THE BINNACLE

VICTORIA MODEL SHIPBUILDING SOCIETY
Box 45083 Mayfair Postal Outlet, Victoria BC V8Z 7G9

October 1998

Fall Fungatta

September 13th was another sunny, warm day - in keeping with our seemingly endless summer. A good turnout of members and a large crowd of spectators were on hand for our second and last fungatta of the year. Paul and Mike (winners of the first fungatta steering course) had the job of setting up this one and they went with the same format of having everybody compete with the "Bonnie C". The stone was ceremoniously unveiled and a good time was had by all. Results of the steering competition are on page 3 and a report of the unveiling can be found on page 4.

Dates to Remember

Oct 8th Meeting - Royal Oak Lions Hall
Entertainment - Sailing
Nov 12th - Meeting - Royal Oak Lions Hall
Entertainment - ELECTIONS, followed by "Tin Talk" from Ron Armstrong.
Dec 10th - Meeting - Royal Oak Lions Hall
Entertainment - Christmas Social

Regular Events

Every Sunday	Harrison Pond	10.30-1.30
Wednesdays	Harrison Pond	5.30 - 7.30

Organized sailing at Beaver Lake suspended for the summer due to swimmers and weeds!!

1998 Executive Committee

President	Ron Hillsden	479-5760
Vice-Pres	Ron Armstrong	391-0101
Secretary	Paul Morrow	744-5406
Treasurer	Ray Bethel	474-7565
Binnacle	Julie Hillsden	479-5760
Directors:	Ron Wild	478-5430
	Derek Woollard	658-1150
	Scott Ringrose	744-3048

International Connection

Some of you may remember that Ron and I met a young man who was visiting from Germany at Harrison Pond last year. Tim is a model boat builder and we sent him some club info. We have received a letter from Tim this week. His model fleet consists of a fishing boat and a coastguard boat. He has also completed a radio-controlled airship (Zeppelin) which is filled with helium and is 3 metres long!

Tim has recently seen a television program on a ship the U.S. Navy has built in order to raise a sunken Russian nuclear submarine. The vessel is named "Hughes Glomar Explorer" and Tim would like to build a working model of her. Is there anyone out there in VMSS-land who has heard of it or can suggest where Tim can get information from?

Quote of the Month

VMSS members have much in common - channels, mostly!

The "SUB" Subject

The last aspect of model submarine building that was left on the table at the time of the March presentation was linkages.

Model sub linkages share all the basics with surface models. A horn on the servo's output shaft, a clevis or other joint, a rod, another clevis and a horn on whatever it is that the servo/channel is supposed to activate. In other words: "A" (servo) is mechanically linked to "B", and that can be a rudder, a sail, a switch, a diving plane, or whatever it is that makes the model and its accessories do whatever the order from the transmitter may be. Basic stuff.

In a submersible model, there are a few added complications to keep model building interesting, frustrating, and as uncertain as most folks' day of final demise.

First, the servo has to be kept dry and cosy in the so called Pressure Hull, while almost all of the linkage runs out in the free flood area. This, then, implies that somewhere, somehow, the linkage must penetrate the pressure hull, and that such penetration must be sealed.

For seals, as covered in June in the LEAKS article, SubTech's ⅛" bulkhead seals (BHS) are a ready answer. They are most all likely made out of Neoprene, have a lip profile, and come in housings that step up from 1/4" where they run through the bulkhead to 1/2" outside the bulkhead. But it takes little scientific knowledge to appreciate that linear rod movement through the seal causes more wear and brings about a slight pumping action rather than rotary movement. Therefor, it is often better to install the servos vertically, and to run the output shaft up through the pressure hull's lid instead of having them side back and forth (horizontally) through a pressure hull bulkhead. There no doubt are alternative methods of attaching a 1/8" rod to a servo output shaft, but I follow what I learned from Greg Sharpe. Drill a 1/16" hole within about 1/4" of the end of a brass or stainless steel 1/8" rod, put a 1/16" rod through that so you have a T-shape, measure the space between the peripheral holes in any of the zillion plastic horns that come with servos, bend the ends of the 1/16" rod 45 degrees so that the two ends of the now U-shaped rod fit through two of the holes in the horn/disc, bend the 1/16th's ends a tad to keep them from slipping out, and Bob's your uncle. The end result is that the servo now rotates its extended output shaft. On the top of that shaft, an ordinary horn may be mounted to convert the rotary to linear motion. Simple and zero levered up to the business end of the first horn.

Second, most nuclear and several other submarine types are single screw job. Big deal, you say. There are more single than multiple-screw ships around than one can shake sticks at. Very true, but the stern control at a tug or yacht or freighter or tanker takes nothing more than one or more rudders. Not so for a sub: here we need the rudder (down) and fin (up), plus.... the stern (diving) planes.

These four control surfaces form a cross when viewed from the stern, and their two shafts usually intersect at the very centre of the hull's stern cone, and, guess what. The centre of the stern cone is the very same place where the driveshaft wants to be, and driveshafts love to run very straight and true. Out of deference for the driveshaft, the control surfaces shafts have to be C-shaped at their centre, so that they make way for the driveshaft. With Dubro collars and such, that's not too difficult but, in addition, the two C-shaped shafts must not have their 30 to 60 degree travel impeded by each other. To that end, since both usually run through the hull at nearly the same plane, one of the C's has to be large enough to circumvent the driveshaft, and the next one large enough to get around both the shaft and the first (smallest) C.

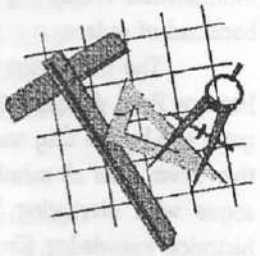
Nothing's carved in stone here, but it's my habit to pu[t] the small "C" in the vertical fin-rudder control shaft, and the larger "C" in the horizontal port-starboard diving planes' shaft. For the fin-rudder shaft, it doesn't matter if the "C" portion runs to port or starboard of the driveline. For the horizontal (planes) shaft, however, and this somewhat depends on hull shape, it seems best to have the "C" run under rather than above the driveline. Also, but this requires experimentation, the horns to be soldered to the two "C" shafts may have to be offset somewhat from true north and south and east and west. Especially the one that is to move the stern planes ahs to be offset 5 to 10 degrees to allow the 30 to 60 degrees rotation, without bumping into the driveline. Do we need a sketch?

Third and last, surface models, as a rule, are relatively roomy inside compared to subs. And, as happenstance will have it, submarine models are stuffed like the bag of a female-type person on a two-week trip to Europe, without checked-in luggage. Brass and copper rods are quite pliable and bendable/formable. (Not "formidable," Julie). And that's just great. But often grea[t] still is to eliminate much manufacturing, clevis consumption a[nd] slack by using flexible control rods, such as Sullivan Gold-N-Rods. They're as friction free as it can get, their material laughs at the after effects of water, and they'll take linear motion/ power around anything——including (but not limited to) the mulberry bush.

That, then, fulfills my earlier promise: leaks in June, Trim in July, Ballast Tanks in September, Linkages in October. In the next "Binnacle", space permitting, I propose to highlight the basics of the two mainstays of the U.S. Navy's submarine fleet: The Los Angeles-class attack submarines (SSN's) and the Ohio calss SSBN's, a.k.a. Tridents and Boomers.

Romanus Unicum

Tech Talk



This tech talk is a user report on Gorilla Glue. I read an interesting article in the July/August 1998 *Ships in Scale* magazine where Alfred Lyczkowski built a model of the China River gunboat USS Panay. Lyczkowki is a prize winning modeller, and used the following unconventional method of planking his hull. He cut the frames from plywood and mounted them on a board as usual, then he planked the hull with 1/16" balsa. He applied a heavy coat of Gorilla Glue, which expands and foams up, inside the hull.. This locked the hull and made it strong enough to plank a second time with 1/64" plywood. It is easy to sand and drill Gorilla Glue

Some of you know my rather unconventional method of planking my Coast Guard cutter hull was to use 3/32 hoop pine plywood, so I was interested trying some Gorilla Glue. I found the local distributor is Shipwright Paul Heron. Paul was intrigued with my plan, and kindly lent me an industrial sized bottle of the stuff to play with.

So what is Gorilla Glue? It is a polyurethane glue which has been available in Denmark since 1972. It uses moisture from the air, or wood, to cure. Because it foams up, it fills gaps, although it doesn't add structural strength in the gap. The excess is easy to remove (wipe wet or sand dry).

This is what I did. I damped the hull down using wet paper towels. I then painted on a thin coat of Gorilla Glue. Where the gaps between the planks weren't filled, I scraped some glue in with a small piece of scrap wood. (Paul later told me I could have covered it with Saran wrap and the glue would have been forced into the seams). It foamed up and after a couple of hours the voids and gaps were filled with foam.

When it came time to remove the excess, I realized I should have waited until I returned from vacation before I applied the glue. It forms a skin which gets harder with the passage of time. It's not a major problem, though. I was impressed at how much stiffer the hull became. I started removing the excess with a sure-form, but switched to a razor plane when I realized I was using a glue which isn't going to hurt the plane! It doesn't even clog sandpaper!

This is a 2 thumbs up product. An 8 oz bottle is about $20, and it has about a 3 year shelf life. Paul doesn't usually bring in the model ship size bottles, but we can probably make a deal with him if several people are interested. I'd like to use it again! If you are interested in getting some, let me know.

Ron H.

Sea Terms Quiz

(Match the word with the correct explanation)

1. SCUD	A. Bottom
2. FOTHER	B. Double-ender, shallow draft, ketch-rigged vessel
3. NORWEGIAN STEAM	C. Flat Calm
4. HOOKER	D. A leaking hull
5. GROUND	E. Elbow grease
6. BRASS MONKEY	F. To run before the wind
7. ALL HANDS AND THE COOK	G. A collision mat
8. IRISH HURRICANE	H. An old sailing cargo vessel
9. BUGEYE	I. Nickname for Cunard House Flag.
10 MAKE WATER	J. All the crews on deck

Answers can be found on the back page.

Results of Steering Competition

Congratulations to all who took the challenge!

!st	Ray Bethel
2nd	Dave Seager
	Scott Ringrose
3rd	Ron Armstrong

Looks like Ray, Dave, Scott and Ron will be organizing our next Fungatta!!!

Editorial

Well, it looks like our long, beautiful summer is coming to an end. There is a definite nip in the air in the mornings and the trees are starting to turn. We were up in the Okanagan this month and the scenery was spectacular. We stopped off in Penticton and did a tour of the SS Sicamous. The restoration society are doing a wonderful job of restoring her to her former glory. If you get the chance to go aboard - don't hesitate. It's well worth the $3 admission.

No doubt many of you are heading back to the workshops for the building season. Keep us up to date with your new models. The "Basement Boatyards" column won't run unless there is something to put in it!

On a personal note. Putting this newsletter out takes up a huge chunk of my ever-decreasing spare time. If the membership desires, I will do it again for another year. However.....it is an uphill battle to get material to print. I truly appreciate those members who regularly submit articles but it is the same few people who help me out month after month. Many of you have some truly incredible models and there is a wealth of accumulated knowledge out there. You don't need to be a pullitzer prize winning author to submit an article - I have deciphered many chicken scratch notes.....

Julie

From the Bridge

It's autumn and building time again as the gardens don't need to be tended. At least for the power boaters - the season is just starting for the sailors. If you haven't been out to watch the sailing, make a point of going - they have a lot of fun and it's interesting watching the races.

Autumn is also the time to start thinking about the change of season in our club. Elections are a month away. If you would like to sit as an officer or director, please let me know. Your officers and directors have done an excellent job for us, and I appreciate their support. They always welcome a fresh perspective, and will welcome additional help.

Ron

A Moment in History

This is for members who did not attend Fall Fungatta '98. The steering course I'm sure is covered elsewhere. My focus is the unveiling of the stone cairn on the western shore of Harrison Pond. This took place at 1050 that morning with speeches by yours truly and Acting Mayor, Pamela Madoff.

Some may think this entirely egotistical on my part. But I think it is important that ALL members realize the significance of this brief ceremony. The actual stone (known by some as "Ron's Rock") was provided by City Parks but the shaping and inscribing was entirely donated by Ken Mann of Mortimer Monumental Works - a generous gesture given their august backload of orders.

The inscription tells the true model boating story of Harrison Pond. Actually, the stone should have been erected 43 years ago by the City once the Pond was completed. Better late than never. Now all members using our "home waters" need not argue with dissenting bird feeders and others with limited historical knowledge. Simply point to "The Stone".

Come to think of it, this moment was an ideal way to celebrate our 20th Anniversary!

Ron Armstrong

Air Miles

Today I received my Air Miles Card. Now I can start planning a round trip to Halifax. According to the accompanying brochure, the merchants are anxious to help me on my way.

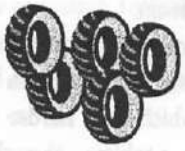
With a little discreet shopping, I can reach my goal in a very short time.

The best dollars per travel mile seems to be the "Boston Pizza" and "Good Year".

Fortytwo thousand dollars worth of pizzas will give me Air Miles one way. Much like salmon, pizzas air dry and keep for years. Air Miles from my Good Year tire purchase will bring me home. The storage of 350 tires could be a problem, but a fire sprinkler system and a secure wire fence will allay the neighbours' fears. Two thousand dollars will more than cover the costs. After all, I am getting a free round-trip to Halifax.

Air Miles make life so easy.

Marlin Spike.



Finances

Where the Money Goes
30/11/97 Through 03/10/98

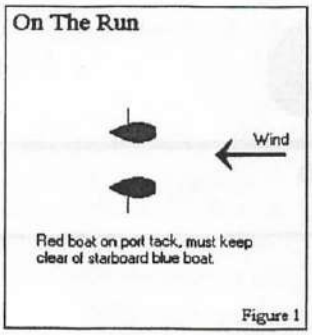
INCOME CATEGORIES	
Other Income : Annual Dues	1,760.10
Other Income : Donations	490.00
Other Income : Clothing	166.20
Other Income : advertising	120.00
Other Income : Lotteries	89.00
All Others	25.52
TOTAL INCOME CATEGORIES	2,650.82
EXPENSE CATEGORIES	
Insurance : Liability	600.00
Job Expense : Binacle / Stamps	517.29
Bills : Rent	450.00
Leisure : Batteries wood	102.57
Job Expense : Engraving	79.13
Miscellaneous : P.O. Box Rental	74.90
All Others	34.71
TOTAL EXPENSE CATEGORIES	1,858.60
GRAND TOTAL	792.22

On the Run

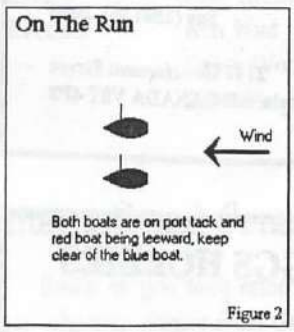
The point of sailing where a skipper can have a slight breather is on the run. The run is sailing downwind from the starboard mark to the leeward mark. It is at this time that sailboats let out their sails fully, and let the wind push the boats from behind. Even though the run may appear to be easier, there are still some important items to know.

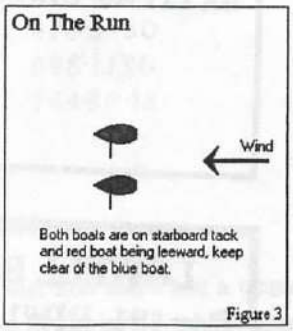
Running down wind may not have the same "glory" of a reach, it can provide winning moments to skippers if they keep track of which tack their boat is on. More times than I care to admit, it is a little confusing to tell which tack the boat is on. As mentioned before, if a skipper knows the tack of his boat, e can use it to capitalize the position, or keep his boat out of trouble.

Take a look at "On The Run" example one, both boats are on separate tacks and since the red boat is on port tack, it is also the leeward boat, and must keep clear of the blue boat. Now look at example two, Here both boats are on port tack and again, the red boat is leeward of the blue boat, and must keep clear. Example three shows both boats on starboard tack, and the blue boat being the leeward boat, must keep clear of the blue boat.



There is one last item that needs to be mentioned here. Since both boats are on a run towards the leeward mark, there is one small thing to point out. As the examples show, both boats are overlapped. If this overlap still occurs when the boats reach the two-length zone of the leeward mark, the leeward red boat shall give the inside blue boat room at the mark.





So there you have it, keeping an eye on which tack your boat is on when it is on the run can help, and not knowing is worse. Knowing the rules can keep you in the right spot to win!

Classified

For Sale: McKenzie class DE. 60 inches long with radio gear and transmitter, whistle, signal and nav lights.

Needs some finishing. Can be viewed in window of BC Shaver and Hobbies.

For more information call 478-0656

$400 OBO

Answers to Quiz

1. F
2. G
3. E
4. H
5. A
6. I
7. J
8. C
9. B
10. D

Joke of the Month

A recent AST advertisement claims their engineers are so busy thinking about work that even their hobbies suffer. Their example is one engineer who forgot about his radio-controlled boat while he pondered improvements to their PC architecture.

Unfortunately, the casual reader, missing the text, sees only a large picture of a model boat aground in the weeds at the edge of a lake and the logo "Intel Inside"!!!