PENN WIRELESS ASSOCIATION

X-MITTER

PUBLIC SERVICE THROUGH COMMUNICATION

December 2017 Vol. 56 No. 3

N3FEL working Field Day 2017

PENN WIRELESS ASSOCIATION

CLUB INFORMATION

W3SK VHF Analog Repeater Frequency: 146.790 MHz (-0.6, 131.8pl)
W3SK UHF ***Fusion*** Repeater Frequency: 448.225 MHz

PWA Webpage URL: p***ennwireless.org***
PWA Email: ***PennWirelessARC@gmail.com***
PWA Executive Board: ***PWA-EBoard@googlegroups.com***
Technet Email Reflector: ***PWA-Technet@googlegroups.com***

Penn Wireless Association holds regular meetings consisting of general club business, current committee reports, group discussions, featured programs and a social period. This meeting is held at the Falls Township Building, 188 Lincoln Highway, Fairless Hills, PA on the fourth Monday of each month at 7:30 pm. Please contact the club vice president to add your business topic to the meeting agenda.

VISITORS ARE ALWAYS WELCOME!

PWA-Technet @ googlegroups.com Email Reflector

User Account Policy

Penn Wireless Association, Inc. does not knowingly profit and/or disseminate user e-mail information to "spam" lists. The reflector provides us a means to just send e-mail to those who wish to receive notification when new X-Mitter issues and other relevant information (including, but not limited to, volunteer requests, ARES/RACES meetings, Field Day information, & Club events) are available for you to view on PWA web sites. We routinely send mass e-mail notification to all users, but we avoid issuing e-mail that is unrelated to Amateur Radio. However, we may send a mass e-mail to all users only if there is a problem with the web site, during web site maintenance, or during an emergency or scheduled public service event in order to notify those Amateur Radio operators who may registered as a usewish to participate in RACES/ARES or PWA operations. If you have already r please review your account's distribution settings and if your e-mail is current so we may send you notification when new X-Mitter issues

X-MITTER

Newsletter Policy

X-MITTER, the official newsletter of Penn Wireless Association, is published monthly by and for Penn Wireless members and all Radio Amateurs. All material in **X-MITTER** may be reprinted, providing that a credit line is given, mentioning **X-MITTER**, Penn Wireless, Inc. and the byline contributor. The **X-MITTER** publication committee strives for accuracy, and we believe that all articles submitted are factual in their content. **X-MITTER** and PWA cannot be held responsible for inaccuracies of information and/or sources. All material submitted by PWA members shall be published, providing that such items meet generally accepted standards of quality and substance. Contributions by others shall be considered on a space-available basis. PWA membership is open to all persons with an interest in amateur radio, subject to approval of the executive board and current membership. A valid Amateur Radio license is required for full voting privileges. Mail for **X-MITTER** should be sent to: **Penn Wireless Association, P.O Box 925, Levittown, PA 19058.** Conttributions may, also, be E-mailed to pwa-x-mitter@googlegroups.com. The closing date for submission of appropriate material to the pending issue (space permitting) is 7th day of each month. We exchange **X-MITTER** with other area club newsletters. If your club is interested in exchanging with us, please e-Mail our groups accordingly.

In this issue ...

Reminders:

TechNet every Sunday evening at 8:00 P.M. local on the W3SK repeater.

PWA Holiday Party 12/10—12:00 Noon to 3:00 P.M at the Langhorne Hotel

December E Board meeting—12/11

Ed Wells Embedded Processor Class resumes in January 2018

Dues and Member participation are the life blood of PWA. Please stay active and up to date on

FROM THE EDITOR

We continue to actively seek Member involvement. What I would like to eventually see are monthly contributors, possibly with recurring content theme (CW, digital, contesting, antennas etc.)

I am open to any suggestions that can improve this iteration of our monthly newsletter. Perhaps you have some topic you'd like to see addressed in this publication. Although preferred subject matter would be Amateur radio related, any topic of general interest to the membership will be considered.

I'm trying to keep to the mid-month publication schedule. Those wishing to submit items for inclusion should try and get them to me no later than Friday, first week of the month.

The preferred format is plain text, MS Word or PDF. Any accompanying pictures should be in JPEG format.

If you have something, it will help with the next or future issues. Please submit to ke3la@verizon.net.

Special thanks to Howard, N3FEL, for his article submission and Dave, K3TX, for his suggestion on including Rich Moseson, W2VU article in ZERO BIAS regarding issues at the ARRL. Both are interesting reads.

Enjoy this issue. Hope to see everyone at the PWA Holiday Party.

'73 Jim

ON THE COVER

Season's Greetings

Well, we're rapidly approaching the end of this year and the start of a new one. It's always a time for reflection and making plans for the upcoming year.

For me, the winter months provide additional time to devote to the hobby we all enjoy. Every winter it is my intent to regain my CW skills. Hopefully, this winter will prove to be a more successful effort than in winters past.

As I put the finishing touches on this issue of XMITTER, snow is falling here in the Poconos. A pretty sight, particularly if you don't have to travel out in it.

To brighten everyone's mood during the gloom and doom of winter, think back to June of this year. Our cover this month shows Howard, N3FEL, working the 80 meter CW station.

Check Howard's article on his 2017 Field Day experiences.

During this season of giving, please take a moment to consider those less fortunate.

Jim—KE3LA

PENN WIRELESS ASSOCIATION

Executive Board Meeting Minutes - November 13 2017

Penn Wireless Association
P. O. Box 925
Levittown, PA

Executive board meeting - November 13, 2017

Meeting called to order at 19:43 by President Tom, KE3QC.

Treasurer report by Ken, K3FKW
An expenditure of $xx.xx for the purchase of bank checks was noted.
Treasurer report accepted via motion of K3TX & N3FEL.

VE testing: k3JQH reported "no activity" for the past month.

Repeater site - Cully, N3HTZ reports that Echolink is working on a temporary setup and that the packet TNC repeater is back operational.
Some cleanup work is needed before we can use the old repeater space for equipment storage.

Membership - Steve, KB3ORG reported on the current membership status and dues income.

Education - Ron, WB2OOB reported on his recent class that resulted in eleven new Ham licenses.

Programs - WA3QVU, Mark reports that November will be kit building and the December meeting will be replaced by our annual holiday party.
He has scheduled Dennis, KC3EXE for "hotspot" presentation in January.

Fundraising - Steve, kB3ORG suggested that we postpone the restaurant rebate function until after holidays; all agreed.

WEB - Kudos to Steve for an excellent job.

PENN WIRELESS ASSOCIATION

Executive Board Meeting Minutes - November 13, 2017

Tcchnet - Due to minimal activity, Ben, K3JQH questioned should the day or time be changed. Topic to be discussed at the next general meeting.

Fusion - Mark, WA3QVU reported that former member Bruce, WA3ZPC living near the repeater site has spent some time analyzing the dropout problem with little success.

ARRL - K3TX, Dave and WA3QVU, Mark both made comments on the meeting featuring Tom Gallagher.
Dave also brought up the topic of "learning CW".

Holiday Dinner - Discussion and vote resulted in choosing Langhorne Hotel for the venue. Howard and Tom will follow through with arrangements.

Open discussion - Ben, K3JQH questioned the distribution of meeting minutes. It was decided that minutes should be widely distributed with the omission of financial data.

Howard, N3FEL, will review Technet google groups register for accuracy and make any updates so that will be the platform for minutes distribution.

Meeting adjourned at 19:42.

Respectfully submitted, K3JQH, Recording secretary.

PWA Executive Board meetings are open to all members in good standing. The E Board welcomes Member comments and suggestions. Meetings are normally held on the second Monday of each month at the Falls Township Municipal Building, Room 205, at 7:30 P.M. local.

PENN WIRELESS ASSOCIATION

General Meeting Minutes - November 2017

Penn Wireless Association

Membership meeting, Nov 27, 2017

Meeting called to order by Vice President, Dennis, KC3EXE at 19:35.

Announcement of the Holiday Dinner party at Langhorne Hotel, Dec 10, 12:00 noon to 3:00PM, Cost is $23.00 per person.

VE - Cully, N3HTZ reports one candidate for Technician license passed.

Cully, N3HTZ reports that the repeater system is running good with some complaint about the ID is too loud. Cully will make adjustments as needed.

Steve, KB3ORG, remarked that the constitution has not been changed to reflect recent board action to eliminate some discounted dues allowances.
Ben, K3JQH accepted written request for constitution revision to be processed by the Constitution committee.

Ron, WB2OOB reported that his recent weekend class resulted in 11 new Technician licensees.

Steve, KB3ORG reported on web status. He will add PayPal button to enable members to pay dues and pay for the upcoming Holiday party.

Dave, K3TX reports that the ARRL is experiencing a decline in membership in spite of the fact that FCC licenses are increasing.
Dave also offered to present "how to learn CW' at some future general meeting.

Technet - Ben, K3JQH reports good net activity with some very interesting topics brought on by different moderators. Ben also questioned if more activity could be generated by moving the net time or day; no response.
Ben also put out a call for additional net control (moderators) operators.

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Fusion - Mark, WA3QVU reports some dropout problems and has requested Jim, AJ3DI to visit the Fusion setup at K3JQH to review the setup there.

Mark, WA3QVU announced that some items from W3GK estate will be made available to local clubs in exchange for donation receipt.

Meeting adjourned at 21:35 by motion of Steve, KB0ORG and Mark, WA3QVU after a refreshment break.

Respectfully submitted: Ben, K3JQH, recording secretary

ARRL News

FCC Dismisses Radio Amateur's Petition to Revise Call Sign Rules

11/28/2017

The FCC has dismissed a rule making petition filed last May by Thomas J. Alessi, K1TA, of Stamford, Connecticut, that sought to amend the Part 97 rules regarding Amateur Radio Service call signs. The Commission action came in a November 28 letter from Scot Stone, Deputy Chief of the FCC Wireless Telecommunications Bureau Mobility Division. Alessi had asked the FCC to make call signs consisting of one
letter, followed by two digits, followed by one letter (1 ×× 1 format) available to Amateur Extra Class licensees. Alessi asserted that the number of Amateur Extra Class licensees who desire short call signs exceeds the available supply of 1 × 2 and 2 × 1 call signs, and that his plan would make available an additional 7,800 four-character call signs. "Approximately fifteen million call signs are presently available in the sequential call sign system, but it does not include every amateur call sign that has been allocated to the United States," Stone wrote in denying Alessi's petition. He also pointed out that the FCC had rejected a similar suggestion in 2010 that would have made certain additional call signs, including 1 ×× 1 call signs, available to Amateur Extra Class licensees, but concluded at the time that enough call signs already were available for every Amateur Radio licensee to obtain an acceptable callsign. In addition, the FCC said in 2010 that it had no plans to revisit the issue. "You have not demonstrated any changed circumstances or other reason that would warrant revisiting this decision," Stone's letter concluded.

Status Report: The Amateur Radio Parity Act of 2017

11/28/2017

The Amateur Radio Parity Act of 2017 – S. 1534is alive, but with legislative action slowed to a glacial pace on Capitol Hill in recent months, there's been no real progress to report since this past summer. At present, the bill is under consideration by the US Senate Committee on Commerce, Science, and Transportation, and it remains an active concern for ARRL. The League is working diligently to shake the bill loose and move it forward.

While it may appear that time is short, S. 1534 does not need to pass the Senate by this years' end. We have until the current session of Congress adjourns, which is not until December 31, 2018. Once the bill passes both Houses, the FCC would still have to implement its essence in the Part 97 Amateur Service rules.

Introduced on July 12, 2017, S. 1534 marked another step forward for the landmark legislation. Senators Roger Wicker (R-MS) and Richard Blumenthal (D-CT) sponsored the bill in the Senate. The US House version of the legislation, HR 555, passed the House of Representatives by unanimous consent in January 2017.

Minutes of Special Board Meeting ARRL Board of Directors

November 14, 2017

1. Pursuant to due notice, the Board of Directors of the ARRL, Inc. met in special session by teleconference at 9:02 PM Tuesday November 14, 2017 with President Rick Roderick, K5UR, in the Chair and the following Directors on the conference call:

   Tom Abernethy, W3TOM, Atlantic Division
   Kermit Carlson, W9XA, Central Division
   Kent Olson, KAØLDG, Dakota Division
   David Norris, K5UZ, Delta Division
   Dale Williams, WA8EFK, Great Lakes Division
   Mike Lisenco, N2YBB, Hudson Division
   Rod Blocksome, KØDAS, Midwest Division
   Tom Frenaye, K1KI, New England Division
   Jim Pace, K7CEX, Northwestern Division
   Bob Vallio, W6RGG, Pacific Division
   James Boehner, N2ZZ, Roanoke Division
   Dwayne Allen, WY7FD, Rocky Mountain Division
   Dick Norton, N6AA, Southwestern Division
   David Woolweaver, K5RAV, West Gulf Division

   Present without vote were Greg Widin, KØGW, First Vice President; Brian Mileshosky, N5ZGT, Second Vice-President; Jay Bellows, KØQB, International Affairs Vice President; and Tom Gallagher, NY2RF, Chief Executive Officer and Secretary. Also present were General Counsel Christopher D. Imlay, W3KD; and Dan Henderson, N1ND, as Assistant Secretary. Greg Sarratt, W4OZK, Southeastern Division Director joined the meeting at 9:53 PM. Chief Financial Officer Barry J. Shelley, N1VXY; and Frederick Niswander, K7GM, Treasurer were not present on the teleconference.

2. President Roderick stated that the noticed purpose of the meeting was to discuss the report of the Ethics and Elections Committee. Mr. Carlson, moved seconded by Mr. Pace, that the Board resolve to a Committee of the Whole to discuss personnel matters, with all

officers, directors, General Counsel Imlay and Mr. Henderson, as recording secretary, remaining in the meeting. A recorded vote being requested, the motion was **ADOPTED** with 11 yeas, 0 nays, and 3 voting present or abstaining. Directors Abernethy, Carlson, Olson, Norris, Williams, Lisenco, Blocksome, Frenaye, Pace, Boehner and Allen voted YEA, and Directors Vallio, Norton and Woolweaver abstained or voted present and the Board resolved to a Committee of the Whole at 9:23 PM.

3. On the motion of Mr. Norris, seconded by Mr. Frenaye the Committee of the Whole rose at 11:25 PM. On the motion of Mr. Carlson, seconded by Dr. Boehner, the report of the Committee of the Whole was **ADOPTED** by a unanimous 15-0 vote with all Board Members voting Aye.

4. Mr. Carlson, moved, seconded by Mr. Lisenco that:

   Whereas, Mr. Richard Norton, N6AA, publicly criticized the ARRL Code of Conduct for Board members at a public Amateur Radio gathering by virtue of his characterizations thereof, thus criticizing publicly the collective action of the Board of Directors adopting said Code of Conduct and drawing the Board's collective decision making into disrepute, in violation of multiple portions of the Code of Conduct, including but not limited to Sections 1.b. and 8.a, 8.b., 8.d; and 8.f; and

   Whereas, Mr. Norton has been cautioned by Board members that his actions and his manner in the above respects are not acceptable and cannot continue, with no notable change in his behavior since that time; and

   Whereas, Mr. Norton has been given a copy of the Recommendation of the Ethics and Elections Committee dated September 7, 2017, and has responded to it and tendered to the Board of Directors four statements of ARRL members in support of his response;

   Now, therefore, the Board of Directors having considered the recommendation of the Ethics and Elections Committee at a Special Meeting of the Board of Directors duly called for the purpose of considering the actions of Mr. Norton and an appropriate remedy therefor, and in view of the information before it and taking into account Mr. Norton's response and his submissions in response thereto, finds that there exists sufficient cause (i.e. a material violation of the ARRL Code of Conduct that has caused harm to the League) to publicly censure Mr. Norton for his unacceptable behavior as an ARRL Board Member, and Mr. Norton is admonished by the Board that no further, similar behavior will be tolerated. That action is so ordered.

After discussion and a roll call vote being requested, the motion was **ADOPTED** by a vote of 11 Aye, 3 Nay and 1 abstention with Directors Carlson, Olson, Norris, Williams, Lisenco, Blocksome, Frenaye, Pace, Boehner, Allen and Sarratt voting aye, Directors Abernethy, Norton and Woolweaver voting nay, and Director Vallio abstaining.

5. On the motion of Dr. Boehner, seconded by Mr. Lisenco the Board voted to adjourn at 11:55 PM EST with all fifteen directors voting Aye. (Time in session as a Board: 51 minutes. Time in session as a Committee of the Whole: 2 hours 2 minutes).

Respectfully submitted;

Daniel Henderson, N1ND
Assistant Secretary – ARRL.

ARRL: Circling the Wagons—Rich Moseson—W2VU

ZERO BIAS

zero bias – a CQ editorial
ARRL: Circling the Wagons

BY RICH MOSESON,* W2VU

Just what is the ARRL is afraid of? The League's top leadership appears to be continuing and expanding its efforts to centralize decision-making in Newington and to closely control the flow of information about the organization and its activities. In doing so, it is changing the nature of the organization and depriving members in certain divisions the opportunity to choose their representatives.

Historically, ARRL leadership volunteers around the country have been given a significant amount of autonomy in how they carry out their roles and in the relationships they build with local and regional leaders of served agencies. The staff in Newington served primarily as a resource, offering assistance as needed and guidance as requested. This made a lot of sense, as needs varied in different areas and a "one-size-fits-all" approach would not be effective.

Over the last year-and-half, though, that model of decentralized decision-making has been changing, as the League's new leadership has worked consistently to consolidate power and stifle dissent. It started in June of 2016, when the ARRL's executive committee removed the Eastern Area Chair of the National Traffic System from both that post and his elected position as Eastern Pennsylvania Section Manager, allegedly for communicating with officials of the Federal Emergency Management Agency (FEMA) on behalf of NTS and making commitments on behalf of ARRL without authority. League headquarters followed up by "temporarily" assuming direct control of making leadership appointments in NTS, whose top staff had traditionally chosen their own leaders. Many of those top-level traffic handlers then resigned in protest and formed a new organization for passing long-haul traffic outside of ARRL auspices.

A few months later, the League board's Elections and Ethics Committee disqualified a sitting director from seeking re-election, apparently based on actions taken after the ballots were already in the mail. Rather than cancelling the election and putting out a new call for nominations, however, the League simply declared that the director's opponent — a former director who had been defeated two years earlier for re-election — had been declared elected, although it was never clear just who elected him.

ARRL: Circling the Wagons—Rich Moseson—W2VU

Members in that division were never informed that their incumbent director had been disqualified, or why. It is noteworthy that this director was a strong proponent of greater openness in League decision- making; and the actions taken to keep him from seeking re-election were taken in secret.

This past January, the ARRL board codified that secrecy when it adopted a new "Policy on Board Governance and Conduct of Members..." This new policy required that directors and vice directors publicly support all actions taken by the board — even if they opposed those actions prior to their adoption —and prohibited them from disclosing any individual director's vote on a matter — even their own vote — without express board permission.

Next, this summer, the Elections and Ethics Committee was at it again, this time disqualifying a sitting vice director from running for director and again not telling the division's membership. Rather, there was only a cryptic statement in a news release that the incumbent director had "qualified for re-election." We have learned that the vice director was disqualified for allegedly failing to disclose a conflict of interest, but that when he asked for specifics about that supposed conflict, his requests were ignored. In addition, he requested a hearing by the full board on the disqualification — as he is allowed to do under the ARRL by-laws — but his request was denied. To the best of our knowledge, he has not yet been told what the alleged conflict was that prompted his disqualification.

Finally, as Hurricanes Harvey, Irma, and Maria ravaged various parts of the Caribbean and U.S. coasts, local ARRL Public Information Officers were essentially told not to talk with the media about ham radio activities but rather to direct all media inquiries to ARRL Headquarters (which, at the time, was without a media relations manager). In addition, headquarters shut down the League's public relations reflector, which had been a very useful tool for PIOs to compare notes and for Newington to provide guidance in their dealings with the media.

The impression one gets here is of an organization that perceives itself to be under siege and is circling the wagons to more effectively defend itself. But from whom? Who is the enemy? Its members? Its leadership volunteers who have devoted thousands of hours of personal time and more to carrying out their assigned roles? Its own elected officials who might not agree with actions taken by the majority of their colleagues? People seeking elected office who might disagree with the top leaders?

ARRL: Circling the Wagons—Rich Moseson—W2VU

Just who is the enemy and what are the folks in Newington and on the board's executive committee so afraid of? And why all the secrecy? These are questions that League members need to ask themselves and their elected representatives; and they need to make sure they are not denied the right to vote for who those elected representatives will be. It's happened twice in the past year and a half; it's likely to happen again. How long will the members allow it to continue?
Technology Special

If it's December, it must be time for our annual Technology Special, and as usual, we examine some of the most interesting and innovative ideas in amateur radio technology today. We start with the use of WSPR — K1JT's Weak Signal Propagation Reporter software — to analyze changes in HF propagation during last summer's total solar eclipse. We tell you how to use GPS satellites to set your computer clock during portable operations (especially important for some digital modes and for contest logging). And we introduce a program that will let you transmit a complete schematic diagram over the air, using virtually any mode of transmission, even CW!

There's more, of course, along with a comprehensive review of the ham radio response to the summer's hurricanes in Texas, along the Gulf Coast and in the Caribbean, including first-person reports from Puerto Rico and Dominica.
Happy Holidays

As always, we hope that your holiday celebrations at this time of year bring added light to your days as we pass through the darkness of the winter solstice, along with good DX on our wintertime bands, which now include 630 and 2200 meters. [By the way, in case you don't think DX is doable on these bands, check out our news page for a report of a 12,000-kilometer (7,450- mile) two-way QSO on 630 meters between Washington State and New Zealand!]

73 and Happy Holidays, Rich, W2VU

Contest Corral — December 2017

Check for updates and a downloadable PDF version online at www.arrl.org/contests.

Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish Date-Time				Bands	Contest Name	Mode	Exchange	Sponsor's Website
1	2200	3	1600	1.8	ARRL 160-Meter Contest	CW	W/VE: RST, ARRL/RAC section; DX: RST	www.arrl.org/160-meter
2	0600	2	0800	7-14	Wake-Up! QRP Sprint	CW	RST, serial, suffix of previous QSO	qrp.ru/contest/wakeup/333-wakeup-eng
2	1600	3	1559	3.5-28	TOPS Activity Contest	CW	RST, serial, club (if member)	procwclub.ro/TAC%20Rules.html
2	2000	3	1959	3.5-28	EPC Ukraine DX Contest	Dig	RSQ, Ukr Admin Region or serial	qrz.ru/contest/detail/261.html
3	0000	3	2359	28	Ten-Meter RTTY Contest	Dig	RST, state (W) or province (VE) or serial (DX)	www.rttycontesting.com
3	1300	3	1600	3.5-14	SARL Digital Contest	Dig	RST, serial	www.sarl.org.za
5	0300	5	0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
7	0000	7	0600	1.8	QRP ARCI Topband Sprint	CW Ph	RST, SPC, mbr or power	www.qrparci.org
7	1800	7	2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net/activity-contests
9	0000	10	2359	28	ARRL 10-Meter Contest	CW Ph	RST, state/province (W,VE, XE) or serial (DX)	www.arrl.org/10-meter
9	1200	10	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
9	1600	10	1559	3.5-28	International Naval Contest	CW Ph	RS(T), club/mbr or serial	www.marinefunker.de/eng/show.php3?pos=16
9	2300	17	2300	1.8-7	AWA Bruce Kelley 1929 QSO Party	CW	RST, name, QTH, equipment name and type	www.antiquewireless.org
10	2000	10	2359	1.8-28	QRP ARCI Holiday Spirits Homebrew Sprint	CW	RST, SPC, mbr, power	www.qrparci.org
10	2100	10	2259	14	CQC Great Colorado Snowshoe Run	CW	RST, SPC	www.coloradoqrpclub.org
11	0100	11	0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
13	0130	13	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
15	2000	15	2359	1.8	Russian 160-Meter Contest	CW Ph	RS(T), Oblast code or serial	qrz.ru/contest/detail/90.html
15	2100	15	2359	3.5-7	AGB-Party Contest	CW Ph Dig	RST, serial, mbr (if any)	ev5agb.com/contest/agb_party.htm
16	0000	16	2359	1.8-50	Fold Hall Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/foldhallclub
16	0000	16	2359	3.5-28	OK DX RTTY Contest	Dig	RST, CQ Zone	oldrtty.ork.cz/index.php?page=english
16	1200	16	2359	3.5-28	Padang DX Contest	Ph	RST, serial	padang.qrzyb.com
16	1400	17	1400	1.8-28	Croatian CW Contest	CW	RST, serial	9acw.org
17	1800	17	2359	3.5-50	ARRL Rookie Roundup, CW	CW	Name, 2-digit year licensed, SPC	www.arrl.org/rookie-roundup
18	0300	18	0400	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
21	0130	21	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
24	0000	24	1159	3.5-28	RAEM Contest	CW	Serial, latitude, longitude (e.g., 57N 85W)	raem.sm.ru/en/main
26	0830	26	1059	3.5-7	DARC Christmas Contest	CW Ph	RS(T), DOK or serial	www.darc.de/?id=820
27	0000	27	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
30	0000	30	2359	1.8-144	RAC Winter Contest	CW Ph	RS(T), province/territory or serial	wp.rac.ca
30	1500	31	1500	1.8	Stew Perry Topband Challenge	CW	4-char grid square	www.kkn.net/stew
31	1200	31	2359	3.5-7	Bogor Old and New Contest	Ph	RS, operator age	www.orari-bogor.org

All dates refer to UTC and may be different from calendar dates in North America. No contest activity occurs on the 60-, 30-, 17-, and 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. *Data for Contest Corral is maintained on the WA7BNM Contest Calendar at www.hornucopia.com/contestcal and is extracted for publication in QST 2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.*

"OK, I get it! You don't like being disturbed during the contest!"

PENN WIRELESS ASSOCIATION

LOCAL NETS

Net Name	Day	Local Time	Frequency	Comments
DEN	Tuesday	1900	147.03+	Philmont repeater PL 91.5
Digital Education Net – training on all digital modes				
WARC	Wednesday	2000	147.09+	WARC repeater PL 131.8
Warminster Amateur Radio Club Net				
BCARES	Wednesday	2030	147.270+	N3KZ repeater PL 100
Bucks County ARES NBEMS training using Fldigi – 1500 on waterfall				
BCARES	Wednesday	2100	147.09+	WARC repeater PL 131.8
Bucks County ARES voice net				
Montco ARES	Thursday	1900	146.835-	MCARES repeater PL 88.5
They send one practice NBEMS message during voice net using Flmsg				
CCARES	Thursday	1930	446.175-	CCARES repeater PL 100
Chester County ARES voice net				
CCARES	Thursday	1945	446.175-	CCARES repeater PL 100
NBEMS training net after voice net using Fldigi				
NY NBEMS	Saturday	1000	3.583 mHz	1500 on waterfall FLDIGI
SATERN	Saturday	1300	14.065 mHz	1000 on waterfall FLDIGI
Salvation Army NBEMS net – early checkins starting at 1200				
Shortwave Radiogram Broadcast – for information see: http://swradiogram.net/				
Pa NBEMS	Sunday	0800	3.585 mHz	1500 on waterfall FLDIGI
NJ NBEMS	Sunday	0930	3584.5 mHz	1500 on waterfall FLDIGI
PEMA	Sunday	0900	3.987.5 mHz	Voice Net
PWA	Sunday	2000	146.790-	PWA repeater PL 131.8
Penn Wireless Association Technical Net				

A Field Day Experience—Howard Rubin—N3FEL

The Field Day Experience
Howard Rubin, N3FEL
December 7, 2017

The ARRL Field Day exercise is one of the many amateur radio events in a calendar year that brings hams throughout North America together via radio communication. Tens of thousands (according to QST, over 3000 groups in 2017) participate in this annual Field Day event to make nearly 1.3 million contacts. Some will consider it an exercise in emergency communication; others a chance to camp out with friends of similar hobby interest. All will agree that planning is key to achieving a safe and successful venture. (Re: December 2017, "2017 ARRL Field Day Results.")

Field Day planning is an essential process for individuals and their group to avoid late and ineffective outcomes. Soon after holiday celebrations end in December, thoughts naturally turn to the New Year and amateur radio activity. What better time is there for an individual to decide where and how he or she will participate in the upcoming Field Day event? It will require detailed plans, site locations, field surveying for antenna and power locations, pre-registering and training operational personnel. Will you be an individual contributor, a station captain, or take on a leadership role on the Field Day event committee?

The process begins with discussion over where to have the event. Field Day rules dictate a maximum diameter circle of 1000' within which all stations must operate for each submitted call sign. In 2017, we operated two call signs, W3SK and WE3F, for a total of eight stations. Our chosen location was Tyler State Park in Newtown, PA that provided us a full 1000' diameter circle, a covered pavilion, and a clean restroom facility.

Sunset—Plantation Field

A Field Day Experience—Howard Rubin—N3FEL

Will we go back there again this year? The "where to go" is a hotly debated issue that each year involves a month of debate. In 2017 our club was divided among two philosophies -- the large antenna, fully implemented group and the quickly deployed, self contained group. Each of these groups with their four station count competed among a rather large class of stations of similar extent. Interestingly, if we had combined our stations and operated as a group of eight, we would have far few competing stations to compare performance. Now, that doesn't mean we would win first place in our class, but it would provide us a serious opportunity to combine our effort as a team.

It takes an enormous commitment to prepare, setup, operate and secure a completely functional station. In 2017 my station required no less than a small U-Haul to carry all equipment needed to support my singular contribution to class 4A. Yes, some of my packed items included long and heavy electrical cables, a power generator, a lawn mower, and nearly a dozen pieces of network logging equipment. But the rest of the luggage involves my station, antennas and masts, shelter, tools, and many personal items. Why should a single person be responsible for bringing all of this to a 24 hour event, only to spend another 4 hours cleaning it up?

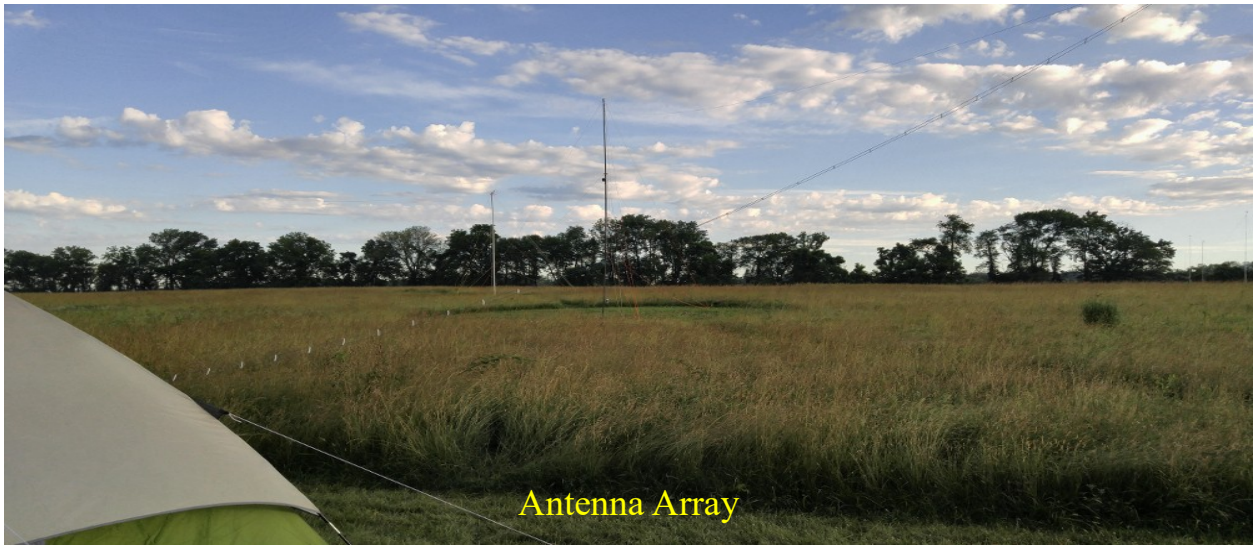
UHaul loaded, ready to go!

A Field Day Experience—Howard Rubin—N3FEL

It would be better to share our individual abilities and resources so that a participant could focus more on their primary skills and less on other matters. Those primary skills could be operating CW, digital, or SSB, building and installing efficient antennas, computer networking, setting up and maintaining a safe and reliable power grid, providing food and provisions to support a couple dozen participants, public awareness, group management, education or other specialized tasks.

The matter of allocating personnel to bands and modes deserves rethinking, too. ARRL stipulate that no more than one station may operate on any of the many bands and modes. Stated another way, if there are seven HF bands and three modes, then it is conceivable that 21 stations could operate simultaneously. Doing so is not a practical approach since time-of-day places severe limitations on which bands can be used effectively. Some bands are "open" for 24 hours and others just a few. However, few people can operate 24 hours straight, even if they had prolonged access to a productive band. The answer is band and mode allocation. Those who can operate through the night will replace those who can participate only during the daylight hours. A practical approach would involve two people at every operating station, one to operate and the other to log or monitor band activity. A helping set of hands is a valuable resource, especially for those of us senior citizens.

So this year I plan to participate more as an operator than as a station captain. I can serve many functions including the planning, antenna design, CW operation, computer logging, and more. Regrettably at the age of seventy, I can no longer do all of these things in one 24 hour weekend. I still enjoy the weekend outdoors and look forward to another successful outing with Penn Wireless.



Antenna Array

All About Antennas - Part 1 - Bob Grove, W8JHD

ALL ABOUT ANTENNAS
Part 1 of a Series

By Bob Grove W8JHD, Publisher, Monitoring Times

No subject is more widely discussed in the radio field as antennas, and with good reason; after you select your radio equipment, no accessory is more important. There are many myths surrounding antennas, and we're going to put them to rest in this series.

Radio Waves: Some Basics

When we connect a wire between the two terminals of a battery, electric current flows. This current generates a combined electric and magnetic energy "field," a zone which extends at the speed of light into space. When we break the circuit, the energy field collapses back onto the wire. If we reverse the connections back and forth rapidly, each successive pulse's electrical (positive and negative) charges and magnetic (north and south) poles reverse as well. This simulates a basic radio wave which consists of a magnetic and electric field vibrating simultaneously, or in phase.

The electric field ("E" for electro-motive force, measured in volts) is parallel to the axis of the wire, while the magnetic field ("H" named after researcher Joseph Henry) is perpendicular to it. This field is described as electromagnetic. Familiar illustrations depicting radio waves as wavy lines or crosshatched arrows are graphic representations only. There are no "lines of force" as implied when iron filings line up during magnet demonstrations; those filings line up because they all become little magnets, attracting and repelling one another. Radio waves are only a continuous field of energy which, like a beam of light, is strongest at its source, weakening with distance as it spreads its energy over an ever-widening area.

In fact, radio waves and light waves differ only in frequency over a continuous electromagnetic spectrum, with higher-frequency light having greater energy and the ability to be seen by some living organisms. Scientists even refer to an antenna as being illuminated by radio energy. Radio waves can be reflected by buildings, trees, vehicles, moisture, metal surfaces and wires, and the electrically-charged ionosphere. They can be refracted (bent) by boundaries between air masses, and they can be diffracted (scattered) by a ground clutter of reflective surfaces.

Radio and light waves travel through the vacuum of space approximately 186,000 miles (300 million meters) per second, but when they pass through a dense medium, they slow down; this velocity factor, is given as a specification for transmission lines. When we specify antenna and transmission line lengths, these are electrical wavelengths which are shorter than free-space wavelengths because of this reduction in speed.

Propagation

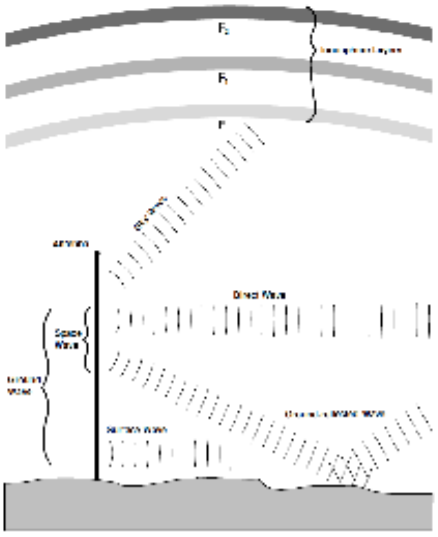
We refer to the behavior of radio waves as they travel over distance as propagation. Ground waves stay close to the earth's surface, never leaving the lower atmosphere. They are severely attenuated (reduced), rarely reaching more than a few hundred miles even under ideal conditions. Surface waves, the lowest ground waves, often reaching their destination by following the curvature of the earth. Space waves are the line-of-sight ground waves which travel directly from antenna to antenna.

Space waves at VHF and UHF, when encountering abrupt weather boundary changes, experience temperature inversions and ducting as well as other influences that can funnel signals into significantly extended ground wave coverage. At the upper reaches of our atmosphere, ultraviolet rays (UV) from the sun ionize (electrically charge) the air atoms, lending the name ionosphere to this highest zone of the earth's atmosphere. Radio waves which reach these ionized layers, averaging 25-200 miles high, are called sky waves

The lowest regions of the ionosphere, the D and E layers, are influenced directly by sunlight; their effects begin at sunrise, peak at noon, and disappear after sunset. They absorb radio signals. In other words, the longer the wavelength (that is, the lower the frequency), the more the absorption. This explains why daytime reception below roughly 10 megahertz (MHz) is so poor.

But, the E layer also reflects shorter-wavelength (higher frequency) signals back to Earth; the higher the frequency, the more the reflection. This is what provides distance (DX) on the higher shortwave frequencies. Most DX, however, is produced by the next region up, the F layer, which retains its electrical charge well into the night, reflecting signals back to the earth over great distances. All of these solar influences increase during the maximum sunspot cycle every 11 years, then gradually diminish again.

The earth itself can reflect radio waves, allowing a phenomenon called multihop; combinations of earth reflections and ionospheric refractions producing as many as five skips! More skips than that would be attenuated by ionospheric absorption and terrestrial



Signal propagation is a combination of ground waves and sky waves.

All About Antennas - Part 1 - Bob Grove, W8JHD

scattering, rendering the signal unreceivable. Internet sites like **www.hfradio.org/propagation.html** publish continuously-updated radio propagation forecasts, and a variety of prediction computer programs are available elsewhere, allowing the user to plan ahead for the most productive use of the spectrum.

Tropospheric scattering in the E and F2 layers is fairly common in the 30-50 MHz spectrum, especially during the daytime and during sunspot peaks. It favors the east in the morning and the west in the afternoon. At VHF and UHF, ionospheric propagation is rare. Some sporadic E skip, lasting from a few minutes to an hour or more, may occur in the 50-200 MHz range. It is caused by erratic clouds of ionization at an altitude of 75-100 miles.

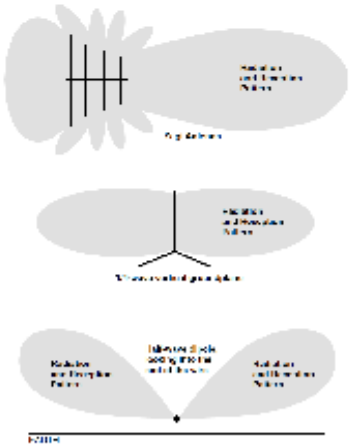
A similar phenomenon is produced when meteors enter the E layer. At such high speeds, the meteor vaporizes, producing an ionized trail which is capable of reflecting VHF signals back to earth 1000 more miles away, most dramatically in the 50-80 MHz spectrum.

It is estimated that some 200 tons of meteor material, from visible to dust size, strikes the earth every day; much more vaporizes in the upper atmosphere. Because of this constant bombardment, there are completely automated systems relying on this technique for long-distance data transfer.

Patterns

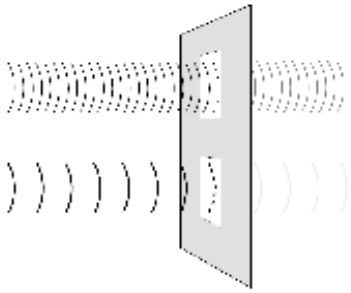
The shape of the field of energy emitted by a transmitting antenna, as well as the geometric response by a receiving antenna, is known as its pattern. It may be a simple donut shape surrounding the axis of the wire as in a half-wave, or smaller, dipole, called a doublet, or it may be multi-lobed, as in a multiple-wavelength antenna, called a longwire.

The elevation pattern, variously called radiation angle, takeoff angle, maximum amplitude elevation, and launch angle, is affected by height above ground, length of the antenna element(s), and the presence of nearby metal, including other antenna elements. It is an integral part of an antenna's gain characteristics which we will discuss in a later issue.



Antennas are designed to favor certain directions, both for transmitting and receiving. The lower the frequency, the more the signal is capable of following the contour of the terrain, and the less likely it is to be absorbed by trees and foliage. One study showed that with dense trees and vertical polarization, attenuation at 30 MHz is about 3 dB, increasing to 10 dB at 100 MHz.

Terrain, trees, wiring, metal siding, nearby buildings and other reflective surfaces all affect antenna performance. The lower the antenna, the more obstructed it is likely to be. A basement would be a very poor antenna location. Signals are unpredictably reflected by metal and wiring in and on the walls and ceiling; nearby electric and electronic appliances invite interference to reception; soil absorbs transmitted energy and also reflects signals upward; and signals come mostly from overhead (there aren't many there) rather than from the horizon.



The higher the frequency, the shorter the wavelength and the easier it is for a signal to get through an opening in an absorptive or reflective enclosure.

Nearby trees, buildings and hills take their toll, too. Locating an antenna inside a large building with steel frame and metal reinforcements may attenuate signals up to 25 dB at VHF and UHF, according to one study. Brick walls, slate or tile roofs can account for 6 dB, even more when wet. Shorter wavelengths (900 MHz) get through small windows in shielded walls where longer wavelengths (150 MHz) do not.

Location, Location, Location...

The Radio Horizon

Radio waves, like light waves, follow the line of sight. Because of the curvature of the earth, higher antennas "see" a farther horizon. Assuming a flat, unobstructed terrain, the visual horizon is about 8 miles for a 30-foot-elevated antenna, increasing to only 16 miles at 120 feet! Notice the square law effect: it requires roughly four times the height to get twice the distance. Once an antenna is high enough to "see" past nearby obstructions, it takes at least double that height to notice any improvement.

The lower the frequency, the more radio waves are capable of following the curvature of the earth beyond the visual horizon. Typical base-to-mobile communications ranges are about 50 miles in the 30-50 MHz band, 30 miles at 150-174 MHz, 25 miles at 450-512 MHz, and 20 miles at 806-960 MHz. Obviously, these distances will vary depending upon radiated power, receiver sensitivity, antenna gain, elevation and location.

Although the higher the antenna the better, coax cable losses may compromise any signal improvement; the higher the frequency, the worse those losses. For example, at 450 MHz, extending a 30-foot antenna to 60 feet could increase signal strengths by 5 dB, but if you are using common RG-58/U coax, signal strengths may be attenuated by the same amount, resulting in no improvement at all!

At 800 MHz, using this small diameter, lossy RG-58U, signals would get worse with height! Worst of all is thin RG-174U which has all the bad characteristics; in long lengths at UHF, you might as well short-circuit your antenna connector!

Always use low-loss cable such as the following, listed in increasing performance: RG-8/X, RG-8/U, Belden 9913, or 1/2" foam (Andrews), Heliax (all 50 ohm cables); or RG-59/U, RG-6/U or RG-11/U (72 ohm cables).

New Ham.... HF Operating Tips.

By Bob Kriegseis WB9VGO

Congratulations. You've done it. You studied your theory, you practiced your code, and you didn't lose your lunch when you went down to take your test. All the effort was not in vain and you got that upgrade that you've been dreaming about. You have HF privileges now and you are ready to use them. Or are you?

Maybe yes, maybe no, or maybe you're just not sure. If you started out as a Technician, as most hams do today, you may be pretty clueless about the HF bands. And if you're clueless about the HF bands it's a fair bet to say that you may be a bit foggy on how to operate there, as well.

I thought it might be helpful if I threw out a few suggestions on some of the basics of HF operating. Some hints, which if followed, will make the transition from VHF to HF easy and fun. Experience may be the best teacher, but in this age of instant access and immediate gratification, we all tend to jump in with both feet before we know how deep the pond is. Hopefully this article will help you to eliminate a few of the mistakes that come from inexperience.

OK. Lets assume that you have your station all set up and ready for action. Everything checks out OK, you didn't make catastrophic errors in your station installation and you're not reading this from intensive care. You have the microphone, key, or paddles (my personal preference) in hand and what do you want to do first??? LISTEN!!!!!

Yes, that's right. Sorry to disappoint you but the first thing you want to do on HF, is listen. And not just for a few seconds either. Before you even think about putting any kind of signal out over the air you should listen and make sure you won't be jumping on a QSO already in progress. Remember this isn't the repeater. You may not always hear both sides of a conversation on HF. Propagation is a funny thing, but it's not so funny to call CQ and then find out you're on a DX stations transmit frequency. If this is your first CQ, I guarantee you won't soon forget it. Hell hath no fury like an enraged DX pileup. If someone calls you a LID, don't boast, it is not a badge of honor.

There is an easy way to avoid this scenario and, quite possibly, months of therapy. How? Just ask. Is the frequency in use? On CW send QRL? If it's busy you'll get a " yes it is...thank you for asking." On CW you'll get a "R" (roger) or "C" (si). Easy huh? Now isn't that much nicer than the "#$%&@" you would have gotten if you didn't ask?

OK. The frequency is clear and now you can call CQ. CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ (oh yeah, the callsign). This is WB9VGO CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ CQ.....WRONG. This is not an exaggeration. Most hams have heard this kind of endless CQing on the HF bands. This can wear on an experienced operators patience. Just

New Ham HF Operating Tips by Bob Kriegseis—WB9VGO

imagine this CQ being sent on CW at 5 WPM. AAAAAAAAGGGGGGGGG!!!!! You can, almost literally hear the beginning of the CQ, go outside and mow the lawn, come inside for a bite of lunch and then sit back down at the rig at about the time the " CQ from Haites " is ending. Just hope you don't sit down a second too late or you'll hear the whole thing all over again. Or, if you're like me, you'll QSY to another frequency. Leaving this poor guy with doubts about the effectiveness of his station.

A better way to do it, or at least the way I was taught is, " CQ CQ CQ this is WB9VGO, Whiskey Bravo Nine Victor Golf Oscar, WB9VGO calling CQ 40 meters and bye for any calls." If you don't get a response you can repeat. Three CQ's, three ID's, with at least one phonetically. Oh what the heck. You can even send 3 calls, 3 ID's and repeat before you stand by. The point is, after a short call, STOP. Listen for a reply. If nothing, then try again. You will get many more replies if you're not too long-winded in your calls. On CW, same thing. CQ CQ CQ de WB9VGO WB9VGO WB9VGO PSE K.

Another little tip if you're on CW. Don't send your CQ's faster than you are capable of receiving. Most hams can send faster than they can copy. The more experienced CW operators will try to respond to a new hams CQ at about the same speed it was sent. So, if you are comfortable receiving at 7 WPM and you call CQ at 10 WPM, you will need to make at least one extra transmission to try to get the other station to slow down.

To get the other station to slow down you send PSE QRS. Please send more slowly. You can throw in the speed you want him to QRS to (ie. QRS 7 WPM). But it is much easier just to send at the receive speed you want. The point is to be able to copy the information being sent to you. Sure you'll miss a few thing here and there, but you'll get the important things for the log. Name, QTH, and RST are some of the things you should log correctly. If you miss something, ask for a repeat. UR QTH AGN PSE? BK (your QTH again please? Back to you). This is communication, so if you don't understand something, keep trying until you do.

OK you've done it. You made that first HF contact. After you stop shaking you'll want to enter the QSO information in your station log. "Log? you ask. "The FCC doesn't require a station log anymore. I never logged any of my repeater QSO's." True, legally you don't have to log. But if you ever want a QSL card for WAS, DXCC, or just for the heck of it, you had better log your contacts. Time on, time off and in UTC (Universal Time). Logging a station at 3:35 PM CST doesn't mean squat to a station in Melbourne.

You can use a good "old fashioned" ARRL type log. You know, the kind you have to physically do the writing yourself. Or, you can use a logging program on your PC. Or both. It really doesn't matter how you log, just log. Besides after you've been in the hobby a number of years it's fun to reminisce. I still get a kick out of looking back at my first contact. Or the many pleasant QSO's I had with my Elmer, Jim, N9GI, now a silent key. You'll never regret keeping a log and it's the best way to keep a record of the changes that you make to your

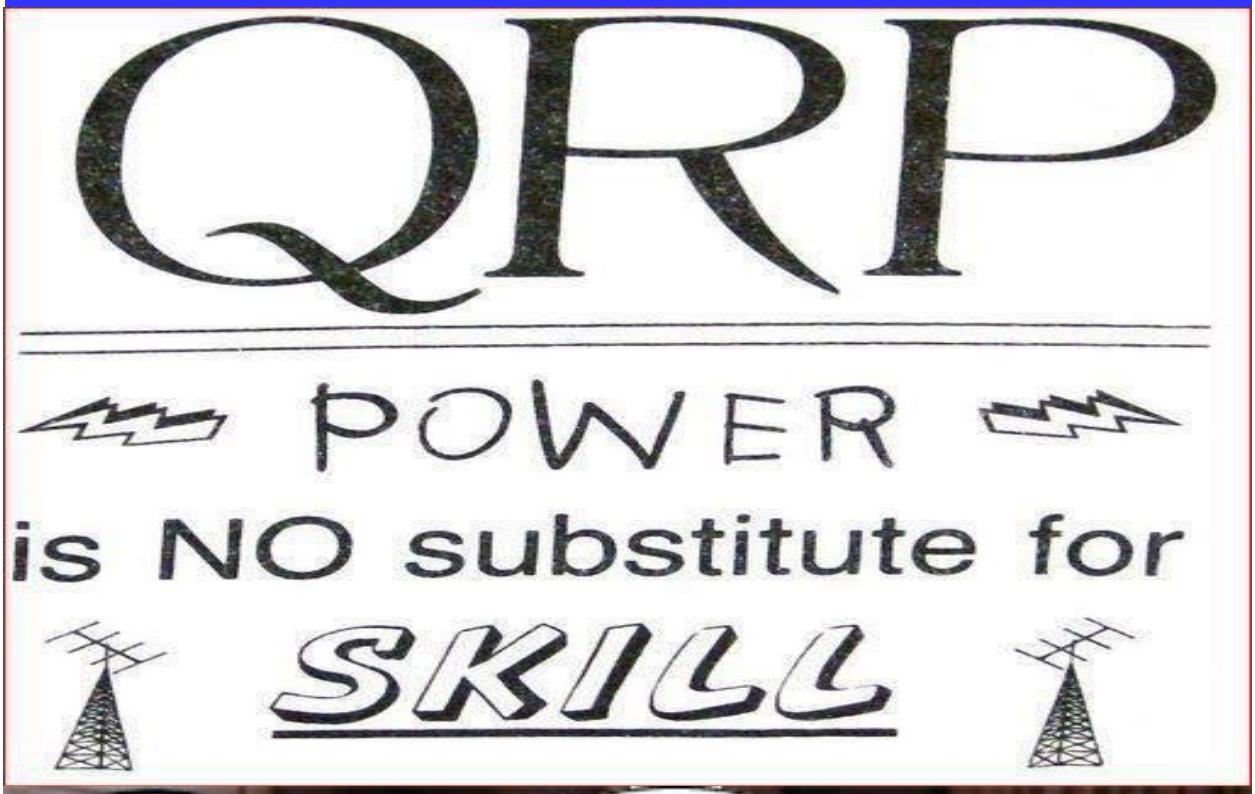
station over the years. How does the new antenna compare to the old. The comments written down when working Japan QRP when the bands were "really" open. These are just a few examples of what a good station log can include.

There are many more subjects I could discuss, maybe in another article, but this should get you started. If you decide to operate fone, CW, nets, ragchew, DX or stateside, the main thing to remember is LISTEN first. You'll learn more in a few minutes of listening than in hours of talking.

If you have any questions about HF operating don't be afraid to ask. Amateur radio is filled with many people who would be more than happy to share their hints and experiences with you. Joining a local radio club provides a great resource of experienced operators with various interests in the hobby. Most hams enjoy helping a newcomer join the ranks and inviting them to visit their shack. You now, quite literally, have the world at your fingertips. Learning the right habits early will lead to years of enjoyment on the HF bands. Have fun and "LISTEN" for me on the HF bands. 73.

Home

How's Propagation and Are You Being Heard? - KE3LA



PENN WIRELESS ASSOCIATION

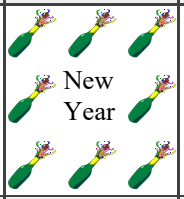
December 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
Technet 8PM						
10	11	12	13	14	15	16
PWA Holiday Party Technet 8PM	PWA E-Board Meeting 7:30PM					
17	18	19	20	21	22	23
Technet 8PM						
24/31	25	26	27	28	29	30
Technet 8PM	Christmas					

PWA Holiday Party
Date: 12/10/17
Time: 1:00 P.M.— 4:00 P.M.

PENN WIRELESS ASSOCIATION

January 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
	 New Year					
7	8	9	10	11	12	13
Technet 8PM						
14	15	16	17	18	19	20
Technet 8PM	PWA E-Board Meeting 7:30PM					
21	22	23	24	25	26	27
Technet 8PM						
28	29	30	31			
Technet 8PM						

Volunteer Examiners

Take the FCC Amateur Exam...

Our ARRL/VEC VE Team is ready and willing to administer any license grade/upgrade or code element test. Confirm your intention to test with Ben Johns, VE Contact at 215-657-5994 not later than the Friday evening before the 4th Monday of the month. Please advise us in advance of any special needs you may have in successfully completing the intended test. Our testing session begins promptly at 6:30 pm and remains active until all license grades desired are administered. We do not recommend, nor is it our practice, to administer repeat examinations of similar license grades to any candidate. However, progressive license grades may be attempted by any applicant at no additional charge. Please come prepared with the following items.

- Confirmation of appointment letter, email, note, etc. Walk-ins are not guaranteed a test session.
- Test fee of $15 in cash or personal check payable to ARRL/VEC.
- Either of the following ID methods:

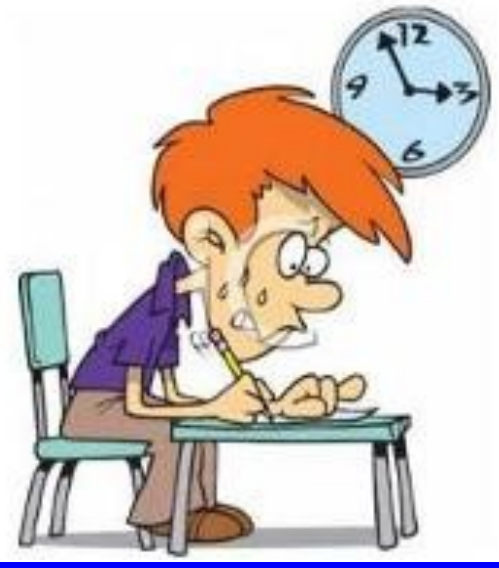
  - One legal photo ID (driver or non-driver license, passport, radio*telegraph* license, or other legal photo ID)

  OR

  - Any two of the following IDs: Non Photo ID/Driver License, Social Security Card, Birth certificate, Minor's work permit, Utility bill, bank statement, business correspondence specifically naming the person, postmarked envelope addressed to the person at their mailing address as it appears on the FCC Form 605

- Any of the following ID numbers: Taxpayer ID (Social Security Number), IRS issued EIN (Employer Information Number), Alternate taxpayer ID Number (ATIN), FCC Issued Registration Number (FRN), FCC Issued Licensee ID Number
- The **original** plus one copy of your FCC license or CSCE (Certificate of Successful Completion of Examination). The original will be returned immediately to you.
- If applicable, a Physician's Statement if necessary to validate your claim of difficulty at reading, writing or speaking when requesting special assistance.
- A calculator is recommended and allowed if ALL internal memories are cleared and can be demonstrated free of information. A simple four-function calculator is suggested.
- One or more black-lead pencils and eraser, and a ball point pen.

Good Luck!



Penn Wireless Association
P.O. Box 925
Levittown, PA 19058

APPLICATION FOR MEMBERSHIP

Personal Information (please print):

Name: _____ Date : _____

Street Address:

_____

City: _____ State _____ Zip _____

Home Phone: _____ Cell Phone: _____

Birth Date: _____ Occupation: _____ [] active [] retired

License Information:

Call Sign: _____ Class: [] Novice [] Tech [] General [] Advanced [] Extra

Date First Licensed _____ Previous Calls: _____

Preferences:

ARRL Member? _____ Other Clubs?

_____

Bands/Modes Frequently Operated

_____

Emergency Power? _____ Portable/Mobile? _____

Favorite Amateur Radio Activities: *(note all that apply)*

[] Awards	[] Traffic	[] Contesting	[] Digital Radio
[] Rag Chewing	[] MARS	[] Field Day	[] QRP
[] Projects	[] Newsletter	[] Fund Raising	[] Renewable Energy
[] DX'ing	[] Fox Hunting	[] Public Service	[] QSL Card Collection
[] County Hunting	[] Packet Radio	[] Rig Restoration	[] _____
[] Education	[] Hamfest	[] Antennas	[] _____

Comments:

PENN WIRELESS ASSOCIATION

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QSL Manager	Open		
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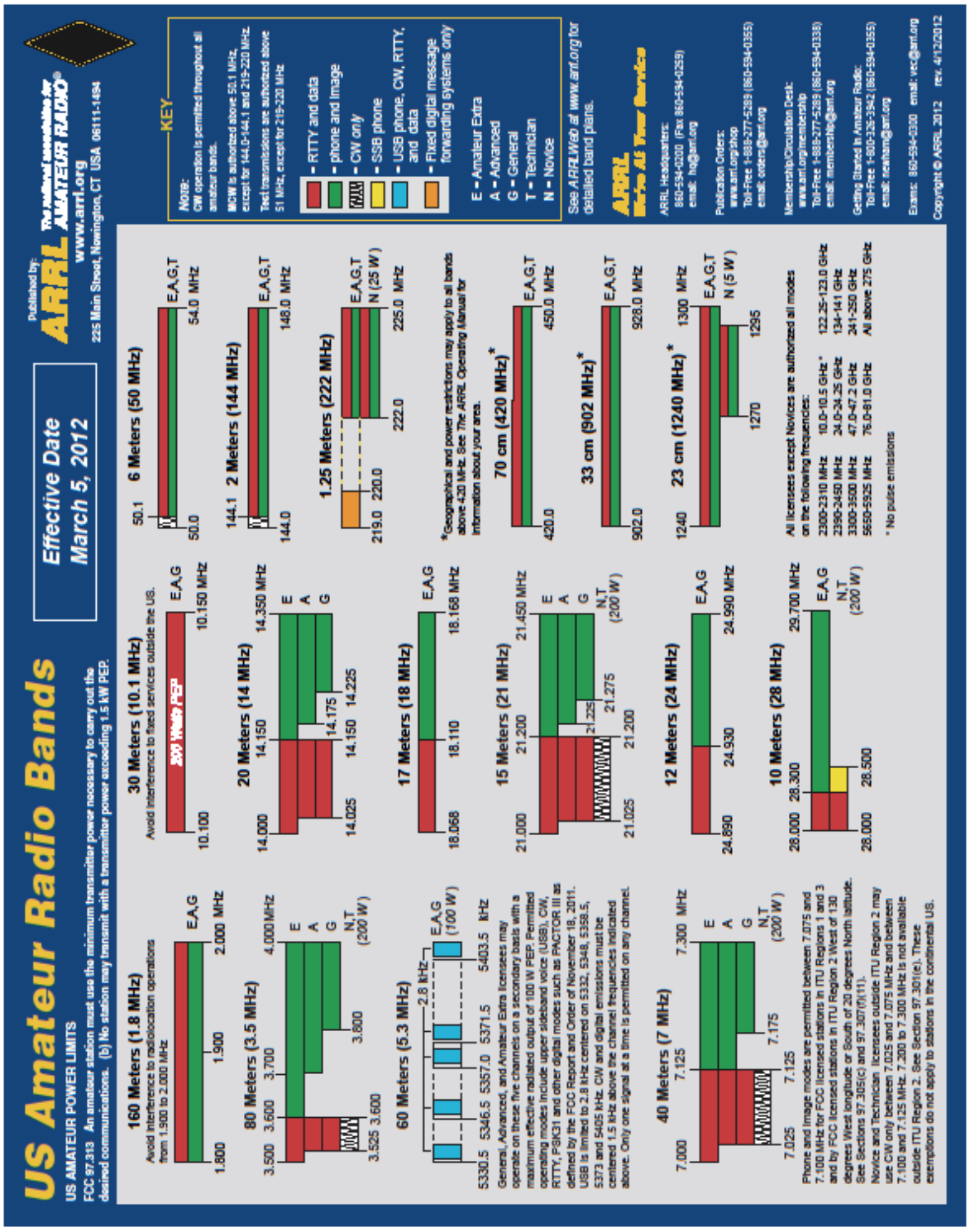
PWA relies on Members volunteering their time and expertise to insure a vibrant and active club. Please consider joining or chairing one of the above listed Committees.

U.S. Amateur Radio Bands



Manufacturer Website Links

Alinco Electronics	http://www.alinco.com/
Pryme	http://www.pryme.com/
Ameritron	http://www.ameritron.com/
Alpha Power	http://apowersystems.com/
Artsci Publications	http://www.artscipub.com/
Astron	http://www.astroncorp.com/
Bencher	https://bencher.vibroplex.com/
Bird Technologies	http://www.birdrf.com/
Palstar Tuners & Accessories	http://www.palstar.com/en/tuners/
Communications Specialists	http://www.com-spec.com/
Davis Instruments	http://www.davisnet.com/
Down East Microwave	http://www.downeastmicrowave.com/Default.asp
Drake (R.L.) Company	https://www.rldrake.com/
Dunestar Systems	http://www.dunestar.com/store/
Elecraft	http://www.elecraft.com/
ElectronicsUSA	http://electronicsusa.com/
Fractal Antenna Systems	http://www.fractenna.com/
Hal Communications	http://www.halcomm.com/
Hamtronics	http://www.hamtronics.com/
Heil Sound	http://www.heilsound.com/
Henry Radio	http://www.henryradio.com/
ICOM America	http://www.icomamerica.com/en/amateur/
Kanga US	http://www.kangaus.com/
Kantronics	http://www.kantronics.com/
Kenwood	http://www.kenwood.com/usa/com/amateur/
LDG Electronics	http://www.ldgelectronics.com/
MFJ	http://www.mfjenterprises.com/
Mirage	http://www.mirageamp.com/
Oak Hills Research	http://www.ohr.com/
Optoelectronics	http://www.optoelectronics.com/
Peet Brothers Co	http://www.peetbros.com/shop/
PowerPort	http://www.powerportstore.com/
QRO Technologies	http://www.qrotec.com/
Ramsey Electronics	http://www.ramseykits.com/
RFI Wireless	http://www.rfiwireless.com.au/
SGC	http://www.sgcworld.com/
SCS	http://www.scs-ptc.com/
SSB Electronic	http://ssbusa.com/
Ten-Tec	http://www.tentec.com/
Timewave Technology	https://www.timewave.com/shop/
Top Ten Devices	http://www.qth.com/topten/
Vectronics	http://www.vectronics.com/
Vibroplex	http://www.vibroplex.com/
W2IHY Technologies	http://www.w2ihy.com/
West Mountain Radio	http://www.westmountainradio.com/
Yaesu USA	http://www.yaesu.com/
JPS Communications	http://www.jpsinterop.com/

Repeater Etiquette

- **Listen before you transmit. If there is traffic in progress, transmit your call between ongoing transmissions and wait for acknowledgement.**
- **Speak clearly and distinctly at normal volume, your mouth about 6 inches from your microphone.**
- **If the repeater is clear of traffic and you wish to use it, key your transceiver and issue "*This is (your call) listening*" or "*This is (your call) monitoring*" or "*This is (your call) mobile*" etc. It is generally good practice to allow at least 1 second between keying your transceiver and beginning to speak to allow the repeater time to initialize.**
- **Transmit your call in plain English, phonetics are not normally necessary.**
- **It is not necessary to ID with every transmission but ID at least once in every 10 minute period as per Part 97 of FCC regulations.**
- **Vulgarity, profanity and obscene language are always forbidden.**
- **The use of the word "over" is not normally required at the end of each transmission.**
- **The use of CB 10 codes, "handles", euphemisms etc. is poor form. You are a licensed amateur operator.**
- **"Kerchunking" the repeater is considered bad form. If you need to test your equipment (testing the repeater isn't necessary, it works!), key up and issue "*This is (your call) testing*."**
- **Nets: Many nets are 'directed'. They have a net control station which will announce its call during the net preamble transmission. The function of the net control station is to maintain traffic flow and activities on the net. When participating in a net, check into the net with "*Net control this is (your call)*". Avoid leaving a net without requesting permission to do so from net control. Direct all traffic to net control. If you need to contact another station on the net directly, request permission from net control first. Example *"Net control this is (your call), permission to go direct with (other call)".***
- **Remember, repeaters have time out limits. It is embarrassing to 'time out' the repeater with a long-winded transmission. It is better practice to occasionally allow the repeater to 'drop', let the timer reset and then continue your transmission.**
- **Sign off at the end of any QSO. Example: *"(Other call) this is (your call), I'll be clear on your final, 73"*.**
- **Be respectful, courteous and tolerant at all times. Welcome new comers. We all had the jitters on our first QSO!**