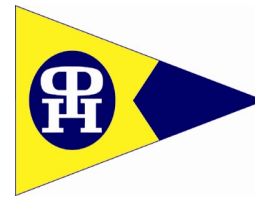


Port Hope Yacht Club



The Rudder



March 2008



From the Helm

Hello all, just a quick note this month on the recent goings on. I just received a response from Eugene Todd of the Town of Port Hope. As of March 4, 2008, environmental approvals have not yet been received for the dredging of the harbour mouth. He says they are following up and pressing on. We have a good rapport with Eugene and I believe they are doing everything they possibly can to fix this problem.

On a more positive note, if you haven't checked out the new Port Hope Yacht Club's web site, please make a point of it. I'm sure you will agree that this will be a very resourceful tool now and in the future. Bob McCaw has done a tremendous job with this and deserves many thanks.

It's only 2 months until launch and it's hard to believe, because as I write this note to you there is a snowstorm raging outside. There is only one month left until we can enjoy the pleasures of spring preparations, such as grinding, sanding, painting waxing and repairing. That hole in the water where we throw our spare cash gets pretty big in the spring. So get ready, it's almost here. I can't wait!

Dirk

Harbour



If you look at the picture to the left, you will find it hard to believe, but on April 12, 2008 Fred Reid will be at the Club waiting on the *QUEEN*, ready to help everyone to do their annual check of their moorings. Remember, this job is not only great insurance for the safety of your boat but, more importantly, it is the responsibility of every club member.

While you're looking ahead, remember that this year's launch date is May 10th. Also the club is looking for inflated car tires, needed for new moorings. Drop them off at the club if you have any lying around. Thank you.

Social



Lynn Prewer and Donna McCaw were the prize winners at the February Pot Luck Valentine's night at the club. Everyone who attended had a great time.

We urge all members to come out for the upcoming social events listed below.

Mar. 15th - St. Patrick's Day pot luck. Dinner at 6:00 PM.
Apr. 19th - Games night and pot luck. Dinner at 6:00 PM.
May 31st - Lazarette Sale Details to follow
June 08th - Commodore's Sailpast

Notice

The Spring General Meeting will be held at the club on Friday April 25, 2008. PHYC calendars will be available at the meeting for a cost of \$20.00. The calendars feature not only great pictures of the harbour, but also contain dates of club importance and social events for each month. We urge all members to attend and have a say in the operation of your club. Come on out and support your executive.

Membership

The members of our executive welcomed James McRury as a new member of our club at the March executive meeting. Be sure to say hello to James and any other new members who have joined since last season.

Property

The Executive would like all members to keep in mind that the Club will be having a **SPRING CLEAN UP DAY** on Saturday May 24th. If everyone makes an effort to attend, the work becomes fun and the Club benefits greatly.

Club Web Site

I would suggest that all members check out the clubs new and improved web site. Bob McCaw has for some time now been re-creating our web site and every day he adds more improvements to the site. It has many interactive features that you will enjoy trying. If you need help, email Bob at info@porthopeyachtclub.com and he will assist you.

Photo Corner



Vice Commodore Brad Kelly in colder times



Donna McCaw ready to board ship

Submitted by Glyn Marr

The best marine radio will not perform well when connected to the wrong antenna

The type of antenna you should get depends on the distance you expect to transmit, available space on your boat, whether you need to lower your antenna for bridges or transporting your boat, and amount of "gain" your antenna should have.

The two major decisions you'll have to make are regarding the length of the antenna and its gain.

Length

When it comes to antennas, **size matters**. The higher your antenna is above the water, the greater the distance you'll achieve. The VHF radio wave travels in a straight line. This is called line-of-sight. Your antenna has to be able to "see" the other antenna. Because of the curvature of the earth, as the distance between 2 antennas increases, they eventually fall below the horizon and can no longer communicate with each other. In most cases, communicating by way of VHF is limited to about 35-50 miles. Sailboats have a distinct advantage here. You can mount an antenna at the top of the sailboat mast and reach great distances with a short antenna. Your type of boat obviously determines the length of your antenna also. A 32 foot antenna on a bass boat is just not a good match.

You will have to determine how much range you really need. A 3-foot antenna can usually get you about 5 miles of range. In case of an emergency, you will want to be heard. Don't short change yourself with an antenna that is too short.

Here is the formula for calculating the range of an antenna:

Square Root of Height Above Water (in feet) times 1.42 equals Range in Miles

Example: Highest point of your boat is 6 feet above water. You attach your 3-foot antenna at that point. The antenna is now 9 feet above water. The square root of 9 (which is 3) times 1.42 equals 4.26 miles

So how can you receive that marine radio weather broadcast that is 75 miles away? You have to perform this calculation for the "other" antenna also and add the 2 distances together to get the maximum range between the antennas. The weather

transmission may be from an antenna several hundred feet high and on top of a mountain giving it enough range to connect to your antenna's 5 mile range. You would be able to communicate with a boat that was 10 miles away from you if it had an identical set up as you. Each of your antennas could "reach out" 5 miles.

Gain

By law marine radios are limited to 25 watts of transmitting power. An antenna cannot increase the amount of energy it receives from the radio, but it can manipulate it and focus it in certain directions to provide a perceived energy increase. This increase energy is what is called the "gain". Gain is measured in units called dB. A short antenna usually has a gain of 3 dB. This equals a doubling of the signal power. A 6 dB gain antenna can increase signal power by 4 times, and a 9 dB antenna by 8 times.

So it would look like higher gain is always better. This is not always true.

If an antenna has zero gain, it transmits the signal equally in all directions. Imagine looking at the antenna at night and seeing thousand of thin laser beams going out of the tip of the antenna in every direction. Some of these beams would be shooting straight up into the sky and some shooting straight down into the water. Well obviously there would be no boats above you or below you so sending a radio signal in these directions is a waste of energy. An antenna increases its gain (and power) by redirecting these useless beams into a more horizontal pattern. The more it squishes down these beams, the more gain you get. When you have increased the gain to 9 dB, the beam is a very thin and horizontal. Now instead of a "ball" of beams coming out of your antenna in all directions, imagine a laser level perched on top of your antenna with a horizontal beam shooting out of each end parallel to the water's surface. As the boat rolls and pitches, this horizontal beam will begin to shoot upwards into the sky and down into the water. Your radio signal will go in and out the same way as the movement of the boat effects the direction of the signal.

So what gain should you choose? Sailboats should always use a 3 dB gain for their antenna mast. The mast movement will least affect it. The 9 dB gain antennas should be primarily used for land use or on boats with less pitch and roll. Larger boats frequenting calmer waters could get by with a 9 dB antenna. Most powerboats should stick to 3 dB or 6 dB antennas.

Mounting

How you attach your antenna to your boat depends on the features of your boat. The 3 most common mounting methods are:

Rail Mounting Available in a variety of sizes and include ratchets to allow easy lowering.

Mast Mounting: For sailboats

Surface Mounting: You can use a flange mount if you have a truly vertical or horizontal surface to mount to. In most cases you will use a ratchet mount that can adjust for the slope of the mounting surface. You can easily lower the antenna with this mount also.

Mounting Location

You should follow these general guidelines for mounting:

Mount as high as possible to take advantage of line-of-sight.

Mount away from large metal objects

Mount away from other antennas

Mount at least 3 feet away for marine radio

Other Considerations

Use quality coaxial cable and connectors: You can lose considerable signal strength with poor cable and connections. The longer the cable, the more signal loss there will be. Cable lengths of 10 to 20 feet are not of much concern, but a sailboat using small diameter cable running 100 foot long can lose 80% of its signal strength. **Combination antennas:** Whenever possible, you will get the best results with using an individual antenna for each purpose. You can get a VHF antenna that is also your AM/FM antenna, but it won't work quite as well as the single purpose antenna.

If you have an item or any photos that you would like published in the Rudder, please email me at the address listed below. Thank you.