

CAM HAM

Winter 2017

Welcome to CAM HAM Rebooted

It has been several years since I last published this newsletter. Seems like a good time to start again. The last newsletter on record was 2015 and it was never published! Prior to this, I did the CAM HAM News for the now defunct Conemaugh Valley ARC, the predecessor of the Cambria Radio Club.

This newsletter will cover various topics. I hope to include club news, ACS and ARES information and other items of interest. I will also endeavor to cover the Cambria Radio Club meetings as well. There are a lot of interesting things going on in amateur radio these days. It's not the old HF vs. VHF anymore. Thankfully. Most of all, I hope to spread news and information about things that would interest amateurs and radio enthusiasts. I hope to produce one newsletter every quarter.

Your feedback as to whether the newsletter is useful or not will be appreciated. Also contributions as articles or other information is also welcomed. If you like it, tell me or suggest changes. I will do my best to make it a fun and worth reading.

I also welcome contributions from others on a wide range of radio related topics. Everything from drones, to SWL to scanners is fair game. Don't worry about cleaning up grammar or punctuation, we will take care of that.

Enjoy.

DIGITAL MOBILE RADIO (DMR)

You might have heard about DMR in passing or might be interested in trying something new. Well DMR has arrived in the Johnstown, Cambria County area. DMR is a digital voice mode that sports some very interesting features. It is clear, narrow banded, can support two separate conversations on one repeater and thanks to the internet, can provide everything from local to worldwide communications. The real selling point is the radios are reasonably priced. A TYT MD-380 is currently priced at around \$85. Other models are more expensive but still affordable. Most come with everything you need to program and get on the air.

So you buy a radio. Now what? Without going into complicated DMR speak, contact one of us who use DMR. We will mentor you. It is not all that complicated, but when I started to write it out, it appeared so. (This is my third draft of this article.) Quickly and without detail, here is what you need to do:

Go to DMARC and register your new radio.

Load the programming software and driver on your computer.

Open the CPS (computer programming software)

Don't panic when you look at the screen!

Really, it's not as daunting as it looks. There are a couple of items in the general settings you need to enter. As far as the rest of the software goes, you have two choices, get a code plug (stuff is filled in for you) from another ham or learn to create your own plug. It is not hard and follows a sequence. I would suggest contacting a knowledgeable ham and in about 15 minutes to a half an hour you can program the radio on your own. DMR was not intended for amateur radio use and there are many features in the software we don't use.

Basically, there are 7 things you need to program to get on the air. These are:

- Talk groups you intend to use
- Analog or digital
- Receive frequency
- Transmit frequency
- Color code
- Time slot
- What talk group each entry will use.

In DMR the terminology is different. The use of the word channel and CTCSS are gone. New terms as talk group, color code, and time slot have emerged. It sounds confusing, but really it is not once you get the hang of how it all works.

THE BOTTOM LINE

There are many DMR active hams interested in getting you on the air. If you buy an MD 380 UHF radio, there are several good code plugs we can share with you. There are also several very good You Tube videos on programming the radio and how to do this. A little research on the Internet and some studying time will yield some rewarding results. In no time you will join the DMR community.

USING THE LOCAL DMR REPEATERS

The 442.825 located in Richland Township and the 440.850 at New Germany are the local DMR repeaters. They are Brandmeister connected repeaters. For more information on Brandmeister, visit their site. As they are, these repeaters have the following options.

Time slot	Talk group	Use
1	2	Western PA cluster
1	9	Local use
2	2	County wide cluster
2	9	Local use

You can listen to DMR in action and read up on the BrandMeister Network by using the following URL:

<https://brandmeister.network/>

FLDIGI, START IT AGAIN?

Before the 145.390 repeater went down, we had a FL Digi net on the first and third Wednesdays of each month. We would connect to the Saxonburg machine and attempt to communicate using the various digital modes. FLDIGI is the nickname for the fast light digital mode. The net was mostly instructional and attempted to cover the basics for newcomers as well as advanced functions for those who had knowledge of FL DIGI.

With bad weather coming I was thinking about restarting the net and providing local on the air instruction in FLDIGI. I don't know if the Saxonburg group still exists and I will attempt to contact them. However the idea of a local net and local instruction may be in order. One of the many uses of FLDIGI is reporting Winter storm emergencies and county status. The

Pennsylvania Emergency Management Agency runs and FLDIGI net during times of severe weather. So it is handy to know how to use the software basics.

I will do some research on the FLDIGI and the Saxonburg net. Look for further information and announcements on the Sunday night WAN net at 9 PM. If anyone is interested in a basic instructional net on a local repeater, drop me a line at n3yfo1954@gmail.com.

STAY INFORMED, SIGN UP FOR “RAINED OUT”

With bad weather coming and the possibility of amateur radio involvement, you might want to consider signing up for Rained Out. Rained out is a “free service” that allows me or another designated administrator to send out a mass text message or email quickly. To sign up for Rained Out go to the following URL:

https://www.rainedout.net/team_page.php?a=7513a865ed697a84288b

enter your cell phone number or email address and receive short messages from Cambria County ACS or ARES.

MD 380 AN ECOMM JEWEL

There is an ongoing conversation about the TYT (Tytera) MD-380. This little UHF radio upset the DMR world with a compact, easy to use, rugged little rig for digital and analog use. You don’t need to go far in the amateur radio community to read an article about this little rig. At less than \$100 it’s a bargain as well.

My writing will take the MD 380 in a different direction. Rather than talk about the hobby use of the radio, I will address its use in emergency communication specific to Cambria County. The

radio is ideally suited for emergency communication use and should be a part of “go bag.” Let’s look at the various uses this radio has.

It does amateur analog and DMR

This is the most obvious part of the radio. It was designed for ham and light industrial use. It does both fairly well.

It can receive, scan and yes even talk on the county EMA frequencies.

Cambria County is still analog and on the UHF band. The MD 380 can also narrow band and is compatible with the EMA frequencies. In the event of an “anything goes emergency” (heaven forbid) the 380 has the capability of talking on those frequencies.

It can do FRS and GMRS.

Yes, I know it is illegal on the FRS channels and you need a license for GMRS, but the radio is capable of this. But think of this, you need to coordinate with a group of amateur and non-amateur persons at a marathon. You have the ability to speak with them as well as the hams that are assisting with the event. Or you can at least listen in.

It does the itinerant DOT and STAR frequencies

These are the low power, non-licensed, temporary use business frequencies in the UHF spectrum. This is handy to have and use. Legal if you switch the radio to low power.

It is “hackable”

Finally the MD 380 is so popular, it lends itself to experimentation. Some amateurs have altered its firmware to do some cool things. MD 380 tools or toolz opens the radio up to be

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programmed on the fly and also to scan the frequencies in “promiscuous” mode to hear everything on the frequency whether the radio is programmed for it or not.

TYT makes other radios as the GPS equipped MD 390 and the dual band MD 2017, but for the money and the capability, the MD 380 is a pretty sound purchase for a basic entry level DMR unit.

If you would like a copy of my code plug for the MD 380, please email me. I will send it to you and you can modify and customize it to your own liking. I have most of this stuff already programmed in for your use.

FIELD DAY 2018!

It is never too early to start planning for that last weekend in June. Have your 2018 calendar ready? Now mark June 23 and 24, 2018 for this annual event.

This year, I was thinking about a camping, boating and radio kind of weekend. Several of us have talked about doing something different. It’s never too early to plan.

ARRL CALENDAR OF EVENTS

January

Straight Key Night 1

Kid’s Day (Jan and Jun) 6

RTTY Roundup 6-7

Jan. VHF Sweepstakes 20-22

February

School Club Roundup

(Winter/Spring Term) 12-16

DX Contest – CW 17-18

March

DX Contest – SSB 3-4

April

Rookie Roundup (SSB) 15

IN CLOSING

I hope you enjoyed this e newsletter. I will have another one out and ready to read sometime in early April. However I can’t do this all myself. If you have an article of interest, want to write and contribute, or pass on an idea that you would want in this newsletter, please write, call or talk to me.

Think about it. I can accept items up until April 1, 2018 for the Spring, 2018 edition of CAM HAM. Hopefully I can publish some Field Day and other information of use.

Thanks.

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73.