

IRLP Instructions for Amateur Radio Operators

December 22, 2011 – KE7ZIW – Steve Fehlhaber

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IRLP, the Internet Radio Linking Project, can open doors around the world for 2 meter Amateur Radio Operators who are fortunate enough to have a Node (access point) near enough to them for reliable radio contact.

The principal behind this fascinating capability is the marriage of Radio/RF and the Internet pipeline. Quite simply, we can use a base, mobile or handheld Amateur radio to connect to any “IRLP node” which is an active radio receiver/transmitter also connected to the Internet. Technologically, this is a blending of Analog and Digital communication. Using voice over the Internet has a demonstrated history in our society at this time via companies like VONAGE. This VOIP (voice over internet protocol) enables addressable voice communication anywhere in the world where either telephones and/or interconnected radio equipment is installed.

For Amateur Radio, (see steps below) it means that we can key our microphone on a frequency or channel that contains IRLP capability (in range of course), with the microphone keyed, we state our call sign, still with the microphone pressed we enter the 4 digit Node information related to the location we have selected, and release the PTT button. With today’s modern radios, the microphone or radio face has a keypad available for entering this information. This 4 digit “Node” information is sent as DTMF tones, similar to the tone-generating telephones we have used for years.

In basic steps:

- If you do not already know an access Node frequency and set up, you can use these steps to locate that Node also. Remember, you will be using a Radio to access a Node nearest you which will be your “Gateway” to points around the World. (Radio to Internet to Radio in distant lands!)
- Select the IRLP node you wish to connect with via your “Gateway” by using this site: (<http://status.irlp.net>)
- Then select **Nodes by Country** and simply select which Country you want to access.
- If you have chosen the **USA**, the report displays by State. Find the State you are interested in, select a 4 digit Node near your preferred location and follow these simple steps:
 - Make sure you can contact an active Node directly with your Radio*,
 - Listen to be sure the frequency is clear,
 - Key your microphone and identify your station (say your Call Sign),
 - With the microphone still keyed, **enter the 4 digit Node number** you have selected and then release the PTT button.
 - The Node corresponding to the 4 digit number should respond within a few seconds with its “Greeting”.
 - **After the “Greeting”**, you are free to call anyone or “CQ” by keying your microphone and talking exactly the same as if you were communicating to another radio operator in your own town.

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- Because you are virtually establishing a “link” when you entered the Node 4 digit number, you will need to “disconnect” when you are finished or if you want to leave without making a contact. **You must always disconnect** or the link will remain active until the equipment on the other end “times out”. Not recommended.
- To Disconnect from the link, key your microphone, say your Call Sign, “disconnecting” and enter 73 from your keypad. The Node should acknowledge the disconnect with a departure statement (ex: “Node xxxx disconnected”).

Essentially, you established a link over the internet, communicated via that medium, and then disconnected upon completion. Similarly, when we use email or Twitter or IM, we send from our location to an addressable location somewhere else. We never have to enter our own address before sending, just where it is going.

* The Node you are “contacting” (gateway to the internet) with your RADIO also has a 4 digit Node number but this is only for those who wish to access it via the internet from afar, not needed by locals accessing by Radio.

The IRLP network is world-wide and a lot of fun to use. It is open to any licensed Amateur Radio Operator when the access point is available or not in use. Emergency traffic or current users will always take priority. Wait your turn if it is busy or ask if you can join an ongoing conversation by saying your Call Sign between others conversations. They should acknowledge your presence. If not, simply wait unless you need the frequency or channel for Emergency reasons (threats to life, health or property).

In the playtime that I have been able to enjoy the IRLP system, I have been able to talk to folks in Germany, Ireland, Australia, New Zealand, many stations in the USA and my most proud IRLP moment, Antarctica.

73 and have fun.

Steve