## APPENDIX A

JNOS MAILBOX USER COMMANDS

The following commands are available to the users connected to the mailbox.

This file is available separately as mboxcmds.txt.

### AREA

The Area command lists the mail areas that contain messages you may read.

- A gives a short listing, whereas
- AF gives a full listing with descriptions (if available)
- AN shows areas that have new mail since you last logged off.

To read messages in one of the areas, type 'A <areaname>'. You will then be told how many new, not previously listed messages there are in this area.

You can send mail to any of the listed areas as 'S <areaname>'

### BYE

The  $\mathbf{B}$ ye command is used to exit from the JNOS MBOX. This will close your mailbox file and remove any messages that you have deleted with the  $\mathbf{K}[\text{ill}]$  command.

#### CONNECT

The Connect command has the following modes :

```
C[onnect] [port] [callsign] [<digipeater> . . .]
```

Connects to station 'callsign' on interface 'port', possibly via digipeaters 'digipeater...' (note the use of 'via' is optional!)

C[onnect] [node]

Connects over netrom to a remote node with 'node' as either node-call or node-alias

```
CONV [<channel>]
```

This (if available) puts you in converse mode. This is a roundtable discussion feature. The 'channel' allows specifying the conference channel you wish to join. Channel default = 0.

# DOWNLOAD

D[ownload] [/][<path\_name>/]filename

Sends a plain ASCII text file.

# DM

Download the motd (message of the day) which is otherwise unavailable once you get into the mbox.

```
DOWNLOAD (continued)
```

```
DU [/][<path_name>/]filename
```

Downloads a binary file converted to UUENCODED ASCII.

You will need the "uudecode" utility to convert this ASCII file back to binary. Source code, in various languages, for uudecode can be downloaded from this system. Look for uudecode.bas, uudecode.pas, and uudecode.c.

The optional path\_name may be included along with the filename if the desired file is not in the current directory (you can determine this using the  $\mathbf{W}[\text{hat}]$  command). Please note that the character used to separate the path and filename is a "/" (forward slash).

## **ESCAPE**

The escape command, when entered by itself, will display the character that is current set as the escape character, and whether escape processing is enabled. This character is what will be used if you want to exit from the current session. For instance, if you have started a "chat" session, and you don't get a response from the operator after waiting a few minutes, you can enter the escape character, followed by a <RETURN> or <ENTER>, and the session will be terminated. You will then be returned to the MBOX prompt.

```
E[scape] [<char> | <integer> | off|on]
```

The escape character may be changed to one of your preference by entering "escape" followed by a <SPACE> and the character that will become the new escape character. This must be a single typed character (the <CTRL> key may be used in addition). Alternatively, an <integer> corresponding to the decimal code for the escape character may be specified. Escape processing can be enabled or disabled by specifying "on" or "off" as the only argument.

# examples

```
escape ^Z (the ASCII character <CTRL>Z)
escape X (the character "x" is the new escape)
escape 120 (the character "x" is the new escape)
escape off (suspend escape character processing)
escape on (resume escape character processing)
```

### FINGER

The finger command retrieves personal information about users of a system.

# **F**[inger]

Displays a list of known users on the current system.

```
F[inger] [<user_name>]
```

Displays information about if and when the user last logged in, as well as any information which may be set in the user's finger-file.

# FINGER (continued)

F[inger] [<user\_name>][@<host>]

Perform the same functions detailed above on another TCP/IP host connected to the network.

To get a list of the users on a remote system, enter "finger" followed by a <SPACE> and an "@", then the host name. To get information about a remote user, insert the user name before the "@" character.

## examples

finger f sysop	list the known users on this system list info about the local user "sysop"
f @wg7j	list the known users at host "wg7j"
f johan@wg7j	display info about "johan" at host "wg7j"

f help[@jnoshost] shows which pseudo-user names are available for obtaining JNOS system info via finger command.

### HELP

Get on-line assistance for user commands

?

Displays a list of the commands that have help descriptions available :

area	bye	connect	download	escape	finger
help	info	jheard	kill	list	mboxuser
nodes	nroutes	operator	ports	read	send
telnet	upload	verbose	xpert	what	zap

Then you can use 'H <command>' to display help for a specific command.

For example, to display the help text for the command 'connect', use :

h connect

### **IHEARD**

The IHeard command shows the tcp/ip systems recently heard.

I[heard]

Show tcp/ip activity for all ports.

I[heard] [<port>]

Show tcp/ip activity for <port>.

For ax.25 interfaces (ports), show all tcp/ip activity heard, even when this system was not involved in it. For other interfaces, show those systems that we actively routed packets for (i.e. systems that talked to us.)

### INFO

Sysop-supplied site information.

### **IPROUTE**

Shows the available TCP/IP routes the system has configured. It shows the interfaces and gateways involved in the routes, and expiration timer - if applicable. This could be a LONG list if the system has a lot of ip routes.

Please ask the sysop for more about the information given in the display.

### **JHEARD**

The jheard command will display a list of all the station callsigns that have been received as sending packet traffic on the channel, the time since the station was heard last, and the total number of packets received.

**J**[heard]

Displays the "heard" list for all interfaces.

**J**[heard] [<port>]

Displays a list of the stations heard on a particular channel. See the Ports command for determining which channel is heard on which port.

Warning: if this system has been on the air for very long, and the channels are very active, the "heard" list could be extremely long.

# KILL

The kill command allows you to delete messages from the current mailbox (if you have been given that permission by the operator).

K[ill] <message\_number\_or\_range> [<message\_number\_or\_range> . . .]

At least one message number must be supplied. The message numbers you can select from can be displayed with the "L[ist]" command. The second parameter on each line of the list is the <message\_number>, for which you can specify a range of message numbers by placing a "-" between the first and last message numbers of the range. No intervening spaces are allowed. For example, 4-7 is equivalent to 4 5 6 7.

KM will delete all messages in the area.

KU will un-kill a message that was previously marked for killing.

KA will delete all messages in the area.

The kill command allows you to delete messages from the current mailbox (if you have been given that permission by the operator). At least one message number must be supplied. The message numbers you can select from can be displayed with the  ${\bf L[ist]'}$  command. The second parameter on each line of the list is the <message\_number>. The kill command only applies to messages in the current mail area. The current mail area can be checked and modified with the  ${\bf A[rea]'}$  command.

### LIST

Prints a list of the messages from the current mailbox (or "area"). For each message, the list contains the subject header line, the time and date it was created, who it is from, how many bytes long it is, and whether or not it has been read.

L[ist] [<starting\_msg\_number> [<ending\_msg\_number>] ]

You may include an optional "starting\_msg\_number" from which to begin displaying the list. If you specify a starting msg number, then you may also specify an ending number as well. This will limit the display for you in case there are a large number of messages in a particular "area" mailbox.

 ${f L}$  - by itself will display the headers for all unread messages, if any.

LA - list all messages, read or unread

LL - display the last <number> of message headers.

LM - is the same as 'L'

LB - list all bulletins

LS [subject]

List messages in the current 'area' where [subject] is in the subject line.

LT - list all traffic

L> xxx

List all messages that have the string 'xxx' in the To: address field including numeric strings.

# L< xxx

List all messages that have the string 'xxx' in the From: address field including numeric strings.

### MBOX

Display mailbox user information.

### M

Display a list of all the current users, how they connected, and their current activity.

MC <path, area> (sysop)

Copies the current message to the path or area indicated. This command accepts a range of messages, e.g., mc 5-26 junk will copy messages 5 through 26 to area 'junk'.

MBOX (continued)

### ML

List all past users of the system, when they were last on and how many times they've connected.

ML n will show the last n users of the system

ML call will list when 'call' last logged in

MM <path, area>

(sysop) moves the current message to the path or area desired. This command accepts a range of messages, e.g., mm 5-26 junk will move messages 5 through 26 to area 'junk'.

### MS

Gives some info on the number of messages handled since the system has been up, as well as free memory, and the uptime of the system.

## NODES

Display information on Netrom Nodes.

#### N

Prints a list of NetRom nodes that are known to this system and for which the nodeids do not begin with '#'.

### N \*

Displays information on all known nodes including "hidden" nodes (those with IDs beginning with '#').

N <nodename>

Displays information about routes (paths) available to <nodename>.

## NR[oute]

This command lists all known NetRom neighbor stations, with a listing of the path quality to them, number of destinations the neighbor knows and the obsolescence count.

A '>' in front indicates that the route has been used in the past 60 seconds.

# NRR

This is a new command and is only available in JNOS 2.0, not earlier versions of JNOS. This can be thought of as a traceroute for netrom networks. If you want to view the round trip path to a specific node, you can use the NRR command to display this information. Syntax is :

NRR <callsign of remote netrom node>

## NRR (continued)

Note, you might get \*empty\* nodes in the displayed path, since not all systems in between may support these operations. For example :

```
Area: ve4klm (#1) >
nrr on6dp
Area: ve4klm (#1) >
*** route: VE4KLM VE4WSC WA7V-2 ON6DP* WA7V-2 * * VE4WSC VE4KLM
Area: ve4klm (#1) >
```

### OPERATOR

This command allows you to "talk" keyboard-to-keyboard with the operator of this NOS system if the system is attended.

When you wish to terminate the chat session, type the escape character on your keyboard, and then press <ENTER> or <RETURN>. The default escape character is "CTRL-X", which means to hold down the <CTRL> key and press the <X> key simultaneously. This escape character may be changed to whatever you prefer by using the "E[scape]" command.

### PING <host>

Check of <host> is alive. Returns a RTT value.

#### PORTS

This command displays a list of AX.25 and HFDD (jnos 2.0 only) interfaces installed in this system. A description of the port is also given if one has been setup for that port. The AX.25 ports can be used to make outgoing AX.25 connections with the "C[onnect]" command.

# QUERY

 ${\bf Q}$  <call> [<call> . . .] If available, this queries the BuckMaster CDRom callbook server for info about the calls given. More then one call per query is allowed.

## READ

Read a message (or messages) from the current mail area.

### #

```
R[ead] #
```

```
R[ead] <msg_number_or_range> [<msg_number-or_range> . . .]
```

To read a specific message, you may either type "read #" or just the number by itself. If there is a specific list of messages you are interested in (determined by the use of the  $\mathbf{L}[\text{ist}]$  command, for instance), you can enter the list of message numbers (separated by spaces) on the "read" command-line. You can also simply advance sequentially through the messages by just pressing the <ENTER> or <CR> key. This will display the next message in order. The "read" command displays only an abbreviated portion of the mail headers. If you want to display all the header lines, use the  $\mathbf{V}[\text{erbose}]$  command instead.

```
READ (continued)
```

RM display without interruption all unread messages.

## examples

```
read 3 5 Display only messages 3 and 5 4 Display message 4 <Enter> Display next message
```

#### SEND

The send command allows you to enter a message and send it to a user at either this system, or some other system on the network. The "from\_addr" and "bulletin\_id" fields are for special use and won't be covered here. The "S" command may also be followed by "P", "B", or any other message type you use (e.g. SP wb7xxx @ n7xxx). The "SR" command allows you to "reply" to either the current message or the message number specified. The "ST" command allows you to send "traffic" to <user> specified. The subject will be copied and the reply will be sent to the address it was sent from. The "SF" command will forward a copy of the current message to the user specified. SC allows you to send a message to more then one user. The system will prompt with "Cc: ", which allows you to add more users to be send Carbon copies of the message. Separate users on the Cc line with commas.

```
S[end] <user>[ @ <host>] [< <from_addr>] [$<bulletin_id>]
```

**SR** [msg\_number]

SF <user>[ @ <host>] [< <from\_addr>] [\$<bulletin\_id>]

sc

ST

**SB** <user>[@<host>]

Send a bulletin. As above, but ANY <user> may read the message from the mailbox. <User> is usually a category rather than an individual stationid when sending bulletins.

```
SP <user>[ @ <host>]
```

Send a personal mail. As above, but only the addressee (<user>) may read the message from the mailbox.

```
SR [msg_number]
```

Send a "reply" to either the current message or the message number specified. The subject will be copied and the reply will be sent to the address it was sent from.

```
SF <user>[ @ <host>] [< <from_addr>] [$<bulletin_id>]
```

Forward a copy of the current message to the user specified.

```
SEND (continued)
```

```
SC <user>[ @ <host>] [< <from_addr>] [$<bulletin_id>]
```

Send a message to more than one user. The system will prompt with "Cc: ", which allows you to add more users to be sent 'carbon copies' of the message. Separate users on the Cc: line with commas.

## examples

send kf7xx	Send a message to the local user, kf7xx.
s kf7xx @ wb7xxx	Send a message to kf7xx at the wb7xxx host.
sr 3	Reply to message number 3.
sf n7aaa%n7bbb@w7ccc	Forward current msg to n7aaa at n7bbb via w7ccc.
sc wg7j	Send with Carbon copy to others, asks for CC, for example -> Cc: ka7ehk, n7dva@n7dva

### TELNET

The telnet command allows you to initiate a TCP connection from the NOS mailbox out across the network to another host. This allows an AX.25 user with nothing more than a terminal and TNC to gain access to the TCP/IP network.

```
T[elnet] <hostname> [<port_number>]
```

By including the optional port\_number, you can connect to any TCP server at the given host. The default is to be connected to the "telnet" server, which in the case of JNOS software, is the MBOX. To quit the session at any time, enter the escape character - <CTRL>X by default, can be changed with the E[scape] command.

## UPLOAD

```
U[pload] [/][<path_name>/]<filename>
```

Transfer an ASCII file from your system onto disk at this host. You may also specify a full path\_name containing a specific directory in which to deposit the new "upload". All uploads can only go into the directory that you logged into, or into another directory under the current one. The transfer proceeds line-by-line until the file is sent and you enter either a "<CTRL>Z" or "/ex" as the first item on a blank line.

# examples

```
upload kepler.txt
u /public/satelite/oscar13.txt
```

### VERBOSE

This command allows you to read a message (or messages) from the current mail area, and it includes all the header lines for display. The R[ead] command operates the same way, but with abbreviated header lines.

V[erbose] <msg\_number\_or\_range> [<msg\_number\_or\_range> . . .]

View a specific message or a list of messages with all headers.

### VH

'verbose held' is verbose-read-held mesages (sysop only).

### VM

'verbose mine' Display, without interruption, all unread messages in the area.

## WHAT

W[hat] [/][<path name>]

Generate a sorted directory listing of the current directory or the one specified by the optional path\_name. The listing includes the filename (or subdirectory name if there is a "/" appended), the file size in bytes, creation time, and date.

# examples

what Displays a directory listing of the "current" directory.

w /nos/pub Display a list of files contained in the "/nos/pub" directory.

# XPERT

The  $\mathbf{X}$ pert command toggles the prompts that the system gives.

- ${f X}$  toggles the prompt between using long and short prompts.
- XA toggles the 'current area' indication on or off.
- XG effective with 1.11a, addr/#bits establishes an encapped route for addr, if permitted.
- XN toggles the 'netrom id' prompt on or off
- XM shows the number of lines before -more- prompting occurs in lists
- XM n sets the number of lines ...
- XP toggles LINEMODE-style prompting for input (telnet/tip users).
- XR shows if 'Reply-to' line is added when sending mail. You need
  to have set an email address when you R(egister)ed.

The states of the above are remembered at logout and used at next login.

# **XPERT** (continued)

The  $\mathbf{XG}$  command, when allows by the  $0 \times 2000000$  permission bit in ftpusers, lets the sender register as a gateway for the indicated host or subnet, for a period of time. This could be used by systems connecting with a dynamic IP address, to facilitate tcp forwarding of bulletins.

### ZAP

Delete a file in the current directory.

Z[ap] [/][<path\_name>/]<filename>

The zap command allows you to delete a file in the current directory of one you specify with the optional path\_name. Use of this command requires that permission be granted by the operator of this system.

# examples

zap myfile.txt Deletes myfile.txt in the current directory.

z /nos/mydir/myfile.txt Deletes myfile.txt in /nos/mydir directory.