Up in a Tree:

One of the greatest gifts we have, certainly in the area I live in, is an abundance of tall trees. Now, as ham radio operators we spend a great deal of time and effort putting up expensive towers and poles and masts or whatever you want to call them to get our antennas up where they are most effective. Trees are natures way of saying, "Climb me and put your antenna up here and I'll tear it down in the wind in no time, I promise." Get used to it folks. It's the way of the world. Because of that, many hams avoid trees with a passion. However, trees are wonderful to mount wire antennas either with the apex in the middle or to hold up one end.

About seven or eight years ago I fired an arrow with a lead weight on the end and a piece of fishing line attached up over a 50' spruce tree in my backyard. The tree just happened to be at nearly the middle of my yard on the north side along the lane so it was an ideal spot for an antenna. The first attempt was met with a broken line and an arrow that went 22,000 feet into the air and landed in the lane way down the block. Next time I attached the fishing line a bit more firmly and fired another one over the tree and it sailed into the wind and about a half hour later I discovered it had landed on the roof of my neighbour's garage. Oh, and by the way the line broke again. Then I sent my XYL, Maggie, out into the lane to see if she could see where the bloody thing went the next time. Once again down the lane with a dead cat stuck on the end of it.

Something had to give, so I tried a sling shot. Two broken windows later on my neighbour's garage and more tangled fishing line, I decided to go to the sporting goods store and buy something sturdier as far as fishing line is concerned. I bought some fly-casting line. Boy, was that a mistake. That stuff is sticky. The first time I sent an arrow aloft, it got caught up on some foliage with the trailing sticky fishing line stuck to the spruce needles and it's still up in the tree somewhere keeping watch. Back to the drawing board…

Off to the sporting goods store again for something better and stronger. I bought some 30# test nylon line and tied it to another arrow and fired it up into notch in the tree that I wanted it to go through and, VOILA, it went right through the notch and landed in my yard perfectly. Success after many attempts and praying for no wind and a straight shot. I did it.

On the end of the line, I attached a piece of 1/4" polyester rope that was going to go up the tree at the 50' level with a pulley on it and would act as my anchor point. It would be easy to pull up and down to make changes that way, I thought. Oh boy was I wrong. It worked fine for about two months but then it started to get a bit stiff to move up and down. The tree had taken issue with being assaulted by a foreign object

and decided to capture it completely and swallow it. The rope became a constituent part of the tree from that point on and I couldn't get it down no matter what I did. I even tied a piece of the down rope to a "come along" and pulled another stump in the yard out of the ground. I attached it to the bumper of my car and $1,000 later at the body shop got it replaced.

The rope survived. It survived ice storms, snow, hail, and blistering summer heat. Fortunately, I was able to run another rope through the pulley and got my big 80M delta loop up there after experimenting with a half dozen other types of antennas. However, I was always reminded when I looked at that tree with the two ends from the original rope dangling there that something else has to be done.

Part of the problem that I endured was that trees and ropes are not compatible. So instead of drilling a hole in the tree and installing an eyebolt I decided to come up with another idea. Installing an eyebolt would have been difficult for me. I am an ancient person without a lot of upper body strength so climbing a 50' spruce tree was not something I would think of doing. If you have ever climbed or brushed up against a mature spruce tree you will know what 10,000 spruce needles feel like as they pierce your skin and skull. I decided to make some saddles for the trees in my yard. I figured that I could fabricate something out of nylon webbing and a few carabiners that would work perfectly. And I was right. Each one has a 2-foot piece of 2" nylon strapping that is used for towing or lifting that when sewn back on itself, by my wonderful wife and her expensive sewing machine with polyester quilting thread, makes a loop at each end through which you can feed and secure the carabiners. One is used to attach the two end loops on the strap and the other is used to hold a sturdy brass pulley with a rope threaded through it. It is amazingly strong as evidenced by the removal of the new bumper on the car once again when testing it. (Just kidding).



A completed saddle ready to be installed except for the rope



The saddle is installed around the trunk of the tree and works perfectly

My trees were being thinned by a local arborist that week and this was the perfect time to get these contraptions up into them, so I took advantage of the opportunity and made 4 of the “saddles” as I call them. These things will not damage the tree and are easy to install and with a piece of polyester rope through a pulley we have a perfect way to get things into the tree that will not damage the tree and are easy to use. I have installed three of them. One on the spruce and one on a horizontal branch on each of my big elms at the front of my yard. Everything went up exactly as I designed.

My antennas are up and working properly again and I strongly recommend you talk to your local friendly arborist and have them put the saddles up for you. Also, most of the parts were bought at Princess Auto. The 15-foot strap was about $15 and the carabiners were a couple of bucks each and the pulleys were from Home Depot and were less than five bucks each. The rope is available from GPS Central https://www.gpscentral.ca/ as 1/4" black polyester or from Maple Leaf Ropes. https://www.mapleleafropes.com/ I used 5/16” polyester marine grade rope but I also recommend black polyester instead.

One thing to remember is to ensure you make the rope a loop as (you know what happens) and you will be hiring an arborist to get it back up in the air. Also because trees move in the wind, make sure you put a counter weight on the down line and hang an appropriate weight on it to take up the slack in the antenna. You can make one out of an eyebolt inserted into the bottom of a plastic bucket filled with concrete. Just leave a foot at the top of free rope to run through the pulley. Don't pull it up tight to the pulley.



A 20 lb weight at the bottom of the down line to move up and down with the movement of the tree

And finally, I suggest you buy your XYL a good sewing machine that can do heavy stuff like this. She deserves it because without her services you would have to rely on your own abilities when it comes to sewing. Do yourself the favour.

If you have questions, don't hesitate to ask. ve6arg@shaw.ca

73
Tom VE6ARG