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# MILAM COUNTY ARES NEWSLETTER

AMATEUR RADIO  
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## MILAM COUNTY ARES NEWS



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**Stuart Wolfe – KF5NIX, Milam County Amateur Radio Emergency Coordinator**

This month I would like to take a closer look at some of the digital modes, like DSTAR, DMR, and C4FM or Fusion. First I would like to say that I do favor one mode over the others but will hold off till the end of this newsletter to disclose which one.

The first up is DSTAR, and I will not go into great detail on each of these, but will hit on the bigger points. It has a very robust network, and has been around for awhile. The radios are very well made, but the only drawback is that it takes a little setup to get your account activated and then get your radio ID before you can use your radio. Over the U.S. the DSTAR network has proven to be a reliable form of communication as well as having a very strong Amateur presence in our hobby. As with most radios that rely on a digital mode, the price is a little higher as well. One of the things I have noticed is that most DSTAR repeaters are only for DSTAR radios transmitting in DSTAR. I have not seen a repeater for them that transmits in both analog and DSTAR.

Second up is DMR, and this one is gaining ground on both DSTAR and Fusion by leaps and bounds. As with the DSTAR radios, the DMR radios have to be activated/setup from the internet. You also have to get the radio ID before the radio can be used properly. After that you still are not finished, there are a few more steps. One of them being that you have to create/program the code plug for your radio. Basically it is another way of saying you have to program your radio. Unfortunately you can't order the software from RT Systems for these radios; you have to follow their steps. On the bright side, DMR has been around for awhile, and has a similar network as DSTAR, and has a lot of support to help setup the radio and operate it. I would not recommend these radios for the beginner.

And lastly is the C4FM/Fusion radios, which are taking the world by surprise by their ease of use. Being that C4FM is mainly a Yaesu digital mode, most of their newer radios have this mode installed by default. One of the main advantages of this mode, is that no matter which radio you get that has this mode that as soon as you take it out of the box and put your call sign in the radio (for transmitting purposes) it is ready to go. And I mean it is ready for not only analog operation, but C4FM/Fusion operation as well. A few years ago Yaesu put their new Fusion repeaters for sale at a 1/3 of the regular price and the result is they flooded the market, literally, with the new mode. Then they followed that up with an all new lineup of new radios that support this mode. But most importantly, they even added this mode to their HF radios too.

As of the writing of this newsletter, Gigaparts and HRO have a few of these radios on a one month backorder because of the high demand. And also because Yaesu put several of their radios on a very large price cut during the holidays. With this being said, the new Fusion mode is catching on like wildfire in several areas of the country. There is something that the Fusion repeaters has that the other repeaters do not, and that is versatility.

With DMR, and DSTAR repeaters you mainly have the one mode in, and out. You rarely find one these that can do both digital and analog at the same time. And there is the catch, as Yaesu has made a unique system with their Fusion radios and repeaters. Not only can their radios operate out of the box, in digital mode and analog, but you can switch modes by simply pressing a button on the radio or hot keying the microphone. Their repeaters have the ability depending on how they are setup of operating in either or both modes at the almost the same time. Let's say for example that 2 Amateurs are in Fusion mode on a repeater, and someone who is in analog keys down. When the repeater sees the analog signal it automatically switches to analog mode on the transmit side. Now the 2 Amateurs who were in Fusion mode, depending on if they have their radios in AMS (Automatic mode select), will have their radios automatically switched to the last mode received

(which is analog). Now all operators can hear each other in analog. And this is all done automatically by the repeaters and the radios, depending on how they are setup. My recommendation is always keep the radio in AMS mode, as this lets your radio select the mode depending on the last mode it hears.

There is a lot of info I passed over on each of these modes to condense it to this newsletter. I recommend doing your research on the mode you wish to go with. It will make all the difference in which radio you pick (ICOM, KENWOOD, or YAESU). As always, check around your area to see which mode is supported, so you do not pick a mode that has no support/repeaters. If you wish to continue this discussion with me send me an email and I will be glad to discuss it further.

My personal pick as you can tell is the new Yaesu C4FM Fusion radios for the ease of use, as well as the immediate operation of the radios right out of the box.

If you wish to be a net controller for the Milam County ARES net please contact me and I will send you a 'basic' script that you can either follow, or make it up as you go along. Everyone who participates in the Ares net should be able to be net controller in case of an emergency.

Also if you wish to have something put in one of the newsletters, send it to me at [KF5NIX@ARRL.NET](mailto:KF5NIX@ARRL.NET) and I will find a way to put it in.

If you have not done so yet, go to the ARRLSTX depot site listed below. [http://www.arrlstxvps.org/vault\\_area/vault\\_gateway/site\\_gateway/vault\\_gateway.php](http://www.arrlstxvps.org/vault_area/vault_gateway/site_gateway/vault_gateway.php) There are several items listed on the workbook there that many of you have already accomplished in the past, just use your best guess as to the date and I will approve them.

If you complete any of the online courses send me a copy of the certificate so we can have it on file in case of an emergency so we know who we can call on.

You can get your workbook as well as other forms at the Milam County ARES website:  
<http://milamcountyares.weebly.com/>

Thank you,  
Stuart Wolfe – KF5NIX – EC Milam County – 512-660-9954

**Rockdale** – 146.760 – PL – 123, Milam ARC weekly net – Monday nights at 8:00 P.M. The members also voted to move the Milam County Ares net to Monday nights, at 7:00 P.M. Most felt that having the ARES net on the same night as the Milam Amateur Radio Club's net may increase the sign-ins for both nets as well as free up the rest of the week.

**Cameron** – 147.020 – PL – 123, Milam County ARES net – **Monday nights at 7:00 P.M.**

**Davilla** – 147.000 – PL – 123, Milam ARC nets – Last Monday of each month held here. **Milam ARES 2 Meter Data Repeater** 145.030 Mhz This repeater is a simplex repeater with store and resend software in the modem at the transceiver. This call sign is CAMRLY. The repeater is on the Milam County Communication Tower and uses the same antenna as the 147.020 repeater. That antenna is a db224 with 6db gain. It is approximately 150 feet AGL.