

UP-LiNK



W2CRA

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

"Community Service Through Communication"



August 2001

BOARD MEETING August 8 8:00 PM

CLUB MEETING August 10 7:30 PM

FIELD DAY 2001 WRAP-UP

Callsign Used: W2GD (+KB2ERI)

Location: Hunterdon County Library, Flemington, NJ

Club: Cherryville Repeater Assn. II (+ help from FRC members)

Operators: (hopefully everyone): W2GD, W2NO, W2RQ, LU9AY, KE2HG, N2NC, WW2Y, W3BGN, K2TW, N2SR, N3QDC, N2ZVY, N2QOR, N2OCW, WA2RMZ, N2WYJ, W2CGX, KB2EBL, N3MSK, KA4OWW, KB2ERI, KB2YJX, KB2RWY, KC2GGB, KC2GRE, K2YSY plus an addl. 20+ club members who provided invaluable setup, takedown, and logistic support.

Exchange: 4A NNJ <100 watts>

RAW RESULTS

BAND	QSO'S	ANTENNA
80 CW	420	Inv. V @ 50'
80 SSB	575	Inv. V @ 50'
40 CW	922	Cushcraft 402CD @ 50' tower 1
40 SSB	834	"
20 CW	700	Hygain 204BA @ 50' tower 2
20 SSB	1180	"
15 CW	291	Cushcraft 4 ele. @ 50' tower 3
15 SSB	292	"
10 CW	0	Cushcraft 4 ele. @ 40' tower 4
10 SSB	86	"
6 CW	9	Hygain 6 ele. @ 40' tower 5
6 SSB	148	"
2 CW	2	
2 SSB	100	
NOV. CW	6	A4 @ 40' + 80/40 Inv. V tower 6
NOV. SSB	165	"
SAT. SSB	6	

POINTS TALLY

CATEGORY	SUBTOTAL	TOTALS
7.1.1 SSB QSO'S	3386	
7.1.2 CW QSO'S*2	4700	
Raw QSO Score	8086	
7.2.3 <150 W *2	16172	
Total QSO Points		16172
7.3.1 Emergency Pwr	400	
7.3.2 Media Publicity	100	
7.3.3 Public Location	100	
7.3.4 Public Info Booth	100	
7.3.5 Message Origination	100	
7.3.7 Satellite	100	
7.3.8 Natural Power	100	
7.3.9 W1AW Message	100	
7.3.10 Special APRS / ATV	100	
Total Bonus Points		1200
GRAND TOTAL		17372

SOAPBOX: After entering 6A and 5A the last two years, we slid back to our traditional 4A class, much more manageable and far less manpower intensive. As it turned out, probably the right choice.

We dodged a line of t-storms Friday afternoon, they fortunately went north and south of our very public location at the county library.

Starting at 2 p.m. five 40 and 50 foot 25G towers adorned with rotors and monobanders for 40 - 10 and the Novice station tribander went up without incident ... hot dogs and burgers were on the grill by 5:30 p.m. But on Saturday weather conditions went significantly down hill. Light showers that morning were followed by five separate waves of strong t-storms starting about noon and not ending until nine that evening. Each wave dropped an inch or more of rain...a soggy, muddy mess that really never improved. Of course the noise levels were bad, especially on 40. But none of our equipment failed...a testimony to the excellent work of the setup crew.

Despite the heavy rain, on Saturday we logged over 30 non-ham visitors and 2 reporters/photographers from newspapers at our PR table. Bonus points - caching!

When the noise finally abated, rates started to climb. By the halfway point at 2 a.m. we had actually caught up and surpassed our record 1998 effort totals. But unfortunately without 10M conditions on Sunday, the trend reversed and we slipped below the prior benchmark. Is it me or was CW activity down in general?

The Novices worked very hard for their contacts. Everyone hopes that whatever replaces this position next year will provide an appropriate setting for the less experienced operators, especially the ladies, to have some fun.

Satellite contacts were "tough" to come by. The scheduled "bird" passes definitely didn't favor our part of the country, but the crew managed six well earned QSOs. In between they put APRS and ATV stations on the air for the bonus points. Activity on VHF was spotty too, six was in and out all weekend.

But the food was great as always, the roast beef dinner Saturday evening was particularly satisfying.

The CRA II gang is already looking forward to next year's FD, rain or shine.

73,
John W2GD
Field Day Co-Chairperson

Public Service

Next on the Public Service agenda is the Bucks County Horse Park equine event August 12th. Contact N2VWL if you haven't already. The Skylands Triathlon is September 9th? The date has not been confirmed yet. See Barry, W2CGX for more info and to sign-up. barryc@cnjnet.com.

The confirmed dates for the rest of the year are; Bucks County Horse Park October 7 and November 10 and 11, N2VWL Coordinator N2VWL@epix.net. If you can help with any of these events contact the event coordinator or myself at WB2NQV@arrl.net.

For the latest Public Service dates log on the CRA web site <http://www.qsl.net/w2cra>

de WB2NQV

CRA PROGRAM SCHEDULE

de Denis KA2YYB

AUG 10 open

SEP 14 "Amateur Radio In The Future"
Mendelsohn W2MF

OCT 12 "Mobile Radio Trunking, Part 2"
Frank Brickle AB2KT

HAMFEST CALENDAR

de George N2VWL

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

12 Aug. Jersey Shore ARS Bayville
19 Aug. Gloucester County ARC Mullica Hill
6 Oct. Bergen ARA Hackensack

The following are those in nearby PA:

15 July Mid-Atlantic ARC Kimberton
15 Sept. Del. Lehigh Schnecksville

EXTREME HOME BREW

Part 3

The cinnamon resistor. The resistors were another problem. We found out that we could use the impurities in some of the tree wood and the bark, particularly cinnamon bark which was available by getting through the wire only about 2 feet, and we could normally pinch that while the Japanese sentry was moving around. **We used a piece of string with the material rubbed on it from the burning of the cinnamon bark which had some impurities in it** (we didn't have a chemical analysis); we weren't very fussed because most grid-leak resistors were about a megohm or thereabouts and we had no means or any way we could measure a megohm, so it was largely a trial and error thing to see if it would work. We made a number of these bits of string and tied them round different things to dry them out to get the thing going. Eventually about an inch, three quarters of an inch to an inch, was about the right order of things to get about a megohm resistance. They were the two main things.

Next month: Valves and Headphones

PL 259 connectors

the easy way to do them

de WB2AZE

For some people, especially newcomers to ham radio, the PL259 connector can be an absolute chore, or even a headache to solder. But these tips will make that chore a little easier. A cutout diagram of a PL259 is shown in figure 1.

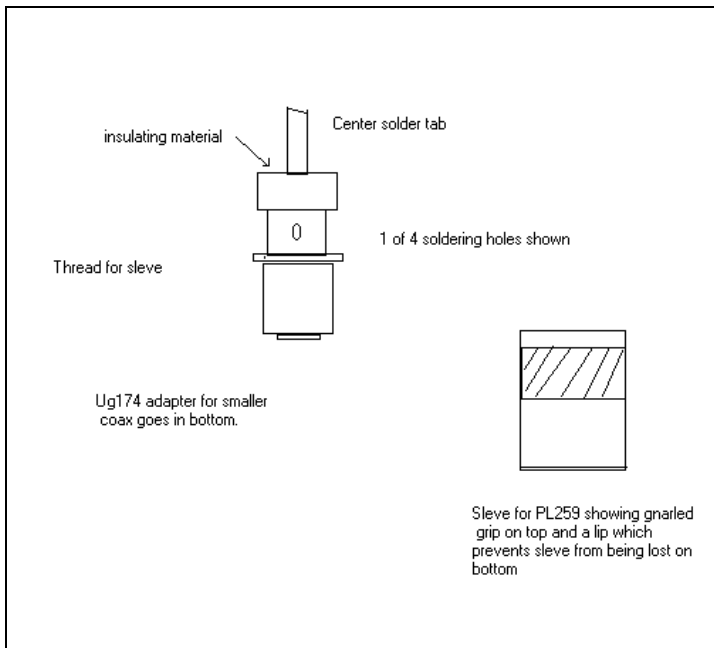


Figure 1

The pl259 consists of 2 pieces, one is the actual connector itself and the second piece is a sleeve that's threaded so it twists on the base and attaches to the female connector and is securely locked into place.

On the base of the connector are threads to allow adapters to use thinner coax cables to be used with the PL259. These adapters are the ug-174 and ug-175 for RG-58 and 59 coax. Although the pl259 looks quite simple, it's very versatile as it allows the use of several different cables to be used.

"I have yet to see any problem, however complicated, which, when you looked at it in the right way, did not become still more complicated." - Science fiction writer Poul Anderson

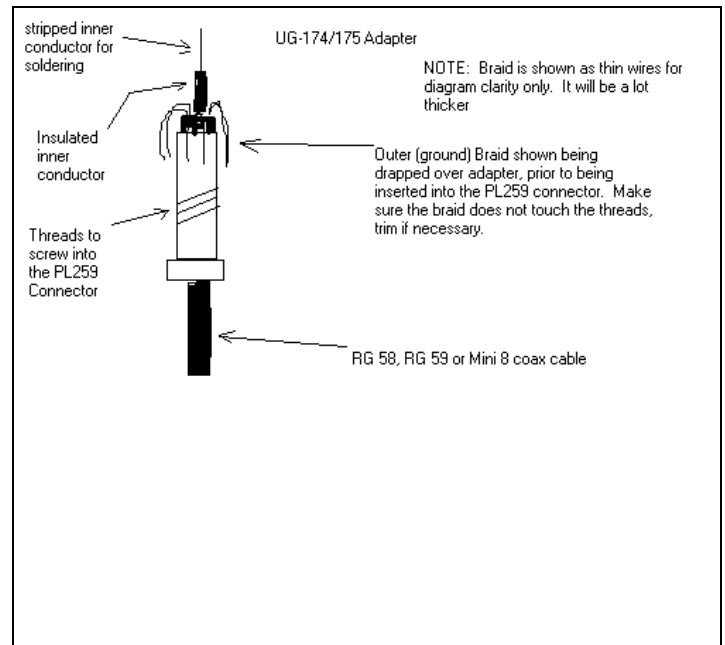


Figure 2

Tools needed for the job.

1. Soldering iron or gun, I use a Weller 100/140 watt soldering gun.
2. A Pair of wire cutters
3. A pair of wire strippers
4. Solder 60/40 ratio or equiv. Rosin Core only
5. A small vise, or vise-grips to hold the assembly.
6. A knife.

*** Notice: Solder that is produced today does not contain lead, but older solder, but some solder that can be found at hamfests may contain *Lead*, which is very harmful. Please remember to wash your hands after working with Lead. Make sure you only use Rosin core solder.***

1. First, remove the sleeve and slide it onto the coax cable. Make sure the thread is facing the connector. Then use a small metal file or fine sand paper to lightly sand the area surrounding the 4 solder holes on the pl259, be careful not to damage the thread for the cover sleeve! There can be a buildup of polish or dirt here and I try to go down to bare metal, make sure it's nice and shiny.
2. Next cut a slit on the outside insulation (black cover) about 1.5 to 2 inches from the end and peel it off to expose the braid. I use a knife to make the cut.
3. If you are using coax that needs an adapter, then position the adapter at the point where you exposed the braid. Using a pair of wire cutters, carefully cut the braid so it fits onto the adapter, and bend the braid backwards so it covers the adapter. See Figure 2. Then use a pair of wire strippers to trim the center conductor for soldering. Leave at least a 1/4 inch piece of insulation on the center conductor to prevent

- shorting. For larger diameter coax, simply bend the braid backwards so it can be soldered.
4. Put the connector on and carefully screw it on the adapter, be careful not to get any of the braid in the threads. You should now see the braid through the 4 soldering holes and the center conductor sticking through the top.
 5. At this point, you can check for short circuits with an Ohm meter. If there is a short, then start over.
 6. Plug the soldering iron in and let it warm up.
 7. Place the cable into a vise so the connector is not touching the vise. (you just want the vise to hold it into place, do not over tighten)
 8. Next put the soldering iron into one of the solder holes with the exposed braid and hold it for about 15 to 20 seconds. Then feed the solder into the hole so it will melt when it touches the iron. Continue feeding the solder in until the hole is filled up.
 9. Then remove the soldering iron. (Do NOT touch the connector as it will be HOT!)
 10. Wait about 30 seconds and loosen the vise and turn the cable to expose the next soldering hole. Carefully tighten the vise to get a snug fit and then solder this hole. Continue until all 4 holes are soldered. If only 3 holes have the exposed braid in them, then do only those 3 holes.
 11. Allow the assembly to cool off for a few minutes.
 12. Next comes the center conductor.
 13. Position the cable in the vise so the connector does not touch the vise and that the plug tilts upwards a little.
 14. Place the soldering iron into the center conductor so it heats the connector and the coax inner lead. Wait about 15 seconds and then start to feed in the solder. It should melt and fill in the tube.
 15. Remove the soldering iron. Allow the connector to cool off. Any solder residue that may have found its way on the outside of the center plug can be either sanded off or scraped off with a knife. Carefully dispose of any dust or shavings as lead is harmful. Wash your hands when you are done!
 16. Screw the outer sleeve over the connector. Then use an ohm meter to check for any shorts. If there are none, then you can do the other end of the cable. If there is a short circuit, then you have to start all over again, using a different connector!

AN END TO TOWERS?

Those frustrated with the aesthetic, real estate and environmental issues caused by cellular towers, an answer to your problems could be on the horizon. Literally.

United Kingdom's Advanced Technologies Group unveiled a prototype of its StratSat stratospheric communications platform, London newswires report. According to the company, the lightweight StratSat system holds transponders that can carry signals for mobile phones as well as signals for direct-broadcast television, digital radio and other products.

Powered by solar cells, StratSat hovers in the stratosphere at an altitude of 60,000 feet for as many as five years and can provide coverage for an area of roughly 7,000 square miles, the company says.

Although the company proclaims its engineering system provides longitudinal thrust to counteract powerful stratospheric winds, some doubt whether the system will be stable enough to hold signals.

'The ships have to roll to keep the solar panels active,' says Jim Fryer, president of Fryer's TowerSource, which serves the antenna and tower industries. 'Seems like a lot of movement that could make it an unstable platform.'

In addition, the system is likely still subject to signal blocks, he says. Fryer suspects if it overcomes these barriers, StratSat still would need ground-based tower connections to enable strong signals to mobile phones. Although the unit is under developed in the U.K., agencies like the U.S. Federal Aviation Administration would likely look into its effects on safety as well as commercial and military maneuvering before approving its use in the United States, Fryer adds.

ARRL DIRECTOR ACTIONS

Meeting July 20-21 in Connecticut, the ARRL Board of Directors adopted a goal of legislative action to provide amateurs the same protections from real estate covenants, conditions and restrictions now enjoyed under FCC rules by home satellite dish owners and others receiving over-the-air broadcast signals.

Board members felt that amateurs should be granted the right to install an antenna having a visual impact similar to that of a home television satellite dish or other antenna that falls under the FCC's Over the Air Reception Devices (OTARD) policy. In 1999, the FCC reaffirmed the OTARD rule that prohibits restrictions that impair the installation, maintenance or use of antennas used to receive video programming.

The Board also approved the filing of a petition seeking a domestic, secondary allocation for the Amateur Service at 5.250 to 5.400 MHz. The petition will ask that amateurs General and above be allowed to operate in the so-called 60-meter band at up to maximum authorized power. No mode subbands will be proposed at this time.

The Board also adopted the revised band plan for 160 meters based on a proposal from the ad hoc 160-Meter Band Plan Committee. The plan adopted sets aside a segment for digital modes from 1.800 to 1.810 MHz, maintains CW operation for the entire 1.8 to 2.0 MHz band, recommends a lower limit of 1.843 for SSB operation, and designates QRP calling frequencies--1.810 for CW and 1.910 for SSB. The 1.830 to 1.850 MHz "DX window" was eliminated. The committee recommended that contest sponsors "consider the use of DX windows as necessary." The plan accommodates established frequencies used on 160 for AM.

The ARRL Board of Directors also endorsed the Logbook of the World. An electronic alternative to collecting traditional QSLs for awards, the project goes beyond simply replacing printed cards with electronic versions. Logbook of the World will make use of electronic confirmations within a giant repository of QSO

information maintained by ARRL. Digital security methods will ensure data integrity and authenticity.

The Board also approved a new QRP DXCC award. Applications likely will be accepted starting early next year. No QSL cards would be required, and there would be no time limits or endorsements.

The Board approved a plan to invite all International Amateur Radio Union Region 2 countries to take part in Field Day starting in June of 2002. This would expand participation in the popular annual event to include stations in both North and South America.

SANS: CALLING ALL HAMS

The SANS Institute is recruiting amateur radio operators to take part in an emergency communications network that it said could be used by disaster relief personnel in the event of a catastrophic failure of telecommunications systems, including the Internet.

In its weekly newsletter, Bethesda, Md.-based [SANS](#) asked all interested ham and packet radio operators "to take a leadership role to help establish and maintain" such an emergency backup communications network. Interested parties can contact SANS, a research organization for systems administrators and security managers, via e-mail at info@sans.org.

"There is a network that can be marshaled if needed," said Jim Haynie of the ARRL, referring to the potential of a terrorist attack or natural disaster to cripple large portions of the Internet and the telecommunications grid. "If the Internet went down today, it wouldn't change my life one bit. It's nothing for me to go in my ham shack and flip one switch and talk to New York or Bulgaria or Ukraine."

The ARRL estimates that there are about 275,000 "hard-core operators" who could swing into action if needed, Haynie said. "But to back up the entire infrastructure is a pretty tall order," he cautioned, noting that the use of ham radio operators in such a fashion wouldn't mean the instant restoration of Web browsing capabilities or Internet e-mail capabilities.

Instead, the ham radio network would be used strictly for passing emergency voice and data communications between government officials at the local, state and federal levels and the public.

Alan Fedeli, director of emergency response services at Atlanta-based security software vendor Internet Security Systems Inc. (ISS), applauded the approach suggested by the SANS Institute and said any attempt to establish alternate communications channels should be supported.

David Curry, manager of business strategies at ISS, pointed to outbreaks of Internet and e-mail worms as prime examples of the need for such an alternate network. Many companies simply pull their systems off the Internet when that happens, in order to prevent the worms from reaching them, according to Curry.

"People's reaction was to unplug the network," he said, referring to several such incidents. "The problem is that the people disconnected themselves from the source of information about the problem."

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: WB2NQV, N2VWL, W2GD, KB2ERI, N5RA, WB2AZE, KA2YYB the ARRL, The Center for the History of Defense Electronics Museum, 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.

"I think and think for months and years. Ninety-nine times, the conclusion is false. The hundredth time I am right," said Albert Einstein. Let tenacity be your guide.

THE CHERRYVILLE REPEATER ASSOCIATION II

CLUB INFO:

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

EXECUTIVE BOARD:

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VE Testing	W2CG	(908) 788-2644	mjgrozi@postoffice.ptd.net
Field Day	N3QDC	(215) 766-8066	n3qdc@worldnet.att.net
Holiday Party	KB2RWY	(908) 253-8783	
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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 16, 2002	Talk-in 147.375
W2CRA Field Day	June 23, 2001	147.375

147.375 + WB2NQV
147.015 + (SZ) WB2NQV
224.120 - K2PM
444.850 + W2CRA
446.475 - W2CRA

UP-LINK
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