

WISCONSIN HAMS SERVE WEM AND THE PUBLIC

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Can you answer these questions? The correct answers are listed in the text and at the end of this article.

1. How many Amateur Radio operators (“hams”) are there in Wisconsin?
2. How many Wisconsin hams are involved in emergency communications and training for this role?
3. What proportion of Wisconsin hams are licensed by the Federal Communications Commission?
4. How long (historically) have hams been responding with emergency communications in the United States?
5. Can hams receive compensation for their communications services?
6. Who purchases and maintains a ham’s radio equipment?

Terrible windstorms raked across the Midwestern plains, bringing down lines of communication in several states. Amateur Radio operators set up makeshift radio relays, passing messages from one to another across the states, and this action brought back communications to areas that were otherwise completely cut off from the rest of the world. Since that time (1917!), formal networks and training for emergencies have prepared Amateur Radio operators to serve as the premier auxiliary means of communications in thousands of emergency incidents – from floods to hurricanes to bombings to earthquakes and more.

The most recent incident was the tornado that tracked across 41 miles in Burnett and Washburn Counties this June, killing three persons. A total of 65 hams took part in that incident, beginning with SkyWarn spotting and tracking the tornado (heard directly by National Weather Service meteorologists), to disaster response after the destruction, to damage assessment and recovery. The hams worked with a number of agencies in addition to the NWS, including Emergency Management, Law Enforcement, EMT, DNR, Highway Department, Red Cross, Salvation Army and others. Ham communications either completely replaced downed systems or took the pressure off existing systems, preventing their overload. Their networks were used extensively to coordinate volunteers in the area. Again, Wisconsin’s Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES) motto - “We communicate when no one else can”, proved accurate.

ARES is sponsored by a not-for-profit private organization, the American Radio Relay League – the largest organization of Amateur Radio operators in the world. ARES is organized to provide emergency communications to both private organizations (Red Cross, Salvation Army, etc.) and to governmental agencies. On the other hand, RACES (administered by Wisconsin Emergency Management) is designed mainly to provide emergency communications to government – at the municipal, county or state level. Every Amateur Radio operator in Wisconsin that has volunteered for ARES is also registered as a RACES operator, and vice versa. Indeed, the training groups in each county are called ARES/RACES units because of this mandatory dual membership.

Every ham in the USA holds a valid Federal Communications Commission license, earned by passing an examination after study of radio theory and current regulations. The FCC also assigns each ham a unique “callsign” that is not duplicated anywhere in the world (the author’s is WB9RQR). You may see these callsigns on vehicular license plates (in Wisconsin, Amateur Radio license plates are a separate type – *not* a vanity plate). You may even see the same

license plate callsign on two different cars if they are owned by the same ham (yes, this is legal)! Most states want their ham vehicles identified for good reason – they often carry radio equipment that can be useful in large incidents when other communications means are down or overloaded.

ARES/RACES units train constantly to provide quick, accurate emergency communications in times of need. They are often equipped with generators and portable communications equipment that permit setting up complete radio stations in the field. Some of these units in Wisconsin are permanently attached to county Emergency Management, by mutual consent, and are deployed by the Emergency Manager just like any other resource marshaled in an emergency. EMs who do this find that the hams can take the pressure off of other communications channels, even when those other channels are still up and operational. When other channels are down, Amateur Radio can provide the only possible link until normal channels are restored. We all know that cell phones become useless very rapidly in large incidents, and even ordinary telephone lines may follow the same fate if down or overloaded. Moreover, public service radios may become unavailable if the incident has struck a transmitter site or an antenna system. That is not likely to happen with ham channels, because hams own their own equipment and they are not centralized like a sheriff's dispatch center. Furthermore, hams own equipment that can communicate locally or across county, state or even national boundaries, using many more channels of the frequency spectrum than are available on the public service bands. Their ability to get a message through under bad conditions is much higher than with any other service. And, they know how to do it, which has been proven repeatedly around the world.

There are potentially 72 county ARES/RACES units in our state, plus five special units like the ones organized to serve the National Weather Service in Sullivan and in Green Bay. A few sparsely populated counties do not have separate units because there are so few hams within their boundaries, but communications in these counties are covered by neighboring units. Altogether, nearly 1,300 hams in Wisconsin are active in these units and their numbers are increasing. These hams take time from their jobs and families to train and respond, and they often purchase equipment and supplies at considerable personal expense. No, they cannot be reimbursed. It is a violation of FCC rules for a ham to receive any sort of payment for their communications services, even when it involves use of their personally purchased equipment. They are truly free of charge.

How can you find out more? Who is the Emergency Coordinator (head of the ARES/RACES group) in your county? Navigate to <http://wi-aresraces.org> and you will find answers. If you cannot find what you need there, click the author's email button on that site and send a message. While you are at it, check your own data on the site under Emergency Managers to be sure it is accurate.

ANSWERS TO THE QUIZ:

1. About 11,000.
2. About 1,300 (12% of the 11,000).
3. Every one (100%) holds a federal license issued by the FCC.
4. Since before World War I.
5. No, it is against federal law. They must do it free of charge. (You can buy them a pizza!)
6. Each ham normally purchases and maintains their own equipment. Clubs may purchase collectively owned equipment from proceeds gained through dues, but ARES/RACES units in our state cannot charge dues. Some EM departments have purchased repeaters and other ham radio equipment for use by attached units to increase their capabilities.

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