

ATTACHMENT I

WINLINK 2000 OPERATIONS

When to Use Winlink

Winlink is the primary digital message delivery system used by ARES nationwide, and in New Hampshire. It can be used to send email messages and attachments directly to and from Internet email addresses and other Winlink stations. Winlink should be used whenever possible for messages that are *not* short, urgent, tactical messages, and always when lists, detailed information, photographs, or file attachments must be sent.

Winlink Address Conventions

Standard Winlink addresses for email sent from the Internet are <callsign>@winlink.org. Messages sent from one Winlink station to another are addressed with the call sign only.

Email Address Collection

Since some email addresses change frequently, we may need to use voice nets or other means to collect current email addresses for relevant sites at the beginning of an event. Group email addresses for NH-ARES groups, Section leadership, and NH-BEM should be in everyone's go-kit, since those will not be as likely to change. (See the list on the next page.)

During an event, Winlink email addresses should remain unchanged if at all possible. This will eliminate confusion for Internet email users who might not be aware of an address change, due to a shift change, for example. Notification emails would have to be sent out all over again so that incoming emails would be routed correctly. This can be accomplished by using club call signs for specific locations, or by subsequent users continuing to use the Winlink email address of the first operator to begin operations at that site.

During an event, Winlink addresses/station call signs should remain unchanged if at all possible. This can be accomplished by using club call signs for specific locations, by subsequent users continuing to use the Winlink address/callsign of the first operator to begin operations at that site, or by using tactical callsign Winlink addresses that have been prearranged, using Packlink. If there is a Winlink station email address or callsign change, notification messages should be sent out again, so that incoming messages will be received.

Be sure an email address is accessible and available for use before sending it any important messages.

Winlink White List Registration

The Winlink system uses a white list of known Internet (non-Winlink) email addresses to prevent spam from entering the system. Each Winlink user has their own white list, which means each station wishing to receive email from a specific Internet email address must add them to their own white list.

To add Internet email addresses to your white list, follow these steps:

- 1) At the beginning of an event, send a startup notification message to each Internet email address.
- 2) Request a return reply acknowledgement message be sent to the Winlink email address to verify receipt and the return path.
- 3) In this email provide any information the recipient will need to authenticate the source and to generate a reply. Ask that email sent to Winlink addresses be in plain text only.

After this is done, messages should arrive quickly and reliably to that specific Winlink address.

A work-around is available for Internet users who are not yet on a recipient's White List. At the beginning of the subject line, put //WL2K. This will allow the message to be delivered without the sender's address being on the White List.

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Message Size and Attachments

Use the smallest practical file and message size to save transmission time. Messages composed using Outlook express or similar email programs should be formatted as plain text. The best way is to set the program's default to plain text.

Word processing files, spreadsheets, photos, or attachments of any significant size will tie up Winlink stations for longer periods and thereby reduce the number of messages that can be handled per hour. If either station is limited to Pactor I, a large file can take a very long time to send. For that reason, Pactor II or III should be used (if available at both ends) when large files *must* be sent. Internet email recipients should be instructed to use the same limitations in sending emails to a winlink.org address.

Message Forms

Forms such as the ICS213 General Message Form and the Seabrook 300B Situation Report may be sent as file attachments, or in text form, which may include using the alpha-numeric data block designators, one entry per line. If a form is sent in an alpha-numeric format, the receiving station should copy the text of the content of the message to the standard printed form before delivery, placing the text in the proper boxes.

A NH-ARES text file version of the ICS213 with an ARRL header is available, (ARRL-ICS213.txt,) for download on the NH-ARES website, and should be stored on all Winlink station computers. In ARRL-ICS213.pdf, a Radiogram header is appended to the top of the NOAA ICS-213 for use when the message might be relayed using voice, CW, or when the relay is not automated. These files also contain a reply message section with its own Radiogram header. (An ARES version of form 300B has not been created yet.)

Winlink Message Precedence System

The Winlink emcomm message system is set up to deliver higher precedence messages first. The Winlink precedence system is different from the ARRL/NTS system, in that it mimics the military/MARS nomenclature. State, federal, and NGO communications operators will immediately recognize these precedences. Below are examples of their use in the email subject line.

- Subject://WL2K R/ (for "Routine" Messages)
- Subject://WL2K P/ (indicates a "Priority" precedence)
- Subject://WL2K O/ (a higher "Immediate" precedence)
- Subject://WL2K Z/ ("Flash" level, the highest priority)

Special Handling for Emergency Messages and MARS Call Signs

To bypass the white list for emergency or priority messages, an Internet email user can put "//PRIORITY" or "//URGENT" at the beginning of the subject line. The white list will be bypassed and the message accepted unconditionally.

If a message is addressed to a MARS callsign Winlink address, no white list test is made, but the subject line must start with "//MARS R/" or it will be bounced. To send a message to both MARS and ham call-signs without a white list test the subject line should start with "//MARS R//PRIORITY".

Message Password Protection and Open Encryption via B2F Compression

The Winlink system allows password protection by individual users to prevent unauthorized persons from retrieving messages. Users must first configure the account (via the Internet) for password protection. This can be done with Packlink or at www.winlink.org. Caution: Access to the Internet is required to retrieve a forgotten password or disable password protection.

The B2F compression protocol used by Airmail and Packlink prevents the message text or content sent over a radio from being intercepted by any station other than the station to which the sending station is connected.

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Local RMS Packet Stations and Digipeaters

Local ARES groups are encouraged to maintain a number of 2m FM packet stations equipped for RMS Packet operation, along with any infrastructure needed to allow stations anywhere in their operational area to reach the RMS packet station. An effort should be made to put RMS Packet stations on different power grids and Internet service providers.

Ad-Hoc Point-to-Point Circuits

The Winlink Airmail program may be used to connect two stations directly together, bypassing the Winlink network. This is appropriate as a work-around when the Winlink system cannot be accessed for any reason, or when moving a large volume of messages between two points. Either HF or VHF may be used with Packet or Pactor modes.

Winlink Station List Updates

A list of the current Winlink stations around the world is at www.winlink.org. Airmail and Paclink have provisions for downloading and updating the list of Public and Emcomm RMS packet stations via the Internet. Instructions for getting these by radio can be found in the station frequency lists in Airmail. Regular Winlink users should download this list at least monthly to ensure that it is up to date when needed.

NH-ARES Email Addresses

ARES Group/Agency	Email Address	ARES Group/Agency	Email Address
Capital Area	w1cpl@winlink.org	Sullivan County	w1sul@winlink.org
Central NH	w1cen@winlink.org	West Rockingham	k1wrk@winlink.org
Cheshire County	k1chr@winlink.org	Mt. Washington Valley	k1mwv@winlink.org
Coos County	w1cos@winlink.org	RED Team	w1rtm@winlink.org
East Rockingham	w1roc@winlink.org	NH-ARES SEC	w1sec@winlink.org
Greater Manchester	k1mht@winlink.org	ACO	k1cmd@winlink.org
Hillsborough County	k1hil@winlink.org	State EOC – Winlink *	kb1cfl@winlink.org *
S. Grafton County	w1grf@winlink.org	State EOC – Internet	ares@hsem.nh.gov
Strafford County	k1stf@winlink.org		

For Winlink to Winlink messages, only the call sign is used, not the complete email address.

* This address will only be used in the rare instance that the State EOC is accessing the Winlink system via radio. Otherwise, use the State EOC Internet email address listed above. The State EOC uses hardened and redundant Internet connections.

NOTE: Verify (via the Section Net) that a NH-ARES station is on the air and actively using the Winlink system before sending it any messages. Otherwise, attempt to send messages to their Internet email address, if known. Always request a “message received” reply to verify delivery.