Ham 309 – AS3 User - DTMF
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1. Why AllStar3? The system uses analog RF to a duplex repeater / simplex radio, which connects through a sound card interface to a Raspberry Pi on the internet. The digital side uses Asterisk PBX protocol to connect and control other radios and computers using a DTMF keypad.
   - AllStarVoip connects RF systems.

2. With AllStar3, your signal is on a radio & computer. If linked, you are on remote repeaters.
   a. Listen before connecting. On your radio, key the mic and transmit your ID. While keyed, send the tones.
   b. Wait a couple of seconds for the network exchange. Listen for tones when things change.

3. You need the node (phone) number for connection and control.
   - AllStarLink node numbers: http://stats.allstarlink.org/ . Use Ham 301 to keep track of all the passwords
   - Evergreen: KI5UNR-R, 584801

4. Common DTMF codes for ASL3 are listed. Optional can be added in rpt.conf.

DTMF	Commands
*1 [node]	Disconnect from link number
*10	Disconnect from last connect
*2 [node]	Connect to node, monitor only
*3 [node]	Connect to node, transceive

DTMF	System Commands
*4	Enter command mode on link
*5	macro
*70	System status
*99	Cop,6 PTT phone mode only

DTMF	System Commands
*711	Force ID local
*721	Force ID global
*722	Time of Day global
*723	Software version global
*724	GPS location
*725	Last DTMF user

5. Example: You are on node 58000, KI5xxx.
   - You wish to link to Evergreen node 584801. Connect only with approval of both system operators.
   - Listen. Key up, say your callsign, and enter: *3 584801.
   - If the node doesn't speak an error, you are connected. Evergreen & your link are one.
   - Give your ID again, and make your call just like on a radio or announce you are listening if you want to chat.

6. Example: You are on a radio through the simplex link, 58000.
   - You wish to see what is linked through Evergreen repeater 584801
   - Listen. Key up, say your callsign, and enter *75 584801.
   - The node will read back everything connected.

7. Example: You are on a radio through simplex link, 58000.
   - You wish to connect to remote hub node 584801, but do not want to interfere with activity.
   - Listen. Key up, say your callsign, and enter *2 584801, for receive only.
   - Transmission on simplex link will not go to remote hub.
   - Activity on remote hub will be heard on simplex link.

> Key Up:
>   Wait for xmit about 1 sec.
> Finish Talking or DTMF:
>   Wait to release key about 1 sec.
> The radio, computer, and internet take time to process.

8. Example: You are in receive only, but wish to initiate transceiver to talk.
   - Listen. Key up, say your callsign, and enter *3 584801.
   - You are connected. Give your callsign again, you are on the radio.

9. When entering codes, after mic push wait two-seconds or until the yellow LED comes on. Make key push very deliberate. Press down key, hold for count 1 2, release. Repeat.

10. NOTE: Two nodes on the same router cannot communicate.

11. Life is good. Enjoy!

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