CrossTalk

Issue 61:11 61 Years Of Service To Our Community November 2020

2020 Club Officers

President :	**James Clark Sr, KA2OSV**
Vice President :	**Anthony Starr, K3TS**
Treasurer :	**Alan Arrison, KB2AYU**
Recording Secretary :	**John Zaruba Jr, K2ZA**
Corresponding Secretary :	**Ronald Block, NR2B**

Trustees - 4 year term

Robert Fields, KC6AOH	***(2017-2020)***
Charles Lanard, KD2EIB	***(2018-2021)***
James Wright, N2GXJ	***(2019-2022)***
Mark Gottlieb, KK2L	***(2020-2023)***

Board of Directors - 3 year term

Charles Colabrese, WA2TML	***(2018-2020)***	**Jeffrey Welsh, KD2AZI**	***(2019-2021)***
William Price, NJ2S	***(2018-2020)***	**Robert Durham, W2RAD**	***(2020-2022)***
Jeffrey Garth, WB2ZBN	***(2019-2021)***	**Herb Dyer, KT2Y**	***(2020-2022)***

This Month's Calendar

General Membership Meeting
Wednesday, November 4, 2020 @ 1930 Hours
ZOOM Meeting

Fox Hunt XVIII
Saturday, November 7, 2020 @ 1300 Hours

Tech Saturday Forum
VE License Testing Session
***** CANCELLED *****

10 Meter Swap Meet
Saturday, November 14, 2020 @ 2000 Hours
Tune-In on 28.465 MHz or 28.475 MHz

Board of Directors Meeting
Wednesday, November 18, 2020 @ 1900 Hours
ZOOM Meeting

10 Meter Rag Chew Net
Every Monday @ 2000 Hours
Tune-In on 28.465 MHz or 28.475 MHz

2 Meter Rag Chew Net
Every Thursday @ 2000 Hours 147.180 MHz
EchoLink : W2MMD-R

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President's Message

Dear Fellow Members;

Fall has certainly arrived, however I hope that it doesn't bring a second wave of COVID-19. I always look forward to the Fall season and the changing of the leaves. This year is certainly one that I will remember for a long time to come and I am sure that you will to.

I would like to take this opportunity to wish each and everyone of you and your families a Very Happy Thanksgiving Day.

I will be taking nominations from the floor once again at our November 4th General Membership Meeting and elections will be held at the December 2nd meeting.

For those of you who were unable to make October's General Membership Meeting via ZOOM, a motion was made and passed to increase our annual dues to $30.00 dollars a year for FULL members and $25.00 dollars a year for ASSOCIATE members. As most of you already know this $10.00 dollar increase was necessary in order for us to maintain a balanced budget. Dues are due January 1st and must be paid NO LATER THAN March 31st. So mail your dues early. PAY PAL is also available.

This month we welcome 6 new members :

- Peter Bach, KB2TBN, of Haddonfield
- Greg Bekes, W9GEB, of Cherry Hill
- Todd Cecilio, KA2YNT, of Brooklawn
- Jodi Logan, KD2UUB, of Blackwood
- Jerry Patterson, WW2WTF, of Sewell
- Chris Wawak, KC2IEB, of Haddon Township

Jim Wright, N2GXJ has organized a Fall Fox Hunt for Saturday, 7 November. See the GCARC Fox Hunts page on the website for more information.

Our Board of Directors Meetings are normally held at our Clubhouse where all members are welcome to attend, but because they are now on ZOOM, only the officers are sent the ZOOM log-in information. If you would like to attend the BoD meetings, please contact Chuck WA2TML for the log-in information.

Daylight Savings Time ends Sunday, 1 November so be sure to turn your clocks back one hour Saturday night before going to sleep.

President's Message - Continued on page 3

President's Message - Continued from page 2

Dates to remember during the month of November :

- Daylight Savings Time Ends - November 1st
- Election Day - November 3rd
- Marine Corps Birthday - November 10th
- Veterans Day - November 11th
- Thanksgiving Day - November 26th

That's it for now. I hope to see you all in the pile-ups.

Be Strong, Be Healthy, Be Safe.

73 es God Bless Us All,
JIM CLARK, USN (Ret.)
KA2OSV
Old Salty Veteran
President GCARC

"Ask not what your Club can do for you, Ask what you can do for your Club"
- KA2OSV

Tech Saturday Forum
November 7, 2020 @ 0900 Hours
W2MMD Clubhouse

****** CANCELLED ******

We would like to invite all of our new members as well as our veteran members to our Tech Saturday Forums to help answer any questions and discuss any and all issues the new members have come across as they progress through the ***Amateur Radio Experience.***

The Discussion Theme is a QSO starting point - a way to initiate a conversation. All Tech Saturdays are an open QSO of all subjects of Amateur Radio interest.

All questions are welcome as well as a venue for hams to show off their latest ham radio projects or gadgets. Have a problem programming that HT, we can help! Not sure what radio or antenna to buy, we can help!

All Club Members who would like Clubhouse access to use its radio equipment would have to have some brief "Elmering" on the Clubhouse rules, such as using the alarm system, the A/C and heaters, the antenna system, and the radio equipment.

All are welcome - Hams and Non-Hams - Club Members and Non-Club Members. Take a guided tour of our Clubhouse. Visit our HF and VHF/UHF/Satellite Operation Facilities and our vast antenna farm.

The Tech Saturday Forum is held on the Saturday after the General Membership meeting.

General Membership ZOOM Meeting

Wednesday, November 4, 2020 @ 1930 Hours

All members will be e-mailed the ZOOM log-in instructions

Nominations for 2021 Club Officer Elections

Fox Hunt XVIII

By Jim Wright, N2GXJ

Saturday, November 7, 2020 is almost here! The fox hunt is scheduled from 1pm to 2pm in the afternoon. You in? It will be fun!

I will send an e-mail on Friday with more details about where approximately the Fox will be hidden. On Saturday, please check-in on the Club's 2 Meter Repeater or EchoLink W2MMD-R with me by 1pm, so that I know who all is hunting and can talk in anyone who has not made it to the transmitter within the allocated hour. Then I'll turn on the transmitter, and the hunt will be on!

Welcome New Club Members :

Peter Bach, KB2TBN, who has an Advanced Class license and lives in Haddonfield, NJ.
Gregory Bekes, W9GEB, who has a General Class license and lives in Cherry Hill, NJ.
Todd Cecilio, KA2YNT, who has a General Class license and lives in Brooklawn, NJ.
Jodi Ann Logan, KD2UUB, who has a Technician Class license and lives in Blackwood, NJ.
Gerald Patterson III, WW2WTF, who has a Technician Class license and lives in Sewell, NJ.
Christopher Wawak, KC2IEB, who has a General Class license and lives in Haddon Township, NJ.

We are glad to have you as members of the Club and hope to see you regularly at Club meetings, events, and activities. We also hope to hear you on our 2M Repeater or EchoLink node : W2MMD-R.

Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <*at*> MAILMAN <*dot*> QTH <*dot*> NET

All Club members have access to this FREE e-mail service

Best Down Jersey DX Picks

November 2020

By Bill Grim, W0MHK

CALL	DATES	HIGHLIGHTS	DIFFICULTY (5=MOST RARE)	ENTITY
7Q7RU	11/11 - 11-18	160-10M/CW, SSB, RTTY, FT8	3	Malawi
J88PI	11/23 - 12/01	40-6M/SSB, FT8	1	Saint Vincent
FG4KH	11/01 - 11/05	HF/???	1	Guadeloupe
8J1RL	10/15 - Jan 2021	HF/CW, Digital	3	Antarctica

Credits : NG3K Announce DX Operations : www.ng3k.com/Misc/adxo.html

Down Jersey DX Extra! : The Sun is slowly producing weak solar cycle 25 sunspots. Take advantage of better propagation on 15, 12, and 10 Meters when solar flux is in the higher 70's. 15 Meters has been showing definite DX "Life", especially to Europe two hours after sunrise, local time.

Entity Of The Month : Antarctica

Antarctica is Earth's southernmost continent. It contains the geographic South Pole and is situated in the Antarctic region of the Southern Hemisphere, almost entirely south of the Antarctic Circle, and is surrounded by the Southern Ocean. At 5,500,000 square miles, it is the fifth-largest continent and nearly twice the size of Australia. At 0.00008 people per square kilometer, it is by far the least densely populated continent. About 98% of Antarctica is covered by ice that averages 1.2 miles in thickness, which extends to all but the northernmost reaches of the Antarctic Peninsula. Antarctica, on average, is the coldest, driest, and windiest continent, and has the highest average elevation of all the continents. Most of Antarctica is a polar desert, with annual precipitation of 7.9 inches along the coast and far less inland; there has been no rain there for almost 2 million years, yet 80% of the world's freshwater reserves are stored there, enough to raise global sea levels by about 200 feet if all of it were to melt. The temperature in Antarctica has reached −128.6 °F (or even −135.8 °F as measured from space), though the average for the third quarter (the coldest part of the year) is −81 °F. Anywhere from 1,000 to 5,000 people reside throughout the year at research stations scattered across the continent. Organisms native to Antarctica include many types of algae, bacteria, fungi, plants, protista, and certain animals, such as mites, nematodes, penguins, seals and tardigrades. Vegetation, where it occurs, is tundra. Antarctica is noted as the last region on Earth in recorded history to be discovered, unseen until 1820 when the Russian expedition of Fabian Gottlieb von Bellingshausen and Mikhail Lazarev on Vostok and Mirny sighted the Fimbul ice shelf. The continent, however, remained largely neglected for the rest of the 19th century because of its hostile environment, lack of easily accessible resources, and isolation. In 1895, the first confirmed landing was conducted by a team of Norwegians. Antarctica is a de facto condominium, governed by parties to the Antarctic Treaty System that have consulting status. Twelve countries signed the Antarctic Treaty in 1959, and thirty-eight have signed it since then. The treaty prohibits military activities and mineral mining, prohibits nuclear explosions and nuclear waste disposal, supports scientific research, and protects the continent's ecology

www.wikipedia.org/wiki/Antarctica

DA's and DIT's

Gary Reed, N2QEE, reports : There is no VE session for November 12, 2020. I am checking on an alternate site for future testing. The **Southern Counties Amateur Radio Association (SCARA)** is planning on a testing session on November 5, 2020 with social spacing, COVID questionnaire, and temperatures taken. See **www.k2br.com** for information.

A BIG Get Well to **Ed De Fonzo, W2DE**, recovering at home after heart valve replacement surgery.

Gloucester County is offering free flu shots. Here is the Fall schedule :
http://gloucestercountynj.gov/documents/FluSchedule_Sept_23_2020.pdf

Jeff Welsh, KD2AZI, and **yours truly** are putting together a Elmers list. A list of Club members who have specialized talents in ham radio such as :

- Antennas
- HF Modes (CW, SSB, AM)
- VHF
- UHF
- Digital Modes (HF, VHF)
- DMR
- Fusion
- D-STAR
- Satellites
- Homebrew
- HTs
- Mobile Installations
- Power Supplies
- Microphones
- Coax Cabling
- Repairing/Modifying Radio Equipment

I think you get the picture! Just e-mail Jeff KD2AZI or Jeff WB2ZBN with your specialty.

Southern NJ Section News - November 2020

By Tom Preiser, N2XW Section Manager

Ham Shack Hotline

About a month ago Rick N2RPQ and I investigated a system that he came across on the internet called Ham Shack Hotline **(https://hamshackhotline.com)**. It is a group who host cloud-based VoIP phone system. They provide this service free of charge to any ham anywhere in several countries. They have different hosted systems that are tied together to make a network.

The purpose of Ham Shack Hotline is NOT to replace ham radio in any way. It is there to supplement operations in times when things could be busy or need background coordination. Like all the tools we use, it would depend on circumstances to determine what is available during a particular situation.

Rick & I started out testing the system and now have several operators on the system. It works very well and doesn't tie up your home phone or use your cellular minutes. The system also provides for conference bridges to accommodate larger meetings. We used the system during the SET to help coordinate some background procedures/administrative tasks while still conducting the entire SET over the various radio bands. It proved to be a valuable tool.

We are looking to expand the use of the system in the Southern NJ section. We would love to have the some more operators join the system.

If you are interested please feel free to investigate the system. Contact Rick N2RPQ at **n2rpq <*at*> arrl <*dot*> net** for more information.

NEW ARRL HANDBOOK

It's here! The ARRL Handbook for Radio Communications for 2021 - your complete guide to radio experimentation, discovery, and innovation - now is available. The Handbook is written by radio amateurs for everyone who has a desire to advance the pursuit of wireless technology. It's available in three formats : Traditional soft cover, a six-volume, shrink-wrapped book set (box not included), and eBook digital editions. The Handbook is a Six-Volume Book Set, Order from the ARRL Store **(http://www.arrl.org/shop/What-s-New).**

ARRL LEARNING NETWORK

ARRL members may visit the Learning Network website **(http://www.arrl.org/arrl-learning-network)** to register for upcoming sessions and to view previously recorded sessions. The schedule is subject to change. The next upcoming sessions are :

- "How to Get Started in Amateur Radio Contesting": Anthony Luscre, K8ZT
- "Learn and Have Fun with Morse Code": Howard Bernstein, WB2UZE, and Jim Crites, W6JIM

Tom N2XW
SNJ Section Manager
ARRL Southern New Jersey Section
Section Manager : Tom Preiser, N2XW
n2xw <*at*> arrl <*dot*> org

Here is the current slate of candidates for the 2021 Officer Elections :

- **President : Anthony Starr, K3TS**
- **Vice President : Jeffrey Welsh, KD2AZI**
- **Treasurer : Alan Arrison, KB2AYU**
- **Recording Secretary : Karl Frank, W2KBF**
- **Corresponding Secretary : Ron Block, NR2B**

- **Directors :**
  - **Charles Colabrese, WA2TML**
  - **William Price, NJ2S**

- **Trustee : Robert Fields, KC6AOH**

There will be nominations taken from the floor at the November 4th General Membership ZOOM Meeting.

Regional (Atlantic & Hudson Divisions) Hamfests & Events

November 27, 2020 : Fair Lawn Amateur Radio Club, Ham Radio Auction, Fair Lawn Senior Center, 11-05 Gardiner Road, Fair Lawn, NJ. **www.fairlawnarc.org** ***** CANCELLED *****

2 Meter Rag Chew Net
147.180 MHz Repeater
EchoLink : W2MMD-R
Every Thursday @ 2000 Hours

This net has an alternating net control operator. Here is a list of the net dates and control operators

November 5, 2020 : Steve Farney, WB2VFJ
November 12, 2020 : Gary Mirkin, WA3SVW
November 19, 2020 : Jeff Garth, WB2ZBN
November 26, 2020 : Thanksgiving Day - No Net
December 3, 2020 : Greg Ciraula, W5DO
December 10, 2020 : Mary Delemarre, KD2PLH
December 17, 2020 : Steve Farney, WB2VFJ
December 24, 2020 : Christmas Eve - No Net
December 31, 2020 : New Year's Eve - No Net

If anyone would like to be a net control operator, please notify Jeff WB2ZBN.

This Is A Call To Action For The ARRL Atlantic Division

By Tom Abernethy, W3TOM

Greetings fellow ARRL Atlantic Division members,

It is time to protest the imposition of fees for Amateur Radio Licensing.

Many Atlantic Division members have contacted me in the past month about the FCC's proposal for a $50 "application fee" for license applications in the Amateur Radio Service. The Notice of Proposed Rulemaking (NPRM) was published in the Federal Register (**https://tinyurl.com/yyk8f2yp**). **The deadline for comments is November 16, and the Reply comment deadline is November 30.**

With this in mind, I am extending the following suggestions you might consider using in writing to the FCC in response to the NPRM. Our thanks to Dave Siddall K3ZJ, ARRL Counsel, for these guidelines. Be sure to carefully review the paragraphs; "Some Suggestions" as the information therein will assist with much of the applicable background.

This subject is critical, the timing is critical. I urge you to contact the FCC now. Address and related information is contained in the article referenced in the Federal Register. Please use your own words to express your objections to the proposed fees.

(Good) Arguments Against FCC Fees for Radio Amateurs :

Amateurs contribute to the public good. In many areas they provide an emergency communications backbone capability at no taxpayer cost. Consistently we have witnessed storms and natural disasters completely wipe out internet, cellular, and other means of communication. Radio amateurs often fill that void on an unmatched, flexible basis when needed. One recent example is the California wildfires.

Unlike operators in other FCC licensed services, Amateur Radio operators by law domestic and international - must eschew using their license for any pecuniary interest. Amateurs are prohibited from earning or charging any money for any communications activity. The expenses for their equipment and activities come out of their own pockets, with no opportunity for reimbursement or payment of any kind.

The United States is experiencing a severe lack of RF engineers and expertise at the very time it is needed by the burgeoning wireless industries. Amateur radio is helping to meet the deficit, but much more is needed and youngsters (High School and College-aged) are least able to afford licensing fees. RF knowledge and related digital expertise is needed to maintain U.S. leadership in wireless industries.

At a minimum, young people (below the age of 26) should be exempt from the proposed license fees.

Amateur radio is self-regulating. (a) Amateur examinations are written and administered by radio amateur volunteers. (b) Examination results and paperwork most often are submitted electronically to the FCC. Electronic submission could be required if there would be a cost savings to the Commission. (c) Amateur radio educational classes are conducted by volunteers who by-and-large do not charge fees or tuition for teaching. (d) The amateur service, in cooperation with the FCC's Enforcement Bureau, has a volunteer corps that monitors the amateur airwaves and has programs that try to prevent their misuse before FCC involvement might be needed. The amateurs also observe non-amateur signals both within amateur spectrum and outside it, and report unusual or suspicious signals.

Atlantic Division Call To Action - Continued on page 10

Atlantic Division Call To Action - Continued from page 9

Amateur radio continues to be a source of significant technological innovation that should be encouraged, not discouraged.

Some Suggestions :

We do not recommend arguing that the $50, fee every 10 years, which amounts to $5.00 a year, will harm or kill amateur radio, even though as proposed this is for each covered application, which includes upgrade applications. Tech-General-Extra could be $150. If exams taken at different sessions, a substantial amount. But it is the wrong way to say the whole service turns on $5/year for each licensee.

The Commission argues that the charges are required by the statute. The word used in the Congressional Act which directs the FCC to collect fees is "shall", which is mandatory, not optional. But the statute does not set the amount, nor does it prohibit reasonable exceptions evidenced by the Commission's proposal to exempt from fees administrative update applications based on policy grounds.

This is not aimed at amateur radio to kill it. There is a long history and precedent on charging fees for the licensing service involved, just as there is for passports, green cards, drivers' licenses (issued by states), etc. Better to make pertinent arguments on why the fees would impair the public benefits of the amateur radio service than argue that the whole service might die as a result of a fee that, in fact, is less than the fee many of us paid in the 1960's and 1970's.

For background: this proceeding is being handled by staff unfamiliar with amateur radio. It is being handled in the FCC's Office of Managing Director (OMD), not in the Wireless Telecommunications Bureau where the amateur-specific Part 97 matters are handled. The focus of OMD is accounting budgets and the like for the entire Commission. The fee proposals cover every FCC license and service across the board and the consideration was directed by Congress. It is recommended that respondents keep "ham jargon" out of the comments, which would not be understood by the intended recipients.

Thank you.

Tom Abernethy W3TOM

Comments to the Federal Communication Commission may be filed online at : **https://www.fcc.gov/ecfs/filings**. FCC's Electronic Comment Filing System (ECFS) reference - posting to **MD Docket No. 20-270**

ARRL Atlantic Division Director : Thomas J Abernethy, W3TOM
w3tom <*at*> arrl <*dot*> org

Tuesday, November 3, 2020

ARRL Simulated Emergency Test (SET)

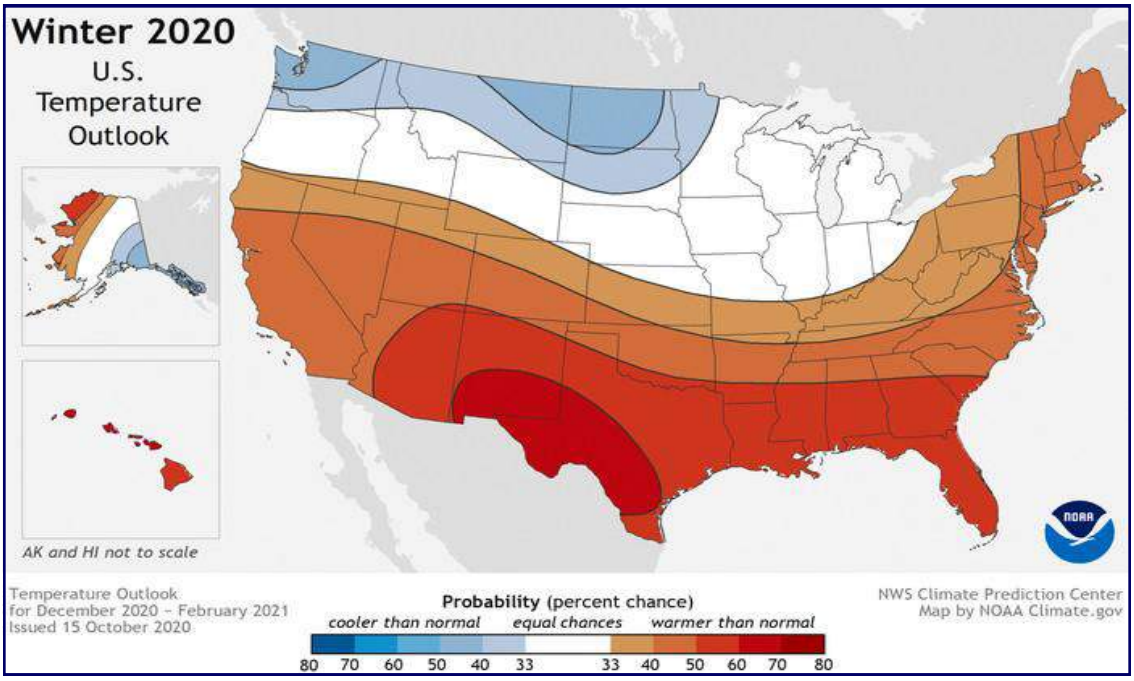
By Karl Frank, W2KBF
Update : October 3, 2020

The SET went well today. Thanks to all who sent and received drill messages and special thanks to Bob KD2NEC for serving as NCS, Michael N2SRO for serving as alternate NCS and Liaison to OEM and Jim N2GXJ for serving as SKYWARN liaison. By my count, we handled 7 reports of severe weather and 5 reports of severe damage. Eight of these messages were digital, either with FLDIGI/FLMSG or Winlink. Perhaps we can collect feedback during the Sunday night ARES/RACES Net when Bruce KD2LBU will be NCS.

Participants :

- KD2NEC, Bob (NCS)
- N2SRO, Michael (alternate NCS and OEM liaison)
- N2GXJ, Jim (SKYWARN liaison)
- WA3SVW, Gary
- W2FJM, Frank
- W2KBF, Karl
- W2OC, Mark
- KD2URI, Jerry
- WA3KOL, Bob (Salem County ARES liaison)
- KD2LBU, Bruce
- KC2VAR, Marc
- KB2RTZ, Steve (NTS liaison)
- KC2STO, Charlie
- WB2ALJ, Tom (DEC)

Karl Frank, W2KBF
Gloucester County ARES Emergency Coordinator
kbfrank3@verizon.net



Highlights from the October 10, 2020 Tech Saturday Forum
15+ Members turned out after an 8 month hiatus

John W2HUV giving a one-on-one class on Remote HF

Frank N3PUU and John K2ZA setting up the satellite tracking antenna

Antennas In The Attic

By Gary Mirkin, WA3SVW

Antennas In The Attic. Sounds like the title of a Stephen King novel. No, it's just the necessity of living in an H.O.A. (Home Owners Association) community. The rule is, "No Outside Visible Antennas" (sans for certain allowable satellite dishes.) What are we amateur radio operators to do, if we want decent performance regarding transmission, and reception, of our coveted electromagnetic environment? Some of us install (in the middle of the night?) stealth antennas that mimic ordinary outside objects, like flag poles, or fence posts. They still have to be "weather proofed", and maintained, to stay healthy, not to mention hiding, and maintaining, the feed lines that connect our equipment to the aforementioned entities. Not my favorite project, as a senior. To my way of thinking, if you are fortunate enough to have the room, and access, is to install antennas in an attic space. My situation affords me the opportunity to do just that. Living in a rancher, that is almost 70 feet, in length, and with pull down stairs in the main hallway, of the house, leading to an attic space of almost the same length, with enough height, at it's peak (over 6 feet), to walk upright.

With the help of a long time colleague, and friend, Rich P. (WA3IWT) we installed a long wire antenna (around 60 feet in total length), fed by a Icom AH-4 Auto Tuner, connected to my Icom IC-7000. We initially connected the wire as a dipole, and it served me well on the HF bands (160 through 6 meters) for several years. About a year ago, I started having trouble with the "Dipole" on the lower frequencies (160 & 80 meters), and decided to add a "backup" HF rig to the shack, with the addition of an Icom IC-7300 SDR rig. After trouble shooting the "malfunctioning" dipole, for open circuit, or "shorts" (found none), decided to rethink the configuration of the AH-4 so that one side goes to "Ground" (as it was designed), and the other goes to a Single Long Wire (instead of the two halves of the "dipole"). This solved most of the lower operating frequency problems. Added a second AH-4, with the same "Long Wire" configuration for the IC-7300. Ran a couple of longer single wire (as opposed to dipole) lengths, and added a coax switch, in the closet for the 7300 (the 7000 connects to just one wire. See Figure 1.

Since the IC-7000 also operates on 2m & 70cm (on a separate, connector), had to address the installation of an appropriate antenna. I chose the Diamond X50A Dual Band. It's 5.6 feet in length, and can handle up to

Antennas In The Attic - Continued on page 14

Antennas In The Attic - Continued from page 13

200 Watts of power. More than enough for the 7000, and the linear amplifier I plan to add soon. Figures 2 & 3 show the antenna installed in the attic, next to the Solar conduit, running behind it, and a full view of the antenna in a QSL add, respectively.

Moving on to the IC-7300 setup. The 7300 is an HF (160 - 6 meter) radio, that has only one output connector. Since one wire length does not properly load on all bands, the three wire configuration, for the 7300 allows for switching to slightly different length wires to accommodate all the available HF bands the 7300 has to offer. I have to jump up from my operating position, to switch the coax, in the closet, however it's not necessary very often, so no big deal. A comprehensive functional diagram appears at the end of this composition that shows how, and where all wires & antennas are switched.

Figure 4 shows some of the "long" wire runs in the attic. There are a total of four. One for the 7000, and three (through the coax switch, that uses just the center conductor contacts) for the 7300.

The wires are fed through the closet ceiling, to the attic, then along one side, then through a couple of 90 degree turns, and along the other side, to the far end of the attic. See Figures 5, 6, 7, 8, & 9.

Coverage for the third radio, is a Radio Shack Ham Discone Antenna. This ingenious piece of technology is only 44 inches, total length. It's specifications state that it receives 25 - 1300 MHz (1.3 GHz), and loads up well, with low SWR and transmits effectively on 50, 144, 220, 440, 900, and 1296 MHz. It is the ideal attic antenna for my AnyTone D578UV III Pro Tri-Band (2m, 70cm, 1.25m) DMR/Analog rig, as well as, my SDR (Software Defined Radio) receiver (SDRplay), that tunes, and detects, any type radio signal, from 1 kHz, to 2000 MHz (2 GHz). Since this versatile antenna is shared by the AnyTone & the SDR receiver, I had to add a coax switch, so I could choose which radio "gets" the antenna. Figure 10 shows the switch installed on my station operating position.

The other antennas in the attic are "left over" spares I used when I had separate rigs for 2m, and 1.25m (220 MHz). They are mag mounts. One is "mounted" to metal ductwork, and the other is mounted to an old broiler pan, both acting as "ground planes" for the antennas. See Figures 11, 12, & 13.

Figures 12 & 13 show the 2m mag mount showing it's operational frequency, and to what radio it was attached

Figure 14 is a comprehensive functional diagram of the radios, SWR/Power Meters, and antenna switches of my "radio station".

Hope the piece wasn't too long, I tried to cover all the aspects of my attic installation effectively. The last image (Figure 15) is a shot of my station operating "Desk", with most of the equipment "fired up". I know it's not the best, in the world, however, it's very functional, for me, and, to my way of thinking, operates as efficiently as possible.

Thanks, to **Mary, KD2PLH**, for giving me the idea and encouragement to produce an article on my attic antennas.

Antennas In The Attic - Continued on page 15

Antennas In The Attic - Continued from page 14

Figure 1 : Antenna Tuners & Coax Switch In Closet

Figure 2 : Diamond X50A Installed In Attic

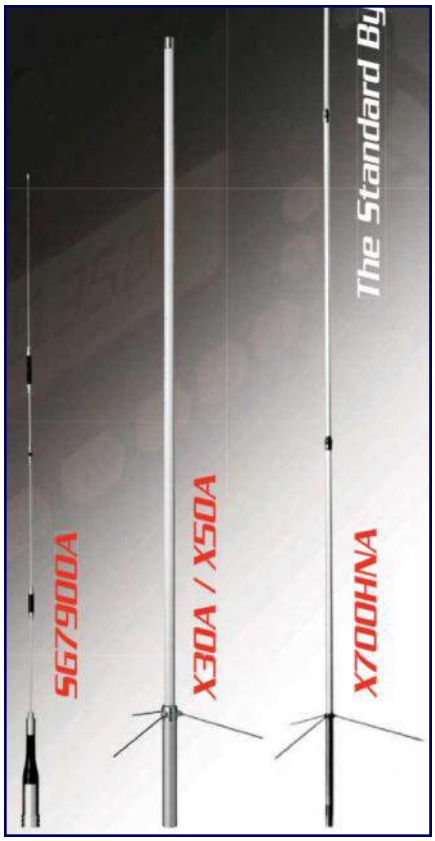


Figure 3 : Diamond X50A Ad In QST

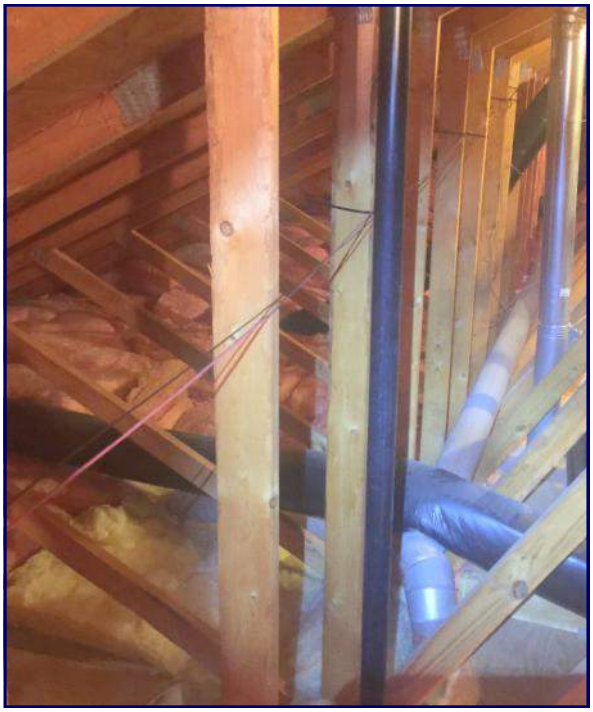


Figure 4 : "Long Wire" Runs In Attic (Red's & Black's)

Figure 5 : Wires Exiting Closet Ceiling

Figure 6 : Wires Starting Toward Left Side Of Attic

Antennas In The Attic - Continued on page 16

Antennas In The Attic - Continued from page 15

Figure 7 : Wires At First 90° Turn

Figure 8 : Wires At Second 90° Turn

Figure 9 : Wires At Final 90° Turn

Figure 10 : Discone A/B Switch Installed For Selecting Antenna Into Either AnyTone Rig Or SDR Receiver (Black Box On Left)

Figure 10a : Discone Antenna Installed In Attic At Opposite End From The X50A

Figure 11 : Magnetic Mount Dual Band Antenna With "Ground Plane" Marked To Remind Me Of Operational Frequencies

Antennas In The Attic - Continued on page 17

Antennas In The Attic - Continued from page 16

Figure 12 : 2 Meter Mag Mount On Duct

Figure 13 : Frequency & Radio ID Indication

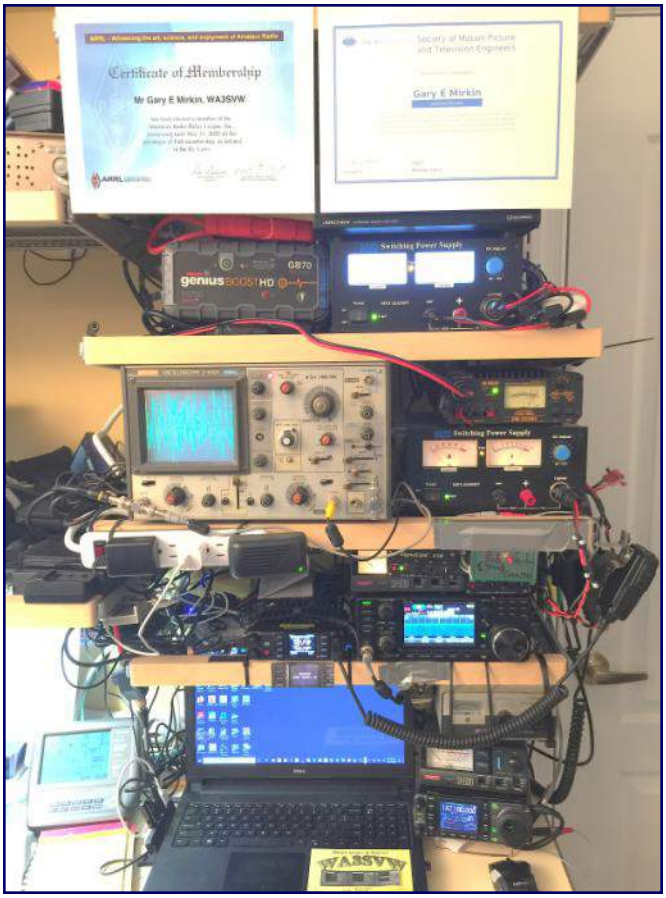


Figure 15 : WA3SVW Station Setup

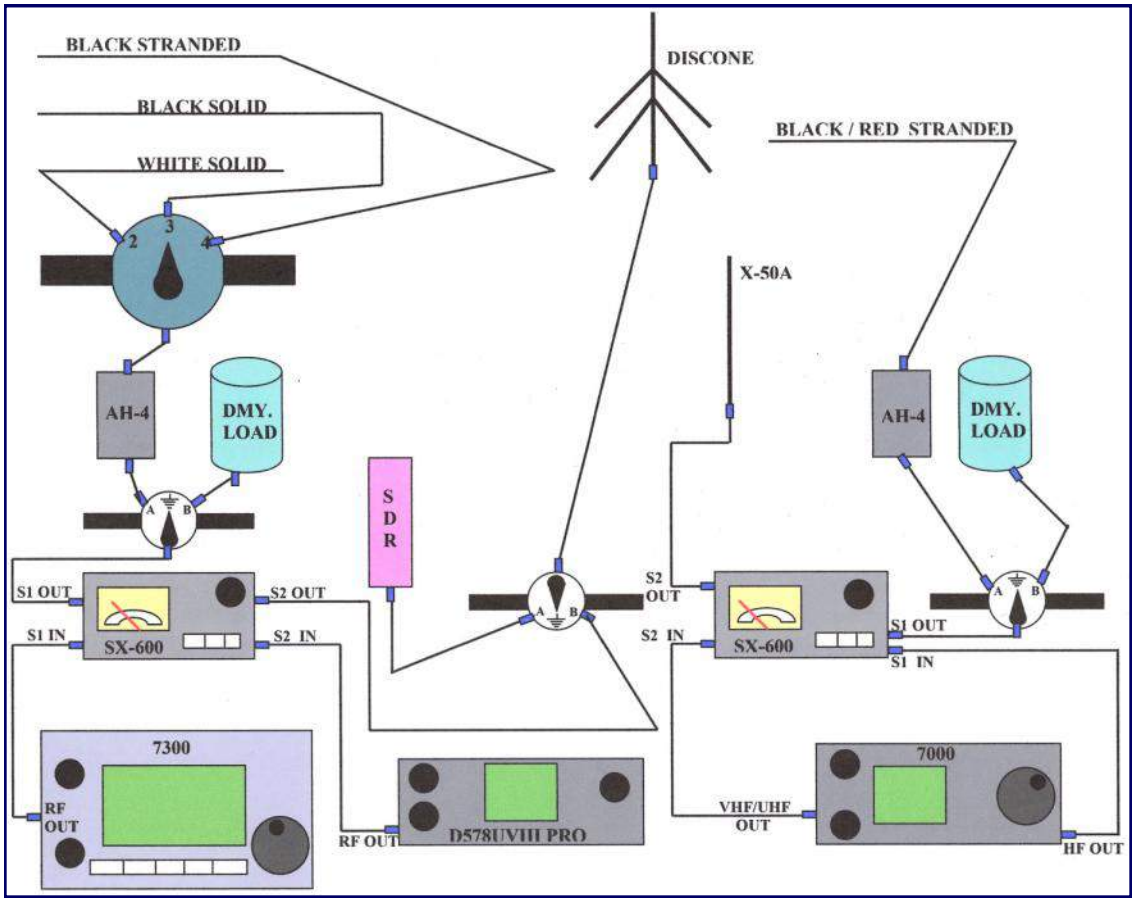


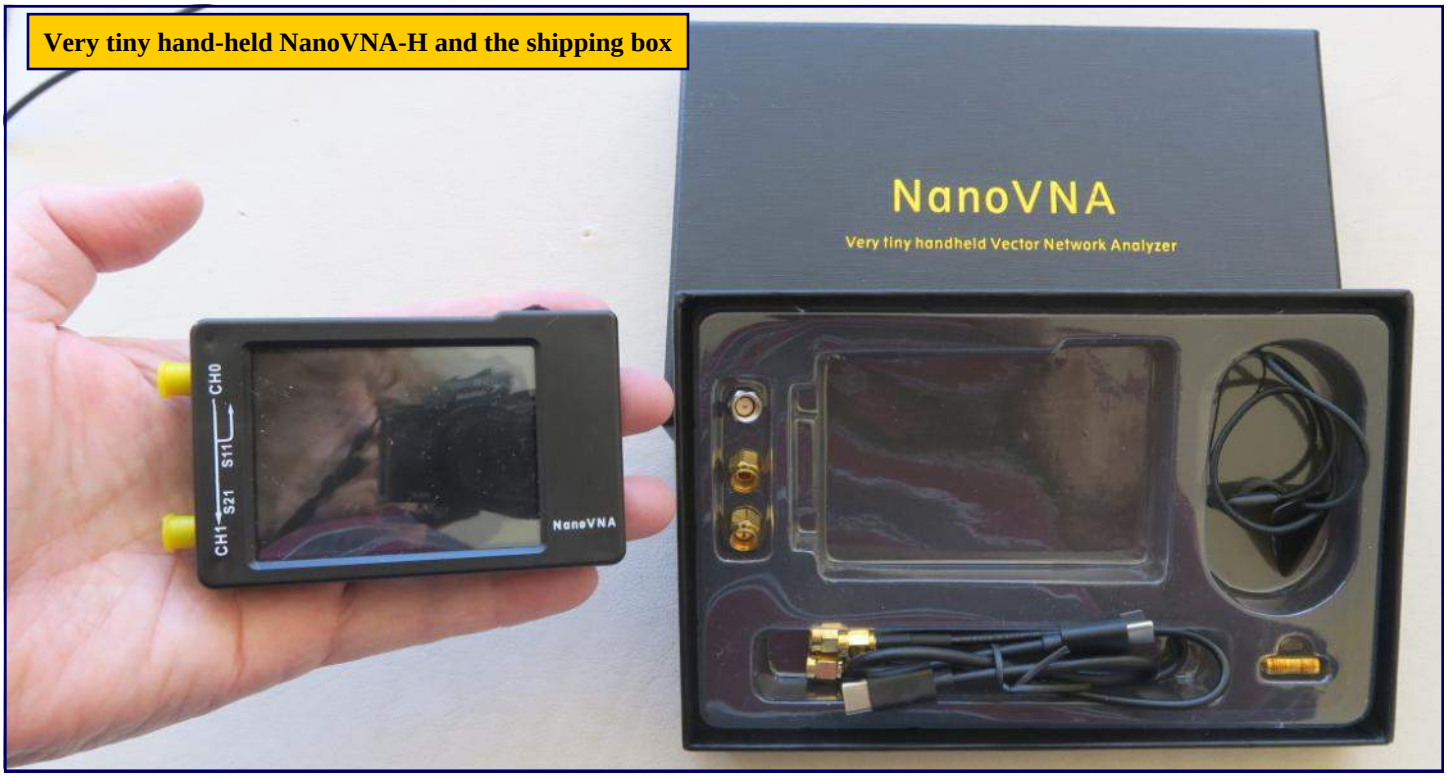
Figure 14 : WA3SVW Functional Diagram

Is A NanoVNA On Your Holiday Wish-List?

By Jim Wright, N2GXJ

The Holidays are approaching! Have enough gizmos in your radio toolbox yet? Surely not! There has to be room next to your trusty digital volt-ohm meter for some RF measurement tools. How about an SWR meter? Do you have one of those? They're really nice to check on your antenna systems. But most only cover HF. And then, there is the cost. Ones that cover higher bands, like 2 meters and 70cm, can be quite expensive, running into the upper hundreds of dollars. If all you want to do is see if the SWR on your car's 2 meter mag mount antenna is any good, who wants to spend many hundreds of dollars just to find out? Isn't there another option?

Yes there is! I'm talking about the NanoVNA, and its many variants. It's a gizmo that is capable of SWR measurements, and much more. And a with prices under $100, with some as low as $60, you can feel less guilt about putting one on your holiday gift wish list!



Very tiny hand-held NanoVNA-H and the shipping box

Not heard about this gismo? Well, now you have. It is a two port device, capable of all kinds of transmission and reflection measurements, including TDR cable fault analysis, but for now we'll just focus on using port0, and getting SWR measurements. There are several manufacturers of these little gizmos, and they come in different revisions, with different features and frequency ranges supported. I chose a NanoVNA-H, HW version 3.4, with USB-C interface for charging the internal battery and connecting to a laptop computer. It also came with set of calibration connectors (more about that later). I used **https://nanovna.com** to research selections. There are other options.

NanoVNA - Continued on page 19

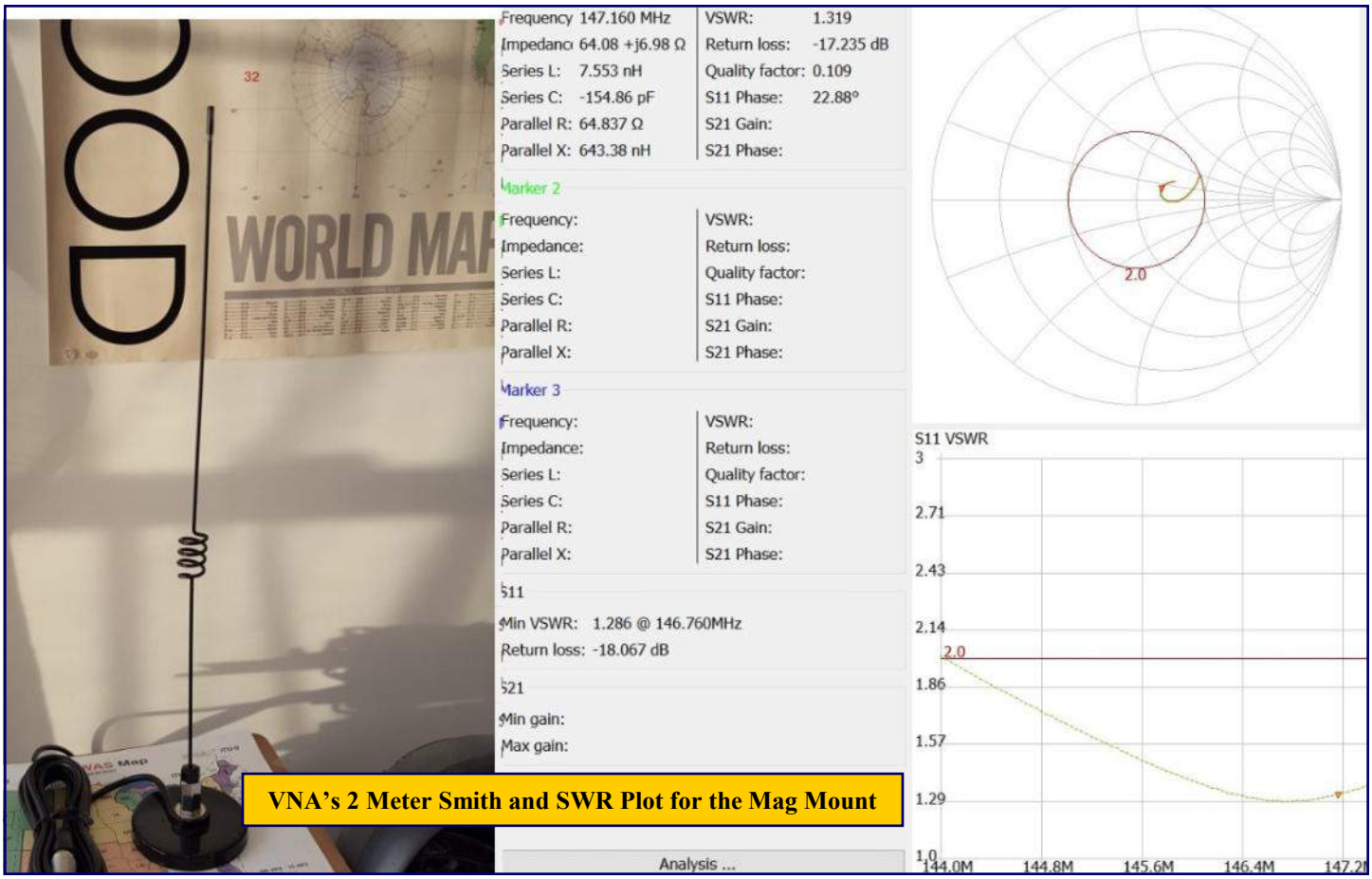
NanoVNA - Continued from page 18

First, a warning. This is a vector network analyzer (VNA), not an SWR meter. It is not "plug and play". Like all VNA, it does come with a learning curve, and certain quirks. An example of such a quirk is that you need to attach and detach a series of short, open, and 50 ohm load connectors to the device as part of a calibration procedure each time you switch to a new range of frequencies to test with.

One of the advertised features is that it is very tiny and hand-held. That, it is. But that comes with compromises. For me, the back-lit display is not very bright and easily washes out in sunlight. Sure it is tiny and fits in your hand, but for me, I have trouble reading it. The font used for the display and the on-screen menu is so micro-tiny on the touch display, that I can barely read it even with reading glasses in a dark location.

I almost gave up on the device until I found a work-around, which was to use my laptop connected to the device, with a piece of software called "nanovna-saver-0.2.2" to control tests and display measurement results. That software saved the day. With it, I could now check on my home 2 meter/70 cm vertical antenna, the mag mount for my car, my portable Fox Hunt antenna, as well as work on new home-brew antenna projects, like one of those Lindenblad satellite antennas the "W2MMD SkunkWorks" crew have been producing.

To get an idea of the kind of data you can get from this gizmo, here are some examples, for a mag-mount, and for one of those Lindenblad. Think this is something you might like to put on your holiday wish list? Enjoy!



VNA's 2 Meter Smith and SWR Plot for the Mag Mount

NanoVNA Continued on page 20

NanoVNA - Continued from page 19

VNA's 2 Meter Smith and SWR Plot for the Lindenblad

ARRL Member Chuck Butzin, K0BBQ, used ham radio on September 26 to assist a motorist in need.

Butzin came upon a vehicle that went off the roadway. Fortunately, no one was injured, but a tow truck was needed to get the vehicle back on the highway. Butzin was beyond cell phone coverage, so he used the Terry Peak repeater to make a priority call on the SDLINK **(http://sdlink.org)** repeater system for assistance. On the other end of the state, Matt Holden, K0BBC, heard the call and relayed location details via 911. Dispatcher Denny Warrick, W0DGW, used the GPS coordinates that Butzin provided to pin down the incident location and call in the closest law enforcement agency. The Pennington County Sheriff sent a patrol car and summoned a tow truck.

Pennington County ARES Emergency Coordinator Bob Ewing, W0RE, monitored the repeater until law enforcement arrived, and K0BBQ cleared the scene. SDLINK is a series of 12 repeaters that connect South Dakota radio amateurs along Interstates 29 and 90. Holden advises radio amateurs to keep an ear on your local repeaters. "They may be quiet, but you never know when a call for assistance from a fellow amateur radio operator might be heard." - Thanks to Matt Holden, K0BBC

Article Credit : The ARRL Letter for October 1, 2020 - www.arrl.org

2020 Hamfest Prize Winners : Over $2500 In Prizes

Company	Donation	Winner
Siglent Technologies	SDS 1202X-E Digital Oscilloscope	David Gonzalez, N3DXD
GCARC Cash Prize	$200.00 Cash	Ron Perry, KB3CUR
Alpha Antenna	$100 Gift Certificate	Jay White, KD2RPX
ARRL- American Radio Relay League	$25 Gift Certificate x 2	Joe Bisogno, AC2AE
ARRL -American Radio Relay League	$50 Gift Certificate	Ray Sokola, K9RS
ARRL - American Radio Relay League	$50 Gift Certificate	Mark Hinkel, WA3QVU
Arrow Antenna	Arrow II Model 146/437-10WP Hand-held Portable Satellite Antenna	Tom Devine, WB2ALJ
BaofengTech	BTECH DMR-6X2 7 Watt Dual Band HT Radio	Don Fowler, KA2HQP
Bioenno Power	BLF-1209A Battery with Charger	Bill Bacon, KE2XC
Bioenno Power	BLF-1209A Battery with Charger	Robert Baker, WB2GFE
Bioenno Power	BLF-1209A Battery with Charger	Steve Schuck, WB2WAK
DX Engineering	$100 Gift Certificate	Jim Kinkade, KC2JAX
DX Engineering	$100 Gift Certificate	Fred Lederer, KD2WPD
GigaParts	$25 Gift Certificate x 2	Prize Not Claimed
Ham Radio Deluxe	Software Download Coupon	Craig Leventhal, N3TPM
Ham Radio Outlet	$25 Gift Certificate x 2	Don Corrington, AK2S
Heil Sound	BM-10 Lightweight Dual Side Boomset	John Doran, W2FDJ
KB3IFH QSL Cards	$25 Gift Certificate	Tom Breedlove, N4TBM
N3FJP Amateur Radio Software	Software Download Gift Certificate	Bruce Carroll, WA3RHW
NCG NatCommGroup	Comet SMA-24 2M/70cm HT Antenna	Give Away, Small Prize
Precise RF	100 Watt RF Sampler - $175 List Price	Karl Johnson, N2RLD
RT Systems	Programming Software Gift Certificate	Bob Madara, WA2CB
Sauder Electronics	2M OPEK Mobile Antenna	Vince Vitullo, N3BFZ
West Mountain Radio	$25 Gift Certificate	Mitch Amos
The Wire Man	$50 Gift Certificate	Paul Beckwith, N2AY

A Special Thank You To All The Companies Who Donated These Prizes
See You Next Year!

KB6NU's Ham Radio Blog

AMSAT 2020 Space Symposium Video Now Online

By Dan Romanchik, KB6NU

The 38th AMSAT Space Symposium and Annual General Meeting was held online on October 17, 2020. I'm kinda bummed about this because I just joined AMSAT, but somehow, I managed to miss this event. Fortunately, the symposium was recorded and is now online, and I've been enjoying watching the video : **https://www.youtube.com/watch?v=EHDgrI_w8hY**.

The video includes updates on AMSAT projects and presentations on amateur satellite technology. For details on presenter names and presentation titles, visit the AMSAT website **(https://www.amsat.org)**. AMSAT members can access the Symposium Proceedings on the AMSAT website as well. (The proceedings for all the AMSAT Symposiums are available there as well, but you do have to be an AMSAT member.)

Here's a list of the different presentations on the video and the times at which they start :

- 0:00:00 Welcome
- 0:02:07 AMSAT GOLF-TEE System Overview and Development Status
- 0:43:02 GOLF IHU Coordination
- 1:19:10 GOLF Downlink Coordination

KB6NU's Ham Radio Blog - Continued on page 23

- 1:50:15 FUNcube Next
- 2:13:50 LunART – Luna Amateur Radio Transponder
- 2:45:35 CatSat HF Experiment Overview
- 3:13:30 Neutron-1 CubeSat
- 3:39:58 Progress and Development of Open Source Electric Propulsion for Nanosats and Picosats
- 4:15:00 AMSAT Education
- 5:14:00 ARISS (Amateur Radio on the International Space Station) / AREx (Amateur Radio Exploration)
- 6:14:00 AMSAT Engineering
- 7:21:16 AMSAT Annual General Meeting

So far, I've only watched the GOLF-TEE System Overview and the AMSAT Education presentation. They were both interesting and I'm looking forward to watching the others.

I really hadn't been keeping up with AMSAT lately, so the presentation on the GOLF project was definitely news to me. GOLF is an ambitious project aimed at sending up high Earth orbit (HEO) satellites. GOLF is short for "Greater Orbits Larger (user communication) Footprints." This is really pretty exciting stuff.

Watching these presentations really gives one an appreciation for the work that goes into the design of these satellites and the technical skills and dedication of the hams working on these projects. These guys are not getting paid to do any of this work, and as Eric Skoog, K1TVV, the GOLF System Engineer said in his presentation, "Space is hard."

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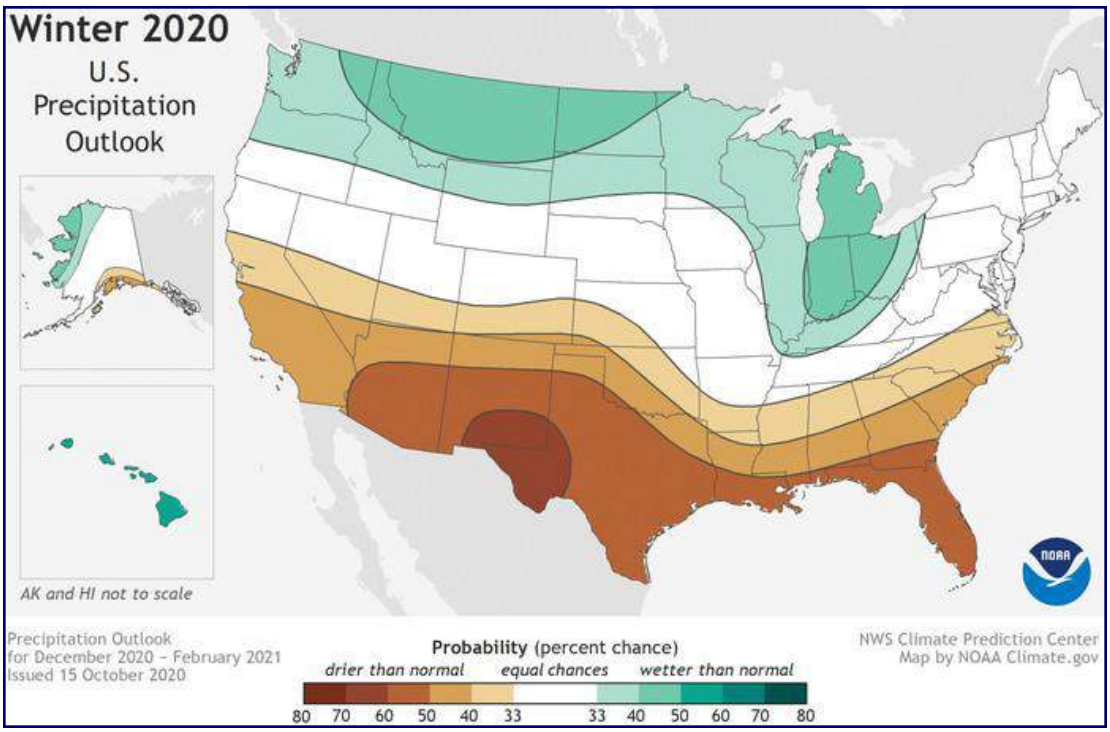
Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (**KB6NU.Com**), the "No Nonsense" amateur radio license study guides (**KB6NU.Com/study-guides**), and often appears on the ICQPodcast (**www.icqpodcast.com**). When he's not trying to work the satellites, he teaches online ham radio classes and operates CW on the HF bands.



W2MMD Antenna Farm - October 8, 2020

By Jon Pearce, WB2MNF

VHF Tower height is about 80 feet. There are lots of antennas on it :

- 144 MHz Horizontal beam - 12 elements 19'5" boom length @ 80'
- 222 MHz Horizontal beam - 15 elements 23'3" boom length @ 85'
- 432 MHz Horizontal beam - 28 elements 19'4" boom length @ 90'
- 1296 MHz Horizontal beam - 55 elements 15' boom length @ 83'
- 144 MHz Omni directional vertical collinear on sidearm @ 50'
- 5.8 GHz Omni-directional dual polarity WiFi access point @ 75'
- 80/75 Meters full length inverted V wire antenna, Feedpoint @ 75'

6 Meter mast height is about 40 feet :

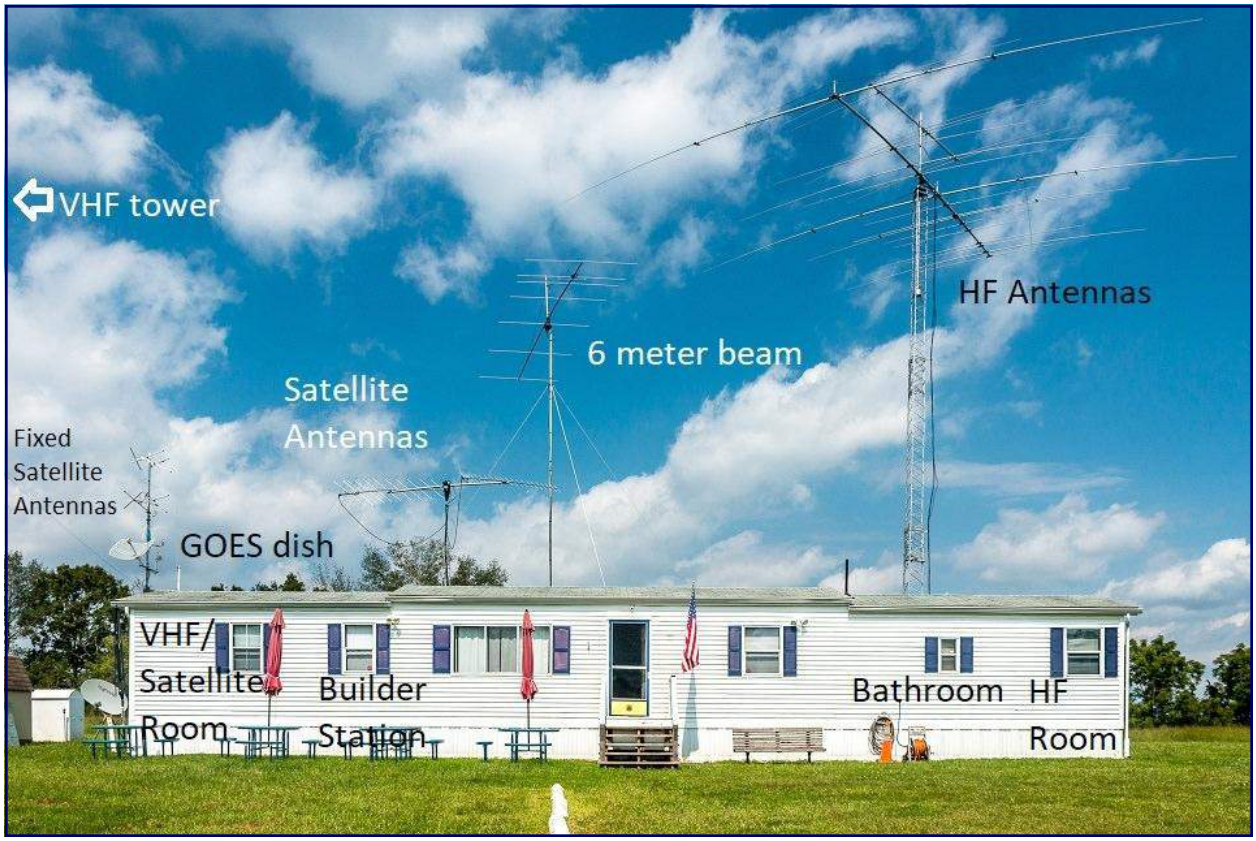
- 50 MHz Horizontal beam - 7 elements 30'8" boom length @ 40'

HF Tower height is about 54 feet :

- 12/17 Meter Horizontal beam @ 60'
- Force 12 N1217 - 18' boom length - 3 elements on 17M, 4 elements on 12M
- 10/15/20/40 Meter Horizontal beam @ 54'
- Force 12 C-39XR - 40' boom length - 2 elements on 40M, 3 elements on 20M, 4 elements on 15M, 5 elements on 10M

Satellite Tower height is about 20 feet :

- 144 MHz Circularly polarized beam - 22 elements 18'7" boom length @ 25'
- 436 MHz Circularly polarized beam - 42 elements 18'10" boom length @ 25'



Ham-Astronauts To Crew Boeing, SpaceX Commercial Missions For NASA

Jeanette Epps, KF5QNU. [NASA, photo]

Ham-astronauts abound among crew members assigned to pioneering commercial space missions by Boeing and SpaceX. Jeanette Epps, KF5QNU, is the latest astronaut assigned to the Boeing Starliner-1, a four-passenger vehicle that will undertake its first mission to the International Space Station (ISS) in 2021. Others on the crew will include veteran Sunita Williams, KD5PLB, and Josh Cassada, KI5CRH. Another crew member is yet to be named.

Epps, Williams, and Cassada will spend 6 months on the ISS. The flight will follow NASA certification after a successful uncrewed Orbital Flight Test-2 and Crew Flight Test with astronauts. The spaceflight will be the first for Epps and Cassada and the third for Williams, who spent long-duration tours on the ISS for Expeditions 14/15 and 32/33. NASA assigned Williams and Cassada to the Starliner-1 mission in **August 2018 (https://go.nasa.gov/3mOF52L).**

Four veteran astronauts are preparing to launch this fall on the SpaceX Crew 1 mission. They are Victor Glover, KI5BKC; Mike Hopkins, KF5LJG; Shannon Walker, KD5DXB, and Soichi Noguchi, KD5TVP, of the Japan Aerospace Exploration Agency (JAXA).

Boeing Starliner 1 crew members Josh Cassada, KI5CRH, and Sunita Williams, KD5PLB

NASA and SpaceX are targeting no earlier than October 23 for the first operational flight with astronauts of the Crew Dragon spacecraft and Falcon 9 rocket as part of the agency's Commercial Crew Program. The SpaceX Crew-1 mission will be the first regular rotational mission to the space station following completion of NASA certification.

Astronauts Bob Behnken, KE5GGX, and Doug Hurley traveled to the ISS on a SpaceX Crew Dragon in late May, marking the first time that humans traveled aloft via a commercial spacecraft.

NASA's **Commercial Crew Program (https://go.nasa.gov/2RLRrdp)** is working with the US aerospace industry as companies develop and operate a new generation of spacecraft and launch systems capable of carrying crews to low-Earth orbit and to the space station. Commercial transportation to and from the station will provide expanded utility, additional research time, and broader opportunities for discovery on the orbital outpost, NASA says.

"As commercial companies focus on providing human transportation services to and from low-Earth orbit, NASA will concentrate its focus on building spacecraft and rockets for deep-space missions," the space agency said.

Ham Astronauts - Continued on page 26

Ham Astronauts - Continued from page 25

Some of the ham-astronauts will be available for ham radio contacts from the ISS with schools and educational groups via the Amateur Radio on the International Space Station **(ARISS - https://www.ariss.org)** program.

Article Credit : The ARRL Letter for August 27, 2020 - www.arrl.org

NASA's SpaceX Crew-1 crew members in the company's Crew Dragon spacecraft during training. From left to right: Shannon Walker, KD5DXB; Victor Glover, KI5BKC; Mike Hopkins, KF5LJG, and Soichi Noguchi, KD5TVP. [SpaceX, photo]

WSJT-X New Mode

WSJT-X is getting a new mode **(https://qrznow.com/new-mode-fst4-wsjt-x)** in the just-published release candidate version 2.3.0: FST-4 **(https://physics.princeton.edu/pulsar/k1jt/FST4_Quick_Start.pdf)**. This mode is intended as a replacement for JT9 and WSPR. Based on a 4-GFSK modulation scheme, FST4 has some "knobs" that can be turned: selectable transmission length and different sub-mode tone spacings. Designations of the particular mode and settings for communicating with potential QSO partners will be in the form of FST4{W}-{Transmission Length}{Sub-mode} - Examples: FST4W-120A, -300A, -900A, -1800A for WSPR-like modes, or FST4-15A, FST4-30B, FST4-30C, FST4-30D for 15 second A, 30 second B, C, and D modes.

WSJT-X version 2.3.0rc1 is available for download now from the WSJT-X webpage **(https://physics.princeton.edu/pulsar/k1jt/wsjtx.html).** Mac users of WSJT-X version 2.3.0rc1 : You will receive an error message at startup unless you change your system configuration for shared memory. See this article **(https://wsjtx.groups.io/g/main/message/16844)** for more information and the changes that are necessary.

Article Credit : The ARRL Contest Update for September 30, 2020 - www.arrl.org

Hams Help Find Kids by Monitoring FRS Channel

Late on the afternoon of September 16, the police department in Post Falls, Idaho, received a 911 call that two juveniles - ages 9 and 11 - were missing from a Post Falls residence for about an hour. According to the report, the pair had left home intending to play in the neighborhood with some Family Radio Service (FRS) radios. Several patrol cars were dispatched to the area to conduct a visual search, and detective Neil Uhrig, K7NJU, responded as officer in charge due to his training and experience with missing persons investigations. The initial search focused on a 2-mile radius from the missing kids' residence.

One officer received information from witnesses that the pair was probably using FRS Channel 1 (462.5625 MHz). An officer returned to police headquarters to retrieve some FRS radios for distribution to the patrol officers, in the event they might be able to hear the youngsters talking.

Uhrig, meanwhile, pulled out his VHF/UHF handheld with the thought of setting up FRS Channel 1 as an auxiliary frequency, but without the manual at hand, he wasn't able to execute the channel setup. But Uhrig did hear the Northwest Traffic Net (NWTN) that had begun at 6:30 PM on the local 2-meter repeater. Checking into the net at about 6:45 PM, Uhrig explained the missing persons situation to net control station Shannon Riley, KJ7MUA, and asked if net participants in the Post Falls area with FRS capability could listen for the youngsters talking.

A number of stations promptly checked in to say they had FRS radios and were monitoring FRS Channel 1. It was assumed that only stations located near the missing youngsters would hear them, given the limited range of FRS radios.

Not long after 7 PM, Jim Hager, KJ7OTD, reported hearing children talking on FRS Channel 1. Uhrig went to Hager's home to confirm his observation, and the patrol units were redirected to the new search vicinity. A short time later, the missing pair was found safe and returned home. Uhrig said the most remarkable thing about the incident was that the missing youngsters turned out to be some distance from the original search area, and in the opposite direction from where they were thought to have been headed.

Net Manager Gabbee Perry, KE7ADN, said, "I'm so proud of what a superior job NWTN NCS Shannon [KJ7MUA] and all the operators did last Wednesday. It was a very unusual situation, but everyone had excellent focus and used their resourcefulness to help quickly find the missing kids." - Thanks to ARRL Assistant Idaho Section Manager Ed Stuckey, AI7H

Article Credit : The ARRL Letter for September 24, 2020 - www.arrl.org

Monday, November 9, 2020

Show Us Your Shack!

I got my ART-13 transmitter working finally, this dates from WWII, and I had my first AM QSO with it. I have been working on this for over a year!
73, Jeff Welsh, KD2AZI

Tuesday, November 10, 2020

British Columbia Radio Amateur Hears Mars Reconnaissance Orbiter

According to a Spaceweather.com **(https://www.spaceweather.com)** report, Scott Tilley, VE7TIL, in British Columbia, Canada, received a signal from the NASA Mars Reconnaissance Orbiter (MRO), flying just 274 kilometers (about 170 miles) above the red planet's surface. The signal was an X-band carrier containing no data or telemetry.

Scott Tilley, VE7TIL used this home-brew dish antenna to hear signals from NASA's Mars Reconnaissance Orbiter. [Scott Tilley, VE7TIL, photo]

"Its purpose is to allow for Doppler tracking," Tilley explained. "The rapid change in pitch of the signal is caused by the relative motion of the satellite and the observer." He used a homemade satellite dish to hear the orbiter.

Tilley enjoys tracking down signals from "dead" satellites, zombie satellites, and spy satellites, but the MRO was a first for him. "MRO's signal is weak, but it is one of the louder signals in Mars orbit," he said. "The spacecraft has a large dish antenna it uses as a relay for other Mars missions. With the proximity of Mars these days, it was the perfect time to try."

In 2018, Tilley saw the "signature" of the Imager for Magnetopause-to-Aurora Global Exploration (IMAGE), a NASA spacecraft believed to have died in 2005. That discovery : **(https://skyriddles.wordpress.com/2018/01/21/nasas-long-dead-image-satellite-is-alive)** delighted space scientists.

Article Credit : The ARRL Letter for October 8, 2020 - www.arrl.org

QST de W1AW
ARRL Bulletin 30 ARLB030
From ARRL Headquarters
Newington CT October 13, 2020
To all radio amateurs

SB QST ARL ARLB030 Mark Stillman, KA3JUJ, Appointed as New Delaware Section Manager

Mark Stillman, KA3JUJ, of Newark, Delaware, has been appointed as ARRL Delaware Section Manager. He succeeds Bill Duveneck, KB3KYH, who had served since 2014. Duveneck has moved out of the Delaware Section.

ARRL Radiosport and Field Services Manager Bart Jahnke, W9JJ, appointed Stillman after consulting with ARRL Atlantic Division Director Tom Abernethy, W3TOM. The appointment is effective immediately and extends through the end of Duveneck's term on December 31, 2021.

Stillman is a member of the local Amateur Radio Emergency Service (ARES), an ARRL Volunteer Examiner, and an American Red Cross volunteer. He serves as treasurer of the Delaware Repeater Association.

November 14 : Nationwide Red Cross Emergency Communications Drill, Joint Exercise With ARES

The Nationwide Red Cross Emergency Communications Fall Drill is a joint exercise with ARES set for November 14, an evolution of the highly successful Spring Drill that had hundreds of participants from some 40 states and Puerto Rico.

The Fall Drill will be a Winlink-specific event with the following goals : (1) pass traditional Red Cross (ARC) forms from as many states and as many radio amateurs as possible to one of six Divisional Clearinghouses, and (2) bring as many radio operators as possible up to a "basic" level of Winlink proficiency. [To prepare, there is a twelve-week series of Winlink Workshops held each Thursday at 0100Z on Zoom. Join the SEC-ARES **(https://groups.io/g/SEC-ARES)** group for announcements and discussions. Include your name and call sign when registering on SEC-ARES.]

Winlink Proficiency Goals have been written, a Winlink Technical Support Team has been formed, and Metrics for Drill Success have been developed. The proficiency goals are established as a training guideline and references online training resources. Many hams new to Winlink should find these resources helpful.

Over 300 radio amateurs have signed up for the event and more than a hundred were on a Briefing Call on October 5. There will be one other Briefing Call, in early November. This event is open to all radio amateurs; if interested in more information, contact **Mike Walters, W8ZY (w8zy <*at*> na1ra <*dot*> net),** for ARES-related questions or **Wayne Robertson, K4WK (wayne <*dot*> robertson <*at*> redcross <*dot*> org)** , for Red Cross-related topics.

Article Credit : The ARES Letter for October 21, 2020 - www.arrl.org

Tom Devine, WB2ALJ, response to a question asked by Karl Frank, W2KBF :

Karl, Great question. I am proposing the answer to all SNJ leadership since it indicated a possible ACRC administrative error.

The American Red Cross exercise is scheduled for November 14th. The exercise is an individual amateur rather than a team/group event. The rationale for the change has not been published currently. Some individual operators received messages from the ARC volunteers indicating the change and to requisition them to register if they were interested in participating. However, it appears not all amateur operators who participated in the prior event received these email requests. All operation will be using Winlink per research today. If you or your team members are interested in participating in the November 14th ARC event here are two suggestions :

- Interested amateurs should send emails to ARC indicating their desire to participate, **wayne <*dot*> robertson <*at*> redcross <*dot*> org.**
- Consider attending the October 22nd at 9:00 pm eastern time, American Red Cross Exercise overview Zoom Presentation. At this time access information is not available, most like a day or two prior. If permission is granted by ARC to video the presentation, it will be posted on the : **https://groups.io/g/SNJEMCOM** site

Thank you for the question and participation in amateur radio emergency communications.

Tom Devine, WB2ALJ, SNJ Section Emergency Coordinator

QST de W1AW
Special Bulletin 13 ARLX013
From ARRL Headquarters
Newington CT October 13, 2020
To all radio amateurs

SB SPCL ARL ARLX013 Northern New Jersey Section Manager Steve Ostrove, K2SO (SK)

ARRL Northern New Jersey Section Manager (SM) Steve Ostrove, K2SO, of Elizabeth, New Jersey, died on October 2. An ARRL Life Member, he was 74. His career was in the pharmaceutical industry, and he was the CEO of Ostrove Associates Inc and author of Aspects in Pharmaceutical Manufacturing.

Ostrove served as an Assistant Section Manager in Northern New Jersey since 2009, and was the Section Emergency Coordinator from 2001 through 2008. He later served as a District Emergency Coordinator as well as an Official Emergency Station, and Official Relay Station. Ostrove was appointed to serve an unexpired term as NNJ SM in 2016, and in 2018 was the only candidate for the position, serving from January 2019 until he resigned less than 2 weeks before his death.

QST de W1AW
ARRL Bulletin 29 ARLB029
From ARRL Headquarters
Newington CT October 13, 2020
To all radio amateurs

SB QST ARL ARLB029 Bob Buus, W2OD, Appointed as Northern New Jersey Section Manager

Bob Buus, W2OD, of Holmdel, has been appointed as Northern New Jersey Section Manager to succeed Steve Ostrove, K2SO (SK), who stepped down on September 22 due to failing health. Buus will serve out the current term of office, which concludes on June 30, 2021.

Steve Ostrove, K2SO, of Elizabeth, New Jersey, died on October 2. An ARRL Life Member, he was 74. His career was in the pharmaceutical industry, and he was the CEO of Ostrove Associates Inc and author of Aspects in Pharmaceutical Manufacturing. Ostrove served as an Assistant Section Manager in Northern New Jersey since 2009, and was the Section Emergency Coordinator from 2001 through 2008. He later served as a District Emergency Coordinator as well as an Official Emergency Station, and Official Relay Station. Ostrove was appointed to serve an unexpired term as NNJ SM in 2016, and in 2018 was the only candidate for the position, serving from January 2019 until he resigned less than 2 weeks before his death.

An ARRL Life Member, Buus had been serving as an Assistant SM and an Emergency Coordinator. He is also an ARRL Volunteer Examiner and Life Member of ARRL. Ostrove had recommended Buus to be appointed to replace him, and ARRL Hudson Division Director Ria Jairam, N2RJ, agreed with his choice. ARRL Radiosport and Field Services Manager Bart Jahnke, W9JJ, made the appointment, which is effective immediately.

Clubhouse pictures by Jon WB2MNF's drone camera

"HAMS" Take To The Air To Celebrate The Birth Of Commercial Radio

November 2, 2020 marks the centennial of radio station **KDKA** going on the air for the first time. Their first broadcast, considered by many to be the birth of commercial broadcast radio, was to report the election results of the Harding-Cox presidential race. **KDKA** has been on the air continuously ever since. To celebrate this historic milestone, Pittsburgh area amateur radio operators, also known as hams, will take to the airwaves with a series of special event stations. Their goal is to contact as many other ham radio operators across the United States and around the world. They will be celebrating the centennial of **KDKA** for the entire month of November.

KDKA originally began operations in 1916 as an amateur radio station, call sign **8XK**, operated by Dr. Frank Conrad, Assistant Chief Engineer of Westinghouse Electric and Manufacturing Company. During World War I, amateur radio operations were ordered to be suspended because of national security concerns. After the war, the operators reorganized the station as a commercial AM radio station. The first transmissions of **KDKA** were from a makeshift studio on a roof of the Westinghouse K Building in East Pittsburgh.

Ham radio clubs participating in the centennial special event include the North Hills Amateur Radio Club in Pittsburgh, which is planning to operate from II-VI Incorporated located in Saxonburg, Pennsylvania, the former **KDKA** transmitter site from 1931 to 1939. One of the original tower piers still stands on the property to this day. Another operating location is being planned at the Westinghouse Lodge in Forest Hills, located about ten miles east in suburban Pittsburgh, which was the former **KDKA** transmitter site from 1923 to 1930. Other Pittsburgh area ham radio clubs planning operations include the Panther Amateur Radio Club in addition to a joint operation planned between the Steel City Amateur Radio Club and the Wireless Association of South Hills. Outside of Pittsburgh, other ham radio clubs planning operations are The Skyview Radio Society in New Kensington, Pennsylvania, which will operate from their clubhouse, in addition to the Butler County Amateur Radio Public Service Group in Butler, Pennsylvania, and the Washington Amateur Communications Radio Club in Washington, Pennsylvania. Individual radio amateurs will also be operating from their home stations. In addition, there is a small group of ham radio operators planning portable field operations from South Park in suburban Pittsburgh.

"More than one hundred years ago, many experimenters started delving into a new technology known as wireless, or radio," said Bob Bastone, WC3O, Radio Officer for the Skyview Radio Society in New Kensington, Pennsylvania. Bastone explained that many of those early pioneers were radio amateurs. "One hundred plus years later, many amateur radio operators are still contributing to wireless technology while also serving their communities and enhancing international goodwill. Congratulations to **KDKA** Radio, also known in the early years as amateur radio stations 8XK, 8ZZ, and W8XK."

Bastone said that the special event stations will exchange post cards, called QSL cards, with hams who confirm radio contacts with them. A commemorative QSL card has been produced with artwork designed by the graphic arts department at **KDKA** Radio. "We amateur radio operators look forward to contacting thousands of other hams around the world to celebrate this huge milestone in the commercial broadcasting industry," said Bastone.

The **KDKA** amateur radio special event stations, operating with call signs **K3A, K3D, K3K**, and **W8XK** will be set up at several locations in Pennsylvania during November, inviting the public to come visit while observing the required social distancing protocols. "The special event stations will also help demonstrate ham radio to our communities while our volunteers practice operating skills and station readiness," said Robert Mente, NU3Q, Emergency Coordinator for the Allegheny County Amateur Radio Emergency Service (ARES).

Birth of Commercial Radio - Continued on page 34

Birth of Commercial Radio - Continued from page 33

He and his fellow volunteers log many hours each year providing public service and practicing their emergency communications capability. The group provides communication services for The Pittsburgh Marathon, Race for the Cure, the Pittsburgh Vintage Grand Prix, the Great Race, and the American Diabetes Tour de Cure in addition to providing communication support for the American Red Cross and the Pittsburgh National Weather Service office.

For more information about the **KDKA** centennial and a schedule for the ham radio special event stations including locations, operating frequencies, and how to obtain a commemorative certificate, visit : **www.kdka100.org** and **www.qrz.com/db/w8xk**. Information is also available in the Special Events Station section both on the ARRL website and in QST Magazine.

ARRL Southern New Jersey Section
Section Manager : Tom Preiser, N2XW
n2xw <*at*> arrl <*dot*> org

How Try 17 Meters?

By Jim Wright, N2GXJ

18.068 - 18.168 MHz. Just a tiny sliver of radio frequency spectrum, 100 kHz wide. Designated contest-free? Yes. DX? Yes. Digital? Yes. Surprises? Yes!

When was the last time you visited 17 Meters? Many people will answer “never”. A main reason cited is they don’t have an antenna for that band. For a couple of dollars, and a simple design that fits in the attic of many homes, that’s all it takes to know what you might have been missing out on so far. As we move from Autumn to Winter this year, why not enable yourself to get on this band and find out?

If looking to buy, it will cost you about $50. A quick internet search can find several examples, like the one at **https://www.radiowavz.com** which comes with wire pre-cut to the right length, plus a center balun. If you want to make your own, all you need is about 26 ½ feet of insulated stranded #14 wire, which you cut in half, and attach to your own balun. Either way, no need to worry about wind and rain in the attic, so tie a loop at the end of each of the outstretched wires, and then just use plain old string to stretch out to where you can attach to a roofing rafter with a hammer and nail. Tune with your SWR meter, and if the resonant point is below the band, simply loop back the ends of the wire back upon itself until is “good enough”.

Buy or build, want a little more “punch” in one direction, such as towards Europe? String the dipole sideways to direction you are most interested in, and then you can turn it into a wire beam by simply taking another unconnected single piece of wire that’s about 10% longer, and string it up at the same height about 2 feet or so behind your dipole antenna to act as a reflector.

Finally, connect up your coax to center balun, and you’re off to the races! 17 Meters is there, waiting for you. What are you waiting for?

California QSO Party
October 3, 2020

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SO (A) Fixed HP
QTH : SNJ
Operating Time (hrs) : 8
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs
40 :	28	5
20 :	114	36
15 :	22	0

Total : 164 41 Mults : 51
Total Score : 29,274

Club : Frankford Radio Club **19**

Comments : *Not quite as good as last year. There were 7 counties that I never heard or saw spotted. Signals were OK, but not great. Maybe next year will be better. 73.*

Pennsylvania QSO Party
October 10, 2020

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SO Mixed HP
QTH : SNJ
Operating Time (hrs) : 4
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs	Dig Qs
80 :	47	13	0
40 :	3	2	0
20 :	1	0	0

Total : 51 15 0 Mults : 45
Total Score : 5,265

Club : Frankford Radio Club **20**

Comments

2019-2023 Element 3 General Class License Question Quiz

This month we continue with **Subelement G4 : Amateur Radio Practices** (Answers on 'Last Page Calendar')

G4C01
Which of the following might be useful in reducing RF interference to audio frequency devices?
A. Bypass inductor
B. Bypass capacitor
C. Forward-biased diode
D. Reverse-biased diode

G4C02
Which of the following could be a cause of interference covering a wide range of frequencies?
A. Not using a balun or line isolator to feed balanced antennas
B. Lack of rectification of the transmitter's signal in power conductors
C. Arcing at a poor electrical connection
D. Using a balun to feed an unbalanced antenna

G4C03
What sound is heard from an audio device or telephone if there is interference from a nearby single sideband phone transmitter?
A. A steady hum whenever the transmitter is on the air
B. On-and-off humming or clicking
C. Distorted speech
D. Clearly audible speech

G4C04
What is the effect on an audio device when there is interference from a nearby CW transmitter?
A. On-and-off humming or clicking
B. A CW signal at a nearly pure audio frequency
C. A chirpy CW signal
D. Severely distorted audio

G4C05
What might be the problem if you receive an RF burn when touching your equipment while transmitting on an HF band, assuming the equipment is connected to a ground rod?
A. Flat braid rather than round wire has been used for the ground wire
B. Insulated wire has been used for the ground wire
C. The ground rod is resonant
D. The ground wire has high impedance on that frequency

G4C06
What effect can be caused by a resonant ground connection?
A. Overheating of ground straps
B. Corrosion of the ground rod
C. High RF voltages on the enclosures of station equipment
D. A ground loop

General Class Quiz - Continued on page 37

General Class Quiz - Continued from page 36

G4C07
Why should soldered joints not be used with the wires that connect the base of a tower to a system of ground rods?
A. The resistance of solder is too high
B. Solder flux will prevent a low conductivity connection
C. Solder has too high a dielectric constant to provide adequate lightning protection
D. A soldered joint will likely be destroyed by the heat of a lightning strike

G4C08
Which of the following would reduce RF interference caused by common-mode current on an audio cable?
A. Placing a ferrite choke around the cable
B. Adding series capacitors to the conductors
C. Adding shunt inductors to the conductors
D. Adding an additional insulating jacket to the cable

G4C09
How can a ground loop be avoided?
A. Connect all ground conductors in series
B. Connect the AC neutral conductor to the ground wire
C. Avoid using lock washers and star washers when making ground connections
D. Connect all ground conductors to a single point

G4C10
What could be a symptom of a ground loop somewhere in your station?
A. You receive reports of "hum" on your station's transmitted signal
B. The SWR reading for one or more antennas is suddenly very high
C. An item of station equipment starts to draw excessive amounts of current
D. You receive reports of harmonic interference from your station

G4C11
What technique helps to minimize RF "hot spots" in an amateur station?
A. Building all equipment in a metal enclosure
B. Using surge suppressor power outlets
C. Bonding all equipment enclosures together
D. Low-pass filters on all feed lines

G4C12
Which of the following is an advantage of a receiver DSP IF filter as compared to an analog filter?
A. A wide range of filter bandwidths and shapes can be created
B. Fewer digital components are required
C. Mixing products are greatly reduced
D. The DSP filter is much more effective at VHF frequencies

G4C13
Why must the metal enclosure of every item of station equipment be grounded?
A. It prevents a blown fuse in the event of an internal short circuit
B. It prevents signal overload
C. It ensures that the neutral wire is grounded
D. It ensures that hazardous voltages cannot appear on the chassis

Gloucester County Amateur Radio Club
General Membership ZOOM Meeting Minutes
Wednesday, October 7, 2020

Meeting opened @ 1930 Hours via Zoom

Attendance : (31) Members
Visitors : (1) Greg Bekes, W9GEB

Treasurer's report :

- YTD Income : $8594
- YTD Expenses : $5347
- Net : $3246

Hamfest net proceeds $3628. Treasurer's report approved by voice vote of members present.

Committees :

Clubhouse : Al KB2AYU reported the generator radiator was pulled, repair shop said it was uneconomic to repair. Will have to find a compatible replacement elsewhere. Will rent a lift to do some antenna maintenance. Trying to get Clubhouse winterized.

Hamfest : Sheldon K2MEN reported that in spite of the COVID-19 threat, we had more than enough volunteer help. There was a threat of rain and the requirement to accommodate social distancing which forced us to prepare additional pavilion space. Volunteers and participants seemed to honor the COVID mask and spacing requirements. Attendance was only 27 fewer than last year at 445. It was a financial success, consistent with the past 2 years.

Contests & DX : No report

Old Business : Tony K3TS reported on the code class, progress being made. **Karl W2KBF** reported on the ARRL Section Emergency Test. **Jim KA2OSV** reported the Club picnic is cancelled.

New Business :

2021 Officer Nominations :

- **President : Tony Starr, K3TS**
- **Vice President : Jeff Welsh, KD2AZI**
- **Treasurer : Al Arrison, KB2AYU**
- **Recording Secretary : Karl Frank, W2KBF**
- **Corresponding Secretary : Ron Block, NR2B**
- **Director : Chuck Colabrese, WA2TML**
- **Director : Bill Price, NJ2S**
- **Trustee : Bob Fields, KC6AOH**

Meeting adjourned @ 2021 Hours

Respectfully submitted,
John Zaruba Jr, K2ZA
Recording Secretary

Gloucester County Amateur Radio Club
Board of Directors Meeting Minutes
Wednesday, October 21, 2020

Meeting opened @ 1905 Hours via ZOOM Online

Attendance :

- President Jim Clark, KA2OSV
- Vice President Tony Starr, K3TS
- Treasurer Al Arrison, KB2AYU
- Recording Secretary John Zaruba Jr, K2ZA
- Corresponding Secretary Ron Block, NR2B
- Director Jeff Welsh, KD2AZI
- Director Bill Price, NJ2S
- Director Jeff Garth, WB2ZBN
- Director Herb Dyer, KT2Y
- Director Chuck Colabrese, WA2TML
- Trustee Jim Wright, N2GXJ
- Member Karl Frank, W2KBF

Treasurer's Report :

- YTD Income : $8193
- YTD Expenses : $5347
- Net : $2846

Treasurer's report approved by voice vote of officers present.

Committee Reports :

Clubhouse : Al KB2AYU reported on the successful Tech Saturday event (15 members attended). Rohn tower section donated by **Wayne Wilson WA2LET** installed on the end of the Clubhouse to support **Skunkworks** projects.

Fox Hunt : Jim N2GXJ announced a vehicle based fox hunt on Saturday 11/7/2020 at 1PM.

Old Business :

Jim KA2OSV led discussion on whether to resume in-person meetings vs. ZOOM meetings. Consensus that the Club should continue to pay the **Pfeiffer Community Center** to preserve our reservation for that time when in-person meetings can resume. Motion to continue GM meetings by ZOOM. Motion seconded and passed by voice vote of officers present.

Jeff KD2AZI reported discussing license testing at the Clubhouse with Gary Reed N2QEE, found to be not appropriate during COVID-19 crisis.

October 2020 Board of Directors Meeting Minutes - Continued on page 40

October 2020 Board of Directors Meeting Minutes - Continued from page 39

New Business :

Jim KA2OSV selected **Robin Herman KD2LSH** to chair the awards committee. He also discussed the new Certificate of Appreciation award.

Al KB2AYU reported the Club is now on eQSL and **Jim N2GXJ** is working on getting the Club on ARRL LoTW.

Jeff WB2ZBN proposed adding a Senior Discount for members 65 years old or greater. The discounted rate would be $25. Discussion ensued, sense of the Board was to watch the effects of the dues increase before taking action.

Jeff WB2ZBN and **Jeff KD2AZI** are working on an "Elmers List" to identify mentors for particular aspects of ham radio.

Chuck WA2TML queried the board as to whether the ZOOM invites for BoD meetings should be performed over the Club general membership e-mail list. After discussion the sense of the Board is that any Club member desiring to join the BoD ZOOM meeting can contact **Chuck WA2TML** for the link.

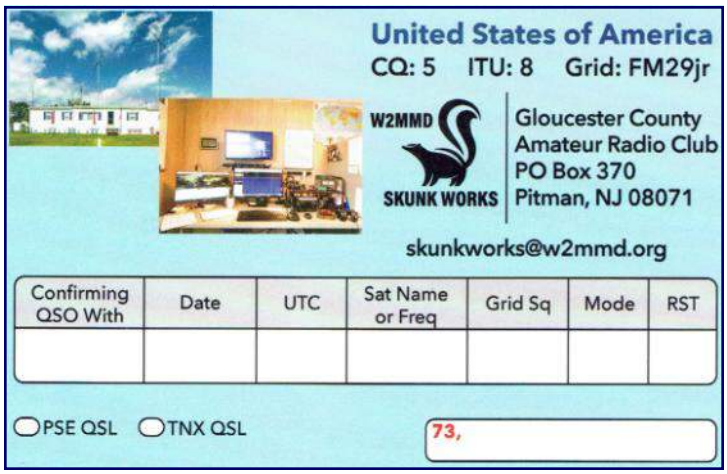
New Members :

- **Peter Bach, KB2TBN, of Haddonfield, NJ**
- **Gregory Bekes, W9GEB, of Cherry Hill, NJ**
- **Todd Cecilio, KA2YNT, of Brooklawn, NJ**
- **Jodi Ann Logan, KD2UUB, of Blackwood, NJ**
- **Gerald Patterson III ,WW2WTF, of Sewell, NJ**
- **Christopher Wawak, KC2IEB, of Haddon Township, NJ**

New members approved by voice vote of officers present.

Meeting adjourned @ 2004 Hours

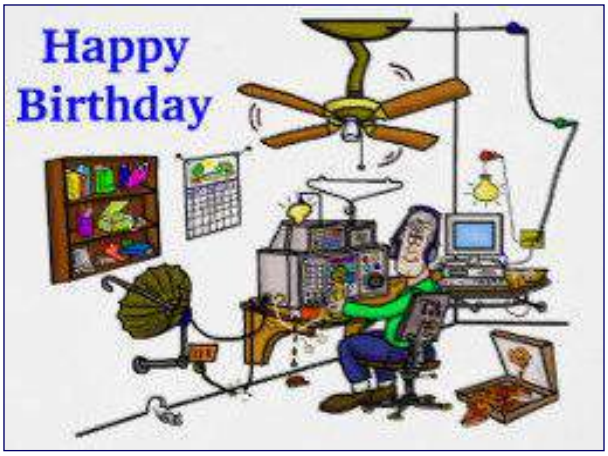
Respectfully submitted,
John Zaruba Jr, K2ZA
Recording Secretary



November Birthdays

Congratulations to our members who are celebrating their birthday this month

Fr. Brain Burgess, KD4UTL
Dale Christman, KD2NOC
Ted Coyle, AA4AZ
Bill DeCuzzi, KD2KZW
Bob Durham, W2RAD
Bob Fields, KC6AOH
Bob Harrison, WA3KOL
Bob Keogh, KD2NEC
Ernie Kraus, KD2EAV
Chuck Lanard, KD2EIB
Howard Marder, WA2IBZ
Ray Martin, W2RM (President 1979)
Cory Sickles, WA3UVV (President 1993)



In Memoriam
November Birthdays

Silent Keys :
Henry Basch, N2DJN
Peter Butler, WB2B
Glenn Farnsworth, K2EHM
John Fisher Jr, K2JF (President 1988)

Elwood "Woody" Frantz Sr, K4HKU (President 1960, Charter Member)

Ernest Garside, WA2TDI
Russel Glans, N2ASV (President 1983)
George Hankins, N2CFW
Charles Jenkins III, W2OGZ
Frank King, WA2WGA
Eleanor Mattison, N2JXS
James McDonald Sr, N2AIV
Hugh Turnbull, W3ABC

"The big thing about being in a club and being a "Ham" is to help each other when there is a need " - WB2VFJ

Crosstalk Submissions

This is your Club Newsletter. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so!

We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments and editorials should be addressed to Jeffrey Garth, WB2ZBN at jeff <*dot*> garth <*at*> comcast <*dot*> net.

Submission deadline for the December 2020 issue : Friday, November 20, 2020

Club Website www.w2mmd.org
Club E-Mail Reflector: GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net

November Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

November 2020	
North American SSB Sprint Contest	0000Z-0400Z, Nov 1
Silent Key Memorial Contest	0600Z-0859Z, Nov 1
Classic Exchange, CW	1400Z, Nov 1 to 0800Z, Nov 2 and 1400Z, Nov 3 to 0800Z, Nov 4
High Speed Club CW Contest	1500Z-1800Z, Nov 1
K1USN Slow Speed Test	0000Z-0100Z, Nov 2
RSGB 80m Autumn Series, Data	2000Z-2130Z, Nov 2
Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 3
ARS Spartan Sprint	0200Z-0400Z, Nov 3
RTTYOPS Weeksprint	1700Z-1900Z, Nov 3
QRP Fox Hunt	0200Z-0330Z, Nov 4
Phone Fray	0230Z-0300Z, Nov 4
CWops Mini-CWT Test	1300Z-1400Z, Nov 4
VHF-UHF FT8 Activity Contest	1700Z-2000Z, Nov 4
CWops Mini-CWT Test	1900Z-2000Z, Nov 4
UKEICC 80m Contest	2000Z-2100Z, Nov 4
CWops Mini-CWT Test	0300Z-0400Z, Nov 5
RTTYOPS Weeksprint	1700Z-1900Z, Nov 5
NRAU 10m Activity Contest	1800Z-1900Z, Nov 5 (CW) and 1900Z-2000Z, Nov 5 (SSB) and 2000Z-2100Z, Nov 5 (FM) and 2100Z-2200Z, Nov 5 (Dig)
SKCC Sprint Europe	2000Z-2200Z, Nov 5
NCCC RTTY Sprint	0145Z-0215Z, Nov 6
QRP Fox Hunt	0200Z-0330Z, Nov 6
NCCC Sprint	0230Z-0300Z, Nov 6
Day of the YLs Contest	0000Z, Nov 7 to 2359Z, Nov 8
IPARC Contest, CW	0500Z-1200Z, Nov 7
Ukrainian DX Contest	1200Z, Nov 7 to 1200Z, Nov 8
SKCC Weekend Sprintathon	1200Z, Nov 7 to 2400Z, Nov 8
RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 7
ARRL Sweepstakes Contest, CW	2100Z, Nov 7 to 0300Z, Nov 9
AWA Bruce Kelley 1929 QSO Party	2300Z, Nov 7 to 2300Z, Nov 8 and 2300Z, Nov 14 to 2300Z, Nov 15
IPARC Contest, SSB	0500Z-1200Z, Nov 8
EANET Sprint	0800Z-1200Z, Nov 8
4 States QRP Group Second Sunday Sprint	0100Z-0300Z, Nov 9
K1USN Slow Speed Test	0000Z-0100Z, Nov 10
Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 10
RTTYOPS Weeksprint	1700Z-1900Z, Nov 10
QRP Fox Hunt	0200Z-0330Z, Nov 11
Phone Fray	0230Z-0300Z, Nov 11
CWops Mini-CWT Test	1300Z-1400Z, Nov 11
VHF-UHF FT8 Activity Contest	1700Z-2000Z, Nov 11
CWops Mini-CWT Test	1900Z-2000Z, Nov 11
RSGB 80m Autumn Series, SSB	2000Z-2130Z, Nov 11
CWops Mini-CWT Test	0300Z-0400Z, Nov 12
RTTYOPS Weeksprint	1700Z-1900Z, Nov 12
NCCC RTTY Sprint	0145Z-0215Z, Nov 13
QRP Fox Hunt	0200Z-0330Z, Nov 13
NCCC Sprint	0230Z-0300Z, Nov 13
PODXS 070 Club Triple Play Low Band Sprint	0000Z, Nov 14 to 2359Z, Nov 16
WAE DX Contest, RTTY	0000Z, Nov 14 to 2359Z, Nov 15

November Contest Calendar - Continued on page 43

November Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

November Contest Calendar - Continued from page 42

10-10 Int. Fall Contest, Digital	0001Z, Nov 14 to 2359Z, Nov 15
JIDX Phone Contest	0700Z, Nov 14 to 1300Z, Nov 15
OK/OM DX Contest, CW	1200Z, Nov 14 to 1200Z, Nov 15
SARL VHF/UHF Analogue Contest	1200Z, Nov 14 to 1000Z, Nov 15
CQ-WE Contest	1900Z-2300Z, Nov 14 (CW/Digital) and 0100Z-0500Z, Nov 15 (Phone) and 1900Z-2300Z, Nov 15 (Phone) and 0100Z-0500Z, Nov 16 (CW/Digital)
Homebrew and Oldtime Equipment Party	1300-1500Z, Nov 15 (40m) and 1500-1700Z, Nov 15 (80m)
Run for the Bacon QRP Contest	2300Z, Nov 15 to 0100Z, Nov 16
K1USN Slow Speed Test	0000Z-0100Z, Nov 16
RSGB FT4 Contest Series	2000Z-2130Z, Nov 16
Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 17
RTTYOPS Weeksprint	1700Z-1900Z, Nov 17
QRP Fox Hunt	0200Z-0330Z, Nov 18
Phone Fray	0230Z-0300Z, Nov 18
CWops Mini-CWT Test	1300Z-1400Z, Nov 18
CWops Mini-CWT Test	1900Z-2000Z, Nov 18
NAQCC CW Sprint	0130Z-0330Z, Nov 19
CWops Mini-CWT Test	0300Z-0400Z, Nov 19
RTTYOPS Weeksprint	1700Z-1900Z, Nov 19
NCCC RTTY Sprint	0145Z-0215Z, Nov 20
QRP Fox Hunt	0200Z-0330Z, Nov 20
NCCC Sprint	0230Z-0300Z, Nov 20
YO International PSK31 Contest	1600Z-2200Z, Nov 20
SARL Field Day Contest	1000Z, Nov 21 to 1000Z, Nov 22
LZ DX Contest	1200Z, Nov 21 to 1200Z, Nov 22
RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 21
All Austrian 160-Meter Contest	1600Z-2359Z, Nov 21
REF 160-Meter Contest	1700Z, Nov 21 to 0100Z, Nov 22
RSGB 1.8 MHz Contest	1900Z-2300Z, Nov 21
Feld Hell Sprint	1900Z-2059Z, Nov 16
ARRL Sweepstakes Contest, SSB	2100Z, Nov 21 to 0300Z, Nov 23
K1USN Slow Speed Test	0000Z-0100Z, Nov 23
Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 24
RTTYOPS Weeksprint	1700Z-1900Z, Nov 24
SKCC Sprint	0000Z-0200Z, Nov 25
Phone Fray	0230Z-0300Z, Nov 25
CWops Mini-CWT Test	1300Z-1400Z, Nov 25
CWops Mini-CWT Test	1900Z-2000Z, Nov 25
UKEICC 80m Contest	2000Z-2100Z, Nov 25
CWops Mini-CWT Test	0300Z-0400Z, Nov 26
RTTYOPS Weeksprint	1700Z-1900Z, Nov 26
RSGB 80m Autumn Series, CW	2000Z-2130Z, Nov 26
NCCC RTTY Sprint	0145Z-0215Z, Nov 27
NCCC Sprint	0230Z-0300Z, Nov 27
CQ Worldwide DX Contest, CW	0000Z, Nov 28 to 2400Z, Nov 29
ARRL EME Contest	0000Z, Nov 28 to 2359Z, Nov 29
RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 28
K1USN Slow Speed Test	0000Z-0100Z, Nov 30
QCX Challenge	1300Z-1400Z, Nov 30
QCX Challenge	1900Z-2000Z, Nov 30

Club Committees

Standing Committees	Committee Chairs
Membership and Publicity	**Bob Fields, KC6AOH**
Hamfest	**Sheldon Parker, K2MEN and Bill Price, NJ2S**
Repeater	**Herb Dyer, KT2Y**
Hospitality	**Jeffrey Garth, WB2ZBN**
W2MMD Clubhouse Site	**Al Arrison, KB2AYU**
Field Day	**Al Arrison, KB2AYU**
Nominations	**Jim Clark Sr, KA2OSV**
Health, Welfare, & Silent Keys	**Bill Price, NJ2S**
Budget	**Al Arrison, KB2AYU**
Constitution and By-Laws	**Ron Block, NR2B**
Membership Badges	**Chuck Colabrese, WA2TML**

Activity Committees	Committee Chairs
GC-ARES Emergency Coordinator	**Karl Frank, W2KBF**
GC-RACES Emergency Coordinator	**Walter Seitz Jr, KB2JCG**
Club Publications	**Jeffrey Garth, WB2ZBN**
License Testing/VEC Liaison	**Gary Reed, N2QEE**
Programs	**Tony Starr, K3TS**
Membership Roster Database	**Jeffrey Garth, WB2ZBN**
Club Historian	**Jeffrey Garth, WB2ZBN**
GCARC Family Picnic	**Laurie Love, KD2EYW**
Foxhunts	**Jim Wright, N2GXJ**
W2MMD License Trustee	**Darrell Neron, AB2E**
Contests and Nets	**Tony Starr, K3TS**
Holiday Dinner Party	**Jennifer Robinson, KD2EYR**
W2MMD Special Event Station	**Mark Gottlieb, KK2L**
Awards	**Robin Herrmann, KD2LSH**

GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net e-mail reflector guidelines

1.**No attachments** (e.g. pictures, files) are allowed on the reflector.

2.If you have Club-related pictures that you would like to share, you can send them to the webmaster, he will put them on the website and he will send out a general e-mail to all the members.

3.Otherwise, the pictures will have to be sent to the members' addresses.

4.URLs/Hyperlinks are acceptable on the reflector.

5.Do not send any messages with e-mail addresses in the **BCC** (**Blind Carbon Copy**) field. The message will be rejected. Use only the **To:** or **CC:** fields.

6.Members are subscribed to the reflector using the member's e-mail address from the roster database. You must use that address when sending an e-mail via the reflector.

7.If you use another address on the reflector, the message will get rejected or "*bounced*", because the reflector does not recognize that address.

8.Whenever a message sent to reflector is rejected or *"bounced"* for various reasons, the administrator has to log-in to the Mailman.QTH website and approve the message. If the admin recognizes the address as belonging to a Club member, the message is accepted and passed on to the reflector.

FYI...If you use Comcast e-mail, you are limited to 100 addresses per message.
For more information about the e-mail reflector, goto : **www.mailman.qth.net**

The W2MMD Repeaters

2 Meter Repeater
Output : 147.180 MHz
Input : 147.780 MHz
Offset : +600 kHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)
EchoLink : W2MMD-R

70 cm Repeater
Output : 442.100 MHz
Input : 447.100 MHz
Offset : +5 MHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)

The above 2 repeaters are all
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater
Output : 224.660 MHz
Input : 223.060 MHz
Offset : -1.6 MHz - PL : 131.8 Hz
Location : Sewell, NJ
GPS : 39.746738°, -75.077094°

SKYWARN™ Net
Sunday @ 1945 : 147.180 MHz Repeater

Gloucester County ARES/RACES Net
Sunday @ 2000 : 147.180 MHz Repeater

10 Meter Rag Chew Net
Every Monday @ 2000 Hours
Tune-In on 28.465 MHz or 28.475 MHz

2 Meter Rag Chew Net
Every Thursday @ 2000 Hours
Tune-In on the 147.180 MHz Repeater

10 Meter Swap Meet
2nd Saturday of the Month @ 2000 Hours
Check-in on 28.465 MHz or 28.475 MHz

Meeting Calendar

General Membership Meeting
Wednesday, November 4, 2020
1930 Hours
ZOOM Meeting

Board of Directors Meeting
Wednesday, November 18, 2020
1900 Hours

ZOOM Meeting

Fox Hunt XVIII

Saturday, November 7, 2020
1300 Hours

Somewhere in Gloucester County

*** Badges ***

Need a new or replacement badge
Contact "The BadgeMan"

Chuck Colabrese, WA2TML
colabrese <*at*> comcast <*dot*> net

Question Pool Answers : G4C01:B; G4C02:C; G4C03:C; G4C04:A; G4C05:D; G4C06:C; G4C07:D; G4C08:A; G4C09:D; G4C10:A; G4C11:C; G4C12:A; G4C13:D