

The purpose of the following material is to provide guidelines and suggestions for the Arkansas ARRL Sections ARES groups to establish a working and compatible digital communications network that can provide modern emergency communication service to government and relief agencies in times of disaster or other incidents.

Internet email has become the globally accepted method for fast written communications for individuals, corporations, government agencies and other served organizations like the Red Cross and Salvation Army. Nevertheless, if a disaster strikes and a community's electrical power or telephone service is disrupted in any way, or the agencies email server goes down, then the Internet link is broken and normal email cannot flow.

The use of an Amateur Radio digital communications network, such as Winlink 2000, linked to the Internet can then become an effective and important tool in keeping an ARES group and its served agencies connected globally without the normal wired Internet connection. It allows an Amateur station to assist served agencies and keep them connected from inside a disaster area, and without normal email servers or Internet links.

The Arkansas ARES is dedicated to the use of many forms of communications to transmit messages during times of disaster and/or emergencies. And in order to accomplish our objectives we need to have redundancy and utilize all available communications modes and systems, with a requirement that networks be able to communicate across inter-agency and inter-jurisdictional boundaries. Digital communications has the ability of providing error-free messages to a destination, minimizing public disclosure of sensitive information, and in a written format.

In order to comply with the ARRL's encouragement for ARES to deploy the Winlink 2000 system, the Arkansas Section leadership encourages their ARES groups to use this system as an additional emergency communications capability.

It offers the best combination of features and reliability, an established worldwide network, and can provide fast radio email service for all served agencies and the public. It can work in harmony with the resources of the existing NTS and NTSD digital services to cover our entire section and beyond, with ARES providing the connections to served agencies.

Nothing in these guidelines should be construed to limit local groups from using other digital modes or systems within their own group, but these same groups should employ and integrate Winlink 2000 into their operational planning to retain effective communications with the rest of the Section and State, and to contribute useful, trained operators for regional and national disasters.

Radio mail servers (PMBO's) provide HF ports to the network. ARES PMBO's are not advertised or listed except to Emcomm groups, and remain quietly semi-private. This is to avoid common everyday usage by the general Amateur Radio population and to reserve their bandwidth for Emcomm exercises, incidents and disasters. To date, there are 31 ARES PMBO's listed and on the air. From that list, two are in Arkansas, six in Texas, one in Missouri and two in Tennessee that I have been able to use when sending Winlink messages. The station list is updated as the national network grows and is published at: [Current National ARES EmComm PMBO List](#) Frequencies, locations and all necessary information for all Emcomm PMBO's are given, and when downloaded as a text file, may be directly imported into Airmail's station and frequency list.

The Arkansas Section ARES PMBO's are W5AUU in located at the Arkansas Department of Emergency Management and the other is AD5OH located at the Arkansas Department of Health.

Public PMBO's are available worldwide and provide day-to-day Winlink radio email service to users of all types. These stations also serve Emergency communications operations as needed.

It would be good if each ARES district in Arkansas could have at least one primary and one secondary station with digital capability, preferably one per County. These stations should be geographically separated, but located where they are usable throughout the area. Also, these stations should be equipped for HF and VHF/UHF digital operations and have backup power available during an extended power failure.

Alternatively, you might also consider installing multi-mode TNCs and radio equipment at the City and County EOCs and other key public safety and disaster relief organizations such as hospitals.

The next priority should be to encourage and train a group of local operators to become proficient with packet operations and to build field-deployable portable stations. These may be the easiest to put into place.

For the best information on the Emcomm use of Winlink, and how to get started see: <http://www.activeham.com/winlink/wiki>
<http://www.winlink.org>