Kamloops Amateur Radio Club
REPEATER REPORT

January 5, 2013

UPDATE: VE7RLO temporary repair

VE7RLO repeater Mt. Lolo

- On January 5, 2013 Myles (VE7FSR) used a borrowed snowmobile to haul repair parts, tools and test gear up to the repeater site.
- The plan was to try and get the repeater and microwave links back in operation for the winter, without the use of a tower.
- Four key tasks were identified: a VHF antenna for the repeater; a UHF antenna for the UHF hub and remote receivers; a UHF link antenna to Silver Star; and, re-establish the microwave links between Lolo and Greenstone.

- The UHF hub antenna was the easiest – an old 2-bay UHF folded dipole antenna was still on the wood pole out front of the building, and its hardline still fed inside. All it needed was a patch cable between the hardline and the duplexer and the UHF hub and UHF remote receivers would be back in business!
- The 2-bay VHF folded dipole antenna (un-damaged!) that was at the base of the collapsed tower was removed and used for the VHF repeater. This 2-bay antenna has been temporarily mounted to the wood pole out front using three 3500 lb ratchet straps!

- The Silver Star link UHF yagi antenna and hardline were removed from the collapsed tower, as was the CAT5 cable and 2.4GHz NanoStation (used to link to Mercury Speed's tower for internet).
- An old piece of scrap pipe that came off the chain-link fence was dug out of the snow and affixed to the base of the collapsed tower with zip ties and electrical tape (I couldn't find any pipe clamps or u-bolts under the snow). This will be the new "mast" for the NanoStation and Silver Star link antenna, which was aligned using a compass and bearing taken from Google Earth.

- The 5GHz dish, mounting brackets and pipe were removed from the collapsed tower, and using ratchet straps (again!) it was mounted to the tall pole to the north of the repeater building.
- The UHF and VHF antennas were swept with an Anritsu SiteMaster and all VSWR measurements were 1.5:1 or less. The repeater was put back on the air and tested (thanks to VE7VGO).
- The 2.4GHz and 5GHz antennas were aligned and the links to Mercury Speed and Greenstone Mountain were successfully re-established. VE7RLO was fully operational by sunset!

September 30, 2012

December 29, 2012

January 2, 2013

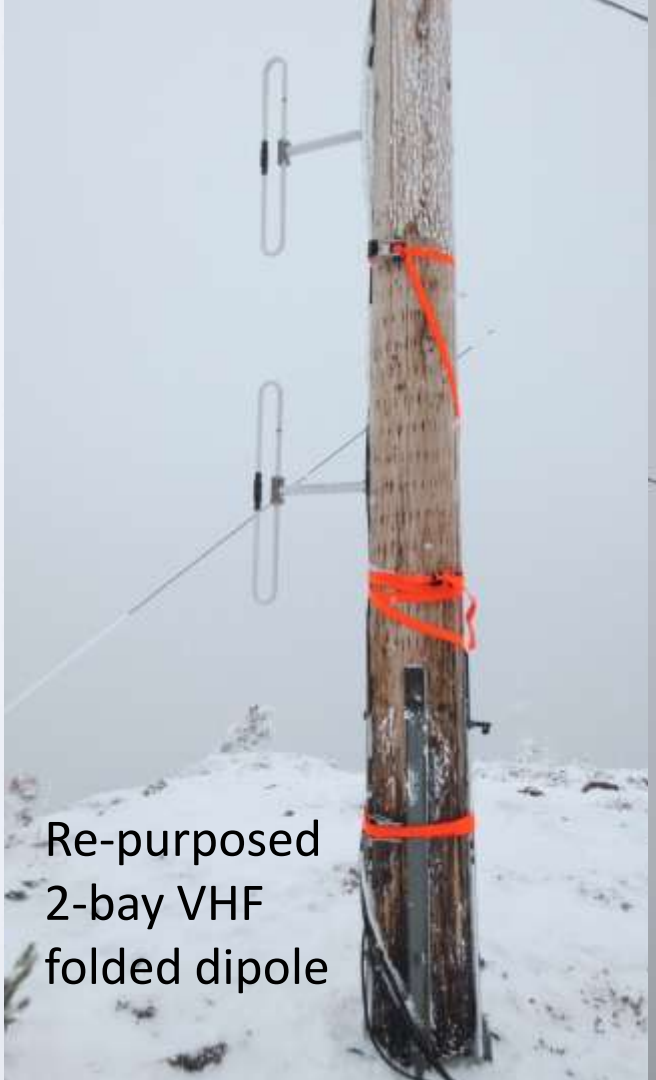
January 5, 2013 – VE7FSR, an old snowmobile, and a kid's toboggan arrive at the summit.

What was it like up there?
Winds were gusting to 40-50km/h and it was snowing. A great day to do repeater work!

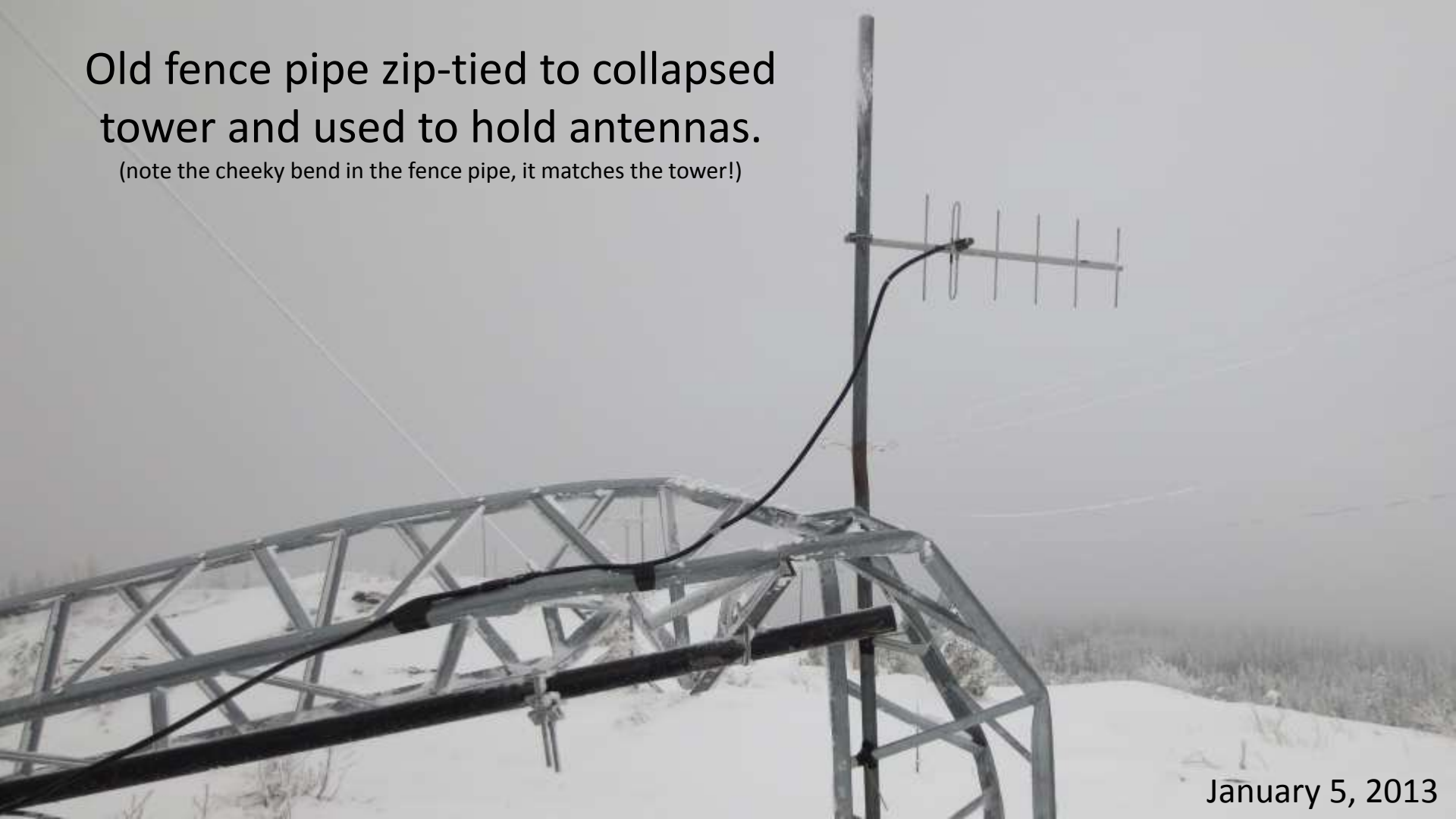
January 5, 2013

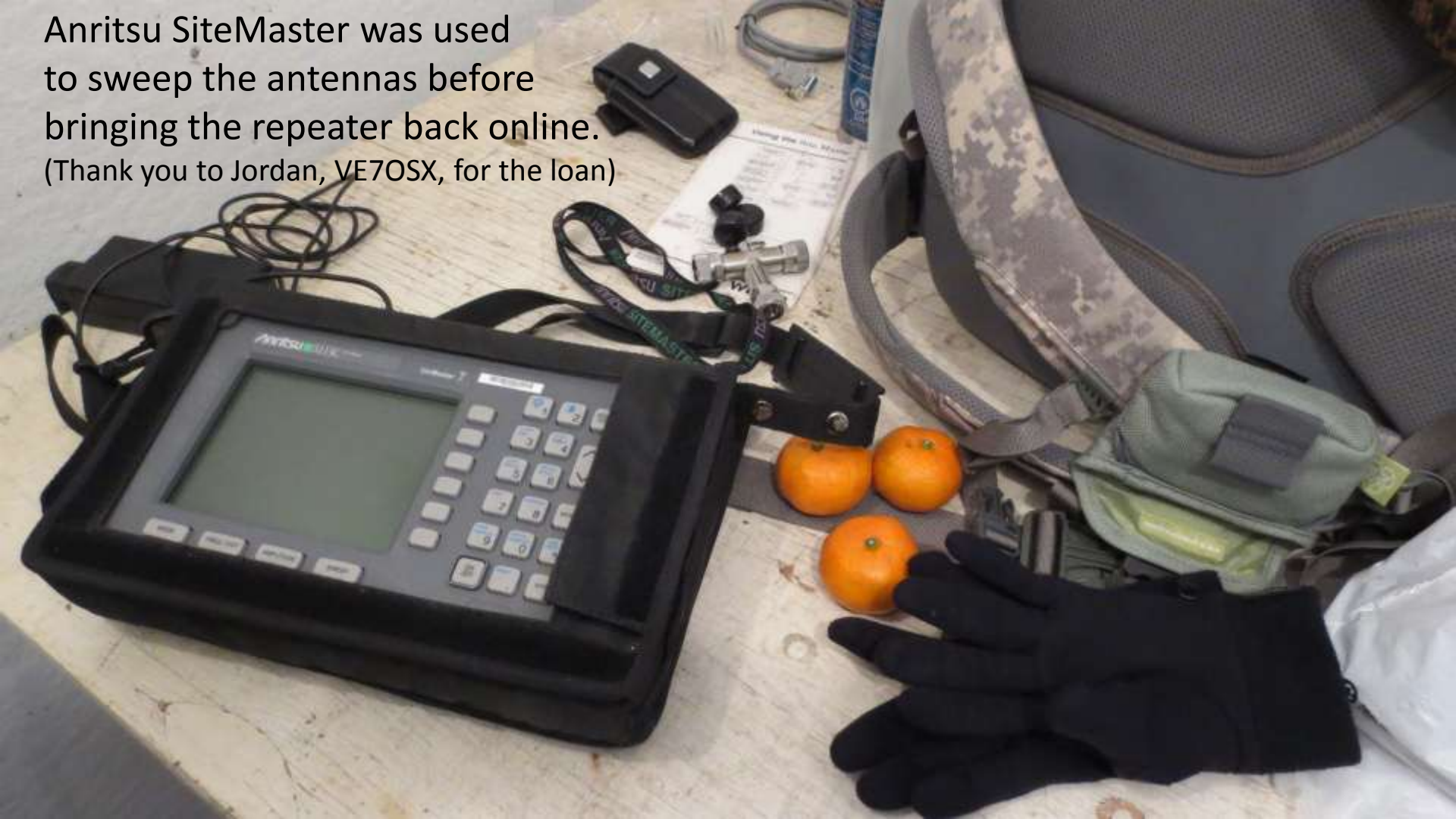
Work bench set up for the repairs.
(no booze, it's just a plastic bag used to keep my tools dry!)


Old, 2-bay UHF
folded dipole


Re-purposed
2-bay VHF
folded dipole


Voila!
A new
repeater
antenna
array for
VE7RLO!


Old fence pipe zip-tied to collapsed tower and used to hold antennas.
(note the cheeky bend in the fence pipe, it matches the tower!)
January 5, 2013


Anritsu SiteMaster was used
to sweep the antennas before
bringing the repeater back online.
(Thank you to Jordan, VE7OSX, for the loan)

January 5, 2013

VE7RLO back in action at 100 watts!

January 5, 2013

Silver Star UHF link antenna and 2.4GHz NanoStation

5GHz 30 dBi Rocket Dish internet link to Greenstone Mountain

January 5, 2013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YAMAHA
Almost had to dig out to go home!

Sun setting behind Greenstone Mountain.

January 5, 2013