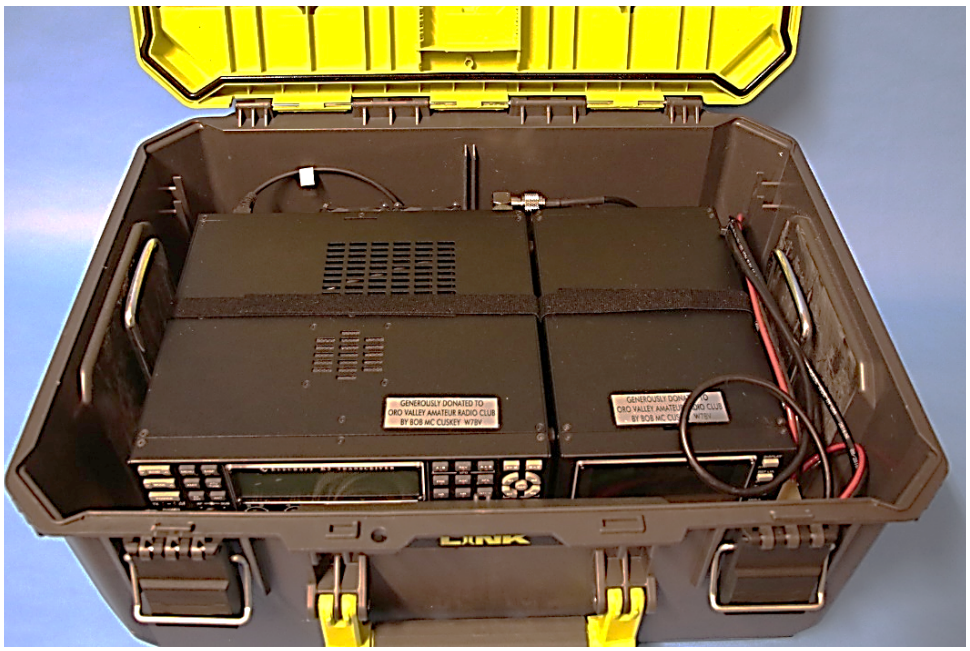
OVARC HF Go Kit Update - March 4, 2023

Field events are a club activity that OVARC is revitalizing, post COVID. A complete Elecraft K3 station was donated to OVARC by W7BV to be used as a club station. However, OVARC did not have a good way to store, transport, and set up the equipment in a field environment. Logan, KE7AZ submitted a grant request to the ARRL Foundation and received a grant of $1,776.52 to build an HF Go Kit for OVARC to use for field events, public displays, Field Day, and other activities. The grant was supplemented by equipment that was donated to the club. He began construction of the Go Kit in December 2022, and the “Beta” version was presented at the February 2023 members meeting for use at the February OVARC Outing.

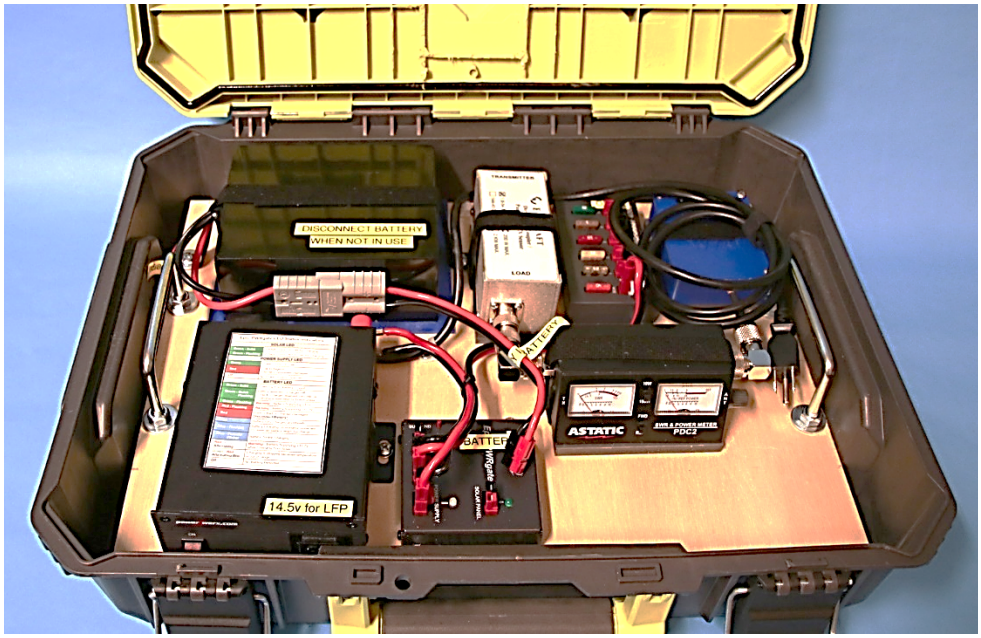
The Go Kit was designed using a modular toolbox system from Ryobi. When the toolbox modules are stacked, the Go Kit is easy to move and store. When the individual modules are unstacked, each is an easy to handle, easy to load package. In this way a single person can load, unload, and move the Go Kit from storage to a field site. The Module Stack will be supplemented with antenna hardware, like a tripod, mast, etc., once the final antenna selection is made.

The Radio Module contains the donated K3 Transceiver and P3 Spectrum display mounted on a 14”x23” plywood panel. All interconnections are

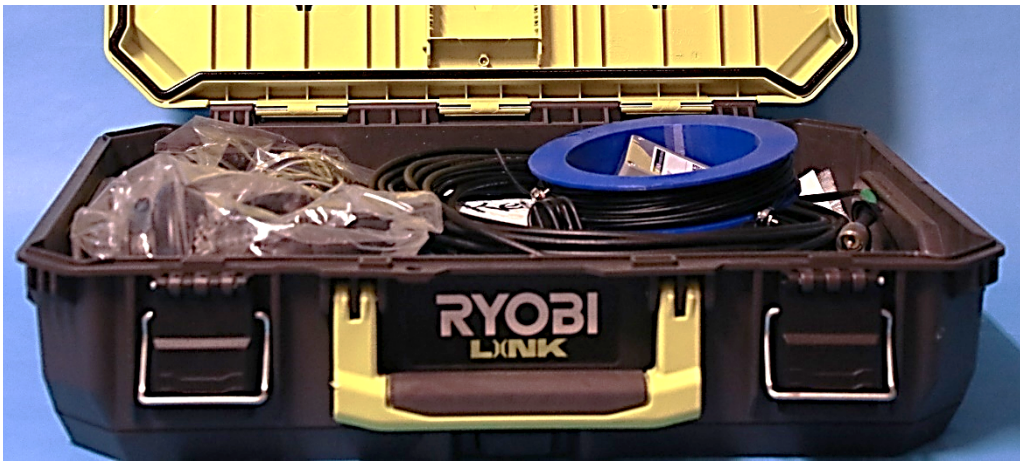


secured and only three cables need to be connected once the Go Kit is deployed. These cables are for the antenna, power supply, and P3 RF sampler.

The Power/RF module is also constructed using a 14”x23” plywood panel. It contains a 30 Ah lithium ferro phosphate battery, a 12-v power supply, an EPIC Powergate to switch between the power supply and battery, as well as provide a solar charge controller for an external solar panel. A 5 port RigRunner is provided to distribute the power. The Power/RF module also contains all of the external RF components that include the P3 RF sensor, a simple SWR/power meter to monitor the transmitted signal, and a coax choke. Everything is prewired so that it is only necessary to connect the three cables from the Radio Module to complete the station. The Power/RF module is pictured below.



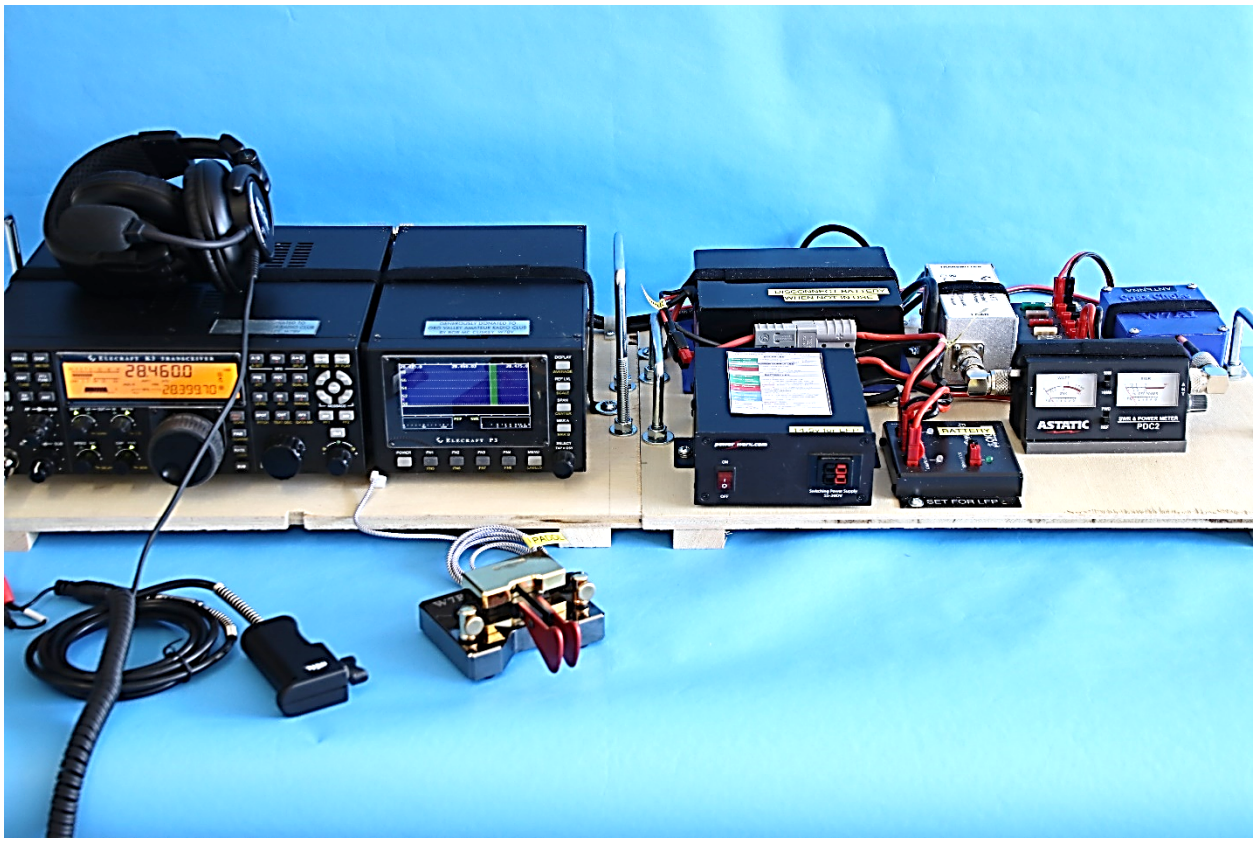
The Accessories Module contains operating accessories that include a Heil headset, Heil earphones, a hand microphone, a handheld PTT switch, and an iambic paddle. The Accessories module also contains 50 ft of RG8X



coax, and an assembled ARRL 40M EFHW antenna. The Accessories Module, pictured below, is still under construction.

The Base Module will contain a variety of items including basic tools, an antenna analyzer, safety equipment, antenna hold downs, etc. The contents of the Base Module will be refined as the HF Go Kit is used.

The deployed HF station setup is shown below,



The Go Kit was used for the February OVARC outing and feedback from this field use will be incorporated as the construction is finished.