

SECTION 31: SOFTWARE SELECTION AND CONFIGURATION

This section will provide information about choosing and configuring the software you will use during ARES operations. See:

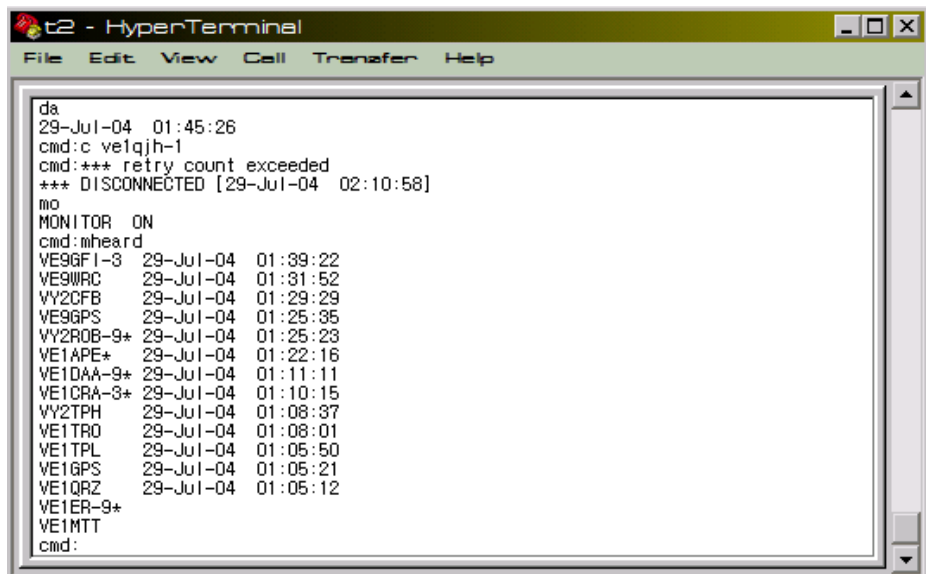
- [“Packet radio”](#)
- [“APRS” on page 31.2](#)
- [“Logging” on page 31.2](#)
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PACKET RADIO

Packet radio software can be as basic as a terminal emulation program that lets you ‘talk’ to your TNC from your computer’s keyboard, or it can be a full-featured text and file transfer program, ARES communications program, or even ‘packet node’ software.

HyperTerminal

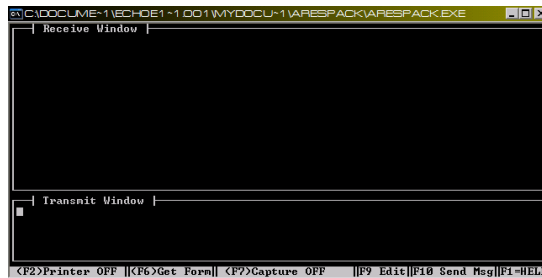
HyperTerminal is a very basic TTY program that is built into most versions of Windows. To access HyperTerminal, go into your Start menu, drag through Programs to Accessories to Communications, and then click on HyperTerminal.



```
t2 - HyperTerminal
File Edit View Call Transfer Help
da
29-Jul-04 01:45:26
cmd:c ve1qjh-1
cmd:*** retry count exceeded
*** DISCONNECTED [29-Jul-04 02:10:58]
mo
MONITOR ON
cmd:mheard
VE9GFI-3 29-Jul-04 01:39:22
VE9WRC 29-Jul-04 01:31:52
VY2CFB 29-Jul-04 01:29:29
VE9GPS 29-Jul-04 01:25:35
VY2ROB-9+ 29-Jul-04 01:25:23
VE1APE* 29-Jul-04 01:22:16
VE1DAA-9+ 29-Jul-04 01:11:11
VE1CRA-3+ 29-Jul-04 01:10:15
VY2TPH 29-Jul-04 01:08:37
VE1TRO 29-Jul-04 01:08:01
VE1TPL 29-Jul-04 01:06:50
VE1GPS 29-Jul-04 01:05:21
VE1QRZ 29-Jul-04 01:05:12
VE1ER-9+
VE1MTT
cmd:
```

ARESPACK

ARESPACK runs on a basic IBM-PC and allows you to send and receive emergency communications messages very efficiently.



ARESPACK provides online message forms that guide you through the creation of a formal message. ARESPACK also provides automatic printing, so any traffic received by your station is immediately printed on your printer without your intervention, automating incoming messaging handling.

***Note:** ARESPACK does not ‘work and play’ well with other applications that may call the serial port, and does not work at all on many newer Windows operating systems. If you are going to use ARESPACK, it is recommended that you install it on an older, surplus PC that runs Windows 95 or 98, and is not needed for other uses that will require the installation of additional software.*

APRS

Automatic Position Reporting System (APRS) software is a specific type of packet software that is used for reporting the location of a station, based on GPS coordinates. APRS may be considered for applications where vehicles or even individuals need to be tracked on an ongoing basis (for example, for tracking the locations of evacuation buses, or for mapping positions during ARES-support search and rescue operations).

LOGGING

Logging software can make it easy to enter and track traffic and communications. This has value both during and after an event.

During an event, you may be asked to confirm the transmission, receipt or status of important traffic. After an event, forensic or postmortem examination of communications logs may be very important to any investigation related to an emergency.

DATA CONVERSION

If you are given message traffic in a digital format for transmission over packet, you may need to convert that data into a format that can be used at the receiving end. (For example, you may receive a list of evacuees in an Excel spreadsheet format, but the receiving station may only be equipped to print out text files.) You may also be required under the operating rules to examine any traffic prior to transmission, to ensure that it does not contain prohibited traffic (for example, commercial traffic).

In order to convert or examine traffic that arrives at your station in the form of digital files (either from other stations or from end users at your own location), try to ensure that you have the ability to open, print and save common file formats. Common applications include MS Word, Excel, Access, and even PowerPoint.

DATA COMPRESSION

WinZip (or a compatible program) can be used to compress data files before sending them over the packet link. Since packet itself does not include any compression schemes, WinZip will be very effective in reducing the filesize and transmission time of any file. You may even choose to compress lengthy text transmissions by placing them into a text file locally, then compressing that file, and then sending the compressed file. The station at the far end must have WinZip (or a compatible program) to decompress the received file.

GPS TRACKING AND MAPPING

If you plan to use a GPS unit and laptop during emergency operations (for example, if you have a GPS/laptop kit assembled for your car), you should preconfigure your laptop with software that will allow you to capture and communicate your location, track history, waypoints, or even maps.

EasyGPS and ExpertGPS

EasyGPS is a simple but versatile application that lets your PC communicate with most common GPS receivers using a serial data port and cable. EasyGPS lets you download waypoints and routes from your GPS unit into a file that you can store or send to others. You can also use EasyGPS to receive data from others and upload it to your own GPS unit. EasyGPS is freeware, and can be downloaded from the Internet at no cost.

ExpertGPS is an enhanced version of EasyGPS that also allows you to download track data from your GPS, and overlay data on top of maps (for example, topographical or road maps) or aerial photographs. ExpertGPS is currently available online at a cost of USD \$60.

NETWORKING

Networking software allows you to plug your laptop computer into an Ethernet or wireless (Wifi) LAN at an operation site. All Windows PCs include networking software as part of Microsoft Windows.

Configuring Wifi

If you have a Wifi-equipped laptop, familiarize yourself with your Windows software and Wifi operation before you need to use it during an exercise or an emergency.

To set up your Wifi configuration under Windows 2000 and earlier versions of Windows, refer to the documentation provided with your laptop or your Wifi network card.

To set your Wifi configuration under Windows XP, go into Network Connections in the control panel and open the interface associated with your Wifi card or connection. Click View Wireless Networks. If you are in a location where Wifi is available, the wireless network will appear in the network list.

To connect to a wireless network, click on it and then click Connect. If the network is secured (for emergency sites, it should be), enter the access key in the dialog that appears. (To get the access key, check with the Site Manager.)

In most cases, your computer's TCP/IP settings will be auto-configured when you connect to the network. If you have connected to a wireless network but cannot 'see' other computers (or the Internet, if the site's wireless network is Internet-enabled), see ["Configuring network settings" on page 31.4](#).

Configuring Ethernet

If you have an Ethernet-equipped laptop, familiarize yourself with your Windows software and network configuration before you need to use it during an exercise or an emergency.

To connect to an Ethernet network, connect an RJ45 cable between the nearest Ethernet jack and the Ethernet port on your laptop. In most cases, your computer's TCP/IP settings will be auto-configured when you connect to the network. If you have connected to an Ethernet network but cannot 'see' other computers (or the Internet, if the site's network is Internet-enabled), see ["Configuring network settings" on page 31.4](#).

Configuring network settings

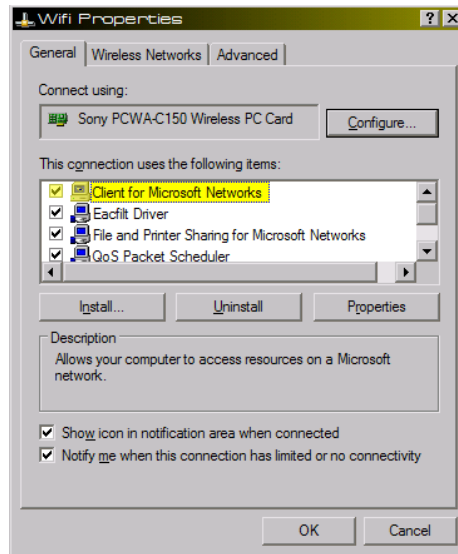
See:

- ["Autoconfiguration" on page 31.4](#)
- ["Manual configuration" on page 31.6](#)

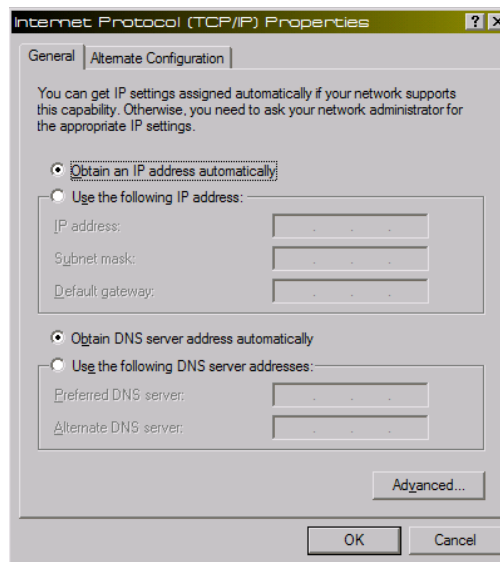
Autoconfiguration. If the site's network is set up to autoconfigure your laptop's network settings using DHCP, but your laptop does not automatically connect to the network, perform the following steps:

- 1 Open your Network control panel, or under Windows XP go to Network Connections in your control panel and open the connection associated with the Ethernet or Wifi network adapter you are trying to use.
- 2 If you see a General tab, click it.

- 3 If you see a list of connection items (as shown below), go to [Step 5](#).



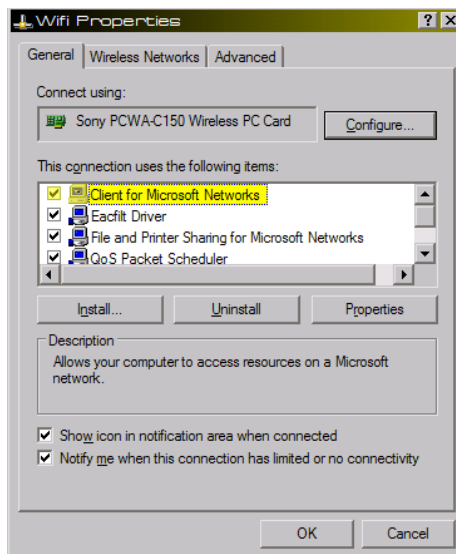
- 4 If you see a Properties button, click it.
- 5 Scroll down to Internet Protocol (TCP/IP) and select it.
- 6 Click Properties.



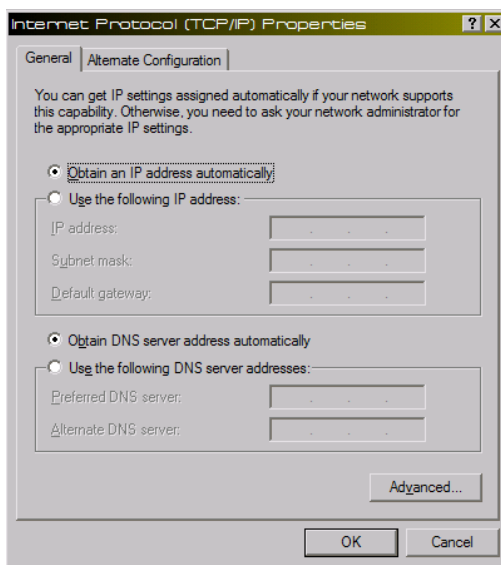
- 7 If the Obtain An IP Address Automatically radio button is NOT selected, select it.
- 8 If the Obtain DNS Server Address Automatically radio button is NOT selected, select it.
- 9 Click OK.
- 10 Click OK again.
- 11 If you are prompted to restart the computer, do so.

Manual configuration. If the site's network is not set up to autoconfigure your laptop's network settings (if DHCP is not running), perform the following steps to connect to the network:

- 1 Get network settings from the Site Manager. You need the following information:
 - IP address that you can use on the network
 - Subnet mask
 - Gateway (router) IP address
 - DNS server addresses. (If there are no DNS server addresses available, use 207.181.101.4, and 207.181.101.5.)
- 2 Open your Network control panel, or under Windows XP go to Network Connections in your control panel and open the connection associated with the Ethernet or Wifi network adapter you are trying to use.
- 3 If you see a General tab, click it.
- 4 If you see a list of connection items (as shown below), go to [Step 5](#).



- 5 If you see a Properties button, click it.
- 6 Scroll down to Internet Protocol (TCP/IP) and select it.

7 Click Properties.

- 8** Select the Use The Following IP Address radio button, then enter the IP address, subnet mask and gateway into the appropriate fields.
- 9** Select the Use The Following DNS Server Addresses radio button, then enter the DNS settings into the appropriate fields.
- 10** Click OK.
- 11** Click OK again.
- 12** If you are prompted to restart the computer, do so.