



The Binnacle

<http://members.shaw.ca/vmss>

Victoria Model Shipbuilding Society
4996 Georgia Park Terrace
Victoria, B.C., V8Y 2B9
vmss@shaw.ca

ON THE HORIZON

INFORMATION ON UPCOMING EVENTS

Mar 16-18—Maritime Museum of BC event * Bandits and Paddelboats

Mar 25-28—Mid Vancouver Island Marine Modeliers Show
and Display Country Club Mall, Nanaimo

Apr 8—Regular Meeting * Rigging demo

Apr 18—Spring Sail Event

Apr 30—May 2 Western Ship Model Conference & Exhibit
Long Beach, Calif.

May 2—Power Event * Battle of the Atlantic Regatta

May 13—Regular Meeting * SubClub—Greg Sharpe

May 21-22—Maple Bay Regatta

June 1-30—Sidney Museum Display

June 10—Regular Meeting * Fabricating in foam - hull construction

June 26—Cowichan Bay Regatta

July 1—Canada Day Display, Tulista Park, Sidney

July 4—Strawberry Festival, Elk Lake

July 8—Regular Meeting * Effective lighting for ship models

* **POWER:** Sundays 10 – 12 Harrison Model Yacht Pond

* **SAILING:** 1st & 3rd Sundays - 1 – 3 PM Beaver Lake

Victoria Model

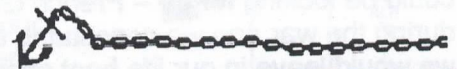
Shipbuilding Society

Regular Meeting – 12 February, 2004

Extract

The President extended thanks to all those who participated in the show at CanWest Shopping Centre, and especially to those who helped set up and take down the exhibition. Suggestions were made as to how to improve the show for next year.

Members who had won "Public Choice" and "Modeller's Choice" awards presented their models, and answered questions about them.



From the Bridge

The Executive have examined the years program with the aim of streamlining the scheduled activities planned each year. We are attempting to make them diverse, enjoyable and not all bunched into a few weeks in the summer. In doing so we are learning from last year's and past years' experiences. We have also been able to share the load in organizing and executing the events by naming separate members as the chief organizers of these events. The events are published here in the Binnacle in good time.

The result hopefully will be that all members will find the activities inviting and worthwhile. We invite all to participate where you can and when you can. Please make known any suggestions you may have to a member of the Executive and they will be considered.

In the mean time we on the Executive wish you a great year of boating.

Ken Scotten

2004 Dues Notice



Dues are overdue
It should be duly
noted that this is your
last Binnacle
unless you give
Derek \$35.00

SEVEN DAYS IN 1942

At the first glimpse of dawn, we could see land. When the wind died, we resorted to oars and eventually decided it was a small cluster of islands and the coast of South America was visible on the horizon.

As we approached the islands we observed a boat coming towards us, and as it came closer we could see the occupants, there were two men in uniform and six or eight rowing. Our landfall was Devil's Island (Isle de Viable) plus a group of islands.

We were motioned towards a small wharf where we staggered on to dry land and were led up the rise to an empty barracks building, there we would be locked up for seven days. A guard leading several convicts brought straw mattresses and very narrow coarse blankets - one for each of us. The guards were always present, except at night, when the gates were locked on our quarters.

Our food consisted of a thin soup and one chunk of bread, twice a day. Two convicts, carrying pails on a yoke would arrive with a guard -- one old convict would manage a few words of English, he had been a counterfeiter and sentenced to life imprisonment.

We were the only contact the convicts had with the outside world; therefore different convicts served us for the different meals -- a novelty in their drab life.

On the seventh day, the Commandant decided that the patrol could be looking for us -- French Guiana was Vichy France during the war and we constituted a problem, so he decided we would leave in our life boat after dark --which we did. We left as we had arrived -- 14 Norwegians and 3 Canadians.

The French penal islands were part of French Guiana, South America. There were hundreds of prisoners in F.G. working on farms. The incorrigible ones were sent to Devil's Island.

Bill Birch

Ed note: Bill was torpedoed three times in World War 2 and this experience was after 8 days in a life boat.

We are sad to report the passing of former member Mike Cooper-Slipper February 23 at the age of 83. Mike flew Spitfires and was an "ACE" in World War 2 His post war career was in aviation, but one of his post retirement hobbies was photography. He took most of the photographs in our historical photo albums.

2004 Executive

President	Ken Scotten	472-6187
Vice-Pres.	Jack Plummer	592-2021
Secretary	Tom Pound	595-6487
Treasurer	Derek Woollard	658-1150
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Publicity	Jack Ross	478-3191
Quartermaster	Bob Rainsford	383-2256
Director at Large	Mike Gibson	642-6540
Director at Large	Mike Woodley	598-8379

2004 Committee Heads

Librarian	John McHutchion	382-8652
Webmaster:	Ron Hillsden	479-5760
City Parks Liaison	Ed Boddaert	746-4459
Binnacle Mailing	Bill Birch	592-6456
Show Coordinator	Derek Woollard	658-1150

**Members
Under
The
Weather**

Doug Allen

Tibor Buzath

Please, if you are having a serious health problem, or are aware of any member with one, let one of executive know. We can then advise the membership through this column, and also communicate with the member.

Club Boats

The **Bandit** fleet is being maintained by Rick Rainsford.

The **Cutting Edge** sailboat is now being overhauled by Bob Rainsford.

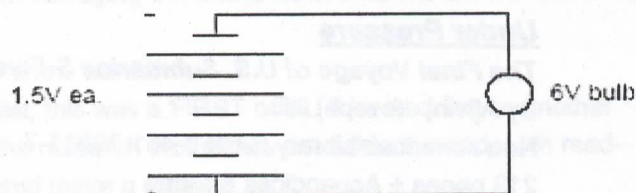
Bonnie C is in need of some drydock time. If you can help, please tell Tom Pound.

Power sources

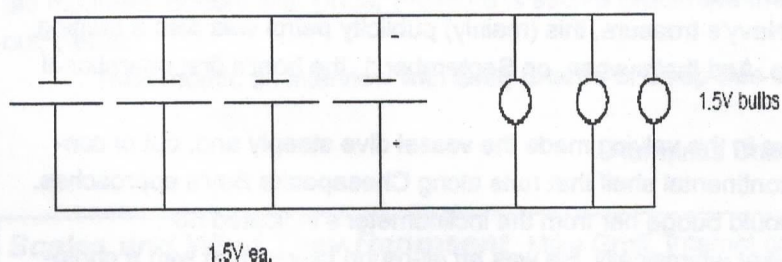
DC battery power and voltage regulators.

You can use regular disposable batteries or you can get rechargeable batteries if you prefer. Something you need to consider is the configuration of your batteries. As with other parts of a circuit, batteries behave differently when connected in series and in parallel. For example, the batteries in a flashlight are usually connected in series because the total voltage available to the bulb is the sum of the individual battery voltages. If your flashlight takes 4 "D" cell batteries then it can power a 6V bulb ($4 \times 1.5V$). Although the voltage you can supply increases as you add batteries the current capacity stays the same as a single cell no matter how many you add.

Batteries in Series



Batteries in Parallel



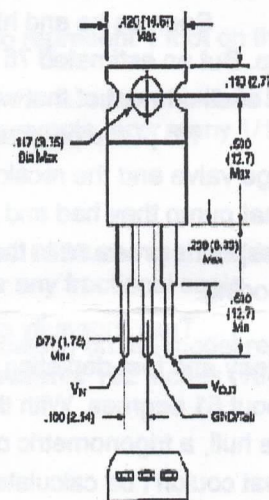
Batteries in Parallel

If you want to get longer viewing time out of the batteries in your lighted model then connect the cells in parallel. In this configuration, the voltage supplied to the circuit remains at that of a single battery but the current capacity is now the sum of all the batteries.

Voltage Regulators

Suppose you were designing a lighting system for a model and you had two different types of lighting that worked at different voltages. How would you power it? Would you use two separate power supplies, or is there a better way? Yes there is! With a voltage regulator you can take one DC voltage and convert it to a lower DC voltage. Voltage regulators are easy to obtain at your local electronics supply store and come from several different manufacturers. Let's say your model will use some Light Sheet that runs at 9 volts and some regular bulbs that run at 6 volts. Checking the specifications of various voltage regulators (available from most electronics suppliers) I find that a 962 voltage regulator has a 6 volt output and will work with a 9 volt input (any voltage between 8 and 35 volts.). Now you can use a 9 volt adapter and, using the 962, convert it to 6 volts to power the bulbs.

Typical Voltage Regulator package (note the three leads for Voltage in, Ground, and Voltage out)



On the scrounge

"C" clamps

Pick up some scrap PVC piping from construction sites, dumps, etc. Look for both the schedule 40 (Thin) and schedule 80 (Thick) types. Using a saw cut rings from this stock. The thicker the slice the stronger the clamp. Then slit the PVC with your saw. The resulting piece when spread open is used as a clamp.

THE SUB SUBJECT

This month, as threatened in February, review of a fascinating book forced interruption of the intended series of interviews as "Sub Subject" topics for 2004. Here's the book's skinny:

Under Pressure

The Final Voyage of U.S. Submarine S-Five

By A[ivin] J[oseph] Hill

New American Library ISBN 0-451-20911-7

213 pages + Appendices & Index

C\$22.47 (@ Bolen Books)

On August 20, 1920, the USN's newest submarine, the S-Five, cast off from the Boston, MA, Navy Yard for its maiden voyage--destination Baltimore, MD. for promotional and on-board tours by the public.

S-Five was crewed by 40 experienced men, under the command of their revered master: Lt Cdr Charles Maynard Cooke Jr--"Savvy" to his peers--who soon turned into their saviour.

To make best use of the crew's time and the Navy's treasure, this (mainly) publicity patrol was also a training exercise, which included a stopwatch-timed crash dive. And that's when, on September 1, the boat's first operational outing turned into its final one.

A combination of human error and design flaws in the valving made the vessel dive steeply and, out of control, embed her bow deep into the soft bottom of the continental shelf that runs along Chesapeake Bay's approaches. Nothing that could be tried with air or power or both would budge her from the inclinometer's indicated 60°.

As it happened Savvy hadn't come by his moniker whimsically. He was an all-round clever man with a photographic memory. He had lived with S-Five from the day her keel was laid, and intimately knew every rivet, weld, system, pump and pipe in his command.

Soon as he and his key officers realized the extent and gravity of their predicament, Savvy donned his thinking cap. But an estimated 75 tons of water had entered the bow torpedo room. Regaining buoyancy hinged upon getting rid of all or most of that weight.

No pump on board could overcome the pressure of water that still entered through the inadvertently left open bilge valve and the recalcitrant induction system's shutter. So between commander and engineers, they jury rigged what pump they had and routed compressed air through the vent ducts to pressurize the torpedo room. With the atmospheric pressure in the bow raised, the pump could now force out some water, as well as partly stem the rate of flooding.

Their ingenuity and gut-wrenching efforts were no great success, but after hours and hours of breakdowns, agony and fast-depleting air and drinking water supplies, S-Five's stern came up to where the inclinometer read about 51 degrees. With the near certainty that the bow was down some 160' below surface, and the known length of the hull, a trigonometric calculation convinced Savvy that the stern had risen out of the ocean--but by how much? That couldn't be calculated because it wasn't possible to even guess at the depth to which the bow had gone into the muddy bottom. At that, the crew did not dare the gamble of opening the stern escape hatch.

Savvy took the initiative, and climbed into the most aft section of the hull, i.e. the tiller room, where the rudders' gears barely allowed space for perhaps a toy poodle. He asked his men for drills. These, in muck, oil and flotsam, were found. A brace first, then a ratchet drill and even an electric one. (The latter shorted out several times, giving its operators the St. Vitus's dance.) All this, please note, in an effort to drill a shoulder-wide hole through the hull's 3/4" steel.



Herculean efforts, in which Savvy was a star participant, gave them a hole big enough to allow passage for a pipe to which a white T-shirt was tied. At last, their waving drew the attention of the Alanthus, a small coastal freighter, which, later, was joined by Goethals—a mixed freight and passenger ship. Between both rescue crews, they drilled (not cut) a passage for the 40 trapped sailors. Despite oxygen privation and chlorine gas poisoning, all 40 survived.

Subsequent Navy inquests absolved all crew of blame, but salvaging the brand-new, \$1.5 mil S-Five failed. To date, sports divers remain highly grateful.

So that's the story, but the book and its structure also earn a few words.

Hard to believe, but for Dr A.J. Hill, a retired anesthesiologist, this was a FIRST book. If he decides on another one, he's set the bar very, very high. The organization of the text, the research that shows but seldom intrudes on readability would be commendable for a 'name' author. I doff my beret and make a salaam.

Also, the story's structure is such that the narration leading up to known, historically-documented success, is as tense as if Under Pressure were a Dashiell Hammett novel. It's a page-turner to be sure. So is there a downside?

Yes and no. By 1947, Savvy was promoted to commander of the Pacific Fleet. He no doubt had an outstanding character and a lofty I.Q., but Hill outright lionizes the man. Also, despite interwoven biographical sketches, there are about as many characters on stage as in a Russian classic. And, at times, the overlapping actions toward rescue get a tad muddled. Bottom line: Under Pressure is such a great read that I've placed a copy in the V.M.S.S. library. Wear it out, please.

Next month: an interview with Greg Sharpe of Deep Sea designs should shed light on drawing model sub plans.

Romanus Unicum

Scales and What They Represent Mike Graff, Internet contributor

Scale can be presented in two formats — a fraction such as 1/16" or as a ratio such as 1:192 which is read out as '1 to 192'. The two formats are related. Each of them answers a specific question about the relationship between the size of a model and the size of the real ship it represents.

FRACTIONAL SCALE answers the question: How much space is used on the model to represent 1 foot on the real ship? For example, 1/16" on the model represents 1 foot on the real ship.

Where does the ratio come from? Ratio is calculated by dividing the scale fraction into the number of inches in a foot to answer the question: How many units of the fraction's length are there in one foot. For example, how many 1/16" units are there in one foot?

- There are 16 1/16" units in one inch, and 12 inches in one foot.
- Therefore, $12 \times 16 = 192$ units measuring 1/16" in one foot which is expressed as 1:192
- On your calculator, divide the fraction's numerator (1) by the fraction's denominator (16) to get .0625 and then divide 12 (the number of inches in one foot) by .0625 to get 192. This calculating procedure works for any fractional scale value.

RATIO SCALE answers the question: How much space does one unit (1" in the table below) on the model represent on the real ship? For example, the ratio of 1:192 means that one inch on the model represents 192 inches (16 feet) on the real ship — 192 inches divided by 12 inches per foot = 16 feet.

Fractional Scale	Ratio Scale
1/16" = 1 foot	1:192 1" = 16'
1/8" = 1 foot	1:96 1" = 8'
3/16" = 1 foot	1:64 1" = 5' 4"
1/4" = 1 foot	1:48 1" = 4'
3/8" = 1 foot	1:32 1" = 2' 8"
1/2" = 1 foot	1:24 1" = 2'

NOTE: Fractional scale values are commonly associated with the inch as the unit of measure. Ratio scale values can be applied using any unit of measure - inches, millimeters, feet, cubits, etc.. For example, at the ratio scale of 1:192 one inch on the model represents 192 inches on the real ship, one millimeter on the model represents 192 millimeters on the real ship, and so forth.

Hardening, Tempering and Annealing - Steel, Brass and

Annealing is softening metal so it can be worked

Tempering is removing the brittleness from hardened metal so it doesn't break when it is used.

Steel

To **anneal** steel, heat it to cherry red (the **annealing** temperature) and cool it as slowly as possible. Air cooling is too fast sometimes, so you have to be careful to avoid drafts or plunge it into a sandbox. The pros have controlled ovens.

Temper by reheating and being careful to stop when straw color is reached.

To **harden**, heat to cherry/whitish hot and quenching hardens,

A trick when working with steel is to work in dim light so you see the color well.

Brass

Brass is the opposite of steel.

To **anneal** brass, heat it to red and cool it rapidly by quenching.

Brass and aluminum **harden** when worked or when it ages.

Other information:

ALL metals oxidize more rapidly as temperature increases; EXCEPT

steel, rapid cooling (e.g., quenching) arrests oxidization without ANY other harmful effects.

Iron: Iron/"mild steel" (less than .25% carbon CAN'T be hardened in the fire; it CAN be work-hardened, and then must be heated to reduce the stresses to keep from fracturing.

Steel: (carbon content .25% => 1.75% carbon content) changes state when at red heat (>1200 degrees; a magnet won't stick when in this state); if cooled slowly (burying it the forge's ash pile) it will be soft enough to machine (eg, filing); if cooled rapidly (plunging into water, brine, or oil, depending on the alloy) it gets extremely hard and BRITTLE (like glass), may actually shatter from the shock if not careful... CAN'T be filed. In order to reduce the brittleness, it is "annealed" - polish the surface, then heat the work until (soap-bubble like) colors appear, then quench again. A "straw" color is suitable for cutting wood; "pale blue" or "violet" is better for working metal (e.g., a punch). Since annealing involves temperatures of 500-600 F, your bake-oven can reach those temperatures even if your other sources of heat can't. Heating to WHITE heat will burn the steel, and make it useless for future tools.

Aluminum: Will work-harden, but is liable to melt near red heat; hold at lower temperature for a longer time gives the same effect. No way to harden EXCEPT by working the metal (e.g., twisting or hammering).

Copper/Copper Alloys (e.g., brass, bronze): Severe work-hardening; anneal by heating to red; cooling slowly or quickly has no effect on the result, except for surface oxidation. Heating softens the metal (ONLY); working hardens it.

And remember - never pick up work by the BRIGHT end! :-}

For Sale

Victoria Sailboat

rigged with the Powell modifications to improve performance comes with Avenger AV2R radio on Ch 78 \$200 obo Rick Libbey 383-1197 richardjameslibbey@shaw.ca

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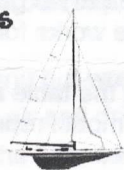
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