

The Parasitic Emission

Volume 36—Number 12
December 2010

**Supporting Amateur Radio
Club Activities**

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**D-Star Repeater
Technology Comes
To The Alleghenies**

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EVERY YEAR about this time, most folks like to look back, make plans for the future, and exchange holiday greetings. It's tradition, and we won't break with it here!

The year of 2010 will go into the books as a good year for Amateur Radio in the Allegheny Mountains. Reporting on club activities every month in this publication has given me a good feel for what's going on, and I am pleased to say that every club has become more active.

More hams are attending club meetings and participating in club activities. VE sessions are scheduled regularly, making it more convenient to upgrade existing licenses and obtain new ones. Turnout at all the Field Day sites I visited was good, and at several locations, non-licensed and newly-licensed operators were made to feel very welcome. Good job, people!

Other club activities are well attended, too. See the *Calendar* and *Club Connections* sections for the dates and times of holiday dinners, and club breakfasts. (There are a couple of ham radio activities there, too...)

I can't speak to what things were like a few years ago, but it seems to me that participation in our nets is picking up too.

I asked and you responded—Every club has been faithfully submitting activity reports, meeting notices and articles. When it's all put together it makes the *Parasitic Emission* better and more interesting for everyone who reads it.

Last year, when I once again began to publish the *Parasitic Emission*, I set a goal for it to be 100% original content. The ARRL and many other news sources offer free content each month which can be copied and pasted into a

club newsletter. My choice to forgo publishing this material has not proven to be a mistake—just take a look at the interesting original material presented in this month's issue!

I also have done my best to be true to my word—that the *Parasitic Emission* would not try to replace any club's own newsletters or web pages. To that end, I've refrained from republishing information contained in such publications. The exceptions I've made are when a club is doing something of interest to hams in other clubs.

As the *Parasitic Emission* is published and made freely available on the Internet, and is cataloged by the Library of Congress as a serial publication (ISSN: 2156-0080), it's important for us to obey copyright laws. This means it's best for me to publish only those items that are submitted to me for publication, unless I want to talk to lawyers, and I think I'm allergic to lawyers.

So from now on, if you want me to reprint something your club has already published, please submit a copy to me by emailing it to submit@parasiticemission.com. Merely pointing me to your website and telling me to copy and paste is simply not going to be enough to keep those itchy lawyers out of my hair!

Making plans for the future, let's make 2011 the year that every club makes it their primary goal to attract new people to the hobby. One problem I've seen in every club I visit is the decreasing number of active club members. One sure answer to this problem is helping interested people obtain their licenses.

I offer the following request to every club member: Go to your January meeting and have a brainstorming session with all the other members and come up with a workable plan to attract and license new hams in your community.

And once they're licensed, don't just hang them out to dry and forget about them! Not that you *would*, but the first year of being licensed is what sets the tone for the rest of the ham's life. Get them on the air, even if it means loaning (or giving) them a radio.

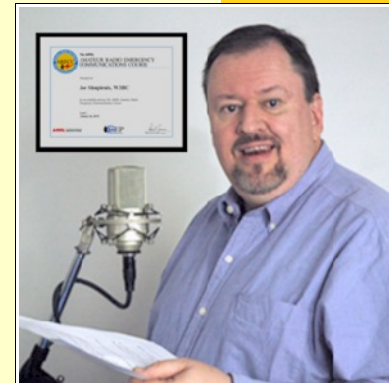
Tell them they have to check into your club's nets. Make them welcome at every meeting. Help each and every one of them find an active ham as an “Elmer.” **Make sure they get on the air at your Field Day operation!**

Number two on the priority list for 2011 is Public Service. Every one of us has a legal obligation to operate “...in the public interest, convenience and necessity.” Figure out ways you can use Amateur Radio to serve your neighbors. Register your capabilities with your County ARES Emergency Coordinator and RACES Radio Officer or ACS. Then make a point of participating in practice drills and real activations to the best of your ability.

Number three: Offer your services to your fellow amateurs. Help each other. A load shared is a load lightened. Everyone needs a helping hand from time to time. You can be that hand! Volunteer to hold a club office for a year. Several of our clubs are in dire need of secretaries. Guess what—it's your turn!

Reviving an old tradition, I've written a little piece of fiction as my way of wishing everyone Happy Holidays. If you enjoy it, please take a moment this month to warm someone's heart by expressing your gratitude to veteran hams (and to just plain veterans, too!) for their work and sacrifice that bought us the freedoms we enjoy today.

I'll be seeing you... *On the Air!*



2010 will go into the books as a good year for Amateur Radio



The Quad-County Amateur Radio Club

Cameron, Clearfield, Elk, Jefferson Counties

Meeting Notices

December 11, 2010

December Meeting: No business meeting.

Christmas Dinner: Ethan's Café, December 11th at 6:00 PM

December Breakfast: 9:30 am, Saturday, December 11, Sid's Sub Shop, Old Town Road, Clearfield

Minutes: November 2010

THE MEETING was called to order at 7:37 by Doug, W3DWR. There was one guest in attendance, Greg Jeffers, N3FYD.

The minutes of the previous meeting were approved as read, and a motion to approve the treasurer's report carried.

Old Business:

The annual Christmas dinner will be at Ethan's Café on December 11th at 6:00 PM. Reservations are due by the end of this month. Send your choice of turkey or ham to w3dwr@hotmail.com.

New Business:

The informal meeting of the Executive Board after the November breakfast resulted in some steps to be taken to reinvigorate the club. Jack, AA3AZ, is now the membership coordinator. He will be contacting previous club members and other amateurs in the

Quad-County area in order to grow the membership. To that end Joe, W3BC, moved and Jeff, KA3FHV, seconded a motion to reserve \$50.00 for expenses for that project. Lars, SM7FYW, is activities chairman. His task is to come up with projects to get the club involved. Items to be investigated include fox hunts, a special event station at the antique car show at the 322 Drive-in, and perhaps another swap meet. Herb, W3HDM (ex KB3TAP) will be active in setting up programs for our meetings.

A motion to adjourn was made by KA3FHV and seconded by AA3AZ at 8:16 PM. Motion carried.

The meeting was followed by a demonstration of W7EL's EZNEC Antenna Design Program by W3BC.

Attendance:

W3DWR, KA3FHV, SM7FYW, Kay Kvant, K3JE, N3PUQ, KB3LES, W3HDM, W3BC, WB3EQW, N3FYD, AA3AZ and KB3ABK.

Behind the Gavel

by Doug Rowles, W3DWR

THE NOVEMBER meeting left me with a good feeling about the future of our Quad-County club. Steps were taken to secure a brighter future for us all.

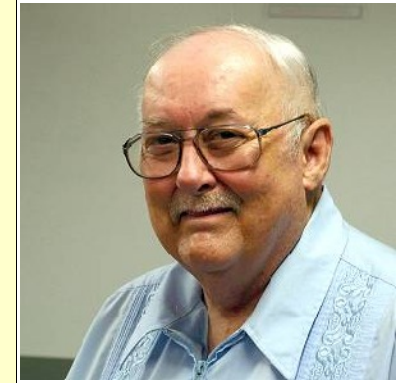
Jack, AA3AZ, is now our membership coordinator. He will work on contacting previous club members who have fallen by the wayside, and other Quad-County amateurs including newly licensed hams to grow our roster.

Lars, SM7FYW, is our activities chairman. Planning events to increase interest in the club is his number one goal. Among those things mentioned at the meeting were fox

hunts, a special event station at the Super 322 Drive-in antique car show next summer, and a renewal of our swap meet. Don't forget Field Day. Maybe it's time to go back to the good old days and do it outside with a generator and bug spray!

Herb, W3HDM, (ex KB3TAP) will be arranging programs to be presented at club meetings.

We all need to jump in behind these three people to give them a hand if asked. It is not going to be an easy task.



See you at the dinner. Be prepared to come to the January meeting with your sleeves rolled up and some ideas to get the show on the road!

QCARC Information

President	Doug Rowles, W3DWR w3dwr@hotmail.com
Vice President	H. Deforest Murray, III, W3HDM 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]C1fd local
Nets	Sunday @ 1900 147.315 (Club)
Web	www.qcarc.com

QCARC Membership Notes*by Jack Lovesky, AA3AZ*

ALL QCARC members are encouraged to attend our monthly meetings. As you will read elsewhere in this newsletter we are making an effort to invigorate our club. Interesting programs at club meetings are being planned and several club projects are in the works. Our goal is a much more active club.

Club growth is dependent on our members participating in meetings and activities. Encouraging new members is also important for growth. Please plan on attending the next QCARC meeting and bring along a potential new member. Former club members, new hams, veteran hams or anyone interested in radio or electronics may be interested in the Q.C.A.R.C.

VE Test Sessions

Test dates for **Coudersport** will be 1/15, 3/12, 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 3/19, 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.

VE Exams are given in **Philipsburg** after each PARA meeting, 2nd Saturday every month except July and December.

VE Exams are planned for DuBois in April, July and October. Contact Bryan, WA3UFN for more information.



Punxsutawney Area Amateur Radio Club

*Punxsutawney and Jefferson County***Meeting Notice****December 14, 2010**

December Meeting: 7 pm, Tuesday,
December 14, Presbyterian Church, Findley
Street, Punxsutawney.

PAARC Information

President	Mike Miller, N3HBH n3hbh@comcast.net
Vice President	Jim Byrne, KA3WSX jimwsx@windstream.net
Secretary	Steve Waltman, KB3FPN kb3fpn@windstream.net
Treasurer	Sham Hollopeter, W3QOS
Repeaters	N5NWC 146.715- [173.8] Punxs'y N5NWC 443.475+ Punxs'y KE3DR 147.390+ [173.8] Rockton N3HAO 53.07- (-1MHz) Rockton N3JGT 147.105+ [173.8] Sigel N3GPM 444.275+ Brookv1
Nets	Monday @ 1930 147.390 (Club) Monday @ 2000 147.105 (ARES)
Web	www.qsl.net/k3hwi/



Philipsburg Amateur Radio Association

*Philipsburg and Clearfield County***Meeting Notice****Election Meeting: January 15, 2010**

The **January meeting** of the Philipsburg Amateur Radio Association will be held on Saturday, January 15 at 3:00 pm at Bock's Dining & Tea Room, 429 North Centre Street.

PARA Minutes*November 2010*

The regular scheduled meeting of the PARA club was again held at Bock's Tea room, Philipsburg, PA Saturday, November 13, 2010 at 3:00pm.

Attendees: John-N3SPW, Joe-KB3CBN, Leo-W3UMT, Dick-K3BIE, Dave-AA3EJ, Filip-AB3HK, Jim-N3ONE, Travis-W3PMB

A big congrats and PARA WELCOME! to Travis-W3PMB who came to the meeting. He was introduced by John-N3SPW. Hope Travis continues to participate in the monthly PARA meetings, and upcoming "heritage Days" in July of next year downtown Philipsburg, second week of July "W3P"...welcome aboard Travis [-Dave-AA3EJ]

Christmas Banquet report by John-N3SPW, Dinner: all monies and reservations due to Jim-N3ONE by December 3. Also nominate a "Ham of the year" person on your nomination form sent by John via snail-mail to all members. Form to Jim due same time. Check the details on the PARA site www.philipsburg-ara.org.

This month was featured a "show'N'Tell" by all who brought in items to discuss with the meeting. This month featured was Leo-K3UMT who brought in a restored 1920 era broadcast receiver built by him in the vintage style..complete with vacuum tubes..you remember those right!!..

It featured a detector stage consisting of a UV201A Radiotron tube "Navy tube base" among other tubes for the various functions. ..Mint restoration job Leo. congrats to the PARA group and a big round of applause for vintage gear being "alive and well"..take special note Filip for your next glow-bug QRP rig!! [-Dave-aa3ej]

Treasury report by Jim-N3ONE, \$454.00 was

currently in the account. report by Jim-N3ONE

Insurance previously paid by Filip-AB3HK and balance=\$0 at present. No outstanding bills. Congrats Filip on the fine bookkeeping!!

Repeater(s) report by Filip-AB3HK. All has been functioning well. Future project on the books at present is to provide emergency back-up power on the .43 machine, like the .64 machine has. The equipment required is being investigated and coordinated by the repeater coordinator filip-AB3HK, time frame for installation before the snow flies!!!!.. whenever that might be...

Heritage days report by Dave-AA3EJ, Good to go for another year with "W3P" for the second week of this July. Lou and Dave will be manning the CW station., John will be manning the SSB station and whom-ever wants to operated both stations will do so. QSL's and brochures created y Jou-KB3CBN. A real big "congrats" due Joe for all his help!!..Lou-WB3AAI (Sno-bird in Florida for 6mos till May) will be constructing the HF antennas to be installed for Heritage Days as he has done before. Lou, hope your "tan" is coming along OK down there in Lake

PARA Information	
President	John Szwarc, N3SPW jsszwarc@yahoo.com
Vice President	Dave Runk, AA3EJ aa3ej@yahoo.com
Secretary	Dave Runk, AA3EJ aa3ej@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] Under Const W3PHB 444.750+ [173.8] Philipsbg
Nets	Saturday @ 2100 147.430+ [173.8]
Web	www.philipsburg-ara.org

Alfred,FL, watch out for all those "gators on your front porch!!..

Dick-K3BIE the club's liaison, had reported on the ARRL web page as being "modified" from the original content and the previous links didn't work. Another ARRL web page designer has taken over the reins for a "re-work-re-modified-re^%\$#" and who knows what it will look like and do..Thanks for that input Dick..

Emergency Management was mentioned by Dick and John and a new EMS plan is being drafted by the powers-to-be in the NARC club?? and a copy will be forwarded to PARA to be reviewed before implementation of that emergency plan which the PARA club should be aware of..Plan is forthcoming with more info to follow. Thanks for the info Dick-K3BIE

VE TESTING and upgrade class -report by Joe-KB3CBN was given with a class to be held after the January PARA monthly meeting and class to be 6 weeks or so long and at completion have a tech test. Participants to include Boy Scouts and 5dy Adventists who need the tech license. More details will follow when available. See Joe for details and also if you can help with classes. A tentative start date for class is 1/21/11 with a test date of 2/25/11 late January. tentative location suggested might be the basement of the new public library conference room, mentioned by Dick-K3BIE... Joe also mentioned that an on-line study guide is available to interested parties and can be printed out. See Joe for further details.

Next regular scheduled meeting is January 15 at 3:00pm Bock's tea room. Topic: ELECTION OF OFFICERS for 2011!. Please mark your calendar and plan to be there. To make PARA successful, new officers will be nominated and elected..Don't miss this meeting!!!

Minutes submitted 11-17-10 Dave-AA3EJ
Secretary-PARA aa3ej@hotmail.com



Headwaters Amateur Radio Club

Coudersport and Potter County

Meeting Notice

December 4, 2010

December Meeting: 7 pm, Thursday, December 2 at the Charles Cole Memorial Hospital, Coudersport. Park in Section A and enter Door A, then the first room on the right.

Minutes

November 2010

Jason K2BYL called the meeting to order at 7:07 PM. Meeting minutes from October were read and accepted. Treasurer's report accepted by Jim C, Adrian seconded. A reminder dues will be due.

Old business

Tom Guifoy contacted Jason to take notes at the meeting, as he could not attend. Jason took notes at the meeting which he promptly lost. Probably packed in a box to be moved to his new residence the week of the November meeting. This document will be

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

added to and filled out with the meeting information At a later date.

Wayne Stahler has resigned as liaison to the EOC. More information to Come. Additional new business to come at a later date.

Tom Guifoy has volunteered to operate the web site and when attending Meetings will take notes until we get a permanent secretary. When not There another member should funnel the meeting notes to Tom for Distribution.

New Business

The club still needs a new secretary.

Jim C and Milton talked with Lucinda when the County antennas are moved to the new tower the club antennas will also be moved.

Jim C W3IMK asked if club wants to do a class and if Skip is also going to do a class there's no need to do 2 classes or may combine classes. Most likely classes will start in February.

Tom WA3HLC brought in some fiber for show and tell a discussion followed, all thought interesting.

Wayne WS3PC will be sending dues notices out to current members. Wayne has the bylaws if needed. Wayne asked when he sends out info with a return receipt please do so.

Don N3DLS suggested members fill out ARES forms so equipment is known.

Nominations for club officers next month.

Jason K2BYL asked if anyone can start Monday nets until he gets his station back on the air.

Repeater: Wayne reported the UPS is back on the repeater.

Motion to adjourn by Don, Milton seconded

Attendees: Wayne WS3PC, Adrian KB3GCQ, Jim Lucy KB3RFY, Don N3DSL, Jim C W3IMK, Jason K2BYL, Tom WA3HLC, Diana KB3RGB, Milton KB3RGC, James K3FHC



Elk County Amateur Radio Association

Elk and Cameron Counties

Meeting Notice

December 19, 2010

December Meeting: 1:30 pm, Sunday, December 19 at the Elk County EOC, US 219 South of Ridgway.

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

X-mas Party: 12/19/10. It is open to all members, families, and guests. Club will supply drinks. Each club member is asked to bring a dish/dessert to pass

Local Net Schedules

by Joe Shupienis, W3BC

QCARC	1900	Sunday	147.315	T 173.8
ECARA	2000	Sunday	147.000	T 173.8
PAARC	1930	Monday	147.390	T 173.8
Jeff Co ARES	2000	Monday	147.105	T 173.8
C1fd Co ARES	2100	Wednesday	147.315	T 173.8
PARA	2100	Saturday	146.430	T 173.8
Headwaters ARC	1900	Monday	146.685	T 173.8

Shorts

REPORTS CONTINUE to come in from all across the Commonwealth of PA of new local NBEMS nets. We've been in discussion with Ed (WA3WSJ - EPA NBEMS working group founder, NCS and webmaster) and have decided to combine WPA NBEMS and EPA NBEMS working groups under one new name... paNBEMS. We believe the consolidation of the websites and nets, as single points of contact for those in and about the Pennsylvania region, will improve the flow of information and increase participation.

We will be doing some work to consolidate the websites and pointing the new domain name (paNBEMS.org) to the new site IP address.

Later this evening, I hope to be able to rename our current yahoo group from wpaNBEMS to paNBEMS. If I'm successful making the change, the new email address to post to the list from an email client should be paNBEMS at yahoogroups dot com.

For those currently subscribed to the wpaNBEMS Yahoo Group email list, you will NOT have to re-subscribe when the name change takes place, but you will need to use the paNBEMS@yahoogroups.com email address to post to the list.

We will also be combining the directed wpaNBEMS Sunday morning 80m net and EPA NBEMS Tuesday evening 80m nets on a single schedule and will announce the net time and 80m frequency once it's formalized.

We will also be looking for stations to volunteer as Net Control. I hope we get a good number of volunteers. It is very good experience running a digital net and a

sufficient pool of volunteers will assure that the nets always go on schedule.

We're working to make the transition of the email lists, websites and nets as smooth as possible, so please bear with us as we make the changes.
-Dave Kleber, KB3FXI

- . . . -

THE NEW PA NBEMS Working Group will need NCS for the nets. If you don't have any experience, that's OK as we can train ops to run a digital net. A new NCS can run a net as needed so you won't need to run it every week. If you think that you might be interested in a PA NBEMS NCS position, please email me at wa3wsj@arrl.net or Dave, KB3FXI.

We are also looking for new ideas concerning NBEMS in Pennsylvania.

The EPA NBEMS Yahoo Group and website will stay online for a few weeks, but then will be deleted. When the new PA NBEMS Yahoo Group is online, all EPA NBEMS Users should join the new PA NBEMS Yahoo Group. You will be invited to join by email when it's ready.

Again, we will try to make this transition as smooth as possible for all. -Ed, WA3WSJ

- . . . -

Congratulations to Herb Murray, W3HDM who recently completed certification to be an ARRL Volunteer Examiner.

- . . . -

Amateur Radio GPS Mystery Tour

EVERY MONTH, we present a set of GPS coordinates that are somehow related to amateur radio. Last month's coordinates were 38° 25' 58" N, 79° 50' 22" W. This is the location of the National Radio Astronomy Observatory in Green Bank, WV. It's well worth a visit if you

are interested in RF technology.

This month is an easy one, and particularly well-suited to the season. See if you can guess whose QTH this is. (It's not too late to send him a radiogram with your ham radio "wish list!"

December ARGMT Coordinates:
90° 00' 00" N, 00° 00' 00" W

Hint: Is that fat, jolly ham standing next to a red and white striped vertical antenna?

- . . . -

If you are an ARRL member, and your club is an ARRL Affiliated Club, please consider renewing your League membership through your club. A portion of your dues payment will be returned to your local club.

Even if you're a Life Member, all ARRL members should confirm your League membership status with your Club Secretary.

If your club is not a League Affiliated Club, it should be. If you're not an ARRL member, you should be.



Legal Notices

The Parasitic Emission (ISSN: 2156-0080) is published monthly by **Joe Shupienis, 110 Rosemont Drive, Moon Township, PA 15108**

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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.

WPA and EPA NBEMS working groups have joined under one new name...

JIM BURGOON, N3DKA, of Emporium and I have been friends for 20+ years. He and I used to have a schedule while he was deployed with the Air Force in Germany. Recently Jim offered me a partially constructed amplifier that was for the 80 and 40 meter bands. It used a pair of 813 tubes in grounded grid configuration and came in a very large cabinet. Jim also threw in many extra parts. The unit was so heavy that I had to get help to load it into the van and some more help to get it back out again!

The RF section together with the 10 volt filament supply was mounted in the top shelf. The big power transformer and other high voltage parts were loosely mounted in the cabinet base. There was no schematic for the amp so I searched the web for a suitable diagram.

The 813 tube dates from the 1950s and is a real workhorse. The ARRL web page had several single and two-tube versions of HF amplifiers which used a plate voltage of 2500 to 3000 volts. One even used 866A tube type high voltage rectifiers in a full wave setup in the HV power supply. I decided that a full wave bridge solid state rectifier with 120 Hz ripple would be easier to filter at high voltage so I ended up starting over with a new HV supply.

The diode strings are bypassed by .01 uf @ 1KV caps with 270 K resistors to equalize the

load. There are 20 diode sets in the bridge circuit and are mounted on 1/8th inch plywood on standoffs. This will give good air circulation for cooling in case I get long winded. The transformer uses a 110 volt primary with a choice of center tapped 2200, 2800 and 3000 volt secondaries. Because the ripple is 120 Hz the ripple amplitude is much lower than the half wave version. I'm using a 22 uf @ 4200 volt capacitor to remove the ripple. High voltage wire connects the secondary of the transformer to the bridge rectifier and the capacitor. From there, B+ and B- leads will go to ceramic feed-through terminals on the rear of the RF shelf.

The RF shelf was evidently begun by someone without a really heavy duty soldering gun. Several of the large wire connections had broken loose and had to be resoldered with a 250 watt gun. Some of the

wiring was so ancient that the insulation got brittle and broke off. That was all replaced. The toggle switch on the front panel read over 2000 ohms of resistance so I partly disassembled and cleaned it out with tuner cleaner. Then it was time to plug in some tubes and see if they would glow.

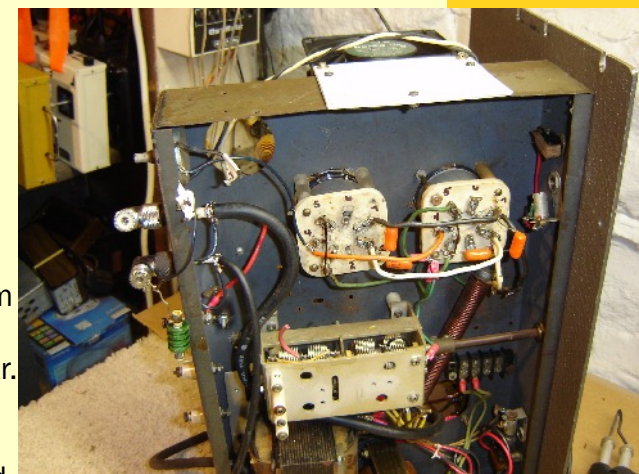
After firing up and testing the filament circuit I shut it down since there was no cooling fan. That was mounted next and wired into the 110 volt circuit that feeds the 10 volt supply. The fan is remarkably quiet and will be even quieter when the shelf is installed in the cabinet.

The RF from the exciter uses small diameter 50 ohm coax while the output side uses the larger RG-8U foam coax. Two SO-239 chassis

connectors are mounted on the rear of the shelf for these cables. I'm looking for a relay for the T/R switching function so these coax cables are not yet terminated. I plan to use an RCA type chassis connector on the shelf which will match the cable that handles T/R switching from the Kenwood TS-520 exciter. That will ground the relay field and switch the amplifier into "transmit" mode. Another length of small size 50 ohm coax will bypass the amplifier in "receive" mode.

At present the home station uses a Heathkit SB201 amplifier which outputs about 550 watts in CW. This was purchased used and has been trouble free these many years. Once the homebrew amplifier is finished I plan to test with it and then decide which one to keep.

Thanks to Jim N3DKA for the great project.



It was time to plug in some tubes and see if they would glow.

MORSE CODE from a hundred distant transmitters pierced the murky Pacific night, the invisible electromagnetic energy intercepted by a sloped antenna that sent minute electrical current down its feedline to a National HRO receiver which converted the desired signal to sound, then quietly echoed across the Combat Information Center aboard the destroyer *USS Converse*. Radioman 2nd Class Ernie Brighton adjusted his receiver and typed the message he was receiving. His right hand automatically glided from the typewriter keyboard to the Navy-gray Vibroplex bug as he tapped out his acknowledgment, while his left hand pulled the paper from his typewriter and handed it to a waiting Yeoman. Completing his transmission, Ernie picked up his pencil, glanced at the clock and made another entry in his logbook, then filed the carbon of the message he had just received and reloaded his “mill.” Reaching again for his key, he sent “NFAC QRV” and continued his listening watch.

An air of tension filled the decks of the *Fletcher*-class destroyer—their sister ship, *Stanly*, which had assisted *Converse* in sinking an enemy submarine at Bougainville a year and a half earlier, had just yesterday been put out of action by *kamikaze* attacks and was limping to “Busted Ship Bay” at Keramo Retto for repairs and medical aid for the three sailors who were wounded in the attacks. 1944 had been a busy year for Admiral “Bull” Halsey's Fifth Fleet, and Fast Carrier Task Force TF-58 led the way. *Converse* earned her battle stars island hopping from Espiritu Santo to Guadalcanal to the Solomons to Eniwetok to Guam to Rota to Tinian to Saipan, then on to Truk, Satawan, the Marianas, Bonin, Iwo Jima and Corregidor.

Converse was a fighting ship—her crew served with distinction, valor and honor. In hushed tones that matched the muted light in the CIC, the Executive Officer and the Yeoman discussed the freshly decoded message Ernie had just received, and were nodding their heads in agreement.



Bad news always has an effect on those receiving it. From the corner of his eye, Ernie noted Lieutenant McCrae's hand fall involuntarily to his sidearm, a meticulously maintained US Navy Colt 1911 Officer as he continued to talk and nod with Yeoman Ingles. In what poker players would call a “tell,” the XO subconsciously found reassurance from touching the hard, angular steel of his .45, and having been thus comforted, he called the Commander on the interphone to pass along the bad news. Yeoman Ingles leaned over to Ernie and said, “Take five. I'll cover you.”

It was bad news alright. It could only mean one thing—sailing orders to Okinawa, close to

the Imperial Fleet. Close to the *Kamikaze*! Ernie stood up, stretched and made his way outside. The air that night was hot and thick. Above his head, his antenna wires whistled an ominous chorus of discordant tritones as they cut the heavy air. As a fine mist sprayed over the bow, Ernie cupped his hands and lit

a cigarette, his Zippo lighter clanking shut as he inhaled deeply. The wire antennas continued to sing their plaintive song. They were always louder when the air was damp. Ernie remembered how he rigged them himself after they had been knocked down by the fifth—or was it the sixth?—wave of bombers at Bougainville. Machinist's Mate 3rd Class Moe Simmons was standing near the rail and felt the need to strike up a conversation. He started to discuss their latest engagement—shelling Corregidor in support of its recapture. “I heard our guns buried the Japs right in their tunnels,” he offered.

Ernie was in no mood for wartime small talk—

not after the message he had just received. An almost imperceptible change in the distant whine of the turbines was followed by a slight shift in the wind, changing the low whistling of the antennas to a different chord. Course change! It was all too clear, now—the *Converse* was reporting to Subic Bay for fitting with additional RADAR equipment, and would then run picket duty off the coast of Okinawa. This would definitely put the destroyer at the mercy of the Kamikaze, and he had already seen too many of them. Seeing that Ernie was lost in thought, Simmons leaned back over the rail and finished his own smoke in silence. Among the men who wage war on the sea, such silence is not considered rude. Interrupting it is.

RADAR! As a kid, before the war, Ernie had read about it in *QST*, but growing up on his parents' farm, he never imagined he would ever get to see it in use. But every time he entered his station aboard the *Converse*, there it was. A large cathode ray tube glowed green in the subdued light of the CIC, and a Radarman, trained to understand its cryptic images was constantly staring at the screen with one eye, and working a "solution" on his circular slide rule with the other, all the while marking "targets of interest" on a plexiglass-covered form with a grease pencil. It took a team to man the RADAR—the operator, a technician, a crewman who read the grease pencil marks the operator made and wrote the data on the large plexiglass screen, and yet another crewman to log the whole operation. It was the cutting edge of electronic technology in 1944, and looked fascinating to Ernie, but he would never know much more about it. His specialty was operating a transmitter and receiver, and copying and sending five-letter code groups in Morse code as flawlessly as humanly possible. His job at the moment was to transmit the encrypted message the Yeoman

had just handed him, and was just as important—just as crucial to life and limb, and even to the eventual outcome of battle and the War Effort.

What had prepared Ernie (and so many others) for this vital task, and what propelled him into the elite group of Navy Radiomen was his childhood interest in radio which led him to study for and earn his Amateur Radio license at the age of 14. When Uncle Sam put out the call for radio operators, he was one of the very first to sign up. Thousands of other young men—America's Finest—answered that call and were sent far and wide to exotic and often unheard of locales around the world where men fought wars for their homeland thousands of miles away.



Wartime friendships form quickly but often last a lifetime. At the end of the hostilities, the world was reshaped into something vastly different from what it had been only five years earlier. Old enemies were vanquished and old allies were installed as the new enemies. But the bonds of friendship formed between men who fought at the sides of their comrades would never be forgotten. When the ARRL convinced the FCC to restore amateur priv-

ileges at war's end, former hams eagerly got back on the air, and encouraged their newly-made war buddies to get licenses and join them. The Sunday afternoon sked on 20 meters became a ritual for thousands of them. It wasn't long until a wave of nostalgia swept over many of these veterans. They longed to revisit their old battlefields under the current peacetime conditions. It was a way to make sense of their wartime experience—to come to terms with the whirlwind tours of duty they had experienced in the modern military.

There were opportunities for such adventure, if a man were so inclined. Some rejoined the service—just in time for the Korean Conflict. For those men who could afford it, fulfilling their quest was a plane ticket away. Others joined the Foreign Service or provided communications for commercial enterprises or humanitarian expeditions by various missionary and humanitarian organizations. After all, there was a whole world to rebuild! For many others, Amateur Radio offered something that could vicariously scratch the itch for adventure... DX. Most of the Pacific Islands and European principalities where these men had served with distinction were DXCC entities, and many were brand new members of that that list. Chasing DX became a major activity in the years following the war, and DX contests rose in popularity. Since there were few if any hams living on coral atolls and bombed-out city-states, DX-peditions were planned to these exotic locales. The '50s and '60s saw an explosion of world travel by radio amateurs for the express purpose of putting the new prefixes "on the air."

The lessons learned in the heat of combat and the knowledge gained in Army and Navy radio schools gave the returning hams an edge in building efficient stations and

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operating under difficult conditions. Every Field Day in the postwar period saw large turnouts across the country. What would have been one man's battle to put up a 20 meter beam became an easy victory for four or five of these enthusiastic veterans, often resembling the flag-raising at Iwo Jima as the tower was raised. Always ready to work together, they led the way at work and in their communities, and eagerly participated in club activities. Remembering how ham radio had given them their start as young men, they were ever ready to help newcomers enter the ranks of licensed amateurs.

Visitors to Ernie's hamshack were impressed, not only by his immaculate, lovingly crafted Heathkit SB Line, but also by his collection of QSL cards from all over the world which were prominently displayed on the wall. He was proudest of those from the Pacific Islands where he had served aboard the *Converse*, and those cards occupied a place of honor, right next to his Navy

memorabilia. One QSL card was in a frame by itself. Upon inspection, you could see that it was for a QSO made on Armed Forces Day with the recreational amateur station aboard... The *Converse*!

His hamshack was a wonder to behold, that is true, but the hamshack was not what Ernie pointed to with pride. No, there was another, larger frame on the wall. In it was a letter thanking him for helping members of a local Scout troop get their Novice licenses. You see,

Ernie was grateful for the successful life he lived, and recognized that it was largely the early, positive influence of amateur radio that made him the man he was.

Now if you asked Ernie how he became a ham, he would usually say that he was always interested in radio and liked to tinker. If you pointed out that most kids could say that but didn't go on to get Amateur Radio licenses, he'd just shrug it off. But if you really pinned him down, he would finally tell you the story of how he got his license—the story of Old Bill.

Old Bill was an amateur back in the early days. He had a callsign that started with a number and ended with two letters. Through some stroke of luck, those letters were his initials, but he denied that he had done any “influencing” of the Federal Radio Commission. Bill's story was similar to Ernie's. With a fresh engineering degree from Bucknell, and believing that Uncle Sam was pointing at *him* from the famous World War

poster, he volunteered to help France defeat the Kaiser.

Ready to man a rifle to sweep the trenches with General “Blackjack” Pershing,

he instead found himself manning the Trans-Atlantic 400,000 watt spark transmitter nestled in the mountains of Wales for the duration. The highlight of his wartime career was the day Marconi toured his station while Bill was on duty. For years after that, Bill would

wave his hand and say that it was “...the hand that shook the hand of Guglielmo Marconi, himself!” After the Armistice, Old Bill went to work for Westinghouse, building one of the first commercial broadcast stations in the state, and worked there as Chief Engineer for many years.

As an active amateur, Bill was always at the forefront of technology. He abandoned spark after the War and built a tube transmitter. He designed and built his own receivers, and experimented with crystal filters for single-signal CW reception. While at Westinghouse, he consulted with Major Edwin Armstrong about superheterodyne receiver designs, and suggested that double conversion receivers could offer many benefits. From time to time, one or another of his projects was featured in the pages of *QST*.

Back when Ernie was a youngster “interested in radio and tinkering” (like thousands of kids), he listened to his crystal set and sent reception reports to the stations he heard. One of these was Old Bill's broadcast station, and when Bill received Ernie's report he sent a QSL and a letter in which he offered Ernie a tour of the radio station. Ernie took him up on the offer.

When Ernie asked Old Bill how he got to be Chief Engineer, Old Bill told him about Amateur Radio. It wasn't long before Bill taught Ernie the Morse Code, and gave him a copy of *The Radio Amateur's Handbook*. From that chance encounter, the course of Ernie's entire life would change, and looking back, he knew how powerful a change it was.

Now, Ernie was living the American Dream, working in his chosen profession servicing and installing two-way radios for an electric company, and putting his up-to-date amateur radio station on the air regularly. He picked up Old Bill's lance and carried the torch to the



*“Amateur
Radio is a gift.
But if you
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next generation of hams. One kid in particular made a point of bugging Ernie as often as he could. The kid was building a tube transmitter based on a project in an old *Handbook* and was having problems neutralizing it. The other hams in the club were getting pretty tired of his incessant questions—especially when they themselves didn't know the answers! Ernie was pretty amazed that a 13-year old kid would be interested in such things, and recognized the transmitter as one of Old Bill's QST designs, so he made the time to help set the kid on the right track.

When other hams at the club asked Ernie why he put up with such a pest, he explained it like this: "Amateur Radio is a gift. It's a privilege granted to us in return for the good we can do. And, it's a precious gift—other radio services would love to have our frequencies for their own use.

"Every year, we lose a few more of our friends to Father Time. If we don't replace their Silent Keys with new hams, there won't be enough of us left. Eventually, there will be no more Amateur Radio—no more entry point for future generations of electronics experts. No more international goodwill.

"Amateur Radio is a gift. But if you want to keep it, you have to give it away."

Not long ago, the time came for Ernie's key to fall silent. In the relentless march of time, those like Bill and Ernie, whose youthful Amateur Radio experiences allowed them to become the radio operators who helped save lives and win wars to make the world free, have one by one shuffled off this mortal coil. We owe them a huge debt of gratitude. They led the way. They kept Amateur Radio alive. They passed it along to us and entrusted us to pass it on as well.

Now, it's all up to us, the Keepers—and Givers—of *The Gift*.



RECOGNIZED - Receiving recognition at the Quad-County Amateur Radio Club 10th anniversary dinner were Arthur Kunst (left), Ham of the Year Award, and Ron Drummond (center), Old-Old Timer Recognition Award. With them is Otto Schuler, section manager Western Pennsylvania, American Radio Relay League. (Photo submitted).

Radio Club Marks Anniversary

The Quad-County Amateur Radio Club, an association of area "ham" radio operators, marked its tenth anniversary at a recent banquet at the Lithuanian Club in DuBois.

The club represents about 200 radio amateurs in the counties of Clearfield, Cameron, Elk, and Jefferson, and is affiliated with the national association of radio amateurs, the American Radio Relay League, representing a half-million United States "hams."

The speaker for the occasion, was Robert Myers K3HWL of Titusville, the amateur radio legislative representative at Harrisburg. He is prominent in radio amateur activities in north central Pennsylvania. Meyers addressed the group on the contribution of amateur radio in an amateur radio family.

Master-of-ceremony was Evan Boden N3DEO of Emporium, who

introduced club President Joe Shupienis WA3IHK of Falls Creek.

The president briefly described the founding of the club, its growth and offered his prediction for the future. President Shupienis also presented the club's annual Ham of the Year Award to member Arthur Kunst W3WM of DuBois for his support of amateur radio and his sustained contributions to club programs.

Otto Schuler K3SMB of Pittsburgh, the section manager of western Pennsylvania for the league, presented a Certificate of Appointment to Bryan Simanic WA3UFN of DuBois as emergency communications manager for Western Pennsylvania. In this position, he will train; prepare, and provide amateur radio communication backup in times of emergency.

Four area radio amateurs were recognized by the club as Old-Old Timers in amateur radio and for their life time contributions to radio communications: Ron Drummond W3FF, Punxsutawney, 55 years; Wilber Rimer W3IE, St. Marys, 51 years; Ralph Bush W3NQ, Kane, 57 years; and Cliff Carlson W3VMX, 70 years. Each was presented a Certificate of Achievement of the American Radio Relay League by Schuler. Radio amateurs have been principal contributors to the development of the electronic age since the days of Marconi, the first radio amateur.

The Quad-County Amateur Radio Club supports local amateur radio by conducting training classes and providing area emergency communications. The club meets each month on the third Friday in DuBois.

*25 years ago,
local radio
amateurs were
recognized for
lifetime
contributions*

TODAY WE live in very questionable times. We have terrorist threats, changing weather and unpredictable environmental problems. Many Americans are out of work, homeless, or worse. Amateur Radio operators are also faced with time constraints and weak budgets.

However, we, as FCC licensed Amateur Radio operators, have a duty to perform some public service. Part 97 of the FCC rules, established the Amateur Radio Service. The service complements or replaces necessary normal channels of communications in time of an emergency. The opportunities for public service are provided by County Government under Radio Amateur Communication Emergency Service (RACES) and the American Radio Relay League's Amateur Radio Emergency Services (ARES). These two groups are linked together under Associated Communications Services by PEMA.

RACES is a group of licensed Amateurs that is activated by the County Emergency Management and deployed to provide communication during an emergency. They will pass traffic (messages) to the Emergency Management people. The radio operator may be deployed in a hospital, flood stage warning near a river, materials site or inside the Emergency Operations Center. If you are a member of a RACES unit you should have an emergency kit for 2 days. This would include a HT radio for repeater use and a laptop for digital message handling. Food as MRE's or easy and quick meals and snacks, changes of clothing and any medications should be included in your personal "Go Kit".

ARES units are activated through the ARRL and the groups that they serve. ARES

members can be part of RACES but don't handle traffic meant for RACES. The ARES units may serve much longer after the initial emergency is under control. We service the Red Cross, Salvation Army and other non-profit groups. Once deployed you may be sent to a shelter to house the homeless, hospital or ambulance service and provide health and welfare messages out of the disaster area.

The "Go Kit" is important because you have no idea where you will be deployed. There are times when Amateur Radio personnel are the only reliable outside communication links. This means that the telephone and cell systems are overloaded with emergency calls or completely non-existent.

Now, I ask you, why did you become a "Ham Radio Operator"? Do you enjoy DX, rag chewing, service nets, experimenting, or is it a social event?

Ham Radio is a fraternity. Your admittance to the Fraternity is your FCC Amateur License. We all enjoy social gatherings. Joining a local Radio club does not exempt you from some form of public service.

Public Service in ARES has grown into the digital age. We offer digital communication software free of charge. We also train operators to install and operate computerized digital communication. *FL-Digi* is used here in Western PA. It needs a computer with a sound card and a HF or VHF radio. Phone nets are operated on local FM repeaters to relay traffic within the county. HF Nets are provided for dialogue with State agencies, Red Cross and the Salvation Army.

What's missing is YOU ! These systems can not function without an organized group of communicators. Operators should know the terrain where they operate. We have a trailer for portable operation. However, the key figure is YOU.

Even if you are seasoned ham operator, portable operation will present problems. That is why practice and training are necessary. Emergency operation is not 100% passing messages. YOU will have to locate your area of deployment. This could be map coordinates located only by GPS. Local repeaters could use Packet to send health and welfare messages.

Training and preparedness are an important part of ARES. The local clubs should help provide the necessary information on new communication techniques. Your local clubs are an important part of training, source of ELMERS, meeting local hams, and help foster the image of public service. Amateur Radio Operators are Communicators. We talk all over the world and provide good will toward are fellow operator. We are bound to public service by FCC mandate.

Learning new techniques can be made into a game. The idea is to have fun and progress in your hobby. Your time is very important to us and we are thankful for any participation you can give us. That is why we want to inform and train you while having a pleasant experience.





temporarily located in Kylertown, Clearfield County. While this low-profile location has a reduced coverage area, a higher profile location is in the works for Spring 2011. From the new location, the repeater is expected to provide solid D-STAR repeater coverage for all of Clearfield and Jefferson counties, as well as portions of Centre, Cambria, Elk, Cameron and Clinton counties. This

If you have an Icom D-STAR compatible radio, and happen to be within range of the low-profile temporary location, please feel free to give the repeater a try. To program your D-STAR compatible radio, here are the settings you will need:

Frequency: 147.255 +

Mode: DV

My: (your personal call sign goes here)

Your: CQCQCQ

RPT1: W3PHB--C

RPT2: W3PHB-G

Note: The - represents a space.

If you would like to know more about the W3PHB D-STAR repeater please contact either John N3SPW or Paul W3PRL. Additional information is available on the PARA club web site at www.philipsburg-ara.org.

The repeater is expected to provide solid D-STAR repeater coverage

D-STAR Repeater On the Air

John Szwarc, N3SPW

ON SATURDAY, November 13, 2010 PARA members powered up a new D-STAR repeater. The repeater went on the air at approximately 2:15 PM and the first QSO on the machine included amateur radio stations W3TMB and N3SPW. The repeater operates on a frequency of 147.255 output / 147.855 input and carries the call sign W3PHB. The repeater is equipped with a gateway system which allows users to "link" the local repeater with other D-STAR repeaters in the country.

The repeater was assembled by PARA members John N3SPW and Paul W3PRL with the assistance of Travis Best W3TMB of the Bald Eagle Repeater Association in Williamsport Pennsylvania. Travis provided several key components necessary to complete the project.

As a matter of convenience, the repeater is

approach allows those involved to work out the details before re-locating the machine to remote mountain-top location.



December 2010 Amateur Radio Club Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:00am» CQWW CW (cont.) 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	29 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County A.R.E.S. Net	30	01 9:00pm» Clearfield County A.R.E.S. Net	02 7:00pm» Headwaters ARC Meeting	03	04 9:00pm» Philipsburg ARA Net
05 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	06 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County A.R.E.S. Net	07	08 9:00pm» Clearfield County A.R.E.S. Net	09	10	11 9:30am» QCARC Breakfast 6:00PM- QCARC Christmas Dinner 9:00pm» Philipsburg ARA Net
12 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	13 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County A.R.E.S. Net	14 7:00pm» Punxsutawney Area ARC Meeting	15 9:00pm» Clearfield County A.R.E.S. Net	16	17	18 5:00PM- PARA Christmas Banquet 9:00pm» Philipsburg ARA Net
19 1:30pm» Elk County ARA Meeting X-mas Party 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	20 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County A.R.E.S. Net	21	22 9:00pm» Clearfield County A.R.E.S. Net	23	24	25 Christmas Day 9:00pm» Philipsburg ARA Net
26 7:00pm» QCARC 2-meter FM Net 8:00pm» Elk Co ARA Net	27 Parasitic Emission Submission Deadline 7:00pm» HARC Nets 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm» Jefferson County A.R.E.S. Net	28	29 9:00pm» Clearfield County A.R.E.S. Net	30	31 7:00pm» ARRL Straight Key Night	01 12:00am» ARRL Straight Key Night (cont.) New Year's Day 9:00pm» Philipsburg ARA Net