October 2005 Volume 27, Issue 10

The Binnacle

http://members.shaw.ca/vmss

Victoria Model Shipbuilding Society
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ON THE HORIZON

INFORMATION ON UPCOMING EVENTS

October 16: Powell Cup Beaver Lake
November 10 Meeting: New slate of Officers.
December 8: Christmas Social

MEETINGS: Second Thursday 7:15-9:15
313 Brunswick Place **Next: Nov 10.**

POWER: Sundays 10 – 12
Harrison Model Yacht Pond

SAILING: 3rd Sunday 1 – 3 PM
Beaver Lake **Next is Sunday 16th Oct.**

LANGFORD LAKE NAVY Wednesdays
9:30 Langford Lake

SHARK BITE?? (Photo by Mike W.)

From the Bridge

"The fall means to me a building season in earnest. I hope many are building for the challenge of a new model of a west coast vessel. I know several are involved including myself. Good luck on that.

We are still looking for Executive for next year - in particular a Vice President and one more person to assist Mike Claxton in the Entertainment function (general meeting talks and presentations). So please consider putting forward that little extra effort for next year."

Ken S

MEMBERS REMINDER!!!

Notice of Annual General Meeting

Pursuant to the Societies Act this is notification that the Victoria Model Shipbuilding Society will be holding it's Annual General Meeting November 10 2005 at 313 Brunswick Place at 7:15 PM. The main item of business will be the election of officers for 2006.

BE THERE!

Victoria Model Shipbuilding Society

Regular Meeting –September 8, 2005

Minutes

Congratulations to all on a very busy and successful season, ending with the Saanich Fall Fair.

The October Regular meeting will be at the Bridge Simulator, Work Point.

People are needed to serve on the Executive Committee for 2006.

Mike Nicklen of Industrial Paints & Plastics reviewed the history of that company, and outlined the very interesting developments in the world of plastics and adhesives. All VMSS members will receive a 10% discount on presentation of Membership Card.

2005 Executive

President	Ken Scotten	472-6187
Vice-Pres.	Dave Denton	478-1800
Secretary/Treas	Tom Pound	595-6487
Entertainment	John Gough	479-1843
Binnacle Editor	Ron Hillsden	479-5760
Assistant Editor	Bill Sturrock	479-0239
Quartermaster	Bob Rainsford	383-2256
Director at Large	Bill Andrews	479-2761
Director at Large	Mike Woodley	598-8379

2005 Committee Heads

Librarian	Jack Ross	478-3191
Publicity	Jack Ross	478-3191
Webmaster:	Ron Hillsden	479-5760
City Parks Liaison	Mike Woodley	598-8379
Binnacle Mailing	Bill Birch	592-6456
Bandit Coordinator	Rick Rainsford	382-0898

More Foss Cup 2005 *(Photos by Mike Claxton)*

Photos by Mike Woodley.

Harrison Pond Report

On Oct 4, I met at the pond with two supervisors with city parks, Rob Kelbough and Al Cunningham. They were both very positive in wanting to do all they can to help work with us to keep the pond full and clean and with clean surroundings. One of the men, Al, took it upon himself last week when he learned about the low water to go to the pond and fill it up using this pipe - he let it run all day. He had someone come and clean out the float valve so it would keep the water full. He said if it goes down call him right away and he will attend to it.

Al showed me this water outlet under the willow tree. It is about 1/2 inch below the surface. He got me an attachment device and showed me how to connect it - very simple - we can now hook a garden hose to it and power wash the sidewalks to our hearts delight. The city even loaned us 150' of hose.

Our "dock" still needs to be taken out of the pond and fixed up. Believe it or not, the water is actually very clean - there is algae and dead leaves on the bottom but they do not get in our props and rudders. The content is clean and you can clearly see the bottom. The surface was 90% clean with the wind pushing the floating feathers and leaves to one corner.

Bill Andrews and I will go to the pond on Saturday morning, weather permitting, with his power washer and try all this out. The marathon is on Sunday morning and I think it runs by the pond so access will be difficult. I will not be at the pond on Sunday morning because it also goes by my house - both ways - and we always have a big party here that morning.

So:

water level - check!

sidewalk cleaning - check!

pruning - so so! - Rob and Al said this one is a little more tricky - widening the south side pathway by cutting the underbrush - maybe . Pruning or removing the willow tree - doubtful . And - on the topic of removing the trees and brush all along the south side - Not possible -

But Al remembered coming to our meeting last year with Mike Leskiw and promising to remove the bushes at the west end to allow more wind in from the west. I said some of us were under the impression he said the south side brush and trees would be removed. He said, no we never said we would remove that area - what we were referring to was the west end bushes. He said it will be done in the next two months. He said there is a difference between landscaped bushes and natural bushes and trees. Landscaped bushes are easy to remove but natural growth is much harder to get past all the horticultural types objections to remove.

That's my report - I am very pleased with the response from the city staff.

Mike Woodley

THE SUB SUBJECT

IT IS WIDELY KNOWN THAT DIESEL-ELECTRIC SUBMARINES AND THEIR CREWS need air to do their jobs. Yes, nuclear-generated steam to spin the turbines that twist the screw has, since the NAUTILUS in 1955, made it possible to stay submerged for years. But the crews' need for table goodies cuts years down to between 90 and 100 days–give or take.

Despite the advent of controlled nuclear fission, the quest for Air Independent Propulsion (AIP) alternatives continues for at least these four reasons: (1) the incredibly high capital and maintenance costs of nuclear power puts it out of financial reach of many nations–even the so-called 'developed' ones, (2) the always present danger that comes with operation and maintenance, (3) the political, human resistance to 'going nuclear' and, (4) the persistent sound suppression difficulties with turbines and gearing. Ergo: the search for AIP options continues.

Back in the '30s, Herr Doktor Professor Hellmut Walther (later: 'Walter') of Kiel, Germany, came up with the seemingly not bad idea of producing steam for submarine turbines by mixing high purity hydrogen peroxide with a permanganate catalyst and then, for a kicker, inject some diesel fuel into the reaction chamber.

Walter's prototype looked good enough for the Third Reich to come across with enough marks to fund the V80 testbed boat. She tooled along, submerged, at 28.1 knots–all this in the '40s. On they went. Several Type XVIIs were ordered; seven were completed, and then larger Walter boats followed. The end of WWII put the kibosh on much, much needed further development.

Still, Britain, the U.S. and U.S.S.R. took home some of the boats for study and development. The RN renamed a XVII Meterorite, and later, with Walter on staff, scratch built two boats: "Explorer" and "Excalibur". It took their crews and others in the know little time to label them "Exploder" and "Excruciator". Both units found their way to the breakers early in the '60s.

The Soviets, apparently, built one copy of a somewhat successful boat with Walter propulsion, but then turned its AIP interest to another possibility: the German KREISLAUF (closed-cycle) experiment–improved with the findings of their own prewar research. In 1956, that resulted in the 650-ton Quebec-class, in which the diesels were fed with on-board liquid oxygen.

Meanwhile, the U.S.A. had salvaged one 2,500 and one 7,500 horse Walter turbine. They had been intended for U-1406 and a to-be-built Type XXVI. They set these up at Annapolis, Maryland, but soon the Navy balked at rising costs, size and weight. The, like the Soviets, the U.S. pursued AIP ideas with the KREISLAUF experiment. But only for awhile. Broadly speaking, they threw in the sponge after an on-board explosion of hydrogen peroxide stored in the bow of "X-1". She was then rebuilt as a diesel-electric and operated from late in the '60s til 1973. At last report, "X-1" is on display at the Nautilus Museum in Groton, MA.

But still, the search for AIP goes on wide and far.

The French, for example, have advanced their development of close-cycle fed turbines. In their MESMA system, nuclear fission is replaced by a mix of ethanol and oxygen, stored under 60 atm. Pressure. It fires the stove, but not too efficiently. On the other hand, the high intake pressure enable the disposal of exhaust gases at any depth without the help of a compressor. So far, three thus equipped Agosta 90Bs have operated in Pakistan's navy since 2001. But the system is there only to extend low-speed submerged endurance–not for full time employment.

Next: There exists the STIRLING CYCLE engine.

Originally the stuff for sci-fi writers, the STIRLING has found application in three Gotland-class boats of the Swedish Navy. They were built at the Kockums yards–the same outfit involved with the Australian Collins subs.

STIRLINGS, not unlike compressed-air powered engines, operate on external (not internal) combustion. Outside of these motors, heat is transferred to a captive quantity of a generally inert gas, which is then driving through a repeating sequence of thermodynamic changes. The gas expands against a piston, is then drawn to a cooling chamber, to be recompressed again and again. The generated heat is then converted to direct mechanic

Continued from page 4...

al power, or to generating electricity. (Wow). The cycle's advantage over straight diesel power is that its exhaust is easier to void, and that it makes less of a racket.

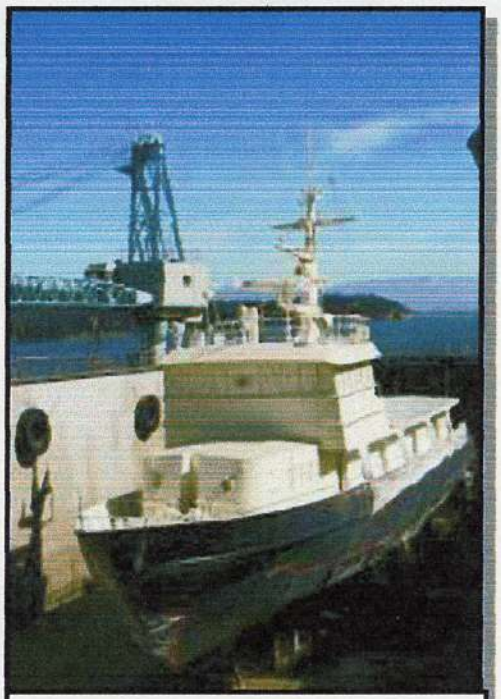
Last but not least: the FUEL CELL (see this June's "Binnacle") has come to the forefront of the AIP quest. For submarines, the PEM configuration, pursued by Siemens in Germany, already adds vastly to the time that subs now built in Germany, Italy, Greece and Korea can stay submerged at low speeds. An obstacle in FC development is their limited power output, which is not quite outweighed by these pluses: (1) F Cs exhaust pure water (the residue of the hydrogen-oxygen cocktail), (2) F Cs lend themselves to retrofitting existing (modern) boats, and (3) F Cs generate no heat at all during discharge. The later, for subs, is as crucial in making boats difficult to detect as is emitted noise suppression.

So far, it looks as if both diesel-electric and nuclear-steam turbine (or steam turbine/electric motors) propulsion will be difficult to dethrone. Still, a practical and practicable alternative to fission will likely come sooner than the advent of perpetual motion, or the success of sundry crackpot schemes to extract more than 100 percent energy from fuels such as oil, gas or coal.

Next month, two quite discrete topics will be imposed on your attention: (1) the auxiliary/emergency presence of diesel power in the U.S. Navy's nukes, and (2) the fashion in which a modelsub's bow planes can be made to both rotate and extend, as well as retract.

Romanus Unicum

Lindsey Foss in Anacortes with Mount Baker in the background. *(Photo by Bill S.)*



Conversion of Bay Class Minesweeper to private yacht in Anacortes ship yard. *(Photo by Bill S.)*
http://www.hazegray.org/navhist/canada/postwar/bay/

CLASSSIFIEDS

For Sale: R/C model ships or hulls

The first is an almost complete model of an African paddle-wheeler, complete with plans, that I acquired from an acquaintance a number of years ago. The model is 90% complete with a wooden hull handmade brass paddle-wheel and is driven by an electric motor connected via a chain drive system to the paddle-wheel. It is approximately 4' long, and is based on plans obtained through the Model Boats magazine from England. I have done no work on it since I acquired it, apart from doing a floatation test on it to see what it's stability was like. I think it will need to undergo some re-working to improve stability and trim.

The second model is that of a Royal Navy 72' Harbour Defence Motor Launch, also based on plans from "Model Boats". I believe the scale is 1/32nd or 1/35th, to make use of parts available in those scales. The hull is complete (wood - plank on frame) and sealed, but not decked, with twin motors and running gear installed. The upper-works have been started, with a pilot house being formed out of vacuum formed sheet plastic, to keep weight down. There is also an "Ace Nautical" five channel R/C system with this model. I have done nothing to this model since I acquired.

The third hull looks to be a commercially made glass-fibre hull of a racing sailboat, approximately 5' long, that former VCP member Bruce Clark asked me to repair and repaint for him. He left for Australia before any work was done. The hull is sound.

I have no room or use for these models. Can you put the word out to the club? I'm asking $300.00 for the lot.

Chris Preston (250) 744-2386, and e-mail: *prestoncm@shaw.ca*

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For Sale: Don Halls has an unused Hytec ball bearing arm type sail winch for sale.He purchased it new from the Shaver Shop, but isn't sailing anymore. Still in box. $50 or best offer

Don Halls, 642 3006

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