OUR 25TH YEAR!

EPARA BEACON

VOL. 5, NUMBER 11 THE OFFICIAL NEWSLETTER OF THE EASTERN PENNSYLVANIA AMATEUR RADIO ASSOCIATION NOVEMBER 2021

NEXT CLUB MEETING: NOVEMBER 11TH

Monroe County Public Safety Center, 100 Gypsum Rd Stroudsburg, PA 18360

Welcome to the EPARA Beacon! This newsletter is published monthly and is the official newsletter of the Eastern Pennsylvania Amateur Radio Association. EPARA has served the amateur radio community in the Pocono Mountains for over 25 years. We have been an ARRL affiliated club since 1995. We offer opportunities for learning and the advancement of skills in the radio art for hams and non-hams alike. EPARA supports Monroe County ARES/RACES in their mission of providing emergency communications for served agencies in Monroe County. Feel free to join us at one of our meetings or operating events during the year. The club meets on the second Thursday of every month, at the Monroe County 911 Emergency Control Center. The business meeting starts at 7:30 P.M. Anyone interested is invited to participate in our meetings and activities.

ZOOM Meeting Info: Meetings begin at 7:30PM!

https://us02web.zoom.us/j/85463346031?pwd=bU1KcVZoaVZiVEUvdjRsUXlNNHZkZz09

Meeting ID: 854 6334 6031 Password: 244632

From The President

Its November so we all are gearing up for the holidays, I hope you and your family have a great Thanksgiving! Things slow down a bit for the club this time of the year and, we are done with VE sessions until January. We are participating in the ARRL EME Contest on November 20th and 21st and again on December 18th and 19th. This is a first for us and it's nice to experiment with different forms of digital amateur radio communications. It should be a fun and educational experience, if you want to be part of our EME activities contact Alex KD2FTA or myself for details.

We are also planning our annual Christmas dinner at the Chestnut Hill Diner; it will be held on December 9th at 7PM. This is always a fun evening and I'm looking forward to it as we had to cancel it last year because of Covid 19. It's been a great year restarting our club activities after a dreadful 2020 and I'm looking forward to the growth of EPARA moving forward.

That's if for now, see you on November 11th at our next meeting.
73
Chris AJ3C

CONTACT INFORMATION

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EPARA Net list

Monroe county ARES-RACES – Sunday's 8:30 PM, 146.865 MHz, PL -100 Hz

The Monday Night Pimple Hill repeater 8:30 PM (Repeater freq = 447.275 with a - 5MHz offset) DMR TECH Net on TG314273* Time Slot 2

SPARK Information/Swap Net – Tuesday's 8:30 PM, 147.045 MHz, PL 131.8 Hz

The Wednesday Night EPARA Hot Spot DMR Rag Chew net at 8:30 PM, TG 3149822* Time Slot 2 (N3IS Talk Group)

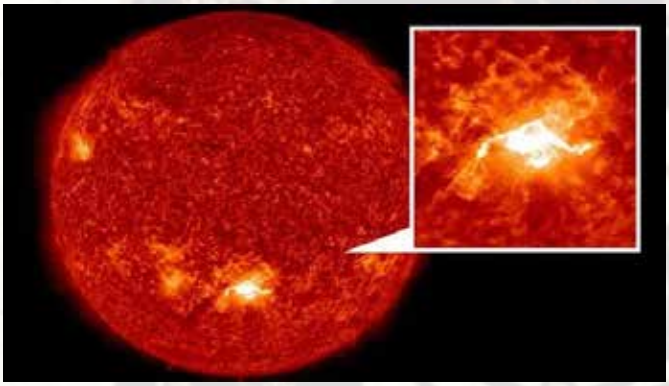
EPARA Tech Net – Friday's 8:30 PM, 147.045 MHz, PL +131.8 Hz

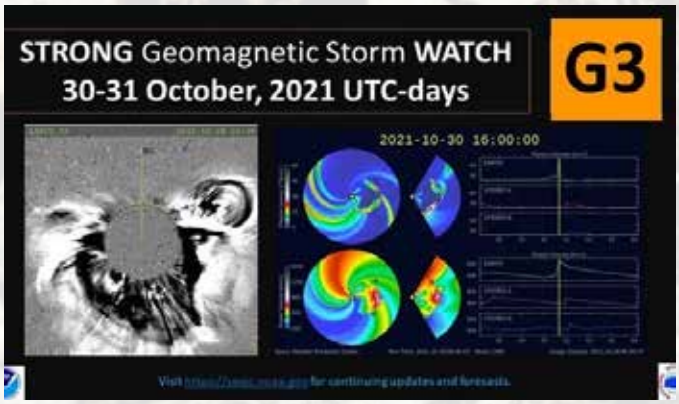
*TG = Talk Group

Announcements
AND UPCOMING EVENTS

EPARA Patches: Club patches are in! For those that ordered them please step forward to collect them. We also have extra just in case …

EPARA Club Dues
Club dues were due January 1st. For those that missed the chance to stay current, there are two (2) methods available to pay to help make this easy for all. Contact Scott KC3IAO via his email: KC3IAO@hobbyguild.com and you can send him a check or pay via PayPal.





A solar storm watch has been issued for Saturday and Sunday after an X-class solar flare erupted from the surface of the Sun on Thursday. The intense burst of radiation was followed by a so-called coronal mass ejection (CME) of plasma and magnetic field that is poised to land a "direct hit" tomorrow. According to the US Space Weather Prediction Center (SWPC), the CME escaped the Sun yesterday afternoon and was clocked at speeds of about 973km per second - more than 2.1 million miles per hour.

New EPARA hat design under consideration!

Rule #1 of Amateur Radio, it is a hobby, unless you figured out a way to fashion a living out of it.
Rule #2 of Amateur Radio, life is not a hobby and typically carries heavy responsibilities of everything that is not a hobby.
Rule #3 of Amateur Radio, never give up a LIFE event for a Ham event. You may make some great memories at the Ham event, but the guilt you may carry missing a LIFE event can be a terribly heavy millstone.
Rule #4 of Amateur Radio, as technology moves forward, so does Ham Radio - do what makes you happiest, experiment with other elements of Ham Radio as LIFE allows.
Rule #5 of Amateur Radio, it is only Ham Radio, when confused always refer to Rule #1 through #4.

TEST YOUR KNOWLEDGE!

What can be done to prevent unwanted oscillations in an RF power amplifier?

A. Tune the stage for maximum SWR
B. Tune both the input and output for maximum power
C. Install parasitic suppressors and/or neutralize the stage
D. Use a phase inverter in the output filter

Last month's answer was, B. Time division multiplexing is the process of transmitting two or more streaming digital signals over a single channel. In TDM, incoming signals are divided into time slots. After multiplexing, these signals are transmitted over a shared medium and reassembled into their original format after de-multiplexing.

DMR
DIGITAL MOBILE RADIO

The EPARA HOT SPOT Wednesday night DMR rag chew is here!

Wednesday evenings at 8:30 PM local, 0:30 UTC!

Tune your DMR radios to Talk Group 3149822 TS2 to join the

N3IS EPARA Hot Spot rag chew DMR net.

Listen to the Tech Net Friday nights on the 147.045 repeater to learn more about joining this net and for upcoming ZOOM meetings announcements to learn more about programing your radios and hot spots!

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July 1983 $2.49½
Issue #274

Amateur Radio's Technical Journal

EPARA General Membership Meeting Minutes
October 14th *2021*

General Membership Meeting 7:30Pm

Open meeting:

Meeting called to order at 7:35 pm on Oct 14th 2021 by Chris AJ3C
Introductions with call signs
Declaration of Quorum.
Total members attending: 19: 15 members at the 911 Center and 4 members on Zoom. Visitors present: 2.
Total attendees were 21.

Pledge of Allegiance / Moment of silence:

Membership Meeting - Minutes Aug 12th, 2021:

Secretary - Kevin W3KCF:

Meeting minutes for Sep 9th, 2021 were posted on the EPARA website. Chris – AJ3C asked members if they had seen and read the minutes from our previous meeting. He then asked if there were any questions or objections to the minutes as they were presented. With no objections, Chris asked for a motion to accept the minutes as presented:

Motion to accept minutes as presented: By AL – KB3OVB 2nd by Alex – KD2FTA Motion Passed

Treasurers report:

Scott, KC3IAO stated the opening balance from Sep 30th 2021 was $2709.20

Expenses:
Ck. 121, $54.00 Zoom meeting fees.
Ck. 122, $193.86 Ham Fest Expenses.
Ck. 123, $600.00 Ham Fest Money for Change.

Income:
Deposit 9/17/21: $53.00
$20.00 Dues.
$33.00 50/50.

Deposit 9/27/21: $1832.00 (Includes $600 cash for making change at the Ham Fest)

$0.11 in bank interest.
Closing Balance: $3746.45

Our PayPal account had an opening balance of $463.69 We had no activity, leaving a closing balance of $463.69

Motion to accept reports by Bill – KA3UKL 2nd by Charlie – KB3JUF Motion Passed

Correspondence:

None

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EPARA GENERAL MEMBERSHIP MEETING AGENDA

Amateur Radio's Technical Journal

Reports of officers and committee's:

Bill AB3ME – Program Committee:

Bill stated that he has a presentation scheduled for after the meeting on the Di-Pole Antenna he made.

Bill then gave a report regarding the PA QSO Party that was held at his house. He said the station consisted of an Icom 7600, Palstar HF Auto Tuner, Icom 4KL 1000w linear, 50' tower and Mosley TA-33.

He said there were 6 participants, which included himself (AB3ME), Ruth Ann (W9FBO), Alex (KD2FTA), Bob (W3BMM), Joe (KC3DYY) and Len (KD3CNU). The mode used was only Phone. They made a total of 285 contacts, including the one bonus station in Lancaster County worth 200 points. Additional contacts were made in Canada and Slovak Republic. Four of the contacts were made on 15m and the others were made on 40m and 80m.

With the multipliers of (93) they had a score of 26,505 and are submitting it to the ARRL for verification.

Bill then then asked if anyone else was interested in giving a presentation, would they please contact him to set things up.

Charlie KB3JUF – ARES/RACES:

Charlie stated that he had nothing much for the group, other than they had installed an Icom 7100 at the Red Cross Facility in Stroudsburg, but are missing an antenna. Once again, he mentioned - "*Stay Prepared*", as he was going to implement a surprise activation to test our readiness for any situation.

Charlie then emphasized that all members get involved and start checking into other ARES Nets to gain experience and see what is going on around the area.

Charlie said he is also looking for additional members to volunteer for ARES.

Charlie then mentioned that the Monroe County Office of Emergency Management was offering two classes

ICS-300: Incident Command for Expanding Incident and Supervisors.

ICS-400: Incident Command for IC & General Staff for Complex Incidents.

For further information and to register, contact Brad Harrison 570-992-4113 or email him at bharrison@monroecountypa.gov

** One further note, make sure you're training and task books are up to date and ready to go.

Chris AJ3C – Instruction and Training:

Chris said next Friday will be the final VE session for the year. At this time, we have no one scheduled.

PIO: Public Information Officer position is still vacant

Chris AJ3C - Website

Nothing to report

AL, KB3OVB: Membership:

We currently have 63 members with 3 more folks to be voted on tonight.

Eric N3SWR – Newsletter and Communications:

Eric said there was nothing new and asked if anyone had articles they'd like to share, please send them to him at eparanewsletter@ptd.net.

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EPARA GENERAL MEMBERSHIP MEETING AGENDA

Amateur Radio's Technical Journal

Sat-Com Group: *Planning for an EME project*

Alex asked if anyone knew of a good site we could utilize for this event. A few suggestions were thrown out, but no decisions were made. Pete (KB3YKJ) said he had room in his yard facing east, that may be promising. Kevin (W3KCF) also mentioned that there were 15 acres in Pen Argyl on the hill facing East we could also potentially use. Let Alex and Bob know if you're interested in participating.

The dates are Dec 21st and the 22nd which is rapidly approaching.

Alex and Bob mentioned that the ARRL was promoting 3 EME events in December. Further details to follow.

Old business

Hamfest Recap:

The 2021 Hamfest went extremely well. We had gross profits of $1232.00. Operational Expenses of $455.55 and a net profit of $776.45.

Club Hats and Shirts:

All of the hats and shirts ordered were sold. If anyone would like to order additional hats are shirts, please contact Kevin (W3KCF). I need at least 7 shirt requests to place an order. Hats can be ordered a couple at a time.

2020 Audit Update:

Bill – AB3ME is working to set a time to get together with Ruth Ann and Ed to conduct the audit. No time has yet been set to meet.

Embroidered Patches:

Chris said there are still patches available for purchase. For those still interested in purchasing patches, the cost of a patch is $10. PayPal is setup, so if you are interested, contact Scott KC3IAO

Tech Net on DMR:

EPARA Tech Net on the KG3I DMR repeater (T 442.275/R 447.275) The net is hosted on Monday nights at 8:30 PM on Talk ***Group*** 314273 ***and is on Time Slot 2, Color Code 0.***

N3IS DMR Talk Group:

EPARA has established a DMR talk group under the club N3IS call sign. The talk group is 3149822 and is accessible via hot-spot only. This group meets Wed nights at 8:30pm for a great time and rag chew.

World Wide Net - DMR

Talk Group 91 - Saturday 11:00am: Alex mentioned there is a *World-Wide Net* on talk group 91 every Saturday. The net begins at 11:00am and gets around to North American for check-ins around 1400

Any Other Old Bussiness:

At this time there was no additional old business

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EPARA GENERAL MEMBERSHIP MEETING AGENDA

Amateur Radio's Technical Journal

New business:

2022 Budget:

The 2022 budget was presented to the membership and voted upon.

Motion to Accept: Ruth Ann – W9FB0 and Seconded by AL – KB3OVB Budget approval Passed.

Club Call Sign (N3IS) Trustee Change:

We need to change the trustee of the club call sign. Donald WK2RP has moved to South Dakota. The new trustee will be Chris Saunders – AJ3C

Motion to accept trustee change made by, Pete - KB3YKJ. Seconded by Bob – W3BMM. Motion Passed.

***** The EPARA Club Bi-Laws require that to make trustee changes and replace the Club Call Sign Trustee, it must be signed by and acknowledge by all board members.**

Board Members Signatures: We hereby acknowledge the above changes made to Club Call Sign Trustee

President – Chris Saunders (AJ3C):

Vice President – Bill Carpenter (AB3ME):

Treasurer – Scott Phelan (KC3IAO): _____

Secretary – Kevin Forrest (W3KCF): _____

Trustee- Eric Weis (N3SWR)

EPARA Christmas Dinner 2021:

This year's Christmas Dinner will be held at Chestnut Hill Diner on Thursday December 2nd.

Votes / New members:

We had three new members voted in tonight. Winston – NA7L, Joseph – WB4WZZ and Kent – KC3SRB. It was unanimous. EPARA welcomes its newest member.

The 50/50 raffle contained $52.00 and was won by Eric – N3SWR

Adjournment…

Meeting was adjourned at 8:45 pm Motion to close by Pete – KB3YKJ 2nd by Ed – KC3OLB. Motion Passed

Secretary
Kevin Forrest
W3KCF

EPARA MEETING

To: All EPARA Members and Users of the WA3MDP Repeater System

Re: The 147.045 Repeater Malicious Interference

Over the past few years the 147.045 repeater here in Monroe County has been plagued with an increasing amount of deliberate and malicious interference. While some of this interference has been directed at some specific operators the end results has been a wide area large foot print repeater that get little to no use except for a few regularly scheduled nets.

This is not a problem that is special to just the 147.045 system. Nationwide FM repeaters (and HF bands for the matter) are also being interfered with deliberately and the FCC lacks the manpower and ability to search out the people causing the issues.

The ARRL in conjunction with the FCC reorganized the Volunteer Monitor program a while back to assist in tracking down QRM on all of the amateur bands. While some progress has been made there obviously is a lot more to be done.

A small dedicated group has been tracking the QRM locally by various means for over a year. While some of the sources have been narrowed down it is now time to get the rest of the local ham community involved.

What we are asking people to do is when you listen to the 147.045 repeater also listen to the "input" frequency which is 147.645 (no tone is required). If you should hear any of the malicious and deliberate QRM occurring, do the following:

1) DO NOT ENGAGE IN A CONVERSATION WITH THESE INDIVIDUALS.

2) If you hear farting, cat calls, high pitch cartoon voices, music, etc write down the DATE, TIME, YOUR LOCATION and APPROX STRENGTH OF THE QRM STATION. If you have a beam antenna and can provide a heading that would be great too!

3) Send your listening report to the email address LIDSonzero45@gmail.com.

ALL information will be kept confidential and with this added information we hope to narrow down the locations that have already been identified.

In closing let me assure you that the people looking for the sources of the interference are doing so with the blessing of the repeater owners. It is our desire to see the 147.045 repeater system return to the quality repeater that it used to be many years ago.

Thank you in advance for your cooperation.

VE Testing & Classes

Anyone looking to take an exam is encouraged to contact Chris AJ3C to preregister at least one (1) week in advance of the test date. If you have any questions or to register, Chris can be reached via email AJ3C@GMX.COM. VE sessions are being held the 4th Friday of each month at 6pm at the Monroe County 911 training center. Seating is limited for the time being so we can follow the health guidelines set forth by the county and state.

VE sessions are back - contact Chris AJ3C for further information!

AMATEUR RADIO CLASSES

ARES/RACES meetings are now being held on the fourth Friday of each month at 7PM. The meetings are once again being held at the 911 call center. These meetings will serve as training sessions covering several aspects of amateur radio emergency communications. We will start with traffic handling and the use of Radiograms and the ICS 213 general message form. Future sessions will cover the use of several ICS forms and the setup and use of digital communication modes including Winlink, Packet Radio, APRS, and the FLDIGI software program. Meeting are open to all, you do not need to be an ARES/RACES team member to attend.

Don't forget to sign up with with ARES Connect if you haven't done so already and if you plan to attend the meeting or check-in to the weekly net remember to register you attendance on the ares connect page. To sign please use this link: https://arrl.volunteerhub.com/lp/epa

Want to Put Your Ham Radio Skills to Good Use? Get Involved in

EmComm!

One of the missions of the Amateur Radio Service is for amateur radio operators to provide public service and emergency communications (EmComm) when needed. We act as a voluntary noncommercial communication service and pitch in to help our communities and first responders.

So, what organizations are out there for community-minded amateur radio operators and what can we do to help?

Join In

One good entry point into public service and emergency communications is to join SkyWarn, a volunteer program run by the National Weather Service (NWS) with more than 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the NWS.

Not all of these weather spotters are amateur radio operators, but many are. Amateur radio communications can report severe weather in real time. When severe weather is imminent, SkyWarn spotters are deployed to the areas where severe weather is expected. A net is activated on a local repeater and SkyWarn spotters who are Hams check into that net. The net control advises the spotters when they might expect to see severe weather, and the spotters report conditions such as horizontal winds, large hail, rotating clouds, and even tornadoes.

To become a SkyWarn spotter, you must attend a class that teaches you the basics of severe weather, how to identify potentially severe weather features, and how to report them. The classes are free and typically last about two hours. Check your local NWS website for class schedules.

ARES/RACES/CERT

Another way Hams can become involved in public service and emergency communication is to join an ARES or RACES group. Technically, these are two separate services—the Amateur Radio Emergency Service (ARES) is run by the ARRL, while the Radio Amateur Civil Emergency Service (RACES) is a function of the Federal Emergency Management Agency (FEMA). Amateur radio operators who typically take part in one also take part in the other.

To participate in RACES, you'll need to take some self-study FEMA courses in emergency preparedness and emergency-response protocols. Classes may or may not be required to participate in ARES. These requirements are set by each individual ARES group. To get involved with either ARES or RACES, ask your local club members when they meet. You can also contact the Section Manager or Emergency Coordinator for your ARRL section. To contact them, click here and find the section that you live in.

Amateur radio operators belonging to ARES (and its predecessor, the Amateur Radio Emergency Corps) have responded to local and regional disasters since the 1930s, including the 9/11 attacks, and Hurricane Katrina and Hurricane Michael, among others.

The Community Emergency Response Team (CERT) program trains volunteers—both Hams and non-hams—how to be prepared for disasters that may impact their area. They provide basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a nationwide approach to volunteer training and organization that first responders can rely on during disaster situations, allowing them to focus on more complex tasks.

What Gear Do You Need?

For most local needs, a 5-watt VHF/UHF handheld transceiver is sufficient for utilizing local repeaters to relay messages and report on conditions as they exist. Replacing the radio's stock antenna with a higher gain antenna or connecting it to a magnetic mount on a vehicle will increase range significantly.

Even better is a VHF/UHF mobile radio installed in your vehicle with 25 or more watts output and a good mobile antenna. In the event the repeater loses power, you can talk over a considerably larger area in simplex mode with the extra power and a good mobile antenna.

If you work with an ARES or RACES group, you may be asked to act as a county control station. In this capacity, you'd need both HF and VHF transceivers in a fixed location, such as your house, with a good antenna system and emergency power capabilities like a generator or batteries. This allows you to make contacts within your state and throughout the U.S.

Helping Hams

Ham radio can play a key role in emergency situations. Here are a few examples:

- Ham radio connected firefighters and police departments, Red Cross workers, and other emergency personnel during the 2003 blackout that affected the northeast United States.
- In 2017, fifty amateur radio operators were dispatched to Puerto Rico to provide communications services in the wake of Hurricane Maria.
- Amateur radio operators provided communications in the aftermath of the Boston Marathon bombing when cellphone systems became overloaded.

- During Hurricane Katrina, more than one thousand ARES volunteers assisted in the aftermath and provided communications for the American Red Cross.
- During the devastating Oklahoma tornado outbreak that began in May 1999, amateur radio operators—giving timely ground-truth reports of severe weather—played a critical role in the warning and decision-making processes at the NWS Weather Forecast Office in Norman, Oklahoma.
-
-

Credit: https://www.onallbands.com/want-to-put-your-ham-radio-skills-to-good-use-get-involved-in-emcomm/

Monroe County Office of Emergency Management

100 Gypsum Road
Stroudsburg, PA 18360
EMAIL - mcoem@monroecountypa.gov
570-992-4113 Fax 570-402-7358

FACEBOOK - www.facebook.com/MCPAOEM

ICS-300: Incident Command for Expanding Incident and Supervisors

FSC: 0509

Hours: *24 (Lecture: 11.0hrs / Lab: 13.0hrs)*

Prerequisites: Age 16 and up, ICS – 200, or NIMS ICS for the Fire Service, or NIMS ICS for Emergency Medical Service

Description: This course is designed to provide overall incident management skills rather than tactical expertise. The course will cover the implementation of the incident management process on Type 3 incidents; define a Type 3 incident, and the development of an Incident Action Plan. Determining capabilities to match Incident complexity will be discussed. When and how to add appropriate ICS positions to match the complexity of the incident will be explored. The use of Incident Management Teams will be discussed.

Cost: None

Class Size Limited: 25 Participants

Instructor: Mark Nalesnik

Course Date & Times:

Tuesday Oct. 12th, 2021	*18:00-22:00*
Wednesday Oct. 13th, 2021	*18:00-22:00*
Saturday Oct. 16th, 2021	*08:00-16:00*
Sunday Oct. 17th 2021	*08:00-16:00*

Registration Deadline: *Friday Oct. 8th, 2021*

Course Location:

Monroe County Public Safety Center
100 Gypsum Road
Stroudsburg PA 18360

Contact to register

Brad Harrison

570-992-4113

Or e-mail

bharrison@monroecountypa.gov

Monroe County Office of Emergency Management

100 Gypsum Road
Stroudsburg, PA 18360
EMAIL - mcoem@monroecountypa.gov
570-992-4113 Fax 570-402-7358

FACEBOOK - www.facebook.com/MCPAOEM

ICS-400: Incident Command for IC & General Staff for Complex Incidents

FSC: 0511

Hours: *16.0 (Lecture: 7.5hrs / Lab: 8.5hrs)*

Prerequisites: Age 16 and up, ICS – 300

Description: This course is designed to provide overall incident management skills rather than tactical expertise. This course will discuss how major incidents pose special management challenges. It will explore the circumstances in which an Area Command is established and describes the circumstances in which multi-agency coordination systems are established. This course is designed for senior personnel who are expected to perform in a management capacity in an Area Command or multi-agency coordination system.

Cost: None

Class Size Limited: 25 Participants

Instructor: Mark Nalesnik

Course Date & Times:

Saturday Nov. 20th, 2021 *08:00-16:00*
Sunday Nov. 21st 2021 *08:00-16:00*

Registration Deadline: *Friday Nov. 19th, 2021*

Course Location:

Monroe County Public Safety Center
100 Gypsum Road

Stroudsburg PA 18360

Contact to register

Brad Harrison

570-992-4113

Or e-mail

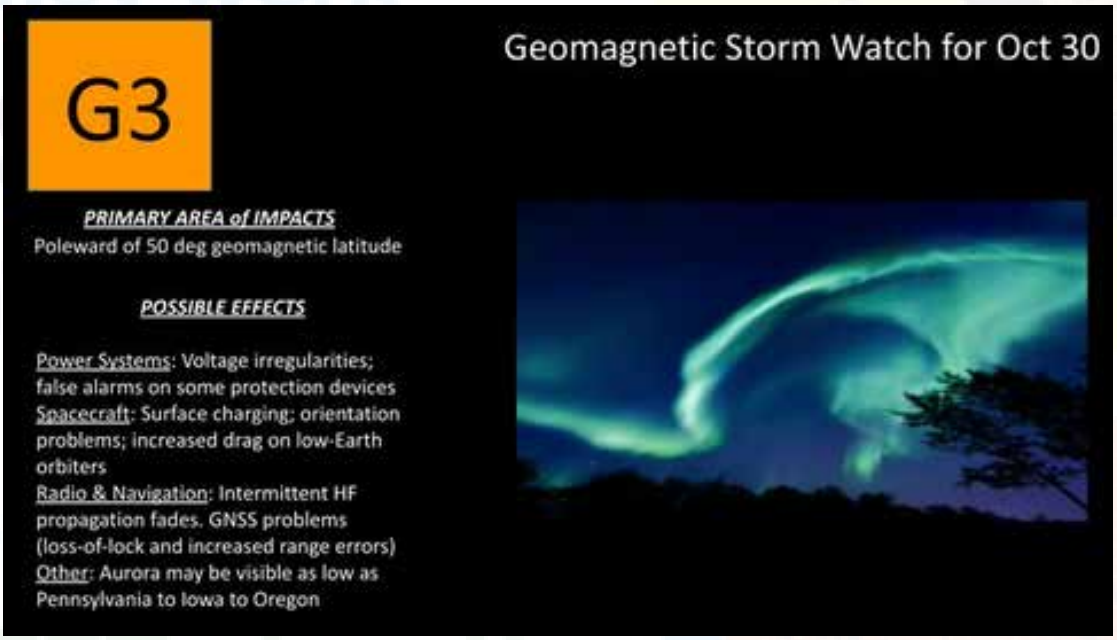
bharrison@monroecountypa.gov

From the Editor

Eric, N3SWR

Hello and Happy Halloween!

Stuck in the house once again due to the rain of course but today also brings us the fact that we are about to get slammed with a rather strong geomagnetic storm . There's a decent chance that the skies above will be clear enough on Sunday night to see the northern lights. Of course living under the latest bomb cyclone doesn't help much but fingers crossed here :) Current forecast shows clearing skies at 10pm tomorrow so hopefully we can get a glimpse of the night sky. 73
Eric N3SWR



"Failure is an option here. If things aren't failing, you aren't innovating enough."
- Elon Musk

Topics of Interest

Have an idea you would like to share with your fellow hams? Interested in one of the new exotic digital modes and would like to get others interested in it too? Found a blog somewhere that you think others would find interesting? Members are encouraged to submit items of interest for publication. Submitted articles (are suggested) to be no more than a page or two in length and may be edited for content and grammar. The EPARA officers and newsletter editor reserve the right to determine which items will be included in The Beacon. The deadline for publication is the 15th of the month. The publication date will be at the end of each month. Copyrights are the property of their respective owners and their use is strictly non-profit/educational and intended to foster the spirit of amateur radio.

If you've taken pictures at an event and would like to submit them for possible inclusion in the newsletter, forward them to the newsletter editor. Please send action shots, if possible. Faces are often preferable over the backs of heads. Many hams may be way too overweight, so please consider using a wide-angled lens.

Disclaimer

The Beacon is not representative of the views or opinions of the whole organization, and such views and opinions expressed herein are of the individual author(s).

Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral — November 2021

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**.
Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish Date	Time	Finish Date	Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website
1	0000	1	0100	1.8-28	K1USN Slow Speed Test	CW	20 WPM maximum; name, SPC	www.k1usn.com
1	0600	1	0859	3.5, 7	Silent Key Memorial Contest	CW	RST, SK call sign you want to recognize	skmc.hu/en/rules.html
1	2000	1	2130	3.5	RSGB 80-Meter Autumn Series, Data	Dig	RST, serial	www.rsgbcc.org/hf
2	0100	2	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
2	0100	2	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
2	1700	2	1900	3.5-14	RTTYops Weeksprint	Dig	Other's call, your call, serial, name	rttyops.com
3	0230	3	0300	1.8-21	Phone Weekly Test – Fray	Ph	Name, SPC	perluma.com/Phone_Fray_Contest_Rules.pdf
3	1300	3	1400	1.8-28	CWops Mini-CWT Test	CW	Name, mbr or SPC	cwops.org/cwops-tests
3	1700	3	2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
3	1900	3	2000	1.8-28	CWops Mini-CWT Test	CW	Name, mbr or SPC	cwops.org/cwops-tests
3	2000	3	2100	3.5	UKEICC 80-Meter Contest	Ph	6-char grid square	ukeicc.com/80m-rules.php
4	0000	5	0300	7	Walk for the Bacon QRP Contest	CW	13 wpm max; RST, SPC, name, mbr/power	qrpcontest.com/pigwalk40
4	0300	4	0400	1.8-28	CWops Mini-CWT Test	CW	Name, mbr or SPC	cwops.org/cwops-tests
4	0700	4	0800	1.8-28	CWops Mini-CWT Test	CW	Name, mbr or SPC	cwops.org/cwops-tests
4	1700	4	1900	3.5-14	RTTYops Weeksprint	Dig	Other's call, your call, serial, name	rttyops.com
4	1800	4	2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrrlcontest.no
4	1900	4	2000	3.5,7	EACW Meeting	CW	RST, mbr (if any), nickname, EA province or DXCC	eacwspain.es/eacwmeeting
4	2000	4	2200	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
5	0145	5	0215	1.8-21	NCCC RTTY Sprint	Dig	Serial, name, QTH	www.ncccsprint.com
5	0230	5	0300	1.8-21	NCCC Sprint	CW	Serial, name, QTH	www.ncccsprint.com
5	2000	5	2100	1.8-28	K1USN Slow Speed Test	CW	20 WPM maximum; name, SPC	www.k1usn.com
6	0500	6	1200	3.5-28	IPARC Contest, CW	CW	RST, serial, IPA, US state (if USA)	www.iparc.de
6	1200	7	1200	1.8-28	Ukrainian DX Contest	CW Ph	RS(T), 2-letter Ukraine oblast or serial	urdxc.org/rules.php?english
6	1300	6	1330	144	Two-Meter Classic Sprint	CW Ph	serial + 4-char grid square	fwrc.info
6	2100	8	0259	1.8-28	ARRL Sweepstakes Contest, CW	CW	Serial, precedence, your call, check, ARRL/RAC Section	www.arrl.org/sweepstakes
7	0500	7	1200	3.5-28	IPARC Contest, SSB	Ph	RST, serial, IPA, US state (if USA)	www.iparc.de
7	0800	7	1200	Any	EANET Sprint	CW Ph Dig	RS(T)	fediea.org/news/?news=20201108
7	1400	7	1700	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org
10	1700	10	2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
10	2000	10	2130	3.5	RSGB 80-Meter Autumn Series, SSB	Ph	RS, serial	www.rsgbcc.org/hf
13	0000	14	2359	3.5-28	WAE DX Contest, RTTY	Dig	RS, serial	darc.de/der-club/referate/conteste
13	0000	14	2359	3.5-144	Day of the YLs Contest	CW Ph	RS(T), YL/OM	ka1uln.blogspot.com
13	0000	15	2359	1.8-7	PODXS 070 Club Triple Play Low Band	Dig	RST, SPC	www.podxs070.com
13	0001	14	2359	28	10-10 International Fall Contest, Digital	Dig	Name, mbr or "0," SPC	www.ten-ten.org/
13	0500	14	1100	50-1296	SARL VHF/UHF Analogue Contest	CW Ph	RS(T), 6-char grid locator	www.sarl.org.za
13	0700	14	1300	1.8-28	JIDX Phone Contest	Ph	RST, JA prefecture number or CQ zone	jidx.org/jidxrule-e.html
13	1200	14	1200	1.8-28	OK/OM DX Contest, CW	CW	RST, 3-letter OK/OM district code or serial	okomdx.crk.cz/index.php?page=english
13	1200	14	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
13	1600	13	1800	3.5-28	FISTS Saturday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org/operating.html#sprints
13	1900	15	0500	1.8-432	CQ-WE Contest	CW Ph Dig	Name, location code, years of service	cqwe.cboh.org/rules.html
13	2300	22	0300	1.8-14	AWA Bruce Kelley 1929 QSO Party	CW	RST , name, QTH, equipment year/type/power	antiquewireless.org/homepage
14	0700	14	1700	3.5-28	FIRAC HF Contest	Ph	RS(T), serial	www.firac.de
14	1400	17	0800	1.8-144	Classic Exchange, Phone	Ph	Name, RS, SPC, rig manuf/model	www.classicexchange.org
15	0100	15	0300	1.8-28	4 States QRP Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
18	0000	19	0300	14	Walk for the Bacon QRP Contest	CW	13 wpm max; RST, SPC, name, mbr/power	qrpcontest.com/pigwalk20
18	0130	18	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
19	1600	19	2200	3.5	YO International PSK31 Contest	Dig	RST, serial, country or YO county	www.yo5crq.ro/Rules.htm
20	0000	21	2359	50-1296	ARRL EME Contest	CW Ph Dig	Signal report	www.arrl.org/eme-contest
20	1200	21	1200	3.5-28	LZ DX Contest	CW Ph	RS(T), 2-letter LZ district or ITU zone	lzdx.bfra.org/rulesen.html
20	1600	20	2359	1.8	All Austrian 160-Meter Contest	CW	RST, serial, district code (if OE)	www.oevsv.at
20	1700	21	0100	1.8	REF 160-Meter Contest	CW	RST, serial, department code	concours.r-e-f.org/reglements/index.php
20	1900	20	2059	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub
20	1900	20	2300	1.8	RSGB 1.8-MHz Contest	CW	RST, serial, district code (if UK)	www.rsgbcc.org/hf
20	2100	22	0259	1.8-28	ARRL Sweepstakes Contest, SSB	Ph	Serial, precedence, your call, check, ARRL/RAC Section	www.arrl.org/sweepstakes
21	1300	21	1700	3.5, 7	Hornebrew and Oldtime Equipment Party	CW	RST, serial, class	qrpcc.de/contestrules/hotr.html
21	2100	21	2300	3.5-28	FISTS Sunday Sprint	CW	RST, serial, SPC, name, mbr or "0"	fistsna.org
21	2300	22	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
24	0000	24	0200	1.8-50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
24	2000	24	2100	3.5	UKEICC 80-Meter Contest	CW	6-char grid square	ukeicc.com/80m-rules.php
25	2000	25	2130	3.5	RSGB 80-Meter Autumn Series, CW	CW	RST, serial	www.rsgbcc.org/hf
27	0000	28	2359	1.8-28	CQ Worldwide DX Contest, CW	CW	RST, CQ zone	www.cqww.com/rules.htm
29	2000	29	2130	3.5-14	RSGB FT4 Contest Series	Dig	4-char grid square	www.rsgbcc.org/hf

There are a number of weekly contests not included in the table above. For more info, visit: **www.qrpfoxhunt.org**, **www.ncccsprint.com**, and **www.cwops.org**. All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 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.contestcalendar.com** *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.*

Amateur Radio Special Event Stations!

10/31/2021 | A Night on Bald Mountain

Oct 31-Nov 1, 0300Z-0400Z, WA4TRS, Bat Cave, NC. The Road Show Amateur Radio Club, Inc.. 28.380 14.331 7.331. Certificate & QSL. The Road Show Amateur Radio Club, Inc, 57 Echo Lake Drive, Fairview, NC 28730. Join The Fun From The "Yard" The Graveyard that is, We even have "Guest Accommodations" Just for YOU! roadshowarc.org

10/31/2021 | Boo to You !

Oct 31-Nov 1, 0001Z-0400Z, KC5BOO, Cleburne, TX. Club KC5NX. 14.310. QSL. Judy Cox, 3701 Park Rd 21, Cleburne, TX 76033. kc5boo@yahoo.com

11/01/2021 | 46th Anniversary, Sinking of the SS Edmund Fitzgerald

Nov 1-Nov 15, 0000Z-2359Z, W8F, Livonia, MI. The Livonia Amateur Radio Club. 14.040 14.240 7.040 7.240. Certificate. Mike Rudzki N8MR, 14071 Fairway Street, Livonia, MI 48154. On Saturday Nov.13, W8F will operate "live" from the Dossin Great Lakes Museum, Detroit MI 1600-2030 UTC. SEE QRZ W8F page for NEW QSL INFO livoniaarc.com

11/01/2021 | Veterans Day 2021

Nov 1-Nov 15, 0000Z-0000Z, N5VET, Cleburne, TX. Club KC5NX. 14.255 14.045 7.240 7.235. QSL. Club KC5NX, 9200 Summit Ct. W, Cleburne, TX 76033. N5VET is again operating for 15 days during our Veterans Day Special Event.... QSL to KC5NX.. We will be on most all bands and using most modes... Always a great Event.. come join us. www.qrz.com/db/kc5nx, jay.n.violet@gmail.com or www.qrz.com/db/n5vet

11/05/2021 | Special Event 13th Annual Veteran Honor Guard Vigil at the Ottawa IL War Memorial

Nov 5-Nov 6, 2300Z-2200Z, W9TAL, Ottawa, IL. The American Legion Post 33 ARC Ottawa, IL. 7.200 3.900. QSL. Joe Tokarz TALARC Post 33, 901 LaSalle St., Ottawa, IL 61350-4223. For the 13th year, 96 military veterans, family and friends will stand guard for 15 minute segments during this period at the Ottawa IL War Memorial. QSL SASE. www.ottawaalpost33.com

11/06/2021 | SFARC Angel Island OTA Trifecta

Nov 6, 1830Z-2115Z, W6P, Larkspur, CA. San Francisco Radio Club. 7.178 7.202 14.275 14.328. QSL. Antonis Papatsaras, 48 Bayo Vista Avenue, Larkspur, CA 94939. VHF/UHF www.sfarc.org

11/06/2021 | Veterans Day Salute To The USO

Nov 6, 1400Z-2200Z, K5U, McKinney, TX. McKinney Amateur Radio Club. 14.322. QSL. Dave Marking, 6710 Virginia Pkwy Ste 215 PMB 52, McKinney, TX 75071. https://www.qrz.com/db/K5U

11/07/2021 | Mill Mountain Star

Nov 7, 1400Z-2000Z, W4CA, Roanoke, VA. Roanoke Valley ARC. 14.265 7.265. QSL. Roanoke Valley ARC, P.O. Box 2002, Roanoke, VA 24009. Commemorating the Roanoke Star on Mill Mountain. Shining its light on the city below since November 1949 and giving the nickname "Star City of the South" to Roanoke, Virginia. w4ca.com/special-events

11/09/2021 | Hedy Lamarr Day 2021

Nov 9-Nov 10, 1700Z-0100Z, N9H, Rochester, NY. W2JLD. ROC-HAM/EchoLink 531091; Allstar 2585,47620,47918; other EchoLink conferences will be connected for this. QSL. John Derycke, W2JLD, 85 Amherst St. Apt. 2, Rochester, NY 14607. SASE please. https://www.roc-ham.net

11/10/2021 | 158th Anniversary of Lincoln's Gettysburg Address

Nov 10-Nov 20, 1200Z-2330Z, WO4L/W1G, East Berlin, PA. Robert Hess. 7.185 14.288 3.830 18.155. Certificate & QSL. Robert Hess, 74 Curtis Dr, East Berlin, PA 17316. Beautiful full color 11 x 14 Certificate and or a QSL Card available please see QRZ page for WO4L or W1G, for instructions.. and any previous Certificates still available watch spotting nets to see where we are...DX SUMMIT

Amateur Radio Special Event Stations!

bigbob7388@gmail.com

11/12/2021 | USS Cobia WWII Submarine Celebrating Veterans Day

Nov 12-Nov 13, 1400Z-2100Z, NB9QV, Manitowoc, WI. USS Cobia Amateur Radio Club. 7.240 +/- 14.240 +/-. QSL. Fred Neuenfeldt W6BSF, 4932 S. 10th St., Manitowoc, WI 54220. QSL to W6BSF with SASE #10. www.qrz.com/db/NB9QV

11/13/2021 | 102nd Anniversary of Armistace

Nov 13, 0800Z-1800Z, WW1USA, Kansas City, MO. National World War 1 Museum and Memorial. 7.030 7.250 1.4030 14.250. QSL. C/O Charles Van Way, N0CVW, National World War 1 Museum and Memorial, 2 Memorial Drive, Kansas City, MO 64108. Direct questions to: ww1usa@theworldwar.org https://www.theworldwar.org/amateurradio

11/13/2021 | Cherokee County Veteran's Appreciation Day

Nov 13, 1500Z-2100Z, WX4SC, Gaffney, SC. Carolina Amateur Radio Emergency Services (C.A.R.E.S.). 7.225 145.150(no tone). Certificate. C.A.R.E.S., P.O. Box 8006, Gaffney, SC 29340. ki4mjk@gmail.com or https://www.facebook.com/Carolina-Amateur-Radio-Emergency-Services-230499684304071

11/13/2021 | Downey Amateur Radio Club 70th Anniversary

Nov 13-Nov 14, 1700Z-0000Z, W6TOI, Downey, CA. Downey Amateur Radio Club, Inc.. 28.425 21.325 14.270 7.225. Certificate. Downey Amateur Radio Club, P.O. Box 207, Downey, CA 90241. This is DARC 70th anniversary special event station celebrating 70 continuous years of service to Downey and the surrounding communities. https://darcarc.wordpress.com

11/13/2021 | Hillsboro Lighthouse Special Event Station

Nov 13, 0900Z-1400Z, NB4RC, Deerfield Beach, FL. North Broward Radio Club. 14.280 14.270 14.260 14.250. QSL. NB4RC, 4116 NW 1 St., Deerfield Beach, FL 33442. joeyjet.com/index.php/amateur-radio/nb-radio-club

11/13/2021 | USS Midway Museum Ship Special Event: Celebrating Veterans Day and US Marine Corps Birthday

Nov 13, 1700Z-2359Z, NI6IW, San Diego, CA. USS Midway (CV-41) Museum Ship. 14.320 7.250 PSK and CW on various HF bands DSTAR on various reflectors. QSL. USS Midway Museum Ship COMEDTRA, 901 N Harbor Drive, San Diego, CA 92101. Please check spotting networks to find us on HF. Consult www.dstarusers.org to find our call sign NI6IW and Reporting Note to see what reflector we're using. Note: Typical QSL turn-around time is 4 to 6 weeks after receiving request with SASE. www.qrz.com/db/ni6iw

11/17/2021 | 2021 Hammarlund Radio Hullabaloo

Nov 17-Nov 19, 0800Z-2000Z, W4H, Mars Hill, NC. High Appalachian Mountain Amateur Radio Society. 7.250 14.250 14.045 14.071. QSL. Jerry Robinson, P.O. Box 366, Mars Hill, NC 28754. hamars.club

11/17/2021 | NRA's 150th Birthday Party

Nov 17, 1500Z-2359Z, K7GST, Prescott, AZ. Yavapai Amateur Radio Club. 21,3325 14.250 14.040 7.250. Certificate. E-Certificate, or direct to:, YARC, P.O. Box 11994, Prescott, AZ 86304. 9X12 SASE. See website for details. Times 1500Z to 2400Z. www.w7yrc.org/nrabirthday

11/20/2021 | WHOA weekend

Nov 20, 1400Z-2000Z, W1M, Russell, MA. Western Mass Council--BSA. 7.060 7.250 14.060 14.250. QSL. Tom Barker, 329 Faraway Road, Whitefield, NH 03598. Camp/outdoor program that introduces young people to various season related activities including outdoor skills and some STEM activities. Paper logging, eqsl and usps for qsl card.

11/30/2021 | Last Day of Hurricane Season 2021 and Volunteer Recognition

Nov 30-Dec 5, 1600Z-2300Z, W5C, Carol Stream,

Amateur Radio Special Event Stations!

IL. Cajun Navy Relief Amateur Radio Club. 14.250 7.250 D-STAR DSC/XLX 256i JS8Call. QSL. Cajun Navy Relief Amateur Radio Club, 681 Paxton Place, c/o Thomas Sarlitto, Carol Stream, IL 60188. With the end of Hurricane Season 2021 and to thank the men and women who volunteer their time and efforts with the Cajun Navy Relief. We dedicate this Special Event to these men and women who volunteer long hours and risk their own lives to assist in helping save individuals and property in communities that are affected by natural disasters. Through fundraising efforts and community awareness, Cajun Navy Relief also gives back to the communities that they have served after disasters have struck. For a Special Event QSL Card, please send a #10 SASE to: Cajun Navy Relief ARC, c/o Thomas Sarlitto, 681 Paxton Place, Carol Stream, Illinois 60188. Please visit our website for more information on this Special Event Station. https://www.cajunnavyrelief.com/W5CNR

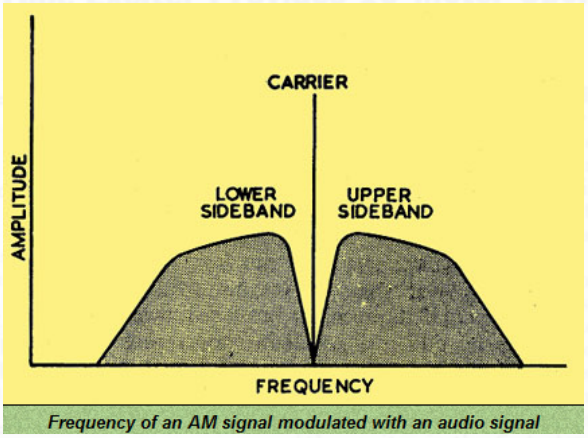
Her : I bet he's thinking about other girls

Me : If I set the idling current to 60 ma, then modulate the plate to 600 ma on tuneup, can I get 300 watts out with a pair of 6LQ6's?

7360 Balanced Modulator

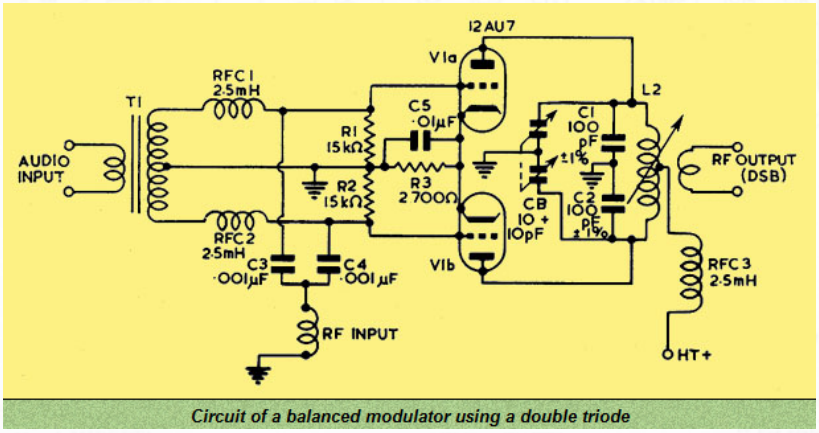
Normal Amplitude Modulated broadcast radio such as is to be found on Long and Medium Wave bands is easy to receive but not an efficient use of the transmitters power. Half of the radiated power is in the form of a fixed frequency carrier, and this carrier does not itself contribute to the program content.

Efficient use of transmitter power can be achieved by only transmitting one program sideband and suppressing both the carrier and the second sideband. This is known as Single Sideband or SSB for short. The downside is a more complicated transmitter and the need for a special demodulator in place of a simple diode detector that can be used for normal Amplitude Modulated signals.



Frequency of an AM signal modulated with an audio signal

A balanced modulator is a circuit that when balanced drives a transformer with equal and opposite voltages at radio frequencies. The effect of this application of equal and opposite sine wave voltages to the primary is that there is no output induced in the transformer secondary. Hence the term balanced. If an audio modulating signal is applied to one arm of the circuit its effect will be to add and subtract voltage from the radio frequency input to one side of the output transformer at an audio rate. This voltage upsets the balance of the circuit and the primary voltages will no longer cancel each other. The result is that the output circuit contains a radio frequency signal that has no central carrier at the RF frequency, but that will have RF output at plus and minus the audio modulating frequency. Such an output is known as double sideband suppressed carrier or DSB. Further narrow band filtering is employed to eliminate the second sideband.



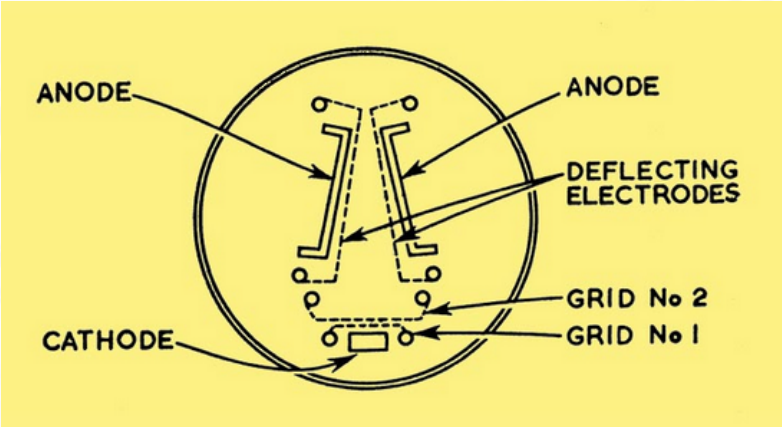
Circuit of a balanced modulator using a double triode

A pair of triodes can, and often were, used to make a balanced modulator. The circuit being essentially quite simple. The requirement was for very closely matched triodes and a balance control within the circuit. When correctly adjusted a suppression of 40 dB was easily possible. The problem with this arrangement is that even in a double triode valve, each half will age at a slightly different rate. The balance would decay over time due to this change in valve parameters. The costs of professional alignment of the transmitter at regular intervals reduced the attractiveness of the SSB equipment.

]

7360 Balanced Modulator

In America in the 1950s RCA set about a purpose designed balanced modulator valve. Consider the electrostatic deflection cathode ray tube. A single cathode assembly produces a pencil beam of electrons that are moved across the screen by voltages applied to the deflection plates. Each side of the screen will always receive a beam of the same strength as the beam is formed by a single electron gun. This general principle of a single beam of electrons would eliminate the differential ageing that altered the balance in a double triode balanced modulator. Low power types such as the 7360 and 6AR8 beam deflection valve were the outcome of the research.



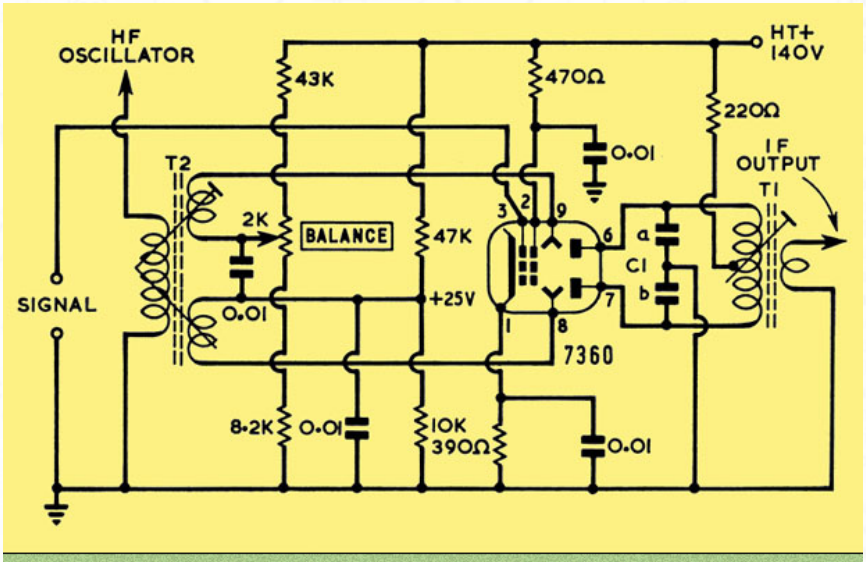
The RCA 7360 layout

The arrangement of electrodes in the 7360 is shown in above. A flat cathode, coated on one side, a control grid and a screen grid, form an electron gun which produces a ribbon-like beam. The screen grid and the two deflecting electrodes act as a converging electron lens to focus the beam. Varying the bias or signal applied to the control grid varies the anode current as in a conventional valve.

The total anode current, in the two anodes, at a given voltage is determined by the voltages applied to the control and screen grids (accelerator). The division of the total anode current between the two anodes is determined by the relative voltage difference of the two deflector electrodes.

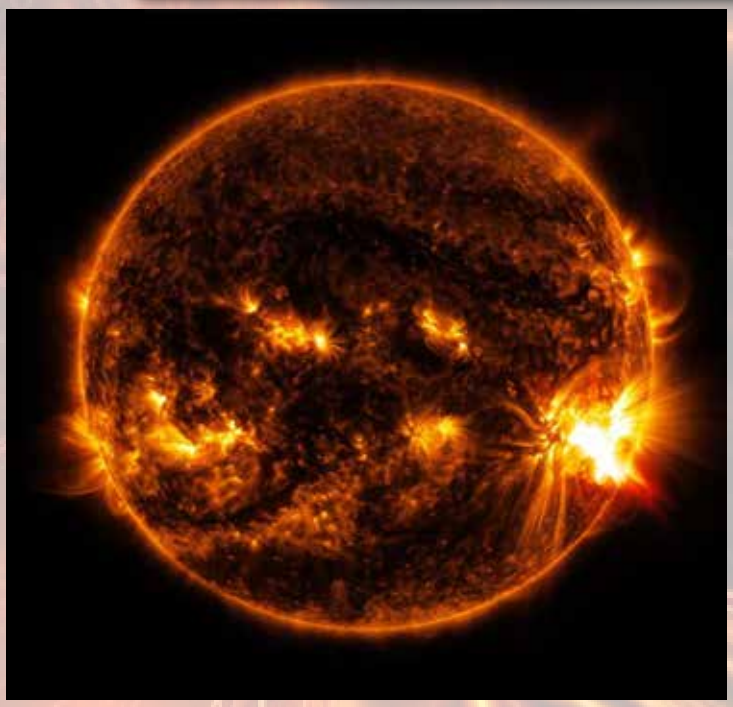
The HF oscillator produces an AC signal that alternately gates the beam to the top and the bottom anode as shown in the circuit diagram. This has the effect of generating at the output a voltage at the HF frequency that cancels out at balance and generates DSB when the modulation is applied.

Credit: http://www.r-type.org/articles/art-055.htm



Use of the 7360 as a balanced modulator

K7RA Solar Update



Tad Cook, K7RA, Seattle, reports: Although we saw sunspots on every day of the October 7 – 13 reporting week, solar activity declined somewhat. Average daily sunspot numbers went from 30.7 to 23.7, and average daily solar flux from 86.9 to 85.6. Geomagnetic indicators were higher, with average daily planetary A index rising from 8.1 to 12.4, and average daily middle latitude A index from 6.7 to 10.1.

On Saturday, October 9, Spaceweather.com reported a strong earth-directed M1.6-class solar flare and CME erupting at 0640 UTC, causing an HF radio blackout over the Indian Ocean. This caused the planetary A index on October 12 to hit 45, and Alaska's College A index to read 60.

Predicted solar flux is 82 on October 15; 80 and 78 on October 16 – 17; 76 on October 18 – 22; 85 on October 23 – 24; 90, 100, 95, and 90 on October 25 – 28; 88 on October 29 – 30; 85 on October 31 – November 5; 88 on November 6; 85 on November 7 – 13; 88 on November 14 – 15; 90 on November 16; 88 on November 17 – 18, and back to 100 on November 22.

Predicted planetary A index is 8 on October 15 – 16; 5 on October 17; 12 on October 18 – 19; 8 on October 20; 5 on October 21 – 24; 10 on October 25; 5 on October 26 to November 1; 8 on November 2; 5 on November 3 – 5; 10 on November 6 – 7; 8 on November 8 – 9; 5 on November 10 – 12; 10, 12, 12, 10, and 8 on November 13 – 17; 5 on November 18 – 20; 10 on November 21, and 5 through the end of the month.

Here' the geomagnetic activity forecast for October 15 – November 9 from F.K. Janda, OK1HH.

The geomagnetic field will be:

quiet on October 16 – 17, November 3, 5

quiet to unsettled on October 20 – 22, 24, 26 – 27, 30 – 31, November 4

quiet to active on October 23, 25, November 6

unsettled to active on October (15, 18 – 19, 28 – 29,) November (1 – 2,) 7 – 9

Active to disturbed — Nothing predicted

Solar wind will intensify on October (19, 22, 25,) 27 – 31, November 1, 9

Parentheses mean lower probability of activity enhancement.

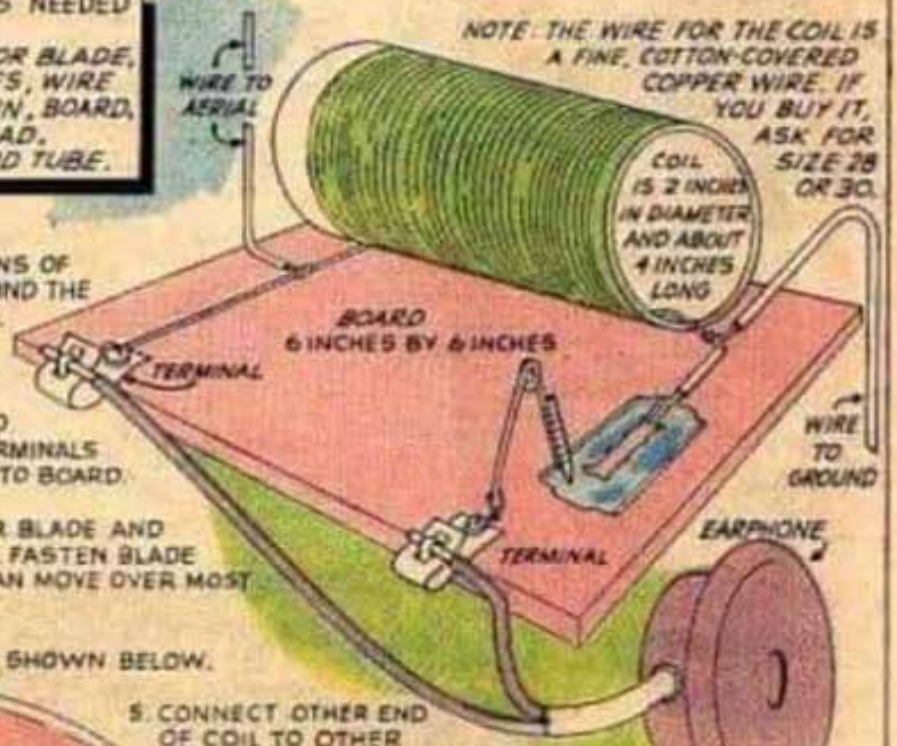
SUPERBOY'S WORKSHOP

RAZOR BLADE RADIO

THIS AMAZINGLY SIMPLE RADIO WILL RECEIVE LOCAL BROADCASTS, COSTS ALMOST NOTHING AND IS VERY SIMPLE TO MAKE.

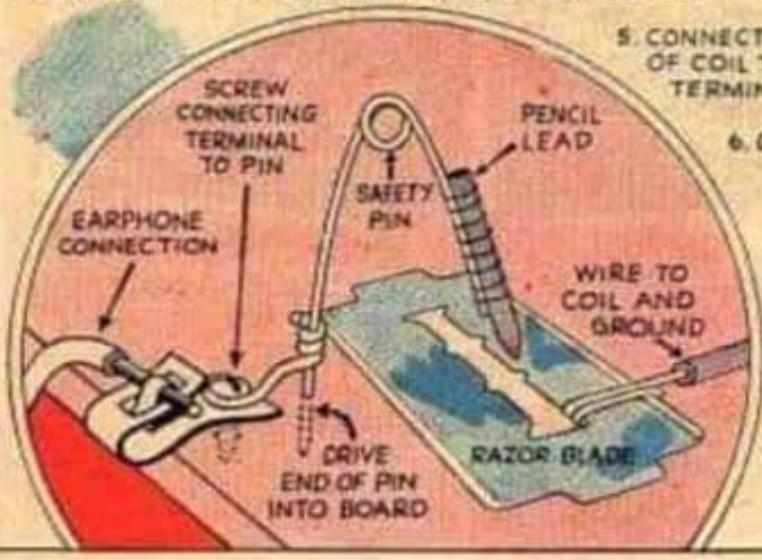
MATERIALS NEEDED

"BLUE" RAZOR BLADE, EARPHONES, WIRE, SAFETY PIN, BOARD, PENCIL LEAD, CARDBOARD TUBE.



HOW TO BUILD THE SET

1. MAKE THE COIL BY WINDING 120 TURNS OF FINE, COTTON-COVERED WIRE AROUND THE TUBE. FASTEN TO BOARD AS SHOWN.
2. SNIP OFF THE HEAD OF THE SAFETY PIN. ATTACH PENCIL LEAD TO THE SHORT SIDE OF PIN. PUSH POINTED SIDE INTO BOARD. FASTEN TWO TERMINALS (TAKEN FROM DISCARDED BATTERY) TO BOARD.
3. CONNECT ONE END OF COIL TO RAZOR BLADE AND TO A GROUND, SUCH AS A RADIATOR. FASTEN BLADE TO BOARD SO THAT PENCIL LEAD CAN MOVE OVER MOST OF BLADE'S SURFACE.
4. CONNECT PIN TO ONE TERMINAL AS SHOWN BELOW.



5. CONNECT OTHER END OF COIL TO OTHER TERMINAL AND TO AERIAL.
6. CONNECT EARPHONES TO TERMINALS.

TUNING IN

MOVE THE PENCIL LEAD OVER THE BLADE UNTIL YOU FIND THE SPOTS WHICH GIVE YOU THE BEST VOLUME AND CLARITY. BETTER RESULTS MAY BE OBTAINED BY SCRATCHING THE SURFACE OF THE BLADE WITH A NAIL FILE AND PLACING THE LEAD ON THE SCRATCHES.

IT WILL TAKE PATIENCE TO FIND THE BEST SPOTS. YOU WILL GET BEST RECEPTION AT NIGHT. WITH A GOOD AERIAL YOU WILL GET AMAZING RESULTS.

N3IS accomplished something spectacular! A handful of dedicated radio operators proudly participated in our club's first attempt as a group with the PA QSO Party Event. The QSO Party was started by N3KZ which has been in official existence since the early '60s and serves as a hallmark event for proud Pennsylvania Amateurs for all 67 counties in our state. Pennsylvania's vastness makes it challenging tracking down all counties since some have no known Amateurs in some of these areas. The "hard to get" counties of our great state pose a great hurdle. We all like challenges as radio operators beyond making contacts in our own back yard. Varied topography and sparsely populated counties require us to think out of the box.

This is where the bonus station comes in handy to assist with these gaps. This year W3RRR, Red Rose Repeater Association from Lancaster handled the bonus station. W3RRR promised to handle traffic on all the operating bands for stations seeking bonus points. The challenge here was to find them on ALL of the bands! A few dedicated Rover stations were out there helping contest participants for these difficult counties and is very much appreciated. This is a perfect example of how clubs support other clubs.

The operating frequencies are those similar to that of Field day: 160M, 80M, 40M 20, 15M, 10M, 6M and 2M; excluding the WARC bands. The modes are kept to Phone and CW. Bill /ABME graciously provided his station for this year's event which easily operated all of the bands mentioned (except 6M) under the N3IS call sign. Altogether, 6 operators Ruth Ann/W9FBO, Len/KB3OND, Alex/ KD2FTA, Joe/KC3DYY, Bill/AB3ME and myself- W3BMM, who all took turns in this flag shipped attempt. Bill's impressive home station that consists of an ICOM 7600 along with a 50-foot tower and a 100 ft Folded Dipole. Contacts were made starting on 15M. This contest requires the exchange of a sequential number and county or out-of-state abbreviation. As contacts are being made, they were entered directly in the N3FPJ log since the sequential number is needed to be provided to the receiving station. The sequenced number given to the receiving station must be accurate which contributes to the challenge to keep it all straight. It's good practice to have someone assist with the logging aspect under intense contest conditions to help minimize logging errors. Since we had a strong group, logging in contacts was not an issue. The interesting aspect for me is seeing each of the contacts roll in on frequency, knowing band limitations and listening for the distant and not so distant counties.

After the event, the following band breakdown of the 285 contacts that were made:

15M – 5 Contacts

40M – 201 Contacts

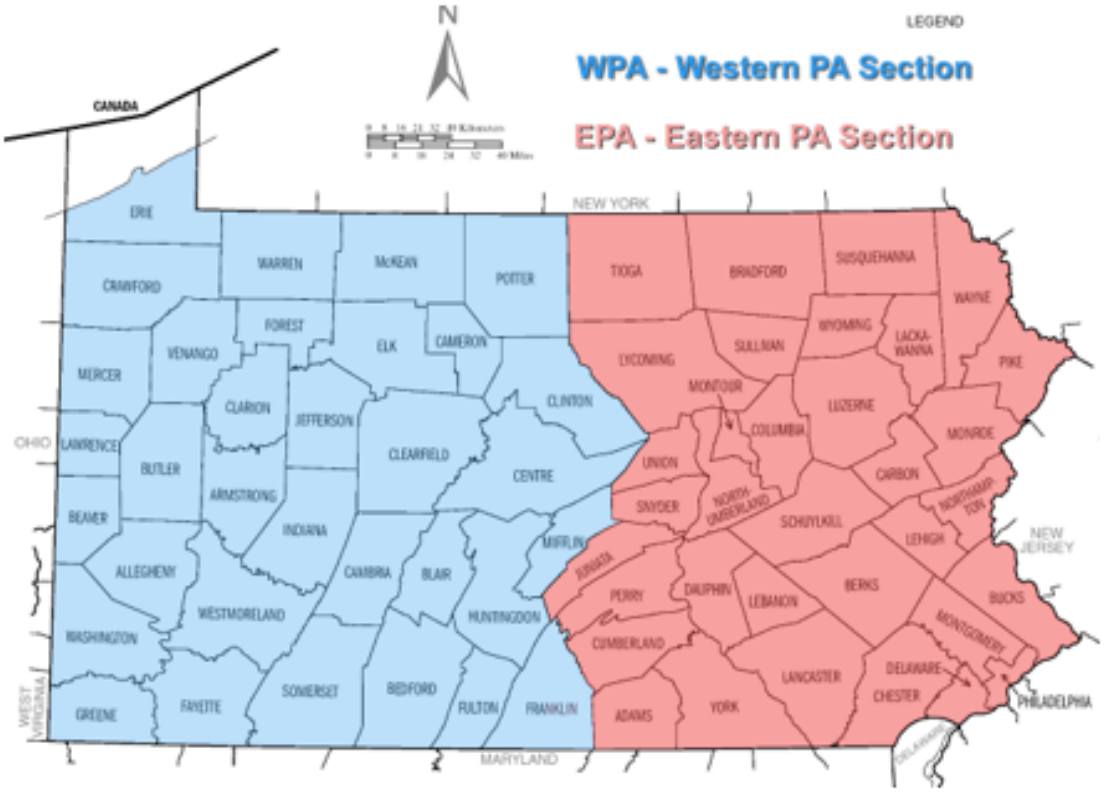
80M – 79 Contacts

The group also worked 61 of the 67 counties; leaving just 6 not worked for the N3IS call sign. Ruth Ann did an excellent job securing a contact on 80 M with the special event station-W3RRR affording us the Bonus points adding to the excitement early on in the contest. In all, a total of 277 contacts in the US were made; 6 Canadian and 2 Slovak stations provided points for Dx. My high point of the event was making contacts with past Elmer's and this was only by chance. Our efforts led to a total of 26,505 with 93 multipliers.

This is a huge thing for our club. Participating in this event puts N3IS out there and involved.

This is just the beginning. From here, we look forward to making this happen on a grander scale and seeking out a location advantageous to everyone and all levels of operating skills. Let's plan to increase participation so we may build our foundation to further strengthen our stewardship. One can imagine that with our continued progress, endeavors such as our state's annual QSO Party, will put N3IS on the radar as the engaging and growing club we know it is.

Bob/ W3BMM



Solar storm traveling 2.1 MILLION mph to batter Earth tomorrow: 'Impacts to technology'

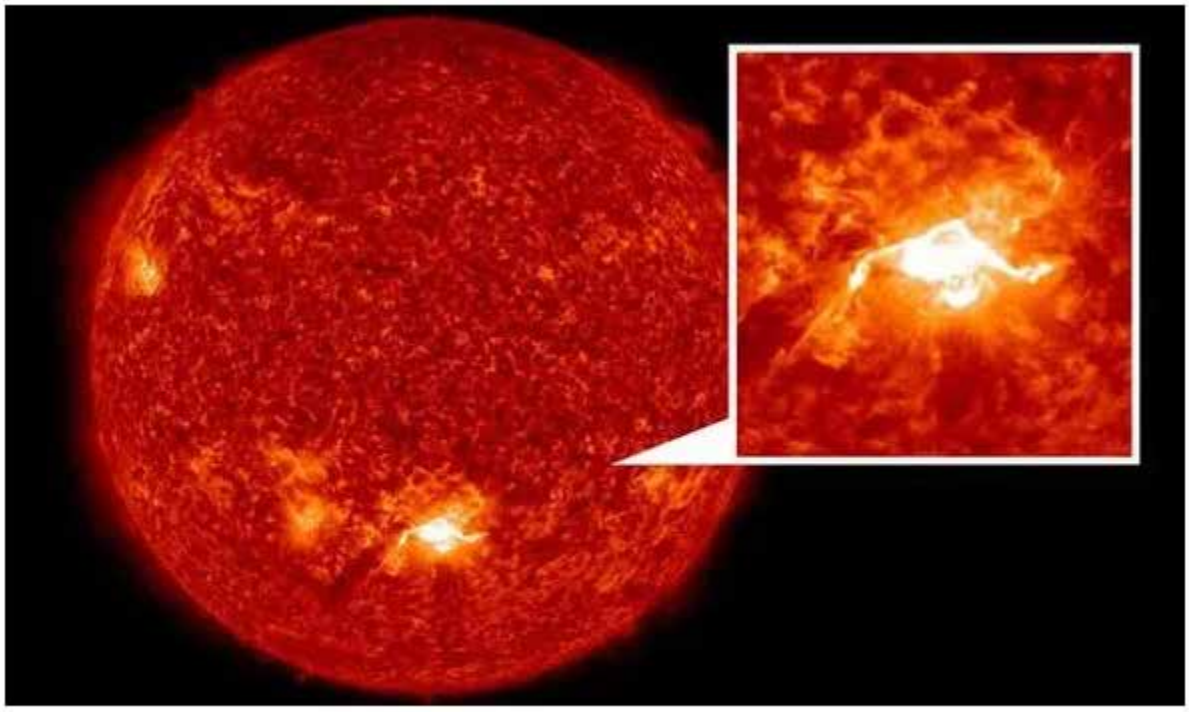
A solar storm watch has been issued for Saturday and Sunday after an X-class solar flare erupted from the surface of the Sun on Thursday. The intense burst of radiation was followed by a so-called coronal mass ejection (CME) of plasma and magnetic field that is poised to land a "direct hit" tomorrow. According to the US Space Weather Prediction Center (SWPC), the CME escaped the Sun yesterday afternoon and was clocked at speeds of about 973km per second - more than 2.1 million miles per hour.

The CME's arrival is expected to trigger a "G3 Strong" geomagnetic storm (solar storm) over the weekend.

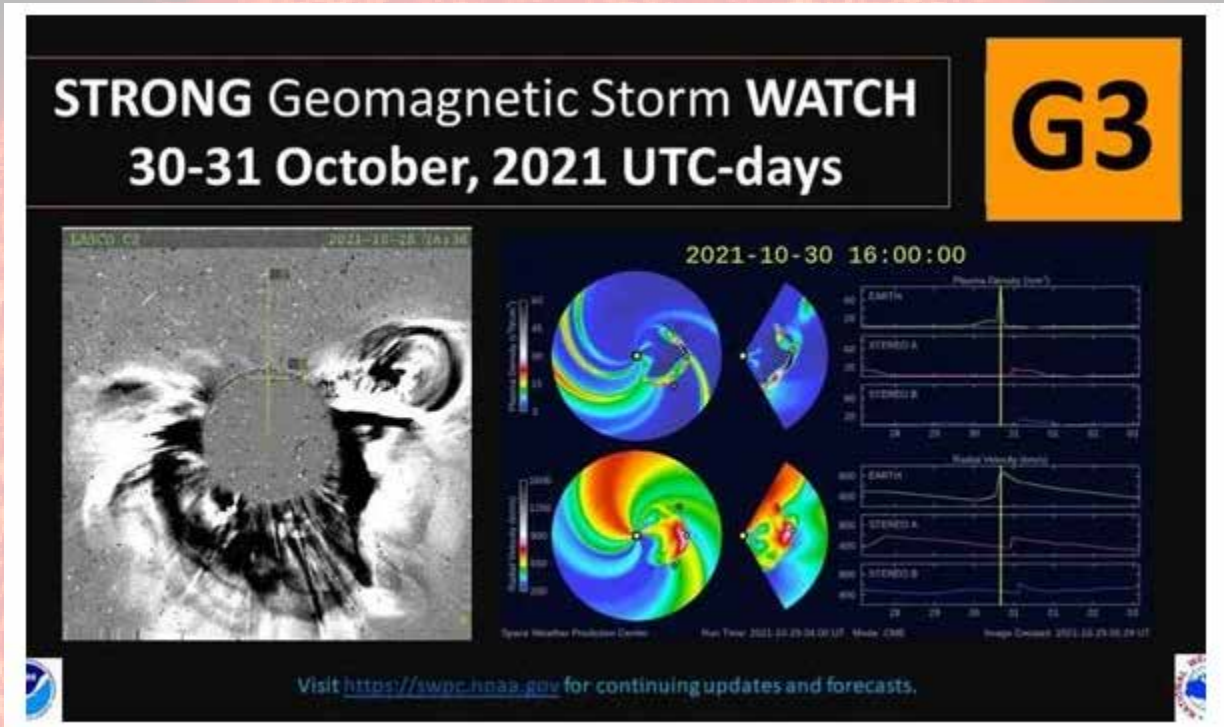
The SWPC said: "When the CME approaches Earth, NOAA'S DSCOVER satellite will be among the first spacecraft to detect the real time solar wind changes and SWPC will issue any appropriate warnings."

Although not directly dangerous to life on Earth - the atmosphere and magnetic field protect us - solar storms can be dangerous to technology.

The space weather phenomena are ranked based on their intensity on a scale of G1 Minor to G5 Extreme.



An intense solar flare erupted from the Sun (pictured) followed by a coronal mass ejection (Image: NASA/SDO)



The SWPC issued a solar storm watch for Saturday and Sunda (Image: NOAA/SWPC)

At the far end of the scale, G5 storms have the potential to wipe out satellites, damage transformers and trigger power blackouts.

When a powerful solar storm struck in 1859, the so-called Carrington Event is said to have set telegraph wires across North America and Europe sparking.

According to NASA, it may have been the strongest solar storm to batter the planet in 500 years.

Another powerful storm occurred in May 1921, causing electrical systems to short across New York.

Tomorrow's event is not expected to come anywhere close to these past events, thankfully.

The SWPC assured: "Impacts to our technology from a G3 storm are generally nominal.

"However, a G3 storm has the potential to drive the aurora further away from its normal polar residence and if other factors come together, the aurora might be seen over the far northeast, to the upper Midwest, and over the state of Washington."

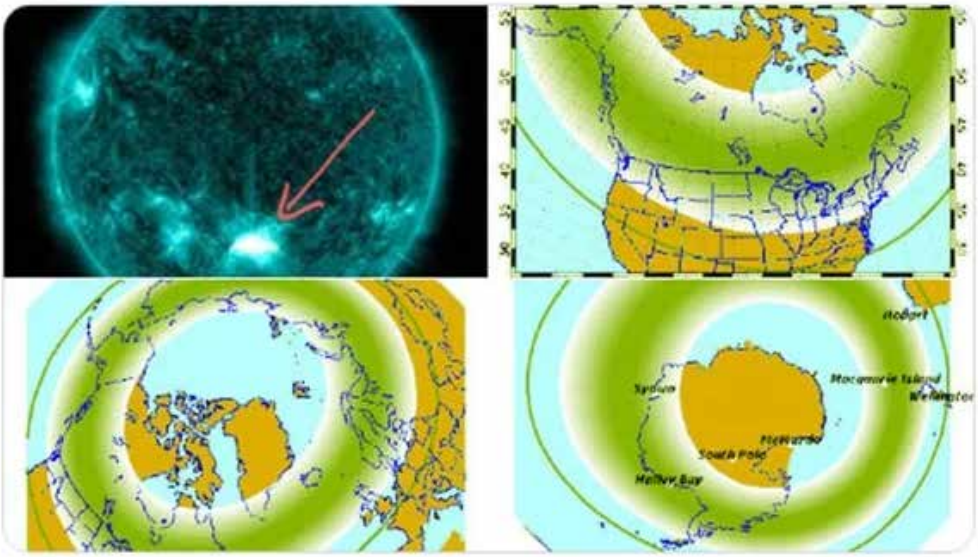
Auroras are caused by charged particles from the Sun slamming into the upper layers of the atmosphere.

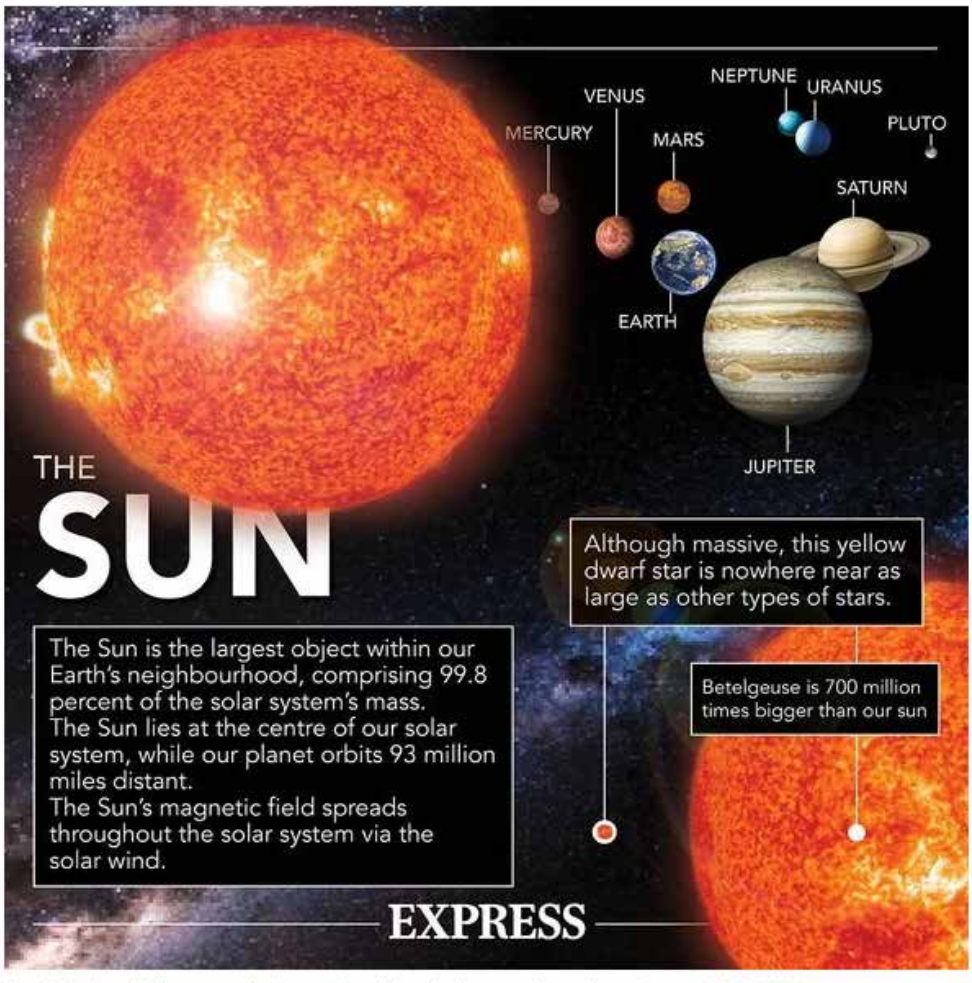
The particles are caught by the planet's magnetic field and pulled towards the poles.

Along the way, the particles crash into atoms and molecules of gas in the atmosphere, exciting them to new energy levels.

The atoms then release the excess energy in the form of photons - light.

A massive Solar flare (photon burst) left the Sun this week and a Coronal Mass Ejection (CME: loads of plasma!) was released. The flare hit Earth 8.5min later, but the CME arrives tomorrow and will make spectacular auroras around the world! (green line= aurora visible on horizon)





Sun fact sheet: All you need to know about the star in our solar system (Image: EXPRESS)

The SWPC explained: “This is similar to how a neon light works.

“The aurora typically forms 80 to 500 km above Earth’s surface.”

Auroras are usually seen in the polar circle, near the North and South Poles.

North of the equator, they are known as the Aurora Borealis or Northern Lights.

In the Southern Hemisphere, they are known as the Aurora Australis or Southern Lights.

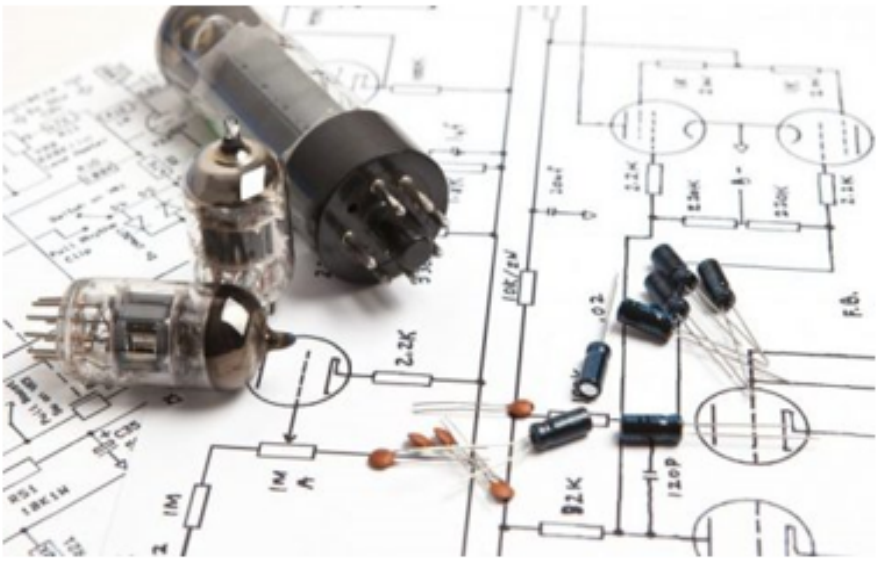
However, intense solar storms can cause auroras to travel farther down south, or north, than usual.

With a bit of luck, the Northern Lights might be visible from the northern parts of the UK this weekend.

Dr James O’Donoghue, a planetary scientist with the Japan Aerospace Exploration Agency (JAXA), tweeted: “A massive Solar flare (photon burst) left the Sun this week and a Coronal Mass Ejection (CME: loads of plasma!) was released.

“The flare hit Earth 8.5min later, but the CME arrives tomorrow and will make spectacular auroras around the world! (green line= aurora visible on horizon).”

Credit: https://www.express.co.uk/news/science/1513806/solar-storm-batter-earth-cme-coronal-mass-ejection-space-weather-impact-technology



10 Vacuum Tube Care and Maintenance Tips

by Josh Thomas in Categories Tube
April 23, 2018

Tube amps require a good deal of maintenance and basic upkeep in order to continue functioning as intended. Any true hobbyist will commit to a regular maintenance schedule to make sure that they can enjoy their tube amp far into the future. If you're reading this article, you probably fit into this category.

A tube amp isn't something you can just leave in the corner to accumulate dust in between the occasions on which you want to use it. In order to make sure your tube amp is in great shape and ready to function when you want to use it, you need to be doing two things: Using it regularly and staying on top of basic upkeep and care.

In this guide, we'll walk through the to-do list that you should be following to keep your tube amp in perfect working order and prevent maintenance-related issues in the future. While it may seem like a lot of effort goes into just maintaining your tube amp, won't it all be worth it when you get to turn it on and enjoy its pristine sound

Just about everyone who has invested in a tube amp will say a fast "Yes!" to that question. After all, no transistor amp can compare to the tone and sound quality a well-maintained tube

amp is able to produce. So, how do you keep your amp up-and-running at its best? These habits will help you with your amp's crucial up-keep and maintenance.

#1 Keep Your Amp in A Stable Environment

Do you find yourself moving your tube amp a lot? Do you keep your tube amp in an area where it's subject to drastic changes in temperature? If so, your amp may be suffering.

It's best to keep your fragile tube amp inside in a stable environment where it won't be exposed to significant changes in temperature or humidity. When your amp does need to be transported or is being moved from one area to another (like indoors to out, or vice versa), be sure that you give your amp time to adjust.

Without the ability to gradually adjust, while off, to the new environment, your tube amp is likely to suffer from premature failure of its components due to differential expansion, induced by the changing temperatures and other external factors.

So, you might want to think twice about keeping your amp in that poorly insulated spare room where the heater is only turned on when you come in.

#2 Let It Warm Up

Speaking about sensitivity to temperatures, it's very important that you give your amp some time to warmup when you go to use it. You should first turn "Standby" move ON and then allow your amp to warm up. Always put your amp in standby mode before flicking the main power switch.

After this brief warmup period, flick standby to OFF while you allow the preamp and power tubes to warmup for about half a minute, and then you can begin putting your tube amp to good use! Simply flicking on the power and instantly trying to put sound through it will shorten your amp's life (no matter how cool it seems to sound when things "fade in" as the amp warms up).

Just taking this extra step to warm up your amp properly will greatly extend its working life.

#3 Don't Use It as A Coaster

Maybe you couldn't imagine setting an open drink on or around your precious tube amp, but far too many people do. The fact is, accidents *do* happen and you are simply asking for

trouble. If something spills, the disaster could not only ruin your amp, if your amp is plugged in, it could take you down in the process! This might seem like a no-brainer to you, but it's worth mentioning.

Always keep liquid of all kinds far away from your amp. Get a table and put it out of arm's reach, and away from your tube amp to ensure that there is no way you could possibly even intentionally get the beverage from its rightful place into or onto your amp in any way, shape, or form.

Seriously: Electricity and liquids *do not* mix. Even if your amp is unplugged, a spill will lead to quick a big (and expensive) cleanup. Play it safe.

#4 Use Quality Cables

Is your amp crackling and popping like a bowl of cereal? Make sure that your cables are in good working order and that you are using a high-quality cable. You should also check your tube amp's connections regularly and keep them nice and clean.

A short can reduce the working life of your tube amp, so go through your connections (inside and outside your amp) every few months and keep things sparkling clean. When a cable seems to be getting old, replace it.

#5 Plug Things Up Before Powering On

It's likely someone may have told you before that you should *never* turn on your amp's head without it plugged into a speaker cabinet. In general, you should never turn your amp on at all without having everything plugged up and ready to go.

While failing to plug into your speaker cabinet before powering on can and likely will result in damage, plugging in other connections after powering on can present some impedance that can damage your amp too, even if on a smaller scale.

Try to get in the habit of plugging everything together before things are running.

#6 Choose the Right Load

Loading and impedance are two very important aspects of your tube amp's proper functioning. Always ensure that your cabinet matches your amplifier's impedance and that

you have plugged everything into the correct sockets. Miss-matching your loads can be very hard on your amp.

Match everything without exceptions.

#7 Keep Things Still

Your cabinet might have casters on the bottom, but that's no excuse to be pushing your amp around while it's on. You should try to keep everything still and stable while things are running. The filaments and parts inside a tube are physically weaker when they are hot, so if you have to move your amp, do it before powering on and after it has the chance to cool off.

You should also allow your amp to cool off before loading out. When the tubes are cold, you're less likely to do damage to your amp.

If your amp experiences a shock of any kind, it can also lead to immediate failure. If you've dropped or bumped your amp and things have suddenly went quiet, it's time to take it to the repair shop!

#8 Turn It Right Off

There is no reason to go into standby mode when you turn your tube amp off, just shut off the main power. After it is cooled down, flip the standby switch back into the "ON" position and then it will be ready for the warmup process next time you go to use it. And, hopefully, that will be *soon*!

Check out the most popular high end tube amps.

#9 Don't Let It Sit Around

Tube amps are very finicky, and if you leave it sitting around for a long time unused, you are bound to run into a problem next time you try to plug it in and use it. It's ideal to be using your tube amp regularly.

If you do happen to put your tube amp into storage, be sure to get a can of electronic cleaner (compressed air) to blow off any debris and dust from your amp, both inside the jacks and inside the amp itself. Use a soft cloth to wipe down tubes and make sure to keep things looking shiny and like new.

The dust on tubes will hold in heat and excess heat will age your amp's components. As you dust them, it's also the perfect opportunity to check and be sure your tubes are all seated in their sockets firmly.

Remember, even when in storage, make sure your amp is in a controlled environment. Keep it away from dampness and humidity, like the kind found in your storage shed, garage, or even your car. These things will age your amp and they aren't good for your speakers either. Humidity can lead to contact corrosion, surround rot, and make paper cones very brittle.

#10 Enjoy Your Amp!

At the end of the day, remember why you chose tubes even though they're so fragile and time-consuming: their sound! When you're putting in all this work to keep that sound at its best, don't forget to plug in your amp and enjoy it regularly. Not only are you helping to extend its life by doing so, you're also getting to enjoy the payoff for all your hard work.

Credit: https://toptubeamplifier.com/10-vacuum-tube-care-and-maintenance-tips/

Lightning Myths: Lightning rods 'discharge' a storm cloud

TRUTH: Lightning rods, along with a good lightning protection system of grounded cable, only serve to divert lightning current safely to ground, should lightning strike. There is no way to 'discharge' or 'drain' the charge from a storm with lightning rods, or with **anything**, for that matter.

Most storms are ten to twenty (or more!) miles wide and many miles high- simply enormous! A lightning rod is a tiny speck in comparison to the mighty electrical charge generation inside these mammoth clouds. Although there can be slight corona discharge off of pointy rods (sometimes called St. Elmo's fire), this current 'leak' is simply too small to have any hindering effect on the huge rate of charge buildup inside the storm cloud.

Draining a storm cloud of its charge to prevent lightning with a little (or more than one) lightning rod is impossible. It would be like trying to keep a reservoir from overflowing by drilling a pencil-sized hole in the dam - while a mighty river keeps filling the reservoir up.

Lightning dissipation / elimination myths

Products called 'lightning elimination' or 'lightning dissipation' devices have arisen as a result of two myths: one, that a thunderstorm's charge can be drained or otherwise affected by objects on the ground, and two, cloud-to-ground lightning discharges begin from the ground. These products, that are still being sold today, claim to be able to prevent a direct lightning strike to any object on which they are installed. The devices have widely varying appearances, but usually are characterized by a metallic frame with hundreds of sharp-pointed bristles, needles or thin rods. The frame designs range from comb-like to umbrella-shaped.

The devices are said to prevent or reduce direct lightning strikes to objects on which they are installed, using corona discharge to perform one or more of the following: 1.) to drain a storm of its charge before lightning can occur, 2.) to create a localized 'space charge' over the protected area that diverts lightning strikes, or 3.) to make initiation of upward leaders from the object more difficult, thereby reducing the chances of a direct stepped leader-ground leader connection.

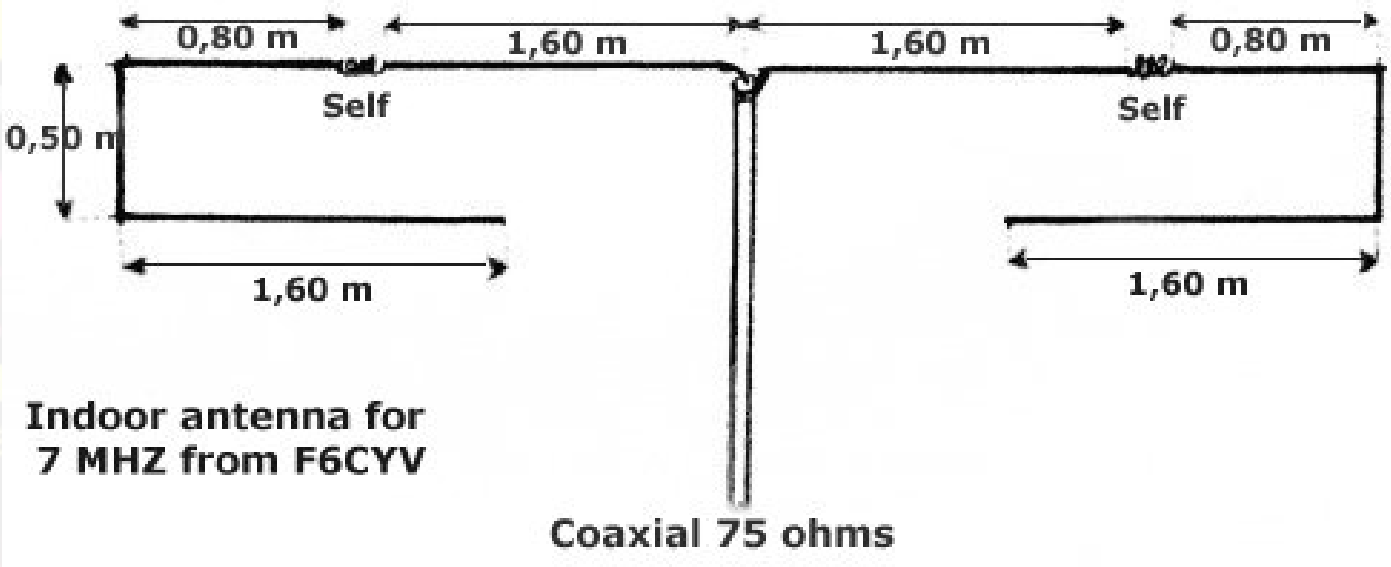
The problem with these devices is that while they do create corona discharge, the rate of charge 'leakage' is completely insignificant in comparison to the rate of charge generation in the 10-mile-high, 15 to 25 mile-diameter thunderstorm overhead! No amount of man-made corona discharge on such a small scale has the slightest chance of draining charge faster than a gargantuan thunderstorm cloud is producing it. And although small-scale corona does help prevent the initiation of laboratory-generated sparks (such as from Van de Graff generators), this cannot be extrapolated to apply to full-sized lightning discharges, which are several thousand times larger than the artificial counterparts (see our article on comparing artificial and natural lightning). Corona discharge from small 'dissipaters' is insignificant to a full-sized thunderstorm and will do nothing to alter the occurrence or behavior of lightning in its general vicinity.

Cloud-to-ground lightning strokes initiate high in thunderstorms, miles above the surface where ground objects have no effect. Even after initiation of the discharge, the downward-moving stepped leader is 'blind' to objects on the ground until it is very close to the ground, within 50 to 100 feet. At that distance, lightning will strike within the very small area it is already descending in, regardless of any devices nearby that claim to divert or prevent the strike. For example, a photograph exists of a lightning strike to the Merchandise Mart building in downtown Chicago. Merchandise Mart is very close to the 1,700 foot tall Sears Tower, yet not even the Sears Tower influenced the ground connection of this close cloud-to-ground stroke.

In addition to the obvious scientific flaws with the concept of lightning 'dissipation' and 'elimination' devices, they have been proven to be ineffective in real-world installations. Many 'lightning dissipation' devices on towers and buildings have been struck directly. Despite the evidence, they continue to be sold, installed and promoted.

Credit: https://stormhighway.com/lightning_rods_discharge_thunderstorm_cloud_myth.php

ANTENNA ARCHIVES #40



Indoor antenna for 7 Mhz
Credit: https://www.dxzone.com/catalog/Antennas/Stealth/

This small antenna can allow hams which lack space to install an antenna for 40 meters. This project has been originally produced by F6CYV.

According to his experience, using it form inside the apartment, European signals are all very readable, he has worked over 150 countries.

The antenna is made of 2mm wire.

The 2 coils are constituted by 18 turns of 2 mm wire, distance of turns is also 2 mm.

The diameter of the coils is of 7,8 centimeters.

The Feed of the dipole is done with a 75 ohms tv coaxial cable.

A 1/1 balun would be recommended for a correct feed of the coaxial cable to the dipole.

It is not necessary to use a coupler, it is enough to set the length of both extremities of the dipole in order to have at 7.050 mhz a low SWR, and especially to pay attention what the length of the 2 sides of the dipole to be identical.

CUSTOM WOOD PLAQUES DONE VIA CNC ROUTER!

Plaques and other projects are made to order. Contact Bill AB3ME for more info.

Prices do vary depending on the style ordered and start at $40 shipped locally to your door for a "basic plaque" Wood available is Butternut, Oak - light and dark, Black Walnut, Cherry and Hemlock Pine. Various fonts are also available. Local shipping via USPS is $8 and $15 for out of area. Construction time is expected to be a minimum of a few days due to the engraving and finishing process.

Keepsake boxes are also being offered using the same materials along with brass hardware and finger joint construction. Engraving for boxes is free up to 10 square inches and can be done on the top and inside of the boxes. Pricing starts at $225 per box. Work time is a minimum two weeks for construction. PayPal is the preferred method of payment, checks accepted however work will not start until your check clears my bank. My PayPal address for payment is... ab3me47@gmail.com

For more information please visit: Carpenterwoodworksusa.com

EQUIPMENT FOR SALE BY AB3ME

These items were purchased by myself for field day 2018 and have not been used since. Have been kept in weatherproof storage cases with desiccant since. I have kept the removed pluck foam for all weatherproof cases.

Additional items for sale:

1. 1 each Dentron Super Tuner, 1000 watt, w/ balun, wire or coax feeds 5 star eham rating..... Price = $175.00 see pic,excellent condition.

2. 1 each Dentron Junior Tuner, 300 watt, w/balun, wire or coax feeds 4.9 star eham rating..... Price = $125.00 see pic, excellent condition.

MEMBERSHIP APPLICATION

E P A R A

Eastern Pennsylvania Amateur Radio Association

Address: PO Box 521, Sciota, PA 18354

Email: N3IS@qsl.net

Website: www.qsl.net/n3is

Date: _____

Name: _____ **Callsign** _____

License: Novice Technician General Advanced Extra

Address: _____

City: _____ **State**: _____ **Zip**: _____

Home Phone: _____

Cell Phone: _____

Email: _____

* **Note**: We do not publicize your phone or email information.

ARRL Member: _____ **Skywarn Spotter**: _____ **ARES/RACES Member**: _____ **VE**: _____

Interests:

DX _____ Contest _____ CW _____ QRP _____ Digital Modes_____ Antique Radio Equipment _____

Building Antennas _____ Electronic Repairs _____ Elmering _____ Kit Building _____ EmComm: ____

Others: _____

How did you get interested in Ham Radio?

_____

Please list any relevant qualifications or assets you have or are willing to share/contribute to the club.

Use reverse side if needed:

_____

_____

_____

Sponsored or Reviewed by: _____ **Callsign**: _____

Membership Rates,

Membership: **$20.00** per year Spouse: **$10.00** per year
Full time Student: **$15.00** per year Senior:(Over 62 years of Age): **$15.00** per year