

Executive Summary for the 2013 ARES Packet Radio Initiative

The purpose of the Packet Radio project is to provide each healthcare facility in the North Hawaii ARES district with the capability to send and receive messages via the State of Hawaii packet radio network. This is accomplished with a packet radio field unit consisting of three principle components: a laptop computer, a terminal node controller, and a two meter radio including an antenna, mast, and feedline.

Each packet radio field unit requires the following accessories: a DC power adapter so the laptop computer can be powered from an external 12 volt source; a terminal node controller with personal mailbox capability, and a two meter transceiver programmed for the frequencies used by the state packet network. The TNC must have a miniDIN 6-pin male plug wired according to the convention used by all modern radios for the accessory port. For radios that use a different connector for the accessory port, an adapter cable will be needed. This radio specific interface cable will have a miniDIN 6-pin socket on one end and the appropriate connector on the other.

If the laptop computers do not contain a hard disk drive and the BIOS does not support booting from a USB device, they must be booted with a version of the Linux operating system via the internal optical drive. Several identical boot CDs must be created. One will remain in the drive of each laptop computer.

If USB thumb drives are used for booting and/or data storage, they shall contain ProComm communications software, message forms, and several sample messages suitable for SKYWARN, Healthcare of Hawaii, and Civil Defense exercise purposes. Each thumb drive will need to be preconfigured, i.e., customized to contain a unique call sign and location specific to each unit. The call sign may be the call sign assigned to a station at a specific location like North Hawaii Community Hospital, the call sign of the Emergency Coordinator who is the custodian of the unit, or the Kohala Hamakua Radio Club call sign.

One person shall be in charge of insuring that the files on the boot disk and the files on the USB thumb drive contain all of the appropriate data and are kept up to date. This is necessary to insure consistency so that the behavior of all units is virtually identical.

Each ARES Emergency Coordinator or designee shall be the custodian of one of these packet radio field units. Each custodian is responsible for upkeep and deployment during planned exercises and real-world call outs. The packet radio field units should be stowed at their designated hospitals whenever practical.

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