Port Orford Area Radio Club Member

The KE7FXM EchoLink® Node **721727**

Striving for a Self-Sufficient Life Style

Jimmy (KE7FXM) EchoLink® station node 721727.

The KE7FXM EchoLink® (Node 721727) operates under the licensed call sign issued to Jim Wills, Jr. He operates his node as a User, RF Link, and as a Repeater depending on the circumstances.

Jim is a member of the Port Orford Amateur Radio Club (POARC) and connects his node to their K7POH repeater. The POARC weekly net is run via local repeater and EchoLink®. Jim's node also allows POARC members to participate in the Glendora Emergency Response Communications weekly net run by Mark (N7YLA-L, node 358124). Jim often contacts Greg (HS0ZHM, the RTC-TH Thailand EmComm EchoLink® node 520300) and Dick (KJ6EPE-L, node 514459) in southern California.

The KE7FXM EchoLink® "Link" Gateway has a dedicated laptop computer / VHF radio combination. This permits local simplex VHF radios to contact Jim's gateway and access his EchoLink® for world-wide contact well beyond the original design range of a basic 2m VHF radio. Public service is a key part of amateur (ham) radio. Jim uses a 13-element yagi antenna to cover his area along the south Oregon Coast. Hap (KF7KMV) with the support of Pat (KF7MWX) approached Jim to connect his node to the K7POH repeater to allow repeater users access to EchoLink. This was approved by the POARC and was completed in late summer 2012. Greg was a key part of the initial testing for that set up.

This is just another example of how "networking is better than not working". Many hams who haven't had experience using EchoLink® are hesitant to try it or are skeptical about it. The Port Orford hams were amazed at the results of connecting Jim's node to the K7POH repeater. It was astounding that with 5 watts on an HT they could be talking to hams half a world away in Thailand!

Hap (KF7KMV)

Pat (KF7MWX)

Jim (KE7FXM)

For new hams, EchoLink® beats the price barrier to getting started. If they already have a computer, they can get free exposure to the world of ham radio.

The THORCA (Thailand – Oregon – California) EchoLink® Connection: the Pacific Triangle

The social aspect of ham radio is marvelous. Greg and Mark "met" Jim, Pat, Hap via the GERC weekly radio net. Pat needed help to demonstrate EchoLink® to his local area of Port Orford, OR. Greg offered to help Pat. During the demonstration, Dick checked in and had a chance to meet Greg. All this was going on via Jim's EchoLink® node. From East to West, then North to South, these EchoLink® nodes form a triangle. [**Note:** We're using some geographic literary license here.] When plotted on a map, these nodes form the THORCA TransPacific Triangle (Thialand-Oregon-California).

Greg (HZ0ZHM) in Thailand

Mark (N7YLA) in southern California

Dick (KJ6EPE) in southern California

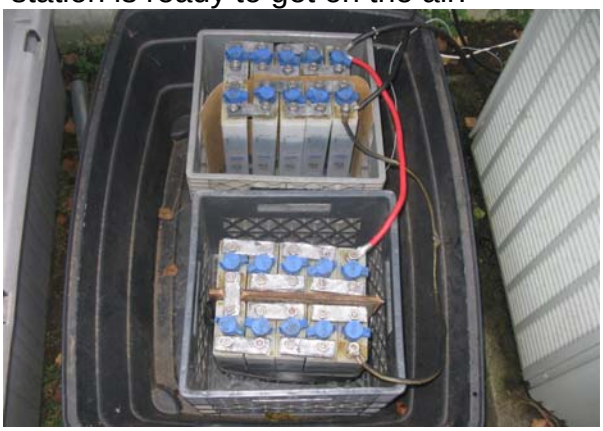
For Greg, THORCA gives him access to hams with many years of experienced for suggestions and advice in his quest to set up his station in rural Thailand. Few local Thais speak English to be of help. The use of EchoLink® is a stepping stone for him to eventually get his HF radio on the air.

KE7FXM Node Off-the-Grid

One panel grew to an array of three.

True to his philosophy, Jim has the option to take his station off the grid. He started with a single solar panel and a couple of used deep cycle batteries. He did things one step at a time. Jim keeps an eye and ear open for bargains on solar panels and batteries to expand his system. Later he got several used 1.2 VDC NiCad wet cells. Jim linked 10 of these in series to make 12 VDC battery packs. He tied them into the system increasing the systems' storage capacity. The battery banks are in plastic dog houses purchased from yard sales.

Running his station on 12 VDC solar power is consistent with the basic EmComm focus of "being prepared". In the event of a local emergency and loss of power, Jim's station is ready to get on the air.



Two new battery packs from salvaged NiCad cells

The original battery bay and charge controller

MFJ-1116 12 VDC power strip distributing power from the solar battery bank (optional inverter available if needed)

13-element yagi
~25 ft / 8m AGL (station is 19 m AMSL)

Kenwood TM261 2m VHF Transceiver interfaces to a MFJ-1275M to the radio to the dedicated Laptop computer

MFJ-1275M interface
includes software, audio cables, and power plug; RJ-45 microphone plug. Kenwood, Icom, Yaesu and compatibles

Dedicated Dell Inspiron 1501 laptop computer

LinkSys Wireless G Broadband Router

K7POH

Port Orford Amateur Radio Club
Port Orford, Oregon
www.qsl.net/k7poh

K7POH 147.200 MHz, + offset, PL 118.8 at the city water tank.

K7POH is the POARC repeater. It is located at the Port Orford City Water Tank.

They hold a weekly net, Wed at 1900 hrs Pacific time. Visitors are welcomed after the member roll call.

This is the repeater shack (left) built and maintained by POARC members. Future plans include a new 2m VHF antenna for the repeater and an HF antenna for emergency (non-repeater) operations.

Asia-America Gateway Undersea Fiber Optic Cable

We aren't certain, but it seems the Asia-America Gateway may be the physical internet connection between US and Thai EchoLink® nodes. As with most technology, the rate of change often exceeds print and web media information.

Add to this the complexity of international agreements, corporate mergers, and the fact that the stations are under different government jurisdictions and ISP (Internet Service Providers contracts, You can readily understand how difficult it is to find the actual physical connections between stations in Thailand and the US.

Another level of uncertainty arises when a "disaster" strikes. A few years ago, an earthquake in Taiwan caused a break in the Trans-Pacific undersea cable. This cut Internet service between Thailand and the US. However, the Internet traffic was re-routed through Europe to the US. After a brief "outage" Thailand's Internet service was restored. For most users, it was not obvious that the electrons were going in the opposite direction to the US. Connectivity is connectivity.

Most of us are unaware what is going on behind the scenes to make modern technology work. We tend to take much of the technology for granted. For example, few give any thought to the idea that the electro-mechanical devices of telephones, fax, and copy machines can function independent of language. No matter who speaks on a telephone using whatever language, their message comes out and is understood by their friend on the other end.

During many of our EchoLink® demonstrations, participants are amazed at the clarity of the sound quality. We are all speaking in our normal voices. No one is shouting, and we can hear each other from the other side of the world!

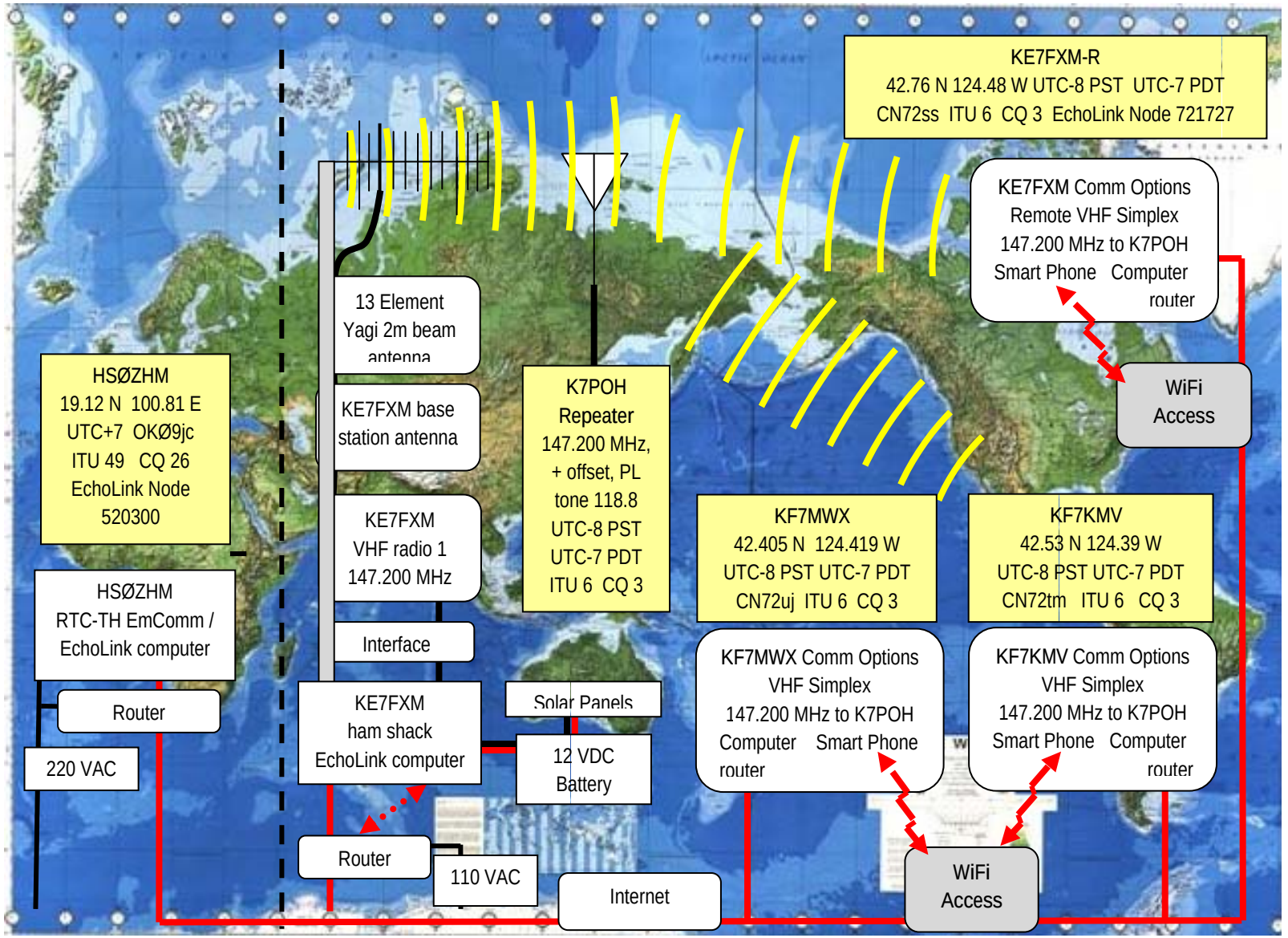
HSØZHM EchoLink® "User" Node 520300 / KE7FXM-R EchoLink® Gateway Node 721727

Rural Training Center-Thailand

GERC-AI

Ready to Serve and Sustain Our Community

Greg
HSØZHM
(KI6GIG)



Port Orford Hams

Jimmy, KE7FXM

Hap, KF7KMV

Pat, KF7MWX

Jimmy has the EchoLink® node. Its connected to the K7POH repeater. Jimmy, Pat, and Hap also use HTs and "smart phones" on EchoLink.®