

About W1FN AllStar system

The 145.33- W1FN repeater on Moose Mountain is connected via a 220 mhz remote link to a Raspberry Pi running the hamVoIP distribution of AllStar. AllStar is a repeater system based on Asterisk, an open source PBX platform. More info on AllStar can be found at at <http://hamvoip.org>.

While AllStar can be used as a full repeater controller, we're using it just for linking the W1FN repeater to other repeaters and hams over the Internet. We can establish links to and from EchoLink users, repeaters and conference groups as well as to other AllStar nodes and users. More info on EchoLink can be found at <http://www.echolink.org>. At some point in the future, the system may also be used to support remote receivers and permanently linked repeaters in order to expand the W1FN coverage area.

Things you will need to know if you want to link TO the W1FN repeater from another EchoLink or another AllStar node, or from your PC or other computer device:

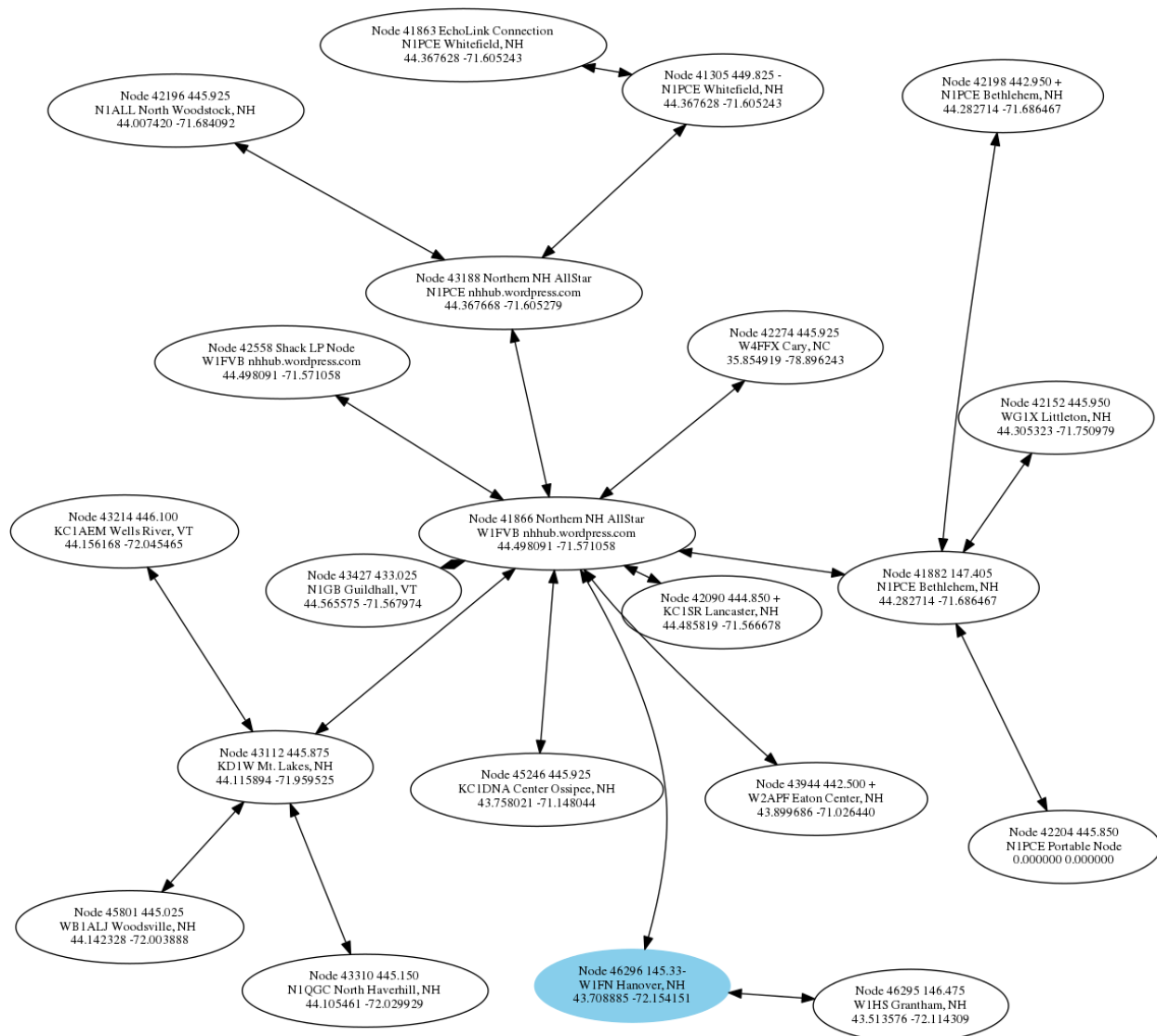
Our EchoLink node name is W1FN-R and our EchoLink node number is 363356.
Our AllStar node name is W1FN-L and our Allstar node number is 46296.

W1FN AllStar system status

To see what the W1FN repeater is linked to at any given time, view a variety of performance statistics and other info, point your web browser at <http://46296.asnode.org/supermon>

<i>Node 46296 => W1FN 145.33- Hanover, NH Bubble-Chart</i>						
Node	Node Information	Received	Link State	Direction	Connected	Mode
46295	W1HS 146.475 Grantham, NH	000:02:05	ESTABLISHED	IN	00:02:18	Transceive
41866	W1FVB Northern NH AllStar nhhub.wordpress.com	Never	ESTABLISHED	OUT	00:01:38	Transceive

In this example, the W1FN repeater is linked to by AllStar node #46295, W1HS as well as to AllStar node #41866, the [Northern New Hampshire Amateur Radio Linking Network](#). Clicking on "Bubble Map" will show a graphical representation of the established connections.



Allstar Link [surrounding node 46296] status of 11/13/17 14:53:02 GMT

Looking at the bubble chart you'll see W1FN linked to Node #46295(W1HS) as well as Node #41866(W1FVB, Northern NH AllStar). W1FVB is also shown linked to a whole lot of nodes which comprise the Northern NH AllStar network.

Connecting and disconnecting links on the W1FN AllStar system

Here's how you can establish or disconnect links on the W1FN AllStar system.

- **Start by monitoring the repeater** for 30-60 seconds to make sure that the repeater is not in use, then proceed. If it is in use, please don't send any commands to the repeater as doing so might disrupt someone else's conversation.

- **Before sending commands** to the W1FN repeater, please identify yourself and say what you're intentions are so that other folks listening to the repeater know what's happening. Key up your mic, Identify with something like *'this is <your callsign>, linking the repeater'*. It is usually best to not link the repeater to another repeater if is already linked to something. Doing so can cause a large number of repeaters to be linked to each other and tie up our repeater with talk between users of those other repeaters that may not necessarily be directed to anyone in the local W1FN service area.
- **See what the W1FN repeater is connected to before you establish more links.** Key your mic and dial *70 on your DTMF keypad to have the AllStar system tell you what the current connections are. If the system is not linked it will say *"Node 46296 - repeat only"*. If the system is linked, it will say something along the lines of *"Node 46296 - node 42353 transceive"*
- **To link to another AllStar node**, for example the Northern New Hampshire AllStar network which is node number 41866 send *141866. The repeater will respond with *"Node 41866 connected to node 46295"*. After the link has been established, identify yourself so that folks on the other node know who just dropped in, *"This is <your callsign> via the W1FN repeater"*.
- **To unlink another AllStar node**, send *3141866. The repeater will respond with *"Node 41866 disconnected"*.
- **To unlink the last connected node**, send *10. The repeater will respond with *"Node xxxxx disconnected"*, where xxxxx will be the number of the last node which the system had connected to.
- **Linking EchoLink nodes** is the same procedure as for AllStar, but you'll need to put a "3" before the **6-digit EchoLink node number**. If the EchoLink node number is shorter than 6 digits, prepend 0s before it. For example, to link to EchoLink New England Reflector *NEW-ENG* which is EchoLink node number 9120 you would send *33009129 The repeater would respond by saying *"Node 3009129 *NEW-ENG* connected to node 46296."*
- **To disconnect an EchoLink node**, send *13<6-digit EchoLink node number>. To disconnect from The New England EchoLink Reflector, send *13009129, or *10 to disconnect from the last connected node. The repeater will respond with *"Node 3009129 *NEW-ENG* disconnected"*.

Please remember that due to the nature of the linked network, it is good practice to pause between transmission a little bit longer than normal as it takes some time for all the nodes to key

up and for tails to drop between transmissions. A good rule of thumb is a 3 second pause between transmissions.

W1FN AllStar user commands

*1<node>	-	Disconnect Link to <node>
*2<node>	-	Link <node> in Monitor Mode
*3<node>	-	Link <node> in Transceive Mode
*70	-	Connection Status
*80	-	Force System ID
*81	-	Say System Time
*980	-	Say AllStar software version

Notes:

1. <node> is an Allstar Link node number, or a 6-digit EchoLink node number prepended with a "3".
2. Node number zero (0) is shorthand for the last node operated on by a previous command
3. Monitor mode means listen to a node, but do not send any audio to it.

Questions about using or accessing the W1FN AllStar system should be directed to Steve, W1HS at w1hs@arrl.net