PPARES District-14
Packet 101
TNC Configuration

Configuring your TNC for:

Date and Time

Your Callsign

Your Mailbox

Your Node

Your Alias

Tactical Callsigns

What MODE are you in?

Two most common modes:

Command Mode – computer is talking to the TNC (for configuration or telling it to do something)

Converse Mode – Computer is telling TNC what to transmit over the air

COMMAND Mode

To enter COMMAND mode

- [CTRL]-C [ENTER]**
- TNC responds – “cmd:”

- Computer is talking directly to the TNC
- Command mode is used to configure the TNC – or tell the TNC to do something

CONVERSE Mode

To enter CONVERSE mode

- From COMMAND Mode (cmd:)
- Type CONV(erse) [ENTER]

or a shortcut

- Type the letter K [ENTER]

Anything else you type will be broadcast in an unconnected state over the air

Date & Time Are Important

- They get added to your messages
- Mailboxes time-stamp messages when they arrive – set TNC clock!
- Easier to find messages if logged chronologically
- Many terminal programs use your computer time, make sure it is correct – set computer clock!
- Use local time for local events

Set Your TNC Clock

The DA(ytime) Command

- Format:
  - cmd: DA YYMMDDhhmmss
- Example, 3/1/07 18:40.25
  - cmd: DA 070301184025

Monitoring
The M(onitor) Commands

- M(onitor) ON or OFF [ENTER]
  - Allows you to listen in on packet traffic
  - Must be on for next two commands to work
- MCON(nect) ON or OFF [ENTER]
  - Monitor connected, allows you to monitor other traffic on the frequency even if you are connected to another station
- MCOM(mands) ON or OFF [ENTER]
  - Monitor Commands allows you to monitor supervisory command packets that normally are not displayed.

Entering Your Callsign
the MYC(all) Command

From COMMAND Mode

- cmd: MYC [CALLSIGN]
- Press the ENTER key

- To Confirm:
- Type MYC [ENTER]

Secondary Station IDs "SSID"

- TNCs have various functions
  - Chat with the System Operator (SYSOP)
  - Leave a message in the mailbox
  - Use another station as a repeater
    - Digipeater
    - Node
- SSIDs are used to tell a TNC which function you wish to use
  - [CALLSIGN] only – chat
  - [CALLSIGN]--1 "usually" accesses a mailbox
  - [CALLSIGN]--7 "usually" accesses a node

Dangers of Secondary Station Identifiers

- When you use a digi or a node to connect to another station, the repeating stations automatically adds a countdown number (SSID) to your callsign. It starts with –15 and counts down with each additional intermediate station.
- If you have multiple packet stations on the air you will need to have a good numerical separation established.
- Using MYCall-2, and going through a node to call your Mail box, (Mycall-1) will NOT work.
- When your –2 leaves the node, it comes out as a –1 and tries to call itself. Won't work!!!

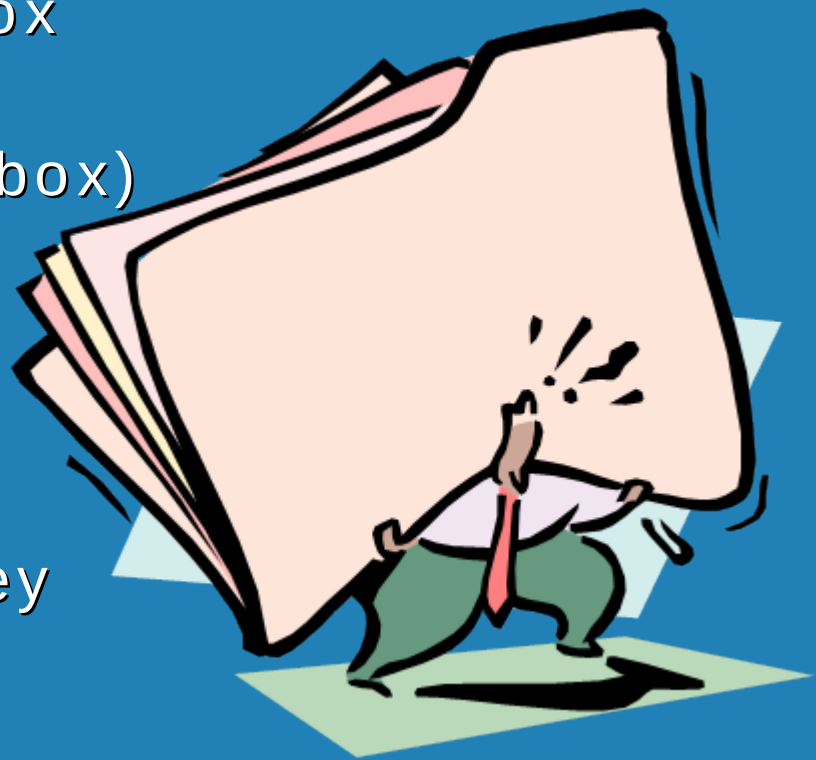
Your Mailbox or PBBS

Packet Bulletin Board System

Configuring your mailbox

- MYP(bbs) or MYM(ailbox)

- cmd: MYP KØHBZ-1
  or
- cmd: MYM KØHBZ-1
- Press the [ENTER] key



To confirm

- Type MYP or MYM [ENTER]

Your Node
Normally [CALLSIGN]-7

Configuring your NODE

- MYN(ode) or MYG(ateway)

- cmd: MYN KØHBZ-7

or

- cmd: MYG KØHBZ-7

- To confirm:

Type MYN or MYG [ENTER]

Use an ALIAS as your Digipeater call!

Command: MYA(lias)

- cmd : MYA WES

  or

- cmd : MYA WPARK

  or

- cmd: MYA TCEOC

Packet Tactical Callsigns

Used Primarily for EmComm

Tactical callsigns are used for portable packet station deployment. It enables sending messages to a location or facility abbreviation rather than to an operator's callsign.

You will need to change your TNC callsign configurations to reflect the name of the agency where you are assigned.

Packet Tactical Callsigns

Say you are deployed to Penrose Main Hospital (PMH) – you would configure your station as follows:

- cmd: MYC [your legal CALLSIGN]
- cmd: MYA PMH
- cmd: MYP PMH-1
- cmd: MYN PMH-7

Packet Tactical Callsigns

Other tactical callsign examples:

- Penrose Community Hospital – PCH
- Memorial Hospital – MH
- Colo. Springs EOC – CSEOC
- Teller County EOC – TCEOC
- American Medical Response – AMR
- American Red Cross – ARC
- Langstaff Brown Medical Center – LBMC

Text Strings

Tell others about your station

- B(eacon)T(ext) – Text sent by your station's beacon
- C(onnect)T(ext) – Text sent when somebody connects to your station
- P(BBS)T(ext) – text sent when somebody connects to your mailbox
- N(ode)T(ext) – text sent when somebody connects to your node

Text Strings

I generally set mine all the same:

Beacon Text

BT K0HBZ Digital Station; K0HBZ/D K0HBZ-1/P K0HBZ-7/N

Connect Text

CT K0HBZ Digital Station; K0HBZ/D K0HBZ-1/P K0HBZ-7/N

PBBS (Mailbox) Text

PT K0HBZ Digital Station; K0HBZ/D K0HBZ-1/P K0HBZ-7/N

Node Text

NT K0HBZ Digital Station; K0HBZ/D K0HBZ-1/P K0HBZ-7/N

Getting Connected

Who or what you connect to depends upon whether you want to CHAT, leave a MESSAGE (Mailbox) or use another station as a repeater (NODE or DIGIPEATER).

The C(onnect) Command does it all

If you want to connect to my station to chat:

C(onnect) K0HBZ

If you want my mailbox:

C(onnect) K0HBZ-1

If you want to use my node as a repeater:

C(onnect) K0HBZ-7

Digipeaters & Nodes

Digipeaters & Nodes
What's the difference???

Both are used to repeat & extend range

- Digipeater = Digital Repeater
  - Like a parrot, a digipeater repeats exactly what it hears – right or wrong!
  - If it hears a mistake, it just sends the message along – mistake and all.
  - Digis don't correct errors
- Nodes have "intelligence" and work for you.
  - A node detects when an error has occurred and asks the sending station to resend the data.
  - A node won't forward a message on until it has a confirmed receipt of an accurate copy.

Using a Digipeater

Use the VIA or V command

- CMD: C KØHBZ VIA WPARK
  or
- cmd: C K0HBZ V WPARK

Simple to use and you can string DIGIS together with commas.

- CMD: C KCØQPS-1 V WPARK,WES,MARC

Node(s)

- Nodes check accuracy and send/receive acknowledgements (acks) all along the repeated path.
- This makes nodes more efficient than digis.
- TNCs have a limited number of stations that can use the node function at the exact same time.
- See your NUMNODES command.
  - Changing the NUMNODES value will cause a soft reset of your TNC.

Using Nodes

cmd: C WPARK-7

###LINK MADE
###CONNECTED TO NODE WPARK-7(NX0G-3) CHANNEL A
WPARK-7 MARC Woodland Park Library Node
ENTER COMMAND: B,C,J,N, or Help ?

C MARC-7

02-Mar-07 12:51:37 *** CONNECTED to MARC-7
###CONNECTED TO NODE MARC-7(NX0G-2) CHANNEL A
Welcome to the MARC Node, Woodland Park, CO DM79la
ENTER COMMAND: B,C,J,N, or Help ?

C K4ARM-1

###LINK MADE
[KPC3-6.0-HM$]
4178 BYTES AVAILABLE
THERE ARE 3 MESSAGES NUMBERED 105-121
K4ARM MAIL: PPARES AEC-WX OPS; QRT FOR LCL T-STORMS; PLS LV MSG, 73
ENTER COMMAND: B,J,K,L,R,S, or Help >