# The A Parasitic Parasitic Emission

Supporting Amateur Radio Club Activities In this 15-Page Issue...

March 2012

**On The Air** 2 Getting to know the needs and expectations of others is the key to serving them more effectively 3 **Club Connections** News and views from all over... WPA ARES Conference 9 Local Net Schedules 9 SkyWarn<sup>™</sup> Training Mar 5 9 A Look at the Baofeng UV-3R 10 Small in size, small in price and big on performance! 12 **Build A Serial HT Interface** I decided to follow the time-honored amateur tradition of home-brewing March 2012 Calendar 14 15 April 2012 Calendar Amateur Radio Club Activities, **Events and Gatherings** 

Serving the Amateur Radio Community in a 15-county area of Western Pennsylvania



# Technology in Public Service

## **On The Air**

#### by Joe Shupienis W3BC

AKING GUESTS welcome is an important part of public relations. Recognizing the new faces at events and meetings will help ensure we will see those people again. When someone comes to a meeting or event for the first time, they are going to be attuned to the reception they get.

Remember—you only get one chance to make a first impression. If you miss the mark and make a poor impression, it will likely be a lasting one as well.

Some of the more popular ways to make a poor impression include failing to greet everyone, failure to welcome them to the group, failure to introduce them to the group, and the group to them. Behaving like a closed "clique" will pass along the "Private—Keep Out" message better than a big, red sign on the door!

If you have a guest speaker for the evening, and they have to sit through your business meeting, acknowledge their presence before getting into the business meeting. By this simple act, you have made them not feel like outsiders.

When we are the guests at someone else's event, we need to mind our manners, too. Wearing your amateur radio callsign name badge will break the ice. We should be prepared to say a few words about who we are, what we do, and why we're there, just in case our hosts have the good manners to ask.

Making sure we are always minding our manners, and going the extra mile to make visitors, guests and our members feel welcome and included is the hallmark of good public relations, and elevates our group to a

higher level in the eyes of those we serve.

By treating others with respect, we stand to gain their respect. Extending common courtesy will lead to being treated likewise.

This social give and take is important if we are going to serve others. For example, if you go to a restaurant and the staff is rude to you, are you likely to want to go back again for more of the same? On the other hand, when the management and staff are genuinely appreciative of your business, and go out of their way to show it, you get a good feeling about that establishment, and you will become a loyal customer.

I am reluctant to jump on the bandwagon of calling those we serve our "customers" like so many other organizations do these days. Rather, I prefer to regard them as our "friends" which leads to treating them like friends. Taking it a step further, we will do well to make them our *valued* friends.

Getting to know the needs and expectations of others is the key to serving them more effectively. This requires communication something we claim to be experts at.

When we ask how we can help, we need to be ready to listen, and to act on what we are told. We need to be honest, and—difficult as it may be—we sometimes have to regretfully say that we are not able do a particular task.

Such honesty, while disappointing to our friends, prevents the even bigger letdown that happens when they counted on us to do something we later failed at.

When first offering our services to others, it's usually a good practice to "Think big but start small," by setting a significant goal for the future, but for now taking some "baby steps" while starting to move in the proper direction.

This strategy is very conducive to increasing member participation, since nobody has to

jump in the deep end of the pool. Inviting our members to get their feet wet is a great way to involve new members in our club's service activities, and to give less active members the opportunity to play an important part in the club's activities.

Those clubs that follow this principle have found that it is a very good way to overcome the age-old problem of having only a few people who do all the work, while the rest criticize "the clique."



Followup is important. Good manners dictate that we say, "Thank You!" for a job well done. We should show our appreciation to our volunteers—that's the only pay they receive! We cannot afford to be stingy here.

After every activity, a thriving club knows the secret to future activity is to thank those who helped out. Recognizing the efforts of members who have contributed time, effort and money to our cause should be a priority for clubs and groups who hope to accomplish big things.

When we have been honored by a guest speaker giving freely of his or her time (and gas expense) to come to our meeting and help our group, we need to thank them.

When a served agency invites us to participate with them, it is our duty to acknowledge their invitation, and to thank them for the opportunity to serve.

By winning friends for our groups, we can count on the support of our communities, friends and neighbors, both for support of our day-to-day hamming and for our social and educational activities.

I'll see you...On The Air!

Getting to know the needs and expectations of others is the key to serving them more effectively

The Parasitic Emission March 2012



#### The Quad-County Amateur Radio Club

An ARRL Special Service Club Serving Clearfield, Jefferson Elk And Cameron Counties Since 1975

## Meeting Notices

March 2012

#### March Meeting:

HE MARCH meeting will be held in the Hiller Building on the Penn State DuBois Campus at 7:30 pm, Friday, March 16<sup>th</sup>. We have invited Scouts and their parents from the Bucktail Council to attend as our guests.

Following the business meeting, our guest speaker will be Herb Enos KB3REA, a Scout Leader from Johnstown. He will discuss his work developing the "Merit Badge in a Day

pro

and a Ham to Stay" project. This new project has attracted tremendous interest from Scouts and Amateur Radio clubs throughout South Central Pennsylvania, and has the

potential to grow and expand to other areas.

Please plan to attend this important meeting and very interesting program. As always, you are invited to visit the club website www.qcarc.org for more information!

#### March Breakfast

NJOY A friendly breakfast with your fellow hams on Saturday, March 10 at 9:30 am at Sid's Super Subs, Old Town Road near the Hyde end of the bypass in Clearfield.

## Minutes: February 2012

by Herb Murray W3TM

The meeting was held in the Hiller Building on the Penn State DuBois Campus on Friday, February 17 at 7:30 pm. President Joe W3BC called the meeting to order, and the Flag salute was led by our guests, Trooper Bruce Morris, Pennsylvania State Police and Officer Matt Robertson, DuBois City Police.

#### Attendance

Joe Shupienis W3BC, Herb Murray W3TM, Kevin Snyder KA3YCB, Don Jewell KB3LES, Louie "Peach" Caltagarone AB3OG, Kevin Hoynoski W3PIG, Bob Thunberg N3DIR, Denise

Thunberg, Lars Kvant KB3WBT/SM7FYW, Kay Kvant, Greg Donahue KB3WKD, Jesse Tucker KG4ZXC, Bev Hudsick, Lee Maines N3SYB, Jeff Rowles KA3FHV, Doug Rowles W3DWR, Trooper Bruce Morris PSP, Officer Matt Robertson DuBois City PD.

#### Staff Reports

**Minutes:** Secretary Herb Murray W3TM read the minutes of the January Meeting, and the February Executive Board Meeting. The minutes were **approved** as read as moved by Don KB3LES and second by Kevin W3PIG.

**Treasurer's Report:** Treasurer Doug W3DWR gave the report. Don KB3LES moved to accept and Kevin KA3YCB seconded. **Approved**.

**Committee Reports:** Lars KB3WBT reported on the very successful special event station and Amateur Radio orientation given to 381 Cub Scouts during the Klondike Derby at Camp Mountain Run.

Joe W3BC reported that 10 prospective hams are doing very well in the licensing classes.

Program Coordinator Herb W3TM gave a preview of upcoming programs.

Public Service Coordinator Kevin KA3YCB discussed the upcoming Baker Trail Ultra Marathon and invited the club members to help out with communications.

#### **Old Business**

President W3BC remarked that the meeting location will be the Hiller Building, Penn State DuBois. By a show of hands, the members in attendance indicated their satisfaction with the accommodations.

Quad-Co	Quad-County ARC Information		
President	Joe Shupienis W3BC president@qcarc.org		
Vice President	Bob Thunberg N3DIR vp@qcarc.org		
Secretary	H. Deforest Murray, III W3TM secretary@qcarc.org		
Treasurer	Doug Rowles W3DWR treasurer@qcarc.org		
Executive Board	Don Jewell KB3LES Lars Kvant KB3WBT (SM7FYW) Ed Neeper KB3VWX Bryan Simanic WA3UFN Kevin Hoynoski W3PIG		
Staff	Activities: Lars Kvant KB3WBT/SM7FYW Education: Joe Shupienis W3BC Membership: Jack Lovesky AA3AZ Net Manager: Doug Rowles W3DWR Program Coordinator: Herb Murray W3TM Public Information: Joe Shupienis W3BC Public Service: Kevin Snyder KA3YCB QSL Manager: Al Maddas KB3SVW Technology: Lars Kvant KB3WBT/SM7FYW Trustee: Bryan Simanic WA3UFN VE Liaison: Bryan Simanic WA3UFN		
Repeaters	N3QC 147.315+ [173.8]Rockton Mt K3EDD 444.625+ [173.8]Rockton Mt N3IZE 444.900+ [173.8]Clfd local N3QC-1 144.390 APRS Digipeater		
Nets	Sunday @ 1900 147.315 (Quad-County)		
Web	www.qcarc.org, info@qcarc.org @qcarc		

Emission

March 2012

#### **New Business**

Due to the withdrawal of a member of the Executive Board, a vacancy was created. Nominations were opened to fill the vacancy at the March 5th Executive Board meeting. **Nominated** were Kevin Hoynoski W3PIG, Jesse Tucker KG4ZXC and Kevin Snyder KA3YCB. Jesse respectfully declined the nomination due to his Army Reserve obligations.

Activities Coordinator Lars KB3WBT discussed plans for upcoming activities, including the Spring Banquet, Field Day, County Fairs, Fall Picnic at Ed Golla's and Christmas Dinner. By informal show of hands, the members present showed support for holding the Christmas Dinner on the regular December meeting date, Friday December 21.

Reynoldsville Mayor "Peach" Caltagarone AB30G discussed the possibility of setting up at the annual Reynoldsville Homecoming which is the third week of August, and the possibility of having a "Ham Radio Night" at the Hummingbird Speedway on the Reynoldsville-Falls Creek Highway.

After discussing what participating in the Baker Trail event would involve, it was moved by Kevin W3PIG and seconded by Kevin KA3YCB that the club officially take part in providing communications for the Baker Trail Ultra Marathon event this year. **Approved.** 

#### General Announcements & Adjournment

Motion to adjourn was made by Kevin W3PIG and seconded by Don KB3LES. The meeting was **adjourned** at 8:00 pm, followed by refreshments provided by Bev Hudsick, and the program on the PA Crimestoppers and Crimewatch programs by Trooper Morris and Officer Robinson.





## Punxsutawney Area Amateur Radio Club

Serving Punxsutawney and Jefferson County

## **Meeting Notice**

**UNXSUTAWNEY** Area Amateur Radio Club will hold its March 2012 meeting on Tuesday, March 13<sup>h</sup> at 7:00 pm in the Punxsutawney Presbyterian Church, Findley Street.

Monthly "Radio Night" activities at the club station at the Punxsutawney Airport have concluded for 2011, and will resume in the spring of 2012.

#### Monthly Breakfast

**REAKFAST** get-togethers are held the last Saturday of each month at the Amish Restaurant, Route 310 between Anita and Reynoldsville. Saturday, March 31<sup>st</sup> at 9:30 am.

PAARC In	PAARC Information			
President	President John Buttner KB3OUG kb3oug@gmail.com			
Vice President	Steve Waltman KB3FPN kb3fpn@windstream.net			
Secretary	-Vacancy-			
Treasurer	Tom Sprague KB3TOY			
Nets	Monday @ 1930 147.390			
Web	http://sites.google.com/site/punxyhamclub/			

# ONNE The Parasitic Emission

March



## Philipsburg Amateur Radio Association

ICARC

**W3BMD** 

Indiana County Amateur Radio Club

Serving Indiana County

Headwaters Amateur Radio Club N3PC Coudersport, PA 16915

Serving Coudersport and Potter County

## Headwaters Amateur Radio Club

The Parasitic Emission

March

2012

Serving Philipsburg and Clearfield County

## **Meeting Notice**

HILIPSBURG Amateur Radio Association meetings are held the second Saturday of each month at 3:00 pm in the Community Meeting Room at the Holt Memorial Library, 17 North Front Street. The library closes at 3 PM and you will not be able to get in through the front door. You will need to use the rear entrance on the lower level of the building. To access the rear entrance use Laurel Street and you will find a private parking lot in the back of the building.

For anyone who needs directions, here is a map quest link: <u>http://mapq.st/e60mJ3</u> .

PARA Inf	ormation	
President	Filip Cerny AB3HK	
Vice President	Scott Rummings W3E0D	
Secretary	John Szwarc, N3SPW jsszwarc@yahoo.com	
Treasurer	Jim Warg, N3ONE	
Liaison	Dick Thompson, K3BIE Interclub Liaison	•
Repeaters	W3PHB146.430+1M[173.8]Rtlsnk MtW3PHB146.640-[173.8]PhilipsbgW3PHB-1144.390[APRS]PhilipsbgW3PHB444.750+[173.8]Philipsbg	
Net	Saturday @ 2100 147.430+ [173.8]	
Web	www.philipsburg-ara.org Echolink:385989	1

## **Meeting Notice**

March Meeting:: Tuesday, March 6<sup>th</sup>, at 7:00 pm at the Indiana Eat 'n' Park Restaurant.

After the meeting, Bill Menk W3LAB will host Show-n-Tell night for HF radios.

Hot Dog Night: Every Wednesday evening at the 146.91 W3BMD Repeater site, weather permitting.

**Club Breakfast**: Every Saturday morning at the Indiana Eat 'N Park restaurant, Indian Springs Road and PA 286.

To Contact the Club For More Information: KB3JOF at arrl.net

Indiana (	Indiana County ARC Information		
President	Robert Zugates KB3JOF KB3JOF@arrl.net		
Vice President	Jerry Kiehl WB3DUD		
Secretary Treasurer	Terry Carnahan KB3JOD		
Repeaters	W3BMD 146.910- No tone W3BMD 444.975+ 110.9 Simplex 147.570 Countywide Emerg Echolink Node No: 113249		
Nets	Monday @ 2000 146.910-		
Web	http://www.qsl.net/w3bmd/		

## **Meeting Notice**

**April Meeting:** 7:00 pm, Thursday, April 5 at the Potter County EMA Emergency Operations Center.

## Minutes

#### February 2, 2012

Jim Douglas Called the meeting to order at 7:00PM

January minutes were read. Jim D motioned to accept Diana Seconded.

Treasure report was	given by Wayne.
Balance Forward	\$479.16
Outgoing	<b>\$</b> 0
Income	<b>\$</b> 0
Balance	\$479.16
Tom motioned to acc	ept. Jim L seconded

MR Roger McCloskey and MR Neil Fausey from the Pennsylvania State Police gave a talk about the new Cell phone texting law to take effect March 8<sup>th</sup>. Anyone driving and texting can be pulled over and ticketed. H.A.R.C explained Amateur radio to the officers. They were thanked for attending and giving the talk.

#### **Old Business**

Glenn has ACS application for those that still need. Completed application from Jim

**The Parasitic** 

Emission

March 2012

Centanni, Greg DiCesar, Jim Douglas, Diana Guilfoy, Tom Guilfoy, Jason Layton, Jim Lucy, Don Serkleski, Wayne Stahler II, Gail Stahler, Milton Swift, Glenn Williams, Linda Williams, and Faye Wood. Glenn will try and have Lucinda from the EOC at the March meeting @ 6:00PM to have pictures taken for ID cards.

The EOC is trying to get a grant to have towers repaired and antenna's moved.

March 29<sup>th</sup> is the weather exercise. We will use our personnel equipment for the event.

Jason spoke about getting ready for an emergency. Jim C has 4 people interested in the amateur classes. Classes will start February 16<sup>th</sup> 6-9PM at the EOC. Jim asked for help. Jason, Jim Lucy, Jim Douglas, Tom volunteered to help when they can.

#### **New Business**

Jim Douglas Talked about getting the club members interested and involved in PSK mode. Jim did some testing thru the repeater. He will try and bring equipment in for a demo.

Greg Talked about the web page and getting things posted. Meeting adjourned at 8:30. Attending were Jim D, Don, Jim H, Jim L, Gail, Glenn, Linda, Jim C, Jason, Wayne, Tom, Diana, Tonia, Greg.

Headwat	Headwaters ARC Information		
President	Jason Layton, K2BYL		
Vice President	James Centanni, W2IMK		
Secretary	Charles Scott Sharpe, KB3JVD		
Treasurer	Wayne Stahler, II, WS3PC		
Repeaters	N3PC         146.685-         [173.8]         Coudersport           K3CC         146.880-         [173.8]         Coudersport           KB3EAR         444.300+         Coudersport		
Nets	Monday @ 1900 146.685- [173.8] Monday @ 1930 28.360 [USB] Monday @ 1945 1.980 [USB]		
Web	www.n3pc.com		



## Elk County Amateur Radio Association

Serving Elk and Cameron Counties

## **Meeting Notice**

March Meeting: Sunday, March 18<sup>th</sup> at 1:30 pm, Elk County Courthouse Annex.

## February Meeting Report

by Pete Carr WW30

The February meeting of the ECARA was held Feb. 19th at the Ridgway Court House Annex. Elections were held for the current year. New officers are;

> Scott N3LVG, President Jerry N3RYG, V. President Mary N3UDN, Secretary Pete WW30, Treasurer

Bill, N3LLR presented a Slide show on NBEMS and the various modes of digital communications. Bill also passed out CDs of the presentation plus software to operate on these modes.

Rick, N3RJH had received a quote from the Motorola Service Shop In Johnsonburg for the frequency change for the new UHF repeater. Once a Amateur band frequency pair is chosen the repeater will be reconfigured and made ready to install.



Elk Coun	Elk County ARA Information		
President	Scott Logue N3LVG		
Vice President	Jerry Robinson N3RYG		
Secretary	Mary Lewis N3UDN		
Treasurer	Pete Carr WW30		
Officers	Public info: Shari Lewis KB3EWT Newsletter: Jerry Robinson N3RYG Public Service: John Frantz K3TMD		
Repeaters	N3NIA         147.000+         [173.8]         Bootjack           N3NWL         147.285+         Ridgway           N3RZL         442.200+         Ridgway           N3RZL         442.350+         Boone         Mtn           WA8RZR         443.675+         St         Marys           N3FYD         146.805-         Emporium           WA3WPS         147.180+         Emporium		
Nets	Sunday @ 2000 147.000+ [173.8]		
Web	www.n3nia.com		



## **Meeting Notice**

February Meeting:: CRC February meeting will be held on the 17<sup>th</sup> at 6pm at Mount Calvary Lutheran Church 1000 Scalp Ave. Johnstown, PA 15904

Technology theme is operating fun at the meeting. Bring a rig or your go kit to operate. Bring a laptop computer and work an iaxclient or remote. Let's have fun and discuss on the next few nets the possibilities we can all explore.

## Meeting Notes: Feb 2012

The meeting Started at 6pm (although most people showed up earlier) and ended at 9:00.

15 people attended the meeting including: N3XCC, KB9WCX, N3ZQY, WA3MTT, WB3JSW, N3JCV, N3LAD, N3SSD, BEN N3SSD/SON, K3PJ, KB3EMM, W3KKC, KE3UC, KB3VTX, AND KB3WUD...

Pictures of the meeting and meeting related documents can be found in the Club Members folder on Drop Box AND NOW ON the CAMBRIA RADIO CLUB FaceBook PAGE. As a member you have access to this folder. You may request access at wa3wgn@gmail.com A link to our FaceBook page can be found on the main page at http://www.cambriaradio.com

#### Officers and Guest Speakers:

Tom Brew	K3WS	President / Trustee	C
Holli Serenko	KB3PJG	Treasurer	5
Fred Raco Jr.	N3JCV	VP Legal	ł
Chuck Englody	N3LAD	Executive Secretary	C
David Babal	<b>WB3JSW</b>	VP Training	C

	Scott Zimmerman	N3XCC	VP Technical
	Operations and VE T	esting	
	Scott Zimmerman	N3XCC	Holding CRC's
	Second VE Test Ses	sion	
ty	Herb Enos	<b>KB3REA</b>	Update on Merit
	Badge in a Day and	a Ham to Stay	(write in)
	Dave Hunter	N3YF0	ACS Officer
	Western Area. Futur	e of ACS.	
	Chuck Englody N3LA	AD.	Update on club
	documents		

N3XCC Scott, started the meeting and introduced the guest speakers (KB3REA, N3YFO, N3LAD,) and welcomed the new visitors to the meeting.

N3XCC reported for Herb on Merit Badge in a day. Members from the Indiana radio club are willing to participate in Merit Badge Project if there is a specific need. I asked what would be a drop-dead notification date for them. Their meeting is the First Tuesday in March (6th). Dave Babal WB3JSW said he is in touch with those guys on a periodic basis. If we decided we needed their participation, Dave volunteered to notify them. Herb KB3REA and Dave WB3JSW will discuss and report back.

N3XCC gave a VE report focusing mainly on the UPJ test session. Scott gave our plan as to how Friday the 20th's schedule would run. Everyone thought it was a good idea to have the meeting at UPJ after the special UPJ Engineering student VE Test Session. There was discussion about the swap-n-shop scheduled for the April meeting. We thought it might be better to bump that to a later meeting in lieu of a different program.

We thought it might be nice to have 15 minute presentations on operating basics, show off mobile setups (weather cooperating) "what I enjoy about amateur radio", etc. This way the new hams can see how other amateurs use and enjoy their privileges.

Planning for this and Merit Badge K3B Special Event Project will be discussed and decided at the March 9 CRC Meeting.

We were discussing bumping back the swap-n-shop until May, & Mike N3SSD asked about inviting the NWS to come give SkyWarn training. The May meeting would be the perfect timing for that, unless we wanted to have the training as a stand-alone event.

Chuck N3LAD noted that he is working on updated 501c(3) status for the CRC. He is drafting bylaws and having things reviewed by our attorney. There was great concern from the group about the governance of the CRC remaining the same as it is now. Chuck assured

the members that NOTHING will change and the new bylaws are being written around our new mode of operation and government. There seemed to be great relief among the members present. There was the feeling that we are getting more done with less problems using our current form of government.

Discussion on repeaters and WAN system: We are \*still\* waiting on the '94 and '210 crystals to come back for the SECOND time. There was discussion about running digital modes over the system and it was kicked around about commandeering the system for one or two hours a month for digital mode training exercises. This could be interlaced with voice traffic as might be found in a real emergency. The idea was to test the system's limitations to pass digital information.

Further discussion about linking and unlinking WAN and other repeaters. It was noted that the WAN system is NOT strictly defined, but rather has a "resting" configuration as listed on the website wanrs.com. Nodes may be linked out and in as deemed necessary by any control operator. It was asked that we (the WAN group ten core members listed on wanrs.com) need to develop a set of "common courtesy's" for system use including operating practices and link/unlink protocols. As long as the control operators put the system back as they found it when they are through, there should be no problems. A summer time meeting of the WAN minds \*might\* be possible.

#### Scott Zimmerman

Amateur Radio Call N3XCC and Meeting Leader February 17, 2012

Cambria	Cambria Radio Club Information			
President	Tom Brew K3WS			
Vice President	Fred Raco, Jr. N3JCV			
Secretary	Chuck Englody N3LAD			
Treasurer	Holli Serenko KB3PJG			
Repeaters	<pre>WA3WGN 146.940- [123.0] Johnstown KC3DES 145.210- [123.0] N.Germany KC3DES 443.525+ [123.0] Carolltwn KE3DR 146.655- [123.0] N.Cambria K3WS 147.060+ [167.9] Carolltwn N3YF0 145.390- [123.0] Johnstown KA3ZYC 146.775- [123.0] Ebensburg</pre>			
Nets	Sunday @ 2100 145.210- [123.0]			
Web	cambriaradio.com			

Emission

March

#### Cambria Radio Club Meeting notes by. Dave N3YFO

The features this evening included a show and tell presentation of APRS hardware including a neat all in one package (by Gary WA3MTT) which included the transceiver, APRS unit, antenna, and power system. Another presentation was done on FLdigi and amateur digital modes. Unfortunately, as the luck of Murphy would have it, one of the stations could not transmit, so two-way communication was not possible. We will return for yet another go at it.

The WAN topic of the evening is the use of the system for local communication. It is OK for hams to take a machine or even a hub system off the WAN or reconfigure it to their needs. Warren County hams (node 2124) do it daily for a local 2m rag chew. Cambria County has the same capacity. The only thing is put everything back the way it was and reconnect to WAN when done.

The Merit Badge for a Day and Ham to Stay is going nicely. Equipment is being committed and there is a general air of excitement about the event. Tom W3SF, from the Horseshoe ARC asked to familiarize hams on the receiving end of scout QSOs to be familiar with what interests young men of scouting age these days. That way a 10 minute QSO will not be so laborious. Great idea Tom.

#### Update on Merit Badge Project by Herb KB3REA

MBIAD 25 registered as of this morning (Feb 22), I am sure more to come, my troop, (100) plus several others that I have spoken to have not registered yet.

Gallikers is on board for drinks I need to make official contact today for logo and stuff.

REA cannot get the trailer they were going to borrow, something else is going on. But they will still do a presentation for the scouts attending.

Dave N3YFO, is planning on setting up Radios Friday evening, the church is having a fish fry until 1900, so dinner and a HAM Shack setup sounds good. He is also working on a list of bands and freq. we plan to start with. All will be posted soon...

Scott, N3XCC is set for the test session. I just need to give him numbers.

ACTION NEEDED>>> I am looking for someone to present session 3 to the scouts, Brian at this time cannot make it. If you know a GOOD public speaker. Any scout leaders or hams out there willing to help??? Contact Herb. March meeting will be a great planning session for the program. I have been invited to Punxy radio club meeting in March if anyone would want to go along for backup, its the 16 Friday night. Let me know.

We need commitments at the March planning meeting as to who is going to be there, and who can do what...IE radio operator, runners (food needs picked up in Ebensburg etc.) VE's, assistants for the presentations etc. I know some are doing several things I just want to be sure what radio operators expect and that we don't try to have you presenting and operating radios and testing all at the same time. All hands needed...

We also have to plan the Drill stuff to get credit.

We need to get this message out that we are doing this as a multi purpose mission the Merit Badge is #1 but there is also testing, Field Day, Drill, and FUN for the Scouts and HAMS. Even if we only had one Scout signed up, it opens the doors to Amateur Radio for more to come and enjoy this great hobby.

#### ANNOUNCEMENTS, REMINDERS or ACKNOWLEDGEMENTS

#### Many Updates and changes

A very special thank you to Scott N3XCC for running the February CRC meeting as K3WS was detained in Washington DC until late Friday night.

Merit Badge in a Day and a Ham to Stay Special Event K3B. Mentioning this event is growing to include sponsors and individuals and companies donating to the event. One anonymous individual donated 2 NEW dual band HT's for be chanced off to two scouts earning a license at the event. Herb needs your help in this event please contact herb at <u>KB3REA@hotmail.com</u> March 9 CRC meeting is dedicated to this event planning.

A very special announcement from W3SF Tom: The Horseshoe Amateur Radio

Club <u>http://www.harc1.org</u> has agreed to co-participate in the Merit Badge in a Day and a Ham to Stay project and Special Event K3B by bringing their mobile antenna systems and possibly some operators as well. Much more detail to be posted... ANYONE or any organization willing to participate may contact herb at KB3REA@hotmail.com

AB3OV John ARES AEC, and N3SSD Mike, started a Saturday night FM Simplex net on 147.550 no PL, (the assigned ARES Simplex frequency as seen at <u>http://www.wpaares.org</u>) Point your beams to Johnstown PA and join in on the fun which starts about 9:00pm. Updates and check in's will be posted on the CRC FaceBook page.

N3YFO David Hunter announced that he has plans to start informal training on the required ICS 100, 200, and 700 certification required by ACS. Dave also informed us the draft of the ACS manual is completed and ready for review.

WB3JSW David Babal, announced a new digital net being held Wednesday at 7PM. David is inviting anyone interested to join in. Operations will start in FM voice on a Cambria County repeater near you. Visit<u>cambriaradio.com</u> digital operation page for complete detail. Dave is serving as web master of the digital page as well...

#### UPCOMING EVENTS REVISED FEB 22, 2012

UPDATED CRC March Meeting will be held on the 9<sup>th</sup> at 6pm

FREE VE Test Session at 6:30 pm see <u>cambriaradio.com</u> for details

Technology theme: Special Event K3B Planning. All hands needed to discuss what everyone will be doing for this great event lead by KB3REA involving other Radio Clubs and resources. Merit Badge In a Day and A Ham to Stay is well on its way...

UPDATED CRC April Meting will be held on the 20th at 6pm (AT UPJ Johnstown)

Before the meeting we will be holding a FREE VE test session for the Engineering students at UPJ. Would be nice to have a photographer present... During our meeting which will be held after the test session we will have a very special theme as suggested in the February 17<sup>th</sup> CRC Meeting. We thought it might be nice to have 15 min presentations on operating basics, show off mobile setups (weather cooperating) " what I enjoy about amateur radio ", etc. This way the new hams can see how other amateurs use and enjoy their privileges. Members and possibly invited officials may participate. WE WILL POST A FULL AGENDA SOON.

March  $31^{st}$  and April  $1^{st}$  Merit Badge in a Day and A Ham to Stay Special Event K3B

FREE VE Test Session for the Boy Scouts and Special Event K3B see QRZ.com / K3B and <u>cambriaradio.com</u>

UPDATED CRC May meeting will be held on May 18<sup>th</sup> at 6pm

Emission

March

Technology theme: We will host a swap and sale/ miniature ham fest led by Mike N3SSD complete details can be found at cambriaradio.com or by contacting wa3wgn@gmail.com

UPDATED SKY WARN Training (date, time and place to be announced soon)

CRC June meeting will be held in June 15<sup>th</sup> at 6pm Technology theme: To Be Announced

CRC Field Day June 23rd and June 24th

**FREE VE Test Session June** 23<sup>rd</sup> see <u>cambriaradio.com</u> for details

CRC July meeting will be held on July 20<sup>th</sup> at 6pm Technology theme: To Be Announced

CRC August Meeting will be held on August 17<sup>th</sup> at 6pm

FREE VE Test Session at 6:30 pm see cambriaradio.com for details

Technology theme: To Be Announced

**CRC September Meeting will be held on September** 21st at 6pm Technology theme: To Be Announced

CRC October Meeting will be held on October 12<sup>th</sup> at 6pm

Technology theme: To Be Announced

**CRC November Meeting will be held on November** 16<sup>th</sup> at 6pm

FREE VE Test Session at 6:30 pm see cambriaradio.com for details

Technology theme: To Be Announced

CRC December meeting will be held on December 14<sup>th</sup> at 6pm

Technology theme: Christmas Party, That's it!! Year in Special event: Table-top exercise. Review...

Many people made this meeting possible with their unseen help. It is only with the help of everyone involved that we are able to have fun and enjoy this hobby. THANK YOU to everyone who helped.

We would like to offer a special thank you to everyone who attends and supports the Cambria Radio Club including our local community. A copy of this report will be filed in the members area folder.



Scott Zimmermann N3XCC



### Western PA Section **American Radio Relay League**

The National Association for Amateur Radio

## WPA ARES Conference

by Larry Keller AB3ER

TTENTION ALL Western PA **ARES Members! A Section-wide** ARES Conference is planned for May 11-12 in Johnstown at the UPJ Campus. The

conference is planned to enhance ARES

communications support capabilities for emergency and public service agencies. YOUR IMMEDIATE ATTENTION is needed to

make this possible and to insure a first rate program.

Theme: Communications Continuum Target attendance: 150

Program: Served agencies needs and relationships, Digital Applications, Smartphone and Tablet Apps, Repeater WAN, PEMA, ACS, OES APRS and more. Parking lot for vehicle display.

So far only 30 have signed up. We need a minimum of 100 or we will have to cancel the event. Please preregister before March 15th, and a decision will be made on March 20th.

Please visit the WPAARES.ORG website to preregister and for more information.

> Larry Keller AB3ER WPA Section Emergency Coordinator

# SkyWarn™ Training Mar 5

by Bryan Simanic WA3UFN

**INCE IT HAS** been about two years since the most recent SkyWarn<sup>™</sup> training presentation in the DuBois area, I submitted a request to the National Weather Service, State College for

another. The date for this presentation has been set for Monday, March 5<sup>th</sup> at 6:30 pm. The location is Lakeview Lodge at Treasure Lake.



I worked with the Deputy **Director of Clearfield** County EMA, Jerry Pollack to coordinate a

combined presentation since both of us are involved in local emergency response/support groups in Du Bois. This combined effort was requested by the National Weather Service to reduce the travel time for the meteorologist from State College.

More information and a map with directions is available at www.qcarc.org.

## Local Net Schedules

Quad-County FM	1900	Sunday	147.315 + 173.8
Clfd Co ARES	1930	Sunday	147.315 + 173.8
ECARA	2000	Sunday	147.000 + OPEN
Cambria County	2100	Sunday	145.210 - 123.0
Headwaters ARC	1900	Monday	146.685 - 173.8
PAARC	1930	Monday	147.315 + 173.8
Jeff Co ARES	2000	Monday	147.105 + 173.8
Indiana Co ARES			146.910 – <i>OPEN</i>
Hamshack Net	1900	Wednesday	147.315 + 173.8
PARA	2100	Saturday	146.430+1M173.8



The Parasitic

Emission

March

2012

9



## A Look at the Baofeng UV-3R

#### by Joe Shupienis W3BC

008

**T SEEMED** almost too good to be true: a dual-band VHF/UHF handheld transceiver for under \$50! Small in size, small in price and big on performance, this dual-band HT offers surprising functionality at an astonishingly low price.

The Baofeng UV-3R "Mark II" Dual-Band, Dual-Display Handheld VHF/UHF transceiver is one of several bargain-priced radios that are seemingly taking the amateur radio market by storm. At less than <sup>1</sup>/<sub>4</sub> the cost of an equivalent radio by the "big three" Japanese

manufacturers, it is easy to wonder if this Chinese knockoff of the Yaesu VX-3R is more than just a toy.

Short answer: It's no toy. Its

lightweight plastic case surrounds a die-cast frame which holds the circuit board, battery and display. It's an ideal first radio for the new ham or an "extra" HT for the OT.

After programming a few local frequencies into it I tried it on the air and it reliably keyed up and received both VHF and UHF repeaters. There were no funny buzzes, clicks, clunks or smoke signals. The receiver seems pretty hot, and there's no reason to doubt the specified 0.2uv @ 12dB SINAD sensitivity in the refreshingly well-written manual.

#### **Initial Setup**

Some of the newer, ultra-compact radios have

a well-deserved reputation of being "difficult" to program. I've encountered some that are far from intuitive, and require continuous reference to the manual when trying to figure out how to program your favorite frequencies. My guess is that the radio manufacturers expect that all users will be using their proprietary computer software to program the radios, and most hams end up doing just that.

However, I bravely decided to have a go at it, sans manual. I was pleasantly surprised to find that the menu system is very intuitive, and only on the last few of the 19

menu settings did I find myself scratching my head, wondering what the abbreviations meant. Fortunately, the most important menu settings were all grouped together at the beginning of the menu system and were easy to understand from the alphanumeric screen display.

> After only spending a few minutes programming, it all began to make sense, and entering

about a dozen local frequencies was a snap. Setting it to scan mode, I sat back and listened to all the local activity. The sound from the speaker is very good, and loudness is certainly not lacking! In fact, one of the few complaints I've seen online is that the radio is "too loud" especially on FM broadcasts.

The supplied "rubber duck" antenna is attached by a standard SMA *male* connector (unlike the competition, which uses a nonstandard *female* SMA connector) and is comparable to more expensive antennas that cost as much as this whole radio! It's nice to be able to use those antennas, as well as a standard SMA adapter to connect to an



external antenna. The supplied antenna works well enough for me to use VHF and UHF repeaters 14 miles away with full signal strength on the functional S-meter.

#### On the Air

Signal reports have all been very good. Most people can't tell the difference between the Baofeng and my Kenwood mobile rig. The dual-band sections remember things like the 600 KHz and 5.0 MHz splits on VHF and UHF respectively, as well as the standard channel spacings (I use 5 KHz on VHF and 12.5 Khz on UHF.)

Rated at 2.0 watts output in the manual, I see 2.3 watts on VHF and 2.2 on UHF with a fullycharged battery. One of the "mysterious" menu settings can be enabled to allow a transmit power reduction when receiving strong signals. This feature throttles back the transmit power when the received signal is

#### Small in size, small in price and big on performance!

The Parasitic

Emission

March

very strong, thus extending battery life between charges.

Not that battery life is a problem. I've gone 24+ hours between charges and have never yet seen a low battery alert. The supplied charging cable plugs into any standard computer-type USB port, and the supplied wall-wart power supply is specifically designed to safely charge the Li-lon battery, either in the radio or in the charger-stand. It is NOT a "drop-in" charger, but with a spare NP-80 or even an NP-60 battery (which can be found online for as little as \$3.25 shipped,) all your battery needs should be met. Be aware: The plug's tip is negative!

Scanning is slow by 21<sup>st</sup> century standards, at around 5 channels per second, but the slower computer uses less battery current, and is adequate for most uses. This is, after all, a secondary radio for most users, and some compromises are necessary to achieve low price and long battery life. If fast scanning is important to you, you could always just program the few channels you really need instead of filling the memory with unnecessary stuff.

One other drawback is that you can't "lock out" unwanted channels. Scanning will stop on every signal it hears. One workaround is to program an unused PL<sup>™</sup> tone for the RX Tone, and the radio will silently pause briefly for a second on the busy unwanted channel before resuming the scan. Again, it's a compromise. (Keep telling yourself, "Only fifty bucks…")

Interestingly, the radio is FCC type-accepted under Part 90 and Part 15, allowing it to be deployed for Land Mobile and MURS Radio services. Amateur Radio use does not require type-acceptance, and so it is legal for use in the Part 97 Amateur Radio Service. Be aware, though, that **it is capable of transmitting on frequencies outside the Amateur bands**, so you are responsible to operate legally! If you have a legitimate need to use this on LMRS, (including GMRS) and the license to do so, you may find this to be a very inexpensive additional radio. It works fine on GMRS and MURS channels, and even the low-power, narrowband Family Radio channels, but due to a detachable antenna, FRS use isn't legal.

#### Under the Hood

OW DO THEY manage to cram so much into such a little package? I mean, this thing is smaller than most microphones! At a tiny 3<sup>3</sup>/<sub>4</sub>" high, 2" wide and 1" thick, this "cute" little radio is... miniscule. It's way smaller than my Android smartphone.

The secret is the design. There is a computer on one chip. There is a complete Software Defined Radio on another. A couple pairs of RF power transistors, some coils of wire, an audio output IC and a power/charging control IC take care of the high-power business, while some incidental circuitry for the display and buttons wraps it all up.

Software for programming the radio is available for free from the manufacturer, and there is also an Open Source program called Chirp, which includes this radio in the list of those it can program.

Being a software defined radio, it is possible to "extend" the coverage range to include the 222 MHz amateur band. Power output and receive sensitivity are not as good as they are on 2 meters, due to the limitations of the RF section, but the SDR chip is quite capable of generating and receiving signals on this band!

If you wish, you can also limit the frequencies available to only the Amateur Bands (or the Part 90 bands if you are using it for commercial purposes.)

All of this programming via computer requires a "programming cable" sold separately. Online prices are under \$10. You can also build you own (as I did) by following the instructions in the accompanying article.

#### The Bottom Line

HIS IS NOT the only radio you will ever need. But if it is the only radio you have at the moment, you could do worse. It has surprisingly good performance on 2 meters and 440 MHz, and will allow the old-timer and the new ham to communicate effectively through repeaters and on simplex. Its feature list will not leave you wanting for much, and its price is less than a tank of gas. You know you want one!

Buy this radio instead of lottery tickets this week, and you'll be a guaranteed winner!



Interestingly, the radio is FCC typeaccepted under Part 90 and Part 15

The Parasitic

Emission

March 2012

## **Build A Serial HT Interface**

by Joe Shupienis W3BC

IEN I FOUND out that my new Baofeng UV-3R HT could be programmed to cover the 222 MHz band, I just knew I "had" to try it out. I needed a programming interface cable, and I looked online. The earliest I could get

one delivered was 1 week, so for 8 bucks, I ordered one.

Patience is a virtue, but to a ham, waiting to play with a radio can become unbearable, so I decided to follow the time honored amateur radio tradition of homebrewing, and scoured the Internet to find a circuit. There were several, but they weren't specifically designed for this radio, and each one had one or more shortcomings.

I finally decided that I'd be better off designing one from the ground up. (Pun not intended!) I started by identifying what the circuit had to do: convert the RS-232 +6v and -6v levels to the +3.5v and 0v CMOS logic levels the radio uses, and run under its own power.

Another design criterion I prefer to use is that all the parts should be available locally. After all, what's the point of building one if you can order a ready-made unit and receive it sooner -and cheaper-than your parts order from **DigiKey or Mouser?** 

Radio Shack still stocks NPN switching transistors, small signal diodes, resistors and capacitors, perf-boards and DB-9 connectors, so there were almost all the parts waiting just a couple miles away. The only "exotic" part was the 4-terminal 1/8 inch audio plug. I dug up an old cellphone headset which used that

plug, and after determining I had no further use for it (it wasn't wired correctly to use it as a speaker-mic for the radio), I cut the cord about a foot from the end and prepped it.

Now, it was simply a matter of laying out the parts on the perf-board, and soldering everything together.

#### **Circuit Description**

BAOFENG

My level converter uses the switching transistors as switches-when the input logic from the computer goes from 0 (+6 volts) to 1 (-6 volts) the transistor goes from saturation to cutoff, and goes from TTL 0 (0 v) to TTL 1 (>3.5v) and sends the

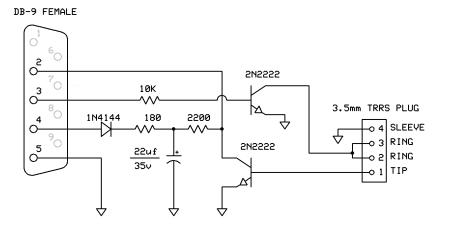
> signal to the radio at the proper voltage level. Similarly, the other transistor receives TTL 0 (0v) and 1 (>3.5v) and switches between saturation and cutoff to switch the RS-232 RxD line from +6 to 0 volts which while not technically "correct" is an acceptable level transition for modern computers with UARTs.

Pullup voltage is obtained by rectifying the +6 volts from the pin 4 DTR signal from the computer and building up a charge in the 22uF capacitor. The voltage is stabilized and converted to the appropriate level by the 180ohm and 2.2 K resistors.

The 10K resistor between DB-9 Pin 3 and the base of the transistor is optional. My unit works better with it, but depending on your RS-232 adapter, it may be unnecessary.

#### On the Job

This simple circuit works very reliably. It



W3BC				
UY-3R	Serial	Interface		
	Rev 1.0		D 1 - 0 1	
Joe Shupienis	2/25/2012		Page 1 of 1	

transfers the entire memory contents of the radio in about 20 seconds. After all that programming, you feel a sense of relief, knowing you can restore those hardprogrammed settings in a few seconds, should your ever "misprogram" the radio.

The manufacturer's software as well as the open-source "CHIRP" program both work flawlessly with this interface.

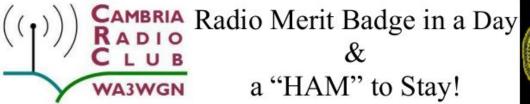
The only time it didn't work for me was when the radio was receiving a signal. The received audio confuses the program, and it reports that the serial port is "not found." The cure is to remove the antenna, close the squelch and be careful not to transmit.

Instructions for expanding the coverage to 225 MHz can be found on the Internet. I won't The Parasitic be responsible if you "brick" your radio, but I can happily report the conversion works and allows me to use the 222 MHz band!

I decided to follow the timehonored amateur tradition of homebrewing

Emission

March





The Cambria Radio Club and Troop 100 have paired up to earn your Radio Merit Badge and if you choose to, take your Amateur radio test in the same day. We have also planned an overnight adventure with an electric safety demonstration and a visit from Detachment 1, 856 Engineer Company US Army Reserves along with working the airwaves as late as we can.

> When: March 31, 2012 Where: New Germany Grove Time: 0800 –1630 Cost \$ 0 Lunch provided by

#### Merit Badge in a Day Information

We will set up areas to learn and do the requirements for the Radio Merit Badge, Including setting up several amateur radio stations for you to meet the requirements. Those interested in Broadcast Radio or Shortwave Radio can make arrangements to complete Section 9 of the requirements in those areas by contacting Herb Enos at KB3REA@hotmail.com. All scouts must bring a signed BLUE CARD for the radio merit badge.

#### **Amateur Radio Test information**

Those interested in taking the Technician class Amateur radio test have several options.

- 1. Purchase a book and study for the exam. \* See Below
- 2. Ask to borrow a book to study for the exam. \* See Below
- Go online looking up Amateur radio Technician License testing materials, and there are a lot of these sites. (Some are free some you pay for.) and study for the exam.
- 4. The Test Session will be conducted shortly after the merit badge sessions finish.
- 5. ALL SCOUTS TESTING MUST BRING TWO FORMS OF IDENTAFICATION.
- Two lucky Scouts, who pass the exam, will leave with their own portable radio.
   \* (To obtain more information on purchasing or borrowing a book, or for what ID will meet the requirements contact Herb Enos, KB3REA@hotmail.com)

We strongly discourage you attempting the exam with just the knowledge you receive at the merit badge sessions. The merit badge in a day will get you what you need for the badge, but not provide you with the information needed to pass the technician exam.

#### **Overnighter Information**

We will start setting up camp immediately following the Amateur radio exams, and will have a electric demonstration from Somerset Rural Electric, and a special appearance by Detachment 1, 856 Engineer Company US Army Reserves, and if the airways agree free radio time. All overnight troops must have at least 1 adult leader.

Dinner and breakfast are on your own.

All participants are required to attend the Merit Badge Sessions. You may choose to Test, and or Stay Overnight.

More information and Registration Form at www.cambriaradio.com

Registration Deadline Saturday, March 3, 2012

## Legal Notices

The Parasitic Emission (ISSN: 2156-0080) is published monthly by Joe Shupienis, 96 Third Street, Falls Creek, PA 15840

All original content is the property of its authors. Their contributions are gratefully acknowledged. All opinions expressed are those of their respective authors only. The design, format, and presentation of this publication, and all material not attributed to other authors is

Copyright © 1975, 2009-2012 Joe Shupienis, W3BC All Rights Reserved Quedan reservados todos los derechos

Reproduction or republication by any means, in whole or in part, is prohibited by law without prior written permission and attribution of of the Author(s).

The Parasitic Emission is published monthly for all Radio Amateurs residing in central Pennsylvania. This electronic edition is provided free of charge by email, and may also be downloaded from: www.parasiticemission.com which also makes available selected back issues, current issues and more.

The current, online, interactive version of the calendar, which contains regional club activities and events in upcoming months may be accessed at calendar.parasiticemission.com. You may use that calendar to enter amateur radio events of interest to local amateurs which are intended for publication, subject to review and approval. Pass this information along to any Scout you know

The Parasitic

Emission

March

## March 2012 Calendar

## Amateur Radio Club Activities, Events and Gatherings

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	27 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	28	29 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	01 7:00pm» Headwaters ARC Meeting	02	03 9:00pm» Philipsburg ARA Net
04 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	05 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	06 7:30pm» Indiana Co ARC Meeting	07 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	08	09 6:00pm» VE Exam - Johnstown 6:00pm» Cambria Radio Club Meeting	10 9:30am» Quad-County ARC Breakfast 10:00am» Potter Co. ARES VE Exam Session 3:00pm» PARA Meeting 9:00pm» Philipsburg ARA Net
11 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	12 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	13 7:00pm» Punxsutawney Area ARC Meeting	14 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	15 6:00pm: VE Exam -DuBois	16 7:30pm» Quad-County ARC Meeting	17 9:00pm» Philipsburg ARA Net
18 1:30pm» Elk County ARA Meeting 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	19 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	20	21 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	22	23	24 9:00pm» Philipsburg ARA Net
25 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	26 Parasitic Emission Submission Deadline 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	27	28 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	29	30	31 8:00am: Merit Badge in a Day, New Germany Grove 9:00pm» Philipsburg ARA Net

## April 2012 Calendar

## Amateur Radio Club Activities, Events and Gatherings

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	02 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	03 7:30pm» Indiana Co ARC Meeting	04 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	05 7:00pm» Headwaters ARC Meeting	06	07 9:00pm» Philipsburg ARA Net
08 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	09 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	10 7:00pm» Punxsutawney Area ARC Meeting	11 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	12	13	14 9:30am» Quad-County ARC Breakfast 3:00pm» PARA Meeting 9:00pm» Philipsburg ARA Net
15 1:30pm» Elk County ARA Meeting 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	16 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	17	18 HAPPY BIRTHDAY QCARC! 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	19	20 6:00pm» Cambria Radio Club Meeting 7:30pm» Quad-County ARC Meeting	21 9:00pm» Philipsburg ARA Net
22 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	23 Parasitic Emission Submission Deadline 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	24	25 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	26	27	28 9:00pm» Philipsburg ARA Net
29 7:00pm» QCARC 2-meter FM Net 7:30pm» Clearfield County A.R.E.S. Net 8:00pm» Elk Co ARA Net 9:00pm» WAN ARES Net	30 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	01 7:30pm» Indiana Co ARC Meeting	02 7:00pm» Hamshack Net 9:00pm» Cambria County ARES Net	03 7:00pm» Headwaters ARC Meeting	04	05 9:00pm» Philipsburg ARA Net