called the "HomePlug Powerline Alliance. The companies include Motorola, Cisco, Intel, Hewlett-Packard, Sharp, Radio Shack, 3Com, Siemens and others.

Sophisticated signal processing techniques made possible through advances in ASIC density are making Ethernet class networks possible in the home using wireless, phone lines and now power lines at realistic prices. The power line is the most difficult of the three transmission media but it has two very desirable attributes. First, there is no need for RF conversion hardware, lowering its cost relative to the wireless option. Second, power outlets are present nearly everywhere someone wants to use a networked device in the home.

The home powerline is a very challenging transmission medium to designers. The communication channel presents a complex transmission line network with multiple stubs having terminations with a variety of impedances. These types of networks have amplitude and phase responses that may vary widely with frequency. At some frequencies the signal may arrive at the receiver with little or no attenuation while at others the signal may be driven below the noise floor. Adding to the problem is the time varying nature of the transmission path. New devices being turned on, other devices being turned off, motors and switching power supplies all contribute to the time variance of the transmission line. Many potential noise sources also contribute to the challenge of using the powerline. Sources such as brush motors, fluorescent lights and dimmer switches on the network contribute noise. Sources external to the network may also contribute to the noise levels the network must contend with. To fool the network layer protocols into thinking the powerline is a

reliable network, sophisticated techniques such as forward error correction, interleaving, error detection, automatic repeat requests and adjustable data rates are employed.

The system operates by modulating the data signal between 4.3 Mhz to 20.9 Mhz (with reduced transmitter power spectral density in the amateur bands). In theory, the home AC wiring acts as a balanced transmission line. In practice, home wiring is not balanced. (Consider what happens when you use a light switch to activate or deactivate one conductor of a 2 conductor AC line to a light - and thereby create an unbalanced line). Further compounding the risk of interference is the topology of the typical residential power distribution. Typically, a distribution transformer is employed to provide power to a small number of area homes. The transformer is quite effective at blocking the networking signals from the main power grid. Unfortunately, it offers very little attenuation to signals propagated between homes served by the transformer.

The technology uses orthogonal frequency division multiplexing which is capable of simply tuning out a notch band if a "jammer" appears on frequency. This means that the network will tolerate strong shortwave broadcast or amateur radio signals, but the network itself is likely to emit low level broadband noise of a type that cannot be eliminated with a simple noise filter.

Extensive field trials are planned for the first quarter of 2001 to validate the v1.0 specification.

The HomePlug Powerline Alliance is a not for profit corporation established to provide an open forum for the creation of specifications for home powerline networking products and services. Further information on the organization is available at www.homeplug.org.

"A lie gets halfway around the world before the truth has a chance to get its pants on. "

Sir Winston Churchill

CRA PROGRAM SCHEDULE

de Denis KA2YYB

FEB 9 "The Future of Amateur Radio"

Steve Mendelsohn, W2MF

MAR 12 "HAMFEST 2001"

HAMFEST CALENDAR

de George N2VWL

Here is a list of ARRL sanctioned Hamfests in New Jersey, for the current year:

- 3 Mar. Splitrock ARA Parsippany
- 17 Mar. Cherryville Repeater Assn.** Clinton Twnshp.
- 21 Apr. Roseland Radio Club West Orange
- 2 June Bergen ARA Hackensack
- 16 June Raritan Valley ARA Dunellen
- 12 Aug. Jersey Shore ARS Bayville
- 6 Oct. Bergen ARA Hackensack

The following are those in nearby PA:

- 6 May Warminster ARS Wrightstown (Bucks Cnty.)
- 9 June Colombia-Montour ARC Bloomsburg
- 1 July Murgas ARC Wilkes Barre (Dallas)
- 15 July Mid-Atlantic ARC Kimberton
- 15 Sept. Del. Lehigh Schnecksville

PRB-1 CC&R EXTENSION DENIED BY FCC

"Is that your final answer?" ARRL President Jim Haynie, W5JBP, said he was tempted to ask that question of Kathleen Ham, Deputy Chief of the FCC's Wireless Telecommunications Bureau, after she turned down for a second time the League's petition to extend the reach of the Commission's limited pre-emption of local antenna laws to include private deed restrictions. Ham had written the decision to deny the League's original petition, as well as the denial of the petition for reconsideration. She said the bureau was not convinced that the ARRL's arguments warranted the inclusion of so-called "CC&Rs" under the provisions of PRB-1, which require "reasonable accommodation" of amateur antennas by local governments. Many private developments ban all outdoor antennas, except for over-the-air television and satellite antennas, which the FCC has previously said must be permitted. The latest ruling did attempt to clarify what the FCC considers "reasonable." Essentially, it said that any amateur antenna similar in size and shape to other antennas already permitted in residential areas must be allowed. On the other hand, it said banning antennas of the type "commonly and universally associated with those that one finds in a factory area or an industrialized complex" would not be

unreasonable. The ruling did not say which category a tribander at 65 feet might fall into.

CRA II CLUB INFORMATION

The Cherryville Repeater Association II, Inc. is a non-profit New Jersey Corporation dedicated to Community Service Through Communication. **Meetings** are held on the second Friday of each month at **7:30 PM** at the **Flemington Baptist Church** unless otherwise announced. Visitors are always welcome! Also, everyone is welcome on the Thursday Night Traffic Net, at 8 PM every Thursday, followed at 9:30 by the Swap-Net, and the ARES-RACES net at 8:30 PM on the first Thursday each month (immediately following the traffic net), all on the 147.375 repeater.

UPLiNK

A CRA II Publication

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Many thanks to all those who have contributed articles or information for this publication, including: The ARRL, The ARRL Letter, WB2NQV, K2IQN, KA2YYB, N2VWL, W2CGX, Communications System Design, N5RA, Ham Radio Online and all not mentioned for their help. This newsletter is an open forum for the Cherryville Repeater Association, II Inc. and its members, of general interest Club and ham radio related interest items. The opinions contained herein are those of the authors who have contributed their work. The officers and members of the CRA II Inc. are not liable for its contents.

Articles and information are always welcome, and may sometimes be edited for content, punctuation, grammar, and newsletter space.

Deadline for submission for all issues is two weeks prior to the Board meetings.

DON'T FORGET YOUR DUES

THE CHERRYVILLE REPEATER ASSOCIATION II

CLUB INFO:

Club Info Line	Website	Packet
(908) 788-4080	www.qsl.net/w2cra	W2CRA 145.51

EXECUTIVE BOARD:

Pres	N3QDC	Rob France	(215) 766-8066	n3qdc@att.net
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Sec	K2YSY	Pete Sneed	(908) 369-5095	k2ysy@arrl.net
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MEMBERS AT LARGE:

	W2CGX	Barry Campbell	(908) 725-0478	Barryc@cnjnet.com
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	W2GD	John Crovelli	(908) 996-3043	w2gd@hotmail.com
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	K2PA	Roberto Matos	(908) 788-8253	k2pa@arrl.net

COMMITTEE CHAIRPEOPLE:

Public service	WB2NQV		Wb2nqv@arrl.net
Technical	N3MSK	(610) 252-6193	n3msk@amsat.org
Emergency	KC2CMC	(908) 806-3998	varas@earthlink.net
-Mgmt/ RACES	K2PA	(908) 788-8253	k2pa@arrl.net
Education	W2CGX	(908) 725-0478	Barryc@cnjnet.com
VE Testing	W2CG	(908) 788-2644	mjgrozi@postoffice.ptd.net
Field Day	N3QDC	(215) 766-8066	n2qdc@worldnet.att.net
Holiday Party	KB2RWY	(908) 253-8783	
Merchandise	N2VWL	(908) 475-4716	n2vwl@juno.com
Traffic net	N2MIF	(908) 638-6172	
Programs	KA2YYB	(908) 537-2501	ka2yyb@arrl.net
Refreshment	KB2YJX	(908) 725-0478	
Roster	W2CG	(908) 788-2644	mjgrozi@postoffice.ptd.net
Scholarship	N2ZVY	(908) 479-6346	kc2boh@worldnet.att.net
SkyWarn	N2VWL	(908) 475-4716	n2vwl@juno.com

NET SCHEDULE:

Hunterdon County Traffic and Emergency Net	Thursday, 8:00 PM	147.375
Races Net	1st Thursday, 8:30 PM	147.375
SkyWarn Net	Thursday 9:00 PM	147.015
Swap Net	Thursday, 9:30 PM	147.375
Complex Repeater Net	Sunday, 7:30 PM	147.015

MAJOR EVENTS:

W2CRA Hamfest	March 17, 2001	Talk-in 147.375
W2CRA Field Day	June 23, 2001	147.375

UP-LINK
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