



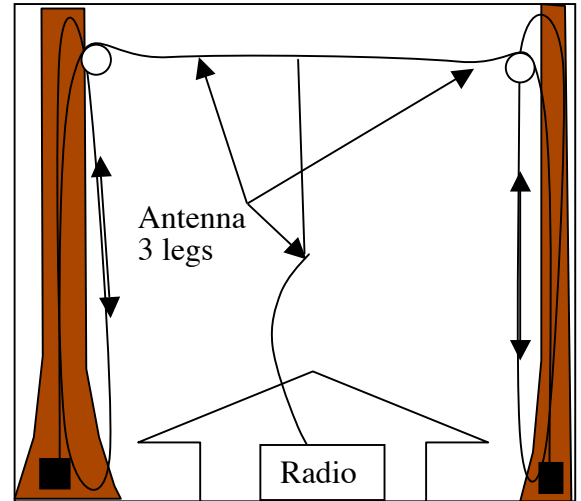
## PROJECT OF THE MONTH – October 2007

Client – James Perkins  
Location – Colton

### SITUATION



James Perkins is a past client with a new hobby – HAM radio. And to have a really good radio set up, the first thing that you need is a really good antenna. A nice one, one capable of reaching New Zealand from Oregon, needs to be at least 100 feet long and 60 feet up in the air. We needed two 100+ foot tall Douglas firs with a good path over the house so that the antenna can easily be connected to the radio in the house. Also, a system needed to be adapted so that the antenna could be easily lowered and raised for tuning, maintenance and replacement, and could maintain tension in windy conditions. After this planning, the fun was able to begin in earnest.



### APPROACH

We put an arborist into each of the two firs to install the eye lags into the tree and hook up the rigging for the system. The rigging was adapted from sailing and consisted of a halyard (fancy sailing name for loop) with a pulley attached at a fixed point, attached through the eye lag on one tree and accessible from the ground. Through this pulley, a line is attached which goes down to a weight on one end and out of the canopy to one of the antenna legs on the other end. This is relatively easy on a ship's mast but in a tree, it's a little more complicated.

The antenna is then suspended between the two pulleys on the halyards and can be raised and lowered as needed. Also, the system is tensioned by applying the proper weight to the ends of the lines attached to the antennas. The pulleys allow the tops of the trees to sway with the wind without the possibility of them snapping the line. Finally, the central leg of the antenna will also act as a tag line so that the whole setup can be retrieved without taking the pulleys down, in addition to its traditional job of being the connection to the radio. If you want to see more pictures of the project and find out more details of James' HAM radio experience, check out his Flickr site at <http://flickr.com/photos/opalmirror/sets/72157602536369202/> or his ham radio page at <http://loowit.net/~james/hamradio.html>.



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