

THE REPEATER

Newsletter of the North Shore Emergency Association

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www.NSEA.com

FCC GMRS DATA

Total Active GMRS Licenses = 81,555
Total Active GMRS in Illinois = 2,305
Number Issued in October = 3,279
Number October in Illinois = 99

NSEA DATA

Regular Voting Members = 17
Probationary Members = 1
Auxiliary Members = 11
Applicants = 14
Affiliated GMRS Users on Roster = 51
Added on Systems - Last 3 Months = 2
Added on Systems - Last 30 Days = 1

FOR REPEATERS PERMISSION

Click this link:

https://nsea.com/index_files/Contact.html

FOR FCC RULES

Copy & paste:

https://www.ecfr.gov/cgi-bin/text-idx?SID=b7b411dcef7e2b190049b5ebfc58be1c&tpl=/ecfrbrowse/Title47/47cfr95main_02.tpl

Or click FCC RULES & REGULATIONS link @ www.nsea.com

FOR NSEA RADIO PROCEDURE

Click this link:

https://nsea.com/index_files/Radio%20Procedure.pdf

TRAINING FOR GMRS OPERATORS

WEATHER SPOTTING

Skywarn online training:

https://www.weather.gov/lot/spotter_talk

For Reporting: (800) 692 – 2110

DISASTERS (FEMA)

WHAT ARE “COMMERCIAL GRADE” RADIOS AND HOW ARE THEY DIFFERENT?

Back in the day, when personal users first began populating GMRS (Class A Citizens’ Radio) in significant numbers there were very few UHF two-way radios to choose from. In the USA there were “the big 3” manufacturers of Motorola (in Chicago), General Electric (in Lynchburg, VA). And RCA (in Camden NJ). They made the vast bulk of radios for Industrial, Commercial, Land Transportation, Public Safety, etc. Radio Services. Remember that in the early decades of Class A (GMRS) most users were such “Commercial” enterprises.

Many early personal users bought used “Commercial” Radios made by these companies. Only relatively recently have “Consumer Grade” radios begun to appear for GMRS. This trend has accelerated following the creation of the Family Radio Service, and there is now a considerable variety of “consumer priced” low cost radios. But the vast bulk of these are very low cost walkie-talkies, and not serious mobile, Base/control or repeater stations suitable for the serious GMRS operator.

After the FCC Rules were changed in 1987 to permit GMRS licenses to only be issued to individuals, “commercial” manufacturers stopped getting their UHF radios FCC “Type Accepted” for GMRS since their “commercial” customers were no longer eligible for GMRS licenses. This left an ever growing void in the market for GMRS UHF high quality radios.

In 2010 the FCC proposed sweeping changes in the Part 95A Rules and the future of GMRS was in doubt. WT Docket 10-119 was not resolved for over 7 years during which there were virtually no new high quality radios Certified for GMRS. Gradually, since adoption of the new Rules in 2017, there have been a few new serious base/control and mobile radios Certified for the new Part 95E.

PUBLIC SERVICE IN THE GMRS

NSEA traces its history of public service to initially monitoring CB Channel 9 to answer emergency calls in the era predating cellular telephone. We were an early participant in the REACT program (C-479). It was also inspired by my experience with the Crescent City CB Club in Hurricane Betsy in New Orleans in the fall of 1965.

From the beginning, NSEA has fostered public service through the use of personal two-way radio in 3 main areas. 1) Monitoring radio to answer emergency and traveller assistance calls; 2) Communications response in emergency and/or public safety incidents; and 3) pre-planned projects where radio communications can significantly improve events. Our mission has not changed significantly since we moved from Class D to Class A (GMRS) personal two-way radio, starting in 1970.

Monitoring GMRS was significantly fostered by NSEA in introducing UHF to REACT teams, strongly promoting all REACT systems to be on the same frequency pair of 462.675/467.675 MHz and using the same “travel tone” of 141.3 Hz throughout the United States.

Our first big pre-planned project was in the late 60’s by providing logistical communications and support for the Walk for Humanity to End Hunger which had thousands of participants walking a route throughout the North Shore lasting from early morning to late afternoon. We have supported the Evanston 4th of July celebration for over 50 years. A few other examples include the Western Open Golf Tournament, The Doctors’ and Ambulance net for the Chicago Marathon, and The Multiple Sclerosis Tour de Farms covering 3 counties over 2 days for almost a decade, and Halloween vandalism patrols in 2 North Shore communities.

TRAINING CONTINUED

IS-100.c - Introduction to the Incident Command System (ICS);

IS-230.d – Fundamentals of Emergency Management; and

IS-700.b – An Introduction to the National Incident Management System (NIMS).

<https://training.fema.gov/is/>.

FEMA SID number:

<https://cdp.dhs.gov/femasid>

WOXUN ANNOUNCES NEW FCC CERTIFIED GMRS MOBILE

If you have been following the listing of FCC Certified GMRS radios on our web page, then you might be aware that, on November 17th Quanzhou Wouxun received Certification for their new KG-1000G 45w mobile. They claim that this is a “Commercial Grade” higher quality radio.

Up until now all newly GMRS Certified radios had each GMRS frequency listed only once. This meant that programming that same frequency on several different channels with different tones was not possible. Wouxun now claims their new radio permits such configuration.

Subaudible tone scanning is a highly desirable feature for personal users. The Baofeng Tech GMRS-S0X1 mobile unit was the first Certified radio to provide this capability, however it is difficult to configure. Wouxun claims to have a simplified feature.

While the new Wouxun radio says it has all subaudible tones, but missing are 2-tone / 5-tone selective calling. This format is by far the least obtrusive for use in such systems as GMRS, where voice monitoring for calling is the norm.

MSRP of the new Wouxun is \$ 329.00. None of the normal Industry Standard specifications are provided, however. Stay tuned for further details as they become available.

COMMERCIAL RADIOS CONT.

The handful that are wideband compatible with existing GMRS repeaters have been “consumer grade” low cost (mostly Chinese) radios.

How are the higher priced “commercial grade” radios significantly better than the lower cost “consumer grade” models? Examples of better, higher priced radios today are ICOM and Kenwood, among others.

Technical specifications where these radios shine are in receiver performance, both receive sensitivity and selectivity, and ruggedness of transmitter circuit design.

Receiver sensitivity is the ability to pick up weaker signals at clearly useable levels (signal quieting). The weaker the signal that the radio can present clearly to the user, the better. For example .20 microvolts at 20db quieting.

Receiver selectivity is the ability of the radio to reject unwanted adjacent channel and unwanted RF mix signals (such as “intermodulation”).

Transmitter circuit design ruggedness is the ability of the components to tolerate poor antenna matching to the transmitter output, which can result in heating and failure of components, (“Blown final”).

Any higher quality radio will have clear Industry Standard specifications for at least receiver sensitivity and selectivity (rejection). If you don’t see these measurements, be suspicious.

Also, physical survivability of the case and housing is likewise significantly better. This is especially important for portable units that need to be able to survive being dropped.

YOUR ARTICLE FOR THE REPEATER COULD APPEAR HERE

Emergency communications response activities have included “Skywarn” tornado spotting, affiliation with Red Cross Disaster Service, Mid America Chapter, assistance to NorthShore Police agencies in Plaza Del Lago Fire, and assistance to Evanston CERT/Fire Department for public communication alternative during telephone service interruption in a one square mile area.

What other ideas do you, as participating GMRS operators have for additional public service activities that GMRS can benefit the public?

EVANSTON .700 REPEATER

As many of you may know, the Evanston .700 repeater has been down for some time due to catastrophic failure. Marc has now been able to replace the equipment with new generation gear and has the system fully back on the air. Performance is exceptional with very excellent sensitivity. Check it out and let us know how far you get good performance!

NEW COOPERATING REPEATER

Some of you may be aware that a couple of months ago we learned of a new proposed system to the south on .675. Taking into account the distance and relative antenna heights involved, the potential for significant interference seemed substantial.

As a result Marc contacted the operator and discussed the situation with him. He graciously moved his new system to .575 to avoid the problem.

Now he has contacted us by e-mail and asked “*if there is anything I can do to help out or add to the emergency systems you have in place already*”. As a result we have collaborated for his system to become an additional cooperating repeater with our systems, similar to Matt Siegel’s Evanston .725 repeater. He has created a new tone on his system for our use, but has requested priority for his users (Units in 1000-1010 series). Details will be posted in the Members’ Only web page as he has also asked that the tone be kept confidential. Welcome to Rob Baldyga, WRDU 235! :)

Would you like to contribute to The Repeater? Submissions are encouraged. Send to Randy@NSEA.com.