

The Parasitic Emission

Volume 37—Number 4
April 2011

**Supporting Amateur Radio
Club Activities**

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NO FOOLIN'! It's April already. This year, it seems the April showers are snow showers!

Perhaps our friends in Punxsutawney warmed up the air too much with the Groundhog Day special event station and Phil got confused!

There is a lot to talk about this month. As promised, this is the APRS April issue and we have a number of interesting articles about this exciting amateur radio technology. As you will see from reading, it is a lot more than vehicle positions!

Bob Bruninga, WB4APR is the inventor of APRS and has graciously provided us with an article about his favorite subject. Thank you, Bob!



THIS IS A *Multi-Club* newsletter, and I am pleased to announce that the Quad-County Amateur Radio club is hosting a *Multi-Club Spring Banquet* and opening it to all the local clubs. The food will be great, the speaker is none other than ARRL Atlantic Division Director, Bill Edgar N3LLR, and some special awards will be presented to some very deserving people.

Mark your calendars for Saturday, May 14th at 6 pm for the Multi-Club Banquet. See the announcement later in these pages for more details.

IT'S NOT TOO soon to start making plans for Field Day. It's just 11 short weeks away, and if you want to cash in on all the bonus points for such things as GOTA Stations, Public Official Visits, Press Releases, etc., now's the time to make those plans.

Field Day either can be the new ham's fondest memory or it can be the event that makes the new ham find another hobby. It really is a make-or-break event, and one of your most important club activities. It showcases your club's ability to serve the public, and acts as an indicator of your club's overall health.

Take an honest look at how your club participated in Field Day last year. If you don't like what you see, now's the time to make plans to improve this year's effort. I think the first thing every club should consider for Field Day is how their proposed Field Day plans will include new hams. Will the new ham—or the prospective ham—be made welcome? Will they have the opportunity to operate on the air in a meaningful way? Will they learn what amateur radio is really about?

I maintain that the ham radio activities during the first year a new ham is licensed will set the tone for the rest of his or her life as a radio amateur. A memorable Field Day experience is a big part of that. Your club will do well to make it the best it can be!

MOVING ON to other popular activities, Hamfest Season is around the corner. There are many events, both large and small coming up almost every weekend. You can do a great service by inviting the newcomer to ride along

to your favorite hamfest. For those who have never been to Dayton, it's kind of like Mecca or Jerusalem—Everyone should plan on making the pilgrimage at least once in their lifetime.

Dayton is big. It's not like going to ten local hamfests—it's way beyond that. Because of its status, the Big Manufacturers use it as *The Event* to show off their latest product lines. The door prizes and other giveaways are awesome—expensive, new radios are the norm.

If your trip to Dayton is going to be the only one you ever make, I suggest you spend a few extra bucks to go to the Hamvention Banquet. You will hear a world-famous speaker, and make new friends from around the country. Your horizons will be forever widened.

SO THERE you have it... Good food, great meetings, interesting programs, Field Day plans, hamfests... And we thought last month was busy! None of these will happen all by themselves—it takes a group effort to make them possible, and help from other clubs will propel these events into greatness.

To mis-quote an old saying, "Alone we whisper, together we roar!"

The Banquet is a great starting point. Let's put our heads together and discover how much we all can do by working together.

There's a time for everything, and this month, it looks like it's the time for all our clubs to work together toward some common goals. We can help each other out, and every one of our members will be the better for it!

I'll see you... *On the Air!*





The Quad-County Amateur Radio Club

Serving Clearfield, Jefferson Elk And Cameron Counties Since 1975

Meeting Notices

April 15, 2011

April Meeting: The April Meeting will be held on Friday, April 15 at 7:30 pm in the meeting room of the Clearfield County 911 Center, Leonard Street in Clearfield.

After the meeting, **Carmine Prestia K3CWP**, Centre County ARES Emergency Coordinator and RACES Officer, will present a program on how APRS is being put to good use in Centre County by his ARES members. Experienced APRS users will also be on hand to answer questions and provide help. Finally, we will attempt a live demonstration of using APRS through the International Space Station as it passes overhead!

Also, coffee and donuts will be served.

April Breakfast: 9:30 am, Saturday, April 8, Sid's Sub Shop, Old Town Road, Clearfield.

Minutes

by Herb Murray, W3TM

The meeting was called to order at 7:30 by President Doug W3DWR. He announced that Jack AA3FZ has a doctor appointment and that he had been working on the mailing list of non members.

In the absence of the Secretary, Vice President Herb W3TM read the minutes of the February meeting. The minutes were approved with one correction. He then read the minutes of the Executive Board meeting that was held on March 12.

Committee Reports

Joe did more legwork on the Banquet. The

guest speaker will be Atlantic Division Director Bill Edgar, N3LLR. The cost of the banquet was discussed and everyone agreed the price should be kept as low as possible, preferably below \$20. The date and location will be announced as soon as arrangements are final. There will be awards, certificates, and door prizes.

The status of the club's incorporation was discussed, and tabled for further action later.

Pennsylvania Senate Bill 583 was discussed, and members were encouraged to make their state Senator aware that Amateur Radios are not cell phones.

W3BC passed around a sample postcard he designed to be sent out to inform former and non-members about recent and current Club programs and activities. It was pointed out that as many as 25% of currently listed licensees are silent keys or have moved from the area. Moved and seconded to send out the cards to an edited list of approximately 250 amateurs in the Quad-County area. Motion CARRIED.

New Business

Joe moved to waive club dues for new members for their first year. Seconded. Motion FAILED after short discussion.

Lars suggested the dues be listed on the postcard. After discussion it was suggested that would be inappropriate, but the dues structure should be explained on the website.

Don KB3LES reported that the Club Logo plaque is not ready yet, but he will see to it that it is completed before the next meeting.

President Doug W3DWR discussed the upcoming special event at the Hi-Way Drive-In. He can't be there because of a previous engagement.

Joe W3BC suggested a special event station be set up at the Clearfield Fair. It was moved and Seconded to to make inquiries of the Fair Board about costs to get a booth on the fairgrounds and set up a station. Lars SM7FYW and Tom W3KWT will check into it. Motion CARRIED.

Moved and seconded to Adjourn. Motion CARRIED.

Following the meeting, Joe W3BC gave a presentation on how to get the most out of the new website. Members were shown how to create new articles, comment on existing ones, and how to find information on a number of topics.

Joe then turned the podium over to John KB3OUG, President of the Punxsutawney Area Amateur Radio Club who gave a guided tour of his club's new website.

QCARC Information	
President	Doug Rowles, W3DWR w3dwr@hotmail.com
Vice President	H. Deforest Murray, III, W3TM kb3tap@hotmail.com
Secretary	Jeff Rowles, KA3FHV jrowles@earthlink.net
Treasurer	Dorothy Morrison, N3PUQ edmo1@atlanticbb.net
Executive Board	Don Jewell, KB3LES Lars Kvant, SM7FYW Ed Morrison, K3JE Joe Shupienis, W3BC Bryan Simanic, WA3UFN
Repeaters	N3QC 147.315+ [173.8] K3EDD 444.625+ [173.8] N3IZE 444.900+ [173.8] Clfd local N3QC-1 144.390 APRS Digipeater
Nets	Sunday @ 1900 147.315 (Club)
Web	parasiticemission.com/QCARC/

Behind the Gavel

by Doug Rowles, W3DWR

WE ARE STARTING to see the results of all the work going on to return Quad-County ARC to better times. Our membership roster is growing with five previous members returning, and there are a number of first time members on the roster with more to come. This is a good sign. No longer are we seeing meetings where the officers outnumber the remainder of the group. There isn't a rush to the door after that cup of coffee and doughnut are finished. People are sticking around to talk about that new rig, new DX contact or just keeping abreast of what's new.



The quality of programs has increased. They are informative and instructive. The electronics available at the 911 Center facilitate the integration of internet, computer programs and PowerPoint presentations to the materials used. Our program manager is Herbie, W3TM. If you have a suggestion for a future program give him a call.

Another requirement for a successful club is a good newsletter. We have that in spades! Joe, W3BC, has elevated the Parasitic Emission to

a new level of excellence. It takes a great deal of work and planning to put together a new issue each month. He has been getting a great deal of assistance from the members of the clubs in the circulation area with articles being submitted for inclusion in the newsletter.

Special events bringing the clubs in the area together to do things that each club wouldn't be able to do on its own is important to build a connection among area hams. The upcoming banquet with speakers from ARRL is a fine example. Perhaps this could once again become a recurring event.

What's ahead? Field Day, fox hunts, special event at the 322 Drive-in and the Super Summer Picnic with NARC. That's what!!



Punxsutawney Area Amateur Radio Club

Serving Punxsutawney and Jefferson County

Meeting Notice

March 18, 2011

April Meeting: 7 pm, Tuesday, April 12, at the Presbyterian Church, Findley Street, Punxsutawney.

March Minutes

by Steve Waltman, KB3FPN

Meeting PAARC March 8, 2011 opened by President KB3OUG at 1900 hours with 21 members present. Introductions were made all around

Treasurer Report given by W3QOS as \$547.31 approved with a motion by Delbert and a second by Don LES

Minutes from the February meeting read by KB3FPN and approved with a motion by Doug W3DWR and second by Bill K3QEQ

Old Business: Parker will order tomorrow and if necessary turn in receipt.

eQSL new QSL card made by John shown to the members with only problem being the logo is probably owned by Punxsutawney Spirit. We are world wide known club. Table with motion Don and second Sham carried.

Would cartoon figure be good or something different? Google amateur radio club logo. Opened up to club members to think about a design. I will check with my daughter.

Doug will check on ground hog week for a set up for us to use during the week.

Discussion by John on website and updates that are planned

New Business:

Net report: 39 repeater appears noisy at least at times - Doug talked to Jim about repeater and has high swr and has codes to turn on and off the WAN system on the 715 repeater. The 315 can be used - table for now and use 39 if not working use 315

Good of the order:

Joe W3BC QC club is considering sponsoring a spring banquet for the 6 clubs in the quad county and a guest speaker from ARRL. And volunteering to be an ELMER! Elmers are needed in all the communities and do not need to be QC member.

Herb will line up a projector for a talk on vanity calls

next month. John discussed t shirts and caps mugs (beer or coffee)

Sham, Donnie motion and second adjourn meeting.

Respectfully submitted, Steve Waltman, Secretary

PAARC Information		
President	John Buttner, KB3OUG kb3oug@gmail.com	
Vice President	Tom Sprague, KB3TOY	
Secretary	Steve Waltman, KB3FPN kb3fpn@windstream.net	
Treasurer	Sham Hollopeter, W3QOS	
Repeaters	N5NWC 146.715- [173.8] N5NWC 443.475+ KE3DR 147.390+ [173.8] N3HAO 53.07- (-1MHz) N3JGT 147.105+ [173.8] N3GPM 444.275+	Punxs'y Punxs'y Rockton Rockton Sigel Brookv1
Nets	Monday @ 1930 147.390 (Club) Monday @ 2000 147.105 (Jeff EMA)	
Web	http://sites.google.com/site/punxyhamclub/	

Philipsburg Amateur Radio Association
 Serving Philipsburg and Clearfield County

Meeting Notice
 March 12, 2011

The **May meeting** of the Philipsburg Amateur Radio Association will be held on **Saturday, May 14** at 3:00 pm at the Holt Memorial Library in Philipsburg.

The program will be presented by **John Rodgers N3MSE, ARRL Western Pennsylvania Section Manager.**

Meeting Notes
 February 12, 2011

In Attendance:

Dave AA3EJ, Filip AB3HK, Scott W3EOD, Jim N3ONE, Mark K3ITG, Rich KB3QKR, Dick K3BIE, Leo K3UMT, John N3SPW

Meeting called to order by President Dave AA3EJ at 3:09 PM.

Greater Baltimore Hamboree and Computerfest Road Trip – Saturday March 26th. For those traveling with the PARA group, plans are to leave Philipsburg at 7 AM. The tickets were pre-ordered and are in-hand.

VE Testing – VE Coordinator Joe KB3CBN not present at meeting. The classes PARA conducted did not result in any candidates successfully passing the Technician exam. Next test session planned for Saturday June 11th at 4 PM in the Holt Memorial Library meeting room.

Repeater Reports:

- 146.430 (+1 MHz, PL 173.8 Hz) repeater

– Filip AB3HK reports experiencing intermittent transmission problems from the repeater. The signal strength drops back significantly during a QSO when it normally should be full scale. Filip experienced this issue twice. PARA members are asked to keep a lookout for this issue and report any occurrences to Filip AB3HK. The planned battery back-up system for this repeater was also discussed. The battery and associated equipment will be ordered this week.

- 146.640- (PL 173.8 Hz) repeater – operating normally with no reported issues.
- 444.750+ (PL 173.8 Hz) repeater – operating normally with no reported issues.
- 144.390 APRS Digi-peater – operating normally with no reported issues.
- 147.255+ (D-STAR) repeater – operating normally however is experiencing an issue with connectivity to other D-STAR repeaters.
- Echo-Link – Is expected to back up and operational within 30 days. When reactivated, it will be available on the 146.430 repeater.

PARA Information	
President	Dave Runk, AA3EJ aa3ej@yahoo.com
Vice President	
Secretary	John Szwarc, N3SPW jsszwarc@yahoo.com
Treasurer	Jim Warg, N3ONE
Liaison	Filip Cerny AB3HK, ARRL Liaison Dick Thompson, K3BIE Interclub Liaison
Repeaters	W3PHB 146.430+ [173.8] Rt1snk Mt W3PHB 146.640- [173.8] Philipsbg W3PHB C 147.255+ [DSTAR] Kylertown W3PHB 444.750+ [173.8] Philipsbg
Nets	Saturday @ 2100 147.430+ [173.8]
Web	www.philipsburg-ara.org

Treasurer's Report – given by PARA treasurer Jim N3ONE. Current balance of \$804.52 with no outstanding debts.

Membership Report – given by PARA Secretary John N3SPW. Membership currently stands at 24 members.

Philipsburg Heritage Days Special Event Station W3P – Dave AA3EJ is coordinating. The booth space reservation form was received from the boro and the necessary paperwork submitted for the PARA booth on Front Street. Cost of space reservation and electrical service was \$56. Hours of operation for the street fair are 10 AM to 9:30 PM Wednesday through Saturday. The W3P special event call sign is reserved Monday through Sunday which will allow for some additional operation in addition to the street fair operations. The boro is holding Heritage Days event planning meetings on Wednesdays at 7 PM in the boro building. Dave AA3EJ will attend the next meeting to let them know about our operational requirements during the event. Signage for the booth during Heritage Days was also discussed. John N3SPW is to investigate pricing. Dick K3BIE will also investigate a supplier he is aware of.

PARA Christmas Banquet – The location for the PARA Christmas Banquet has been set as The Philips Hotel on Presquisle Street in Philipsburg. We will be in an alcove of the main dining room and sectioned off from the rest of the room. The date is Saturday December 10, 2011 and will start off with cocktails at 5:00 PM, dinner at 6:00 PM. More information is posted on the PARA web site at www.philipsburg-ara.org.

PARA Ham of the Year award nominations are currently being accepted. If you know a fellow ham that is deserving of some recognition, please consider nominating them. The nomination form and more information is posted on the PARA web site at www.philipsburg-ara.org

Annual PARA Picnic – Scheduled for Saturday August 13th. John N3SPW is instructed to reserve

a shelter at the Black Moshannon State Park. Lou WB3AAI will once again be the Master Chef for the picnic.

Ham Radio Super Picnic – Dick K3BIE reports that the Nittany Amateur Radio Club is organizing a “super picnic” and inviting other clubs to participate. The date is Saturday August 6th and it will be held at the Lion’s Club grounds in Pine Grove Mills, Centre County. It was noted that PARA has not yet received any official invitation to this event.

Black Moshannon Bike Race Communications Assistance – Dick K3BIE coordinating. No new information at this time.
 Boy Scouts Jamboree on the Air – Rich KB3QKR

coordinating. No new information at this time.

Coffee maker discussion – PARA member Filip AB3HK suggested that we bring a coffee maker into the library meeting room for use during the meetings. Dick K3BIE advised us that the library is working on a use policy for the meeting room and we should hold off until we see the policy.

Show and tell:

- Dave AA3EJ brought his recently completed Electcraft K2 with the optional 100 watt final. Dave opened the K2’s hood to show some of his soldering handwork.
- Mark K3ITG brought a Kenwood TH-F6 tri-

band HT with speaker mic and discussed the issues and fixes he has experienced.

- Scott W3EOD brought an early Kenwood D7 HT with a wrist mount GPS. With a home-brewed cable he assembled both into a portable APRS station.

April Meeting – Dick K3BIE reports that on April 9th the library will be holding a book sale in the library’s meeting room. The next PARA meeting would normally be on the second Saturday of the month, or April 9th. It was decided to move the April meeting one week earlier for April. The next PARA meeting will be on April 2nd, 2011 at 3 PM.

Meeting was adjourned at 4:19 PM by President Dave AA3EJ.



Indiana County Amateur Radio Club
 Serving Indiana County

Meeting Notices
 March 2011

May Meeting: We will be having a plant tour setup by N3PIE

PLANT TOUR - WORLD Electronics

The special activity for the May 3, 2011 meeting of the Indiana County Amateur Radio Club is a plant tour of the WORLD electronics facility at 1315 Wayne Avenue, Indiana, PA 15701. The exact location is between Sea-World Dish and Bethany Place. The tour will start at 5:00 PM and will end around 6:00 PM depending on questions and answers.

Mr. Jeff Cameron, Facilities Manager, will lead the tour of the various state of the art computer controlled automated machines for the processing of solid state surface mounted devices on printed circuit boards. The corporation specializes in board design, prototyping, assembly, test, and repair.

The web site below is our corporate web site, which


contains more information about our support of the elevator industry. To focus more on what we do here in Indiana, either click on the contract manufacturing link or go to www.worldsway.com

Reference information on WORLD electronics can be found at www.world-electronics.com

Hot Dog Night: at the W3BMD repeater site. Wednesday nights weekly, weather permitting. From 6:30 P.M. To ????. Listen on 146.910 !

Saturday Breakfast: at Indiana Eat 'n' Park Restaurant, Oakland Avenue at Indian Springs Road, Indiana. 8:30 AM to ???

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/



Headwaters Amateur Radio Club
 N3PC
 Coudersport, PA 16915

Headwaters Amateur Radio Club
 Serving Coudersport and Potter County

Meeting Notice
 March 3, 2011

May meeting: 7 pm, Thursday, May 5 at the Charles Cole Memorial Hospital, Coudersport.

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

HARC Meeting Minutes

March 3 2011

Jason called meeting to order at 7.17PM

Minutes for February were read. Glenn motioned to accept Don Seconded.

Treasure report was read by Wayne

Balance \$922.60

Income-Dues \$45.00

Balance carried forward \$967.60

Jim Lucy motioned to accept Glenn seconded

Old Business

Jason handed out forms for member registration for club member use.

There's going to be a weather exercise at EOC in March.

Jim Lucy talked about donating a Hustler 5-BVD 80-10 meter antenna to club it needs a new tip.

Jason suggested if our repeater goes down in an emergency to use Skip's repeater 146.88 MHz.

Jim Lucy mentioned the UHF 443.300 repeater on Dutch Hill was down and asked if anyone knew of someone that repairs repeaters.

Don asked if club N3PC voter on Dutch hill was working also.

Jason and Tom volunteered to look at both.

Jim Lucy spoke about open skies which is what the state is using for communications; It's a priority communications system that can not be monitored.

New Business

Jim C gave Wayne \$125.00 collected from class students for manuals. Motion to give Jim C a check for \$134.76 the difference is for material he is using for classes.

Jim C said classes were progressing well and moving right along.

Jason handed out HARC Emergency telephone call up sheets.

Jason mentioned Skip was holding a test session March 12 and ARES meeting.

Jason said anyone that has taken a weather exercise course and hasn't had a refresher in 1-2 years should update. EOC or HARC has to contact State College weather center to schedule a class.

Jason Talked about a pager on Dutch Hill causing interference.

Jason mentioned there's going to be a meeting at EOC for new access to EOC not sure of date.

Wayne talked about possibly getting a repeater form Civil Air Patrol now setup on 148.15 as there going to a new system. The repeater maybe recalled by the government but not likely too. All talked about having it tuned and setup on club frequency. Wayne will try and get more details.

Glenn is looking into taking the ACS position.

Glen and Linda said they will talk to EOC about getting club members Email and weather info back.

Glenn and Linda talked about the weather exercise. New phones have been installed in the EOC and radio room. You can call outside and inter offices. Some of the new technology was tested during drill. They had a good time and food was good.

Tom motioned to adjourn Don seconded

Attending were Jim C, Don, Jim Lucy, Wayne, Jason, Greg, Diana, Tom, Glenn, Linda.



Elk County Amateur Radio Association

Serving Elk and Cameron Counties

Meeting Notice

April 17, 2011

April meeting: 1:30 pm, Sunday, April 17 at the Elk County EMA building,

Local Net Schedules

by Joe Shupienis, W3BC

QCARC	1900	Sunday	147.315	+ 173.8
ECARA	2000	Sunday	147.000	+ 173.8
PAARC	1930	Monday	147.390	+ 173.8
Jeff Co ARES	2000	Monday	147.105	+ 173.8
Indiana Co ARES	2000	Monday	146.910	- OPEN
Clfd Co ARES	2100	Wednesday	147.315	+ 173.8
PARA	2100	Saturday	146.430	- 173.8
Headwaters ARC	1900	Monday	146.685	- 173.8

Elk County ARA Information

President [Scott Logue, N3LVG](#)

Vice President [Rick Wehler, N3RJH](#)

Secretary [Jerry Robinson, N3RYG](#)

Treasurer [Mary Lewis, N3UDN](#)

ARES EC [Bob Devilling, N3SGY](#)

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

VE Test Sessions

Test dates for **Coudersport** will be 5/14, 7/16, 9/10, and 11/12/11. The test site is the Charles Cole Memorial Hospital Conference Room at the side entrance on the helicopter landing parking level. Testing starts at 10:00AM. All license classes are given and there is no charge.

Test dates for **Ridgway** Area are 6/18 and 9/17/11. Until further notice, these tests will be held at the 911 Center and will begin at 9:30AM. There will be no charge and all license classes will be given.



Spring Banquet 2011

YOU ARE CORDIALLY INVITED TO JOIN US FOR THE
MULTI-CLUB SPRING BANQUET

AT 6:00 PM

SATURDAY, MAY 14, 2011

AT THE HISTORIC FORT WORTH RESTAURANT
229 WEST LONG AVENUE
DU BOIS, PENNSYLVANIA

GUEST SPEAKER:

MR. BILL EDGAR N3LLR
ATLANTIC DIVISION DIRECTOR
AMERICAN RADIO RELAY LEAGUE

The Menu

DINNER BUFFET, INCLUDING:

STUFFED CHICKEN BREAST OR POT ROAST OF BEEF
WITH CARROTS, CELERY AND ONIONS IN GRAVY
BUTTER AND PARSLEY POTATOES
SPRING VEGETABLE MEDLEY
RIGATONI WITH ALFREDO SAUCE
SOUP OR SALAD

FRESH-BAKED BREAD OR DINNER ROLL WITH BUTTER
CHOICE OF BEVERAGE: COFFEE, HOT TEA, ICED TEA,
LEMONADE, PUNCH OR COCA-COLA BRAND SOFT DRINK

(LEGAL BEVERAGES AVAILABLE AT CASH BAR)

\$13.95 + TAX/GRATUITY AT DOOR

\$17.30 PER PERSON

RESERVATIONS REQUIRED BY MAY 7

EMAIL TO: BANQUET@QCARC.ORG

AWARDS CEREMONY

DOOR PRIZE DRAWINGS:

ARRL PUBLICATIONS (COURTESY N3LLR)
HANDHELD TRANSCEIVER (SPONSOR: PARASITIC EMISSION)
DRAWING TICKETS WILL BE SOLD AT DOOR

Shorts

Congratulations to **Herb W3TM** for working Antarctica on 20 meters recently. Looks like he's closing in on the WAC award!

— . . . —

This just in—At the Quad-County ARC meeting this Friday, the APRS program will be twice as good! **Carmine Prestia K3CWP** informs us that he will be joined by **Woody Brem K3YV** for the presentation on APRS.

Let's have a good showing at this meeting, which promises to be the best in years!

— . . . —

I APOLOGIZE for the lateness of this issue. I usually manage my personal matters such that they do not interfere with my responsibilities to others, but this month I was unable to give equal time to everything, and this newsletter suffered.

Please accept my most profound apology, and my promise to continue to do my best to provide you with an interesting and timely publication each month.

My heartfelt thanks go out to our contributors, without whom this publication would not exist.

— . . . —

Amateur Radio GPS Mystery Tour

EVERY MONTH, we presented a set of GPS coordinates that were somehow related to amateur radio.

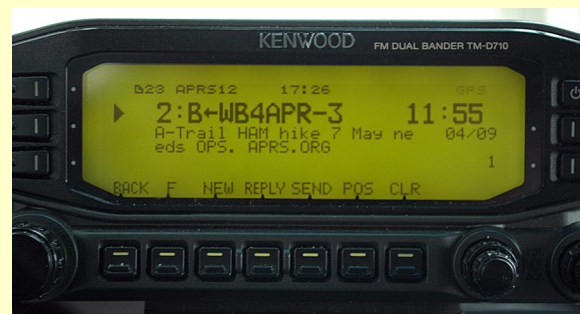
Last month's coordinates were 37° 03' 45" N, 95° 40' 37.4" W. It's a place called Zzyzx, California (Where else?!) Really. No fooling.

It is literally the "last place" in any alphabetical listing. It is also the last stop on our Amateur Radio GPS Mystery Tour.

It's APRS April!

By Joe Shupienis, W3BC

THIS MONTH, the *Parasitic Emission* features articles about APRS—what it is, how to use it, why you need it. APRS stands for "Amateur Packet Reporting System" and is sort-of a step-child of packet radio. Although it uses some of the same equipment and protocols of packet, you don't need a computer plugged into your radio to benefit from using APRS. You don't need to be a computer whiz either—most of the APRS radios on the market are plug and play, allowing you to start APRS-ing in a matter of minutes.



Some people use APRS for position reporting, and following other hams' daily journeys on a map can be a lot of fun (for a while). But the real value of APRS is much more than that. Amateur Radio is all about communicating information, and at that APRS excels. When it comes to getting a picture of amateur radio activity in a local area, APRS really fills the bill. For instance, travelers will receive periodic bulletins about the best local repeater to use, and with the push of a button on their radio tune it in with the correct offset and access tone. See the information, push a button and talk on the mic—it's that easy!

When bad weather is on the way, APRS comes alive with storm warnings that give the distance and direction to the weather, all which pops up on your radio's screen. Your fellow hams may use APRS to make SKYWARN

reports available to you at the same time they are made available to the National Weather Service. This is information you can use immediately, and doesn't need an Internet connection or paid subscription service.

Other objects can direct you to local activities, such as nets, VE Exams, club meetings, hamfests, club activities, Field Day sites and much more. Each one can have its talk-in frequency posted and—you guessed it—you can push that "TUNE" or "QSY" button to be magically transported to the right frequency with the correct access tones! Each of these objects includes its GPS coordinates and if you're using a GPS you can navigate to that object's location!

Of course you can use APRS for tracking other hams, too. For example, you see that your old pal Floyd is out and about when his beacon pops up on your radio screen. Not only can you see that his radio is tuned to 146.52 simplex, you can push your "QSY" button and give him a call. Or better still, you can send a text message to good ole W3LID by pushing the message button, and typing a short greeting using the number pad of your microphone. (Please don't do this while driving!) With your connected GPS, you can navigate to his position and have an eyeball QSO, without tying up a repeater with directions.

Emcomm Uses

All of these capabilities can be very useful for emergency communications. At the EOC, for example, a computer can be connected to an APRS radio to present a real-time local map of where each emcomm unit is located. Each station's speed, direction of travel and voice frequency are constantly displayed and updated, making it very easy to get in touch with them as needed. If a mobile amateur station has been dispatched to a shelter, and

Amateur Radio is all about communicating information, and APRS excels

the shelter is equipped with an APRS station, the shelter can follow the mobile station's progress, and provide special information such as highway conditions via a text message to the mobile operator.

Back at the EOC, the same information is available on the screen, too, thus providing the very important "Common Picture" which enables all responders and incident commanders to do their jobs better.

APRS is not brand new technology, but it is very up-to-date. The reason that statement is not a contradiction is because APRS is an evolving system. It is under continuous improvement, and its development is done by amateurs who are actually using the technology. As new needs arise, these clever amateurs figure out how to meet them, and pass along their solutions to everyone else. The original APRS protocols have been long since abandoned, and new "paradigms" have taken their place. This flexibility has given APRS (and by extension, packet radio) an new lease on life. Both are here to stay.

The necessary equipment need not be expensive—in fact you can assemble your own from used equipment and free software. I built my first APRS rig that way for a cash outlay of around \$20 for connectors and a box for portability. That rig used a 10 year old laptop, a 10 year old GPS and a 20 year old 2-meter handheld transceiver. Another \$25 at a hamfest got me a 40-watt amplifier which made a huge improvement in the coverage. If you want to go this route, you can find a good, used GPS for around \$20, a handheld with amplifier or a mobile 2-meter rig that will do the job will set you back about \$50-\$75, and an old laptop can be found at a yard sale for \$30-\$40, making the total cost well under \$150.

There are kits you can build, too, ranging in

price from \$25 to \$200, depending on how many bells and whistles you want to have. If brand new is your style, there are several full-featured APRS radios on the market. Top of the line units cost about \$500 to \$600, and handheld models go for \$400 to \$500. Used models are available from the usual places for a lot less, and you can find some real bargains if you shop around.

If you have some spare Internet bandwidth and a few spare dollars, you can connect that old radio and computer together and provide a real service to amateurs in your area. The northernmost reaches of the *Parasitic Emission's* circulation area are in need of fill-in digipeaters and "lgates." You can put your old computer and radio back into service to operate as both a fill-in digi and lgate, pretty much at no cost.

It's comparatively easy to set up a valuable APRS station, but it's also pretty easy to make a mistake and cripple the APRS infrastructure over a wide area! If you're not an old pro, you probably should check with other local APRS users to get their input and help. As of this writing, a look at the coverage map indicates the need for a couple of lgates along the northern tier of counties, and digis along US 6 would expand the coverage outward from the sea of yellow in the middle. Indiana County would really benefit from a high-level digi on Pike's Peak or Chestnut Ridge near Blairsville.

Rumor has it that there is a proposed high-Level digipeater in the Emporium area atop Whittimore Hill. That is an excellent location, and will fill in a massive gap in coverage that currently exists! Bill Edgar, N3LLR has recently launched a Digi near Bradford and plans to make it a High-Level digi to cover a good portion of the northern counties.

Settings

Here is a simple guide to the path settings

you should use.

Station	UNPROTO Path
Mobile / HT	WIDE1-1,WIDE2-2
Fill-In Digipeater	WIDE2-1
High-Level Digi	(blank)
lGate	WIDE1-1

Note that WIDE3-3, WIDE4-4 or higher is not necessary, and is unwelcome on the East Coast. The (ab)use of the WIDE settings will not get you any benefit, and in many cases will actually get you a shorter path (like to the bit-bucket!)

Fixed APRS stations are encouraged to include a "PHG" descriptor after their latitude and longitude. That stands for "Power, Height and Gain." There is a lot of confusion surrounding this, especially the height. It is NOT the elevation above sea level. It is also NOT the height of the tower. It is what the FCC calls "Height Above Average Terrain" or HAAT. It is difficult to calculate by hand, but computer programs have made it considerably easier. Here is a chart of local digipeaters I know of, and the correct PHG. (I'm assuming the P and the G are correct.)

Digipeater	HAAT	PHG
K3ARL-1	677	PHG7633
K3ARL-5	1182	PHG8750
K3ARL-6	837	PHG8634
K3ARL-11	343	PHG7580
N3DXC	681	PHG7660
N3LLR-2	488	PHG7660
N3SPW-1	62	PHG7330
N3QC-1	793	PHG7690
N3RZL-14	746	PHG7680
W3PHB-1	82	PHG7360
W3YA-1	937	PHG7780
WA3UFN-1	171	PHG7450

It's easy to make a mistake and cripple APRS infrastructure over a wide area

Learning more

At the Quad-County ARC Meeting, April 15th, there will be an interesting program on using APRS presented by Centre County ARES Emergency Coordinator Carmine Prestia K3CWP and Woody Brem K3YV. They have been using APRS for local Public Service activities for the past several years and will share their experience with us.

I plan on bringing my homebrew APRS rig, as well as my Kenwood D710. WA3UFN hopes to have his Yaesu FT350R on display as well. Bob Bruninga WB4APR (the inventor of APRS) has shared a short slideshow about the

current state of APRS, which we'll show during the presentation.

Finally, the International Space Station will be passing overhead around 9:00 pm, and we will try to establish APRS contact through the onboard APRS digipeater if it's in operation.

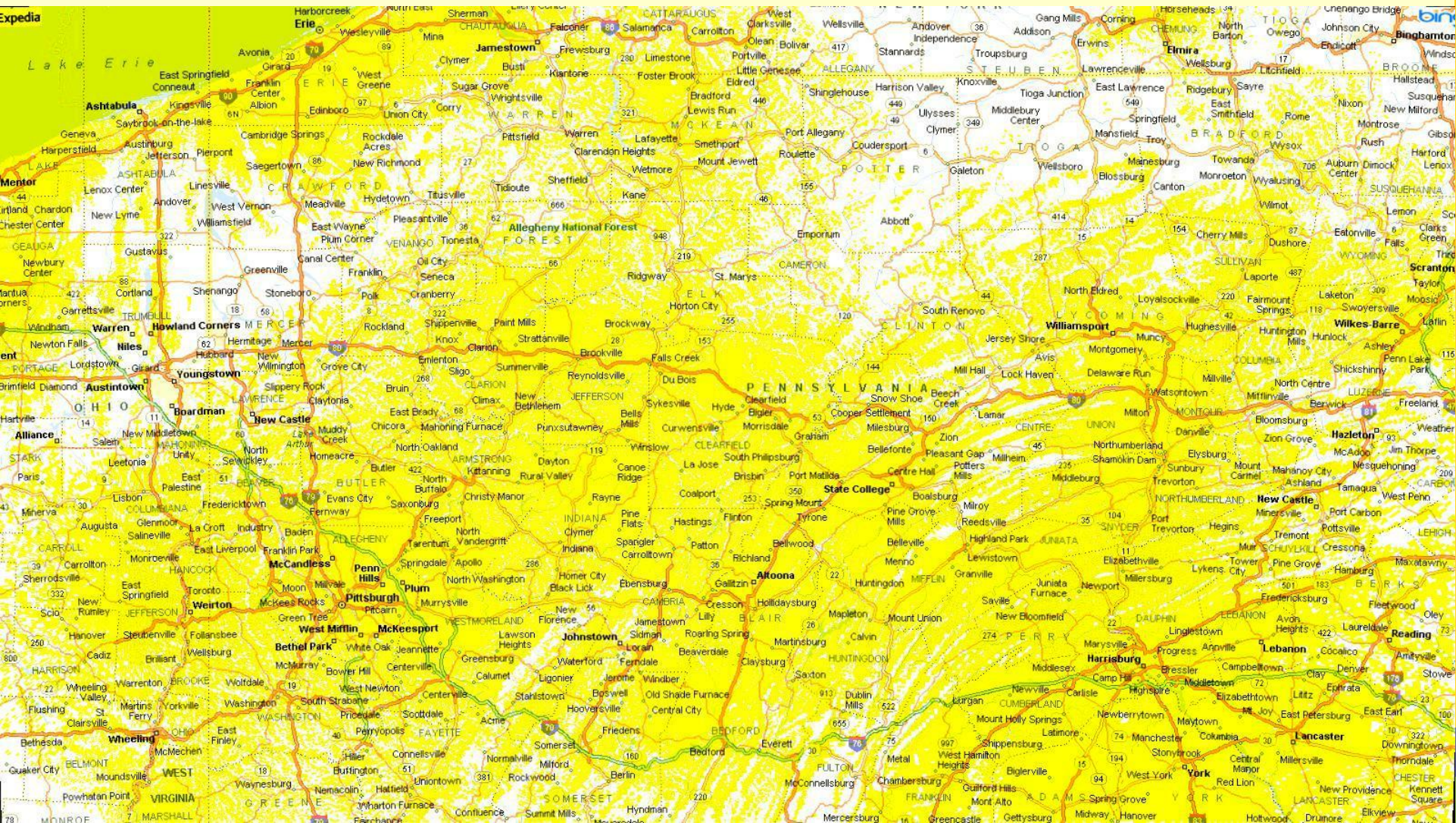
Final Thoughts

APRS is a technology that permits exchanging information digitally over an analog voice frequency. The cost of the equipment is low—in fact it is fully compatible with your existing investment in two meter FM equipment.

Infrastructure such as digis and lgates will

enhance the usefulness of APRS, but it functions very well with no connection other than simplex, radio-to-radio. Even at its most basic level, the network builds itself automatically and information spreads far and wide, allowing anyone to get a good picture of local amateur radio information in 30 minutes or less.

The main strength of APRS in an emergency situation is the fact that it works without needing any infrastructure. Additionally, in an emergency, any two-way APRS installation can be quickly configured as a digipeater, and set up at a moment's notice if needed.



A look at the coverage map indicates the need for digis along US 6.

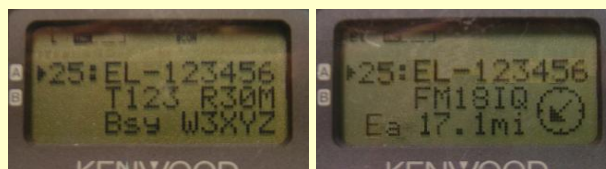
Tactical, Real-Time APRS

Bob Bruninga, WB4APR

APRS is billed as a situational awareness service, yet the map is largely barren of situational awareness information. I ask myself "why?"

GOOD QUESTION!... In the middle years as APRS grew in user size, it seemed to diminish every year from its original intent as a tactical real time information resource and fast 2-way communications system to nothing but a vehicle tracking system in many people's eyes. Its time to re-open their eyes!

APRS is not about *vehicle tracking*. It is a single **information resource** channel where everything that is going on in ham radio in the surrounding area can be announced and updated in real time. It presents to the viewer on his APRS radio front panel *all that is happening* right now, where it is, and all the info he needs to participate whether it is an event, happening, net, activity, announcement, future activity, or situation. The APRS channel is his one-stop look at everything that could be going on in the local area, and his one-stop place to post what he might be doing that might be of interest to others. APRS is not about GPS positions, it is about a situational map display of everything that is happening, and most of that is OBJECTS containing INFO on the activity and how to contact other operators. Here are some local info examples to the mobile:



These objects inform visitors or travelers (from left to right), the locally recommended voice repeater (and tone) and the local Echolink and IRLP nodes and other info of local interest to help the traveler join in on local operations. In the D710, these nearby objects can be sorted by distance, type, alphabetically, and time.

APRS is not about dumb-one-way-trackers

APRS was designed for the manual and automatic entry and management of large numbers of on-screen objects that would be a major function of the display of local information. Further, Bulletins and Announcements would keep everyone informed of the SAME information at the SAME time. Operator Messages would communicate important information in the background without encumbering voice nets. And finally, that all mobiles would have simple displays to keep them in communications and aware of their surroundings. These images show an APRS message (in this case an email):



MISCONCEPTIONS ABOUT APRS:

The following misconceptions may be what is keeping some amateur radio operators from using APRS to its full potential:

- Misconception that P stands for Position transmission instead of PACKET reception.
- Misconception that APRS is just a

Vehicle Tracking System instead of a Real-Time Information Distribution System.

- Misconception that APRS is dependent on GPS for its value (It is not. See Objects).
- Failure to use the APRS built-in Mile-Marks for tracking all other non-APRS non-GPS mobiles.
- Using APRS clients that only focus on maps and vehicles and ignored too many of the APRS NETWORK fundamentals.
- Failure to understand that APRS is all about OBJECTS.
- Failure to use real-time messaging: .
- Failure to implement the original APRS Centralized Common Bulletin Board concept.
- Failure to recognize that the D7, D700 and FTM-350 make excellent data entry and clipboard display units at any field event.
- Failure to understand how to best use APRS Displays in support of real-time events.
- Failure to display APRS symbols with all their attributes visible to all viewers not just those that click on them.
- Failure to manage the local APRS network by adjusting the local digipeater for the situation at hand.
- Not realizing that Voice Operating frequencies are as important as any other parameter in APRS.
- No one in your area is running any of the APRS Satellite engines such as

The APRS channel is a one-stop look at everything going on in the local area

APRSdata or DIGI_NED that send out minute-by-minute location info on any AMSATs that are in view. These satellite objects show up on the front panel of the radio by name, with the present uplink and downlink frequencies and present doppler so all you need do is press a button and your radio can tune to the satellite in real time. See Satellite Bulletins and Objects about 60% down the ASTARS page. You don't need any satellite tracking program. The info comes in on your APRS radio display.

It does this while not requiring his immediate and constant attention except when he needs access to the info. His laptop has been doing the radio monitoring for him so that he does not need to keep his ear tuned to all the chatter on the voice net. . If he needs up-to-date info, he does not have to request it from the voice net, but just views the latest on his APRS displays when he needs it.

ALL Information: In other words, the information on APRS is not just the location of vehicles, but all announcements, bulletins, messages, status, lists of info, locations of assets and personnel and objects, References, phone numbers, links, tables, whatever... If it has anything to do with the event, it should be on APRS,

of the activities on the various nets and enter this situational information into their APRS PC's and all this data would show everywhere

Typical Station:

The photo below shows a typical APRS set up in the field at an event. . This station can be used to not only show other personnel at the checkpoint the tactical situation, but it keeps the APRS operator at this site informed...



updated in real time, and available to all on demand.

Other Data Entry Stations: But we should not lose sight of the home station that can also be used as a great information resource. The next photo shows a station that was set up in a motel room and the operators there could monitor all

on APRS. . AND through the miracle of wireless (ham radio) they do not have to be at the site. . They do NOT need GPS and they can be anywhere convenient, just monitoring, and inputing and managing the data (that appears everywhere).

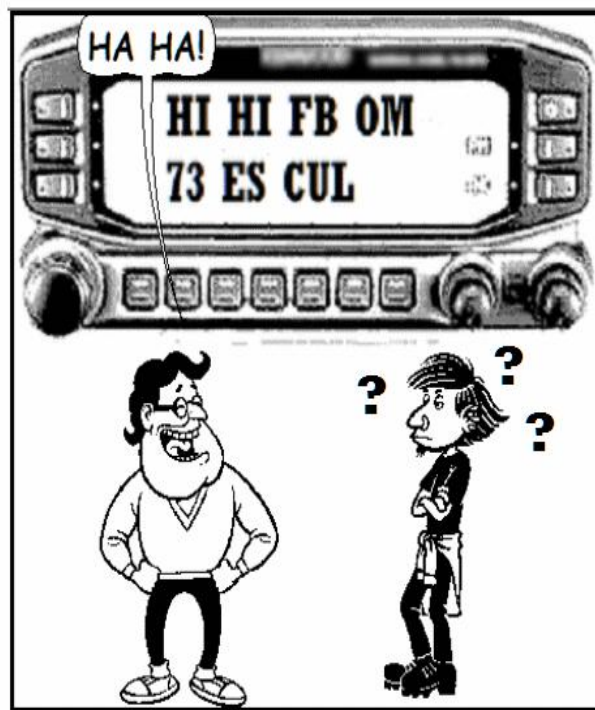
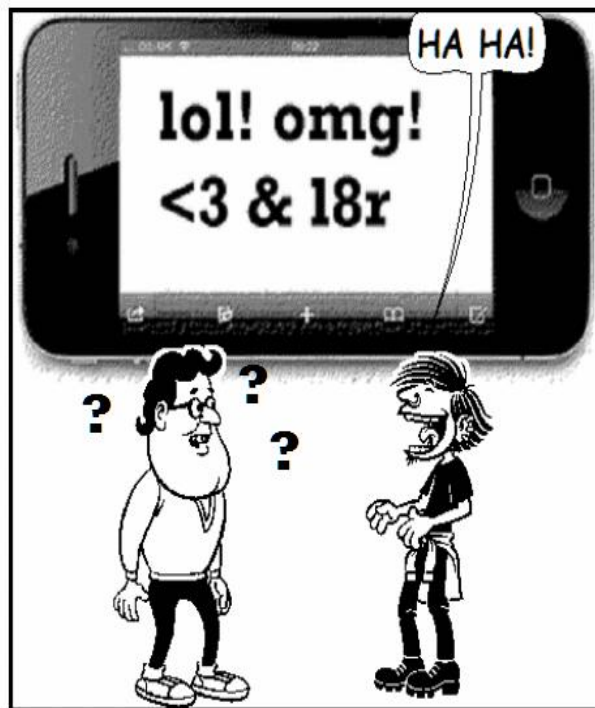
REMEMBER: If you are not using the full potential of APRS, it is not the fault of the protocol or the hardware. . APRS is a communication tool, not just an automated map. . Use it. But in most cases, that means ENTERING DATA, not just watching it. Also, even if you do not use APRS personally, make sure that your local area, club or organization supports a packet digipeater on 144.39 for those travelers that transit your area. They depend on you for their connectivity, and local info, and may join your activities.

APRS is a communication tool, not just an automated map.

LID'S WORLD

By W3BC

STARRING W3LID



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All original content is the property of its authors. Their contributions are gratefully acknowledged.

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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.

Messaging is messaging is messaging...

April 2011 Amateur Radio Club Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	28 Parasitic Emission Submission Deadline 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	29	30 9:00pm» Clearfield County A.R.E.S. Net	31	01	02 9:00pm» Philipsburg ARA Net
03 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	04 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	05 7:30pm» Indiana Co ARC Meeting	06 9:00pm» Clearfield County A.R.E.S. Net	07 7:00pm» Headwaters ARC Meeting	08	09 9:30am» QCARC Breakfast 3:00pm» PARA Meeting 9:00pm» Philipsburg ARA Net
10 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	11 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	12 7:00pm» Punxsutawney Area ARC Meeting	13 9:00pm» Clearfield County A.R.E.S. Net	14	15 7:30pm» QCARC Meeting	16 9:00pm» Philipsburg ARA Net
17 1:30pm» Elk County ARA Meeting 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	18 HAPPY BIRTHDAY QCARC! 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	19	20 9:00pm» Clearfield County A.R.E.S. Net	21	22	23 9:00pm» Philipsburg ARA Net
24 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	25 Parasitic Emission Submission Deadline 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County EMA Radio Service Net	26	27 9:00pm» Clearfield County A.R.E.S. Net	28	29	30 9:00pm» Philipsburg ARA Net