



# THE BINNACLE

"LEST WE FORGET"



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

November 1998

## Early Navigation?!?

Back in the 1950's, before radar was invented, it was common practice for the CPR boats to navigate Active Pass at night, and in fog, using the ship's whistle and the Captain's knowledge of local waters. One dark and dismal night, a Cadet Officer was assigned to one of the Princess boats to observe how the Captain navigated. After a long toot on the whistle, the echo rebounded and, after waiting exactly 17 seconds, the command was given "30 degrees starboard" and 15 seconds later "midships." Suddenly a dog was heard to bark and the Captain said "that'll be John Adam's dog so we will turn 45 degrees port", and the command was given. The Cadet was taking this all in and taking copious notes. The following night the same Cadet was aboard and again observing the same procedure....a long toot on the whistle, 30 degrees starboard....midships...., then the dog began to bark but no orders came from the Captain. "Captain, shouldn't we start to turn?" said the Cadet. The Captain just shook his head, and the Cadet, becoming more agitated said "but Captain, the dog is barking, shouldn't we turn?" "No" said the Captain "that's not John Adam's dog!"

## Dates to Remember

Nov 12<sup>th</sup> - Meeting - Royal Oak Lions Hall  
Entertainment - ELECTIONS, followed by "Tin Talk" from Ron Armstrong.

Dec 10<sup>th</sup> - 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
1 <sup>st</sup> and 3 <sup>rd</sup>	Beaver Lake	10.30-1.30
Sundays	R/C Sailing - combined classes - All Welcome	

## Interclub Meet

Last Sunday, November 1st, a group of our sailors met the RC sailors from the Nanaimo Mid-Island modelers at the half-way point in Duncan. Nine boats of various classes took to the waters of Quamichan Lake for some fun racing. The wind didn't cooperate (there wasn't any) but a good time was had by all.



## 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

## Quotes of the Month

Derek Woollard's participation in the Juan de Fuca plank-on-frame model boat building class has increased his fondness for kits.....any kits!!!

Perfection is reached not when there is nothing more to add, but when there is nothing more to take away.  
(Antoine de Saint-Exupery)



## The "Sub" Subject

Most of us modelers want to know at least the basics of the prototypes that we cobble up in scale versions. I am no exception. Also, I have a few additional criteria for the prototypes of my model subs: (a) readily available plans, (b) functional/elegant design, (c) prototype must be in commission. With those points in mind, I looked across the 49<sup>th</sup> parallel for help, but also obtained an excellent set of plans locally, from Greg Sharpe's Deep Sea Designs.

Currently, the U.S. Navy's submarine fleet is chiefly made up of two classes of boats: some 58 Los Angeles-class SSN's (Submarine Service Nuclear), and 18 Ohio class SSBN's (Submarine Service Ballistic Nuclear). The LA's are known as "attack" or "killer" submarines. Toward earning such names, they have four 21" torpedo tubes that can launch a variety of hardware, including sundry types of mines and cruise missiles (antiship Harpoons), but primarily Mk 48, wire-guided (up to 20 miles) ADCAP torpedoes.



Mk 48 being launched

In addition, starting with hull No. 719, i.e., Flight II boats, space was borrowed from the bow ballast tank to accommodate the 12 VLS (Vertical Launch System) tubes, out of which Tomahawk Cruise Missiles are launched while at periscope ( $\pm 60'$ ) depth.

The Los Angeles-class boats have hull numbers from 688 (the Lead boat), commissioned November 17, 1976, to 773 - the Cheyenne, accepted July 30, 1996. Over time, the LA's design and equipment kept up with technical advances and the Navy's changing needs. Therefore, there are three basic groups: the initial one; Flight II next; and Flight III last. Flights II and III are, as a group, known as 668I's, with the "I" standing for "Improved."

Construction of the attack subs was more or less shared by the Groton, CT, Electric Boat Division of General Dynamics, and the Newport News Shipbuilding and Drydock

Company, at Newport News, VA. The American taxpayers had to cough up \$800,000,000 a pop for the LA's. Cruise missiles carry a \$1,200,000 MRSP, while the Mk 48's, including all 20 miles of wire, go out General Electric's doors for a mere \$750,000 a copy. But so what? Midlife refits require a \$3,000,000,000 budget.

Each one of the attack subs has two crews, designate Blue and Gold. One out on patrol; the other ashore to train, relax, and generally recover from a crowded, wobbly, 90-day patrol in tight quarters-despite the space of four decks inside a 33' by 362' hull. Well, 12 officers and 115 ratings total 127, and 127 people can get in each other's way. By the way, the deterrent patrols are limited to 90 days through food stacks. Neither fuel or air is a consideration.

Although seemingly generous with information, these Navy-provided specs may be understated: surfaces/submerged 6,000/6,900 tons; test depth: 1,200'; surfaces/submerged speed: 25/30+ (35 with new[er] reactors.)

The Ohio SSBN class has 18 boats in all. Eight of these "Boomers" or "Tridents" tie up at Bangor, WA-on the Olympic Peninsula. With a 42' beam and a length of 559', they displace 16,000 tons up and 18,750 down. Ohios tool along at 18 knots on the surface, and 26 knots where we can't see 'em. Their cargo is made up of 24 Trident nuclear missiles with up to seven, individually targetable warheads. The \$13,000,000 price of each missile is so high that the Navy decided to lease them from (and have them maintained by) Lockheed-the Tridents' builder. Money, apparently was not the only consideration that forged this arrangement. Lockheed could guarantee greater permanency among its (never transferred) personnel, than the Navy itself.

Compared to their Los Angeles counterparts, the 159-member Ohio crews enjoy some measure of comfort. Still, bunk space had to be found between the Trident-launch tubes-and area of the boat known as "Sherwood Forrest."

To put the awesome size of both the LA's and Ohios in perspective, think of the seven-bladed, scimitar-shaped screws' 19'4" diameter; try to picture an Ohio's stabilizer (a.k.a. "End plate") that measures about 16' square.....

None of the Harpoons, Tomahawks or Tridents gets wet during launch. They're housed in high-strength fiberglass cocoons that explode away as soon as the missile has cleared the saltchuck. Also, immediately after launch, the tube is flooded to counterbalance the Trident's 71,000 lbs weight. Between the onboard guidance system and the satellite navigation that takes over next, a Trident can zoom along for



4,000 nautical miles, and end up within some 400' of its target. Should make the crew and the Pentagon feel pretty good.

The surfaces and submerged speed differential intrigued me, because in earlier days it used to be opposite other way round. The answer, apparently, is twofold: (1) submerged, the hull/bow no longer has to lift water, and (2) the surface tension at the waterline is gone. To speed matters up more, some Soviet boats can eject an oil film to slick up the hull. It doesn't say how environmentally friendly that system may be. Then again, how many fish may look upon an ADCAP's 20-mile wire with eyes both watery and jaundiced?

In closing, with all mentioned prices in mind, my 1/96 scale Miami (SSN 755) would cost a cubed \$86,805 and my under construction Florida (SSBN 728) about \$120,000—all in U.S. coin. With some diligence, I'll do it for less.

#### Bibliography

Aldock, Al. U.S. Ballistic Missile Subs in Action. Carrollton, TX: Squadron/Signal Publications, Inc. 1993 ISBN 0-89747-293-4

Christley, J[ames] L. United States Naval Submarine Force Information Book 1996. Marblehead, MA: Graphic Enterprises of Marblehead, 1996.

Clancey, Tom. Submarine - A Guided Tour Inside a Nuclear Warship. New York, NY: The Berkley Publishing Group, 1993. ISBN 0-425-13873-9.

Gibbs, Len. Oral reports, based on two recent visits of Naval Submarine Base Bangor, during 1997 and 1998. Base address: 1100 Hunley Road, Silverdale, WA. 98315-5000 U.S. Navy. Naval Submarine Base Bangor. Publication 5726/6 (Revised 10-95)

U.S. Navy. "Welcome Aboard" pamphlets on USS Chicago (SSN 721), USS Florida (SSBN 728) and USS Nevada (SSBN 733)

Romanus Unicum

## The Island Commander 1913-1990

By Ken Lockley

Very recently, I learned the original purpose and identity of "Island Commander", ex Seaspan Commander and originally "Andrew Kelly", halibut steamer. In 1913, the New England Fishing Company contracted to have built three steam driven halibut drifters for operation here in the North Pacific.

The Gulf of Alaska was abundant with halibut and these vessels were to unload in Vancouver and C.P.R. would couple refrigerator cars onto fast passenger trains to get the processed halibut to Eastern markets.

Two of the three vessels were built at a shipyard in Selby, North Yorkshire and described on registration as ketch-rigged, steam driven fishing trawlers. Selby is about 30 miles upstream from Hull on the River Ouse. The vessels were launched sideways at Selby and towed light to Hull for engine fitting before sea trials and eventually prepared to sail to the North Pacific for their intended duty.

"Andrew Kelly" was registered in Prince Rupert and continued fishing until the Depression. Her ownership changed in 1936 and she was converted to a tug for the Dominion Tug and Barge Company. Continual modifications and another ownership resulted in her name change to "Island Commander". In 1941, Island Tug and Barge purchased her and did more upgrades to bring her up to the standard of the U.S. Army Transport Service. The next three years, she served on the West Coast, chartered to the A.T.S. deployed in the Alaskan waters. From 1944, she resumed general tug duties with Island Tug and Barge based in Victoria. In the early 50's, she towed the Barque "Pamir" out to Cape Flattery numerous times. The next 40 years, she went through numerous changes and numerous owners and in 1990 is still being skippered by her present owner Ken Higgs.

This material is from the book "The Vancouver Voyages of the Barque Pamir" by Richard E. Wells and can be found in the Victoria Public Library for anyone wanting further information.

## Marine Salvage

Deep Sea and Coastwise Towing

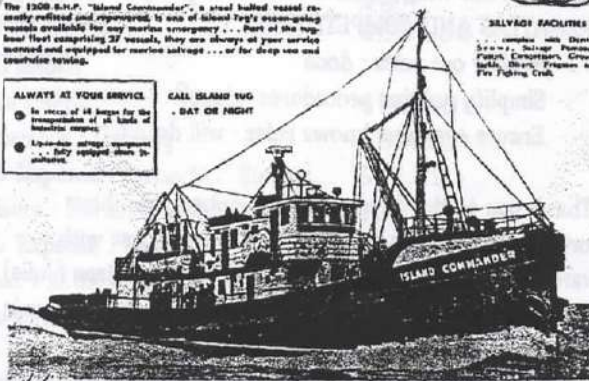


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## Editorial

Well, it's that time of year again.....the dreaded ELECTIONS! Traditionally our lowest turnout of the year - meeting wise. Guess lots of people are afraid of getting railroaded - or at least talked into something that they regret as soon as they have time to think about it. Have no fear. All of the pre-election persuading is done by the time you read this.

Building season is upon us. What is happening in the Basement Boatyards? Give us a call and tell us about your new models and/or work in progress. I'd like to do a big column on it next month.

Hard to believe that Christmas is almost upon us. I was told gleefully (by someone who has finished her shopping) the other day that there are only 46 days left until Christmas.

I'll leave you with that disgusting fact.....

Julie

## From The Bridge

The year is finished, so I wanted to visit the goals from my 'election platform' to see how we have done.

### IMPROVE BUSINESS PRACTICES

Introduce Budget and rationalize fiscal year - done

Appoint Membership Secretary - done

All directors responsible for entertainment - done

### VALUE OF MEMBERSHIP

More input from members - ongoing

Integration of sailing group - hasn't happened

Find out what members need - ongoing

### REGATTAS AND COMPETITIONS

Review our rules - done

Simplify judging procedures - done?

Ensure everyone knows rules - will do.

Thank you to the directors and members who have supported this. We have experienced a few glitches with software which have caused our membership secretary (Julie) to react with astonishment as our computer ate the electronic lists.....twice, but I think that is behind us now. The rules/judging resolution took several months to resolve, but everybody had an opportunity to express an opinion.



I hope every member feels he can approach me or any director and be heard. Your executive does discuss concerns and ideas raised by members.

I will work with the sailors to see how we can all work more closely and determine what they expect.

The philosophy of the executive is that this is your club, not ours. We want to give you what you want, so please keep the ideas coming.

On a personal note, it has been a very busy year for Julie and I, and we haven't been to the water or worked on our models as much as we would have liked. We do appreciate the input and support from all of you in making the club work and in providing material for the Binnacle. Thank you..

Ron H.

## Interesting facts about Famous Ships

Submitted by Ron Wild.

Of the three ships of the Titanic class (Titanic, Olympic and Britannic), none survived to be scrapped. All were sunk.

The Carpathia, which picked up many survivors from the Titanic was herself sunk. (By USS in 1918)

The US aircraft carrier Enterprise had a range of 400,000 miles/643,720 km.

The Hyundai Admiral, a South Korean container ship has a rudder weighing 81 tons. (More than Columbus's Santa Maria).

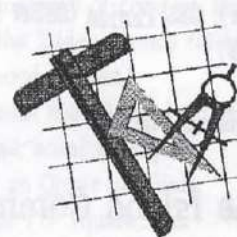
The Japanese aircraft carrier Shinano when launched held two records. She was the largest carrier in the world at the time and she also held the record for the shortest career of any major warship. Launched in October, she was sunk in November

## Tech Tips

One of the tools I value and use the most in model building are small dividers. Mine go back to my days in draughting in high school and are a set of 3 small and 2 large dividers. I

have a small set with points for measuring and another with the points ground into a blade for cutting. I came across this on John Fox III's website in a 'web article' on how to build the schooner AMERICA in a bottle:

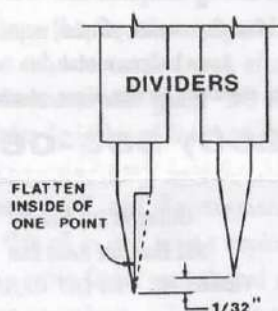
I extended this "doctored" needle approximately 1/32" beyond the tip of the other needle. It can still be used quite





easily to transfer dimensions from the plans, as a normal dividers. It also now makes an excellent tool to set down a line parallel to a curved surface. I simply set the dividers open to 1/16" and traced around the top surface of the upper hull, letting the flat surface of the doctored needle hang over the side.

By keeping the dividers as close to perpendicular to the changing curve of the upper hull as possible, a light line parallel to the outside surface of the upper hull was made. Because the AMERICA had slight wings, of a sort on her stern, I used circle templates to mark the inside and outside lines of the stern bulwarks. Care had to be taken, when using the dividers, that the tracing point did not get caught in the grain of the wood and change the openings of the needles. All that was needed was a light line to follow with my cutting knife.



Ron

## Sailing Tips

### Mast abeam Reverse

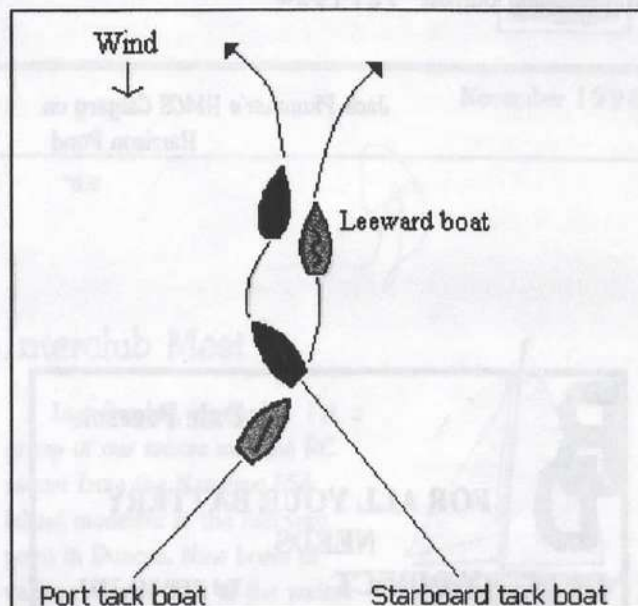
For those who like mast abeam, Rule 13 is the one rule you hate to see go away. The new rules no longer place the mast-abeam restriction on the leeward boat. Along with that rule (also Rule 16), they do not prohibit the leeward boat from "obstructing" the boat which is tacking on her. It all boils down to the point that it makes it harder for the starboard tacker to "slam dunk" a port tacker.

Rule 13 After a boat passes head-to-wind, she shall keep clear of other boats until she is on a close-hauled course.

Under the old rules, the slam dunker could hail mast abeam, or claim she is being obstructed from keeping clear, to prevent the leeward boat from luffing when she completes her tack. With the new rules, the boat being dunked can luff as soon as she crosses the starboard tacker's stern, as long as she gives the dunker room to keep clear.

So now, if you are being "dunked", and once you have crossed the tacker's transom, you can now luff the dunker! If

the dunker declares, "Mast abeam! You can now respond, "Leeward, there is longer a mast abeam, so I can luff you so long I give you room to keep clear.



## Financial Report

### Where the Money Goes

30/11/97 Through 07/11/98

#### INCOME

Other Income : Annual Dues	1,800.10
Other Income : Donations	730.00
Other Income : Clothing	186.20
Other Income : advertising	120.00
Other Income : Lotteries	89.00
Other Income : Regatta entries	59.00
All Others	0.52
<b>TOTAL INCOME</b>	<b>2,984.82</b>

#### EXPENSES

Bills : Rent	600.00
Insurance : Liability	600.00
Job Expense : Binnacle / Stamps	541.29
Leisure : Batteries wood	102.57
Job Expense : Engraving	79.13
Misc. P.O. Box Rental	74.90
Job Expense : Library	42.80
All Others	34.71
<b>TOTAL EXPENSES</b>	<b>2,075.40</b>
<b>GRAND TOTAL</b>	<b>909.42</b>



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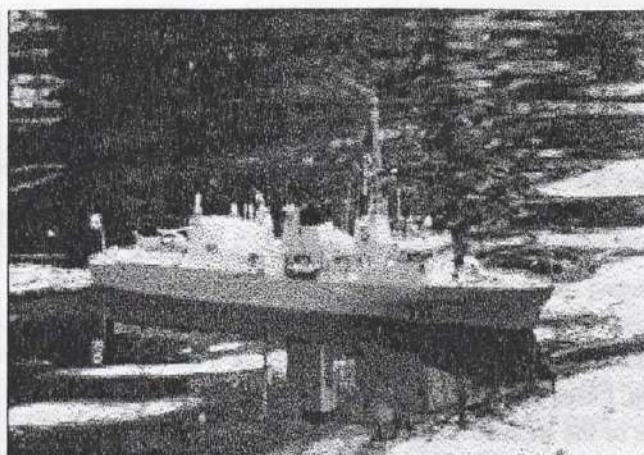
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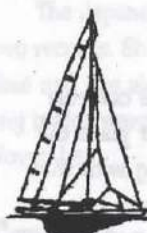
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