

LCARS IRLP Information

The **Internet Radio Linking Project**, also called **IRLP**, is a communications means that uses Voice over IP (VoIP) to link amateur radio stations worldwide. Using the Internet as the linking transmission path between two distant repeaters, hams can talk to each other through an IRLP gateway. A gateway (called an IRLP Node) consists of a dedicated computer running IRLP software, and is connected between a radio and the Internet. Hams communicate with each other using their radios, while the Internet connected computers provide the long path for their VHF or UHF signals.

Amateur radio (or *ham*) operators within radio range of a local node use their radio DTMF tone generators to initiate a node-to-node connection, no matter where in the world the other node is located. Every node has a unique 4 digit node number ranging from 1000 through 8999. A real-time searchable list of all nodes worldwide (and their current status) is available anytime by viewing the [IRLP Network](#).

There are two types of IRLP connections: node to node, and node to reflector. Amateurs desiring to communicate with three or more nodes simultaneously (similar to a conference call) can do so through an IRLP reflector. Reflectors have a unique node number (between 9000 and 9999), and most reflectors have ten channels (0-9) with channel 0 being the main channel. The fourth digit of the reflector number indicates the channel it occupies. During severe weather, all Skywarn connections through the local LCARS area repeaters are linked into the 9211 reflector.

Two repeater systems in the LCARS listening area are IRLP capable, and the IRLP Node numbers are listed on the [repeater page](#). These repeaters are open to all Amateur Radio Operators with a Technician or higher class license. LCARS encourages all hams that can access the repeaters to give this new mode a try, and expand your communications capabilities worldwide!

How To Use IRLP

Easy Peasy – all you need is a radio with a DTMF (TouchTone®) pad, and a node number to connect to. Node numbers can be found by:

1. Go to the IRLP Project page on the web at <http://irlp.net>
2. Click on the “NODE INFO” link in the left menu
3. Then click on the “Connected Nodes and Reflector status” or the “List of nodes and Frequencies” links in the center of that page.

Once you’ve found a node to connect to, the procedure is as follows:

- Key your radio.
- Enter the # key then the 4 digit node number, then unkey.
- Now you can talk and identify normally to anyone on the other repeater. You will hear their conversations and they hear ours across the repeaters.
- **After keying your radio, PLEASE PAUSE FOR ONE SECOND, and between each transmission, PLEASE PAUSE FOR TWO SECONDS.** (This allows the IRLP system to properly transmit the data over the Internet between Nodes.)
- When you have finished using the node, please disconnect it by keying your radio and entering #73. The link will drop after a period of inactivity, but it is your responsibility to disconnect after you are finished.

Please don’t just let the links timeout since it may be a long time before that timeout occurs. **Remember that a two second PAUSE is necessary between each transmission**(you and the distant end) and **a one second PAUSE is necessary after you key your radio BEFORE you start speaking.** If you do not pause, the distant station will lose the first few seconds of your transmission. Remember to follow the rules for identifying and appropriate repeater use.