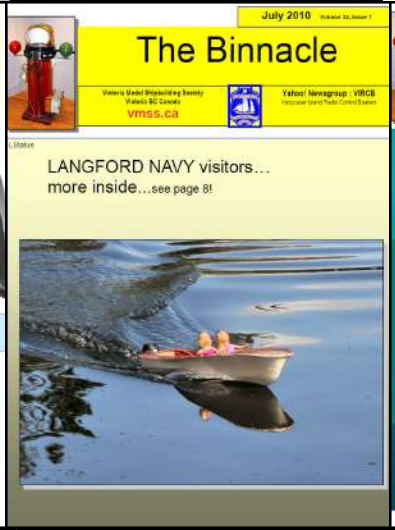
December 2010

The Binnacle

Victoria Model Shipbuilding Society
Victoria BC Canada

vmss.ca

Yahoo! News-group : VIRCB
Vancouver Island Radio Control Boaters



Victoria Model Shipbuilding Society

Annual General Meeting – November 11, 2010

Call to order: 7:45 pm (23 members in attendance)

1. Welcome: New member Madsen Canitz joined tonight.
2. Outreach: no report.
3. Club Finances: Mike Creasy was absent so Barry Fox presented the Year-end financial report. Since the results were printed in the Binnacle, Barry asked if anyone had some questions. No one questioned the report. It was moved by Ron Armstrong that the Financial Report be accepted, seconded by Bob Rainsford. All in Favour. Report Accepted.
4. Elections: Barry Fox officiated the Election of Officers, with the following results:
   - President – Barry Fox (acclaimed)
   - Vice President – Rob Ross (acclaimed)
   - Secretary – Scott Munford (acclaimed)
   - Treasurer – Mike Creasy (acclaimed)
   - Director at Large – Dave Denton (acclaimed)

The following members have volunteered to stand for appointment to the Executive by the elected directors:

- Quartermaster – Bob Rainsford
- Show Co-ordinator – Bill Andrews
- Binnacle Editor – Bill Sturrock
- Public Relations – Ron Armstrong
- Parks Liaison – Mike Claxton
- Sailing Director – David Cook
- CRD Liaison – Robb McDonough
- Librarian (ship plans) – Dave Denton
- Librarian (books) – Don Meyer

Barry Fox called for a motion that the General membership ratifies the actions of the outgoing Executive for the past year. Moved by Romain Klaasen, seconded by Dave Taylor. All in Favour. Motion Passed.

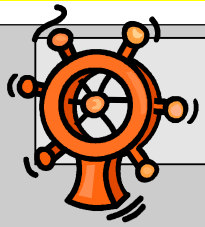
5. Upcoming Events: On November 14th at Beaver Lake, the Powell Cup & Denton Cup will be run. The power portion takes place at 10:30am followed by the sailing portion. The Christmas Social will take place on December 9th at the Gorge Vale Golf Club. Ticket prices are $27.50 for a single, $50 for a couple. Cut-off for sales is tonight. Several members offered to pickup any member who would like to attend but are not able to drive themselves. Saturday December 18th, we will be having our annual Christmas Lighted Boat Parade at HMYP, weather permitting. Start time is at 6pm and the event should run about 1hr.
6. VMSS Calendars: Bill Sturrock is taking orders for the 2011 VMSS Calendars. They must be paid for at time of ordering.
7. Open Forum: Nothing discussed.
8. Adjourn business porting & break.
9. Raffles & 50/50: New member Madsen won the 50/50 and a hat. Don Meyer won the other hat.
10. 10. Show & Tell: Members Scott Munford, Barry Fox, Ron Armstrong Bob Rainsford & Pascal Smyth all presented various projects & ideas.

Respectfully Submitted

Scott Munford, Secretary

2010 Executive Committee

President: Barry Fox	***294-0350***
Vice-Pres: Rob McDonough	***598-4619***
Secretary: Scott Munford	***382-1673***
Treasurer: Mike Creasy	***888-4860***
Show Coordinator: B. Andrews	***479-2761***
Binnacle Editor: Bill Sturrock	***479-0239***
Quartermaster: Bob Rainsford	***383-2256***
CRD Liaison: Rob McDonough	***598-4619***
Parks Liaison: Mike Claxton	***479-6367***
Sailing Director: David Cook	***388-5994***
Librarian: Dave Denton	***478-1800***
Publicity: Ron Armstrong	***385-9552***
Director at Large: Rob Ross	***592-6866***



The Prez Says...

Prez Says

Here it is the end of another year and a quite busy one for all of us.

In a lot of other places in Canada, model boating has become a building only exercise. Most other places are now confronted with very hard water when the mood strikes and forced to go for a coffee and/or go home to dream of that far off warm spring day when that magical 8 or 10 foot circle of water appears on their local pond and they can put their boat in water.

Here, where we live, we are very lucky. We almost have to force a building season on ourselves. As I write this, I have just come back from an afternoon of really good sailing at Beaver Lake. Great winds, lots of waves and chop and a good number of boats. Not all that warm (by Victoria standards) but bright and sunny. Altogether, a great day to have this as our hobby.

My sailboat decided to get tired today and took the route of making the winch be erratic to make me allow it to go rest in the back of the car. But we had decided that we would use the throw out marks that Jan Schmidt has made up and that makes for an alternate fix for my boating needs. I get to use my tugboat to launch these marks. It is a lot better than just throwing them as, try as we might (extra Wheaties for breakfast and all) it turns out we can't throw them very far. But put them on a flutter board towed behind my "navy" tug and we can haul them out as far as we have line for. And we laugh all the time it is doing it.

My point is that it is better to have things to actually do with our boats. It is always good to go for shake down runs with the boats to check them out and find out what we missed during our builds or upgrades. But I like to have some purpose to the whole exercise. If you go to:
http://cid-c19423fe85027e43.office.live.com/self.aspx/Shared%20Sailing/Launch%20That%20Mark.wmv

and watch a very poor (but short) video of this thing in action you will see what we do.

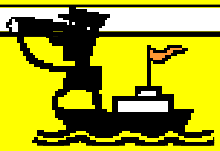
I would also like to see us do even more things with our boats. At the recent Powell/Denton Cup competition, I heard the comment quite a few times that "we need to do this more often". I can't agree more.

I would like to see us get a small crew together to organize maybe 4 or 6 days next year where there will be skill tests, light competition, and fun, things to run through with most any type of boat. No doubt some types will excel in certain activities but we should be ingenious enough to figure out things to do that virtually any model can take part in. How about it?? Are you in?? Have you got any ideas?? I'll bet you do.

The only thing I'm not much interested in hearing is "we tried that before and it didn't work". Times have changed, we have a lot of newer members (me included) that weren't here whenever those things were tried. So, let's try a little more and try some different things until we find the right formula for this club. I don't think doing nothing is the right formula.

Very soon two bigger things will be happening. By the time you are reading this we will be just about ready for our annual Christmas Party and Awards evening. It looks like we will have another good turnout and it sure to be a nice evening out with friends.

Next up will be our Christmas Light Parade at Harrison Pond on December 18th. Somewhere else in the Binnacle you should see some more detail and you will likely receive a further notice a little closer to the time of the event. Here is another chance to join in and use your boat in December, making most everyone else in Canada jealous. Throw some lights on your favorite model and join us for a fun display.
See you on the water soon.
-Barry



ON THE RADAR

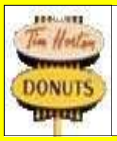
INFORMATION ON UPCOMING EVENTS

December 18th:Lighted Boat Parade HYMP
February 4,5,6th: Westshore Hobby Show
June 9-12: Tall Ships

Meetings: Second Thursday 7:30-9:30
4050 Carey Road
Next is: January 13th, 2011

POWER: Sundays 10 – 12
Harrison Model Yacht Pond (HMYP)
Dallas Road at Government Street

SAILING: 1st and 3rd Sundays 1 – 3 PM
Beaver Lake
Next is January 2, 2011



LANGFORD LAKE NAVY
Wednesdays 9:30
Langford Lake, Leigh Rd at Trillium

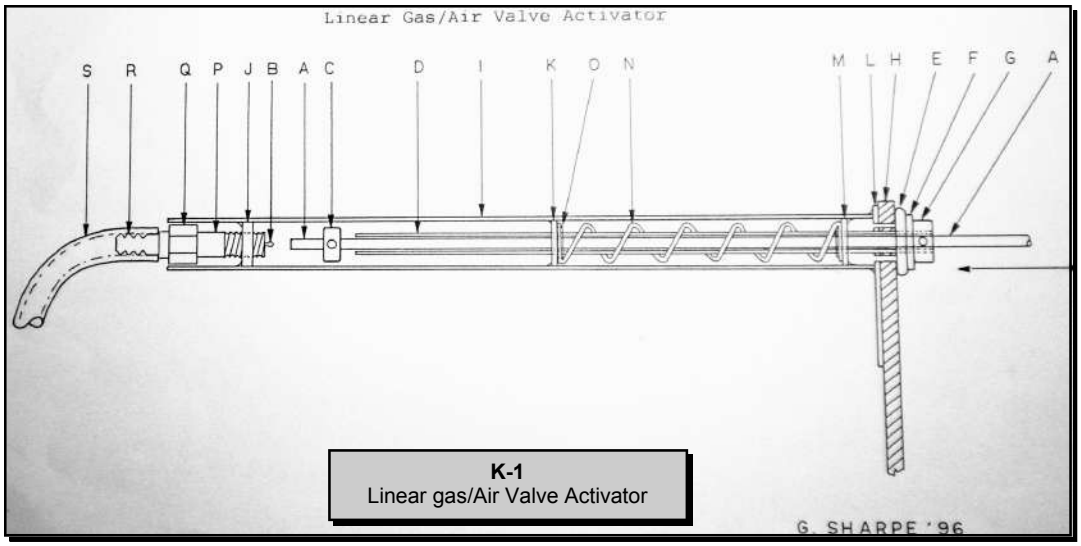
THE SUB SUBJECT

C. BALLAST TANK(s)

ALL STATIC DIVERS NEED AN ON-BOARD tank that can make a submarine heavier for diving, and lighter for coming back to the surface. Most everyone knows and appreciates that much, but umpteen questions may come up in a modeler's mine, e.g. where to locate it?, what size should it be?, what shape should it take?, and, how to fill and void it?

A go will be had at those and possibly others.

1. Ideally the ballast tank (a single one at least) should be placed, as nearly as possible, near the centre of gravity, or rotation. That imposes this bow-to-stern layout in the hull's lower half: battery, ballast tank, pressure hull, and (optionally) reduction gear and/or U-joint.



K-1
Linear gas/Air Valve Activator

Place ballast tank between battery and pressure hull

Much as such an arrangement may be desired or strived for, splitting up the pressure hull with the tank in middle is not too hot an idea. Wires must run through, it takes two more bulkheads to seal, and repairs/maintenance become more difficult. So vote for tank between battery and pressure hull. The drawback of such location can be mitigated by judiciously placed lead and foam.

2. The size will depend on the demand placed on it. That, in turn, will hinge upon the dry weight of the hull's upper half. Buying the tenet that one litre weighs one kilogram, which translates into ±2.20lbs and 35.20 fl.oz. (check that out with the BCLCB) great solutions crop up, without resort to apparently existing engineers' formulae.

Simply, but accurately, weigh the hull's top half. Add some 20 percent to that, and figure out how big a container of water will need to be.

Just use a kitchen measuring jug. And there's the basis for a decent guess—after consideration of question "3" next.

The ballast tank's water volume must compensate for the inclusion of a gas tank, or the gas tank must go elsewhere

3. The shape? It's very nice to have it as a forward continuation of an integrated pressure hull's bolted-on lid. Or the cylindrical WTC. But for linkage purposes, it's even nicer if the ballast tank's upper half (the less effective portion, 'cause most all of its "lifting" capacity lies below the model's waterline) i.e. its aft bulkhead affords space for the servo linkage that fills and voids it—especially in the recommended configuration where all the servos are placed vertically, and operate up top through the extended and

Set the servo' movements on the TX airplane style: 'forward' is 'down'; backward is 'up'

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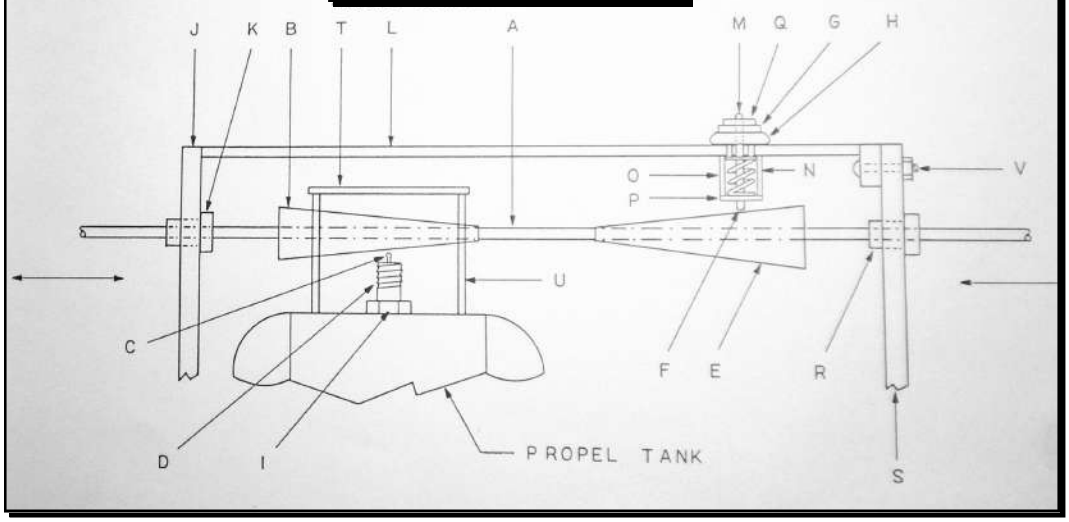
hinged output shafts. So a preferred shape here is cylindrical.

With its diameter calculated (in metric or imperial) it becomes a matter of division to calculate required length. But, but, but: the on-board gas tank may also look for lodging inside the ballast tank, and its volume cuts into the space otherwise afforded for lifting/surfacing. Solution: make the tank longer to compensate for the reduced capacity, or find space for it in the area forward, snuggled up against the battery perhaps. That's okay, but also imports the need for a hose to its Schräder valve inside the tank. That's best avoided (more potential leaks; more need for regular replacement) but it is a not bad solution. It may, however, dictate the need for two shorter batteries which, together, will produce the aimed-for voltage and 4 Ahr.

Length will depend on the Lexan (polycarbonate) cylinder. Get a chunk of it, tape up its bottom, and pour in the required equivalent of the weight of the hull et cetera that's to ride above the boat's waterline. Not too onerous. The gas tank, by the way, is made from copper pipe, with copper end caps to be sweated on like you wouldn't believe. Drilling intake andoutlet can be done after, and a pressure test is then to be conducted. (± 60 psi Propel or equivalent airbrush gas). Time now for "4"—filling and voiding.

K-2
Linear gas/Air Valve Activator



K-1

As applied in 1:96-scale Los Angeles-Class: Miami

A. Servo-operated rod
B. Valve stem
C. **Dubro** collar
D. Air valve tube/stem
E. Soft rubber disc
F. Disc-backing washer (glued to "E")
G. **Dubro** collar (soldered to "D")
H. Ballast tank bulkhead
I. Brass housing tube
J. Threaded valve-mounting plate (soldered to "I")
K. Guide washer for tube "D" (soldered to "
L. Valve assembly mounting flange
M. Tube guide & spring seat (soldered to "I")
N. Spring
O. Spring seat (soldered to "D")
P. Tire valve body (car or bike)
Q. Hexagonal valve fitting
R. Brass nipple coupling
S. Silicone tube to gas tank

* * *

K-2

As applied in 1:100-scale Ohio-Class: Florida, "Boomer"

A. Servo-operated rod
B. Cone (Nylon or brass)
C. Micro switch roller & yoke
D. Tire valve
E. Same as Cone "B"
F. Same as Roller "C"
G. Soft rubber disc
H. Air valve seat, or flat spot
I. Threaded valve fitting
J. Ballast tank bulkhead
K. **SubTech** BHS-1 (seal)
L. Ballast tank wall/body
M. Air valve stem
N. Air valve spring
O. Air valve body (brass tube, perforated)
P. Spring seat (soldered to "M")
Q. Backing for "G" (soldered to "M;" glued to "G")
R. Same as "K"
S. Same as "J"
T. Gas deflector (curved brass)
U. Deflector supports (soldered to gas tank)
V. Bulkhead crutch with 4-40 S S

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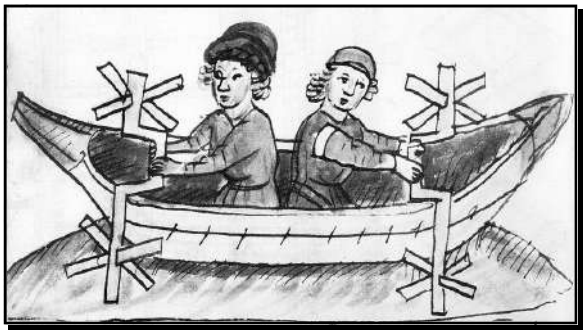
Old Wood and Rusty Iron

by Mike Creasy

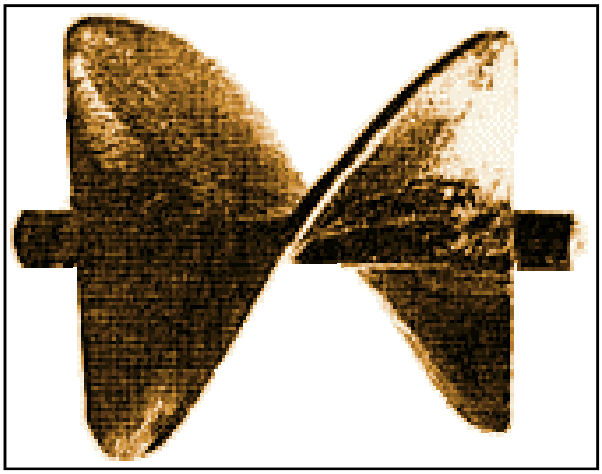


Screwed..... a feeling we've all had from time to time, whether looking at the restaurant receipt or thinking about what the nice salesman said. Feelings aside, the screw itself is actually a very useful thing, both for hanging up mirrors and for moving boats through the water. It seems that, back before the time of Christ, Archimedes drew up some plans for a screw-type water pump. And Archimedes may have borrowed the idea from some even earlier scientist. So why were early steamships driven by paddlewheels instead of screw propellers????

One good reason is that, unlike the screw, paddlewheels had been in common use for centuries, even before Archimedes had his bright idea about the screw. Ancient Chinese and Roman civilizations used paddlewheels to drive everything from grist mills to trip hammers, making the wheel itself a standard part of the engineering scene. These were, of course, paddles driven by the passage of water rather than the other way around, but when steam began to make a source of driving energy available, it was only reasonable to connect a steam engine to a paddlewheel.

Mind you, all of human history could have turned out much differently if the Romans had pursued their idea of building a modern warship propelled by paddlewheels turned by oxen. Now, if you've ever been around a cattle barn, you know there's a certain "by-product" which could have been shovelled into a Roman catapult for disposal on the head of an enemy, changing the face of warfare forever! The Ancient Chinese also had a go at paddlewheel warships, but they didn't seem interested in dung-battles, using slave-power instead.

In any event, after steam began to provide a source of reliable energy, it was harnessed to the most obvious drive system available - the paddlewheel. The **PYROSCAPHE** was launched in France in 1783, powered by a single cylinder horizontal steam engine it managed 15 minutes of motion before the engine (not the paddlewheel) failed. In 1802, a barge-hauler was built for the Forth and Clyde Canal Company. The steamer **CHARLOTTE DUNDAS** was possibly the first commercial use of steam and paddle in a boat, and proved the viability of steam coupled with the wheel.



There were many attempts made during the late 1700s to use an Archimedean screw to move a boat, mostly ineffective largely due to a lack of understanding of how the screw interacted with water. Gradually, as the new field of fluid dynamics became better understood, screw propellers became better able to transmit power from the steam engine to water, thereby driving a ship forward.

Screws quickly became more efficient at providing thrust than the paddlewheel, as proven by the famous "tug-of-war" between two ships in 1848. British Admiralty brass had the propeller-driven **HMS RATTLER** and the paddlewheeler **HMS ALECTO** tied stern to stern. Both ships were of the same class, the only difference being their propulsion systems. When they began pulling, **RATTLER** easily dragged **ALECTO** backwards, and the

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age of screw propellers began.

Steam engines and screw propellers both developed at a remarkable rate in the late 19th century, probably reaching a peak with the development of huge (150,000 hp plus) steam turbines driving equally massive (40' diameter) propellers. Even as steam began to be replaced by other engine types (diesel, gas, electric, etc) the screw propeller continued to be the preferred means of turning engine power into thrust through the water. Even today, the propeller is almost a universal item among watercraft of all sorts, with only such rarities as the Voth-Schneider vertical-blade thruster making an appearance on specialized craft.

Paddlewheels are seldom seen anymore, especially since the development of the water-jet system for shallow water - itself simply a type of enclosed propeller.

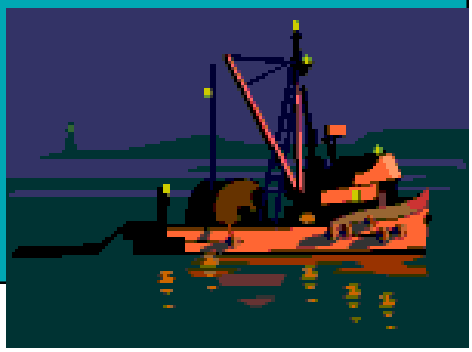
So, next time you think that you've been screwed, just imagine that you're on the deck of your own Roman paddlewheel battleship, and fire a few smelly loads on a well-deserving head!

Bibliography

The Advent of Steam, Dr Basil Greenhill et al, Chartwell Books, 1993
Wkipedia

LIGHTED BOAT PARADE

Saturday December 18th, setup 17:00hrs



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4. Filling and voiding can be done with one servo. Set the TX so that 'up' (airplane-style) requires the channel's lever to go down and 'down' up. (sounds like cricket).

The design and execution of both examples was kept simple. Built with ordinary workshop tools; out of commonly available materials. In K-1, when

Suggestion: it's not that tough to add a 'sound' feature's switch to an 'on' or 'off' position. Add it to the tank's linkage inside the pressure hull (a whooper is the ticket)

rod 'A' is moved forward, valve stem 'B' is depressed. Gas flows out of the on-board tank and forces water out through holes in the ballast tank's body. When 'A' is moved to the right, it contacts air valve tube 'D' and moves the 'E-F' combination of the ballast tank's perforated bulkhead. Air flows out; water comes in. Design K-2 may look different, and is different, but acts the same as K-1. The different design was imposed by the added function operating the fairwater planes, elevated above the deck on the sail. Anyway, move rod 'A' to the right and cone 'B' depresses the gas tank valve 'D' and the boat comes up. Move 'A' to the left and cone 'E' will lift the air valve seat ('H') off its seat to allow air/gas in the tank to make space for water.

In example 'K-1', restrict the gas line between tank and valve. Otherwise, the tank will void too abruptly and the model pops out of the water in a cloud of 'steam'. Not too realistic and hard on gas consumption. Toward that same end, 'K-2' would need reconfiguration

Owing to the on-board gas tanks' weight, it is strongly recommended that they be kept as low in the model as possible—regardless of whether an in-ballast-tank or outside-of-ballast-tank configuration is adopted. (Outside-tank for K-2 especially, would call for some redesign, *i.e.* mounting bracket for valve, hose connection to inside of ballast tank bulkhead, and connection to on-board gas tank, either flexible or rigid).

Note that there is nothing very special about the two examples. Any modeler with some skills in working with metal can no doubt come up with something perhaps more compact, and with fewer parts. The basics, though, cannot be altered much. Meanwhile, if all of this seems too challenging to build, order up a ready to-use pump or Engel or just stay with a dynamic diver. No one's forcing the issue.

One more note: toward rigidity, stainless steel should be used for shaft 'A', because opening of either gas or air valve takes a bit of force in K-2.

All that out of the way, the "Sub Subject" deck is cleared for the fourth and final column in this **Len Gibbs** inspired run. Yea, yea, we'll get around to trimming the model. Already yet so soon, may good luck and patience reward you.

MERRY CHRISTMAS

HAPPY NEW YEAR 2011!

Romanus Unicum
(Inspired by **Len Gibbs**)

TALL SHIPS 2011, VICTORIA, B.C.

Years of skill, expertise and TLC have been invested in this model submarine by (L to R) **Jack Plummer**, the originator, **Jim Cox**, present proud owner, and MegaGuru **Romain Klassen**, designer, builder, "Sub Subject" author and second owner.

New member, **Pascal Smyth**, shows off his newly updated single cylinder steam boat to **Barry Fox**. It has been recently been spotted huffing and puffing around Harrison Pond with two old duffers aboard lost in the fog.

Shelbourne Shipyard

As the holiday season approaches, work is winding down. The only project on the go is getting a ship ready for the light parade. While working on the Hunter, I seemed to have neglected the rest of my fleet. This became very evident as I finished next to last in the Denton Cup. Intermittent problems with the running gear popped up. Then I remembered that it happened before and I was supposed to fix it but obviously didn't.


Photo by Scott Munford

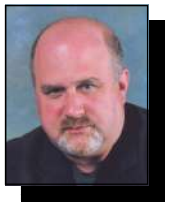
Leading up to the last meeting, I hurriedly got the loading crane working on the Hunter. Once all the winch motors were in place I discovered that raising & lowering of the boom happened too fast to control. The gearing in the motors isn't slow enough to safely operate the boom without causing damage. So I removed that option. It will just swivel and raise & lower the hook. I'm very close to painting the hull. Just a few more deck pieces to add them it will truly become the big 'Yellow Boat'.

Back to Fleet Maintenance, besides getting a ship for the parade, my submarine requires some TLC as well. With all this talk of expanding our 'Silent Service' and a possible Submarine Event in the near future, I need my boat at its peak. While watching the Powell Cup, the sailing spark reared its head again. I think I'll dust off my small catamaran sailboat and venture out some Sunday to Beaver Lake. First though, I must make it unsinkable. It has a tendency to blow over and sink. Happened twice before at the pond. Easy to retrieve there but Beaver Lake is another story.

And finally, as you read this, its just days before our Awards are handed out or their being handed out know depending on how you receive this newsletter. I'd be remiss if I didn't thank the Academy for my Award (see picture) presented to me while I was in Los Angeles. Thank you all my family & friends for making it possible.

May all who read this have a Merry Christmas and a Happy New Year. See everyone on the water.

Scott Munford
Yard Master



VMSS MODEL BOAT PHOTOGRAPHY CONTEST

OPEN TO MEMBERS OF ANY MODEL BOAT CLUB

Just a few Rules:

1. Maximum of 3 entries per amateur-photographer/member: **DIGITAL (jpg) only!**
2. Send by email attachment to: vmss@shaw.ca **subject line: "PhotoContest Entry" (important!)**
3. Model ships and related topics only, please. **Limit of 3 (three) entries** per person.
4. **Deadline November 15th, 2011.**
5. Judges decision final; prizes to be announced at a later date in **The Binnacle**.

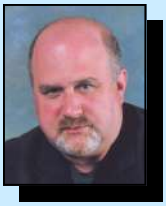
NOTE: It is intended that the top 12 BEST entries will be used in our VMSS Calendar for 2011. **Questions:** email to: vmss@shaw.ca

GOOD BOATING AND SHOOTING!!

Awards Committee Notice

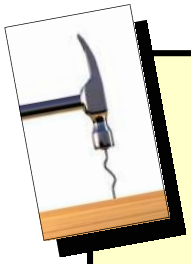
The Executive is looking to honour the builder's and innovators of our club members. An Awards Committee has been formed with myself, Rob Ross & Bill Andrews to review the current awards offered and possible new ones to be created.

Now comes the part where you help. We would like to hear from our members regarding what you would like for awards to be handed out for. Some thoughts are 'Best New Build' for power & sail or 'Best Engineering' etc. You get the picture. Please feel free to email or come up to us at a meeting and give us your thoughts. All suggestions are welcome, except 'Most Likely to Catch Fire'. Dave Denton would win that every year.



Scott Munford

Photo by Scott Munford



The Submarine Saga

I ballasted the sub last Wed. It looked good, I didn't have the w.t. lid on because I wasn't going to put it under, right?
Something changed, and it got all wet. Ah ****! (expletive deleted). I dumped it out, put on the w.t. lid,and all is OK: she floats about 1/4 inch from the water line. I got the superstructure and put it in the water, it has positive buoyancy, largely due to the foam filled conning tower. This will add to the lift when the sub is submerged, right? nuh uh. When two upper parts are above the water, it has no water displacement, and is all top weight. You guessed it, it rolled over like a dead seal until the conning tower gave it the support that it needed. I have built an extremely light weight superstructure for it and will try that out on Wed.
See you at the banquet,

Dave Denton

This is the Best . . . . . .

The Exec folks have talked for quite awhile now about how to recognize some of our members for their building skills and ingenuity.

We wanted to do some of that this year for our annual awards presentation and first thought that we should pick out the best new build of the year. That's easy, right? Not so much. We created a short list of boats we knew were newly completed this year. Then we would go around the table and discover that there were more. And then we tried to figure out which was best. And then we were overwhelmed with the choices and our brains were used up.

So the real decision is that we have struck a small committee (Bill Andrews, Rob Ross and Scott Munford) to arrive at a set of guidelines, and some distinct categories, that will be used to arrive at recognition awards for next year.

I think the upshot of it all will be multiple "Best Build" awards. It is difficult (maybe impossible) to compare the ships we all build. Some are very intricate and worthy show models; some are loaded with functioning features, some are required to be extremely simple to be competitive. So if someone does a fantastic job of building a very minimalistic sailboat that is fast and sleek, how can you compare that to a model with working winches, fire monitors, cranes, etc. The short answer is, you can't.

In addition, we have talked about recognizing innovative ways of building certain things, utilizing technology to make stuff work, better techniques to get things done.

For all of these kinds of awards, it is likely that you will have to enter your model, idea, flashy new gizmo, etc. so that it can be considered for an award. And, these boats and gizmos can only be entered once in their life so if you are so unfortunate as to not win this year with your boat then you will have to build something new to be considered for the next year.

Anyway, details are yet to come. If you have ideas for the committee to consider, please contact one of them and make sure they have your input. It is highly likely that there will be a certain amount of tweaking and adjusting each year as we discover better criteria for different things. But it should be fun to see everyone working hard to produce the best little gadget to do ???, or at least to do it better.

Get your building boards going.

Barry

We are happy to welcome our youngest member, **Kevin**, proudly showing his first scratch built model.