October 2019 Volume 41 Issue 9

The Binnacle

Victoria Model Boats
Victoria, B.C.

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Victoria Model Shipbuilding Society

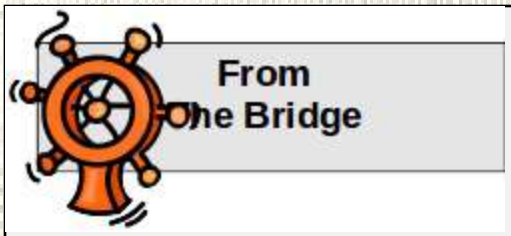
Ken Lockley

Ville Class Tugs

Edward White

Battle of the Atlantic Part 1.

http://www.vmss.ca



October is here, and another summer has gone by. But there's still quite a lot of our club year to go. We have a show to put on for the veterans at Broadmead, then next month we have the Annual General meeting and the election of Club officers. In December there's the annual awards banquet, (Rick Gonder has volunteered to MC that).

Then, of course the Christmas light-up Parade at Harrison Pond. Wonderful what we can do with LEDs.

With winter coming on, we can think about new building projects and a whole New Year, with no mistakes in it yet.

Let's plan for fun!
Mike Bush.

2019 Executive Committee

President: Mike Bush	*418-5527*
Vice-Pres:James Cox	*382-3266*
Secretary: Elgin Smith	*384-0574*
Treasurer: Mike Creasy	*888-4860*
Director @ Large: Vacant	
Show Coordinator: Vacant	
Binnacle Editor: Edward White	*385-6068*
Quartermaster: Bob Rainsford	*383-2256*
CRD Liaison: Adrian Harrison	*592-4232*
Parks Liaison: Mike Claxton	*479-6367*
Sailing Director: Peter Stevens	*656-8999*
Membership: Bev Andrews	*479-2761*
Facebook: Rick Gonder	*744-8610*

All above area code (250)

ON THE RADAR

Upcoming Events

Visit to Broadmead. Date TBA.
Annual General Meeting. November 14th.
Awards Banquet. December 12th.
Christmas Light-Up Parade. December 14th.

Meetings: Second Thursday 7:30-9:30
St. Peter's Anglican Church, Lakehill
3939 St. Peter's Road
Upcoming meeting: October 10th.

POWER: Sundays 10-12
Harrison Model Yacht Pond (HMYP)
Dallas Road at Government Street

SAILING: 1st. and 3rd. Sundays
Beaver Lake

LANGFORD LAKE
Wednesdays 9:30
Langford Lake, Leigh Rd. at Trillium

VICTORIA MODEL SHIPBUILDING SOCIETY
GENERAL MEETING MINUTES
SEPTEMBER 12TH 2019

1
MEETING CALLED TO ORDER AT 7:37 PM

2
Welcome to guests

3
Director's and sub-committee reports

HEALTH AND WELFARE-

FINANCE – REPORTED TO MEMBERSHIP BY THE TREASURER

RECENT EVENTS

AUG 31ST –SEP 2RD
SANNACH FAIR

SEPT 8TH
ROMAINE CEREMONY @ HARRISON POND - COMPLETE SUCCESS

UPCOMING EVENTS

SEPT 21ST – 22ND
FALL THRASH EVENT @ SANNACH HERITAGE

FALL 2019
BROADMEAD VETERANS – VETERAN'S WEEK

SAILING – Nil Report

MEMBERSHIP – APPROVAL OF NEW MEMBERS (BYLAW 2.1)

No New Members Presented

OTHER REPORTS AS REQUIRED

PARK/CITY LIASION – REPORT ON SEWER PROJECT .

HARRISON POND REPORT UPDATE – WATER RUNNING TO THE POND – POND CLEANING EXPENDED IN TOWARDS END OF AUGUST

UPCOMING EVENTS

FALL THRASH –HERITAGE ACRES

4

OLD BUSINESS

HERITAGE ACRES

BOAT REGISTRATION REPORT NIL REPORT

5

NEW BUSINESS

PRESIDENT PLAQUES – 2018 BARRY FOX – 2019 - TBD

CHRISTMAS DINNER (AWARDS) – GUEST SPEAKER – DOOR PRIZE

6

50/50 SALES (15 MINUTE BREAK)

7

50/50 DRAW – 082 MARTIN

8

ANNOUNCEMENTS

PRESENTATIONS

GUEST SPEAKER – JAMES EDWARD - SUBJECT 3D PRINTING – PRESENTED SAMPLES OF JET ENGINE – PRODUCED BY 3 PRINTER

ARNOLD – BOAT WITH HULL DAMAGE – 1ST SUPPORT TO RPEVENT DAMAGE TO SHAFTING AND RUDDER – INSTALLED NEW MOTORS – RUDDER SERVO – HAS A GOOD BATTERY

9

ADJOURNMENT AT 8:20 PM

Total Attendance: 15 Members.

VMSBS ANNUAL BANQUET

The annual VMSBS banquet will be held in place of the December meeting. Bill and Bev will announce the date and ticket availability at the October meeting and details will also be published in the Oct/Nov/Dec Binnacle.

This year there will be a new banquet format. I'll be MC and the event will include two guest speakers. Between speakers we will present annual awards plus one or two surprise awards. Throughout the evening there will be a few draws for some unique prizes and perhaps a small silent auction.

There will also be a model boat show. Attendees will have an opportunity to vote for the most popular model and the owner will get a prize. Let's have a good showing of models.

The banquet is an opportunity to socialize with old and new model boating friends, listen to some interesting presentations and most importantly to support your club.

See you there!

Rick Gonder.

NEXT BUILD; 25 by Ken Lockley OCTOBER 2019

This month I would like to share with you some information on the Ville class of small tugs that the RCN used for about 40 years. There were 38 of these tugs built by Russell Bros Shipyard in Midland, Ontario. Just 40 ft in length with a 10ft beam, 4-5ft of draft, a very convenient size for handling mooring lines and other tight docking duties. These tugs were shipped by rail and put into use in many of the large and small navel facilities across the country, particularly in the Great Lakes and St. Lawrence regions.

On the next page is a picture of the CNAV vessel "Beamsville" tied up at the small boat wharf at Dockyard, Esquimalt.

The picture below tells a story, the smaller 40 ft tug in the foreground is one of the Ville Class tugs that the HMCS used for many years. The tug in the distance is a Norton Class vessel probably the CNAV "Riverton". The smaller tug is taking a line from the aircraft carrier HMCS Bonaventure in 1950. The carrier was later scraped in 1958 by the Conservative government, lead by John Diefenbaker.

RCN Photograph of the CFAV Listerville (Ville-class harbour tug), Halifax, Nova Scotia, c. 1950.

Esquimalt, BC, May 12, 1986. Photo courtesy Mac Mackay.

This classic tug was built by Russel Bros - Ontario, to the Canadian Navy Standards. The keel was laid in 1943 and the hull mothballed until 1960 when the vessel was finally completed and commissioned. She served as a harbor tug in Esquimalt British Columbia until the late 1990's, and during this time, she was maintained to Navy Standards. The 671 Detroit Diesel engine has 3900 hours on the hour meter since its complete overhaul, and lives in a completely walk around engine room. This is coupled to an Allison gear, which is connected to a 37 X 27 Wheel. The Vessel is equipped with a head, oil stove, 3 bunks for sleeping, 16 mile radar, depth sounder, and 2 UHF radios. The Beamsville travels economically using only 2.2 gals per hour, at approx. 7.5 knots. Full speed is 9 knots. This vessel could be used for a variety of different of purposes, and with her beautiful classic lines, she attracts attention where ever she goes.

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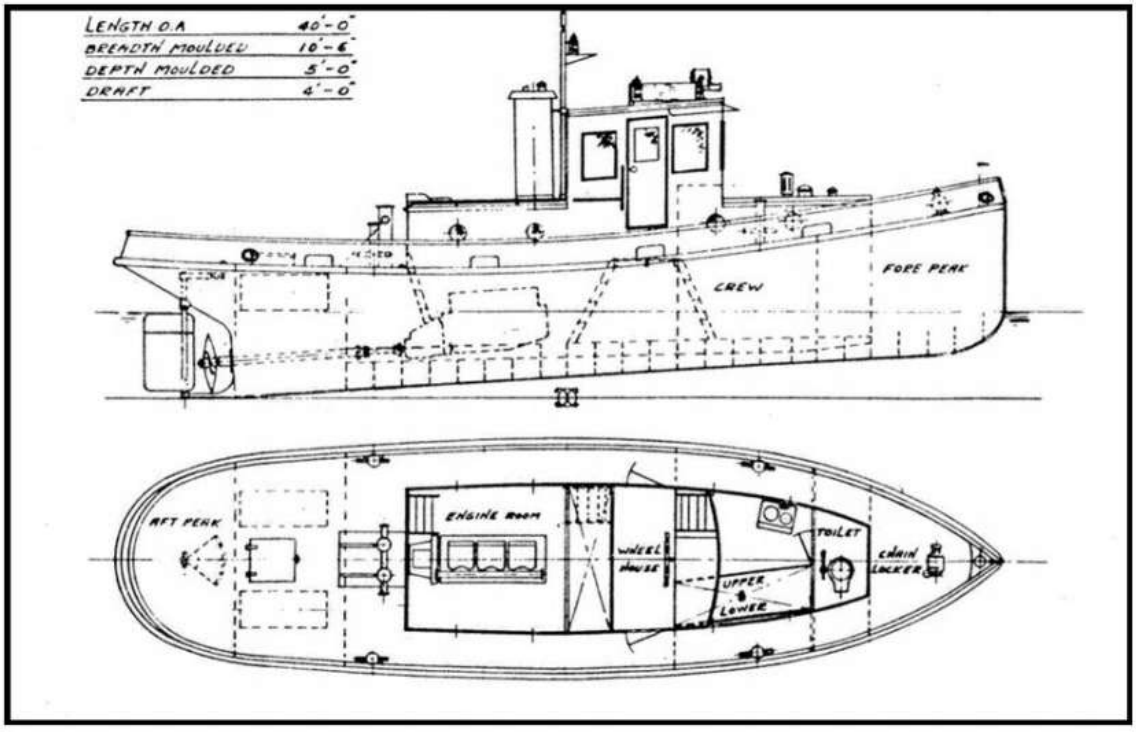

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Parksville ready to be sent out for refit in 1971. The first generation Villes were built inland by Russel Brothers in Owen Sound, ON, and shipped all over Canada by rail.

The Picture above is the CNAV Clifton at HMCS Quadra, the cadet training base at Comox . Hopefully my modeling project will look like this vessel.

The Battle of the Atlantic. Part 1, the Strategic issues.

This article started with an idea to explore the origins of the Flower Class Corvette, Canada's most famous warship type in WW2. The hull was based on the design of a whaler, Southern Pride, and on the need to give convoys some form of protection in ocean areas that could not be readily covered by aircraft.

But that one paragraph raises so many issues that need explaining that I am finally conceding to myself that I should spend a whole lot of this winter researching and writing about the Battle of the Atlantic, because all of it is interlinked. I'll get to the Flower Class, but it will be a month or two, because this story is huge.

As huge as the Atlantic Ocean itself.

Britain is islands in the Atlantic Ocean. It is a trading nation that is far from self-sufficient. At the start of World War 2, Britain needed a MILLION TONS of cargo a WEEK to keep it fighting and fed. A typical cargo ship, let's take the Fort/Park ships that Canada built, would carry 7000 tons.

So that's a million divided by 7000, or 143 ships a week that had to reach Britain safely.(The actual number was a lot higher because so many merchant ships were much smaller.)

Those ships had to come from just about everywhere, and every single one of them had to traverse a part of the Atlantic Ocean. And they travelled those waters at less than ten knots because fuel was expensive. At 9 knots a Fort/Park ship used just over 30 tons of coal a day. From Halifax to Liverpool is 2850 nautical miles, 13 days, or about 400 tons of coal. To go a little faster, the ship's structure has to be stronger and it will use more fuel. To go a lot faster, there's no capacity left for cargo.

Here's a quote from Grand Admiral Karl Donitz, the commander of the German U-boats.

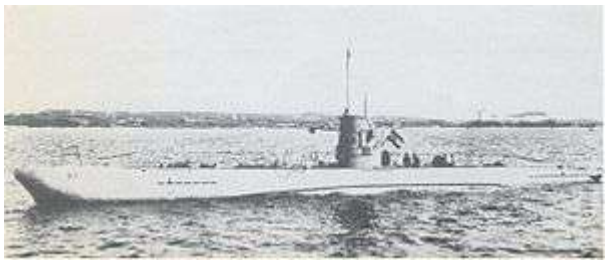
"The shipping of the enemy powers is one great whole. It is therefore in this connection immaterial where a ship is sunk - it must still in the final analysis be replaced by a new ship."

In the first 27 months of the war, Britain had the capacity to build around 300,000 Gross Registered Tons of shipping a month. After December 1941, when the US joined the war, that capacity went up to 700,000 GRT a month. If the German forces could sink ships at more than those rates, the allies were ultimately doomed.

In the map above, I have drawn in two black lines which very roughly define the areas of the North Atlantic which allied aircraft and coastal forces could cover when the war began. You can see that for any German forces to threaten Britain's shipping, they had to first go north and then through the Gap, the straits between Greenland and Iceland and between Iceland and the Shetlands.

Between the wars, many countries had joined in the effort to ban submarines altogether. This effort had been unsuccessful but there was an international law in force that if a submarine should attack an unarmed merchantman, it was to give the crew the chance to surrender and disembark before the submarine sank the vessel. The submarine was still despised by those who believed in surface fleets, and it's role in war was thought of as being a lone stealth raider. As Germany re-armed in the 1930s, therefore, the big money went to surface ships, especially the pocket battleships, that were going to escape through the northern Gap and then create havoc with shipping in the broad reaches of the Atlantic. This was the intended role of the Graf Spee, the Deutschland, and the Admiral Scheer, the Scarnhorst and the Gneisenau, the Bismark and the Tirpitz, the Admiral Hipper, the Blucher, and the Prinz Eugen. The British Navy saw the issue the same way, and therefore the main British Fleet was stationed at Scapa Flow, as it had been in the first world war, to cover the Gap.

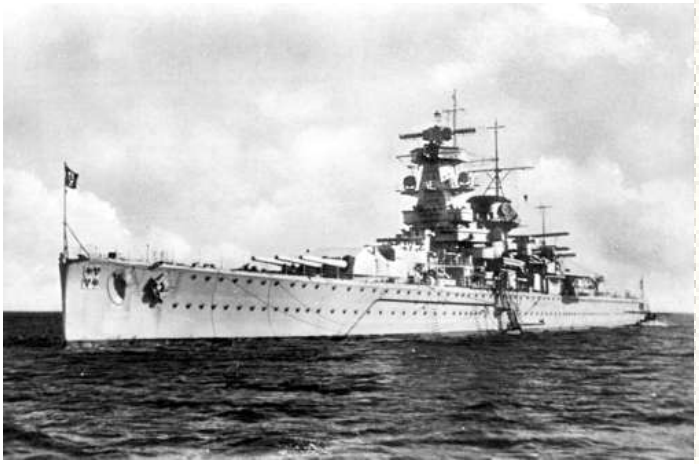
Germany entered the war with just 57 submarines, most of them the Type II, which was designed for coastal duties, with a range of just 1600 nautical miles, a maximum speed of 16 knots surfaced and 6.9 knots submerged. Since the Gap is roughly 500 nautical miles from the German coast, it isn't surprising that initially both sides saw little role in the Atlantic for German submarines.



Germany had started to build Type VII's, a much more formidable boat, but there were only a very few.

So now I am going to define for myself the first phase of the Battle of the Atlantic, from the start of hostilities in 1939, to the fall of France in June 1940. The fall of France changed everything, but that's the story for the next part.

By the time that Britain and her allies declared war, on the 3rd of September 1939, the German strategy had been implemented with the despatch of Graf Spee and Deutschland into the Atlantic to start commerce raiding, Graf Spee in the South Atlantic, and Deutschland in the North. They were to avoid combat and to adhere strictly to "prize rules", which were to ensure that merchan ship crews were evacuated safely before their ships were sunk. Orders to actually commence raiding were received by Graf Spee on the 26th. September 1939. Between then and the 7th of December, she sank 9 merchant ships for a total of 50,039 gross registered tonnage.



But by the 5th. Oct. Britain and France together had committed four aircraft carriers, three battleships, and 16 cruisers in eight groups to hunt down Graf Spee. Force G, commanded by Commodore Henry Harcourt, being the cruisers Cumberland, Exeter, Ajax, and Achilles, were assigned to patrol the Falklands and the the mouth of the River Plate. And on the 13th of December 1939, Exeter, Ajax, and Achilles engaged Graf Spee in the River Plate. Graf Spee inflicted heavy damage, especially on the Exeter, and forced the British force to withdraw to seaward, but she had

taken some 70 hits herself, losing 36 men killed and 60 wounded, and she had damage to her bow and to the oil purification plant which would have limited her fuel supply. She was also well down on ammunition.

So her captain Langsdorff decided to put into Montevideo, a neutral port where he could offload the wounded, bury the dead, and make repairs necessary for seaworthines only.

British Intelligence mounted a major operation to convince Landsdorff that a major British force was approaching to re-inforce the three damaged cruisers and on the 17th. of December he decided to scuttle the ship rather than have her interned. On the 18th he boarded the Graf Spee with a skeleton crew of 40, took her out into the estuary and sank her. He and the crew were taken off by an Argentine tug, and after Langsdorff took his own life on the 20th, the entire remaining crew were interned in Argentina for the duration.

Deutschland, in the North Atlantic, encountered very heavy weather and by early November had sunk only two vessels and captured a third. She was recalled to Germany and arrived on the 17th. She was given a major refit, including a re-designed bow to improve her seakeeping, in early 1940.

The next story we should relay is hugely important in changing perceptions and morale. The story is that of Captain Gunther Prien and U-47. U-47 was one of the Type VII u-boats and a huge advance on the Type II. The Type VII had a range of 8700 nautical miles on the surface and 90 nautical miles submerged. Top speed surfaced was 17.7 knots and submerged 7.6 knots. There were 4 bow torpedo tubes and 1 at the stern and t hey carried 14 torpedoes. For surface action they had an 88 mm. gun with 220 rounds.

Prien and U-47 left Kiel on the 19th. August 1939 and returned on the 15th. September having sunk three ships for a total of 8270 GRT. All three of t hese were in the western approaches around 50 north 12 west.

Then on the 14th. of October, Prien took U-47 right into the British main fleet anchorage at Scapa Flow, and sank the battleship Royal Oak at her moorings, a staggering feat of bravery. He returned safely to Kiel, was awarded the Knight's Cross of the Iron Cross by Hitler personally, and caught the imagination of the world with the capability of the U-boat. You should compare the small scale map of the raid on Scapa Flow with the sattelite picture of the same on Google Maps. Also note that Prien made two attacks fifteen minutes apart, the second after the four torpedoes failed to hit or detonate in the first. There was a major problem in the torpedoes detonator and depth control systems that continued to plague the u-boats until March 1941.

Prien and U-47 undertook another 8 patrols into the Atlantic, sinking in total 30 merchant ships for a total tonnage of 162,769 GRT as well as the Royal Oak, at 29,150 tons. They went missing on the 7th. March 1941 at approximately 60.00 N 13.00 W, south of Iceland. They were chasing convoy OB-293.

(Taking the average of all U-47's sinkings makes the average merchant ship GRT to be 5425 tons. That would make the average cargo around 4000 tons and revise Britain's need to 250 ships per week. Assuming a minimum 4 weeks for a round trip, that means Britain had to have at least 1000 merchant ships in the Atlantic at any one time!).

What was Britain doing at this time to protect all those ships? First was the convoy system. The Admiralty had learned from the first world war that the convoy system at least doubled the survival rate of merchantmen, and that it put the defending warships where the enemy was most likely to show up. But convoy escort duty is about the least pleasant and most boring duty available to a navy seaman. Almost continuous sea time at slow speed in a crowded convoy through the worst of weather and on constant alert for enemies or collisions is what it is about. So there were many advocates of a more active system of anti-submarine warfare.

So right at the start of the war, the Admiralty organized aircraft carrier groups to hunt submarines, the aircraft would spot them and then the escorts would close and destroy them. ASDIC would find them underwater and depth charges would complete the job. There are a couple of problems with this idea. The primary one is the human eye. On the surface the conning tower of a submarine is a very small target compared with a surface ship. And an aircraft against the sky is much easier to see than a conning tower against disturbed water. Radar has exactly the same problems. So the odds are that a submarine will see it's attackers long before they will see it. A quiet submerge followed by a random turn and the submarine has no problem. Even if an aircraft does spot a submarine, the time between the sighting and the surface escorts covering the distance gives the sub all kinds of options to manouevre and disappear.

ASDIC, or sonar is a ping sound send by a highly directional speaker, followed by some seconds of listening for a return, and then another ping on a different bearing. It's terrific at short range in calm water, but a sub can hide from it close to the surface if the sea is stormy, or deep below temperature gradients, or behind a cloud of bubbles the sub itself can create. If the transmitting vessel is doing much more than 15 knots, then it doesnt work at all, being

So as soon as 14th. September 1939, the pride of the fleet, the Ark Royal, was very lucky to escape when three torpedoes from U-39 exploded prematurely. U-39 was forced to surface and scuttle by the escort destroyers, becoming the first U-boat loss of the war.

On the 17th., just three days later, the carrier Courageous was sunk by U-29 while hunting U-boats.

So much for that theory!

Now a convoy, zig-zagging to a secret pattern along a secret route, is a much much harder thing to find. So perhaps one of the most effective defences of the entire war is one of the simplest and humblest. It's a brass clock with no glass face and four contacts around the rim that can complete an electrical circuit with a spring on the end of the minute hand to sound a bell or buzzer. Identical clocks on the bridge of each ship, set to a pattern determined by the convoy commander, can keep the whole convoy safely zig-zagging without needing to break radio silence, and can all be reset by simple visual signals from the convoy commander.

The Admiralty's most potent anti-submarine weapon was actually the inshore patrol craft, fitted with hydrophones and armed with a small gun and depth charges. In the narrower waters of the English Channel, or close up to port entrances, they were a very effective deterrent to submarine activity. But of course they could do nothing about the open ocean.

The winter of 1939-1940 was a harsh one, and the deployment of the u-boats was badly hampered by ice in the Baltic ports. Germany's next major move was the invasion of Norway and Denmark, which they started at the beginning of April 1940, and they pulled back most of their naval forces in the Atlantic to support that invasion. This was followed by the invasion of the low countries and France in May and June, and that, as I said earlier, changed everything.

In this article, I have leaned heavily, as I always do, on Wikipedia and on one other site, which I find quite outstanding, uboat.net. This latter has assembled the entire history of the U-boats and their sinkings. It will undoubtedly provide a huge treasure of fact for the rest of this series of article.

The Victoria Model Shipbuilding Society is a non-profit club, open to all, established in 1978 under the Societies Act of B.C.

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