

The AllStar Network – August 10.2024
AllStarLink.Org
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- A Few Terms That Maybe Helpful -

Internet – Is a global computer network providing a variety of information and communications facilities, consisting of interconnected networks using standardized communication protocols.

IP – Internet protocol

IRLP – Internet Radio Linking Project. This system links amateur radio from around the World by using Voice over IP or VoIP. Each gateway consists of a dedicated computer running custom software that is connected to both a radio and the internet. This type of system forms what is known as an IRLP node.

Node – Is a radio which either transmits or receive. They can carry IP traffic, such as audio, video and/or data in both directions.

PL Tones – Private Line Tones. There are a total of 51 different conventional tones and 103 different digital tones. These tones assist in blocking out any unwanted interference on any particular radio frequency. PL tones could also be used on simplex frequencies.

Repeater – A device that when activated repeats the message that you sent to it. So, others that are further away may listen.

Simplex – Is line of sight radio communications without any added benefit.

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- A Quick Overview -

The All-Star Link is a network of amateur radio repeaters, remote base stations and hot spots that are linked through the internet. All-Star Links run on a dedicated computer that is hosted at a hams home, repeater site or computer site. These different All-Star nodes assist in passing radio voice traffic worldwide in seconds. Currently there are: 34,878 nodes worldwide and approximately 34,311 users which fluctuate. Each node is assigned an address (if you will.) That's how you know where you're talking to.

- A Little Bit Of History -

It all started in 1999 by the idea of linking Ham Radio repeaters. Jim Dixon, WB6NIL was involved in the creation of "Asterisk," an open-source telecom PBX system. While working on the "Asterisk" system it occurred to him that it could also be used for the linking of Ham Radio Repeaters which led to the creation of the All-Star Link system. Many linked system like CONDON (in California) and CACTUS are linked via an RF backhaul. The AllStarLink utilizes VOIP similar to EchoLink and IRLP but with much better quality.

- Several Purposes -

There are a few purposes for the All-Star program.

1. Just a general additional resource to communicate Worldwide.
2. Experimentation
3. To pass messages when required or necessary
4. Emergencies

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- The Cost To Have Your Own -

An All-Star node to set up and operate costs between \$500 - \$700.00, depending on the equipment purchased. Or just use one closest to you and the way you would know that, is to use the All-Star node maps. The node maps give you worldwide locations, frequencies, the node numbers and call signs. For example, if you were to look up Payson, Arizona. You would see three All-Star nodes in this area.

- Nodes Within The Payson Area -

<u>NODE NUMBER</u>	<u>NODE ID</u>	<u>FREQUENCY</u>	<u>ZONE</u>	<u>LOCATION</u>
1. 524291	K7MWD	DMR Bridge	BM TG312657	Payson
2. 526070	KD6PZB	147.500 S	107.2	Payson
3. 556334	N6RDS	446.300 -	123.0	Payson

To communicate to or through an All-Star node.

1. Tune in the frequency as shown on the map or chart.
2. Make sure your settings are set correctly. Example, frequency, PL tone, off sets, if any. There may be no offset because that node is running simplex only. Range on a node depends on its location, of course, but a normal range is between 3 to 10 miles of it's location. Also, the receiving node has to have someone listening. The basic command codes for the KD6PZB node is as follows:

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- Command Codes For The KD6PZB Node -

Key up and say (your call sign) controlling...

* **1** - + the node number disconnects you from the system

* **3** – Turns on the command to chat with other nodes. Remember this system is Worldwide. After *3, type in the node number that you either want to talk to or maybe just want to listen. If your selection went through correctly, unkey your mic and listen. You should hear the system repeat what you typed in and tell you: “Connected” or “Connection Failed.” If you did fail to connect it could be a few different reasons.

A. You don't have a strong enough signal to actually control the system.

B. Either the radio or the internet is down for the moment, at that particular location. Or,

C. The radio, node or internet is down at your target location.

***76** – Disconnects all that you've done on the system, up to that point.

***80** – I.D.'s the node (KD6PZB)

***81** – To hear the time of day/night in a 12-hour format.

***82** - To hear the time of day/night in a 24-hour format.

Normally, the node is open and ready to be controlled. In other words, you do not need to * 3 first. Just key up with your call sign and say

“Controlling.” Unkey and listen. The system should ID itself to let you know that it does hear you and your DTMF commands are being received. Then key up again and type in what other node number you would like to connect with. Unkey, the system should then repeat back what you just entered. If it did, you're connected and good to go. If the connection failed for some reason the system will come back with the words “connection failed.” You're welcome to try again. Sometimes your tones may have not been read by the system correctly.

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- What You Might Hear -

On the 526070 Payson node, this node is connected full time into node number 526030 located in Tucson so whatever 526030 is listening to you will hear the same. Also, at 11:00 AM on Saturday mornings, you can listen to “News Line” sent by Mike Faulkner, KE6GBK located in St. John’s Arizona. At the top of each hour, you will also hear the local time and a short weather report for Payson. As you experiment with this node. You will soon find that you can connect to others around the World.

- Nodes Can Be Separate (Stand Alone) Or Connected To Other Nodes Within The System -

All Star nodes can be separate (standalone) or one node can be connected to other nodes within the system. You may hear many multiple nodes when you’re connect to just one. The reason this is happening is because the node that you are connected to is also connected to other nodes.

- Remember For Further Information -

Remember for further information just go to the All-Star website and type in

AllStarLink.Org