N0NBH-L Echolink® 145.5 MHz Simplex

Worldwide Communications via EchoLink

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•Echolink Repeater Node #
235978

N0NBH-L Echolink® Briefing

- ## What is Echolink®?

  - For <u>licensed</u> hams, Echolink® opens up new possibilities for communicating around the world with other amateurs

  - Echolink® communicates over the Internet, using voice-over-IP (VoIP) technology.

  - The program allows worldwide connections to be made between RF stations, from computer to RF station, or from computer to computer thereby greatly enhancing Amateur Radio's communications capabilities

  - In Sierra Vista AZ 145.500 MHz simplex links you to any of thousands of other stations WORLDWIDE over the Internet using my station and internet connection

  - All you need is a 2m transceiver with a DMTF keypad

  - You use the DMTF tones to do all connecting, querying, and disconnecting
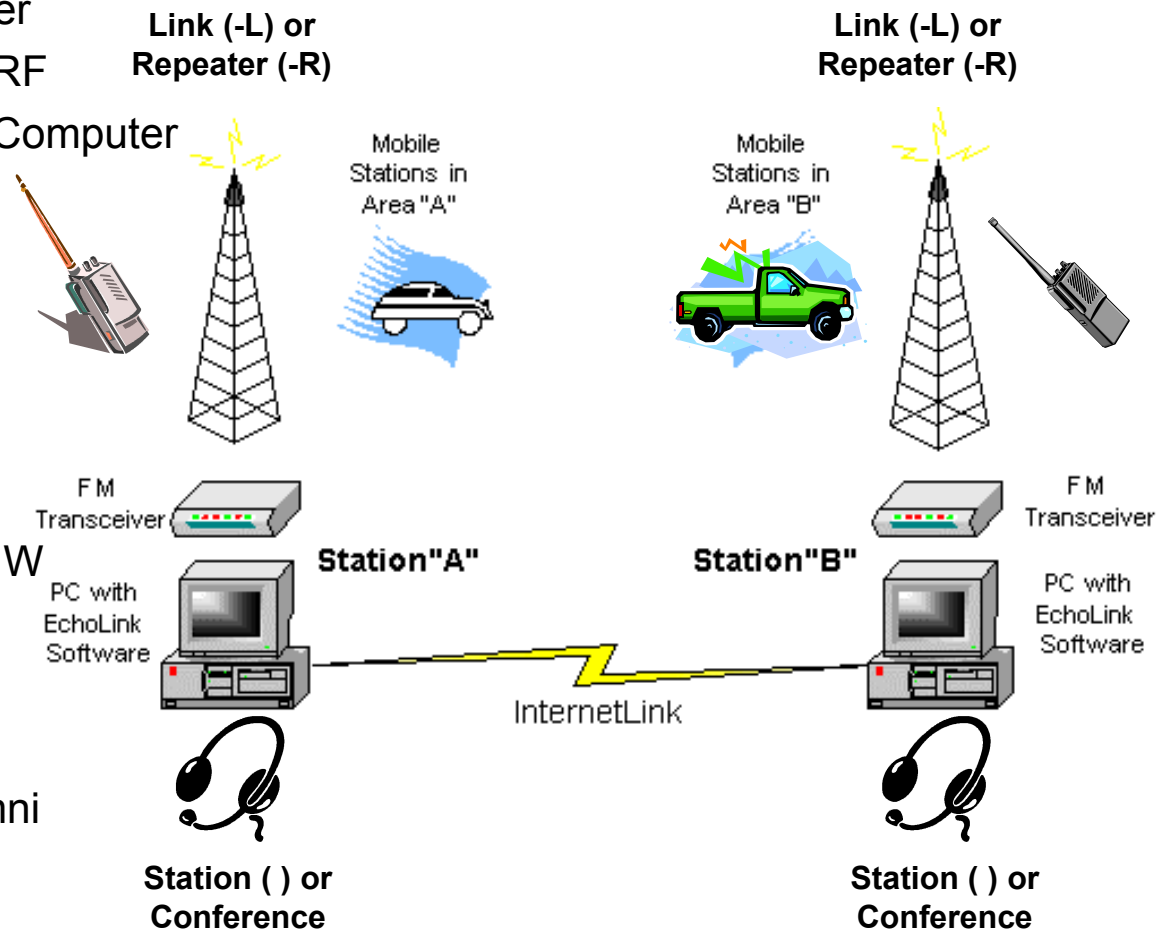
N0NBH-L Echolink® Functionality

- You do NOT need a computer or program to use Echolink®
  - RF <—> RF
  - RF <—> Computer
  - *Computer <—> RF
  - *Computer <—> Computer
- Sierra Vista AZ
  - Freq: 145.5 MHz Simplex
  - Call: N0NBH-L
  - Node: 219744
  - Lat: 31°30.13' N
  - Long: 110°15.74' W
  - Grid: DM41um
  - Power: 50 W
  - Ant Height: 20'
  - Ant Gain: 6dB omni
  - Up 24/7

Link (-L) or Repeater (-R)

Link (-L) or Repeater (-R)

Mobile Stations in Area "A"

Mobile Stations in Area "B"

FM Transceiver

FM Transceiver

Station "A"

Station "B"

PC with EchoLink Software

PC with EchoLink Software

InternetLink

Station ( ) or Conference

Station ( ) or Conference

Who's Currently on Echolink®

- If you have a computer and want to find all the stations currently active, connected to the internet as follows (only requires browser):
  - Connect to http://www.Echolink.org
  - Select "Current Login" to see who is currently on (just record the node# of the station you want to talk to)

Introducing EchoLink

NEW Order online!
ARRL Book on Internet Linking
see Reviews

EchoLink® software allows licensed Amateur Radio stations to communicate with one another over the Internet, using voice-over-IP (VoIP) technology. The program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities. There are more than 146,000 registered users in 152 nations worldwide!

Take a Tour
Download
Interfaces
Support and FAQs
Help Files
News and Tips
Vanity Node Numbers
EchoLink Proxy
Current Logins
Link Status

Current Logins

As of 2/16/2005 17:58 UTC
Total Logged In: 2784

Repeaters (942)
[Conferences] [Links] [Users]

Call	Location	Status	Time	Node
4X4ARC-R	TEL AVIV ISRAEL R70	ON	19:52	26350
4Z4IZ-R	HAIFA REPEATER R-12	ON	19:57	169676
6M0KK-R	¿¡ÅÚ¸µÅ©À ü±¼¬ÇÕÈ¸ (4)	ON	02:56	182086
7K2EQC-R	Tokyo (2)	ON	02:56	159160
9A1CBB-R	JN86ED / Novi Marof	ON	18:53	208694
AA0IY-R	Concordia, MO	ON	12:01	51683
AA3RG-R	PineGrove, PA 146.640	ON	12:54	149493
AA6RJ-R	In Conference *PINOY*	ON	09:55	40515
AB4KK-R	North AL linked rpts	ON	11:55	63231
AB5XD-R	Everman Tx (espanol)	BUSY	15:52	227928
AB6VR-R	Lemoore California	BUSY	09:44	171551
AC0Y-R	Walt Disney World Area	ON	12:51	86525

Links (1098)
[Conferences] [Repeaters] [Users]

Call	Location	Status	Time	Node
2D0IOM-L	Castletown Link (2)	ON	15:48	196205
2D0MSF-L	Ramsey Link (1)	ON	15:49	187180
2E1EDB-L	EchoIRLP Gateshead, U [0/4]	ON	15:23	185239
3A2MZ-L	Monaco, France, Italie	ON	16:49	6789
4Z4UT-L	beer-sheva israel	ON	07:46	42522
6K0BO-L	6M0KK CAR NGO(SEOUL)	BUSY	00:44	227067
6K0PD-L	6M¨KKïñ¶Ñ144.720	ON	23:55	208284
6K2AXE-L	¼0¿0144.620 D9 0 I U	ON	00:49	202248
6K2DPT-L	Inchun, Korea	ON	00:47	3932

Users (594)
[Conferences] [Repeaters] [Links]

Call	Location	Status	Time	Node
2E1IIA	runcorn (2)	ON	15:50	148853
2M0LJM	Troon Ayrshire Scotland	ON	15:48	235028
4X6MI	Modiin	ON	17:55	235561
4Z4TK	ISRAEL- QTH.PETCH-TIKVA	ON	17:44	64711
7L2XZL	Gunma Tatebayashi	BUSY	00:51	208497
7N2VNF	Saitama, JAPAN	BUSY	00:46	168377
7N4WPX	In Conference 7N4WPX-L	BUSY	00:45	185045

Finding RF Links on Echolink®

- Select "Link Status" to see what links and repeaters are up in the area of interest

EchoLink Link Status
Home | About This Page

Home
Take a Tour
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Interfaces
Support and FAQs
Help Files
News and Tips
Current Logins
Link Status

○ Show All Links

○ Show Links Near:

	Deg	Min	
Latitude:	31	33.27	North
Longitude:	110	18.18	West

○ Show Links Near:

Grid Square: [   ]

● Show Links Near:

City: sierra vista   State/Prov (if any): AZ   Country: United States

All ▾   Find

Links Near sierra vista AZ US

Show First 10 on a Map

As of: 2/16/2005 18:00 UTC

Showing Results **1** To **100** Of

Call	Description	Node	Latitude Longitude	Grid Square	Dist (mi)	Freq (Mhz)	Tone (Hz)	Pwr (W)	Haat (ft)	Ant	Last Status	Comment	Last Update (UTC)
N0NBH-L	Sierra Vista AZ-145.500	219744	31°30.13' N 110°15.74' W	DM41um	4.3	145.500		49	20	6dB omni	Online	On @1751	2/16/2005 17:51
N2IY-R	NOGALES, AZ. R.D.N (1)	215155	31°23.45' N 110°57.30' W	DM41mj	40.1	147.180	107.2	25	5120+	6dB omni	Conn	=XE2SIV at 1751	2/16/2005 17:51
KE7CDN-R	[offline]	231779	31°23.45' N 110°57.30' W	DM41mj	40.1	147.180	107.2	25	5120+	6dB omni	off	Off @0102	2/3/2005 01:02
WD7F-R	Tucson N.E. 146.94	1125	32°17.39' N 110°27.28' W	DM42sq	51.6	146.940		64	20	6dB omni	Online	On @1748	2/16/2005 17:56
AD7DM-L	Tucson, AZ - 145.615 S	85296	32°10.46' N 110°48.12' W	DM42oe	51.9	145.615		25	20	3dB omni	Online	On @1757	2/16/2005 17:56
KC7JLH-L	[offline]	234345	31°00.00' N 111°00.00' W	DM41ma	56.3	146.400		0	10	4dB omni	off	Off @0702	2/16/2005 07:02
KE7AZS-L	QRL (1)	227818	32°21.26' N 111°02.40' W	DM42li	70.2	144.000		0	10	0dB omni	Conn	=KC9EEQ at 1749	2/16/2005 17:51
KK7AC-L	Tucson/Oro Vally 446.5	5571	32°23.23' N 111°02.00' W	DM42lj	71.8	446.500	77.0	36	40	6dB omni	Online	On @1800	2/16/2005 17:59

Finding RF Links on Echolink®

- Select "Show first 10 on a map" to display a map of the stations in the area of interest
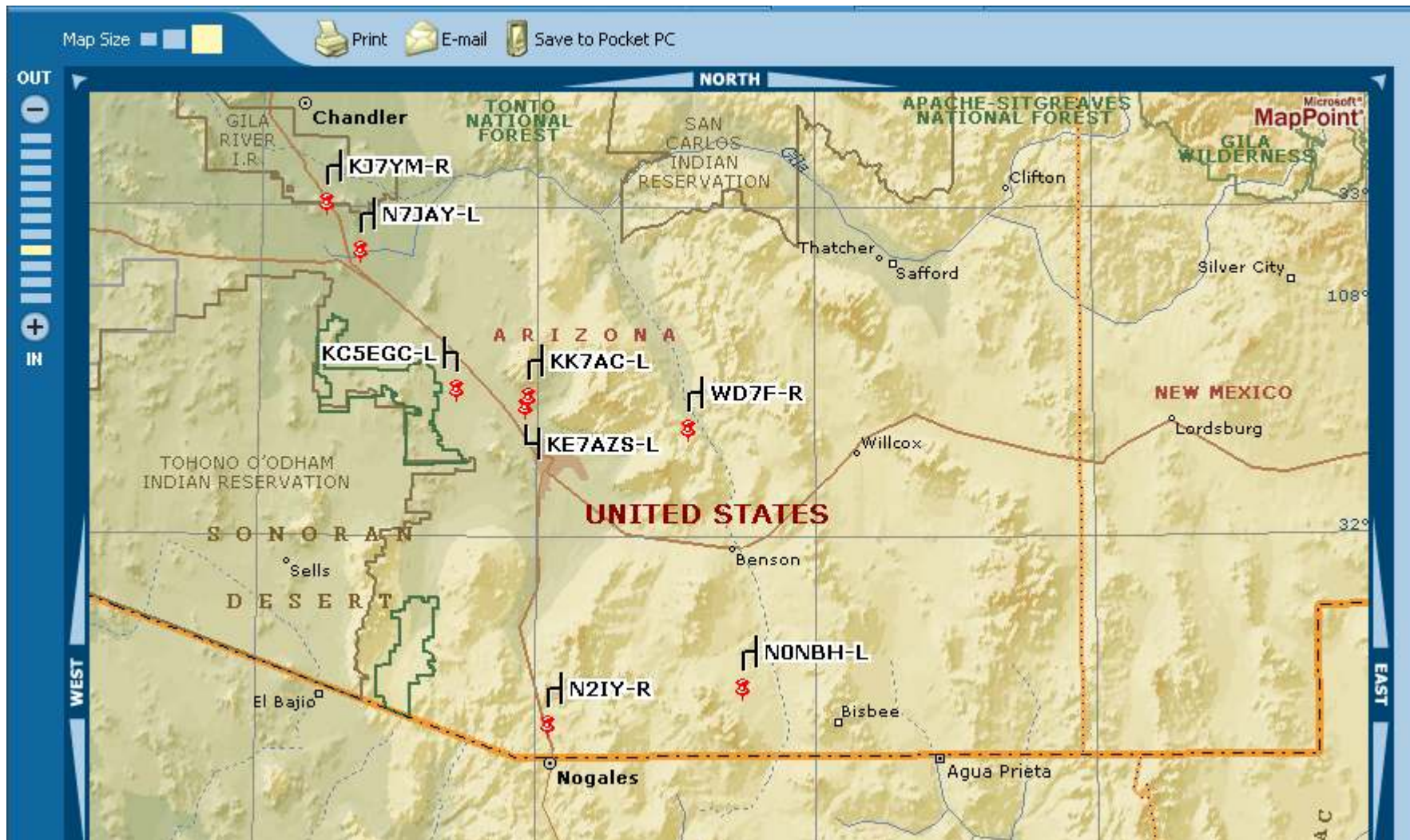
Using Echolink®

- There are several different ways you can use Echolink®
- By far, the easiest is if you know the node # you want to connect with
  - Tune your transceiver to 145.500 MHz FM Simplex
  - Announce your call sign and that you are connecting to an Echolink® patch
  - Connect to the station you want
    - If you know the numeric node number enter using your keypad
    - You will hear that it is attempting to connect, and will hear if successful or not
    - When connected, then just talk
    - Remember to announce your call sign as you are over the air
    - When done, press "#" to disconnect
    - Announce you call sign and that you are clear of Echolink®
  - As a test, connect to "9999"
    - This connects you to the Echolink® test server
    - Anything you say will be recorded and replayed to you
    - When done, press "#" to disconnect

Using Echolink®

- You can also connect to random stations, the last station connected, or even query or connect to a call sign or node
  - You have to enter a call sign using the numeric keypad as follows:
    - Letters: A=21 | B=22 | C=23 | D=31 | E=32 | F=33 | G=41 | H=42 | I=43 | J=51 | K=52 | L=53 | M=61 | N=62 | O=63 | P=71 | Q=11 | R=72 | S=73 | T=81 | U=82 | V=83 | W=91 | X=92 | Y=93 | Z=12
    - Numbers: add a 0 (so 1=10, 2=20, etc)

Command	Description	DMTF
Connect	Connects to a station on the Internet, based on its node number.	Enter node number
Connect by Call	Connects to a station on the Internet, based on its callsign.	**C**+call+**#**
Random Node	Selects an available node (of any type) at random, and tries to connect to it.	**00**
Random Link	Selects an available link or repeater (-L or -R) at random, and tries to connect to it.	**01**
Random Conf	Selects a conference server at random, and tries to connect to it.	**02**
Random User	Selects an available single-user station at random, and tries to connect to it.	**03**
Disconnect	Disconnects the station that is currently connected. If more than one station is connected, disconnects only the most-recently-connected station.	**#**
Disconnect All	Disconnects all stations.	**##**
Reconnect	Re-connects to the station that most recently disconnected.	**09**
Status	Announces the callsign of each station currently connected.	**08**
Play Info	Plays a brief ID message.	*****
Query by Call	Looks up a station by its callsign, and reads back its node number and status.	**07**+call+**#**
Query by Node	Looks up a station by its node number, and reads back its callsign and status.	**06**+num

Echolink® Instructions

- Available at http://members.cox.net/n0nbh

INSTRUCTIONS TO USE N0NBH-L ECHOLINK SYSTEM

For licensed hams, EchoLink® opens up new possibilities for communicating around the world with other amateurs. In Sierra Vista AZ 145.500 MHz simplex links you to any of thousands of other stations WORLDWIDE over the Internet using my station and internet connection. All you need is a 2m transceiver with a DMTF keypad. That's it. You use the DMTF tones to do all connecting, queering, and disconnecting. There are several different ways you can use EchoLink. By far, the easiest is if you know the node # you want to connect with. However, this sheet will show you how to connect with just a callsign. Contact me at N0NBH@cox.net with any questions or comments. My website at http://members.cox.net/n0nbh provides the links you need. I will even setup shortcuts for you if you have a station you talk to frequently. This is an experimental frequency, so by all means let's experiment. Errors and mistakes are the way we learn!

If you have a computer and want to find all the stations currently active, connected to the internet as follows:
- Connect to http://www.echolink.org
- Select "Current Login" to see who is currently on (just record the node# of the station you want to talk to)
- Select "Link Status" to see what links and repeaters are up in the area of interest

If you are ready to connect to your station, do not have a computer, or are mobile follow these instructions:
1. Tune your transceiver to 145.500 MHz FM Simplex
2. Announce your callsign and that you are connecting to an EchoLink patch
3. Connect to the station you want (easiest way is by node number)
   - If you know the numeric node number enter using your keypad. You will hear that it is attempting to connect, and will hear if successful or not. If connected, then just talk. Remember to announce your callsign as you are over the air.
   ◆ As a test, enter "9999". This connects you to the test server. Anything you say will be recorded and replayed to you.
   - When done, press "#" to disconnect. Don't worry, I have a timeout set so if it does not take, it will timeout. No harm, no foul.
   - Announce your callsign and that you are clear of EchoLink
   - That's it. It is that simple.

Don't know the node number and no access to the internet? You can also connect to random stations, the last station connected, or even query or connect to a callsign or node. See the table below for all commands.

Command	Description	DMTF
Connect	Connects to a station based on its node number.	Enter node number
Connect by Call	Connects to a station based on its callsign.	C+call+#
Random Node	Selects an available node (of any type) at random, and tries to connect to it.	00
Random Link	Selects an available link or repeater (-L or -R) at random, and tries to connect to it.	01
Random Conf	Selects a conference server at random, and tries to connect to it.	02
Random User	Selects an available single-user station at random, and tries to connect to it.	03
Disconnect	Disconnects the station that is currently connected. If more than one station is connected, disconnects only the most-recently-connected station.	#
Disconnect All	Disconnects all stations.	##
Reconnect	Re-connects to the station that most recently disconnected.	09
Status	Announces the callsign of each station currently connected.	08
Play Info	Plays a brief ID message.	*
Query by Call	Looks up a station by its callsign, and reads back its node number and status.	07+call+#
Query by Node	Looks up a station by its node number, and reads back its callsign and status.	06+num

Using a callsign is more difficult than using the node number. You have to enter a callsign using the numeric keypad as follows:
- A=21 | B=22 | C=23 | D=31 | E=32 | F=33 | G=41 | H=42 | I=43 | J=51 | K=52 | L=53 | M=61 | N=62 | O=63 | P=71 | Q=11 | R=72 | S=73 | T=81 | U=82 | V=83 | W=91 | X=92 | Y=93 | Z=12 | number add a 0 (so 1=10, 2=20, etc)

So, as an example:
- To query N0NBH (status and node #), you would enter this on your DMTF keypad: 07 62 00 62 22 42 #
- To connect to N0NBH using a call, you would enter this on your DMTF keypad: C 62 00 62 22 42 #
- To connect to N0NBH using the node number, you would enter this on your DMTF keypad: 219744
- To connect to a random link or repeater (stations that go out over RF), you would enter this on your DMTF keypad: 01

Connect
The default for the Connect command is to simply enter the 4-, 5-, or 8-digit node number to which you wish to connect.
Entering Node Numbers
To enter a node number (for the Connect or by Node commands), enter the 4-, 5-, or 8-digit node number. If the specified node is not among the stations currently logged on, EchoLink will say "NOT FOUND".
Entering Callsigns
To enter a callsign (for the Connect by Call or by Call commands), press two digits for each letter and number in the callsign (see above). When finished, end with the pound key (#). Callsigns need not be entered in full. If a partial callsign is entered, EchoLink will find the first match among the stations currently logged on. If no match is found among the stations currently logged on, EchoLink will say "NOT FOUND".

My only wish is that you use this node. Tell your friends. It is up 24/7, so please feel free to use it. Mistakes, well they are expected. We all learn from them. And as far as I am concerned, that's is what amateur radio is all about. 73 all de Paul N0NBH

Echolink® Single Station, Repeater, or Link

- Single Station Requirements
  - Echolink® program available free from http://echolink.org
  - Computer w/soundcard
  - Headset w/microphone
  - Internet connection
  - Time and patience

- Repeater or Link Station Requirements
  - All the above plus+
  - Transceiver
  - Interface
  - Antenna
  - Handheld
  - More time and patience

Single Station

Repeater or Link Station

Echolink® Program

- Available at http://echolink.org

Enjoy Echolink®

- Contact me at N0NBH@cox.net with any questions or comments
- My website at http://members.cox.net/n0nbh provides the links you need
- I will setup shortcuts for you if you have a station you talk to frequently
- My only wish is that you use this node