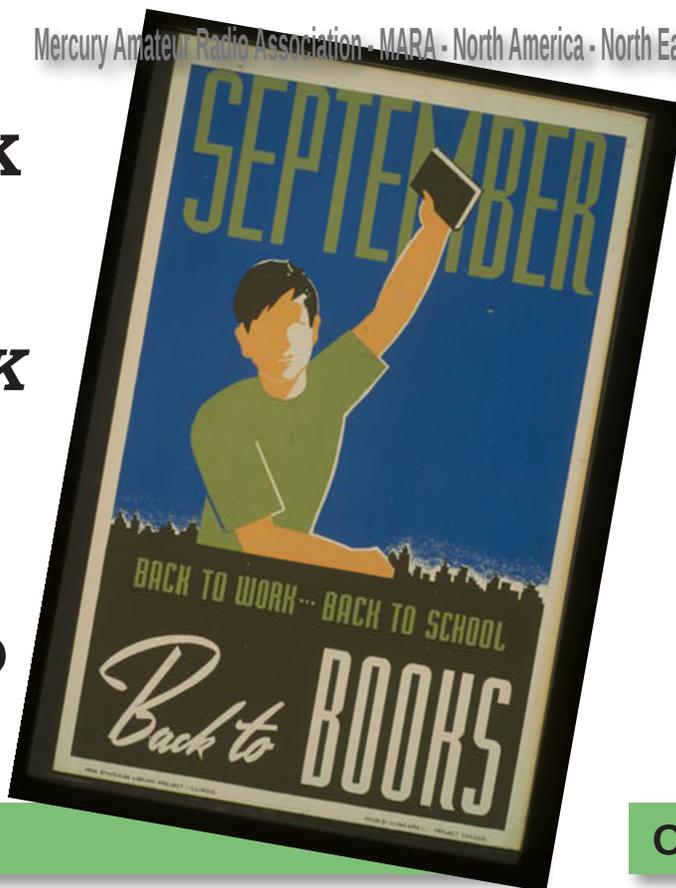


The NEWSLETTER

SEPTEMBER 2011 VOLUME 11, No. 8

Mercury Amateur Radio Association - MARA - North America - North East

**EVEN BACK
IN 1940,
WHEN THE
WPA (WORK
PROJECTS
ADMINIS-
TRATION)
PRODUCED**



**THIS
POSTER,
EDUCATION
WAS REC-
OGNIZED AS
THE WAY
TO BETTER
THINGS!**

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E-mail your comments, ideas, or submissions to marane@mara.net or to ve1vq@eastlink.ca

Grandma Mara's RAMBLINGS

Grandma has always been in favor of learning. My parents and grandparents encouraged me, from the time I could talk, to ask questions about anything and everything. When I learned to read, my mother took me to the library and signed me up for a card. I read all of the books in the children's section before I was old enough to be admitted to the adult section. The rules said you had to be at least twelve before you were allowed in the 'big' part. Never one to be afraid of rules that didn't make sense I begged my mother to intercede for me. I didn't get to go with her to the meeting but she must have been very persuasive because the next time I went for books I was quietly told I didn't have to wait for new kids books "any more".

Since those early days I've always had a couple of books on the go at any one time. I never visit the doctor or the dentist without something of my own to read. I wouldn't touch the magazines in those offices - do you know how many people have sneezed or coughed on them? Yecch!

I've also never passed up the chance to learn something new. I tried belly dancing a couple of years ago simply for the exercise but gave that up after six months. Take it from me, that's a whole lot harder than it looks. Recently I bought a book on knife throwing and I'm trying to learn that skill in my back yard. A woman can only take just so many cooking classes you know!

When Grandpa was alive we used to spend hours watching the night skies with a second hand [CELESTRON](#) telescope he bought from a friend. Lots of interesting things out there in the heavens.

I guess the point I'm trying to make here is that the journey through life is just so full of things to discover. Much too full to ever get bored.

Now where did I put that book on memory improvement?

"A woman can only take just so many cooking classes you know!"

- MARA NE -

CULTURED CORNER

by ANØNMS

SEPTEMBER'S HARVEST

September's the time to harvest
The things you plant in spring shower
To bad we couldn't do the same
By planting a piece of tower.

Just think how it would work if we
Could stick some metal in the sod.
Fertilize and water it well.
It would grow up to be a quad.

Sow some copper under the dirt
Watch it spread across the mound
Making such a nice RF earth
For your vertical's radio ground

You'd rather have a beam up high?
Then plant it now for best DX
Otherwise it will take too long
You'll never get to meet the specs!

- MARA NE -

TECH STUFF

By VE1VQ

FASTER THAN A SPEEDING FISHING SINKER

Some claim to be able to use a slingshot to put a line over a sixty foot tree. My first thought is - how do you know how high that tree is? Simply that is! I know that you can establish a base line from the trunk to the point where you stand.¹ Then measure the angle from the base line to the top of the tree. Take the tangent of the angle, multiply by the length of the baseline, and add your height to the result. Almost do that in your head, can't you? I suspect most people just look at the tree and say to themselves, "yup, that tree is 28 or 63 (or whatever) feet tall".

I've used a slingshot for many years to get my antenna support lines over convenient trees. I use a closed face



Closed face reel



Open face reel

spinning reel attached with ty-wraps to a hand type dandelion digger. Point the line and the reel toward the treetop and poke the pointy end of the tool into the ground. The height I can achieve seems to be limited by the friction of the mono-filament moving through the opening on the front of the reel face. The lead weight loses its velocity quickly when trailing the line. If I forget to attach the weight to the line (as sometime has happened) that sinker really moves up, up and away. Next time I'm in WalMart I'll have to see what they have for open face

reels to replace my ZEBCO 33. I see they list a DAIWA SWEEPFIRE 2500B (sounds like an advertisement for a CB antenna!) for \$14.95.



Recalled DAISY slingshot

Always check the rubber bands have been known to fail, and in one case the slingshot has been recalled by the manufacturer because of the way in which the bands are fastened.² Always, always wear safety glasses.

ABLE TO LEAP OVER REALLY TALL TREES

I've been looking to build a tennis ball style 'gun' out of PVC tubing for some time now. Not that my trees are all that tall. I just want something more elegant than a slingshot. That and the idea of using air to propel something fascinates me!



A tennis ball launcher from www.antennalaunchers.com with a bow fishing reel on the end of the barrel.

Take a look around the internet and you will find there are lots of web pages with plans.^{3,4,5} Some are a bit scary, either with the propellant or level of pressure they use.

Some are using hair spray or lighter fluid with a barbecue ignitor. If they are using air, they are running pressure that could be considered too high. PVC pipe manufacturers warrant their product for certain maximum pressures but only with water or other fluids. The danger of using air is that the pipe may shatter even with lower than rated pipe pressure if the launcher is dropped.

“Always check the rubber tubing before each use as the bands have been known to fail”

“Tennis balls start out rapidly... but lose their velocity quickly and don't have much energy left as they fall back to ground level”

Air powered units all operate the same basic way - a reservoir and a barrel, and a valve in between them as a means of transferring the air from the reservoir to the barrel. Some are quite simple with a couple of pieces of PVC pipe and a hand operated valve, all in a straight line. Some designs take the simple and add a pressure gauge, fold the air path back on itself in the shape of a U to shorten the physical length, or have changeable barrels to fit specific size projectiles. Others use pneumatic or electrically operated valves. Most are the natural white or gray unpainted pipe color, while others are painted in interesting schemes.

It seems like there's been as much research into these things as there has into finding a cure for the common cold! I recall reading about one developer who wrote software and built a test bed with sensors to measure pressures in the air tank and along the length of the barrel in an effort to come up with the optimum design for greatest distance at lowest pressure. Another used a chronograph normally intended for measuring bullet velocity, while still others have used radar guns to measure muzzle velocity of the tennis ball.

Despite the many high tech toys people have employed to study these things, it's not difficult to build an tennis ball launcher. It doesn't have to be "optimal" to get your projectile of choice over that treetop. Ordinary hand tools will do. The result may not be a thing of beauty but it will work.

For those of you to whom all of this is new, you might want to check out a basic tutorial presentation in PDF format.⁶

Anything you use to get antenna support lines over a tree has its hazards. You can fall off a ladder. Slingshot bands can break and fly back into your face

start out rapidly but lose their velocity quickly and don't have much energy left as they fall back to ground level. Standing directly in front of the muzzle is not a good way to prove this theory unless you're testing out the personal stupidity factor.

- ¹ <http://www.wikihow.com/Measure-the-Height-of-a-Tree>
- ² http://www.daisy.com/natural_recall.pdf
- ³ <http://www.antennalaunchers.com/antlaunching.html>
- ⁴ <http://www.youtube.com/watch?v=xC7u23ZI5ug>
- ⁵ <http://k4icy.50webs.com/launcher.htm>
- ⁶ <http://www.n1fd.org/info/meetings/2006/aug06meet-pres.pdf>

that a university education would almost certainly guarantee them a huge head start on their chosen career path right after they get that piece of paper suitable for framing. Experience from working in a job doesn't seem to count for much any more.

Perhaps you are the type more inclined to work with your hands. The best engineers I ever had the opportunity to associate with over my working life were those who got their hands dirty for a few years before they went back to school for their engineering degree. Either that or they were practical and hands-on type people to start.

Whether you choose the learnin' way or the practical route, go into it not because you think it will make you rich, but because you have a passion for it. And get the experience before you start demanding the corner office with a view and a reserved parking spot for your BMW.

Until next month,
VE1VQ

QUOTE OF THE MONTH

Don't expect a \$1000 answer to a 10¢ prayer

GRAFFITI COMIC STRIP

DI-DAH-DI-DAH^D

WHERE WILL IT END?

Not all that many years ago it used to be that a high school completion certificate guaranteed a good job. Then it took a Bachelor's Degree to put you on the higher point of the career heap. Now some starting jobs are asking for a Master's!

A lot of the expectations of current university graduates are a bit out of touch with reality. Studies indicate that many graduates with no experience now expect to start their first job, not at the bottom or entry level, but in the middle or even near the top, with a corresponding high salary. Educators and parents have led our youth to believe

GOT SOMETHING YOU CARE TO SHARE?

A construction project, pictures of your station - home or mobile, a Field Day station at the chapel or elsewhere, a trip someplace with a portable rig, or maybe an antenna in your back yard. Whatever it is, share it with us. Send it to one of the e-mail addresses shown on page 1.