



# THE BINNACLE

VICTORIA MODEL SHIPBUILDING SOCIETY

Box 45083 Mayfair Postal Outlet Victoria BC V8Z 7G9

DECEMBER 1998

## Santa's Visit

'Twas the night before Christmas and all through the house  
not a creature was stirring, not even a mouse  
When down in the workshop I heard such a clatter  
I rushed down the stairs to see what was the matter  
On reaching the basement, imagine my shock  
For there was Santa, holding a block.

"This fell off the sleigh," he explained with a sigh  
"I needed some glue so I stopped by.  
In the shop of a modeler I knew I would find,  
the glue that would be, just the right kind.  
But this workshop's a mess, a real disgrace.  
Nothing, I notice, is in it's right place.  
If my shop at the pole looked just like this,  
toys wouldn't get made and Christmas would be missed."

I stuttered and stammered and found him the glue  
"Here you go, Santa, I think this will do."  
He smiled a big smile, and took the glue  
"thank you my son, now here's something for you."  
He waved his hand, there was a dazzling light.  
When my eyes recovered, an amazing sight.  
My workshop was gleaming, full of space  
Everything labeled and in it's place.  
I turned round to thank him but he was gone  
away to his journeys above and beyond.

I went back to bed and made a promise,  
"I'll keep it like that.....maybe."

Learn from this tale all you modellers who read it  
Keep your workshop tidy 'cos Santa might need it.  
From all at the Binnacle you are wished Christmas Cheer,  
and a healthy and happy, productive New Year



## 1999 Executive Committee

The new line-up following the November elections:

President	Ron Hillsden	479-5760
Vice-Pres	Ron Armstrong	391-0101
Secretary	John McCutcheon	388-4743
Treasurer	Ray Bethel	474-7565
Binnacle	Julie Hillsden	479-5760
Librarian	Derek Woollard	658-1150
Directors:	Ron Wild	478-5430
	Paul Blanchard	477-6316
	Scott Ringrose	744-3048
	Dave Seager	474-5415

## Dates to Remember

Dec 10<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - Christmas Social  
Jan 14<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - Ron Wild's Tugboat Class  
Feb 4-6 - Canwest Mall Hobby Show  
Feb 11<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - Fiberglass over a form - Ron Hillsden et al  
Mar 11<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - Sailing techniques for smaller boats - Dave Seager  
Apr 8<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - Thrifty Submarines - Mike Gibson

## Regular Events

Every Sunday	Harrison Pond	9.30-11.00
1 <sup>st</sup> and 3 <sup>rd</sup>	Beaver Lake	10.30-1.30
Sundays	R/C Sailing - combined classes - All Welcome	





## The "Sub" Subject

At first I was tempted to title this month's column "Anatomy" or "Profile of a Model Submarine," but both struck me as a tad pretentious. So I'll just leave it up to you, and write an untitled piece about my first ballast-tank-equipped *Los Angeles* class 1:96-scale, *Miami*, i.e., SSN-775.

I know that quite a few VMSS members abhor keeping track of building time and cost and, until December 8 1995, (the starting date of *Miami* in 1:96 scale) I was of a like mind. Gradually, however, the public attendance at Harrison Pond got me with these same, over-and-over questions:

1. Where did you buy that kit?
2. How long did it take you to build?
3. How much did it cost?

My repetitive I-don't-knows gave me a slight inferiority complex and, would you believe, made me feel stupid or something quite similar. So I started to keep close track.

First: the kit subject. To my knowledge, there is only one full kit for an operating model sub on the market. This past winter, SubTech in New Jersey issued the *Albacore*. At less than US\$400, it is pretty complete. All that needs to be added is a speed controller and radio. Beyond that, one local and several American vendors offer GRP hulls with all appendages (and sometimes a few extras) in varying scales. I reluctantly admit that I could not resist a bargain. I forked out \$100 in US coin for *Miami's* hull and most of what sticks out of it. It was a mistake and he who "sold" it had cautioned me. It was a warped, three-piece design that had moved from one workshop shelf to another for give or take 10 years. On a guess: I may have saved some money, but—in spite of my (then) GRP inexperience—not time. It took forever to glue, saw, cut, patch, sand and try again and once more to make that hellish hull look like... well the way it looks now. But, hey, live 'n learn, what.

On August 8, 1996, after four shake-down cruises, *Miami* was commissioned. My hands-on working time then totaled 471.06 hours—including 32.01 to develop and build a completely new ballast tank. The first one was another's design. I couldn't get it to work reliably, and the Plexiglass body cracked when cooled by expanding Propel (gas).

In addition to time wasted on the "readymade" hull and the had-another-go ballast tank, some 60 hours went into installing, modifying, relocating, respeakering the RAM sonar system that switches on and off with the ballast tank linkage. At first, only a scuba diver could hear the ping. The speaker was set too deep in the hull. Relocated it twice—had to retrim the boat just as often—and already yet it worked. In my wife's opinion,

that sonar sound is the only thing that detracts from the model. Can't win 'em all.

Before delving into the cost of 1:96 *Miami*, I should do an update on time. Up to and including Sunday, October 25, 1998 (champagne Sunday), the model had ventured out on 85 patrols (Harrison Pond, Thetis Lake, Sproat Lake and Pine Lake [WA]) totaling 66.91 hours of running time, or an average of about 47 minutes each. My knees and prerolled cigarettes invariably give out long before the 3-Aph. Gel cell, which seems to be good for more than two hours at full throttle. Now this: the maintenance and repair time that allowed the 85 outings totaling shy of 67 hours currently adds up to 153.7 hours, would you believe? That's no less than  $\pm 2.30$  for each hour of "fun." Could be even worse than what the U.S. Navy goes through with the prototypes. Then again, it's not as lopsided as with whirlybirds, and I have a partial explanation.

During the second day of an April 1997 regatta at Pine Lake (near Issaquah), *Miami* sank on me. Two veteran submariners had diverted my attention during pre-launch preparation, and I hadn't tightened the pressure hull cap. Scary moments, till a husky young fellow took a chilly dive, and found her in about 12-14' of water. Reconditioning took about 17.5 hours (and several \$s), and, somehow, she's never been the same since.

Now the money. Upon the August 1996 commissioning, *Miami* stood me \$1,513.16 Canadian. That includes shipping and custom charges, long-distance calls and so forth, but probably not all shop supplies. On the other hand, the project also generated some leftovers. By now (November 98) another \$219.62 in replacements has grossed up the total to \$1,732.78. That, too, needs clarification/qualification. Currently, the boat is on its fifth screw—a British-made, U.S.-ordered bronze job that relieved me of a Canadian C note. Trust I won't bust this one as I did with two predecessors who didn't take kindly to my underice operations.

In retrospect, I suggest this: building time should come in at about 400 hours, cost at C\$1,200 and I would settle for a 1:1 running/maintenance time. Toward the latter's end, I've scheduled an internal refit—complete new pressure hull, all Nylon Sullivan linkages, and all new neoprene seals. That'll fix her... I hope.

Next under the "Sub Subject," I'd like to tell all I know about the gas-propelled Trident missiles and their launching system.

Merry Christmas  
Happy 1999  
Romanus Unicum





## Editorial

Hard to believe that it is Christmas again already. Once again, we are behind the eight ball in our house. Every year I say it will be different, but every year we rush at the last minute. Is it just me, or are the years getting shorter?

In response to a request from the membership, the highlights of the General Meeting minutes are printed in this issue. Also in this issue is a comprehensive listing of all the books in the club library. We have Derek Woollard to thank for compiling the list and Lois Lockley for typing it and putting it on a disk.

Thanks to all the members who have submitted articles for the Binnacle this year - you made my job easier.

Merry Christmas.

Julie



## From the Bridge

I would like to take this opportunity to thank the membership for your vote of confidence in re-electing me as your President for another term. I would also like to thank the Executive Committee for their support - especially Paul Morrow, who is stepping down after 3 years and to extend a welcome to our new Executive Members, Paul Blanchard, John McCutcheon and Dave Seager.

Congratulations to Ron Armstrong whose design for our Club Pennant was adopted by the membership.

It's been a pretty good year, two successful Mall shows, two fungattas and another good Saanich Fair - to mention just a few of the highlights.

I wish all of you a Merry Christmas and a Happy 1999

Ron Hillsden



## RADAR

Submitted by Don Halls

The joke in November's Binnacle was very good, but, as a Radar Technician, I have to correct the statement "Back in the 1950's before Radar was invented".

Radar was invented in the 1930's and was in use just in time for WWII. Radar stations were installed primarily on the

South Coast of England, and detected enemy aircraft once they took off and came under radar surveillance, thus giving Fighter Command advance warning.

So what does the word RADAR mean? It was derived from the following Radio Detection And Ranging, or RADAR for short.

A Radar Set or installation contains six basic parts:

1. Timer - controls all the synchronization in the set (the heart.)
2. Transmitter - puts out Radio frequency pulses (controlled by the timer.)
3. Power Supply - Develops high and low voltages.
4. Antenna - (sometimes called the sail), may rotate 360° or sweep back and forth over a narrowed quadrant and it's primary function is to transmit pulses into the air and or receive echoes from targets, once painted, with a series of pulses.
5. Indicator - similar to a T.V. screen (a Cathode Ray tube), circular in design, it has a sweep on it that starts in the centre (zero mile) and goes to the outside edge of the screen. It has a specific electrical length, depending on what range has been selected. The sweep duplicates the antenna position (by a servo system) and, once an echo has been processed, a bright up pulse shows on the "green line" sweep, giving mileage and azimuth information.

6. Receiver - under control of the timer, receives returning pulses (echoes) from a target and processes them for a visual presentation on the Planned Position Indicator (P.P.I.) - item 5

How do we relate mileage with the echo on the P.P.I.? Well, a RADAR mile is really two miles, a pulse of energy leaving the Antenna will take approximately 12.3 micro seconds (usecs) to paint a target one mile away and return to the Antenna. Therefore, one RADAR mile = 12.3 usecs. Knowing this fact, ranges can therefore be made to vary perhaps 5, 10, 25 or 50 miles, depending on the set design and therefore the associated sweep length on the P.P.I. can be made the correct electrical length, depending on what range has been selected.

RADAR propagation is line of sight, therefore the horizon or curvature of the earth does limit RADAR's ability to pick up echo returns. The beam goes over the top of the horizon so there is no return. Mounting RADAR Antennas as high as possible, can push the horizon back a piece.

### Jargon used in RADAR

1. PW = Pulse Width (varies with range selected.)
2. PRF = Pulse Repetition Frequency (varies with range selected)
3. PP = Peak Power (RF energy in the transmitter pulses.)
4. AV PWR = Average Power



To make up for the attenuation of any signal over greater distances the PW is widened (more power) and, conversely, closer targets need a PRF speeded up and this means the PW has to be narrowed, culminating in lesser power.

Here endeth the quick lesson on RADAR.

## Club Library List

BOOK	AUTHOR
1. Warships	<i>Norman Polmar &amp; Norman Friedman</i>
2. The World of Model Ships	<i>Vic Smeed</i>
3. Battleships	<i>Antony Preston</i>
4. Aircraft Carriers	<i>Antony Preston</i>
5. How to Build A Wooden Boat	<i>David C. "Bud" McIntosh</i>
6. Ships Through the Ages	<i>Douglas Loblely</i>
7. The Baltimore Clipper Chapelle	<i>Howard Irving</i>
8. C & K: The Primary Source Worldwide	<i>Switches - Newton Division</i>
9. Model Shipbuilder No. 12	<i>World's Largest Model</i>
No. 14	<i>Ships and Boats Magazine</i>
No. 31	
10. Pacific Tug Boats	<i>Gordon Newell &amp; Joe Williamson</i>
11. Waterline Ship Models	<i>John Bowen</i>
12. STENA 1939-1989	<i>W.J. Harvey</i>
13. The Young Sea Officers Sheet	<i>Darcy Lever</i>
Anchor or A Key to Rigging and Seamanship	
14. Mayflower - Classic Ships	<i>Noel C.L. Hackney</i>
Their History and How to Model Them No. 2	
15. The Anatomy of Nelson's Ships	<i>C. Nepean Longridge</i>
16. Mastng and Rigging -	<i>Harold A. Underhill</i>
The Clipper Ship and Ocean Carrier	
17. Plank-on-Frame Models and	<i>Harold A. Underhill</i>
Scale Mastng and Rigging Vol. I	
Vol. II	
18. Yacht Designing and Planning	<i>Howard I. Chapelle</i>
19. Know Your Own Ship	<i>Walton and Baxter</i>
20. Ship Modelling Hints and Tips	<i>Lt. Cdr. J.H. Craine, R.N.R.</i>
21. Power Driven Ship Models	<i>A.D. Trollope</i>
22. Modifying Fiberglass Boats	<i>Jack Wiley</i>
23. Building and Operating Model Ships	<i>Walter Musciano</i>
24. Ships and Ship Models, Vol. I	<i>Howard Marshall</i>
25. Modelling the Golden Hinde	<i>Editor: Arthur L. Tucker</i>
26. The Galley and the Galleon	<i>Ed. Armitage McCann</i>
27. The Ship Model Builders Assistant	<i>Charles G. Davis</i>
28. The Amateur's Lathe	<i>Lawrence H. Sparey</i>
29. The Built-Up Ship Model	<i>Charles G. Davis</i>
30. Iron Coffins	<i>Herbert A. Werner</i>
31. Building Model Ships from Scratch	<i>Kent Porter</i>
32. How to Make Old-Time Ship Models	<i>Edward W. Hobbs, A.I.N.A.</i>
33. Sailing to Win (A Complete Introduction to Model Yacht Racing)	<i>Nick Weall</i>
34. NATO Navies of the 1980's	<i>Paul Beaver</i>
35. Lusci's Ship Model - Builder's Handbook	<i>Vincenzo Lusci</i>
36. Planking Techniques for Model Ship Builders	<i>Donald Dressel</i>
37. The America's Cup 1977	<i>E. Wesley Oliver, Jr.</i>
38. Whistle Up the Inlet	<i>Gerald A. Rushton</i>
The Union Steamship Story	
39. There's A Landing Today	<i>R.E. Wells</i>
40. International Model Power Boat Association - Scale, Electric & Steam	<i>Rule Book</i>
41. List of Working Drawings	<i>Harold A. Underhill / J</i>
Scale Ship Models	<i>Langford</i>
42. Seventeenth Century Rigging	<i>R.C. Anderson</i>
43. Boat Modelling	<i>V.E. Smeed</i>
44. Model Stationary and Marine Steam Engines	<i>K.N. Harris</i>
45. Model Boilers and Boilermaking	<i>K.N. Harris</i>
46. Engineer's MiniNoteBook	
6 Volumes tied together	
47. Airbrushing and Spray Painting	<i>Ian Peacock</i>
Manual	
48. PT Boats	<i>Bryan Cooper</i>
49. Radio Control in Model Boats	<i>John Cundel</i>
(All about Ships, Boats and Yachts)	
50. The Bomb Ketch Salamandre	<i>Jean-Boudriot / Hubert Berti</i>
1752	
51. Model Boat Propellers	<i>Model and Allied Publications Ltd.</i>
	<i>(MAPTechnicalPublications)</i>
52. Model Ships from the Port of New York(South Street Seaport Museum Model Shop)	<i>Model Shop of New York</i>



## 53. Sea Breezes - The Magazine of Ships and the Sea

April 1983

Sept. 1985

Nov. 1985

Oct. 1990

## 54. Schooner: Bluenose and Bluenose II

*Silver Donald Cameron*

## 55. Secrets of Ships in Bottles

*Peter Thorne*

## 56. Ships in Bottles - 2 copies

*J.P. Lauder and R.H. Biggs*

## 57. Modelling the Revenge

*C.N. Millward*

## 58. Period Ship Modelling

*Percival Marshall*

## 59. Chart Hobby

*Catalogue 5*

## 60. Robbe 91

*Modelsport - Novelties*

## 61. Tools, Supplies and Equipment for Technicians and Craftsmen

*Page and Wilson - Catalogue #865H*

## 62. The Floating Drydock

*Catalogue #13 - 1987*

## 63. Canada's Flowers - History of the Corvettes of Canada 1939-1945

*Thomas G. Lynch*

## 63. The Nautical Mind Reference Book of Nautical Titles

*Nautical Mind Catalogue*

## 64. Naval Institute Press

*Book Catalogue - 1990*

## 65. Sudden Solution Guide

*Sampetec Full Line Catalogue May 1996*

## 66. Boat Modeling with Dynamite Payson Stepbystep Guide to Building Small Craft

*Harold Dynamite Payson*

## 67. Boat Modeling the Easy Way A Scratch Builders Guide

*Harold Dynamite Payson*

## 68. Cooper Tools -

*Electronics Catalogue*

## 69. Design Guide for the '90's

*NKK Swiches*

## 70. Paddlewheels on the Frontier Vol. One

*Art Downs*

## 71. The Dromedary - Ship Modeler's Centre

*Catalog # 10*

## 72. Sea History - Official Journal of the World Ship Trust

*Summer - 1990 - No. 54*

## 73. C. and H. Sales Co.

*Fall - 1993 Catalog*

## 74. On The Hawser - A Tugboat Album

*Steven Lang and Peter H. Spectre*

## 75. Model Boat Building

*Herb Lozier*

## 75. Micro-Mark - The Small Tool Specialists

*1995 Catalogue*

## Reminder

It's Annual Dues time again. Our treasurer would be happy to relieve each of you of \$30 for 1999.



## Book Review

Excerpts from William Rattigan's book, "Great Lake Shipwrecks and Survivals."



"The Great Lakes contain half the fresh water of the world. There are 8,117 miles of shore line shared about half and half between Canada and the United States. During the twenty years between 1879 and 1899, some six thousand vessels were wrecked on these inland seas, and of this number, more than one thousand were total losses: ships, cargoes, hands. Nowhere in the Atlantic or the Pacific is there an expanse of 90,000 square miles to muster such a record of death and destruction."

"According to estimates, there are \$800,000,000 worth of salvageable shipwrecks on the floor of the Great Lakes. They await the new generation of undersea explorers, the skindivers, to locate them with the help of such electronic devices as sonar, echo sounders, triangulated radio beams from shore beacons, sea scanners, and underwater TV cameras." On a lighter note, in 1840.....

"There were colorful Captains on early Ontario. In one of the pioneer steamboats there was no engine room gong for signals from skipper to engineer, and orders shouted from the bridge were repeated by a crew member who stood outside the engineroom door.

The engineer's name was Ramsey and the Captain's frequent use of the orders, "Give her a kick ahead, Mr. Ramsey," and "give her a kick astern, Mr. Ramsey!" came to be bywords on the Lake."

This book has a wealth of shipping information on the Great Lakes from 1679 to the present century.

Marlin Spike



## Classified

Dick Reed, our member in the Garibaldi Highlands is looking for plans for the Union Steamships Camosun, Chelosin or Cowichan, or any single screw hull about 20" long suitable for a Stuart Turner Steam Engine. Dick's address is: Box 915 Garibaldi Highlands, BC V0N 1T0

For sale - Billings Smit Netherland Tug kit. Complete with full fittings kit. Cost over \$400. Offers - call Ray Bethell - 474-7565



## Financial Report

Where the Money Goes

30/11/97 Through 18/11/98

### INCOME CATEGORIES

Other Income : Annual Dues	1,845.10
Other Income : Donations	746.00
Other Income : Clothing	186.20
Other Income : advertising	120.00
Other Income : Lotteries	89.00
Other Income : Regatta entries	59.00
All Others	15.52

**TOTAL INCOME CATEGORIES** 3,060.82

### EXPENSE CATEGORIES

Bills : Rent	600.00
Insurance : Liability	600.00
Job Expense : Binacle / Stamps	564.77
Leisure : Batteries wood	102.57
Job Expense : Engraving	86.34
Miscellaneous : P.O. Box Rental	74.90
Job Expense : Library	42.80
All Others	34.71

**TOTAL EXPENSE CATEGORIES** 2,106.09

**GRAND TOTAL** 954.73

**ED. Note:** Next month we will begin printing the minutes in the Binnacle. This month, we ran out of time and space.



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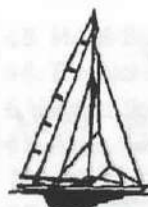
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