N0ARY BBS
Reference Manual
Version 2.1

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The N0ARY BBS program runs on a Sun Sparcstation 2 running Sun OS 4.1.1 (Unix). The computer has 64 Mbytes of RAM and over 1 Gbyte of hard disk. Callbook information was downloaded from a CD ROM and stored on the bard disk system.

Antenna: Comet tribander VHF/UHF   CX-333 (2 M, 1.25 M, 70 cm) with Comet Triplexer CFX-324, at 10 feet above average terrain. Feed line: Belden 9913 coax, silver-teflon PL-259 connectors.

Location: Mt Umunhum, 37.159938° N, 121.908315° W, 3323 ft ASL

50.60 MHz
        Motorola low-band, model T81JJA3900DK, 110 W output
        TNC: PacComm Spirit-2, 9600 baud
        FM deviation 3.0 kHz
144.93
        Yaesu FT-212-RH, 40 watts output
        TNC: PacComm Tiny-2 MK-2
        FM deviation: 3.2 kHz
223.60
        Kenwood TM321A, 23 watts output
        TNC: PacComm Tiny-2 MK-2
        FM deviation: 3.3 kHz
433.37
        Tekk KS-1000, 4 watts output
        TNC: Spirit-2, 9600 baud
        FM deviation: 2.6 kHz

The BBS is supported in part by the Santa Clara County Amateur Radio Association, SCCARA. The bbs is operated at no charge to the users.

Weather station atop Mt. Umunhum is owned and operated by BAYCOM, who graciously allow the bbs to extract weather data. The N0ARY BBS performs the housekeeping function of clearing high/low memories at the end of the day.

The users of the BBS were instrumental in its development. From design suggestions to the editing of the manuals. In particular a few deserve extra note for their efforts: N6QMY, K6GSJ, WB6RIG, N6FW, WA6GXI, WA6WEB, N6WHO for ideas and testing. N60JV, N6UVY, N6UNE for their work with the manuals. N6ZF3 for design, implementation and putting up with it.

Table of Contents

Introduction

This is the "N0ARY BBS Reference Manual." It lists all the commands in the system by command and assumes you are familiar with the workings of the BBS in general. If you are not yet comfortable with the BBS you should review the "N0ARY Users Guide."

1.1 How to read the manual

The BBS is very flexible in how it accepts commands from the user. You can either spell out the command or provide enough letters to identify the unique command. For instance the command HOMEBBS can be shortened to HO, or anything in between. This is necessary to be able to distinguish HOME from HELP. This manual will indicate the significant letters by placing them in a slightly larger font and making them bold.

HOMEBBS
HELP

The manual will show keywords and commands in upper case. This is just for clarity in the manual. The BBS is actually case insensitive with respect to these commands and keywords. Lower case words are an indication that you are to supply something in their place. For instance to change your first name in the system you will use the following command:

FNAME name

You will of course substitute your name for the word name. Many commands have parameters that are optional. These are shown enclosed in square brackets []. In most cases if the option is not supplied the BBS will assume a value for the option. A good example is message numbers. These are almost always optional. If a message number is not supplied the BBS will assume you want do the operation to the last message number you entered. We will show you examples of this later in the manual.

READ [**H**EADER] [msg_num_list]

Notice in the example the term "msg_num_list" this indicates that not only can you optionally choose to not supply the message number but you may also specify a list of numbers to read at once. This list can be separated by spaces or commas. Examples of each command will likely be shown to illustrate the different forms of the usage:

READ 1820	{**R** 1820}
READ **H**EADER	{**RH**}
READ 1823 1845 **H**EADER 1900	{**RH** 1823 1845 1900}

R HE18OO   {**RH** 1800}

The flexibility in the parser allows you to enter keywords basically anywhere in the command string. In the example above the keyword HEADER could appear anywhere on the line.

1.2   Who said what?

This manual uses examples to illustrate the usage of commands. When an example is used it will be enclosed in a box. The part that the user types will be displayed in bold and the BBS's responses and prompts will be in normal type. The font used will also be unique to further set the examples apart.

```
N6ZFJ de N0ARY [1876]>
SP N6UNE
       Home BBS: N0ARY.#NCA.CA.USA.NOAM
Subject: Meeting tomorrow?
Msg (/EX /AB /IN /CC /NU /ED /AD /K):
Are we still on for the club meeting tomorrow?
73, Connie
/ex
Message #1899 to N6UNE stored
N6ZFJ de N0ARY [1899]>
```

2 Commands

The BBS currently has about 90 commands that can be entered at the prompt. There are close to 300 keywords that are context sensitive. Some apply to multiple commands and often a keyword can mean different things depending on the command it is applied to. Please refer to this manual when keywords cause unexpected results.

2.1 The command parser

The command parser in use in this system has a couple of features that make it very simple to use. First you don't have to type the whole command to get the expected results. You do have to type enough that the BBS will be able to distinguish it from other commands. Second, you can place multiple commands on the same line by separating the commands with a semicolon.

Each command consists of a operation and modifiers to the operation. Some modifiers (keywords) work on multiple commands. And often the amount of the keyword that you are required to type will vary depending on the context of it's usage. To be safe always type a little more than you figure is necessary.

LIST **P**ERSONAL	formal command
LIS **P**ER	
L P	

All of the above are equivalent. In some cases the BBS will support the W0RLI form of the command. Use of these forms is discouraged because they are restrictive and non-intuitive. An example of such a command, used to reply to a message, is shown below.

REPLY #	formal form
REP #	abbreviated form
SR #	W0RLI compatibility
SEND **R**EPLY #	also supported, i.e. **SR**

As you can see the parser will make every attempt to figure out what function it is that you are trying to request. Be careful that if you do supply more letters than the minimum necessary that you continue to spell correctly. If we use the LIST PERSONAL command for an example.

LIST PERSON	OK
LIST **P**	OK
LIST PERSONNEL	not what you might want

The parser will attempt to match the entire word you supply. In the final example the BBS would show you all the

messages that contain the word "personnel" it their subject lines, instead of personal messages.

As stated earlier, you may request multiple commands in a single command line by placing semi-colons between each formal command.
LIST **L**AST 100 SALE; **R**EAD **M**INE; **K**ILL **M**INE

2.2 Commands

The following pages contain the entire command set of the N0ARY BBS.

ACTIVATE

Usage:

      ACTIVATE [msg_list]

Description:

      This command is used to remove a HOLD from a message or restore a message that has been killed. A HOLD can be applied to a message either by a SYSOP or automatically by the BBS if a problem is detected in the addressing of the message.

      This command can be executed from normal users mode but the sysop will be prompted for the password.

Example:

      ACT 1456 1478 1465

See Also:

      HOLD, KILL

BYE

Usage:

      BYE
      BB

Description:

      This command causes the BBS to perform a graceful exit and disconnect. It is greatly preferred over disconnecting from the users end., otherwise the BBS will continue attempting to communicate with the user for some time.

Sysop:

      This command is also used to exit the sysop mode and return to that of a standard user. Use BB to exit completely when in sysop mode.

CD

Usage:

CD [path]

Description:

All the file system commands; READ, WRITE, IS and DIR operate with respect to a current directory. The change directory (CD) command is used to change this directory.

The CD command without an argument will tell you what directory you are currently in. When you first enter the BBS you are in the BBS home directory.

Example:

CD
Display your current working directory.

CD BBS.help
Change directory to "BBS.HELP" which must be directly below your current directory.

CD . .
Change directory one level back toward the home directory.

CD /
Change directory to the home directory, where you were located upon login.

See Also:
READ, WRITE, IS, DIR

CHECK

Usage:

> **CH**ECK
> **CH**ECK **I**N #
> **CH**ECK **O**UT #

Description:

The check in and check out commands are used in the delivering of NTS messages. When you choose to deliver an NTS message you READ the message and make a hard copy. You then tell the BBS you wish to deliver it by typing CHECK OUT. This hides the message from other users but doesn't delete it.

If the message was undeliverable and you wish to return it to the system for someone else to deliver, simply type CHECK IN #. The BBS will then "un"hide the message, making visible to everyone.

If the delivery was successful you need to delete the message on a subsequent login. This command allows our NTS manager to see just who the dedicated individuals are that help deliver the health and welfare traffic.

To display what messages you have checked out you can either issue the LIST CHECK, or simply CHECK with no arguments.

Example:

> **LIST NTS**
> **READ 1435**
> **CHECK OUT 1435**
> > The message now appears to be deleted from the average users point of view. But if the message has to be put back on the system you can do it yourself, unlike restoring killed files which must be done by a sysop.

> **LIST CHECK**
> **CHECK IN 1435**
> > The LIST CHECK will display the message checkout to you. Once the message number is determined use CHECK IN.

See Also:

LIST NTS, LIST, CHECK
files in /NTS/*

CLEAR

Usage:

      CLEAR [**AL**L|callsign] keyword
      CLR [**AL**L callsign] keyword

Description:

      Each user has an account on the system. Individual accounts are modified with the commands FNAME, LNAME, QTH, CLUBS, SKIP, MACRO, HOMEBBS, etc. Sysops use this command and it companion SET to manipulate another user's account.

      To manipulate another account, you must first focus the BBS on that account. This is done by issuing a SET or CLEAR with the call sign of the user. From then on, all SET and CLEAR operations will apply to that account.

      CLEAR is applicable to a subset of the user account commands. The valid keywords are:

APPROVED	user is suspect, SET SUSPECT
CONSOLE	inhibit login via console
FAST	inhibit login via high speed modem
MOTD	force display of MOTD on next login
NEWLINE	do not force a newline to proceed prompts
NONHAM	restricted privileges
SLOW	inhibit login via slow modem, 12/24 baud
SUSPECT	user is ok, SET APPROVED
SYSOP	inhibit user sysop privileges
TNC144	inhibit login via 2 meter, standard user
TNC220	inhibit login via 220, BBS forwarding
TNC44O	inhibit login via 440

      A user account that is marked SUSPECT or NOT APPROVED will be allowed to send messages. However; if the message is directed off BBS it will be held for review by a sysop before it is allowed to leave the system.

      Typing SET or CLEAR with no operands will display the focused users account just like typing WHO CALLSIGN. This is a way to verify that you are altering the correct account.

Example:

      CLR ALL MOTD

          When the message of the day is changed, issuing this command will force it to be displayed to all users on their next connect.

      CLR N6ZFJ FAST SLOW

          Restrict N6ZF3 from connecting via either phone line.

CLUBS

Usage:

> **CL**UBS [**ADD**|**DEL**ETE|+|-.] word_list
> **INC**LUDE [ADD|DELETE|+|-] word_list

Description:
> The CLUBS/INCLUDE field is used to specify words for selection from the TO or AT field of a message in conjunction with the LIST command. A user can request that the BBS list all messages relating to these topics with the LIST CLUB command.
>
> Each user can define 20 of these words.
> The CLUBS and INCLUDE commands are synonymous. Words are either added to the list or removed from it depending on the last ADD/DELETE token passed.

Example:
> > Assume that the CLUBS field begins as "SPECS ARES LERA AMSAT'"
>
> **CLUBS DEL ARES SPECS ADD WVARA**
> > Following the above command the CLUBS field would be defined as
> > "LERA WVARA AMSAT."

See Also:
> LIST CLUB, SKIP, EXCLUDE, WHO, ME

COMPUTER

Usage:

       COMPUTER [your_computer]

Description:
       The BBS keeps a small database of each user. Some of the items pertain to the equipment used for packet. The goal of the database is to allow sysops to put new users in touch with experienced users that share similar setups.

       This field is for declaring what computer you are using to host your packet activities. If you don't use a computer but instead a dumb terminal indicate that here.

Example:
       COMP Compaq Deskpro 386/25

Notes:
       Since the contents of this field can contain any characters, the parser does not attempt to decode anything past the COMP command. Therefore you cannot embed a semicolon to chain commands. The semicolon will end up as part of your computer field.

See Also:
       EQUIPMENT, RIG, SOFTWARE, TNC, WHO, ME

COPY

Usage:

> **CO**PY [msg_nurn] call[@ home BBS]

Description:

The copy command allows the user to forward a message to another user. One disadvantage to this is that the final recipient does not know the true path that a message took to arrive.

If you are entering a message and wish to send it to multiple people it is preferable to use the ICC option while typing in the message body.

If there is a currently active message number then one doesn't need to be provide here.

Example:
COPY 1324 N6ZFJ @ N0ARY

See Also:
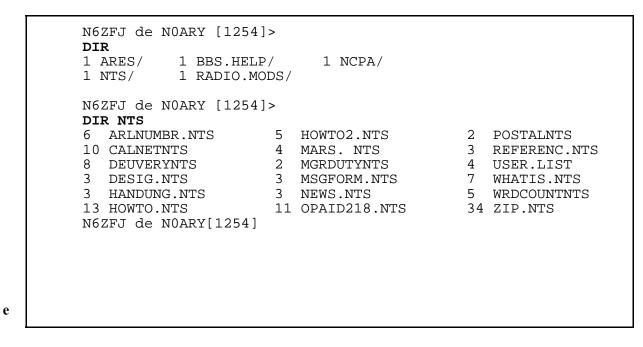SEND (/CC), SEND (/IN), REPLY

DIR

Usage:

> **DIR** [path]
> **LS** [path]

Description:

The DIR and IS commands are identical in function. They will display a file system directory of the current working directory or an optional path, if supplied.

In the listing, subdirectories will show up a "subdir/" and the size of each file is shown beside it in kilobytes.

Example:

```
        N6ZFJ de N0ARY [1254]>
        DIR
        1 ARES/     1 BBS.HELP/      1 NCPA/
        1 NTS/      1 RADIO.MODS/

        N6ZFJ de N0ARY [1254]>
        DIR NTS
        6   ARLNUMBR.NTS      5  HOWTO2.NTS        2   POSTALNTS
        10 CALNETNTS          4  MARS. NTS         3   REFERENC.NTS
        8  DEUVERYNTS         2  MGRDUTYNTS        4   USER.LIST
        3  DESIG.NTS          3  MSGFORM.NTS       7   WHATIS.NTS
        3  HANDUNG.NTS        3  NEWS.NTS          5   WRDCOUNTNTS
        13 HOWTO.NTS          11 OPAID218.NTS      34  ZIP.NTS
        N6ZFJ de N0ARY[1254]
```

**S e e
Also:**

READ, WRITE, CD

EDIT

Usage:

> **ED**IT [#]

Description:

> This command is only valid on NTS messages. It allows the deliverer of an NTS message to re-address a message that was undeliverable as addressed. This is designed to save the effort of typing it back in by hand with the proper address.

Example:

```
        N6ZFJ de N0ARY [1045]>
        LIST CHECK
        NTS message checked out to N6ZFJ:
        1025 => OTC MTN VIEW, CA 415/965
        N6ZFJ de N0ARY [1045]>
        EDIT 1025
        To [90404 @ NTSCA]? 94086
        Sub [QTC MTN VIEW, CA 415/965]? QTC Sunnyvale, CA 408/749
        N6ZFJ de N0ARY [1025]>
```

> If the field is not in error, you can keep the original contents by just typing only a carriage return. The text found in the square bracket "[]" is the default value for the field.

See Also:
> LIST NTS, LIST CHECK, CHECK

EDIT

Usage:

> **ED**IT [#] keyword [value if applicable]

Description:

This command allows the sysop to alter virtually any field in the message directory structure. This structure controls how the BBS will treat and process a message.

Function will be interactive if the keyword is omitted.

The keywords can be any of the following list:

PERSONAL	change to personal message
BULLETIN	change to a bulletin
NTS	change to NTS
SECURE	change to secure
BID string	apply a bulletin ID to the message
SUBJECT string	supply a new subject
FORWARD bbs list	set forwarding to call sign list
FWD bbs_list	same as FORWARD
! word	set message to secure and apply password
> word	set the TO address field
@ string	set the AT address field
< word	set the FROM field
$ string	same as BID

Example:

> **LIST HELD**
> **EDIT 1675 @ USA**

An example for the use of this command is changing US mail to USA. The BBS automatically places all WW mail on hold until a sysop reviews the message and determines if WW is appropriate. The sysop can re-address the AT field as shown.

Sysops:

If you see a message that is questionable, do something about it. As a minimum, place the message on hold. This will take it out of circulation, hiding it from the general public.

For messages that are improperly addressed, i.e. WW, leave the message on hold and send a short message to the sender explaining the problem with WW mail. In all the cases so far, the users just didn't know and happily agreed to having their messages re-addressed to something more appropriate.

E-MAIL

Usage:

> **EM**AIL
> **EM**AIL [your_e-mail_address]
> **EM**AIL ON|OFF

Description:

> This command sets or shows your e-mail address.
>
> If you have an email address that is in some way accessible from the internet, you can have your mail forwarded from the packet system to your email address. First you must tell the bbs your email address, for example:
>
> **EM**AIL bob@arasmith.com
> **EM**AIL 1432587@mcimail.com
>
> Now you have to instruct the system to start forwarding your mail. You can enable and disable this forwarding without changing your address.
>
> **EM**AIL ON
> **EM**AIL OFF

Note:

> As of this writing the email function on the BBS system had to be turned off to prevent problems from spammers. It may be turned on at some time in the future.

EQUIPMENT

Usage:

    EQUIPMENT

Description:
    The user can request that the current contents of his equipment database be displayed with this single command. It is simply a subset of the ME command which is used to display the entire user account.

See Also:
    ME, WHO, RIG, TNC, COMPUTER, SOFTWARE

EVENT

Usage:

> **EV**ENT [mo/yr] [# **D**AYSI# **W**EEKSI# **M**ONTHS] [word_list] [**NOP**ROMPT]
> **EV**ENT **ADD**
> **EV**ENT **DEL**ETE #
> **EV**ENT #

Description:

The event calendar is used to keep track of important amateur radio events that might effect the general ham public, flea markets, exam dates, club meetings, etc. You access the events calendar in a method very similar to reading messages. First get a listing of current events m the time frame of interest, and then request the event be displayed in detail by number.

```
N6ZFJ de N0ARY>
EVENT
2  03128191 Thu 18:00 LERA ARC club meeting @ Sunnyvale, CA
23 04/06/91 Sat 08:00 HAMS & HACKERS SWAPMEET @ HANFORD, CA
1  04/06191 Sat 09:00 NARCC meeting @ Sunnyvale, CA
11 04/07/91 Sun 07:00 Livermore ARC swap meet @ Livermore, CA
17 04/13191 Sat 08:00 Foothill Flea Market @ Los Altos Hills, CA
3  04/18191 Thu 19:30 WVARA club meeting @ Los Gatos, CA
```

Each event has a list of keywords, up to a maximum of 20, that can be used to select events of interest during event requests.

```
N6ZFJ de N0ARY>
EVENT 2
=====================================
Date: Thu28 Mar 91 18:00
Event#: 2
Title:     LERA ARC club meeting
Location:  Sunnyvale, CA
Keywords:  LERA LARC
-------------------------------------------------------------

The subject and speaker for the month will be ATV operations from
the club shack with Bob WB6DYW. Dinner at 17:00 at the Roundtable
Pizza Parlor in the Town and Country Center off Washington in
Sunnyvale.
```

Events can be deleted by anyone.

Example:

EVENT

> This will display all the events that are occurring in the next 60 days. You can limit the types of events displayed by supplying keywords.

EVENT FLEA SWAP

> The time frame of the request can be skewed and adjusted in steps of DAYS, WEEKS or MONTHS. You can change the start date of the range by supplying a month and year.

EVENT 8/91

> This command will list events registered for the time frame 8/1/91 thorough 9/30/91.

EVENT 6 WEEKS
EVENT 3 MONTHS

> The range can be changed by specifying a value and a keyword indicating what the value represents.

EVENT 2/92 10 WEEKS SPECS ARES RACES

> And of course the requests can be compounded. The above example will list all the events that are planned to occur between 2/1/92 and 4/15/92 that relate to either SPECS, ARES or RACES.

> The following is an sample session showing how to add an event to the calendar.

```
EVENT ADD
Enter event date (mo/da/y/r):
9/15/91
Enter event time (hr:mn):
15:30
Title:
Sunnyvale EC meeting
Location (City, ST):
Sunnyvale, CA
Keywords (flea exams specs etc.):
SPECS ARES SARES
Enter event description (/AB /EX /NU /ED /KI /AD /?):
We are planning to have a meeting of all the Sunnyvale EC's and AEC's to
discuss the upcoming city drill. Meeting will be at the Public service
building.
If you can't attend please let someone know.
/ex
Event #45 [9/15/91 15:30 Sunnyvale EC meeting @ Sunnyvale, CA] stored.
```

It is very important that you choose your keyword wisely, otherwise your event will be lost in the pack and will not be seen by those that have an interest.

EVENT DELETE 45

> To delete an event you need only know the event number. The BBS will show you the event and ask you to confirm the request before actually executing the delete. The delete is not recoverable as in the case of messages.

EXCLUDE

Usage:

> **SK**IP [**ADD**|**DEL**ETE|**+**|**-**] word_list
> **EX**CLUDE [**ADD**|**DEL**ETEI|**+**|**-**] word_list

Description:

The SKIP/EXCLUDE field is used to select certain words for exclusion by the list command if they appear in the TO or AT field of a message. The LIST ALL command will have to be used to see these messages.

Each user can define up to 20 of these words.

The SKIP and EXCLUDE commands are synonymous. Words are either added to the list or removed from it depending on the last ADD/DELETE token passed.

Example:

> **SKIP ARES AMSAT**
> This would add the words ARES and AMSAT to your exclude list. Note that the default is to add the fields.

> **SKIP DELETE ARES**
> Remove the word ARES from your exclude list. You can do both adds and subtracts in a single command.

> **EXCLUDE DEL ARES SPECS ADD WVARA**
> This command would delete ARES and SPECS and add WVARA

See Also:

CLUB, INCLUDE, WHO, ME

FNAME

Usage:

> **FN**AME
> **FN**AME firstname

Description:
> This command is used to display and alter what the BBS has recorded as your first name. On your original login the BBS checks both the existing White Pages database as well as the online call book to see if you are known. The BBS will fill in the appropriate fields with the information if it is found. If you prefer a different first name than the one you put on your 610, then you can specify that here.

Side effect:
> Every time you change the contents of this field a WP update is queued for your account.

Example:

> **FNAME Bob**

See Also:
> ME, WHO, LNAME, HOMEBBS, WP, QTH, ZIP

F>

Usage:

> **F>**

Description:

This is the reverse forward command/prompt issued by another BBS when it is requesting its mail. This command should never be issued by a user and will cause the user to be disconnected if no mail is pending for him.

HELP

Usage:

HELP
HELP 0111213
HELP command|keyword

Description:

The help command is used to obtain help on commands or keywords that you may not understand and to change the level of help messages that you receive. The question mark can replace the command word HELP in all of these commands.

This BBS supports 4 different help levels. Each user is originally setup for help level 3. This can be changed as the user gains confidence and an understanding of the commands.

> LEVEL 3
> At this level, the user is given full error descriptions. The BBS will attempt to explain why a command failed as opposed to just dying. The BBS will also try to lead you through commands that have been improperly formed. For instance, if you typed SEND at this help level the BBS would prompt you for the recipient and other required data.

> LEVEL 2
> Level 2 is a lot like level 1 but the BBS will not normally attempt to lead the user through commands. The error descriptions are still verbose but the user will normally be returned to the main prompt upon an error.

> LEVEL 1
> This level is similar to the expert mode on other BBS's. The error messages are terse and not very informative. The BBS will always abort the command and return to the prompt. The BBS assumes a user at this level knows exactly what to do and that the error was just a typing mistake.

> LEVEL 0
> This level is used when a BBS connects to another BBS. There are no error messages. If a command syntax is violated the command is aborted without even a terse error message. The user would not be able to tell if a command was successful or not. Users should not be in this mode unless instructed by a sysop to get around a problem.

The BBS currently has help messages programmed for all of the commands and keywords understood by the parser. If you ask for help on a command that is not part of the system the BBS will respond by giving you the list of commands and keywords that begin with that letter.

Example:

HELP
> Help by itself will describe how to use the help system.

HELP 2
> Set the user's help level to 2.

HELP ALL
> Describes how to use the BBS and dumps the entire command list to the screen. This listing is fairly long

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and should be captured to disk.

HELP M

Display a menu of all the commands and keywords starting with M.

HELP SEND

Display help information on the SEND command.

See Also:

INFO

HISTORY

Usage:

! #   repeats command #

!!   repeats the last command

Description:

Unix history function. Repeats the last command or last # command.

HOLD

Usage:

> **HOL**D [#]

Description:
> This command is used to take a message Out of circulation. The message will be exempt from aging and be invisible to all but sysops.
>
> The BBS will automatically put a message on hold if it detects an error in addressing or routing. Sysops can view the list of held messages with the LIST HELD command.

Example:

> **HOLD 1456 1501 1344**

See Also:
> LIST HELD, ACTIVATE, EDIT

HOMEBBS

Usage:

HOMEBBS
HOMEBBS bbscall

Description:
This command is used to display and alter what the BBS has recorded as your home BBS. On your original login the BBS checks the existing White Pages database to see if you are known. If you are found the BBS will fill in the appropriate fields with the information.

Every user must have a home BBS for mail to be forwarded to him properly. Your home BBS should be easy to connect to and preferably in your same geographical area. DXing to BBS's is discouraged unless necessary. Once you have chosen a BBS as home you should try to generate messages only from your home BBS.

DO NOT use your own call as your home BBS. Even if your TNC has a mail box feature built-in it still is not part of the link forwarding system and other BBS's will not know of its existence.

Side effect:
Every time you change the contents of this field a WP update is queued for your account.

Example:

HOMEBBS N0ARY

See Also:
ME, WHO, LNAME, FNAME, WP, QTH, ZIP

INCLUDE

Usage:

      CLUBS [**ADD**|**DEL**ETE|**+**|**-**] word_list
      INCLUDE [**ADD**|**DEL**ETE|**+**|**-**] word_list

Description:
      The CLUBS/INCLUDE field is used to select certain words that if they appear in the TO or AT field of a message they will be given special attention. A user can request that the BBS list all messages relating to these topics with the LIST CLUB command.

      Each user can define 20 of these words.

      The CLUBS and INCLUDE commands are synonymous. Words are either added to the list or removed from it depending on the last ADD/DELETE token passed.

Example:
      Assume that the CLUBS field begins as "SPECS ARES LERA AMSAT"

      INCLUDE DEL ARES SPECS ADD WVARA

      Following the above command the CLUBS field would be defined as "LERA WVARA AMSAT."

See Also:
      LIST CLUB, SKIP, EXCLUDE, WHO, ME

INITIATE

Usage:

> **INI**TIATE **W**P|**FI**LESYS|**C**ALLBK|**E**VENT|**FOR**WARDING

Description:
The INITIATE command is used to manually start a server. Servers are normally started by the BBS recognizing an incoming message as being directed toward the server.

INFO

Usage:

>**IN**FO
>**IN**FO topic

Description:
>In addition to the online help system for command and keywords the BBS also has information on topics that are not necessarily commands.

Example:

>**INFO**
>>Show what topics have information available.

>**INFO WP**
>>Show information on white pages.

>**INFO SYSTEM**
>>Show information about the system running this BBS.

See Also:
>HELP

KILL

Usage:

KILL [#|**M**INE] [**H**ARD]

Sysop Usage:

KILL [#|**M**INE|range] [**H**ard] [**NOP**ROMPT]
KILL **PRO**CESS #

Description:

The KILL command is used to logically delete a message. The message is not actually removed from the hard disk for another 3 days by the automatic message aging code. When a message is read but not killed, it will remain active for 2 weeks then be flagged as OLD and be killed a couple days later. By killing a message, the user will accelerate this process and free up disk space sooner.

If the user wishes to physically delete a message from the hard disk, the HARD keyword must be supplied.

When a user attempts to delete a message that hasn't been read by the addressee, a message is displayed indicating the problem and prompting the user for acknowledgment. This acknowledgment prompt can be defeated by supplying the NOPROMPT keyword.

KILL PROCESS allow the sysop to actually terminate unix processes. It is intended for cycling the TNC driver processes in the event of a hang.

Examples:

KILL MINE
Kill all messages addressed to the user.

KILL 1456 1488 1587
Kill a list of messages.

KILL 1477 HARD
Physically delete message number 1477 from the hard disk. This is not recoverable.

See Also:
LIST KILLED, ACTIVATE, PORTS, SPAWN

LINES

Usage:

> **LI**NES
> **LI**NES #
>
> [**NOP**ROMPT]

Description:

The lines variable is used to determine how many lines to display to a user's screen. By setting the LINES variable to something other than zero (0) the BBS will pause every # lines and wait for the user to hit a carriage return. The user can abort the listing early by typing a "q" for quit.

The BBS will confirm whether the user really wants to display long listing when a user has his LINES set to zero. This is to give the user the opportunity to abort listings that could tie up the channel for long periods of time.

Most commands will accept the NOPROMPT keyword that will override the LINES variable for a single command.

Example:

> **LINES 24**
> > Set the BBS to display 24 lines at a time.
>
> **LINES 0**
> > Turn off the pause code.
>
> **LIST LAST 100 NOPROMPT**
>
> List the last 100 messages and ignore the LINES variable. This will result in the entire 100 messages coming out at once.

See Also:

WHO, ME

LIST

Usage:

      LIST [keyword] [pattern search] [range] [**NOP**ROMPT]
      LIST **L**AST|**F**IRST [count] [pattern search] [**NOP**ROMPT]

Description:

The list command is used to show the user what messages are on the system and are available to be read. Since the BBS can have upward of 3000 messages on-line at any one time, the list command has multiple arguments that the user can use to prune the list down to just the messages of interest.

First there is one hidden option that is available to all users. A user can set the EXCLUDE/SKIP field in his user account if he wishes to not see messages sent to certain categories or via specific distributions. Any message that has the TO or @ fields that match a word in the EXCLUDE list will not be shown in the listing unless the user uses the ALL keyword.

The valid keywords for the list command are:

ALL	ignore the SKIP words
MINE	messages addressed to the user
BULLETINS	bulletins
CLUBS	matches to user's CLUBS list
CHECK	NTS messages checked out to the user
HELD	messages flagged as HELD
FIRST	earliest messages on the system
FORWARD	display forward mask in listing
KILLED	messages that have been logically deleted
LOCAL	messages local created for this BBS
LAST	latest messages to arrive
NTS	NTS messages
NEW	new since last login
OLD	messages about to be killed
PENDING	awaiting forwarding
PERSONAL	personal messages
SINCE m/d	list messages since month/date (e.g. SINCE 2/5 is Feb 5)
SINCE day	list messages since day (e.g. SINCE MON is since Monday)
SECURE	secure messages
READ	messages user has read
UNREAD	messages user has not read

The user can also test different fields in the message headers for matches to words. To request this pattern matching the user uses the following symbols:

<word	check the FROM field
> word	check the TO field
@ word	check the AT field
word	check for the word anywhere in subject

When performing a subject search for a word that is a valid keyword for the list command the user has to enclose the words in "quotes" so the BBS doesn't attempt to evaluate the token as a keyword.

The user can also specify ranges to apply the search criteria to.

1000	messages between 1000 and last
-1000	messages from first through 1000
1000 2000	messages between 1000 and 2000
1000-2000	messages between 1000 and 2000

In the case of LIST LAST and LIST FIRST, a range is invalid. A count can be supplied to indicate how many message to list. If no count is supplied the length of the message list will default to 10.

Example:

LIST NEW
> List messages that are new since the last time you did a LIST NEW command on a previous login. The BBS will not update the last message listed until you logout. Therefore LIST NEW will return the same messages every time you type it in a single session.

LIST BULL <AMSAT
> List all bulletins that were originated by AMSAT

LIST LAST 10 UNREAD > SALE
> List last 10 messages that the user has not read yet that were sent to the category SALE.

LIST ALL ATV
> List all messages, ignoring the SKIP/EXCLUDE variables, that have the word ATV in their subject somewhere.

LIST "KILL"
> Find all the messages that have the word kill in their subject somewhere. Because KILL is a valid keyword for the UST command enclosing it in quotes told the BBS to not parse it as a keyword.

LIST UNREAD BULL > RACES 1456 2054 KILLED
LB U K > RACES 1456 2054
LK U >RACES 1456 B 2054
L>RACES 1456 K U 2045 B
> All of the proceeding commands do the exact same function. The parser can handle arguments in any order and abbreviated to the minimum significant characters.

See Also:
> SEND, READ, CLUBS, SKIP, INCLUDE, EXCLUDE

LNAME

Usage:

> **LN**AME
> **LN**AME lastname

Description:
> This command is used to display and alter what the BBS has recorded as your last name. The BBS checks the on-line call book to see if you are known on your original login. If you are found, the BBS will fill in the appropriate fields with the information. If you are too new to be in the callbook you need to tell the BBS your name.

Example:

> **LNAME Smith**

See Also:
> ME, WHO, FNAME

LOCK

Usage:

> **LOCK**
> **LOCK IDLE**

Description:
> Whenever a sysop needs to use a command that will require all users to be logged off, this command can be used to lock out all users. The users that are currently logged in are unaffected but anyone attempting to login will be meet with the message indicating that BBS maintenance is in progress.
>
> You can use the PORTS command to see if others are still connected.
>
> The command LOCK IDLE will wait until there are no users connected then issue the lock command. The sysops session will be locked until the lock can be established. This command is mostly used for server and maintenance functions where the command is not actually issued by a human.
>
> You can clear the LOCK with the UNLOCK command or by logging out.

See Also:
> SYSOP, UNLOCK

LOOKUP

Usage:

> **LOO**KUP callsign_list

Description:

This command is used to lookup hams in the on-line call book. The call sign list can be full calls or portions of calls.

When searching on partial call signs you may replace the prefix and the call area with the wild card character '?'. The suffix must be supplied. When replacing the call prefix with a wild card the entire prefix must be substituted.

Example:

```
N6YAV de N0ARY>
LOOKUP N6ZFJ N?UNE

N6ZFJ   T   (55)  exp: 6/05/00
CONNIE O. ARASMITH
837 JASMINE DR.
SUNNYVALE CA 94086

Searching for matches to N?UNE
N4UNE   G   PATRICIA S. STOLTEY
N6UNE   E   RALPH P. SILVEIRA


```

> **LOOKUP W?6GXI**

This is an invalid syntax. If the prefix is going to contain a wild card character then the entire prefix must be substituted.

See Also:
> SEARCH

LS

Usage:

>**DIR** [path]
>**LS** [path]

Description:

The DIR and LS commands are identical in function. They will display a file system directory of the current working directory or optional path if supplied.

In the listing subdirectories will show up as "subdir/" and the size of each file is shown beside it in kilobytes.

Example:

```
    N6ZFJ de N0ARY [1254]>
    DIR
    1 ARES/     1 BBS.HELP/      1 NCPA/
    1 NTS/      1 RADIO.MODS/

    N6ZFJ de N0ARY [1254]>
    DIR NTS
    6  ARLNUMBR.NTS       5  HOWTO2.NTS        2  POSTALNTS
    10 CALNETNTS          4  MARS. NTS         3  REFERENC.NTS
    8  DEUVERYNTS         2  MGRDUTYNTS        4  USER.LIST
    3  DESIG.NTS          3  MSGFORM.NTS       7  WHATIS.NTS
    3  HANDUNG.NTS        3  NEWS.NTS          5  WRDCOUNTNTS
    13 HOWTO.NTS          11 OPAID218.NTS      34 ZIP.NTS
    N6ZFJ de N0ARY[1254]
```

See Also:

READ, WRITE, CD

MACRO

Usage:

> **MA**CRO
> **MA**CRO #
> **MA**CRO # command list
> **#**

Description:
> Many users that have computers use the function keys to execute multiple or cornplex commands without having to type them in every time. The BBS allows all users to define 10 macros that operate in much the same manner. Each macro can hold up to 80 characters, commands must be separated by semicolons.
>
> A macro is executed by typing the single digit macro number and carriage return. The macro number 0 has the added function of being performed automatically on each login to the BBS, kind of a BBS version of an autoexec.bat file on a DOS machine.
>
> Typing MACRO with no arguments will display the contents of all 10 macros without running them. To clear a macro the user types MACRO # with no command list following the #.

Example:
> **MACRO**
>> Display all the users macros.
>
> **MACRO 0 LIST MINE; LIST NEW**
>> Loads macro 0 with the commands LIST MINE and UST NEW. Since this is macro 0 it will be executed the first thing every time the user logs into the BBS.
>
> **MACRO 4 USER N6ZFJ; 0; READ MINE; KILL MINE**
>> This is an example of a nested macro. Macro 0 will be called from the middle of macro 4. The following commands will be executed assuming macro 0 was set as in the previous example.
>>
>> USER N6ZFJ
>> LIST MINE
>> LIST NEW
>> READ MINE
>> KILL MINE
>
> **4**
>> Executes macro number 4

ME

Usage:

>   **ME**

Description:
>   This command will display the users account to the screen. It is equivalent to doing a WHO CALL to the users own
>   call.

```
N6ZFJ de N0ARY >
WHO N0ARY

Usr#  4,  0:00000010  [Sysop Help2 Motd Seen On Console]
N0ARY  Bob Arasmith  Sunnyvale, CA 94086  PH: 408-749-0501
      pyramid!ara.ngr!bob
Homebbs:    N0ARY
TNC:  AEA (2) PK88 (1) PK232
computer:   Sun Sparcstation 1+, 28Mb RAM, 1Gb Disk
rig:  Yeasu FT212RH
software:   N0ARY BBS
password:
include:    LERA LPRC BAYCOM SPECS
exclude:    KEPS
lines:      50
last_msg:   2945


            144         220         440  PhoneSlow   PhoneFast   Console
Allow       YES         NO          NO   YES         YES         YES
Cnt         7           0           0    1           1           83
First       0228/2335   Never       Never 0228/2335  0228/2335   0228/2335
Last        0329/0108   Never       Never 0329/0108  0329/0108   0329/0108
```

MESSAGE

Usage:

        MESSAGE **V**ALIDATE
        MESSAGE **F**IX
        MESSAGE **A**GE
        MESSAGE **C**OMPRESS

Description:

These commands are used to maintain the message database. VALIDATE and FIX are used to locate and correct problems in the structure of the message directory and bodies. VALIDATE should be run first to see what problems exist and if appropriate FIX is used to correct the differences.

AGE is used to purge the system of old or killed messages. This is used to reclaim disk space. Normally the AGE function will be initiated via a cron but can be started manually with this command.

Messages are aged regardless if they have been read or not. Killing a message after reading it will accelerate the aging process. Killing with the HARD keyword will force it's physical deletion immediately.

        Active -> Old   14 days
        Old -> Killed   3 days
        Killed -> Deleted   3 days

These times are subject to change without notice.

The COMPRESS command is used to renumber the message numbers at 1. This is normally initiated manually when the message numbers reach 10000. It should only be done with the BBS locked and nobody logged in.

See Also:
        KILL HARD, LOCK, UNLOCK

NEWLINE

Usage:

NEWLINE [**ON**/**OFF**]

Description:
There are a number of times that the BBS will prompt the user for information. To save screen area it will typically not issue a carriage return/newline prior to awaiting user input. This is best shown with an example:

```
N6ZFJ de N0ARY>
SEARCH
Last Name: Smith
First Name: Bob
City: Sunnyvale
State: CA


N6ZFJ de N0ARY>
SEARCH
Last Name:
Smith
First Name:
Bob
City:
Sunnyvale
State:
CA
```

T h
e first example is the default condition. It conserves space and is a little easier to read. The problem is some software written for packet will not display a line to the screen until a carriage return is received. This command can be used to select that a carriage return should always be sent.

Example:

NEWLINE
Show current setting for switch.

NEWLINE ON
Always force a newline prior to a user prompt.

NEWLINE OFF
Do not force the newline.

See Also:
ME, WHO

PASSWORD

Usage:

      PASSWORD word

Description:
      If you don't want other users to be able to see your entries for equipment or phone number, you can hide this information by assigning a password to your account.

      With the password set only you and the sysops can see your account. Sysops may look at this information if they are logged in over either the phone line or the BBS console. This eliminates the chance of someone eavesdropping on the frequency.

      The equipment database is very important and could be a big help in getting new people involved. if the user will only participate if the information is held confidential then this command will do the trick.

Example:
      PASSWORD Packet
          This command will apply the word Packet as your user account password. Although the BBS is normally case insensitive, in the case of passwords case is important. Always type it the exact same way.

Note:
      The password field is case sensitive. Once the user sets a password he will no longer be able to modify his equipment database over an unsecure channel, i.e., packet radio. He will have to make the modifications over the phone line.

See Also:
      ME, WHO, EQUIPMENT; PHONE, RIG, COMPUTER, TNC, SOFTWARE

PHONE

Usage:

> **PH**ONE
> **PH**ONE #

Description:
> This command is used to display or set the BBS entry for your phone number. The phone number can be held confidential by setting the users PASSWORD, with this set only sysops will have access to the number.

Example:

> **PHONE 408-555-1212**

See Also:
> ME, WHO, PASSWORD

PORTS

Usage:

> **PO**RTS
> **PO**RTS **TNC**

Description:

> The ports command will show the users currently connected, their connection method, their unix process id, etc. If the TNC keyword is supplied, the TNC driver processes will also be displayed.

```
N6FJ de N0ARY>
PORTS

PID    TT     STAT   TIME   COMMAND
10034 p6      S      0:03   nbbs N6ZFJ CONSOLE
10038 p8      IW     0:05   nbbs K6GSJ PHONE_SLOW
10039 p5      S      0:01   nbbsW8CF 144.93
10045 p2      IW     0:01   nbbs KK6VC 144.93
10046 p4      IW     0:01   nbbs N60JV 144.93
```

> The TT field represents the pseudo terminal that the user is connected to. The STAT field describes the current status of the process, S for swapped out, IW for waiting for keyboard input and R for running. If you wish more detailed information I would suggest you consult a UNIX manual or primer.

See Also:
KILL PROCESS, SPAWN, USERS

QTH

Usage:

      QTH
      QTH City, ST

Description:
      This command is used to display and alter what the BBS has recorded as your City and State. On your original login the BBS checks both the existing White Pages database as well as the on-line call book to see if you are known. If your call sign is found, the BBS will fill in the appropriate fields with the information. If you have moved, your information is incorrect or you were not listed in the callbook you can fill in the variable with this command.

Side effect:
      Every time you change the contents of this field a WP update is queued for your account.

Example:
      QTH SUNNYVALE, CA

See Also:
      ME, WHO, LNAME, HOMEBBS, WP, FNAME, ZIP

QUIT

Usage:

>   **Q**UIT

Description:
>   This command causes the BBS to perform a graceful exit and disconnect. It is greatly preferred over disconnecting from the users end, otherwise the BBS will continue attempting to communicate with the user for some time. This command is identical in function to the BYE command.

REPLY

Usage:

      REPLY [#]

Description:

      This command is used to send a message in response to a message received. The BBS will address the mail automatically and the user will only be prompted for the message body. The subject line will have "Re:" prepended.

      All the standard send editing options are valid.

      If the BBS has a current message then the message number to the reply command is optional.

Example:

      READ 1465

      REPLY

            At this point the user is only prompted for the body. The TO address was taken from the FROM address of message 1465, the last active message.

See Also:

      SEND

READ

Usage:

> **R**EAD [msg_list] [**NOP**ROMPT] [**H**EADER]
> **R**EAD **W**HO [msg_list]
> **R**EAD filename [**NOP**ROMPT]

Description:

The read command is used to read both messages and files. The BBS distinguishes the difference between messages and files by whether a number or an alphanumeric string was supplied.

In the case of a message the user can ask for a routing header to be displayed by supplying the HEADER keyword.

```
To:    WANT@NCA
Subject:     Need info on PK232 MBX

R:910215/1437 @:N6QMY.#NCA.CA.USA.NOAM Fremont #:5713 Z:94536
R:910215/1248 @:WD6CMU.#NCA.CA.USA.NOAM "OSKbox" #:30871 Z:94805
----------------------------------------------------------------------
I lust picked up a P1(232 with MBX firmware and just wanted to know if
someone could tell me the most recent firmware level and the best parameters
```

Multiple file names and message numbers can be supplied in a single command. The NOPROMPT keyword may be supplied if the user does not want the BBS to pause every few lines until the user responds.

Supplying the WHO keyword will display the call signs of all the users that have read the messages specified.

Example:

READ 2547 2666 2365

> Read messages 2547, 2666, and 2365.

READ 4512 HEADER

> Read message number 4512 and display the routing header. This header is a list of all the BBS's that a given message passes through.

READ WHO 4563 4599 4578

> Show the call signs of all users that have read the three messages specified.

CD BBS.HELP
READ EDIT_MSG

> The read command is also used to read files. In this example the current working directory was changed to BBS.help prior to reading the file.

READ BBS.HELP/EDIT_MSG

> In this example the CD command was skipped and a path was applied to the read command.

Note:

Since this is unix you should use the '/' between path elements.

See Also:

SEND, WRITE, LS, CD, DIR

RIG

Usage:

      RIG [your_packet_radio]

Description:
The BBS keeps a small database of each user. Some of the items pertain to the equipment used for packet. The goal of the database is to allow sysops to put new users in touch with seasoned users that share similar setups.

This field is for declaring what radio you are using to host your packet activities. Please don't list all of your transceivers here, just those used for packet.

Example:
RIG Yaesu FT212RH

Notes:
Since the contents of this field can contain any characters the parser does not attempt to decode anything past the RIG command. You therefore cannot imbed a semicolon to chain the commands. The semicolon will end up as part of your computer field.

See Also:
EQUIPMENT, COMPUTER, SOFTWARE, TNC, WHO, ME

SEARCH

Usage:

> **SEA**RCH [lname [, fname [, city [, st [, zip]]]]]
> **SEA**RCH

Description:

> The search command is used to locate hams in the call book when their call sign is unknown. The search command, if not given arguments, will prompt the user for each field. The only field that is required is the last name. All the other fields can be left blank.
>
> The command can be simplified if the user puts all information on the command line. If a field is to be left blank, then nothing should be put between the commas.
>
> When searching for people, it is best to start with as few blanks filled in as possible. Start with just the last name, if the BBS complains about too many matches, supply another field and try again. Supplying too much info will often cause no matches. People don't always go by the same first name that was used on their 610 form, and they often move and neglect to inform the FCC.
>
> If more than 200 matches occur to a search, the search will be aborted prior to completing. If you need to generate a search that is in excess of 200 names or a search where the last name is not significant, send a request to N0ARY directly and he will contact you on how to pick up the data.

Example:

```
N6ZFJ de N0ARY>
search
Last name: fisk
First name:
City:
State: ca
Searching ...
28 calls match request

KB6BMN N FISK, WILLIAM S        502 OLIVE SPRINGS RD, SANTA CRUZ, CA 95065
WB6FPS T FISK, MARION N         17700 S AVALON BLVD 80, CARSON, CA 90746
KD6NQ  A FISK, PAUL T           17700 AVALON BLVD 80, CARSON, CA 90746
K6TAM  A FISK, GEORGE A         676 PLEASANT VALLEY RD, APTOS, CA 95003
N6ECS  T FISK, JR, HAROLD C     POB 86, WHITMORE, CA 96096
KA6FIK N FISK, SANDREAL L       8139 VAN NOORD, NORTH HOLLYWOOD, CA 91605
KA6FIL N FISK, DAVID L          8139 VAN NOORD, NORTH HOLLYWOOD, CA 91605
WA6FSY T FISK, ROBERT H         4241 USONA RD, MARIPOSA, CA 95338
WA6GQG T FISK, EVA M            4241 USONA RD, MARIPOSA, CA 95338
KA6HAK N FISK, SUSAN W          22368 AVENUE 204, LINDSAY CA 93247
N6KDK  T FISK, MARION E         263S ARDEN BLVD, LOS ANGELES, CA 90004
N6PSR  T FISK, RONALD K         8904 SALMON FALLS 0R1 SACRAMENTO, CA 95826
```

> Note in the example that the name FISK is the shortest match, last names that start with FISK also match the request.

SEARCH FISK,,,CA

    This is the same request as supplied on the command line. The number and placement of the commas is critical. If in doubt use the other method and allow the BBS to prompt you.

See Also:

    LOOKUP

SEND

Usage:

     SEND **P**ERSONAL call [@ home BBS]
     SEND **B**ULLETIN category [@ distribution]
     SEND **NT**S zip @ **NT**S st
     SEND **S**ECURE call [**!**password]

Description:

The send command is used to send a message to another user or a group of users. The type of message has to be one of the following:

PERSONAL

     A message from one user to another. It can not be seen or read by anyone other than the addressee, sender and the sysop. It should be understood that passing confidential information in a personal message is not considered a good idea, anyone can be eavesdropping on the frequency.

     If the addressee has another BBS as his home BBS, as determined by looking up the user in the white pages, the BBS will automatically queue up the message to be passed to another BBS.

BULLETIN

     Bulletins are messages that are of a general interest to the ham community, or at least a portion of it. They can be listed and read by anyone. Only the sender and the sysop are allowed to kill a message.

     Bulletins are addressed to a category and a distribution. The category should convey the nature of the message.
          HELP, SALE, WANTED, ARES, etc.

     The next item is the distribution. This field determines which BBS's you wish to also carry the bulletin. This is accomplished through the use of some predetermined words.

SCV	Santa Clara Valley, Bay Area
NCA	Northern California
SCA	Southern California
CA	All of California
WUSA	Western United States
USA	United States
WW	World Wide

     Care should be taken when choosing your distribution. A good rule is to first try a limited distribution and then branch out if you don't get the results desired. In most cases there is a person in the bay area that has what you need or is interested in what you have. Sending wide distributions when they are not necessary just clogs the HF channels and makes all the mail move more slowly.

     If you choose to send WW, this BBS will automatically hold your message until a sysop reviews it and determines it is appropriate for WW distribution. Many sysops are simply deleting mail addressed WW they don't feel are necessary. Your WW message may not even get out of northern California

     If you have questions about this contact the sysop of the BBS.

NTS

NTS messages are health and welfare traffic and can be read and killed by any user. To send an NTS message you address it to zipcode @ NTSst, for instance, 94O86@NTSCA. If you don't know the zip of the destination you can send the message NTSst@NTSst but this is discouraged. Try to make life easy on the deliverer and give him as much info as possible, a phone number is really important.

There are a number of documents on NTS messages and handling in the NTS directory.

SECURE

This message type is only found on this BBS and can only be used when passing messages between two people on this BBS. Secure messages cannot be forwarded outside of this BBS.

Messages flagged as secure can only be read by the addressee and the sender. Furthermore they can only be read if the user is logged in over the telephone or on the BBS computer console. This eliminates the chance of eavesdropping.

To eliminate the potential for someone logging in with another call to read secure mail the sender can apply a password to the message. This password must be supplied before either the addressee or sender can read the message. This password must begin with a letter and is case sensitive.

Once you have issued the send command the BBS will prompt you for a subject for your message. Again be specific, if you are trying to sell something don't just put sale as your subject, very few people will read it.

SEND BULL SALE @ SCV
subject: ICOM 24AT AND CHARGER

After you have supplied a subject the BBS will prompt you for a message body. You are actually placed in a simple editor. Just type in your message as you want it sent.

For sysops: This format will put N0ARY in the FROM field instead of the actual sender:
SB xxxx @ yyyy <n0ary

You can tell the BBS when you are finished with your message by using one of the following commands. They have to occur as the first characters on a line, i.e. they must be proceeded by a carriage return.

/**EX**IT	send the message (exit)
/**AB**ORT	abort the message, don't send
/**CC**	Send a "carbon copy" of this message to the following call signs. If you wish the message to go to multiple people but you don't want to retype it you can have the BBS prompt you for the other recipients. Each user will receive an exact copy of the message plus at the bottom there will be a list of all the users that got CC'd. You just return without a call to tell the BBS you are finished supplying users.
/**SI**GNATURE	Copy in your signature text

If you make a mistake with your message you can also correct your errors while you are entering the message. This is accomplished via a series of commands similar to the ones used to tell the BBS you were done.

/**NU**MBER	Display the message so far with line numbers. The other edit commands require these line numbers. After this command you will be at the bottom of the message body.
/**ED**IT #	Edit line number #. The line will be displayed again so you can know you are replacing the correct line. The line you type will replace the line you have chosen. If you have given the wrong line number just return without typing anything and the BBS will abort the edit. After you type the line you will be returned to the bottom of the body.

/**KI**LL #   This command will delete the line number supplied. After this command you will be returned to the bottom of the body.

/**AD**D #   This command inserts the next line typed directly before the line supplied. At the completion of the command you will be placed at the bottom of the body.

/**IN**CLUDE # This command will allow the user to include the body of another message in the current message. The included section can be distinguished by the reader by the ">" that proceeds every line that was included.

For detailed examples of the edit commands type the following exactly:
    READ BBS.help/edit_msg

Example:

```
N6ZFJ de N0ARY [2618] >
SP N6UNE
Home BBS identified  as N0ARY.#NCA.CA.USA.NOAM
Subjeet (60 charactera max):
Club meeting
Enter message body (/EX /AB /IN /CC /NU /ED /AD /KI /?):
Did you remember the club meeting this Thursday? Hope you can still
make it. I'm buying the pizza.
73, Connie
/ex
Message #2629 to N6UNE stored.
N6ZFJ de N0ARY [2629] >
```

This is an example of a send personal. All of the other forms are very similar.

See Also:
    READ, LIST, KILL, SIGNATURE

SET

Usage:

> **SET** [**ALL**|callsign] keyword

Description:
> Each user has an account on the system. They modify their accounts with the commands FNAME, LNAME, QTH, CLUBS, SKIP; MACRO, HOMEBBS, etc. Sysops use this command and its companion CLR to manipulate another users account.
>
> To manipulate another account you must first focus the BBS at that account. This is done by issuing the SET or CLEAR with the call sign of the user. From then on all SET and CLEAR operations will apply to that person.
>
> The valid keywords for the SET command are:
>
> | | |
> |---|---|
> | **AP**PROVED | user is approved, CLR SUSPECT |
> | **CL**UB | change user's club fields |
> | **COM**PUTER | change users computer entry |
> | **CON**SOLE | allow login via console |
> | **EM**AIL | change users e-mail address or setting |
> | **FA**ST | allow login via high speed modem |
> | **F**NAME | change users first name |
> | **HE**LP | change users help level |
> | **HO**MEBBS | change users home BBS |
> | **LI**NES | change users lines variable |
> | **LN**AME | change users last name |
> | **MA**CRO | change users macro settings |
> | **ME**SSAGE | alter a users last listed message number |
> | **MO**TD | set MOTD bit to indicate it has been seen |
> | **NE**WLINE | force a newline always proceed prompts |
> | **NONH**AM | restricted privileges |
> | **PA**SSWORD | set user up with a new password |
> | **PH**ONE | change users phone field |
> | **Q**TH | change users city and state |
> | **R**IG | change users packet radio field |
> | **SK**IP | change users skip/exclude fields |
> | **SL**OW | allow login via slow modem, 12/24 baud |
> | **SO**FTWARE | change users software field |
> | **SU**SPECT | user is suspect, CLR APPROVED |
> | **SY**SOP | allow sysop privileges |
> | **T**NC | change user's TNC field |
> | **TNC1**44 | allow login via 2 meter, standard user |
> | **TNC2**20 | allow login via 220, BBS forwarding |
> | **TNC44**O | allow login via 440 |
> | **Z**IP | change users ZIP code entry |
>
> When a user is SUSPECT' or NOT APPROVED he will be allowed to send messages but if they are directed off BBS

they will be held for a sysop review.

Typing SET or CLEAR with no operands will display the focused users account just like typing WHO CALLSIGN. It is a way to check to see if you are altering who you think you are.

Example:
SET N6ZFJ HOME N0ARY HELP 2 FAST
This command focuses on N6ZFJ, this will remain this way until another user is focused. It then changes the home BBS to N0ARY sets the help level to 2 and allows the user to connect via the 19.2 KB modem.

SET MESSAGE 1487
Each users account has a variable that indicates the last message listed using the LIST NEW command. If this value is wrong a sysop can alter the value with this command.

This command would still be focused on N6ZFJ if it actuarly did follow the example above.

SET ALL TNC44O
This command would remove the focus from N6ZFJ and apply the request to all users. This command will allow all users access to the BBS via the 2 meter port.

See Also:
CLR, CLEAR, WHO

SHELL

Usage:

    SHELL username

Description:

    This command will grant a UNIX C shell to the user. The username has to be a valid user on the system. The system name is "araengr." The user will still be prompted for the password of the user he wishes to become.

    If you are unfamiliar with unix please don't learn via this mechanism.

SIGNATURE

Usage:

> **SIGN**ATURE
> **SIGN**ATURE [**W**RITE|**K**ILL]
> **SIGN**ATURE [**ON**|**OFF**]

Description:

When sending a message, one normally ends by signing. In Amateur Radio, we might sign with 73 and first name. This signature function allows you to do that automatically.

A signature is a block of text that you can save and then copy into your messages with a single command: /SIgnature. Here is an example of a signature:

> 73, bob
> BBS address: N0ARY @ N0ARY.#NCA.CA.USA.NOAM
> email address: bob@arasmith.com

To create a signature, type SIGNATURE WRITE at the main BBS prompt. Enter your signature text the same way you would enter a message. End with /EX. Your signature text is now saved and ready for use.

To see your current signature, type SIGNATURE at the BBS main prompt.

When you are finished writing any message, type /SI just before the /EX and your signature will be copied into the message body.

To delete your signature from your account type SIGNATURE KILL at the main BBS prompt.

To append your signature automatically, give the command SIGNATURE ON at the main BBS prompt. Now you don't have to type the /SI to have it inserted in the message, it will happen automatically every time when you type /EX or /CC.

Example:

> **SIGN**ATURE **W**RITE   Enter your signature text
> **SIGN**ATURE **ON**   Have your signature appended to your messages automatically

Note:

It's best to keep your signature to no more than a few lines. Some people find more than a page of signature text to be excessive, even annoying, especially over a slow packet link.

See Also:

SEND

SKIP

Usage:

>**SK**IP [**ADD**|**DEL**ETE|**+**|**-**] word_list
>**EXC**LUDE [**ADD**|**DEL**ETE|**+**|**-**] word_list

Description:

The SKIP/EXCLUDE field is used to select certain words that if they appear in the TO or AT field of a message they will be ignored by the standard LIST commands.

The LIST ALL command will have to be used to see these messages. Each user can define 20 of these words.

The SKIP and EXCLUDE commands are synonymous. Words are either added to the list or removed from it depending on the last ADD/DELETE token passed.

Example:

Assume that the SKIP field begins as "SPECS ARES LERA AMSAT"

SKIP DEL ARES SPECS ADD WVARA

Following the above command the SKIP field would be defined as "LERA WVARA AMSAT."

See Also:

CLUB, INCLUDE, WHO, ME

SOFTWARE

Usage:

> **SOFT**WARE [your_packet_software]

Description:
> The BBS keeps a small database on each user. Some of the items pertain to the equipment used for packet. The goal
> of the database is to allow sysops to put new users in touch with seasoned users that share similar setups.
>
> This field is for declaring what software, terminal emulation code, you are using to talk to your TNC.

Example:

> **SOFTWARE PROCOMM PLUS**

Notes:
> Since the contents of this field can contain any characters the parser does not attempt to decode anything past the
> SOFTWARE command. You therefore cannot imbed a semicolon to chain the commands. The semicolon will end
> up as part of your computer field.

See Also:
> EQUIPMENT, COMPUTER, RIG, TNC, WHO, ME

SPAWN

Usage:

> **SPAWN TNC1**44|**TNC2**20|**TNC4**40

Description:
> This command, in conjunction with PORTS and KILL PROCESS, is used to restart the TNC drivers in the event of a hang. Be sure that the desired TNC process has been killed prior to spawning it's replacement.

Example:
> Start by becoming a sysop.

> **PORTS TNC**
> > This command will display all the BBS and TNC processes. If a TNC process is present for the band in question copy down the PID number at the far left.

> **KILL PROCESS #**
> > Use this command and the process number found above to kill the existing TNC process. Issue the PORTS command again to verify that indeed the process is gone.

> **SPAWN TNC144**
> > This command will restart the TNC process. You can do another PORTS to verify the restart.

Alternative:
> Wait and call N0ARY on the phone.

SYSOP

Usage:

>   **SYSOP**

Description:
>   This command is issued to enable the sysop privileged commands. These commands can either be extensions to normal user commands or entirely new commands that control the functioning of the BBS.
>
>   The user will be prompted for the sysop password and the user must be connected via a secure link, telephone or console.

Note:
>   It goes without saying, be careful. Do not remain in sysop mode any longer than necessary.

UNLOCK

Usage:

> **UNLOCK**

Description:
> The LOCK command is used to deny all logins while system maintenance is being performed. When the operation is complete the lock can be cancelled with this command.
>
> The lock is also removed if the person setting the lock exits from the BBS.

See Also:
> SYSOP, LOCK

USERS

Usage:

       USER [#]
       USERS call_list

Description:
       The first form of the USERS command will display the last # users to connect to system. It will display the time, date and mode of connection. The default value of 10 is used if no number is given.

       You can request the last connects for specific users by including them on the command line.

Example:

```
N6ZFJ de N0ARY>
USERS 8

User        Count --------------- Last Login --------------
N6ZFJ       123   Console             Sun Mar 31 19:00:58 1991
KC6RTR      93    Phone 12124         Sun Mar 31 18:58:10 1991
KC6PPD      13    Phone 12124         Sun Mar 31 18:37:49 1991
KA6ETB      3     Phone 12124         Sun Mar 3l 18:31:19 1991
N6QMY       849   TNC 220             Sun Mar 31 18:09:20 1991
KK6VJ       49    TNC 144             Sun Mar 31 18:04:43 1991
K6GSJ       67    Phone 19200         Sun Mar 31 18:02:59 1991
W6CF        80    TNC 144             Sun Mar 31 17:59:03 1991

N6ZFJ de N0ARY>
USERS N6QMY K80SJ KA6ETB

Users       Count --------------- Last Login --------------
KA6ETB      3     Phone 12124         Sun Mar 31 18:31:19 1991
N6OMY       849   TNC 220             Sun Mar 31 18:09:20 1991
K6GSJ       67    Phone 19200         Sun Mar 31 18:02:59 1991
```

See Also:
       WHO, LOOKUIP, WP, USERS(sysop)

USERS

Usage:

>   USERS **NO**NHAM|**B**BS|**SU**SPECT|**SY**SOP
>   USERS **H**OME BBS
>   USERS **NE**W days
>   USERS **EX**PIRED|**AG**E
>   USERS **ST**ATUS
>   USERS **VA**LIDATE|**FI**X
>   USERS **K**ILL call

Description:

These commands are used to maintain users accounts. A status display of the user database is available with the STATUS keyword.

The NONHAM, BBS, SUSPECT, and SYSOP keywords are used to verify system security. Sysops should execute these from time to time to make sure that the system is intact. The output is a list of hams that have the respective flag set in their accounts. Accounts that look in error should be reported to N0ARY

Sysops can also dump all users that have a specific BBS entered as their home BBS. This is basically for informational purposes.

New users can be requested by supplying the NEW keyword and a count of how many days to go back. All hams that had their initial login in this number of days will be displayed.

The VALIDATE and FIX commands are used to identify and repair damage to the user accounts and user directory. VALIDATE must always be run first and if appropriate FIX run to correct the problems.

USER KILL is used to delete a user from the user database. It also will alter the message directory and possibly the events database. The call to be deleted must be supplied. This command is final and the account cannot be recovered.

Users are aged on the basis of activity. A user that doesn't connect for a specified period of time is in danger of being purged from the system. The system is currently limited to 320 users. This is required to support a number of the features, such as READ WHO. Users that use this BBS as their home BBS are given a little grace period.

>   Home is N0ARY   3 months
>   Home is not N0ARY   2 months

These times are subject to change without notice.

WHEREIS, WP

Usage:

> **WP**
> **WP** call_list
>
> **WHE**REIS call_ist

Description:
> It is often necessary to consult the local white pages database to find the home BBS of another amateur. These commands are used to perform this function. Multiple lookups can be done in a single request.
>
> Refer to the "N0ARY Users Guide" for further information on White Pages.

Example:

> **WP N6ZFJ N0ARY**

See Also:
> WHO, LOOKUP, USERS

WP

Usage:

      WP HOME BBS
      WP VALIDATE
      WP ALTERED|**G**ENERATE

Description:
These commands are used to maintain the White Pages database, or search for data. By using the WP HOME command all the users that are reported to use that BBS will be displayed.

WP updates are generated by the ALTERED and GENERATE commands. ALTERED will show what users accounts have changed and will be updated if the GENERATE command is executed.

WP VALIDATE and FIX are used to identify and correct errors in the WP database.

WP search ".CO."
This will look for all BBSs in Colorado

WP Edit [call]
Use this for fixing the White Pages database.

See Also:
USER HOME

WHO

Usage:

> **WHO** call

Description:

This command will display the selected user's account. This is the same display that is provided with the ME command.

Example:

```
N6ZFJ de N0ARY >
WHO N0ARY

Usr#  4,  0:00000010  [Sysop Help2 Motd Seen On Console]
N0ARY  Bob Arasmith  Sunnyvale, CA 94086  PH: 408-749-0501
       pyramid!ara.ngr!bob
Homebbs:    N0ARY
TNC:  AEA (2) PK88 (1) PK232
computer:   Sun Sparcstation 1+, 28Mb RAM, 1Gb Disk
rig:  Yeasu FT212RH
software:   N0ARY BBS
password:
include:    LERA LPRC BAYCOM SPECS
exclude:    KEPS
lines:      50
last_msg:   2945


            144         220         440   PhoneSlow   PhoneFast   Console
Allow       YES         NO          NO    YES         YES         YES
Cnt         7           0           0     1           1           83
First       0228/2335   Never       Never 0228/2335   0228/2335   0228/2335
Last        0329/0108   Never       Never 0329/0108   0329/0108   0329/0108
```

See Also:

ME, USER, WP

WRITE

Usage:

> **WR**ITE filename
> **WR**ITE # filename

Description:
> WRITE is used to create a file on the hard disk. The proper procedure is to change directory into the directory that is appropriate for the subject and issue the WRITE.
>
> If a message number is supplied, the message will be turned into a file with the supplied name. If no message number is given, then the user will be prompted for the body of the file. This is exactly the same as inputting the body of a message. All of the editor commands apply with the exception of /CC.
>
> Files are not subject to aging. Messages are the preferred method to use when passing timely information. Use files sparingly.

Example:

```
N6ZFJ de N0ARY>
LS
1 ARES     1 BBS.HELP  1 NTS/           1 RADIO.MODS

CD RADIO.MODS
WRITE TM731A
Please enter the body for the file (/EX /AB /IN /NU /AD /ED /KI):
The followIng is the cross band repeater mod for the TM731.  It is
 ...
/ex
File "TM731A" stored
```

WRITE 4582 AMTOR.freq

This command would turn message number 4582 into the file AMTOR.freq.

Note:
> Make sure you type the names just as they are shown on the listing. Unix files can also contain multiple periods and are not limited to 8x3 like DOS.

See Also:
> READ, CD, LS, DIR

WX

Usage:

> **WX** [**I**NDOOR|**O**UTDOOR] [**Y**ESTERDAY]
> **WX D**ATA [days]
> **WX G**RAPH [**T**EMP|**H**UMIDITY|**B**AROMETER|**W**IND|**R**AIN] [days]

Description:

The BBS polls a weather station located atop Mt. Umunhum eight times per day. This information is available for readout in a few different forms. The weather information is provided courtesy of BAYCOM, WA6YCZ.

The high and low values are cleared every night near midnight.

The INDOOR keyword gives the user information about the weather inside the BAYCOM shack.

If the user supplies the YESTERDAY keyword the last poll of the previous day is displayed.

The user can request raw weather data for up to 3 months back. This data includes all the weather variables supported by the weather station. The data is in a form that can be readily imported to a spreadsheet program. When the days operand is not supplied the BBS will default to 2 days.

The data can also be displayed graphically using character graphics. Graphs are available for temperature, humidity, barometric pressure, wind and rain.

Examples:

```
N6ZFJ de N0ARY>
WX
Weather Data as of 91/03/31 17:25:02      High and Lows cleared at midnight
Mt. Umunhum, El 3350' 5 miles south of San Jose


                  Current      Rate  LOW           HIGH
Temperature (deg F)     40           +1    30 @ 04:13  45 @ 15:33
Humidity (%)            99           +0    36 @ 12:29  60 @ 16:10
Barometer (in)          29.87        -0.02 29.80 @ 7:59    29.92 @ 12:01
Rain (in)        .02         0.00
                                      HIGH AVG          HIGH GUST
Wind (mph)       32 SW                52 SW @ 08:09    68 SW @ 08:20

Wind Chill (deg F)     11            Weather Information
Gust Chill (deg F)     12            Courtesy of WA6YCZ
```

WX DATA 20

Dump the last 20 days of weather, this is about 160 samples.

```
N6ZFJ de N0ARY >
WX GRAPH TEMP 2

Temperature (degF)
            3           4           5           6           7
            012345678901234567890123456789012345678901234 5
            ----------------------------------------------
03/29 18:00 |               *
      21:00 |            *
03/30 00:00 |     <*                                      >
      03:00 |      *
      06:00 |    *
      09:00 |       *
      12:00 |              *
      15:00 |                             *
      18:00 |                    *
      21:00 |              *
03/31 00:00 |     <       *                               >
      03:00 |            *
      06:00 |              *
      09:00 |                   *
      12:00 |                        *
      15:00 |                             *
```

ZIP

Usage:

      ZIP [zipcode]

Description:
This command is used to display and alter what the BBS has recorded as your zip code. On your original login the BBS checks both the existing White Pages database as well as the on-line call book to see if you are known. If you are found the BBS will fill in the appropriate fields with the information. If you have moved, your information is incorrect or you were not listed in the callbook you can change the variable with this command.

Side effect:
Every time you change the contents of this field a WP update is queued for your account.

Example:
    ZIP 94086
          You should only supply the 5 digit zip code.

See Also:
ME, WHO, LNAME, HOMEBBS, WP, FNAME, QTH

Usage:

> **[0|1|2|3|4|5|6|7|8|9]**

Description:
This is how a user executes one of his macros.

Example:

> **3**
> Whatever the current contents of macro 3 will be replayed back at this time.

See Also:
MACRO

chapter
3   W0RLI commands

Since W0RLI is accepted as the standard among packet BBS's the majority of the other BBS's support at least a subset of the W0RLI command set. This BBS supports some of the commands as they relate to the sending, listing and reading of messages.

3.1   Translation to N0ARY BBS

This chart describes the translation between W0RLI and N0ARY BBS commands and whether or not the W0RLI command form is supported.

W0RLI	Supported	N0ARY
H	Yes	**H**ELP
H*	No	**H**ELP **ALL**
B	Yes	**B**YE or **Q**UIT
CM	No	**CO**PY
D file	No	**R**EAD file
I	No	**I**NFO **S**YSTEM
I call	No	**WP** call
I@ call	No	**WP HO**ME call
IL	No	**U**SERS
J	No	**PO**RTS
K	Yes	**K**ILL
KM	Yes	**K**ILL **M**INE
KT	Yes	**K**ILL
L	Yes	**L**IST **N**EW
LA	No	**L**IST **F**IRST
LL	Yes	**L**IST **L**AST
L>	Yes	**L**IST **>**
L<	Yes	**L**IST **<**
L@	Yes	**L**IST **@**
LB	Yes	**L**IST **B**ULLETINS
LH	Yes	**L**IST **H**ELD
LK	Yes	**L**IST **K**ILLED
LM	Yes	**L**IST **M**INE
LO	Yes	**L**IST **O**LD
LP	Yes	**L**IST **P**ERSONAL
LT	Yes	**L**IST **NT**S
LY	No	**L**IST **R**EAD
N	No	**FN**AME

NE	No	**H**ELP #
NH	No	**HO**MEBBS
NQ	No	**QT**H
NZ	No	**Z**IP
R	Yes	**R**EAD
RH	Yes	**R**EAD **H**EADER
RM	Yes	**R**EAD **M**INE
SR	Yes	**REP**LY or **S**END **R**EPLY
SB	Yes	**S**END **B**ULLETIN
SP	Yes	**S**END **P**ERSONAL
ST	Yes	**S**END **N**TS
T	Yes	**T**ALK
U file	No	**WR**ITE file
V	No	**I**NFO **V**ERSION
W	No	**DI**R or **LS** in conjunction with **CD**

3.2 W0RLI commands not supported

The following commands are not currently supported in the N0ARY BBS. They may be added in the future if users indicate an interest.

Cp call	Connect to call using port p
IH	List users of this BBS at location
IZ	List users of the BBS at this zip
Mp	Monitor port p
RT	Invoke RoundTable?
S	Show system status

In addition to the above commands, none of the W0RLI sysop commands are supported consistently. The internal structures of the BBS's differ dramatically.

3.3 N0ARY BBS extensions not supported by W0RLI

This is where we get even :)

CHECK IN/OUT	NTS message handling
CLUBS	Special include lists
EMAIL	E-mail forwarding of personal mail
EQUIPMENT	Equipment database RIG, COMP, TNC, SOFT
DIR|LS|CD	DOS/UNIX file system structure and cmds
EVENT	On-line event calendar
LINES	Terminal support
LOOKUP	On-line callbk lookups
LIST	Complex LIST commands
MACRO	User defined command macros
ME/WHO	User accounts
MOTD	Message of the day
PASSWORD	Account protection
READ WHO	Display who has read a message
SEARCH	On-line callbook searches, name, qth, zip, etc.

SEND SECURE	Secure message handling
WX	On-line weather information

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