



MARC Times

Newsletter of the Murgas Amateur Radio Club Inc. and K3YTL

Volume XXXV Number XII

December 2023

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www.murgasarc.org

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Phil Galasso K2PG

Club Net Manager

George Miklosi K3ZK

Club Station – K3YTL

Trustee George Miklosi

Club Station - K3JML

Trustee Elaine Kollar

Club Repeater

145.450 MHz

Tone – 82.5 Hz

Packet - WBLAN

145.05 MHz

MARC NET

Every Thursday 9pm

Club Repeater

145.450/PL 82.5

The Murgas Amateur Radio Club Inc. meets on the first Wednesday of each month, 8:00 P.M. at the Luzerne County EMA. Guests are always welcome.

de W3TRM

Hello to all of my fellow amateur radio operators!!! I hope you all had wonderful Thanksgiving holiday.

It's almost the end of the year, but we still have some events coming up. The club Christmas dinner will be held December 8th at the Checkerboard Inn in the Back Mountain. Dinner starts at 6:00 PM. Contact Herb K2LNS to reserve your seat and make payment. We will also be planning Winter Field Day as well.

I would like to thank everyone for allowing me to be President of the Murgas Amateur Radio Club for 2023. From our Winter Field Day and ARRL Field events, to hosting several fox hunts, and everything in between, it was certainly an enjoyable experience and I hope that 2024 brings as many fun and exciting events and opportunities for the club.

I want to wish everyone a Merry Christmas, Happy Hanukkah, Festivus, or whatever or however you celebrate this time of year, and happy New Year too!!!

Tom W3TRM

UPCOMING EVENTS

Nomination and Election of Officers

Nominations and elections for Murgas officers and board of directors for 2024 will take place at the December meeting. (See the November minutes for a list of candidates.) Nominate some one you think will serve the club well, or consider accepting a nomination.

Annual December Drawing

At the December meeting there will be a drawing for several prizes from the tickets have been collected at meetings throughout the year. Members must be present to win.

UPCOMING EVENTS - continued

CLUB DINNER

The annual club dinner will be held on December 8th beginning at 6:00 PM. The event takes place at the Checkerboard Inn which is located at the intersection of Carverton Road and Dug Road in Trucksville. The menu is similar to last year's. (turkey, pork chops, meatballs, potatoes, pasta, a hot vegetable, salad, dessert, soda, coffee, and tea.) Cost is \$25 per person. Contact Tom Mayka W3TRM or Herb Krumich K2LNS if you want to attend. Reservations and payments are due by December 1st.

Get on the Air

Here is a list of some upcoming contests. A full list of contests and rules and can be found at WA7BNM's web site.

Date	Contest
December 1	ARRL 160 Meter Contest
December 3	FT8/FT4 Roundup
December 9	ARRL 10 Meter Contest
December 16	OK DX RTTY
December 30	Stew Perry 160 Meter Contest
December 31	New Year's Eve Straight Key Night

Local Nets

Below is a list of local nets. If you know of other nets, please contact the editor to add them to the list.

NET NAME	DAY	TIME	FREQUENCY	PL TONE
Windmill Amateur Radio HF Net	Mon	7:00 PM	3.964	
LCARES Net	Mon	8:00 PM	146.61	82.5
JMRA Net	Mon	9:00 PM	146.805	82.5
Simplex Net	Tues	7:00 PM	146.55	
JMRA 2 Meter Single Sideband	Tues	8:00 PM	144.21	
Murgas Amateur Radio Net	Tues	9:00 PM	145.45	82.5

De K2PG

It's December. By the time you read this, the Black Friday greedfest will be well behind us, at least two local broadcast stations will be playing nothing but Christmas music, and some veterans groups may have memorials of the Pearl Harbor attack that brought this country into World War II. The latter brings us to this month's topic.

On December 7, 1941, Japanese bomber pilots used two Honolulu broadcast stations, KGU and KGMB, as navigation beacons to aid in finding their target. Later in the war, Allied pilots used German and Italian stations in the same way while conducting bombing raids in Europe. After the war, the Defense Department and the Office of Civil Defense developed a system that would get news and emergency information to the American people while denying an enemy the use of our radio stations as navigational aids. Instituted in 1951, this was called CONELRAD, a military acronym for CONtrol of ELEctromagnetic RADiation. One or more AM stations

in each operational area was designated as a key station. All other broadcast stations had to monitor the key station(s) continuously, logging any tests or alerts. If CONELRAD was activated, all FM and TV stations had to leave the air, although they would keep the filaments on at their transmitters to be ready to resume broadcasting when the "all clear" message was sent by Civil Defense. AM stations were organized into clusters. These clusters operated on 640 or 1240 kHz, where the public would tune for emergency information. All operation on other frequencies was discontinued. The FCC required receiver manufacturers to mark 640 and 1240 on their dials, usually by using a small CD insignia (a triangle inside a circle). This was my trivia question in last month's newsletter.

Broadcast stations would conduct a CONELRAD test at least once a week, as follows:

"This is a test. For the next sixty seconds, this station is conducting a test of the CONELRAD alert system. This is only a test. (Carrier is dropped for five seconds, returned to the air without modulation for five seconds, dropped for five seconds, then returned to the air. A 1000 Hz tone is transmitted for 15 seconds.) This is a test of the CONELRAD alert system. If this had been an actual alert, you would have been instructed to tune to 640 or 1240 kilocycles for news and emergency information for your area. This station serves the ---- Operational Area. This concludes this test of the CONELRAD alert system." TV stations running these tests had to put up a slide with the CONELRAD emblem and interrupt the sound carrier to send the alert signal. I still remember these tests!

Each operational area had a Common Program Control Station (CPCS). Two dedicated "dry pair" telco lines went out from the CPCS to the transmitter site of each station in its associated cluster. One line fed program audio and the other carried control signals. In CONELRAD operation, each station, after switching to 640 or 1240, would keep the filaments turned on in the transmitter. Audio was fed continuously, but one transmitter would be keyed up for 5 to 30 seconds, then another one in the cluster would be keyed and the previous one would be taken off the air again. Stations were keyed up in a "round robin" fashion, so that an enemy pilot would see the bearings change constantly, making those stations useless as navigational aids. But listeners could hear the audio on 640 or 1240, whichever frequency was assigned to the local operational area. Stations in CONELRAD operation were limited to no more than 5,000 watts.

The lower power RCA AM transmitters in the BTA-1 series (e.g., BTA-1R, 1R1, etc.) had two switches on the front panel. One switched between the main crystal and a standby. The other put the transmitter into CONELRAD operation, switching in a 640 or 1240 kHz crystal, with relays and RF contactors for moving the tank circuits to the new frequency. In 1957, the FCC required all amateur radio stations to monitor local broadcast stations for CONELRAD activity. Hams had to immediately cease operating during a CONELRAD activation. Many monitored by simply keeping an AM broadcast receiver turned on, playing at low volume in the background. But this could be annoying. If the local station played music and the amateur worked phone, any pickup of the music could lead to a violation of the FCC rule forbidding the transmission of music over amateur radio. *GE Ham News*, published by General Electric in Schenectady, NY, ran an article on how to build a monitor receiver that is muted except when receiving the CONELRAD alert signal. Heathkit made a CONELRAD adapter, the CA-1, for use with a conventional broadcast receiver. Both schemes use the 2D21 thyratron tube as an electronic latching relay. The 2D21 is a tetrode into which gas is deliberately introduced. In these CONELRAD monitors, negative voltage from the AVC line is fed into Grid 1 of the 2D21. Grid 2 is connected to the cathode. If the station being monitored dropped its carrier, the AVC voltage would change to a level that would cause the 2D21 to conduct. Once that happens, the tube remains in conduction. A typical circuit would either have the 2D21 in series with the cathode of the first audio tube or with the coil of a relay. A reset button interrupts the plate or cathode line of the 2D21. These receivers were prone to false triggering, as many AM stations use different parameters for daytime and nighttime operation and drop their carrier while switching. More sophisticated monitors, used mainly at broadcast stations, also detected the 1000 Hz tone and were less prone to false triggering.



This is a typical CONELRAD poster from the 1950s. CONELRAD was discontinued in 1963, made obsolete by the navigation systems on board guided missiles and improved navigation systems on board aircraft. Here's my trivia question: What system(s) replaced CONELRAD?

Later,
Phil Galasso
K2PG

MARC MINUTES Monthly Club Meeting For November 2023

The monthly meeting of the Murgas Amateur Radio Club was held on November 1, 2023. President Tom Mayka W3TRM called the meeting to order at 8:09 PM. Twenty-one members were in attendance and three members participated via teleconference. David J. Kirby N3DJK upgraded to an extra class license and prospective member, Mike O'Donnell, received the call sign KC3WWS. Tom Mayka W3TRM stated that he made his first contact with Antarctica. Liam McGovern KC3UII reported that he received 1st place in single-op, low power for the Youth USA QCPX SSB contest. Herb Krumich K2LNS reported on the club's finances. Bob Montgomery W3ZR motioned to accept the report. Ray Gusher KB3ACO seconded the motion and the report was accepted. The October minutes as published in the MARC Times were emailed to all members. Bob

Bridges WB3KGD motioned to accept the minutes and Jonathan Rizzo KC3EEY seconded the motion. The minutes were accepted. The secretary, Elaine Kollar K3VQR, had no correspondence for the club.

Committee Reports:

Club Net - Club Net Manager, George Miklosi K3ZK, reminded members that the Murgas net takes place every Thursday evening at 9 PM. A brief discussion about GMRS repeaters followed.

VE Team - Rick Rinehimer K3TOW stated that the testing session prior to the meeting had one candidate pass a technician exam and another passed the extra exam.

Winter Field Day - President Tom Mayka W3TRM will make contact with the Back Mountain EMA and ask if the club can use the facility for winter field day.

Old Business:

Ham of the Year nominations are due by November 15. The Murgas Club Dinner will be held on December 8th starting at 6 PM. Reservations and payment are due by December 1st.

New Business:

The first reading of an application for membership from Mike O'Donnell was given by President Mayka.

Dave Kirby N3SRO addressed the group with changes that are or may be happening at the EMA. Luzerne County Council will be voting on a proposition to merge the 911 Center with EMA. This does not affect the club's meeting place immediately, but could in the future. Storage of club property is of an immediate concern as the small trailer will be repurposed and storage sheds will be eliminated. The need for some of the club's property was discussed.

Ian Kellman K3IK spoke about digital communication and the SHARED RESsource (SHARES) HF for emergency communication.

Jonathan Rizzo KC3EEY stated that he posted an article on the K3YTL group page about very low frequency.

The club then nominated candidates to serve as officers and board of directors for 2024. Tom Mayka W3TRM was nominated for president; Rich Abramowitz KC3TLC was nominated for vice-president; Herb Krumich K2LNS was nominated for treasurer; and Rick Rinehimer K3TOW was nominated for secretary. Board of director nominees included Jonathan Rizzo KC3EEY, George Miklosi K3ZK, Elaine Kollar K3VQR, Tim Chase KC3MES, and Rick Rinehimer K3TOW.

Announcements:

The Murgas Board of Directors meeting will be held on November 15th at 7:30 PM. The meeting is held in the Luzerne County Emergency Management Building in Wilkes-Barre.

The next monthly club meeting will be held on December 6th at 8:00 PM. The meeting is held in the Luzerne County Emergency Management Building in Wilkes-Barre.

With no further business, President Mayka W3TRM adjourned the meeting at 9:07 PM.

Respectfully submitted,
Elaine Kollar K3VQR, Secretary

Board of Directors Meeting November 2023

The monthly Board of Directors meeting of the Murgas Amateur Radio Club was held in the Luzerne County Emergency Management Building on November 15, 2023. President Tom Mayka W3TRM called the meeting to order at 7:37 PM. Directors present were Tom Mayka W3TRM, Herb Krumich K2LNS, Elaine Kollar K3VQR, Alex Mark K3EAM, Tony Petrancosta KB3FVF, and Rick Rinehimer K3TOW. Vice-President Dave Kirby N3SRO participated via teleconference, as did Bob Folmar KB3VS.

President Tom Mayka W3TRM noted that we are tentatively penciled in for Winter Field Day at the Back Mountain Regional EMA Center. There is a discussion going on about how organizations can use this building. The club would most likely need to show a certificate of insurance and sign a waiver to use the building. As a back-up plan, Dave Kirby N3SRO was asked to tentatively have the Murgas Club scheduled to use the Luzerne County EMA for Winter Field Day.

At present there are 19 people signed up for the club dinner on December 8th. A few more people are expected to send in payments. Elaine Kollar K3VQR stated that she has purchased the centerpieces for the event.

Nominations for club officers and board of directors will be opened at the December meeting and elections will take place. Herb Krumich K2LNS noted that he has purchased prizes for the annual drawing also held during the December meeting.

Alex Mark K3EAM raised the subject of club equipment. The Luzerne county EMA is looking to repurpose the small trailer in which the Murgas Club stores some of its things. A discussion followed about what equipment the club uses and should keep and what equipment could be sold. Tony Petrancosta KB3FVF motioned to have a committee appointed at the next meeting to handle the sale of the equipment. Items will be offered to club members first. The board of directors will be responsible for creating the list of sale items and things to keep. Rick Rinehimer K3TOW seconded the motion. A tentative list of items to be kept includes the tri-band antenna, all coax, mast, and rotor. The tentative list of things to sell includes two generators, club radio and power supply, 50 foot tower, and 20 foot crank up mast. This is just a beginning list and more items will be added and subtracted as needed.

Herb Krumich K2LNS stated that he has been in contact with Bill Water KC3HLT about the fee for web hosting next year. Bill will be sending an invoice to the club. The club received a letter that our liability insurer is no longer insuring radio clubs. They have given us information on another company that is offering that service.

Rick Rinehimer K3TOW announced that there has been a request for a testing session in December. Exams will be given at 7:00 PM on December 6th.

With no further business, the meeting was adjourned at 8:20 PM.

Respectfully submitted,
Elaine Kollar K3VQR, Secretary

Editors Notes

I would like to thank all those who have contributed articles or information to this issue and encourage other members to submit articles for publication. Sharing your knowledge or experience makes our newsletter informative for others. Articles may be submitted at marctimes@murgasarc.org



CLUB MEETING

Wednesday, December 6, 2023 at 8:00 PM

Meeting will be held at the Luzerne County EMA.

A conference call option is also available. Details to call in will be emailed.

PROGRAM

**Election of Officers
and Board of Directors**

BOARD MEETING

Wednesday, December 20, 2023 at 7:30 PM

Meeting will be held at the Luzerne County EMA.

A conference call option is also available. Details to call in will be emailed.

***MARC Times* Submissions**

Articles for the January 2024 newsletter are due by

December 26, 2023.

Email to marctimes@murgasarc.org

Follow Murgas on:

Facebook- search for Murgas Twitter - @murgas_ARC You Tube - search for Murgas

Club website: www.murgasarc.org

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