

Ten things to do, with a handheld radio

July 2018
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This series of articles are intended to give the newcomer to ham radio an insight into some of the things that can be done with a handheld dual band radio.

8: International repeaters

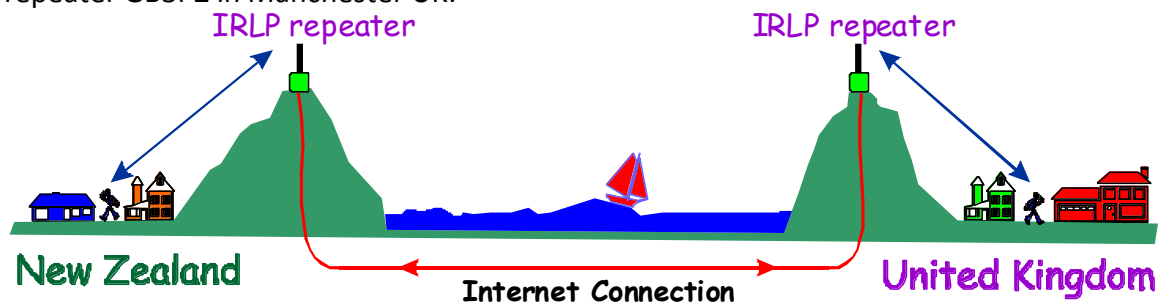
In the Repeater article of this series, we covered the basic operating procedures to use a repeater. In this article we will investigate the international side of the technology. The two foremost methods to connect to repeaters in other countries are IRLP and EchoLink:

Internet Repeater Linking Project (IRLP)

In 1998 when people realized the power of the world wide web, and “free” communications became a reality, a group of Hams developed a project to allow amateur radio operators to talk between repeaters using Voice Over IP protocol.

How it works

A ham radio operator, say in New Zealand, wants to put a call out through the IRLP repeater GB3PZ in Manchester UK.



He selects the correct frequency and CTCSS for his local IRLP repeater, and checks he gets a tail from the repeater. If all is well, he transmits his call sign and then dials the GB3PZ access code (5400) on his handheld radio keypad. He will hear the UK node speak its status and say “Link Open” or something similar. If the distant repeater is free he can then call through it, and have a conversation with anyone willing to answer his call. Of course, time differences must be considered, so it is unlikely a response will be heard at 3AM UK time. When he is finished, he transmits 73 from his keypad, and the link is closed. Welcome to worldwide communications on a handheld.

For convenience of Kiwi hams, here is a list of New Zealand nodes, and their details.

Node number	Call	Place	Freq and shift	CTCSS freq
6095	ZL1AM	Whangarei	-438.7000	123.0
6105	ZL2AA	Gisborne	-146.8000	None
6223	ZL1MBB	Whitianga	+147.0750	None
6285	ZL2KS	Blenheim	-146.9500	None
6397	ZL4AU	Invercargill	146.4500	None
6398	ZL1BOI	of Islands	-146.7500	None
6507	ZL4JH	Dunedin	-146.6500	None
6549	ZL1IS	Waikato	-145.6750	None
6595	ZL1OTF	Kaipara Harbour	147.3250	None
6606	ZL1ZLD	Auckland	-145.7750	None
6609	ZL1KIWI	Hamilton	0.0000	None
6713	ZL2VH	Upper Hutt,	+147.3000	None
6767	ZL1NC	Islands	146.5250	None
6793	ZL2AS	Hastings	+147.2500	None
6900	ZL3CAR	Christchurch	-145.6250	88.5
6910	ZL2OA	Masterton Wairarapa	+147.1750	None
6929	ZL1KW	Kawerau	-147.0000	None
6943	ZL2KO	Feilding	+147.1250	None
6950	ZL1BQ	Auckland	-146.7000	None
6966	ZL1IBM	Whananaki	432.7000	None

EchoLink

Like IRLP, EchoLink software allows licensed Amateur Radio stations to communicate with one another over the Internet, using streaming-audio technology. This is a similar system to IRLP but has the added facility of the network being accessible by computer as well as radio. In fact, every EchoLink station must involve a computer. The program allows worldwide connections to be made between stations, or from computer to station, and will also allow group calls to be made. According to the website, there are over 200,000 validated users worldwide, in 151 nations, with about 6,000 users online at any given time.

As the EchoLink network is accessible by anyone with a standard computer, the user needs to create a login and password, after having his/her call sign verified by sending a scan of the license. Many Hams may use this system when, for various reasons, they do not have the use of a radio.

The software, that runs on Windows, will display the status of active stations and allow them to be called. Although not officially supported, other EchoLink compatible systems are available for Mac and Linux users.

Because the EchoLink network is easily accessed with a computer, this can include an Android or iPhone mobile device on the internet, giving another option for mobile operations.

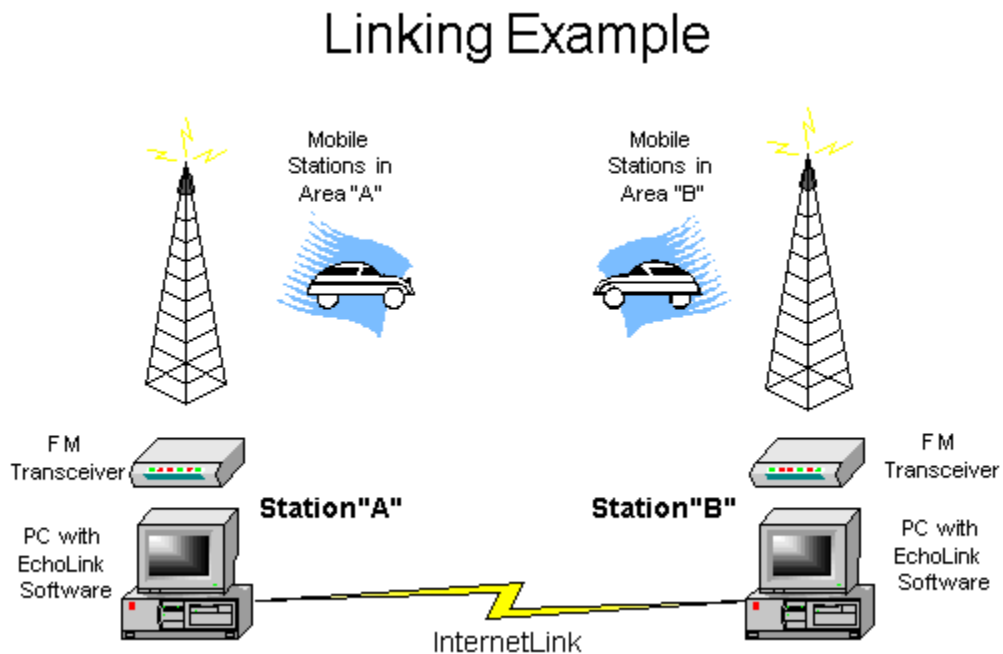


Figure 1 System diagram for an Echolink connection

Further information

IRLP

- A complete list of nodes, along with other useful information, can be found at <http://www.irlp.net/>
- The Active node status is here <http://www.irlp.net/statuspdf.html>

EchoLink

- EchoLink home page <http://www.echolink.org/>
- This page will help you find your nearest node
<https://repeaterbook.com/repeaters/niche/index.php?mode=EchoLink>

Nodes

To discover where your nearest repeaters are, as well as what radio frequency and CTCSS codes they require, go to the NZART website
<http://www.nzart.org.nz/info/repeaters/>