

VASHON-MAURY ISLAND RADIO CLUB
EMERGENCY COMMUNICATIONS TRAILER
LESSONS LEARNED
November 5, 2010



1. Equipment is powered by 12 volt batteries and a 110 VAC inverter. Batteries are recharged from a gas generator. It is important that all equipment continue functioning while the generator is being refueled.
2. A variety of 12 VDC to 110 VAC inverters are available. Use a rugged one with sufficient capacity which emits little noise on radio frequencies. QST magazine tested several inverters and we bought one that tested very low for radio frequency emissions.
3. We use donated used laptops. They don't last forever (we keep spares handy!) and it isn't worth buying a special 12 VDC power supply for each laptop. Instead, we use the 110 VAC power supply that comes with the laptop and power it from the inverter.
4. Winlink e-mail over ham radio is invaluable for detailed communications. It provides a radio link to send/receive e-mail using a radio mailbox station that does have the Internet. We have developed detailed "cheat sheets" listing operational steps. We feel continual operator training is a necessity for the system to function smoothly.
5. We have both VHF (local) and HF (long distance) modems and radio equipment for Winlink. If none of the local mailbox stations (VHF) have the Internet you can connect to an HF station in Alaska or Hawaii or California or Texas that does have the Internet. In an actual disaster this is important because nearby functioning mailbox stations will be overloaded. The ability to reach distant stations greatly increases the system capacity.
6. Routing all antenna feed lines to a common panel is good practice. It insures that all antennas and radios are connected to a common radio frequency ground. All our radios, patch panel connections, and cables are clearly and consistently labeled by function to help with setup and troubleshooting.
7. It's important that one or two people can set up the trailer and get it on the air.
8. Have lots of blank forms on hand.
9. Keep printer paper in a sealed, dry container. Damp paper jams the printers.
10. All five Vashon/Maury Island fire stations have identical VHF/UHF voice radios and "cheat sheets" for ease of training and use. Winlink systems are available at each station as well and the ham personnel can send e-mail to local hubs (like the trailer) that

can relay them to distant mailbox stations. The trailer can stand alone but is really part of an integrated system.

11. Vashon has two local VHF mailbox stations listening for callers 24/7.
12. The trailer and equipment were donated or purchased with club funds raised by the members by building antennas and selling them at ham radio conventions. King County, DHS, and Vashon Rotary grants funded the more expensive equipment.
13. The "free" trailer required a lot of donations and hard work over many years, but we feel that the end result is a quality product that will be of great service to the community.
14. We have used the trailer for many communications events, such as Sound Shake '08, The Vashon Triathlon (HOTS), and the ham field day events. Each time we use it, the members improve their skills and come up with new enhancements, such as supplies of food, water, tools and hygiene items.