

CHARLIE'S WHISTLE

by

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It happens every year about now, when the morning air is just a little cooler and sunsets are just a bit earlier each day. As leaves turn color, we occasionally smell leaves burning somewhere. When he was a young ham, he recalls the smell of burning leaves was common, signaling that cold winds and ice weren't too far away. To many, burning leaves signal the arrival of football season and homecoming weekends on college campuses. Of course today, environmental regulations in many communities prevent open burning of leaves but regardless, nostalgic Charlie always lights just a few just to refresh old memories triggered by that unmistakable aroma. It's a signal to Charlie that tough weather is fixin' to test his antenna systems once again and he better get busy doing preventative maintenance. As much as any other sign, burning leaves indicate the arrival of lower noise conditions as well on the lower HF bands. After digging through static crashes all summer, a lower noise floor is most welcome, indeed.

Charlie didn't need much incentive this fall to get himself up the tower for a look around. You see, all summer, his 40 meter yagi had been acting strangely. Loading has been difficult and sluggish. Clearly, something is wrong with the antenna. Resonant frequency is still 7.025 MHz. but he hasn't been able to load it beyond 500 watts in months. Tuning acts as if the final tubes are soft but that can't be true since the tubes were swapped in April at the first sign of trouble. The coax is fairly new and looks OK from the ground but it might be bad. The answers must lie up the tower and Saturday is the day that a few of Charlie's friends offered to come over and help with the tower work. Charlie is at the age when he can still do everything he needs to do on the tower but feels safer when some young climbing legs and strong arms are around for moral support. Well, if facts be told, it was Mary not Charlie that set up this antenna party for Saturday. Whenever Mary calls around and invites folks to come over for lunch, other plans get changed pronto. Her cooking skills are legendary within the club's membership.

Charlie knows his lovely bride only wants to help keep him around in one piece for plenty more years and he knows better than anyone that his knees aren't what they used to be after climbing 100 feet of tower. With a lunch menu that includes clam chowder, lobster, shrimp and blueberry pie, Charlie offers no resistance to so many friends dropping in for antenna work. He doesn't know too many who turn down Mary's cooking, either.

Actually, the loading problem has him puzzled enough that he wants to look around that 40 meter yagi himself. There must be something wrong up the tower; maybe the coax balun, or the shunt transformer, or the coax connector.....yes, I'll bet there's water in the coax. But, everything looks good from the ground.

Well, Saturday arrived and Charlie was out pacing around the tower sipping coffee before 7, just waiting for the sun to rise a bit higher and give him a bit more sunlight. Expecting plenty of helpers, Mary borrowed a 50-cup thermos from their church along with the pastor who offered to personally bring it to Signal Hill. Charlie was slowly walking around the tower staring up at the 40 meter antenna through his binoculars as the work crew started arriving. He was so engrossed that he didn't even hear the first two trucks pulling up. One carried Brian and his dad, Greg. Driving the other one was Pastor Pete Williamson wearing his climbing belt and carrying the church's oversized coffee thermos for Mary. "Here it is, Mary," he called as she opened the door to greet him. She had been making coffee for an hour in small eight cup carafes and needed something to pour it into. She knew all these guys will want some at the same time and she wanted to be prepared with more fresh coffee than only eight cups.

The Pastor wasn't a ham yet but Charlie is working on him. He had worked his way through college and graduate school as a lineman for the phone company. He had learned basic electronic skills in his 12 years of service in the Air Force, so he is very well trained to help Charlie. Actually, he admits to feeling less nervous hanging by his belt at 100 feet than standing in his pulpit on Sunday mornings. It's all God's work, regardless.

Another truck arrived and three club members climbed out and grabbed tools from the back of the truck. Charlie looked over the crew and pronounced, "Well, with all this talent and Divine guidance from Pastor Williamson, there's nothing we can't repair". They all laughed, especially the Pastor who added that he was the only non-ham on the team and might be more objective on the tower. Again, they all laughed. Easily, there was twice as much manpower standing around as could be put to work. Brian advised Charlie that at least four more were enroute to help out and have some lunch with us.

Charlie started up the tower, followed by Pastor Pete. At the ten foot level, Pete suggested, "Charlie, let me go first. I might not get in your way as much." Actually, Charlie was climbing more slowly than Pastor Pete who scampered up the tower like there was a fire under him. At the top, he started checking for loose coax fittings, rotted coax, squirrel chewing, bird droppings, and anything else that looked out of place. By the time Charlie got up there with him, Pastor Pete was scratching his head. "I don't know what it could be, Charlie. Everything looks fine." Charlie grinned, nodded and methodically looked at every screw, tape end, clamp, and even the PVC junction box he had made years ago before he retired, out of extrusion scraps from the breadboard lab. He uses the box to weather proof coaxial connections between the coax feed line and a simple balun loop made from coax. The three coax terminations were housed in this sturdy box, protected from the elements. But, something caught his attention and he turned his head around to look at the bottom of the box.

He had originally drilled two small drip holes in the bottom of this heavy gauge rectangular box. It was actually an extruded channel, intended to shield some high voltage cables running along the inside of the steel hull of a special purpose attack launch they were building back in the early 70's. The first design was scrapped when more cables were needed requiring an extrusion twice as wide. Rather than throw the first pieces into the scrap, Charlie saw the makings of a 40 meter junction box sitting there before him. He obtained a property pass and took several pieces home to serve his new 40 meter beam.

These two small drip holes were supposed to drain accumulated condensation which would develop in changing weather. What looked peculiar was a dried blade of brown grass sticking out of one and a small dried twig from the other hole. He asked Pastor Pete, "HmMMM....how do you think grass got up here, a hundred feet above the ground?" Pete shrugged his reply as Charlie tried to pry off one of the end caps which he had securely cemented over the extrusion end. Charlie started to mutter something in frustration but stopped in mid word, remembering who was next to him. Pete and Charlie burst out laughing. Pastor Pete suggested cutting off the end and re-cementing another piece of PVC if we can find one. Charlie nodded and Pete took out his battery powered Dremel tool. It cut through that plastic like soft butter. Soon, the cap was off and Charlie saw his problem. Ants had built a multilevel condo for themselves in this 3x3x5 PVC box. The coax fittings were packed tightly with grass, dirt, sticks and some unknown material. Charlie, always the engineer and teacher, saw the opportunity to explain the problem to Pastor Pete. Pete understood easily how RF was compromised in that circumstance and carefully picked out the debris, showering the crew standing around the base of the tower drinking coffee and rag chewing. So much dirt and dust fell to the ground that the others at the tower base shouted, "Hey, what are you guys doing up there, plowing the back forty?"

"No, not quite but you wouldn't believe what we found." Soon, the junction box was clean and filled with non conductive silicon grease. The ground crew found some PVC cement in Charlie's shop, left over from a drain pipe plumbing project he had completed and sent it up the tower on a tag line. Pete clamped the cut off extrusion cover over the box until the PVC cement could set. Now, the drip holes aren't even necessary.

A quick tune up on forty told Charlie that his beloved yagi was loading as it should once more. They all enjoyed coffee and some freshly baked coffee rolls while Charlie made a few quick contacts on 7.005. Mary hadn't expected the work to be finished so soon and she looked at her watch announcing, "Lunch will be ready about 11. Is that OK?" Everyone agreed but Charlie observed that smelling the chowder would drive them crazy but they could survive.

Charlie pointed out to all his friends that sometimes an antenna problem can be caused by the most unexpected and simple fault. Like so many other issues in our lives, the show stopper rarely wears a sign

saying so. Brian had been standing quietly through this project, just watching and learning. Charlie's point struck his dad as worth its weight in gold. He leaned over to his son and whispered, "We're lucky to have Charlie for a friend, son. Let's keep him well for a very very long time, OK?" Brian nodded and added, "and you as well, dad."

Our mentors in life are many. Mentors often don't realize they are someone's role model as well. We are being emulated by newer hams without our knowledge or permission. Let's be sure our actions deserve that merit.