



Winlink 2000 Email Suggestions

Tim McDonough, N9PUZ
Illinois ARES – ASEC Digital Communications

October 7, 2010

During the 2010 Simulated Emergency Test (SET) various Illinois ARES groups utilized Winlink 2000 to pass messages. What follows are some suggestions on how to format email messages that may be carried by the Winlink network to keep the amount of data flowing across the network, especially the RF portions, to a minimum.

Maximize Information, Minimize Data Volume

The broadband data connections we often enjoy at our desktop computer may pass hundreds of thousands or even millions of bits of data per second. In an emergency when time is critical an email message carried by the Winlink 2000 system using RF over the "last mile" may only pass data at a few hundred bits per second. To make the most out of this precious resource we must use it wisely.

1. When we refer to a Winlink email we mean any email with one or more people using an address with "@winlink.org" either as the sender or as one of the recipients. In general if a regular email user is sending to a "@winlink.org" address it is good practice to begin the subject field with "/WL2K" so the Winlink mail servers do not treat it as spam and block it.
2. In spite of the fact that your email includes a return email address, include the following in the body of the email: a) Your name and call sign (i.e.—Tim N9PUZ) and b) your location (i.e.—American Red Cross in Springfield.) Many times a portable Winlink station will carry the call sign of the person who owns the equipment and we don't know who really sent the message or where they are located. Doing the above eliminates 2 additional emails—one

to ask where or who they are and another for the reply to answer the question.

3. ***NEVER*** send an HTML formatted email message. It wastes valuable RF bandwidth. Remember, the over the air part of the link may only be operating at 300 bits per second or so. As an example, during the SET one email inadvertently sent as HTML was 8,576 bytes vs. only 1,201 bytes for the identical plain text version—7 times the amount of data with no increase in information.
4. If you need to send a long log, list of information such as supplies, list of occupants, etc. consider creating it with a spreadsheet but save the information as a Comma Separated Value (CSV) file. There is a lot of overhead in an Excel spreadsheet. There is very little in a CSV file. For example, the HF log for NC9IL was a 17,920 byte spreadsheet in the default MS Excel XLS format. Saving it as a CSV file reduced that to just 1,651 bytes. The minimal information that multiple fonts, fancy color formatting, etc. adds just isn't worth slowing the RF data network to a crawl. Also, be aware that a spreadsheet in CSV format *can not* have multiple sheets within a workbook.
5. When you reply to a message leave enough of the original that the recipient can identify the message to which you are replying but don't retransmit the entire message.
6. If you receive an email request that you cannot immediately answer such as "Send a list of evacuees at your location to NC9IL" send a quick, *short* reply that you received the request and it is being handled. This lets the requestor know you a) got the request and b) it's being acted on.
7. Use multiple addresses to increase efficiency. An outgoing message of 500 bytes gets sent over your outgoing RF path *one time* whether there is one address in the "To" field or ten. If you are sending the same data to multiple locations send it once with several addresses in the "To:" or "Cc:" fields. *Don't* copy other Winlink addressees on a message if they don't need to handle a request or need a copy of the information. If they are limited to an over-the-air RF link this uses up bandwidth at their location that may be better used for other traffic.