THE HAM ARUNDEL NEWS

Providing Fellowship and Community Service through Amateur Radio Since 1951

December 2017 ***39th Year of Publication***

November was a Good Month for New Hams at AARC

November 11, 2017 , Veteran's Day, 22 people took ham radio tests at the club house. 14 of those were students from the most recent Technician Class which ended right before the exams.

I am proud to tell you that all of those 19 people passed the first exam they took, and 2 of our class students went home with General class licenses. I will have a list of the new call signs for you Monday when the FCC issues them. Thus the day ended with 3 new Generals, and 16 new Technicians.

Class members obtaining Technician license are:

Bernarr B. Colettta, KC3KFD *
Robert San Miguel, KC3KFY
Roseanne I. Dorffner, KC3KFF
Joseph I. Dorffner Jr., KC3KFG
Thomas Stottlemire Sr., KC3KFQ
Thomas E. Stottlemire Jr., KC3KFH
Ashley L. VanMeter, KC3KFI
Richard S. Bruther, KC3KFT
Patrick D. Rittenhouse, KC3KFJ *
Ernest S. Kidder, KC3KFK
Andrew K. Mlynarski, KC3KFM
Donald Stump, KC3KFO *
Anton G. Comstock, KC3KFP *

Class members obtainig General license were:

Daniel Miller, KC3KFV
Oliver Minall, KC3KFN

Non-class members obtaining Technician license were:

Christopher D. Thompson, KC3KFR *
Joseph K. Peebles, KC3KFS

Class member who upgraded to a General license was:

Dale Wegner, KB3ZOX *

We had one fellow who formerly was Advanced.

Stanley J. Modjesky, KC3KFL (he works at the Broadcast Museum in Bowie with many of our members.). He proved it, and retook Element 2. Upon passing he became a General.

* We have already received applications for AARC membership from 6 of those who tested Saturday.

I expect many more before the week is out. I will be sending out the link to our website application page when I email each a congratulatory message after their call signs are issued on Monday.

FYI: We have another 4 class members who had other commitments yesterday and plan to test next month. Plus an additional class member, John Thomas passed his Technician in October, and is already an AARC member. Currently the AARC has 167 active members. So if enough take us up on the free membership offer, this class could account for 10% of our club's membership.

73

Keith Miller, AE3D
ARRL / AARC
ae3d@w3vpr.org

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From the Officers and Directors of the Anne Arundel Radio Club

CONGRATULATIONS

NEW AND UPGRADED HAMS

Roseanne Dorffner
KC3KFD

Richard Bruther
KC3KFT

Ernest Kidder
KC3KFK

Andrew Mlynrski
KC3KFM

Joseph Dorffner
KC3KFG

Donald Stump
KC3KFO

Bemarr Coletta
KC3KFD

Joseph Peebles
KC3KFS

Robert San Miguel
KC3KFY

Stanley Modjesky
KC3KFL

Dan Miller
KC3KFV

Christopher Thompson
KC3KFR

Thomas Stottlemire Sr,
KC3KFQ

Thomas Stottlemire Jr.
KC3KFH

Roseanne VanMeter &, Oliver Minall
KC3KFI KC3KFN

Joe & Roseanne Dorffner
KC3KFG KC3KFF

Left to Right: Patrick Rittenhouse, KC3KFJ; Ashley Van Meter, KC3KFI; Oliver Minall, KC3KFN; Bemarr Coletta, KC3KFD; Joseph Dorffner, KC3KFD; Rosanne Dorfner, KC3KFF; Keith Miller, AE3D; Richard Bruther, KC3KFT; and Donald Stump, KC3KFO.

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MDC QSO Party
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chickenfarm9@gmail.com

ARRL MDC Section Manager :
Martin J. Pittinger / KB3MXM 410-356-7899
kb3mxm@arrl.net

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VE Testing Schedule

Second Saturday of each month – Noon – AARC – Steve Kelly / K3BAY 410-975-6246

Third Saturday of each month – 9AM – Laurel ARC **–** John Creel, 301-572-5124

Fourth Tuesday of each month – 6PM – MMARC – Mike Montrose / KA2JAI 443-310-4907 web site is tinyurl.com/marylandmobileers

To all exams bring:

- Picture ID
- Social Security Number or FCC Registration Number (FRN)
- **ORIGINAL** and a **COPY** of current FCC amateur radio license
  ORIGINAL and a COPY of all element credits (eg., FCC letters, old licenses or unexpired Certificates of Successful Completion of Examination-CSCE)

New AARC Membership Rule

At the Nov. 9, 2017, Anne Arundel Radio Club Board Meeting the following Motion was passed:

I move we offer membership in the Anne Arundel Radio Club to all those who have not previously been members of the Anne Arundel Radio Club, but have either passed their license exam or upgrade exam at the Anne Arundel Radio Club's facilities, or who have participated in an Anne Arundel Radio Club sponsored license class, and subsequently passed their FCC Exam for the class of license for which that license class was designed. Further, such memberships, if granted during the first 9 months of a calendar year, will be free of charge for the remainder of that year. If such a membership is granted during the last 3 months of a calendar year, that membership will be free-of-charge for the remainder of that calendar year, and the entire subsequent calendar year. All such free-of-charge memberships must be applied for within 90 days of the passage of the license exam in question, and must be approved by the general membership and Board of Directors as stated in the Anne Arundel Radio Club bylaws. It is further moved, that this Motion supersede all prior Motions made by this Board concerning free memberships offered to those taking Training Courses at, or passing exams held at, the Anne Arundel Radio Club.

This motion was worded to correct errors in the two prior Board Motions on this topic, thus the final sentence of this Motion was included to allow older language to be replaced. It was felt that this policy should be disseminated to the membership via the web site, newsletter, and announcement at meetings. The basics are:

To qualify for a free membership you must

1) Never have been a member of the Anne Arundel Radio Club in the past

2) Either become licensed or upgrade your license as the result of:

A) having taken an AARC license course and subsequently passing the exam for the class of license that class was designed for (at any location)

B) having passed your license exam, or upgrade exam at the AARC club house.

This language specifies that:

1) You have 90 days following the successful completion of the exam listed above to apply for your free membership

2) If your free membership starts Jan-Aug it runs till the end of that calendar year

3) If your free membership starts Sep-Dec it runs till the end of the following calendar year.

4) In accordance with the Bylaws the General Membership and Board of Directors must vote to accept such membership by majority vote before it can go into effect.

NOTE: Wording of the Bylaws requires majority vote of the members present at a regular meeting, not an official quorum. The Bylaws do require a quorum of more than half the serving Board Members for such a vote.

I hope you will see fit to publish this on the web site, in the newsletter, and in Justin's case use it to determine who qualifies for a free membership. If you have any questions, just ask. The original idea here was to encourage new people to join the club, hopeful that many would become dues paying members once the free membership period is over. Again this is more of a re-statement of an existing policy to clarify several thing, rather than a new policy.

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Keith Miller, AE3D
ARRL / AARC
ae3d@w3vpr.org

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Mother, Daughter Radio Amateurs Active from Nepal

Kalpana Kharel, 9N1MM, and her daughter Tejaswita (Tehu), 9N1DX, both are active radio amateurs from Nepal's capital of Kathmandu. Husband and father Satish is 9N1AA. Both women are reported operational on HF, mostly on RTTY and FT8. Kalpana Kharel is believed to be the first female Amateur Radio licensee from Nepal, and her daughter is the youngest ever to obtain a ham license there (an American, Jinny Beyer, 9N1RA, was active in the 1970s).

Tehu Kharel, 9N1DX.5

Tehu Kharel, who attends Rato Bangala School in Patan, Nepal, said on her QRZ.com profile that she is working to improve her Morse code skills. "I was very keen to learn about ham radio since my childhood," she said there. "I always observed RTTY QSOs of my dad. So, I am more comfortable with digital modes."

QSL cards for 9N1MM and 9N1DX are said to be in production. 9N1MM, now held by Kalpana Kharel, once was the famous call sign of Father Marshall Moran, the first radio amateur active in Nepal from the 1950s until the early 1990s.

Used with permission. The ARRL Letter for November 9, 2017ion

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Special Events Station

- **12/02/2017 | W2W –**
- **Pearl Harbor Commemoration**

  Dec 2-Dec 10, 1300Z-2200Z, W2W, Baltimore, MD. The Amateur Radio Club of the National Electronics Museum (K3NEM). 14.241 14.041 7.241 7.041. Certificate & QSL. W2W Special Event Station, Box 1693, MS 4015, Baltimore, MD 21203. Primary operation will be Dec 2-Dec 3 with additional operation possible Dec 3-Dec 10, 2017. Times are daily. ww-2.us

W1AW Announces 2012-2013 Winter Operating Schedule

With the switch from Daylight Saving Time to Standard Time, W1AW Station Manager Joe Carcia, NJ1Q, has updated the W1AW operating schedule to reflect the change. The local standard times have not changed, but the UTC times they reference have.

Daily Visitor Operating Hours:
1500 UTC-1700 UTC (10 AM-12 PM EST),
1800 UTC-2045 UTC (1 PM-3:45 PM EST)
Station closed 1700-1800 UTC (12 PM-1 PM EST)

Morning Schedule

Time	*Mode*	*Days*
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu

Afternoon/Evening Schedule

Time	*Mode*	*Days*
2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 UTC (4 PM EST)	CWs	Tue, Thu
2200 UTC (5 PM EST)	CWb	Daily
2300 UTC (6 PM EST)	Digital	Daily
0000 UTC (7 PM EST)	CWs	Mon, Wed, Fri
0000 UTC (7 PM EST)	CWf	Tue, Thu
0100 UTC (8 PM EST)	CWb	Daily
0200 UTC (9 PM EST)	Digital	Daily
0245 UTC (9:45 PM EST)	Voice	Daily
0300 UTC (10 PM EST)	CWf	Mon, Wed, Fri
0300 UTC (10 PM EST)	CWs	Tue, Thu
0400 UTC (11 PM EST)	CWb	Daily

Frequencies

- CW: 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675 and 147.555 MHz
- Digital: 3.5975, 7.095, 14.095, 18.1025, 21.095, 28.095 and 147.555 MHz
- Voice: 1.855, 3.990, 7.290, 14.290, 18.160, 21.390, 28.590, 147.555 MHz

Speeds

- CWs: Morse code practice (slow) -- 5, 7.5, 10, 13 and 15 WPM
- CWf: Morse code practice (fast) -- 35, 30, 25, 20, 15, 13 and 10 WPM
- CWb: Morse code bulletins -- 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

Digital: BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from *QST*; the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC-1700 UTC (10 AM-12 PM EST), and then from 1800 UTC-2045 UTC (1 PM-3:45 PM EST) Monday through Friday. Be sure to bring your current FCC Amateur Radio license or a

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UPCOMING HAMFESTS

This is a list of hamfests in the Maryland-DC Section area.

I am including hamfests in nearby Pennsylvania, northern Virginia, West Virginia and Delaware as a courtesy to our neighboring Section Managers.

I, as your MDC Section Manager, Marty Pittinger, B3MXM, and/or a designated ARRL representative(s) plan to attend all hamfests in the ARRL Maryland-DC Section.

We hope to see you all there.

Second Annual American Legion PGCERA SantaFest
Date: Saturday, December 9, 2017

Location: American Legion Youth Camp, 9201 Surratts Road, Cheltenham, MD 20623
Website: http://pgares.org/santafest/index.html
Sponsor: American Legion and Prince Georges County Emergency Repeater Association
Talk-In: 145.230 (CTCSS: 110.9 Hz)
Public Contact: Charles Hallock, AA3WS, 16203 Manning Road, West Accokeek, MD 20607
Phone: 301-535-1666
E-mail: selbynet@hotmail.com

Used with permission MDC Section NewsNovember 13, 2017
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Repeaters and Nets

2 Meter Repeaters

Location	Frequency	Tone	Notes
Davidsonville	147.105+	107.2	AARC Repeater with morning traffic net.
Glen Burnie	147.075+	107.2	AARC repeater Located in Northern AA County.
BrandyWine	147.150+	114.8	SMARC Repeater.
Prince Frederick	145.350-	156.7	SPARC/CARC Repeater.
Laurel	147.225+	156.7	Laurel ARC Repeater.
Millersville	146.805-	107.2	Repeater.

1.25 Meter Repeaters

Location	Frequency	Tone	Notes
Davidsonville	223.880-	107.2	AARC 1.25M repeater *check to see if tied into 7.105...
Millersville	224.560-	107.2	AARC repeater Located in Northern AA County.

70cm Repeaters

Location	Frequency	Tone	Notes
Davidsonville	444.400+	107.2	AARC 70 cm Repeater.
Annapolis	442.300+	107.2	AARC 70 cm repeater
Laurel	442.500+	156.7	Laurel ARC 70 cm Repeater.
Millersville	449.125-	107.2	Maryland Mobileers Repeater.
Upper Marlboro	443.600+	103.5	SMARC 70 cm Repeater.

Packet Stations

Location	Frequency	Call	Notes
Davidsonville	145.050	W3VPR	AARC Club packet node running JNOS
Davidsonville	145.010	W3VPR-5	Digipeter Relay to EOC Winlink
Millersville	145.010	W3AAC-5	Digipeter Relay to EOC Winlink
Glen Burnie	145.010	W3AAC-10	EOC Winlink system and digipeter

Amateur Radio nets

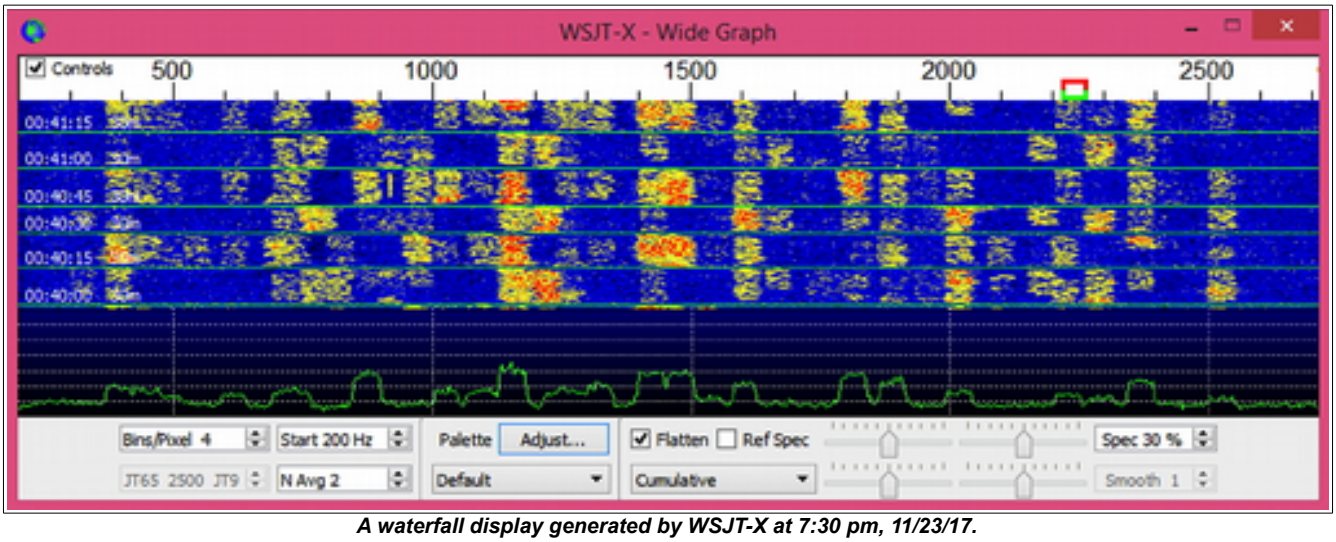
Name	Frequency (in Mhz)	Day	Time
Morning Commuter Net	147.105+ PL 107.2	Weekdays	0600
AARC Talk Net	147.105+ PL 107.2	Wednesday	2000
AA County ARES Net	146.805- PL 107.2	Sunday	2000
Baltimore Traffic Net	146.670-	Daily	1830
Boating Net	146.805- PL 107.2	Wednesday	1930
Maryland Emergency Phone Net	3.920	Daily	1800
Maryland-DC-Delaware Traffic Net	3.643	Daily	1900 and 2200
Maryland Slow Net	3.563	Daily	1930
React Net	147.105+ PL107.2	1st Sunday	1930

We use **simplex 146.430 Mhz** frequently enough that you should probably program that into your HT or mobile. This is the go-to frequency for many 5K race/walk volunteering efforts, local communication, Field Day setup, and the like when we're not using a repeater.

FT-8: I'm Not Really Feeling The Magic

By Dan Romanchik, KB6NU

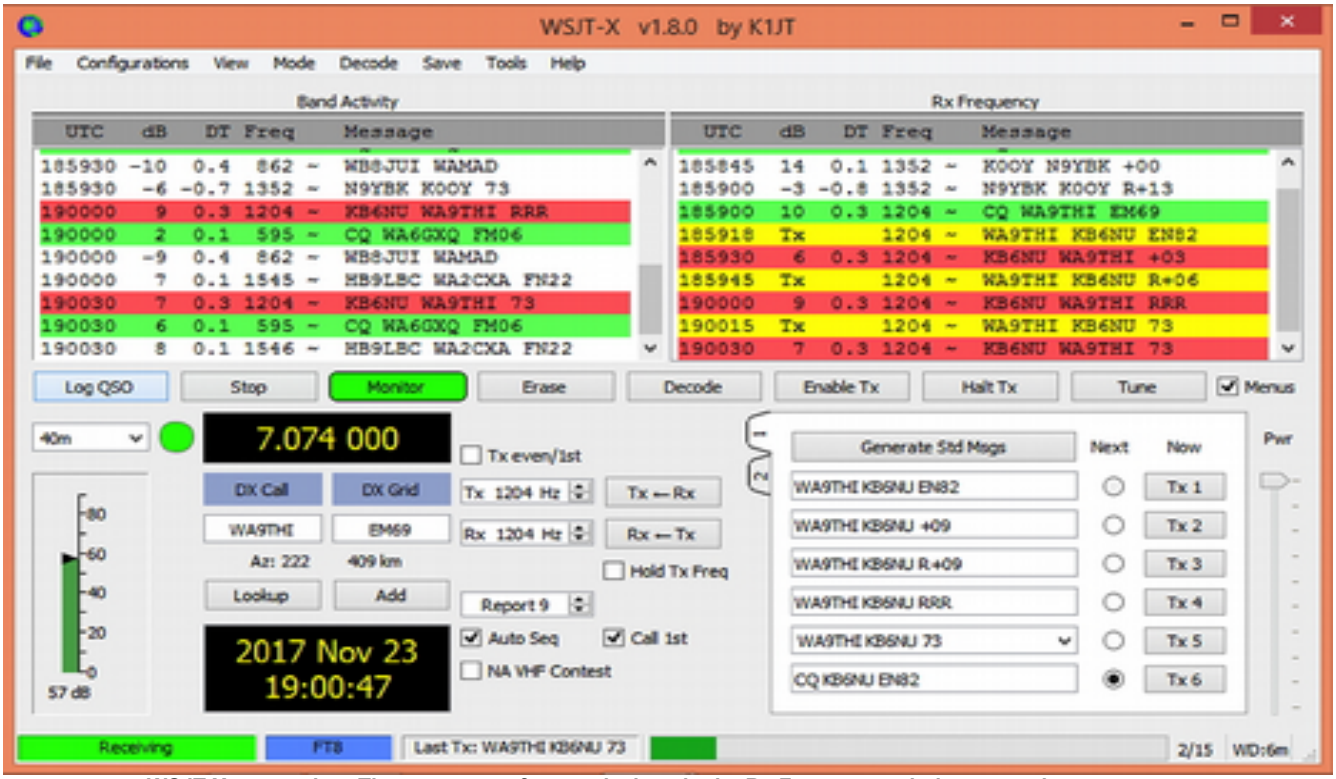
Partly out of curiosity and partly because Jeff, KE9V, shamed me into it, I setup my Signalink interface, downloaded WSJT-X from https://physics.princeton.edu/pulsar/k1jt/wsjtx.html, and started operating FT-8, the latest "shiny object" (as the ARRL dubbed it) from the K1JT team. As you probably know, this mode has really caught on with the digital crowd, and the waterfall is chock full of FT-8 signals. Part of the reason for this is that it has some of the characteristics of JT-65, but is not as excruciatingly slow.



A waterfall display generated by WSJT-X at 7:30 pm, 11/23/17.

Over the past couple of days, I've made 32 QSOs, including a couple of DX contacts. It's been fun to try something new, but to be honest, I'm not really feeling the magic.

Part of it is that I don't feel like I'm really doing anything. I downloaded the software, plugged in my digital interface, fooled around with the settings a bit, and then, the computer started making contacts. I have to click a few on-screen controls to make contacts, but even that's a step that could be easily programmed in by the WSJT-X developers. (In fact, I wonder why they haven't done that already!)



WSJT-X screenshot. The sequence of transmissions in the Rx Frequency window comprises a contact.

Take a look at the screenshot above to see how a typical contact happens. When a CQ appears in the “Band Activity” window, you double click on it. When you do this, the software begins listening for signals on that frequency. In this case, I double-clicked on the CQ by WA9THI. When I double-clicked on the CQ, the program began decoding signals on that frequency and display the transmissions in the “Rx Frequency” window.

Then, I clicked on “Enable TX” and the program began the contact sequence, sending “WA9THI KB6NU EN82.” EN82 is my grid designator. This is shown as the first yellow line in the Rx Frequency window. The transmissions that I sent are highlighted in yellow. The transmissions sent by WA9THI are highlighted in red.

The sequence of transmissions shown there comprise a complete contact, and that whole process takes less than two minutes. And, once WA9THI received my first transmission, the sequence is all automatic. You just sit there and watch the two computers talk to one another.

While I can certainly appreciate the thought and the work that went into the design of the protocol and programming to implement it, sitting and watching the computers talk to one another just doesn’t excite me. On the other hand, if you’re one of those guys who wants to make contacts, but doesn’t really want to talk to anyone, than this is the mode for you!

Here are a few more notes about FT-8 operation:

- Not surprisingly, synchronizing your computer with the other stations computer is very important. To do that, you need to get your computer to use the network time protocol (NTP). I failed to do this when I first installed WSJT-X, and while my waterfall was full of FT-8 signals, WSJT-X just wouldn’t decode them.
- I got my PC laptop to talk ntp by installing Meinberg NTP software (http://www.ntp.org/ntpfaq/NTP-s-def.htm). Once I did that, WSJT-X magically started decoding transmissions.
- Most of the cool guys seem to be using Meinberg NTP, but there are other options. One of the guys in our club is using a program called Dimension 4, for example.
- Apparently, you don’t have to limit your power output as you would with PSK-31. At first, I set my output power to 10 W. I had a bit of success at 10 W, but I expected more. When I asked on Twitter how much power other guys were using, most of them said that they were using more than that.
- For the last couple of sessions, I’ve been setting my output power to 25 W, and I’ve been having more success. I've now worked several Europeans on 30m.
- Even at 25 W, my signal reports are more often than not not as good as the signal reports I’m handing out. I haven’t figured this one out yet. This doesn’t happen to me when I’m operating CW, so I don’t think it’s my antenna.
- When I’m operating, I write down the calls of stations I’ve contacted. The reason for this is that while WSJT-X does have a logging function, it doesn’t have a log window, so unless you have a great memory, you could end up working guys two or three times a session. That’s probably not a big deal since contacts are so quick, but I’d rather avoid doing that if I can.
- WSJT-X works “split.” While most contacts take place on the same frequency, a station can call you anywhere in the passband of your receiver and WSJT-X will decoded the signal and begin a contact. This threw me the first time or two that this happened, and I tried to change my transmit frequency to match the other station’s. In doing so, I messed up the sequence. I now just let the contact proceed normally, and it works out great.
- When I work the other digital modes, I set my IC-746PRO to the USB-D mode. In this mode, the receive passband is narrower than for working phone. When operating FT-8, however, you don’t want to limit that passband. Signals will appear across the entire 2.6 kHz of the USB signal, and if you narrow the passband, you won’t be able to work those stations.
- WSJT-X checks the validity of call signs. This afternoon, there was a guy who had typed in his call as “WAMAD” and was calling CQ. WSJT-X wouldn’t let me answer that CQ.
- Operating this mode opens up the possibility of working more stations whose callsigns spell words and adding those QSL cards to my collection. I have, for example, already worked K1GUY, N4HER, and N5SLY. I’m guessing that these guys don’t operate CW.

All told, I’ve found this to be an interesting foray into a new digital mode. While I’m not feeling the magic that some others seem to be feeling when operating FT-8, it certainly will be a change of pace to operate this mode from time to time. Give it a shot and tell me what you think.

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Dan, KB6NU, is the author of the “No Nonsense” amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not working FT-8, he teaches ham radio classes and operates CW on the HF bands. You can email him at cwgeek@kb6nu.com.

The *Ham Arundel News* is the monthly official publication of

The Anne Arundel Radio Club, Inc.
(ARRL Club No. 0484).

Editor: Milford Craig / N3WYG
Send newsletter articles, questions and information to **Milford** at **newsletter@w3vpr.org**
Deadline for submissions – The Saturday after the 3rd Thursday of the month

Mailing Address:
Anne Arundel Radio Club
Post Office Box 308
Davidsonville, MD 21035

Meetings:
General Business 1st Thursday at 7:30 PM
Board Meeting 2nd Thursday at 7:30 PM
Program/Activity 3rd Thursday at 7:30 PM

Dues:
$30 per year, payable December 1st
Discounts available for family members and students

World Wide Web: **www.w3vpr.org**

AARC Supports The Maryland Slow Net:
3.563 MHz CW 7:30 P. M. Daily

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Free Money for AARC!
ARRL Membership Reminder

ARRL affiliated clubs receive a commission for every new ARRL membership and renewal they submit to ARRL Headquarters. Clubs retain a portion of the dues for each regular or senior membership submitted to ARRL Headquarters:

Clubs retain $15 for each new membership OR lapsed membership (of two years or more).
Clubs retain $2 for each renewal,
A RENEWING MEMBER can renew at any time, even before their current membership expires.

Send your application and payment (made out to AARC) to the club treasurer.

Mark Your Calendars

REGULAR ACTIVITIES

Club Meetings are held on the first and third Thursdays of the month from 7:30 to 9PM at the clubhouse located at the Davidsonville Family Recreation Center in Davidsonville, MD

Free License Exams every 2nd Saturday of the Month - Check in at Noon, Exams at 1PM - At the clubhouse - Contact Steve/K3BAY k3bay@w3vpr.org

Weekly AARC 2-Meter Net on 147.105 (Typically linked to 147.075 and 444.400) every Wednesday at 8 PM - All Welcome

2 meter Morning Commuter Net on 147.105 (Typically linked to 147.075 and 444.400) every morning 6:30 am to 9:00 am.This is the famous Holly-net. Pre-Holly-net starts at 5 AM or so.

EVENT SCHEDULE

Thursday, December 7
7:30pm AARC Club meeting, newcomers always welcome.

Saturday, December 9
12:00pm AARC Free License Exams

Thursday, December 14
7:30pm AARC board meeting

Friday, December 15
6:00pm AARC's year end party and membership drive (proposed)

NOTICE:
The club has a new Google Calendar under test. The trial is open to anybody who understands the address may change at some point in the future. Get the latest AARC events on your Gmail calendar, iPhone, or Android device.

MESH Training Held in Utah Focuses on Emergency/Disaster Communications

A MESH Training seminar was held on Saturday, October 28, at the Miller Public Safety and Education Building, Sandy, Utah, conducted by MESH pioneer David Bauman, KF7MCF. [Amateur Radio MESH is an over the air computer network of nodes with broadband capabilities conducted on the amateur microwave bands for high-speed networking in various modes - television, imaging, text and others.] Session 1 covered Basic MESH -- what is it, how does it work, and what can it do. Session 2 addressed Advanced MESH -- How to make AREDN (see below) work in the real world; and the three issues that AREDN has that will bring the network to a screeching halt, and how to solve or get around them. Session 3 covered tools and programs to help set up and run MESH, the three step method to make sure a link will work, and what can you do on the MESH pipeline. A MESH equipment show and tell was presented, with examples of hardware, and also hardware available to be purchased on site.

Bauman said "we always seem to be lucky enough to fill the room, and attendees hung around asking questions and getting equipment." "We provide MESH Go-Kit starter equipment at lunch money prices along with the training," he said. "The seminar was a success." Basic Go-Kit equipment is now in the hands of over 100 hams in the Salt Lake Valley and surrounding areas.

Bauman reported "now what we are doing is training them in the use of the hardware and software that we will use in an emergency/disaster response deployment; several MESH training sessions have already been held, with more to come."

The MESH group is currently working on a project to link the Mayor's office and Emergency Communications Center (ECC) of a small city to their three fire stations, the Police dispatch center, and the local hospital with a high speed digital MESH network, "you might say our own private ham Internet," Bauman said. "This is the third local city that has shown interest in using MESH deployed by hams to back up and augment their existing emergency communication avenues with high speed digital capability."

The group has been asked to demo the system to the city council and Mayor at an upcoming meeting. Bauman said "we will demo high speed file transfer of messages (used by the Red Cross to send Well Messages from shelters) to a collection point and then upload them to an HF radio system and network." "We can transfer pictures and other files, along with real time video and audio, even a repeating streaming audio or video message to tell hams signing on how and where they are needed, and what to do."

VoIP and the above mentioned capabilities are available on laptops connected to the group's network, and also the ability to use real old style phones (some of the city residents are much more comfortable with a simple old style phone with a number to call for the Police, Fire and the hospital rather than a push to talk radio).

The group's demo will show officials that they can use real-time video, pictures (of damaged roads, overpasses, or buildings for the City Engineer), or of injured individuals at a shelter for the hospital to assess/triage) and text messages and live audio one to one, one to all, or to just a select group (Police to all fire stations, for instance). "We can show them how the E-com center can monitor all conversations, text messages, and file transfers and even e-mail inside our network, and outside also, if somewhere on the network we can tap into a satellite Internet link when regular Internet access is down," Bauman said. Several hams are spearheading this effort: Jerry Spillman, W0HU; John Hurst, KF7NQW; Grant Gardner, KC7HOU; Robert Jelf, KG7OHV; Charles Gray, KE6QZU; Edward J. Sim, N7RTA; Brad Rupp, AC7BR; and David T. Bauman, KF7MCF.

This is the same group that for years has been using high speed digital networking to augment the packet system used by hams for the local Wasatch 100, arguably the toughest 100 mile race in the country - a race up and down over mountains. This is not only extremely difficult for the runners, but setting up line of sight radio communications in rugged mountains is very challenging. "Our team made it work!," said Bauman.

The Amateur Radio Emergency Data Network (AREDN)

From its literature, the AREDN™ Project's focus is on emergency/disaster response communications. It seeks to provide hams a means to implement this technology in practical ways to support local and regional emergency communications needs. To that end, the project's objectives are to enable hams to put up a mesh node with minimal expertise and effort; configure the mesh network automatically so that advanced network knowledge is not needed; use low-cost, reliable commercial equipment; define standards for internetwork integration; support those in the process of designing and implementing emergency/disaster communications networks; and refine the software to make implementation easier, more reliable, and more manageable.

See YouTube video on AREDN here.

Used with permission The ARES E-Letter for November 15, 2017

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GMRA CELEBRATES IT'S 46TH YEAR

The Green Mountain Repeater Association (GMRA) celebrated its 46th year of repeater service to local Amateurs in October.

In 1971 GMRA established the first autopatch repeater on 146.610 MHz presently located in Bladensburg, Md. A year later GMRA activated the 146.880 MHz repeater in Greenbelt, Md.

Communications support were and continue to be provided to ARES as well as local communities as needed.

To the pioneers who established the Association as well as the members and officers who followed, congratulations.

The GMRA web page is:
http://www.gmramd.org/index.html

Used with permission MDC Section News, November 13, 2017

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Case Study: ARESMAT at Its Best in Oregon

Wednesday, July 12, saw firefighters deployed into southwest Oregon's Kalmiopsis Wilderness to put out a small half-acre wildfire. The problem was that it was on a steep slope and flames were carted downhill by falling logs and brush to the Chetco river. It was just the beginning of the Chetco Bar Fire that ended up as a conflagration that consumed almost 200,000 acres, six houses, forced thousands to evacuate homes and put communities from Brookings to Cave Junction at severe risk. ARES/RACES leadership and members prepared to deploy and serve as emergency response communicators under Incident Command, and to possibly invoke established mutual assistance agreements and protocols, an investment that helps a county, district and section's ARES resources match the expanding needs of served agencies in the face of a growing disaster situation.

Oregon ARES/RACES Mutual Assistance Team Planning

As the fire emergency grew, Oregon ARES District 5 Emergency Coordinator Dan Bisssell, W7WVF, reported a "depth of response capability," but also planned for a possible mutual assistance need and call-up. "Curry County ARES/RACES had made a great effort to upgrade equipment, training and organizational response for Operation TRITON 32," a full-scale three-day disaster response exercise that ultimately involved hundreds of personnel from more than 40 agencies to prepare and enhance response capability for local, county, state and federal agencies in the event of an earthquake along the Cascadia Subduction Zone. DEC Bissell said the county, Oregon's southern-most county, should be able to make an effective first response, but "next, there are a half a dozen ARES/RACES members in the Port Orford area with portable HF/VHF/UHF phone and digital capability who can serve as a second shift for relief for the first group." "The EC there has kept them in the loop and they are prepared to respond," Bissell said.

If repeaters went down, there is a longstanding relationship with Josephine County ARES/RACES with the effect that they would provide mutual assistance and respond with their three portable repeaters as needed. Coos County Emergency Management consistently supports its ARES/RACES group and communications trailer deploying into adjacent counties as needed. The two county groups know each other and have worked together in exercises. Curry County also has mutual support agreements with Del Norte and Humboldt counties south of the border in northern California. They share repeaters and participate in each other's monthly training.

If greater mutual assistance was needed beyond the capability described above, DEC Bissell reported that they were prepared to first call up Douglas and Jackson Counties' organizations for more help, and then, if even more resources were needed, "we would have to go to the ARRL Oregon Section for them, an indicator that the situation would have become immense. The US Forestry Service was the lead agency in the Unified Command, and the entire operation was to be managed under the Incident Command System (ICS) - "we would have been told how to integrate and operate," Bissell said.

Ultimately, no ARES or ARES/RACES operators were deployed. With the rapidly expanding fire and response, the US Forest Service's ICS sign-in unit was overwhelmed and was unable to process them. ARES continued on standby for a few weeks but were never activated.

But, the takeaway was this was a case in point in "knowing and respecting one another (county emergency managers and ARES/RACES leaders and members) before an incident is critical," Bissell said. The emergency managers and ECs, and the US Forestry communications official have all worked together before so when the request for radio operators (RADOs) went to the county emergency managers and from the emergency managers to the ECs, response was quick and positive," he said.

Oregon ARES respects its RACES relationship with the county emergency managers. ARES does not self activate, but is activated by the county emergency managers. This works well, provides for insurance coverage, and assures that the counties know where their resources are. The emergency managers are comfortable with receiving/sending ARES operators across county lines and were aware of ARESMAT plans in this event.

"This level of cooperation is built over time," Bissell said. District 5 has a weekly HF net and periodic all day District meetings. People all know each other, share successes and failures, share contact information, agree on phone and P2P Winlink frequencies for inter-county communications, etc. "Instinctively, the response is to work together."

ARRL Oregon Section Manager John Core, KX7YT, added: "Our DECs and state ARES personnel work with the county emergency managers during these ARESMAT events. Concurrence between the county managers involved is needed before the ARES teams get deployed across a jurisdiction."

"During the August solar eclipse, discussions between county emergency managers and cooperation between ARES units, DECs and state leadership resulted in a Multnomah County ARES team of 10 operators being sent to Grant County in eastern Oregon where support was badly needed," said Core, as an example of the section's mutual support protocols.

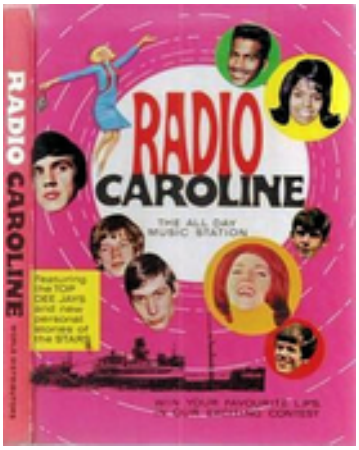
The ARESMAT Concept

Although no ARES personnel were deployed for the fire, the message is clear: The Oregon counties' mutual assistance planning and protocols are exemplary of the Mutual Assistance Team (ARESMAT) concept that recognizes that a neighboring county, district or section's ARES resources can be quickly overwhelmed in a large-scale disaster. ARESMAT is discussed in detail in the ARRL *ARES Field Resources Manua*l, downloadable here. ARES members in the affected areas may not be sufficient in number or preoccupied with mitigation of their own personal situations and consequently may be limited in responding in local ARES operations. Accordingly, communications support must come from ARES personnel outside the affected areas. This is when help may be requested from neighboring counties or even sections' ARESMAT teams under mutual assistance agreements.

Used with permission The ARES E-Letter for November 15, 2017

Radio Caroline Heard Testing on 648 kHz as it Prepares its (Legal) Return to the Airwaves

Medium-wave broadcast listeners (BCLers) recently reported a signal with continuous music and announcements on 648 kHz -- the frequency of the former pirate broadcaster and soon-to-be reconstituted Radio Caroline. BCLers from the UK, The Netherlands, Belgium, France, and Austria reported hearing the signal. Some reports, according to Mike Terry of The SWLing Post, referred to a co-channel Romanian or Slovenian station. Terry said he believed the testing was done at a lower power level than the permitted 1 kW.



"Our initial engineering tests on 648 have now finished," Radio Caroline announced on its website. Full tests and programmes will commence in due course and will be announced here. We are grateful for the many reception reports sent. So many were received that it will take some time to assess them all."

The latter-day incarnation of the famous shipboard pirate radio station that beamed rock music to the UK in the 1960s and 1970s, has gone legal and obtained a license to operate permanently on 648 kHz at 1 kW ERP. That channel falls between the 10 kHz-spaced AM Standard Broadcast Band frequencies in the US.

"It's taken Radio Caroline 53 years to get an AM license, and it was perceived as a threat to the BBC for many years," Radio Caroline said on its website. "Ironically 648 kHz was best known for transmitting the BBC World Service in English." BBC dropped that service in 2011.

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ARISS International Chair Frank Bauer, KA3HDO, Wins G3AAJ Trophy

ARISS International Chair Frank Bauer, KA3HDO,

was honored with the Ron Broadbent, G3AAJ, Trophy. The presentation came during the AMSAT-UK International Space Colloquium this past weekend. "AMSAT-UK totally shocked me yesterday at the colloquium with the Ron Broadbent Trophy," Bauer reacted. "I was nearly speechless when asked to come up and receive the trophy for ARISS work. I mentioned that, early on, Ron was a phenomenal supporter and contributor to ARISS, with his sage advice and guidance." The G3AAJ trophy is awarded annually by AMSAT-UK to an individual or group for outstanding service to the Amateur Satellite service. The trophy was donated to AMSAT-UK by the late Ron Broadbent, G3AAJ. ARISS received the G3AAJ trophy last year in recognition of the ARISS UK team's dedication in working with the UK Space Agency to facilitate the Principia Mission of astronaut Tim Peake, KG5BVI, aimed at engaging students in 10 UK schools in science, technology, engineering, and mathematics (STEM) subjects.

Used with permission The ARRL Letter for November 2, 2017

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2017 SKYWARN Recognition Day

December 2, 2017 from 0000z to 2400z

SKYWARN™ Recognition Day was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that volunteer SKYWARN™ radio operators make to the National Weather Service. During the day SKYWARN™ operators visit NWS offices and contact other radio operators across the world.

SKYWARN Recognition Day Operating Instructions

1. Object For all amateur stations to exchange QSO information with as many National Weather Service Stations as possible on 80, 40, 20, 15, 10, 6, and 2 meter bands plus the 70 centimeter band. Contacts via repeaters are permitted. SKYWARNTM Recognition Day serves to celebrate the contributions to public safety made by amateur radio operators during threatening weather.

2. Date NWS stations will operate December 2, 2017, from 0000 - 2400 UTC.

3. Exchange: Call sign, signal report, QTH, and a one or two word description of the weather occurring at your site ("sunny", "partly cloudy", "windy", etc.).

4. Modes: NWS stations will work various modes including SSB, FM, AM, RTTY, CW, and PSK31. While working digital modes, special event stations will append "NWS" to their call sign (e.g., N0A/NWS).

5.Station Control Operator: It is suggested that during SRD operations a non-NWS volunteer should serve as a control operator for your station.

6. Event and QSL Information: The National Weather Service will provide event information via the internet. Event certificates will once again be electronic and printable from the main website after the conclusion of SRD.

7. Log Submission: To submit your log summary for SRD use the online submission form.

For More Information

NWS SKYWARN Recognition Day Main Page
To Print Your Certificate
Participating Offices and QSL Information
Echolink and IRLP Nodes

Used with permission

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Announcing: The ARRL International Grid Chase

A new and exciting operating event will kick off on January 1, 2018, at 0000 UTC (New Year's Eve in US time zones), when the ARRL International Grid Chase gets under way. The year-long event hopes to build on the success of the highly successful 2016 National Parks on the Air (NPOTA). The objective is to work stations on *any* band (*except* 60 meters) in as many different Maidenhead grid squares as possible, and then upload your log data to

ARRL's Logbook of The World (LoTW). Registration in LoTW is free, and it costs nothing to participate

Many hams are familiar with grid squares from the VHF/UHF and satellite realms, and everyone lives in one. ARRL's VUCC is based on grid squares, and some contests on HF, VHF, and UHF also use them as a scoring factor.

The Maidenhead grid square system divvies up the entire globe into 324 fields, each containing 100 grid squares 1° latitude × 2° longitude in size. With 32,400 potential grid squares, it's not likely that anyone will run out of challenges, even though some grid squares are surrounded entirely by water or are in areas that are uninhabited or difficult to access.

If you don't know your grid square, David Levine, K2DSL, has an online calculator. Just enter a postal address, ZIP code, or even a call sign, and his site will tell you the grid square for that location. For example, enter "W1AW" and the site will return "FN31pr." For the purposes of the ARRL International Grid Chase, though, just the two initial letters and the two are all you'll need to know

A map segment showing part of the EN field of grid squares. Note that some grid squares are very nearly surrounded by water. [Photo courtesy of Icom America]

Once you get uploading your log data, each new grid square contact confirmed through LoTW will count toward your monthly total. Getting started is simple. Turn on the radio and just call CQ or "CQ Grid Chase" or listen for others doing the same. Make a contact, exchange grid squares, log it, and move on to another. At the end of each month, your totals on the Grid Chase leader board will reset to zero, although the system retains these to determine top finishers in various categories at the end of the year.

Any contact you make in 2018 can count toward your Chase score; it doesn't have to involve an exchange of grid squares. As long as the other operators also participate in LoTW, you'll get credit automatically when they upload their logs. This means that contest contacts also count, as will contacts with special event stations or other on-air activity that uses LoTW to confirm contacts.

Some radio amateurs live in sparsely populated grid squares, and if you're one of those, you could find yourself handling a pileup! Expeditions to hard-to-reach or rare grid squares undoubtedly will evolve. You also can travel to one of those grid squares yourself. Some vehicle or handheld GPS units can be set to display when you are in a particular grid square. Apps are available for smartphones or tablets, such as *Ham Square* for iOS devices or *HamGPS* for Android devices.

There are no restrictions on modes or bands, as long as they are legal. Satellite contacts are valid for the Chase. The event is open to all radio amateurs.

Full details of the ARRL International Grid Chase will appear in the December 2017 issue of *QST*. The digital edition is available on Friday, November 10.

For more information, contact the ARRL Contest Branch.

Used with permission The ARRL Letter for November 9, 2017

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International Grid Chase Will Allow Use of 630 and 2200 Meters

ARRL Contest Branch Manager Bart Jahnke, W9JJ, has clarified that the new 630- and 2200-meter bands *will* be fair territory in the ARRL International Grid Chase. The year-long operating event begins on January 1, 2018 at 0000 UTC (New Year's Eve in US time zones). The object is to work stations in as many Maidenhead grid squares as possible, and radio amateurs around the world are encouraged to take part. Contacts made on the 60-meter band will not be eligible for award credit, however.

US radio amateurs are advised, however, that the use of 630 and 2200 meters requires advance notification to the Utilities Technology Council (UTC), formerly the Utilities Telecom Council, of their intention to operate on one or both bands. If UTC does not respond within 30 days or specifically denies access, these stations may commence operation there.

Once approved to use either 630 meters, 2200 meters, or both, US radio amateurs must adhere to the FCC rules regarding the use of those bands. Highlights:

- Amateurs operating on 472-479 kHz (630 meters) may run up to 5 W equivalent isotropically radiated power (EIRP), except in parts of Alaska within 800 kilometers of Russia, where the maximum would be 1 W EIRP.
- Amateurs operating in the 135.7-137.8 kHz band (2200 meters) may run up to 1 W EIRP.
- The FCC has placed a 60-meter (approximately 197 feet) above-ground-level (AGL) height limit on transmitting antennas used on 630 meters and 2200 meters.
- The bands are available to General class and higher licensees, using CW, RTTY, data, phone, and image.

Any contact you make in 2018 -- with the exception of contacts on 60 meters -- can count toward your International Grid Chase score, and contacts do not have to include an exchange of grid squares. Participants upload their logs to Logbook of The World (LoTW), and, as long as the other operators worked use LoTW, they get credit automatically once they upload their logs. This means that contest contacts will also count, as will contacts with special event stations, or other on-air activities that use LoTW to confirm contacts.

Contact the ARRL Contest Branch for more information.

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REPEATER FREQUENCIES

Davidsonville	Millersville	Glen Burnie	Annapolis
147.105+		147.075+	
223.880-	224.560-		
444.400+			442.300+

PL: 107.2 for all repeaters
The 147.105 and 147.075 repeaters are frequently linked. Please leave an extra second after the courtesy beep to allow the link to reset as well.

Visitors are welcome *to all meetings and nets.*
Meetings are held in the Clubhouse at the
Davidsonville Family Recreation Center,
Queen Anne Bridge and Wayson Roads off
MD Route 214 near Davidsonville, MD.
For en-route directions,make initial contact on the 147.105 repeater.

Wednesday Night Talk Net -- All are welcome

8PM, On the AARC Repeater 147.105

Other Amateur Radio nets

Name	Frequency	Day	Time
Morning Commuter Net	147.105+Mhz PL 107.2	Weekdays	0600
AA County ARES Net	146.805- Mhz PL 107.2	Sunday	2000
Baltimore Traffic Net	146.670- Mhz	Daily	1830
Maryland Emergency Phone Net	3.820Mhz	Daily	1800
MD-DC-DE Traffic Net	3.557Mhz	Daily	1900 and 2200
Maryland Mobileers Net	146.805 PL107.2	Monday	1930
Maryland Slow Net	3.563 MHz	Daily	1930
REACT Net	442.300+Mhz PL107.2	1st Sunday	1930