



Newsletter of the Chicago Tri-Club Association

November, 2022

• Scuttlebutt •

The October MMS Gathering Also known as “The Donut Hole Meeting”

Nobody was counting, but the last time the Midwest Model Shipwrights had a Face 2 Face meeting was on February 19, 2020. That is a span of 2 years, 8 months, 1 day, or 32 months, 1 day, or 1,402,560 minutes since our last F2F gathering. We could go into weeks, days or hours, but you probably get the idea. It was a long time. Needless to say, as the third Wednesday of October drew closer, we were all getting psyched for things to get back to normal.

In addition to door prizes and a flea market, the club officers felt that a modest celebration was warranted, possibly some donut holes and sparkling apple cider? It might be an understatement, but your leaders probably got a bit carried away. Their mantra was “No one will go home hungry!” To make sure, they ordered 14 dozen donut holes and a copious amount of bubbly cider. That was probably a bit too much. No doubt, this post pandemic meeting will always be remembered in club lore as “The Donut Hole Meeting.”



NRG 2023 Calendar

When one considers the number of models that the NRG can choose from when planning their new calendar, it has to be considered an honor when your model is one of the lucky thirteen. As an added bonus a thirteenth month is always included in each calendar.

Two Chicago Tri-Club members were so honored when portraits of their work were featured in the NRG 2023 Calendar. They are Ken Goetz for his *Sanson* and Dan Cicero for his *Ship in a Bottle*. Congratulations, mates!



Tri-Club November Meetings

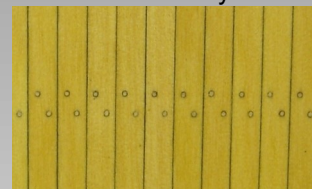
Subtle Trunnels

By Bob Filipowski



One of the more interesting facets of our hobby is trying to show something on our models that is barely visible on the actual vessel while still maintaining a sense of scale. This may sound strange, but one such item is deck trunnels. Bob Filipowski will explain a technique he has developed that might be considered a reasonable approximation of the real thing. This is one you don't want to miss.

Proceedings will begin on Wednesday, November 2nd, at 7:00 PM CST, but you will be able to log on to this virtual meeting as early as 6:30 PM. Hope you can make it!



The November NRMS Meeting



Due to COVID issues, the Nautical Research and Model Ship Society is canceling face to face meetings until further notice.

The NRMS holds their gatherings on the second Saturday of the month. Invites for a virtual meeting will be sent out a few days before the November 12th session. As of this writing a presentation has not yet been scheduled.

The November MMS Meeting



Due to COVID-19 issues, the November Face to Face meeting has been rescheduled as a virtual ZOOM meeting. As of this writing a program has not yet been chosen. The customary invite will be sent out one or two days prior to the meeting. Be advised that Daylight Savings Time ends on November 6th.

Proceedings will begin on Wednesday, November 16th, at 7:00 PM CST, but you will be able to log on as early as 6:30 PM. Hope you can make it!



Ships on Deck

Presented by the North Shore Deadeyes



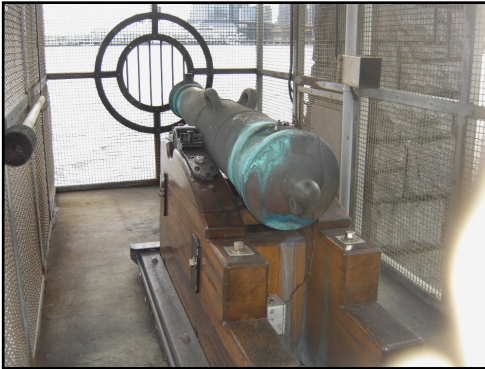
The Nine O'clock Gun

The first virtual meeting hosted by the North Shore Deadeyes started out with a bang as those in attendance were treated

to a short video showing the firing of the 9 O'clock gun. This canon is located in Vancouver, British Columbia, Canada, and is fired daily at 9:00 pm PT. The gun is a 12-pound muzzle-loaded naval cannon, cast in Woolwich, England in 1816. The monograms of King George III and the 1st Earl of Mulgrave, Master-General of the Ordnance are cast on the barrel. Seventy-eight years later, in about 1894, it was brought to Stanley Park by the Department of Marine and Fisheries to warn fishermen of the 6:00 pm Sunday close of fishing.

The 9:00 pm firing was later established as a time signal for the general population, and to allow the chronometers of ships in port to be accurately set. The Brockton Point lighthouse keeper, originally detonated a stick of dynamite over the water until the cannon was installed. The gun is now activated automatically with an electronic trigger. It is still loaded daily with a black powder charge. Fluorescent lights illuminate the gun from overhead and go out exactly ten seconds before it fires. They then turn back on a few seconds afterward.

In 1964, there was a Texaco floating gas station permanently anchored across the harbor in line with the gun. On Monday May 18, someone was able to toss rocks from the beach below into the barrel. When the gun went off, it perforated the 'O' in the large illuminated sign. The barge was moved not too long after that. It may have been the most damage ever inflicted by the massive ordnance!

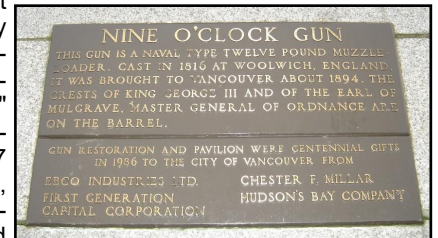


The clock used to time the firing of the gun runs slightly fast, such that towards the end of each year, the gun fires up to 50 seconds before 9:00 pm. On New Year's Day, the clock is reset, and the gun goes off at 9pm again.

The canon has been silent several times, once during World War II, in 1969 when it was stolen and held by University of British Columbia Engineering students until a "ransom" was donated to BC Children's Hospital, in 2007 during a work stoppage, in 2008 when UBC Engineering students painted it red, and several other times with no explanation. After the 1969 theft, the cannon was surrounded by a stone and metal enclosure.

In 1986 a new pavilion was installed as shown in the photos. The new structure was a centennial gift to the city from some local industries and the Hudson's Bay Company.¹

From 30 March to 30 April 2020, the gun was set to fire at 7:00 PM, in support of local health care workers during the COVID-19 pandemic. However, the 9 O'Clock Gun continued to be fired at 7 p.m. until the 31st of July, when it was switched back to its more common 9 pm time. Today, the gun is one of the most popular tourist attractions in the Vancouver metropolitan area.





Ships on Deck

Presented by the North Shore Deadeyes

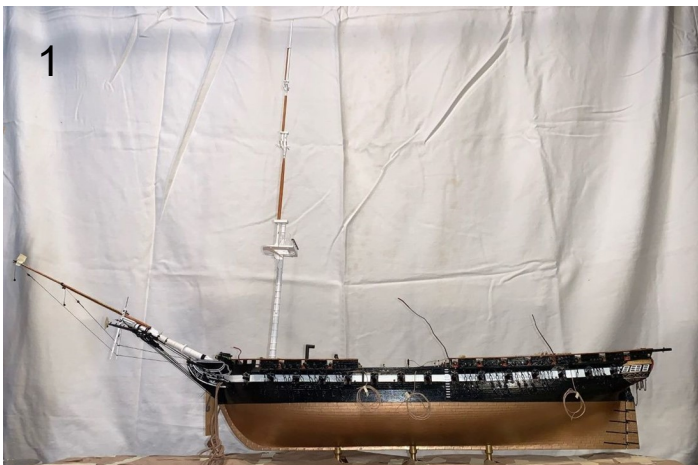


USS *Constitution* by Bob Frysztak

Photos by Bob Frysztak

Bob Frysztak provided a unique presentation for the October Ships on Deck. He took 30 digital photos of his USS *Constitution* being rigged and created an animated Power-Point. A 2 1/2 second time lapse per slide was featured with a fade out and in between each pair of slides.

The animated sequence concentrated on the frigate's standing rigging, and started with stepping the foremast. The eleven photos shown on this page and the next don't do the presentation justice. The standing rigging is close to being completed, and Bob hopes to continue photographically recording the rest of the model, especially the running rigging.



"Ships on Deck", continued on Page 4



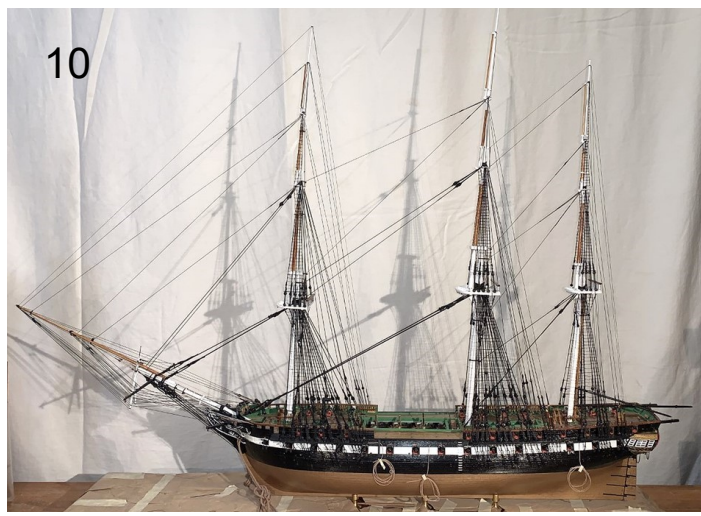
Ships on Deck

Presented by the North Shore Deadeyes



USS Constitution by Bob Frysztak

Photos by Bob Frysztak



"Ships on Deck", continued on Page 5



Ships on Deck

Presented by the North Shore Deadeyes



3D Printing a Mariner's Astrolabe and Quadrant

Photos & Text by Alan O'Neill

Over the years I have often read passages that refer to the instruments used by navigators and explorers, but they never get into any detail regarding how the instruments were actually used. It is always inferred to involve difficult mathematics. I finally got fed up and decided to find out for myself. To do this properly I would need an instrument.

I was captivated by the Astrolabe. These images are the front and back of the extravagant and exotic Arabian style Astrolabe. It had numerous alternate rotating star map plates that are stored stacked in the body under the top plate disc and had many uses like finding your location, telling time and revealing lucrative horoscopes.



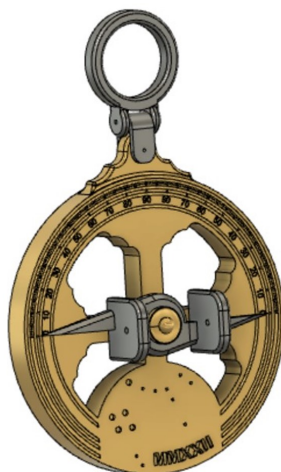
The simplified Mariner's Astrolabe version was used for navigation only and originally could only be used to determine latitude north or south of the equator by sighting stars. I decided to 3D print a working Mariner's Astrolabe and found my inspiration in images on the internet like these two examples.



You hold it by the gimbaled ring assembly above and the ballast weight at the bottom makes it hang vertically. I've read that to sight at night you look through the two holes to align the pointer or alidade to the object. When using it during the daytime you must not look directly at the sun because you can go blind, so you use it by holding your hand behind the lower hole to witness the sun beam shining through.

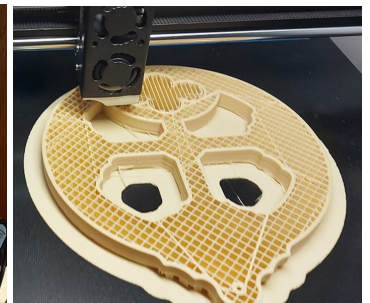
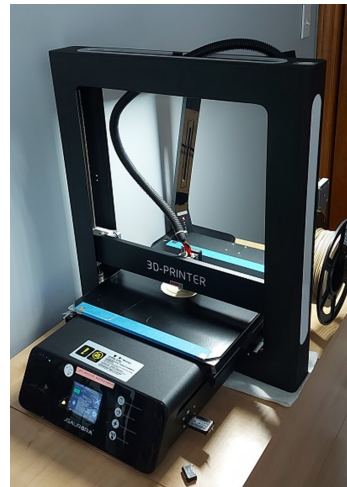
You will notice the example on the left has two notches, and on the right only one hole. I suspect the one holed version was for day time use and the beam was centered on the rear plate.

Here is what my finished 3D model looks like. I used the free hobbyist version of Fusion 360 to create my model. As my



printed version has virtually no weight to it, I created a pocket in the lower back for coins to act as ballast helping the body hang properly.

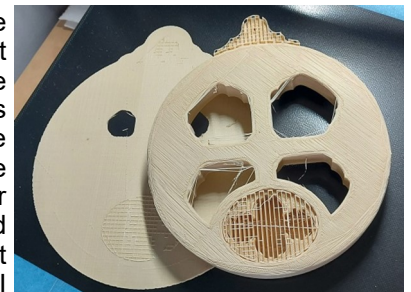
This is my JGAurora 3D printer. The right side image shows the body being printed. I created an STL file from



my model, then generated the G-code or tool path for the printer nozzle to follow using the free Ultimaker Cura program. I use a PLA and Wood blended filament.

The PLA part is a corn starch product that is fully biodegradable. The inside of the Astrolabe is only 20% filled to save print time, material and cost. I have the option to fill anywhere from 0% to 100%. My complete material cost was \$5.18 Canadian or about \$4.40 US, £3.31 sterling, and weighs 173 grams or about 1/3rd of a pound.

Here is the back side of the body. It did not finish as smooth as the front because it faces downwards towards the raft so it cannot be ironed by the extruder nozzle. Had I slowed the print speed it might have been better but I wasn't willing to wait more than the 17 hours this took.



The open printed lines over the coin pocket and crown at the top are called supports. They allow the printer nozzle to print in mid air, by providing a support for the layer of hot filament to be deposited over. The lower image is after clean up. The ballast in the cavity is 15 one cent coins, 3 stacks of 4 and 1 stack of 3 coins at the bottom.





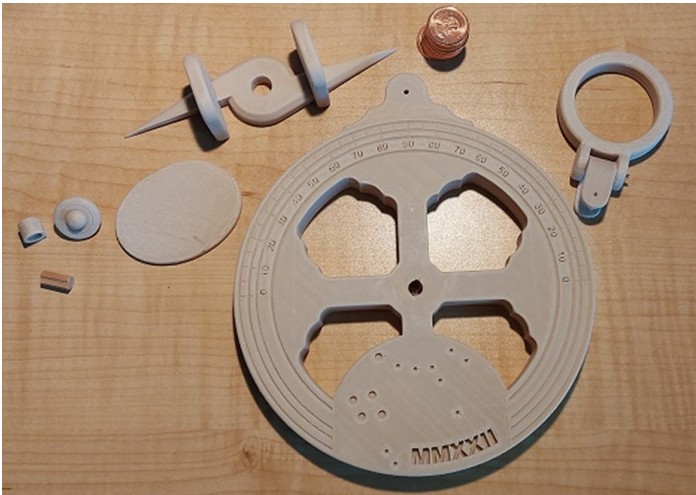
Ships on Deck

Presented by the North Shore Deadeyes



3D Printing a Mariner's Astrolabe and Quadrant

Photos & Text by Alan O'Neill



These are the finished and cleaned up parts. The hub that the Alidade or pointer swivels on had broken off during cleaning and fitting, so I reinstalled it with a 1/4" wooden dowel pin support. The dowel, hub and coin cover were secured permanently in place with a 2 part epoxy.

I adorned my ballast face with this years date, 2022, in Roman numerals and two star maps: the Little Dipper with Polaris at it's tail that locates the North Pole, and the Southern Cross and ancillary stars used to locate the South Pole.



I completed the look with brushed on Kingart Bronze metallic acrylic paint. These were purchased through Amazon.

Here is the finished working Mariner's Astrolabe. I found that the Alidade or pointer could be adjusted so you could witness the alignment to the lower hole without your hand behind it. The sun shined through the upper hole



onto the lower plate and you continued to turn it until it aligned with the lower hole. No need to actually hold your hand behind it.



To use the Astrolabe and find your latitude north or south of the equator during the day you must first identify solar noon for your location. Solar noon is when the sun has reached its highest point in the sky. This can be done by simply standing a stick straight up in the ground and mapping it's shadow until it is at it's shortest length.

The shortest length should be practically due north of the stick if using a compass to identify magnetic north. Magnetic north is in continuous motion and presently it is very close to True North.

I used a sundial, sheet of paper, bulls eye level and compass to identify my solar noon. I leveled my sundial and pointed it north and watched... and waited.

At this time I decided to print a companion instrument, a simple early style quadrant. Here is the final product, an early version in three parts, the body, string and weight. My string is eye spliced on both ends. The top eye splice passes through a hole in the post and then the eye folds over the post. The weight, collected from my travels, is a 50 Yen Japanese coin as it already has a hole in it. This early quadrant is sighted similarly as described for the astrolabe.



Due to space limitations, Alan's actual use of these instruments could not be included in this article. However, using these instruments, Alan was able to successfully locate where he was on our planet! Awesome, mate!



Ships on Deck

Presented by the Nautical Research and Model Ship Society



Refit of the Schooner *Charlie* by Alan O'Neill

Photos by Alan O'Neill

In mid June of 2014 Alan O'Neill was approached by a co-worker whose father-in-law had acquired a shell of a boat that he had intended to complete but life took him down another path. The co-worker wanted to have it completed as a Christmas present for his father-in-law. He didn't expect much, telling Alan to just throw some sticks and twine on it. At this time Alan hadn't seen the model and he was well into working on his own project.

Although somewhat shocked by what he saw, he relented and agreed to rebuild the model. At first he wasn't sure what the hull represented. He decided to use the *Bluenose* as a basis for the rebuild.

The hull was over 30" long and needed a skeg so he made a copy of the profile from stem to stern and made a template. He then transferred that shape to a piece of pine. With the help of a rasp, wood file and band saw, Alan was able to create the basic skeg shape.



Using a drill, he then attached the skeg to the hull with wood dowels and glue. The rudder came next, with a little wood filler to give the hull a more pleasing shape and eliminate the cracks and gaps.

After building a stand for



the model, Alan turned his attention to making some deck furniture. These included a cabin cover, sliding hatch, doors, and

wheelhouse. These were all made from scrap pieces.

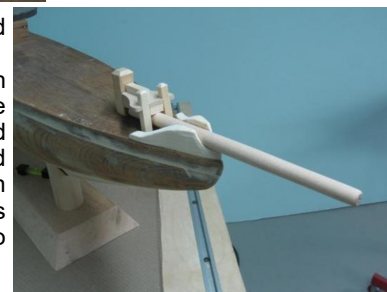
After studying the model, Alan



decided that the bow needed something to dress it up. The solution was a bow cowling. After carving the piece to its

proper shape, it was pinned and glued in place.

Next was the Samson Post assembly to seat the bowsprit. The bowsprit and Samson Post are connected with a mortise and tenon joint. This assembly was drilled, pinned and glued to the deck.



One of the more challenging assemblies was the ship's wheel. The spokes were sanded to shape with files and sand paper while suspended from a drill press chuck. The wheel body was turned on the lathe. The wheel body and hub were then drilled to receive the spokes.



At this time Alan decided the cabin was just too tall, so, as the barber was instructed, he took a little off the top. The doors were now too tall so they had to be remade. This is the final product dry fitted in place.

While cutting the port holes in the cabin, Alan hit a nail head. He had to chisel through to expose the nail completely. It was then cut down and the stub filed away. The portholes were recessed to hold the "glass" that was made from plastic sheet salvaged from the window of some product packaging material.





Ships on Deck

Presented by the Nautical Research and Model Ship Society



Refit of the Schooner *Charlie* by Alan O'Neill

CONTINUED

The early stages of constructing the fore and main masts, trestle trees and cheeks.



Both masts assembled.

The gaff jaws were fitted into a slot at the end of the gaff as seen in the lower photo. Alan chiselled a groove in the jaw plate to fit the slot snugly while hiding the slot.

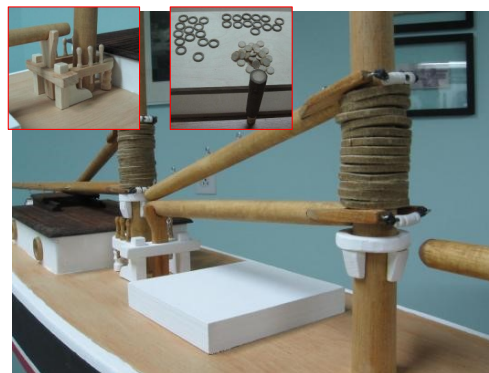


The painted masts are shown here with the bowsprit laying between them.



The hull and structure were stained or painted with brushes and acrylic paints. The decking was a blend of colours, a base coat of unbleached white and a feathered coat of autumn brown using a fan brush to make it resemble wood grain. The hull was primed white, then a band of black applied above the waterline, a stripe of white below that and cherry red on the underside.

Mast hoops were made



from clean blank newsprint sheet, stained to look a bit like wood, glued and rolled over a cellophane wrapped dowel then cut off on a band saw. A fife rail was assembled and two boom crutches were added with one

at the fife rail and the other at the stern.



Black upholstery twine was used for the standing rigging, and white cotton twine for the running rigging. Alan also made and stained his blocks.

For tying the ratlines to the shrouds, O'Neill used a template to keep them horizontal and equally spaced. He used a jig made from a paper clip to

keep the deadeyes properly spaced while they were being rigged.

In the above photo you can see copper wire stanchions. These were flattened by pressing them in a vise and then being drilled to receive the wire rails.

The flag was printed onto bond paper, glued and folded over to create the sleeve and contain the short flag bolt rope. O'Neill brushed diluted white glue over the paper and draped it over some dowels to dry and create a wavy shape. When dry, it was attached to the halyard.

The model was delivered with days to spare.





Ships on Deck



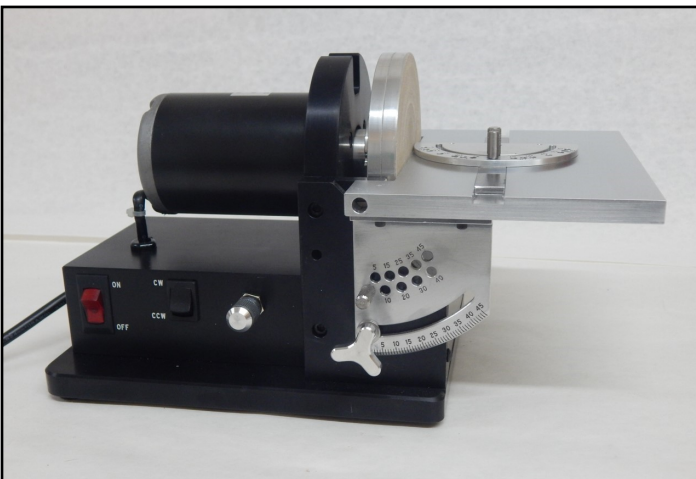
New 4" Disc Sander by Model Machines LLC

Photos & Review by Bill Maxwell

Product Review; by Bill Maxwell (fly1776@comcast.net)
All new 4" Disc Sander by Model Machines LLC

I have had the pleasure of 'test driving' the latest 'must have tool' from the Jim Byrnes shop. This is (in my opinion) a replacement to his original 5" disc sander which I've had since its introduction and has served me faithfully. HOWEVER, improvements can be made to a basic tool, with the introduction of a new DC motor and controller. This sander has variable speed control (200-2000 RPM) and can be switched (either direction) from CC (Counter Clock rotation) to CW (Clock Wise rotation) by the flick of a switch virtually instantaneously! Not only that, but the rotation speed can be adjusted anywhere in-between while on the 'fly'.

The motor is much smaller and allows for a more portable unit (9 lb., 12 oz.) with a bench footprint of 7" x 11". The four mounting feet are approximately 1 inch in dia.



and work well to keep the sander stable on the bench. As I mentioned, the disc is 4" and is mounted on an (*replaceable if damaged for some reason*) aluminum disc that is held by four screws to a backing plate which is

attached to the motor shaft. To remove and replace the sand paper disc requires the removal of the disc, which

mounts the sand paper, with a 3/32" "T Wrench". A standard Allen wrench would be very awkward, but the "T Wrench" makes it a simple operation with the milled slot in the top of the sander.

The miter gauge from the 5" sander works on either table, but this new sander comes with a new one just the same. All the angular adjustments found on the 5" sander are here as well. As we have come to expect, this is a precision piece of equipment with very close toler-

ances and very nice finish. I found the slower speeds to be very useful for 'truing' edges. Far more controllable on the amount of material being removed than on the fixed speed unit. This is a must have for the shop!



The sander comes with a 180 grit disc, and orders can be placed in November.



Scenes from the October MMS Meeting

Photos by Bob Fryszak



Photos by Bob Frysztak



• Historic Ship Profiles •

RMS *Niagara*

Shortly after her departure from Auckland on a passage to Suva and Vancouver the steamer RMS *Niagara* was sunk as the result of striking a mine early on the morning of 19 June 1940. There was no loss of life, her complement of 349 – 146 passengers and 203 members of the crew – embarking in 18 boats, and by nightfall all were safely back in Auckland.

Calm and comparatively clear conditions prevailed when the *Niagara* was steaming up the coast, and at 3.40am when the ship was in the fairway between Bream head and Mokohinau Island, a violent explosion occurred which shook the vessel from stem to stern. The hatch covers and stanchions on the forward hold were hurled into the air, and many people were thrown from their bunks. The hold filled so rapidly that it was at once apparent that the vessel had sustained serious damage. Within a few minutes distress signals were sent by radio and rocket flares fired. The order to abandon ship was given almost immediately, and by 4am, when the ship was settling by the head, the majority of the passengers and crew were in the boats. Water poured through gaping holes near the stricken steamer's bows, and at 5.32am the *Niagara* sank in 70 fathoms of water. It was later learned that the mine was among 228 contact mines laid by the German commerce-raider *Orion* on the night of 13 –14 June.

The *Niagara*, No. 135,193, was a steel, triple-screw steamer of 13,415 tons gross and 7582 tons net register, built at Clydebank, Scotland, in 1913 by J. Brown and Company. Length 524.7ft., beam 66.3ft., depth 34.5ft. Her engines were of 12,500hp indicated. She was owned

by Canadian-Australasian Line Ltd., and was under the command of Captain W. Martin. The *Niagara* had accommodation for 590 passengers – 250 first class, 200 cabin class and 140 third class.

In the *Niagara*'s strongroom was a shipment of 295 boxes, each containing two ingots of gold, of an approximate value of £2,500,000, being shipped to the USA. The owners of the gold, the Bank of England, entered into a contract with the United Salvage Proprietary Ltd., of Melbourne, for its recovery.

The salvage company, having acquired the old steamer *Claymore*, of 260 tons gross and 119 tons net register, built in 1902, established their headquarters at Whangarei, and commenced operations on 15 December 1940 under the directions of Captains J. Williams and J. Herd. On 2 February 1941, the wreck of the *Niagara* was located in a reported 438 feet of water, which at the time was claimed to be the greatest depth at which salvage operations had ever been carried out.

Hampered by bad weather, and frequently menaced by mines which on two occasions nearly brought about the destruction of the *Claymore* and her complement of 18 persons. Nearly nine months of arduous and dangerous work ensued, blasting and clearing away sufficient of the steamer's structure, before access could be obtained to the strongroom, and it was not until 13 October that the first two bars of gold, each worth £4300, were recovered.



• Historic Ship Profiles •

The RMS *Niagara*

Continued



Two days later the *Claymore* steamed into Whangarei with gold to the value of £84,600 on board. When operations finally ceased on 8 December 1941, the day after Japan's entry into the war, 277½ boxes (555 ingots) of gold had been recovered, the approximate value of which was £2,379,000, and represented 94 percent of the total. The operations were carried out using a diving bell in which divers J. Johnstone and his brother William made 316 descents during the salvage operations.

In 1953, a salvage operation by the British company Risdon Beazley was carried out using the same methods as the 1941 salvage and a further 30 bars of gold were recovered. With the advent of new technology the sunken vessel was explored in the 1980s using Remote Operated Vehicle (ROV) systems and the

development of new technology enabled divers to visit the wreck for the first time in 1999.

The actual depth of the liner is 400 feet, shallower than the depth initially claimed and not a record salvage depth, as claimed in 1941. The liner is lying on her port side and the depth to the topside of the wreck is approximately 340 feet. The five remaining gold bars weigh a total of 2000 ounces and have increased in value with time.

A number of books have been written about the *Niagara* and the gold salvage ventures, the most recent being, "*Niagara's Gold*" by Jeff Maynard and "*Deep Water Gold*" by Keith Gordon.

Text from New Zealand Shipwrecks, 8th edition (Hodder Moa, 2007).



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NRMS Secretary - Dan Cicero—dan_cicero@sbcglobal.net



MMS President - Bob Filipowski—logline2@gmail.com

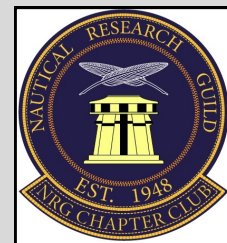
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