How to Set up Tactical Calls

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1.1   Introduction

Amateur Radio voice nets have used tactical call signs for years. However, the flexibility of Tactical Calls has been elusive in the packet radio world due to a variety of limitations and constraints. Ideally, Tactical Call support should be implemented at the BBS. However, it appears that all out-of-the-box BBSs do not explicitly support the use of Tactical Calls. Outpost implements Tactical Calls on the Outpost (client) side.

For tactical calls to work, 2 requirements must be met:

1. The tactical call sign must be perceived as sufficiently valid by the BBS. Many BBSs perform some rudimentary level of call sign checking for connecting stations.

2. The packet station implementing tactical calls must correctly identify with its legal call sign per their local legal rules.

1.1.1   What does work?

The following table describes what has been confirmed as a working tactical call.

BBS/PBBS	Format	Examples

F6FBB	A 6-character string
	• Dashes are not allowed
	One format is: #xxxxx, where:
	  # is a number.
	  xxxxx is any combinations of 5 leters.
		1MTHOS – Mountain Top Hospital
		1PVMD1 – Palo Verde Medical Center
		1DCMD2 – Disaster City Medical Center
		1SFCOH – South Fork Community Hospital

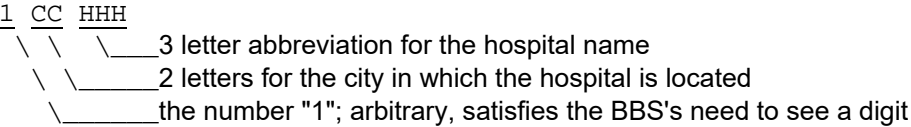| BBS/PBBS	Format	Examples
JNOS (requires TAC CALL code to be compiled in)	Any 6-character string • Dashes are not allowed	XSMEOC – County EOC LOSCSA – Los Osos Creekside ARK XSCF83 – Santa Clara County Fire Station 83
Kantronics KPC3P	Any 6-character string • Dashes are not allowed	CUPEOC – Cupertino EOC BAYEOC – Baywood EOC VALSH1 – Valley Shelter 1
Winlink	http://n4ser.org/2020/winlink-using-tactical-addresses/ Tactical Addresses are 3 to 12 total characters. • alpha only, -(dash), alpha, and numbers • No numbers to the left of the -(dash) • A-Z, 0-9 • No spaces or special characters. Tactical Addresses are all CAPITALS.	NOKOMIS SHELTER-1 ARC-DOC SCHL-2S Aid-S2
Others?	!!! If you find a BBS not listed here that actually does support Tactical Calls, please pass it along and we can add it to this doc.	

1.1.2 Example

Given the current BBS designs, the approach for using Tactical Calls is essentially to find and adopt a call sign structure that satisfies the BBS' call sign checking logic while still making sense in your organization.

The best way to understand this is to look at an example. In *Disaster County,* the County Hospital system is implementing a packet network for its 11 regional hospitals using the F6FBB BBS as its packet mail drop. The standard 6 ascii character Tac Call did not work. So, after experimenting with different tactical call formats, the local packet operators hit upon a tactical call structure for as described in the table above. Some of them are:

- 1MTHOS – Mountain Top Hospital
- 1PVMED – Palo Verde Medical Center
- 1DCMED – Disaster City Medical Center
- 1SFCOH – South Fork Community Hospital

For the hospital system, the basic tactical call format that 'they' agreed to is:

```
1 CC HHH
 \ \   \____3 letter abbreviation for the hospital name
  \ _____2 letters for the city in which the hospital is located
   _____the number "1"; arbitrary, satisfies the BBS's need to see a digit
```

1.1.3 How To

To use Tactical Calls, proceed as follows:

1. What does your BBS support? Determine a tactical call structure. This may take some experimentation to find a format that works; not all BBS's are the same. From the Outpost, select **Tools > Interactive Packet** or some other packet program (such as PuTTY), set the TNC "mycall" to your test "tactical call".

2. Connect to the BBS. At this point, you are connecting with your tactical call and not your legal call sign. Verify that the BBS accepts the call sign. If the connect is successful, register the Tactical Call with the BBS if you are prompted.

3. Try sending yourself a message (round trip). If successful, you have a valid tactical call format.

4. OK, we're ready to configure Outpost. From the main menu, select **Setup > Identification**. Check the "Use Tactical Call... " box.

5. Press New (if not previously defined). Enter your Tactical Call in the "Tactical Call" field.

6. Fill in the ID Text String. This will be part of the transmitted legal identification String. For instance, if your Tactical Call is " 1MTHOS", your FCC call is "KN6PE", and you set the ID string is "Mountain Top EOC", the following string will be transmitted as your legal ID at the end of your Send/Receive Session:

    ```
    de StationID=KN6PE, TacticalCall= 1MTHOS, Mountain Top EOC
    ```

7. Optionally, enter a Message ID Prefix. This is used for creating unique message IDs for your messages. For instance, if your Tactical Call is " 1MTHOS", your FCC call is "KN6PE", you could set the Message ID Prefix to "HOS". Another approach is to use the last 3 characters of your call sign, such as "6PE" (in my case).

8. When done, press **OK**. Note that your tactical call is listed in your status line at the bottom of the Outpost main window.

9. At this point, when you start a new message, it will open with (using the above example) **1MTHOS** set as the From: address. When connecting to the BBS, Outpost will look for messages addressed to **1MTHOS**.

10. To turn off Tactical Calls, go to **Setup > Identification**, and uncheck the "Use Tactical Call... " box. All subsequent message and BBS processing will occur with your legal call sign.

1.1.4 Is it Legal?

Stations that identify with a tactical call must also identify with their legally assigned call sign. In the United States, the FCC addresses the subject of station identification in Part 97.119, and states that each amateur station "… must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication, for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmission. No station may transmit unidentified communications or signals, or transmit as the station call sign, any call sign not authorized to the station."

NOTE: AX.25 is the underlying protocol that makes packet work. The AX.25 Link-Layer Protocol Specification complies with the X.25 specification with the exception of:

1. an extended address field, and

2. the addition of an Unnumbered Information (UI) Frame.

The extended address field of every frame is encoded with the station of origin and destination amateur call signs. In short, under typical use, every time an AX.25 packet is transmitted, it essentially identifies the transmitting station and satisfies the requirements of Federal Communications Commission (FCC)

Part 97.119. For more information, see: AX.25 Amateur Packet-Radio Link-Layer Protocol document found at http://www.tapr.org/pdf/AX25.2.2.pdf.

To summarize, the three points to reiterate:

- Under FCC rules, station identification must occur at the end of each communication, and at least every 10 minutes during a communication.

- The FCC rules do not state that the expanded AX.25 address field with embedded Call Sign is required for packet station identification. While the AX.25 implementation satisfies the requirement, this is not the only method that the requirement could be met.

- Outpost satisfies the requirement for legal station identification by transmitting the user's valid station call sign at the end of each Send/Receive session (see Step 6 in the HOW-TO above).

1.1.5 Other Notes

The above is based on what has been tried. Some TNC PBBS will accept a 6-character tactical call without the use of any digits. Other BBSs may not be so easily fooled and attempt to thoroughly validate the Tactical Call as a valid call sign. The true limitation of Tactical Calls lies with how the BBS was actually implemented.