February 2001 Volume 23, Issue 2

The Binnacle

Victoria Model Shipbuilding Society
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VMSS GENERAL MEETING JAN.11, 2001
Minutes
Attendance 27
Intro by the new club president Jack Plummer, welcome aboard Jack!
New Members-Don Beale
Guests -none
Members with boats
- Bob Rainsford`s Cruiser "Interlude" made from Doug Allen`s old Seaspan Queen Plug, nice job Bob.
- Ken Scotten`s Mini 6 Meter from a Dave Denton hull, also a nice job and looks fast (look out Bob Woodward)

Reports
- Derek reported on the Can West Show Feb. 8th, 9th &10th, Need boats and people to set-up, take down and help run the show. (see sign up sheet)
- Paul Jordan reported the public and modellers would judge models. A public's choice and a modellers choice. Ribbons will be awarded on Saturday followed by trophies.
- Mike Hill reported a mini regatta would be held on Saturday at 1:00 pm. Contestants will have lots of time to scope out the course before hand.
- Ron Armstrong is going to handle PR for the Can West Show.
- Jack Lenfesty is going to act as the club photographer
- Mike Gibson reported on the Bandit Boat Project. A discussion followed on how to build and equip 8 more hulls for shows etc. Volunteers are needed to help build up the hulls. Mike has also generated a CAD drawing of the boat to help anyone interested.
- Jack Plummer said we have some old engineering books donated to Library for sale to anyone interested. Also Bob Rainsford would like to get rid of the old fence we have in storage anyone interested see Bob.

Entertainment
- Dave Powell gave a talk on the new Club Boat he has fixed up (From a hull donated by Jochem Bohle) As usual he has done a bang up job Thanks Dave! We just need a name for it. Bring your suggestions to the Can west Show.

Business
- Derek gave a financial report and the club is doing well fiscally
- John McHutchion read the minutes of our last function, the Xmas do. Everyone who attended had a good time Thanks to all that made it a success!
- Paul Jordan asked the club if we might start a Gossip type column for the Binnacle, things like who's building what and just things going on around the members. Sounds like a good idea that will generate some interest.
- Jack Plummer reported that Nels Coombe had had an operation and was doing better. Bill Birch was down with the flu and Bill Huckin was not well. We all wish them a swift recovery.

Dates to Remember

March 8 Regular Meeting
Swap Meet
Non-members welcome!
March 15-18 Mid Island Marine Modellers
Model Boat Show
Country Club Centre, Nanaimo
April 12 Regular Meeting, Clay Evans, Coast Guard
History of the Bamfield Lifeboats
Every Sunday Harrison Pond 9:30 - Power
1st and 3rd Sundays Elk Lake - 11:00 - Large Sailboats
2nd and 4th Sundays Harrison Pond 1:30 - Small Sailboats

Inside

Press Gang - MMBC
John Gough is hosting the kids' programs at the Maritime Museum during school spring break - the week of March 16. Payment is the joy of working with kids you don't have to take home! Please see John if you can help. 479-1843

'NIGHT BOATS'

On the Great Lakes in the 1920's, when cars were few and far between an economical holiday was the 'Night Boat' trip. Two of the largest boats ran between Detroit and Buffalo. These two paddle-wheelers, the 'Great Buffalo' and the 'Great Detroit', both over 500 feet in length with a beam of 60 feet could each carry 1,500 overnight passengers. To see one of these ferries docking at Buffalo was a sight to remember - five decks of outside cabins all illuminated. However, the great depression helped to bring the night boat era to an end. In 1938 they were laid up, supposedly never to sail again. World War two found a need for them. The upper decks were removed,, the stacks and bridges were relocated to the sides and they were converted into aircraft carriers. Unknown to many, allied airmen received their training in the safe waters of the Great Lakes.

The 'Great Buffalo' and the 'Great Detroit' were decommissioned in 1945 and were eventually scrapped in 1948.

Bill Birch

Simple design for model ship
Bow-Thrusters

Several years ago, I built a model of the Canadian Coast Guard vessel "George Pearkes" at a scale of 1/96 and discovered, much to my dismay, that the model required a bow-thruster which I realized was a fairly expensive accoutrement that I had not considered when I chose the plans .

As a result, I conferred with a neighbour and former club member Geoff Walton, who had several ideas that could be readily incorporated into the model at little expense.

Initially, I had tried building a miniature universal gear surmounted by two opposing propellers situated in a waterproof chamber located in the bow of the vessel. This device worked satisfactorily on the bench ,but, when installed within the hull it was totally inadequate for the job.

Geoff and I then experimented with a very small motor installed vertically above the sealed chamber that had an extra long shaft that was equipped with a piece of flat brass at it's base similar to a mix-master paddle.

The paddle was offset so that only half of it protruded from the horizontal view of the cavity located inside the water intake port of the bow thruster.

The next problem dealt with the electronic application control of this device. It was decided that the six volt battery leads should be anchored at each end of the steering servo arc with the addition of spring type roller switches. In this manner, the extreme end of the steering arm surmounted with a small roller would travel the full distance of the arc right or left when the trim controls of the transmitter were activated to the extreme, thus altering the direction of the mix-master like paddle. The paddle creates a current in either the port or starboard side of the bow resulting in the vessel's movement.

2001 Executive

President:	Jack Plummer	592-2021
Vice-Pres:	Paul Jordan	388-7929
Secretary:	John McHutchion	480-4048
Treasurer:	Derek Woollard	658 1150
Directors:	Scott Ringrose	744-3048
	Mike Gibson	474-6539
	Mike Hill	384-4024

Other Duties

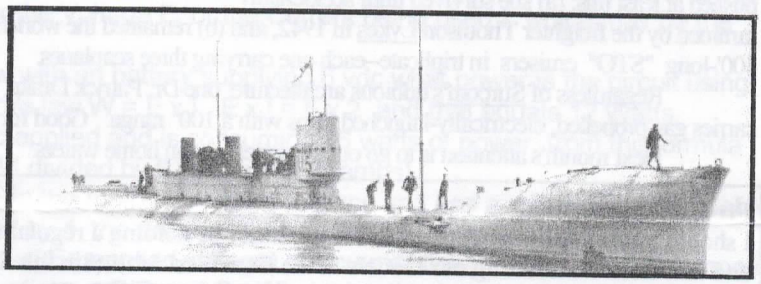
City and Parks Liaison	Ed Boddaert	746-4459
Membership List	Mike Gibson	474-6539
Entertainment	Bill Birch David Powell	592-6456 479-0905
Regattas	Scott Ringrose Mike Hill	744-3048 384-4024
Show Coordinator	Derek Woollard	658-1150
Publicity	Ron Armstrong	391-0101
Binnacle Circulation	Bill Birch	592-6456
Binnacle Editor	Ron Hillsden	470-5760
Website	Ron Hillsden	479-5760

It is quite fascinating to be able to control the bow movement of your model in and out when docking or completely turning your model around within it's own length .
jrp

THE SUB SUBJECT

Incited by pearls of info that outpost V.M.S.S.er Ron Wild copped off of the web, I'll briefly highlight these two extraordinary, historical submarines: (1) the R.N.'s "K" class, of which 18 copies were snapped together, and (2) Surcouf--the one and only abortion of its kind that stilled the French Submarine Service's appetite for experimentation for a coon's age, or longer. Ye-es: once was already too much. Surcouf, by the way, was named for an erswhile-pirate-turned-respectable-deep-pocketed-ship chandler, Robert Surcouf (1773-1827), who hung his hat in Saint-Malo-an ocean resort, now notorious for topless-sity on its beaches.

Although beauty, it's claimed, lies in beholders' eyes, the "Ks" were, if sanity is allowed a role, so ugly that only their several U.K. builders could tolerate their looks for just mere seconds, and only after the Treasury's final cheques had cleared their banks. They looked as if two or more naval architects had worked independently. The bow--some 30 feet of it--would have done well on a Vanderbilt private yacht. What followed could have been part of a then (1916-1918) fairly proud, twin-stacked ocean-going tug, marred only by a three-story conning tower that looked as if it was the discarded mock-up of a flanking tower for a medieval castle. Yet, it all managed to float and dive, and move at up till then unprecedented clips of 24 knots surfaced, and 9.5. submerged.



Note again the "twin-stacked" bit in the foregoing description. Yes: the "Ks" had two steam turbines that gave a 10,000 hp muscle to the shafts for surface operation. Diving or dived? No sweat. The two stacks were retracted and sealed, the 55-strong crew coughed, spit or fainted, and the 1,400 hp (combined) electric motors kept the abortions on the move at, as mentioned, up to 9.5 knots. Not too shabby. (As a whimsical aside: Imagine the always urgent "Dive, dive, dive" command being given by an officer while stifling a yawn and stuffing a fresh pipe . .)

As far as on-hand texts allow, the R.N.'s "Ks" were the last submarine species for which designers had turned to steam, but they sure weren't the first ones. Arms builder Nordenfeldt (without any semblance of success) had used steam back in 1887, managed to vend one such sub to the Tsar, frigged around a while longer, then went back to what he was good at: building machine guns.

Now, in 2001, we can split our sides just thinking about those still relatively recent, disastrous tries at raising submarines' speeds and ranges. But despite failure, think of the planning, engineering and precision workmanship that must have gone into the pursuit of those goals. Sure, diesels already existed, but could not touch the power of steam, e.g. the "Ks" at 10,000 hp, vs. the 1917-1927 "Ls" with a mere 2,400 hp on tap.

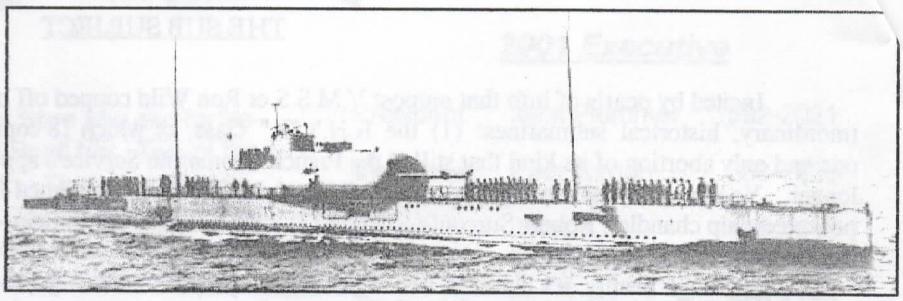
The "Ks" were 338 feet long, carried up to eight torpedoes, and had at least two 4" deck guns. But out of the 18 built, 17 made for Davy Jones's locker inside of eight years. Because of their speed coupled with a lack of commensurate navigation aids, many were lost during nighttime exercises off May Island. K13 wasn't that lucky. She foundered on trials, but was recovered. Just one, the "stretched" K26, did manage one patrol to Colombo in 1924. In a moment of enlightenment, the Admiralty put the kibosh on the "Ks," and the last two planned were never built.

Next: guess what? The Admiralty suffered more potent imagination, and the "Ks" basic design found its way into three "M" (for "Monstrosity?") boats. The "Ms" carried a 12" (!) gun, mounted atop of a control room big as a house. The cannon was loaded while surfaced, but could be fired with the muzzle just broaching the surface. But where did the projectiles end up? Well, the pilot of the on-board floatplane supposedly spelled off the gun crew. With radio interference and such, "left, right, short, wide, too far," and more was often garbled. Sane pilots--range permitting--made for the nearest land and, chewing their mustaches, downed 'arfs 'n' 'arfs as if tomorrow would never come.

On then to Surcouf.

Once upon a time in 1926, still burdened by the Geneva Convention, a covey of French admirals and their lackeys met over wine, champagne, cognac, calvados and pastis, to draw up the specs for a monster (361' long) sub cruiser/ raider that would be an "all-weather" weapon, fulfilling all and sundry compatible or incompatible dreams. Travel anywhere and back--like 12,000 miles. Blow enemies near and far to where they belonged, and come home with epic reports. One wanted this; another that. Their ultimate brainchild made even non-experts drop their AA pledges. Still, they found a gent, named Roquebert, who put the wish list on paper and in plans: 3,250/4,304 tons displacement. Twin 8" guns in a lovely, out-of-proportion turret. Twelve tubes, and space for 16 fish. A magazine that held 600 rounds of the 8" stuff. Plus, of course, a pair of husky machine guns. Also, for good measure, Surcouf carried a floatplane in a watertight hangar abaft of the tower, offered accommodation for up to 40 prisoners (yes: the bleeding hearts made their influence felt), and carried a 16' cutter, to take the captain out of earshot when the din rose to intolerable levels. How come, one has to wonder, that a Nemo-style pipe organ was overlooked?

Whichever yard built her, and her 118-head plank crew, must have marveled that Surcouf actually did float, and trucked along at 18.5 knots surfaces vs. 10 (!) dived. But she was reputedly unstable--her design committee's influence no doubt--and looked . . . well . . . rather strange.



Going by photographs, Surcouf's gun turret looked much like a dressed turkey lying on its back, with the 8" barrels for drumsticks. The guns' space was seamlessly followed by the turret (bridge) and continued on to house the waterproof hangar in which the floatplane was folded.

Unreliable scuttlebutt has it that it was Surcouf's crew who invented the now ubiquitous earmuffs. Yet, in spite of all her flaws, boat accomplished at least this: (a) she survived until accidentally rammed by the freighter Thomson Lykes in 1942, and (b) remained the world's largest sub until 1944, when Japan's Imperial Navy launched its 400'-long "STO" cruisers in triplicate–each one carrying three seaplanes.

Regardless of Surcouf's dubious architecture, one Dr. Patrick Drake, in Australia, built a 10.5' model of her. It can fire both of its guns; carries gas-propelled, electrically-launched torps with a 100' range. Good for Dr. Downunder Pat. Congratulations!

Next month's attention is to go out to model subs in home waters.

Romanus Unicum

From the Bridge

I should remind the membership that we will not be holding a regular meeting on Thursday the 8th of February , as this is the weekend that we are exhibiting our models at the Can-West Mall (8th 9th & 10th) We will resume our regular meetings on Thursday evening March 8th at which time we will hold a "SWAP MEET" . Please note that we will have a variety of new models and electronic equipment for sale at excellent bargain prices. We welcome everyone interested to participate by bringing equipment you no longer use and wish to sell.

Our program requesting volunteers to help build the house-works for the eight new "Bandit Boat" hulls the club purchased has fallen short and we urgently require members to offer their services in this regard. Please notify Mike Gibson or myself for particulars and plans.

Many thanks to Gillian Huber of Huber Trophies for the kind donation of trophy winners' ribbons for the Can-West Mall show and to Annabelle Suminski, projects Manager of Can-West Mall, for her company's generous donation towards our mall regatta awards.

Cyber-Navigator

This month's column is contributed by ***Ron Wild.***

There are many people discussing ships and model shipbuilding on internet mail lists. You can participate in the discussion, so the information you get or give is quite specific to the topic being discussed. You, of course, can start your own discussion on these lists to gt information you require.

The largest server of lists is http://www.egroups.com/. Go there, and search for 'ship', you will get a list of about 375 groups. Some of these are space ships, but many may be exactly what you need. Of course, you can search using other subjects. The following are some of the groups on egroups:

British-Navy@egroups.com
canadian-navy@egroups.com
civilwarnavy@egroups.com
Cruise_Ships@egroups.com
FrenchRevolutionaryWars@egroups.com
HistoireNavaleFrance@egroups.com
italian_navy@egroups.com
kaiserlichemarine@egroups.com
MILHST-SPOTTER@egroups.com
MerchantNavy@egroups.com
Modelships@egroups.com
naval_aviation@egroups.com
NavMarAmRev@egroups.com
NavalHistoryUSA@egroups.com
navalships@egroups.com
navies@egroups.com
ocean_liners@egroups.com
oceanliners@egroups.com
PassengerShips@egroups.com
RMSTitanicAndShips@egroups.com
rnships@egroups.com
SeawaysShipmodelingList@egroups.com
shipbuilding@egroups.com
Shiplovers@egroups.com
ships@egroups.com
ships-world@egroups.com
tall-ships@egroups.com
worldnavies@egroups.com

And a couple not on e-groups:
http://www.mbwizards.com/
shipmodels@tac.com.au

For Sale

Bill Huckin at 598-4176.

30" working model of the PT109 (dual steerable props) $100.00
14" working model of a mini tug with running gear. Includes 27 mhz transmitter & receiver. $100,00
26' model of "Bankert" tug, with full running gear including Challenger 250 transmitter & receiver. $250.00
36" Sea Star luxury motor launch with dual motor running gear and including "Ace", seven channel, transmitter & receiver. $350.00

Electronics Fundamentals simply put,

Prior to a lecture given to the members on the use of a volt-ohm-meter for the measurements of Volts, resistances, and current, I suggested to the lecturer that perhaps he should explain OHM`S law. This law of electricity covers every aspect of installing and running correctly those electronic components that we install in our boats, a proper understanding of this law should prevent comments such as these. My fuses keep blowing!, Some of my wires got hot and the insulation melted, a funny smell came from my motor, and finally I think I have blown my speed controller. these comments come with a sheepish look as a rule.

OHM`S law simply stated is as follows **W=E x I**. W is power in Watts, E is the applied voltage, I is the current flow. If W=E x I then algebraically **E =W/I**, and **I = W/E**, One has only to know any two of the three parts in the formula to work out the unknown part whether it be the power W, or the Voltage E or the Current being used I. which may be the unknown factors.

For example if a motor has a 2 amp current draw with an battery supplying 6 vdc what power is the circuit using. OK! Well W equals power in Watts and according to Ohm's law W = E x I, E x I = 6 x 2 and that equals 12 Watts. What is the current draw by a motor which has 6 volts dc applied and is consuming 36 watts of power, from the formula I {current } = W/E and that works out as follows W /E is 36 divided by 6 and that is 6 (amps)

What is the voltage being applied to a motor when the motor is drawing 4 amps and has a rating of 24 watts of power consumption? E (volts) =W/I, and that is 24 divided by 4. the answer is 6, and that is 6 vdc.

Other associated OHM`S law formulae is as follows E (applied voltage) = I (current flow) x R (circuit) resistance **E =I x R.** Therefore from that we arrive at two further equations = E/R and R =E/I.. I think this last set of equations apply to our hobby a little more so than the first set.

CURRENT FLOW

From negative to positive (normally black leads are neg) (red leads are pos), however there must be a resistive load . in between .A switch in the hot lead allows the voltage to be applied to circuitry. only in a battery does electrons flow from POS to NEG.

CHECKING VOLTAGES & CURRENTS ON 6 & 12 VDC CIRCUITS

Motor voltage check, have boat in water, motor running, and boat unable to move forward. have your volt meter on DC, and at the correct range, put negative lead of voltmeter (black) on neg motor input, put pos lead (red) on pos motor input. If by any chance meter attempts to go the wrong way reverse your meter leads I believe Hitec motor leads are green and yellow so you can see why the meter needle could go in the wrong direction!

Motor current check, have motor circuit switched off, all current measurements are made in such a manner that the ammeter must have all the current flow going through it and that is, in series. Now Dave Powell has recently purchased a ammeter from Electronize Co UK 20 AMP range full-scale deflection, this is going to be ideal for our purposes, please do not attempt to use an ammeter that cannot handle the expected current. so this is what we shall do. Undo hot lead (+) from motor, attach red ammeter lead to it, clip black lead of ammeter to the motor, boat in water, switch on power to motor and read off the current measurement, oh yes if you let the boat go you could be fishing instead of boating. don't forget the application of OHM`S laws to solve and get answers to unknown quantities.

TROUBLE SHOOTING.

Take it cool, use those faculties that we have been blessed with.

EYES .check for burnt components. loose connections, TX-RX is on, batteries in good shape, etc etc,

NOSE. Have a good nose around, if you have crisped something up your nose may pick it up.

TOUCH. Careful now, components may be very hot, e.g. BOBS board resisters are not shielded for nothing, however touching is worth a try.

AT THE POND.

TX/RX doesn't appear to be working?. OK, find a member sitting down who is on your frequency and is waiting his turn. switch on your receiver, and ask your buddy to operate his transmitter. If your RX responds all is ok with your RX To check your TX, ask him to switch on his receiver, if his RX responds Ok, your equipment is OK. One snag in this. TX/RX xtals are a matched pair and we have made an assumption that some response would manifest itself. don't forget batteries and loose connections!

FREQUENCIES and BANDWIDTH`S

That part of the frequency spectrum we have been allocated by government regulations is in the 75 Mhz/cycle band. There are about 30 channels CH 61 to CH 90, these channels have a bandwidth of 20 khz/cps each and each channel has this 20,000 hz of separation , in the bandwidth is the data that we have to detect in the receiver after transmission by the transmitter.

ANTENNA RADIATION PATTERN

AM system. the pattern is shaped like a do-nut, and is therefore omni directional (spreads out in all directions). The receiving antenna should be in a vertical plane to obtain maximum input from the transmitter. The RX antenna length should never be cut, the length of the antenna has been designed to receive maximum energy in the 75 meter band.

BATTERIES—NICADS

Nicad batteries have a value of 1.2 Volts dc. What is meant when you look at your gel-cell battery and it says this, 6V-4.5Ah? Well 6V we know, what's this 4.5Ah? it means 4.5 ampere hours! so we have battery that is 6 volts and should be able to sustain a current flow of 4.5 amps for 1 hour, or 2.25 amps for 2 hours, or 9 amps for 1/2 hour. one should be able to work out how long a battery may last, providing you know your current flows. **OHM`S LAW OK?.**

SOME UNITS & SYMBOLS

i = Current. **E** or **V** = volts. **R** = Resistance. **W** = Power in Watts.

f = Frequency. **A** = Ampere.

Milliampere = 1/1000th of an ampere. Microvolt = 1 millionth of a volt. Kilovolt = 1000 Volts.

Megahertz = I million cycles per second. Kilowatt = 1000 Watts.

This diatribe has been produced for any member who may benefit from it.

Don Halls