

MERCURY AMATEUR RADIO ASSOCIATION

MARA - NORTH AMERICA - NORTH EAST



April 2007

Newsletter

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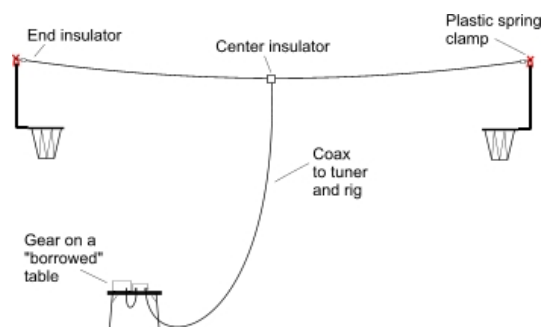
--- MARA NE ---

CHAPEL CHALLENGE

In an e-mail sent to the MARA NE reflector in mid February, Nick N3WWE, suggested that we should be operating from our stake centers or chapels every now and then, both for the experience, and to show the leaders what we are capable of.

It has been further suggested that we might try it in June, either the Saturday before, during, or after Field Day weekend.

Ideas for both inside and outside antennas have been talked about on the reflector. Chuck, WD4HXG,



mused about hanging a dipole between the basketball hoops in the cultural hall. There was talk about suspending a 40 M. dipole between the parking lot lights or laying out a loop for 80 meters on top of the roof? Others wondered if an antenna couldn't be installed permanently in the attic.

So, how about it? Let us know when you will be on the air. Use 3.8725

MHz, 7.283 MHz, or 14.283 MHz (+/- 5Khz for QRM).

Call "CQ LDS" so we'll know who we're listening for.

--- MARA NE ---

LOOP ON A ROOF

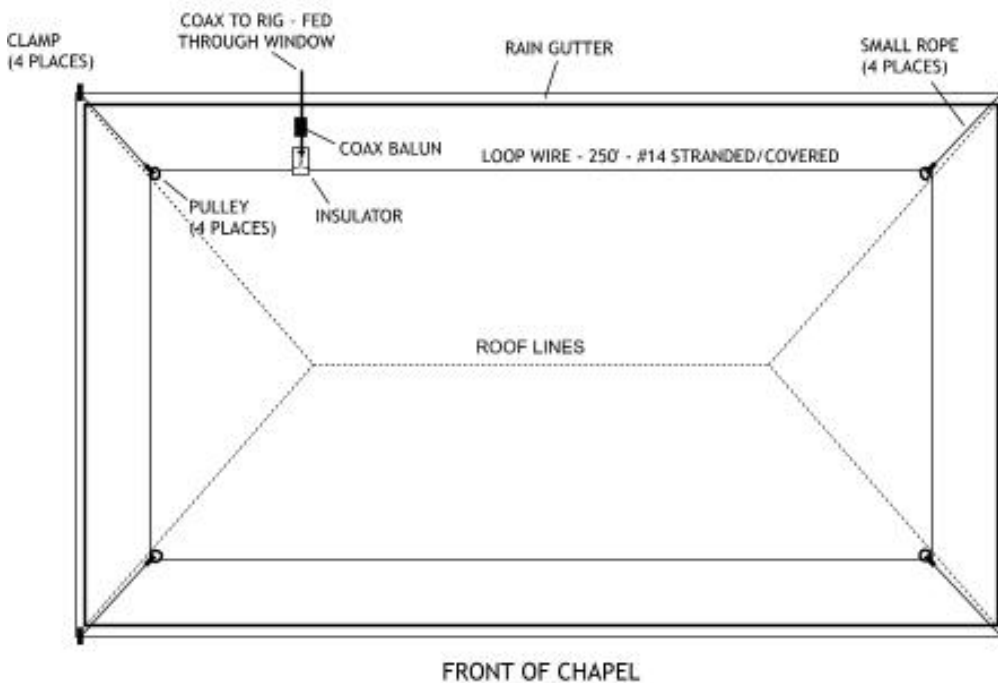
... what the FACILITIES MANAGEMENT people don't know, won't hurt me!

... or - I'll repent later!

Since ease of installation and removal were paramount (natural laziness coming into play) perhaps the loop is the way to go.

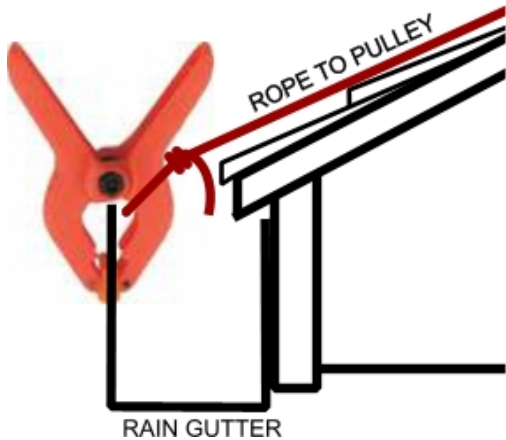
My fear of heights (anything over six feet) led me to come up with a way to string the antenna without actually going up on the roof (possible damage to the roof - and myself!) by using plastic spring clamps on the rain gutter at the four corners of the building.

A long collapsible painter's pole with a hook taped on the end comes in



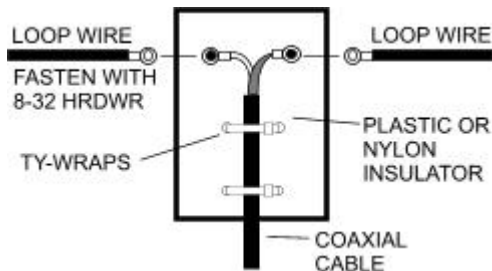
At first I thought I'd hang a 40 meter dipole between the light standards (75' apart), but the lights at the top (about 30' high) presented almost too small target to toss a line over.

handy to push and pull the wire across the roof and around the various obstructions.



Loosely tie a small diameter rope about 10' in length around the clamp, and to that fasten a 2-3" nylon pulley.

Feed the #14 stranded/insulated loop wire through the pulleys, fasten it to the insulator plate, connecting the two ends to the coaxial cable as shown below.

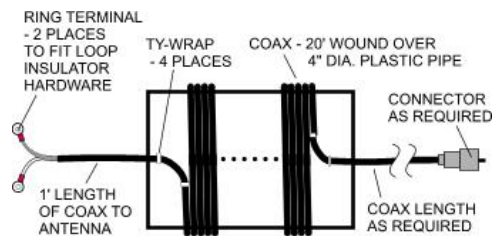


Then, snug up the ropes at the clamps, more or less evenly, until the loop just begins to tighten. Don't ratchet things so tight that the clamps pull loose from the gutters.

The pulleys help when holding the wire, keeping it from bending too sharply. Anything that does the same job may be substituted.

The insulator plate is made from the side of a flat plastic bucket. Any plastic or insulating material will do. Two ty-wraps are used to secure the coax.

I also built a coaxial balun out of twenty feet of coax and a six inch length of four inch diameter white plastic pipe. Wind the coax as shown below (not critical). Use ty-wraps to secure.



You might think to go cheap and do away with the pipe and simply coil the cable up. Doing it without the form does not give as good a balun and, depending on which turn ends up next to which, may make it useless.

Don't forget the liquid electrical tape to seal the open coax braid and joints. I picked up a 4-oz can at Wal-Mart (in the automotive department - around the wire).



Home Depot is also supposed to carry it (in the electrical dept.) but the nearest one is over three hours driving distance away, so I haven't verified that.

Two brand names are [Performix](#) and [Starbrite](#).

Moisture will wick very quickly into bare braid rendering it high in RF loss.

Keep the wire and balun away from the washroom stand pipes, heating system vents, electrical pipes, rain gutter, and other such RF sucking things.

It should go without saying that you don't do anything that will cause any kind of damage to the chapel.

I even have a nice cozy hall corner by our library, complete with a convenient window for the cable entry, a table, and an AC outlet for the rig's power supply.

An alternate clamp for the basketball net or rain gutter might be binder clips, available from any office supply outlet. The larger sizes have considerable clamping power.



For those of you into less ambitious antenna projects, why not try the end-fed antenna mentioned in the [January '07 newsletter?](#) Use a tennis ball on the end of a length of twine (think black electrical tape) to toss and pull a random length wire up, over, and around the chapel roof. An overthrown tennis ball coming in contact with a chapel window would not cause any damage.

IN NEXT MONTH'S NEWSLETTER...

More Temporary Antennas for Chapels or Other Places

A COUPLE OF CAVEATS

While the newer microprocessor controlled rigs offer fantastic performance gains over the rigs of even just a few years ago, they are also much more susceptible to transmitted RF getting back into them.

Operating with an antenna directly overhead, either on the roof or in the attic does not constitute the best location to prevent this from happening.

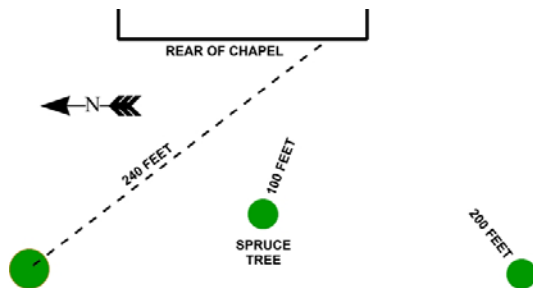
As well, antenna radiation this close may exceed the [RF exposure standards](#) set by the FCC and similar governing bodies of other countries. Although, from what I could see on the ARRL site hyperlinked above,

this will not be a problem with the typical power level (100w) and modulation mode (SSB) that we will be using.

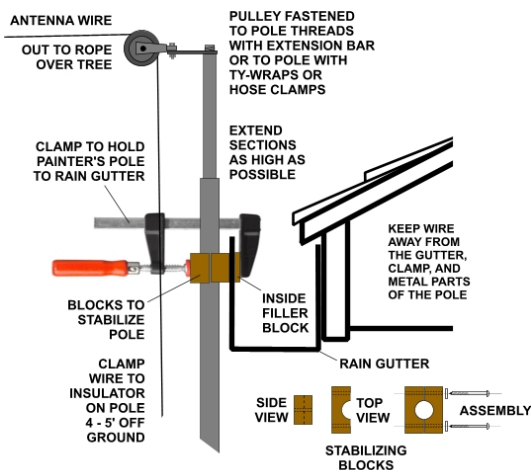
--- MARA NE ---

AN OUTSIDE ANTENNA

Another antenna I want to try is a random wire from the same chapel window and out to one of the few trees at the rear of the property.



I'm planning on using the same wire as for the loop, cut to 250 feet in length. It will go directly from the rear of the tuner to the top of a 24 foot extendable painter's pole



(standing vertically and clamped to the rain gutter – see above) and out to a rope over the top of the tree. This one will be even easier to put up and take down than the loop!

Painter's extension poles are available at home building supply stores in various lengths. The least expensive twenty-four foot, half decent quality ones I've seen were around \$25.

Make the two stabilizing blocks from a single scrap piece of 2x4 lumber. Drill a hole in the center the same size as the pole section you wish to clamp. Drill the two holes for the wood screws. Then cut the wood length-wise through the center to create the two pieces.

MARA NE SSB NET – 3.8725 MHz
@ 0730 Eastern Time – every
Saturday morning

TELL US ALL ABOUT IT...

Please post any contact reports that you make from a chapel to the MARA NE e-mail reflector or to marane@mara.net for inclusion in a future newsletter.

Not just a list of stations contacted but what antenna you used, what conditions were like (noise, signal levels), interference from stuff in the building, what your excuses were, etc.

--- MARA NE ---

DI-DA-DI-DA-DIT

AM'ers AND THE NET

During the March 17th, Saturday morning net, a non-MARA station called in and took us to task about our operating in the "AM Window".

He went on at some length about how we were violating the "gentleman's agreement" and how we interfered with the wider pass band in their receivers!

I'm glad to say that in this situation contention was largely avoided. The caller was certainly not happy with us, but that was his problem and not ours.

Some years back we moved down, away from the suggested AM calling frequency to the present one, to avoid mutual interference with AM stations.

Should we again face someone who chooses to be contentious, there is nothing to be gained by argument. We can only do what the NCS, N3DIX did, and explain who we are and the length of time we will be on, and then carry on with the net.

Agree with thine adversary quickly,
whiles thou art in the way with him;
lest at any time the adversary deliver
thee to the judge, and the judge
deliver thee to the officer, and thou
be cast into prison.

(New Testament | Matthew 5:25)

If the other station then willfully causes interference (this one did not!), there are reporting venues to deal with it. We should not retaliate in kind.

--- MARA NE ---

See you next month,

Dave
VE1VQ