

# The MSB Journal



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On the Cover  
Flat Bottomed Troop Boat  
Royal Museum Greenwich

### **How to Contact The MSB Journal**

By email: [winston@modelshipbuilder.com](mailto:winston@modelshipbuilder.com)

By Snail-Mail

#### **Canada**

The MSB Journal  
c/o Winston Scoville  
2 St. Charles Place RR5  
Clinton, Ontario, N0M 1L0  
Canada

### **Article / Content Contributions**

Please submit all article and content contributions to:

Articles and General Submissions: [winston@modelshipbuilder.com](mailto:winston@modelshipbuilder.com)



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# Tidbits from the Past by Gene Bodnar



## *“The Sounding of Taps”*

The sounding of taps is familiar to us all as the last bugle call at night blown as a signal that the lights are to be turned off, and taps is also heard at military or memorial services.

The word “taps” originates from the Dutch word “taptoe” and signified that it was time to close up all the tavern taps in garrisoned towns. Taps is sometimes called “tattoo.” The British use “post” for this call.



Bugles or trumpets were not always used to sound “Taps.” In the mid-1700s, taps was performed by the Drum Major with all the drummers and fifers of a regiment. In those days, it was the signal for soldiers to retire, put out their fires or candles, and go to bed. It also applied to all the public houses within hearing distance to shut their doors, and sell no more liquor that night.



Just when the American Navy adopted the custom of sounding “Taps” is unknown. The only music rendered on the USS Constitution for a burial at sea was the “Dead March from Saul.” There was a known melody for “Taps” during the American Revolution, but most likely it was the “last post” of the British Army, which has a few identical notes with “Taps.”

“Taps” was composed by General Daniel Butterfield who was in command of a brigade in the Army of the Potomac during the American Civil War. It was first sounded by the writer’s father, Oliver Norton, the brigade bugler, in July, 1862, at Harrison’s Landing in Virginia. A little known fact is that “Taps” is also known as “Butterfield’s Lullaby.”

## *The Lumberyard*

*for Model Shipwrights*

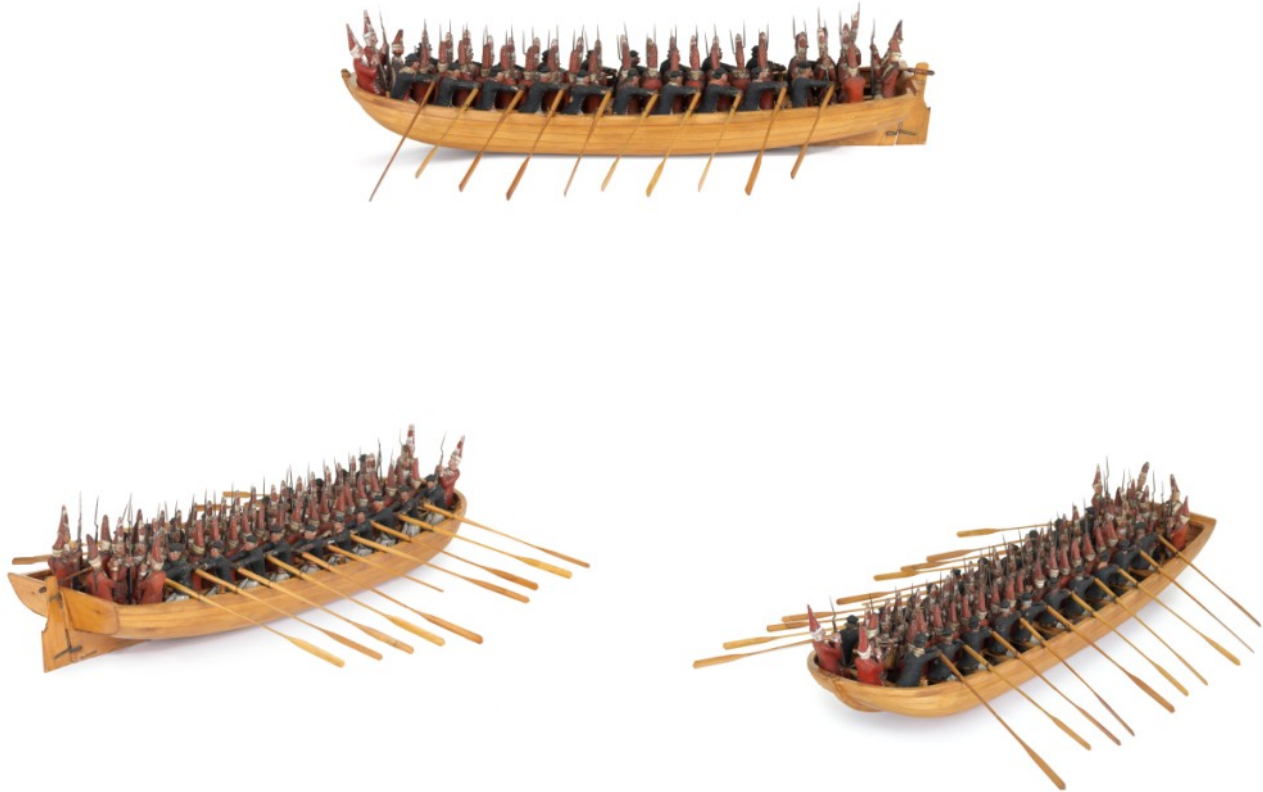


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## ***Model Ships of the Royal Museum Greenwich***



Scale: 1:24. A contemporary full hull model of a flat-bottomed troopboat (circa 1758), built in the Georgian style. The model is decked and equipped. It contains 65 figures (including 20 oarsmen). This is one of a series of contemporary models showing how troops were transported for landing. The oarsmen sat on small thwartship benches. The oars were rowed against the thole pins placed in the gunwales. A swivel gun was usually mounted on the stem-piece, as in this model and sometimes a small cannon was placed in the slide, aft. All the interior fittings were detachable so that the boats could be carried in the transport. This troopboat has a square transom as opposed to those with a round stern. These clinker-built 18th-century troopboats were carried in specially adapted transports chartered by the Admiralty, and were used in landing operations on enemy shores. Landing was by means of a portable ramp carried in the bows. Many were used in raids on the French coast in 1758 and also at the capture of Havana and St. Lucia. Thirty were employed for the spearhead of Wolfe's attack on the Heights of Abraham, 1759.

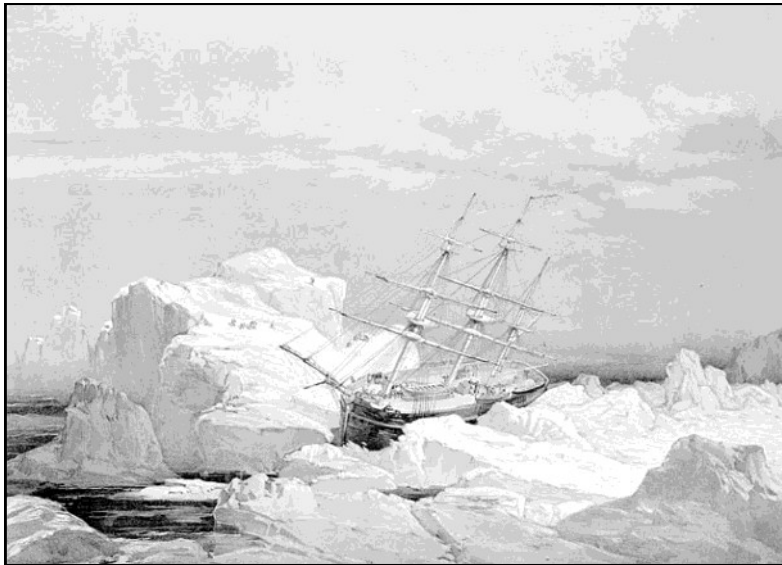
Source: Royal Museums Greenwich



## ***HMS Investigator***

In July 2010, a team of Parks Canada scientists, archaeologists, and surveyors began searching for the sunken HMS Investigator in Mercy Bay at the northern tip of Aulavik National Park. It was the first expedition to search for the ship.

The team arrived on Banks Island in the Beaufort Sea on 22 July and began a sonar scan of the area three days later. The ship was detected in the scan a mere 15 minutes later. In order to confirm the discovery, the team made more than a dozen sweeps of the area over the next hour.



Its remains were discovered on the shores of the island with the deck of the ship about eight metres below the surface.

According to Ifan Thomas, a superintendent with Parks Canada, the ship was found "sitting upright in silt; the three masts have been removed, probably by ice". The cold arctic water prevented the outer deck from deteriorating quickly.

There are no plans to raise the ship's remains, although the team will send a remotely operated underwater vehicle to take photos of the underwater portion of the ship.

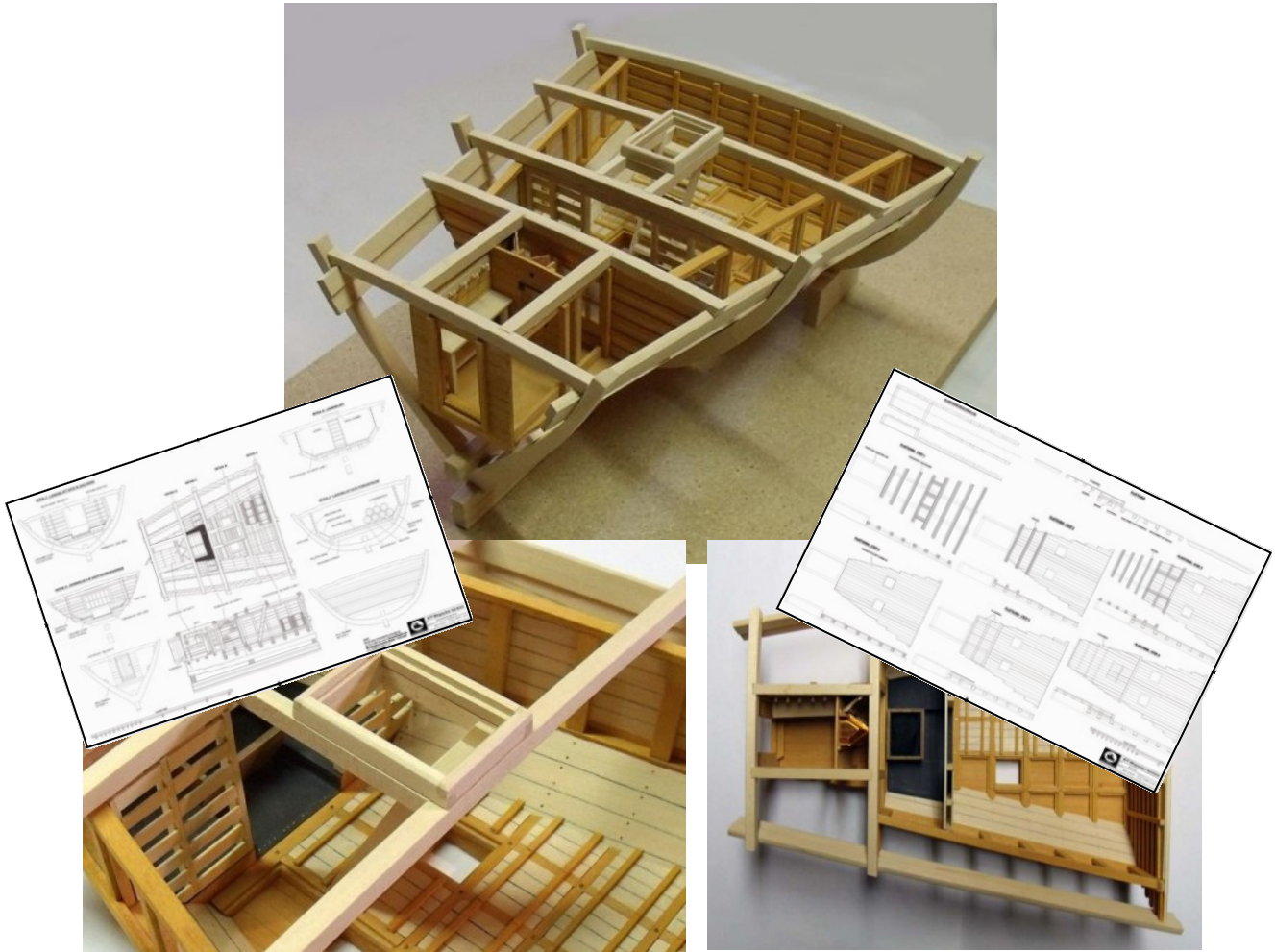
A team of six Parks Canada archaeologists, led by Marc-Andre Bernier, scheduled dives on the Investigator site for 15 days beginning on 10 July 2011 to gather detailed photographic documentation and mapping of the wreck. This will be the first human contact with the wreck, which lies partially buried in silt 150 meters off the north shore of Banks Island.

The team continues its search for Terror and Erebus, part of Franklin's expedition, at O'Reilly Island.

Source: Wikipedia

# ***Aft Magazine Section Model Plans***

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## FRAMING OF A HULL—Part II

by William B. Worthington

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Colonial America was colonized in the north by the French who controlled ship building and the maritime fur trade on the Great lakes from Detroit to head quarters in Montreal from 1679 until the British took control during the French and Indian war.

Present New York state started as New Netherlands and was the province of Republic of the Seven United Netherlands. The purpose of the colony was for the export of timber. The colony was captured by the English in 1674 and renamed New York. The English took complete control but Dutch landholdings and businesses remained, keeping a Dutch influence.

The English colonies dominated the eastern seaboard with the primary purpose of mercantilism. The British government and merchants based in England became partners, with the goal of increasing political power and private wealth, to the exclusion of other empires and even merchants based in its own colonies. The British Crown established a total monopoly on colonial trade and manufacturing. The English government protected its London-based merchants keeping others out by trade barriers, regulations, and subsidies to colonial industries in order to maximize exports from and minimize imports to the American colonies. All trade to and from the American colonies went through London ports insuring the wealth went to England. In this system the British government took its share through duties and taxes, with the remainder going to merchants in Britain. The British government spent much of its share of the revenue on the Royal Navy, which not only protected the British colonies but protected merchant ships from piracy since they belonged to subjects of the British Crown. In 1690 the British Admiralty ordered a war ship to be built in the colonies as an armed escort, the HMS Falkland a 50 gun fourth rate ship was built at Portsmouth shipyard in New Hampshire.

When New Hampshire was separated from Massachusetts Bay Colony by royal edict in 1679, Portsmouth became the capital of the new colony. Surrounded by forests of oak and white pine and at the edge of one of the world's deepest harbors, Portsmouth developed an economy based on shipbuilding and trading. The town thrived on its fast growing mast-building and ship building industry. Naval ship construction in America had its beginning in 1690 at the Portsmouth shipyard, however only a few Royal Navy ships were constructed here, the colonial shipyard was soon controlled by American sympathizers, resulting in no more ships being built for the British navy and the construction of at least three U.S. warships. In 1799 chief naval constructor Humphries recommended to the Secretary of the Navy that Portsmouth Harbor should not be in private hands and be the site of a government owned and operated shipyard. We will never know how the Falkland was built but an interesting bit of information saying within five years of her building she was taken to Chatham Dockyard and rebuilt. Her second rebuilt took place at the Deptford shipyard where she was reconstructed according to the establishments. This suggests there were no British Admiralty controlled shipyards in the colonies and shipyards built ships according to local practices and not to British Admiralty standards.

The colonial American system worked by a London based merchant contracting a colonial ship builder to build the ship, a down payment was made to the shipwright to pur-

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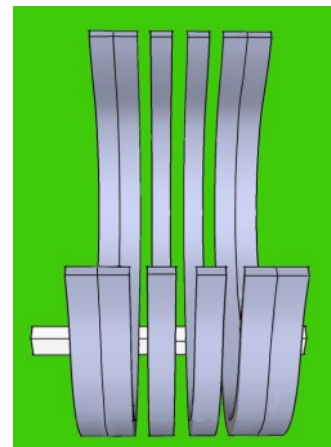
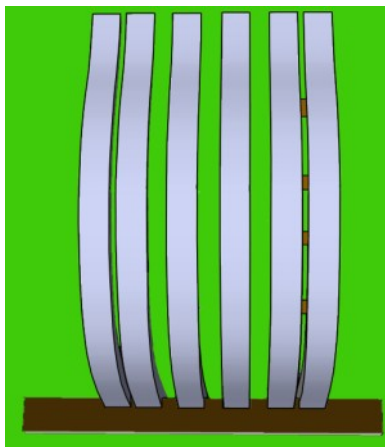
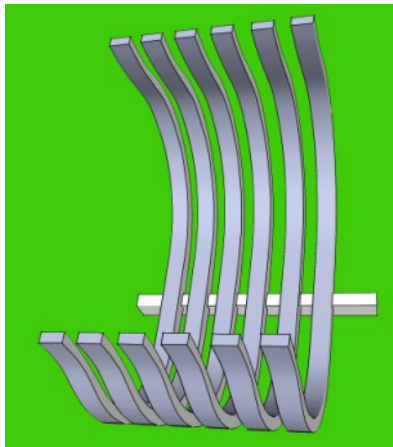
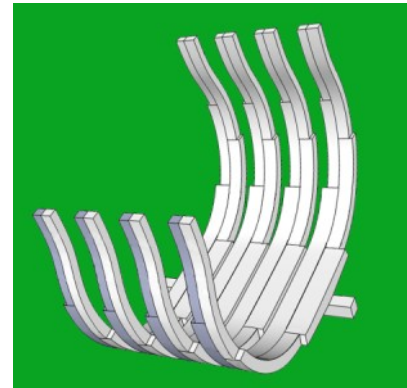
chase materials and hire carpenters. When the ship was launched the remaining amount would be paid in full.

Any private English shipwright working in colonial America would have served a seven year apprenticeship in an English shipyard either a private yard or one of the Royal Shipyards in England. He would then establish and own his shipyard in colonial America. The master shipwright oversaw the purchase of materials, hire the builders and supervised the construction. When the ship was completed the owner/merchant filled the ship with cargo from the colonies and brought it to London and returned to the colonies with manufactured good from England. For the most part English merchants used English trained shipwrights and English owned shipyards in colonial America, the reason was, any other shipyards built inferior ships than the English yards because there was no enforced regulations on ship building in the colonies, the colonial training system was less rigid and a ship builder served as little as a four year apprenticeship. With no government or ship building guild overseeing ship building, green timber was often used in construction or cost saving short cuts used.

After the American Revolutionary War everything changed, the protection from piracy colonial merchants ships had, was now lost. American merchant ships were harassed by any foreign power including England. With the strict hold the English government held on colonial American ship building gone, new shipwrights coming to North America had far more opportunities for work and a better chance of purchasing their own yard. Typically all a ship builder needed was a plot of land on the water, his tools and timber to go into business. The one thing north America had in abundance and readily available was ship building timber which drove down the cost to build a ship and raised the demand for American built ships by foreign countries. To protect American merchant ships the United States Congress passed the Naval Act on March 27, 1794 which marks the introduction of the American shipwright with six hybrid frigate class ships powerful enough to engage any frigates of the French or British navies yet fast enough to evade any ship of the line. When it came time for America to build its first war ships you would think, as a former British colony where ships were built for the English merchant trade and for the British Navy the design and construction of the first frigates would rely heavily on English ship building practices. Taking into consideration the first colonial built war ship for the British Navy was almost 60 years ago and very few were built since that time and only three ships built at the Portsmouth shipyard the Admiralty had almost no influence on ship building in the colonies. Another contributing factor for the lack of British influence on American ship building was immigration to New England which began with the migration of Pilgrims who established Plymouth Colony in Massachusetts Bay in 1620. The following decade from 1630 to 1640 marked the period of time known as the Great Migration. During this time, Massachusetts's population skyrocketed with the migration of approximately 21,000 immigrants to New England, less than a third of them being Britons. By 1660, large-scale migration from Britain to New England rapidly decreased and immigration to the New World was officially discouraged. During the 1700's, Britain began to restrict emigration out of England to the U.S. In 1718, the British Parliament prohibited immigration of skilled workers from the Britain to migrate to the U.S. and in 1775, an outbreak of revolutionary violence stops immigration from Britain. From that point on, only a trickle of British immigrants came to North America, compared to the rest of western Europe. Great Britain placed restrictions upon all of her subjects who were mechanics from emigrating to the United States, especially those who had received their instructions in "the art of shipbuilding" in the government dock yards.

Before we move on to the examination of American built ships lets take a look at how

the British framed their ships in the later half of the 18th century. The first example is a tiered frame structure as shown in graphic one. In the second graphic is a single frame configuration. In the third graphic we have all single frames arranged so two frames are close together then two single frames spaced farther apart then another set of closely spaced frames. In this arrangement there may be three single frames between the two closely spaced frames. Also on the right side you can see spacer blocks which were sometimes placed between the two frames. The last graphic shows two frames bolted together to form one frame referred to as a main bend.



The British used several different configurations of framing throughout the 18th century but the one constant feature of British framing was to maintain a space between frames. By keeping a space between frames allowed air flow around the timbers reducing the problem of rot. Another aspect of British framing was to taper the frame in the sided dimension thus reducing the upper weight of the hull.

By spacing out the framing meant less frames in the hull and tapering the frames reduced the weight, producing a lighter hull making the ship faster and more maneuverable. In North America there was a huge supply and variety of timber so the shipwrights could accomplish the same as the British ships by using strong heavy wood such as White Oak or Live Oak for the floors and lower first futtocks of the frame and as they built upward they used lighter hardwoods until they reached the top timbers which were made of light weight Cedar. This use of woods allowed the American shipwrights to build hulls that were almost a solid wall of timber from the keel all the way up to the cap rail.

The first six frigates authorized by congress were uniquely American built ships designed by Joshua Humphreys who was born in Haverford Pennsylvania and as a youth was apprenticed to a



shipbuilder in Philadelphia. Humphreys was an influential and successful ship builder and was appointed Naval Constructor June 28 1794 and credited by some as the father of the of the U.S. Navy.

North American shipwrights had developed their own ship designs and construction methods. When the Constitution was being repaired the hull was cut at the level of the deck. It would appear the framing is double frames attached to each other and closely spaced along the hull creating an almost solid wall of timber. If Humphreys tapered the frames there would be a space between the top timbers as shown in the graphic. Each frigate was built in a different shipyard by different builders and we are looking at only one of the six. Humphreys being in charge of the building program as Naval Constructor we can only assume all six frigates were build the same or similar. Samuel Humphries was the next Naval Constructor after his father Joshua so lets assume Samuel followed in his fathers foot steps and followed the same construction methods.



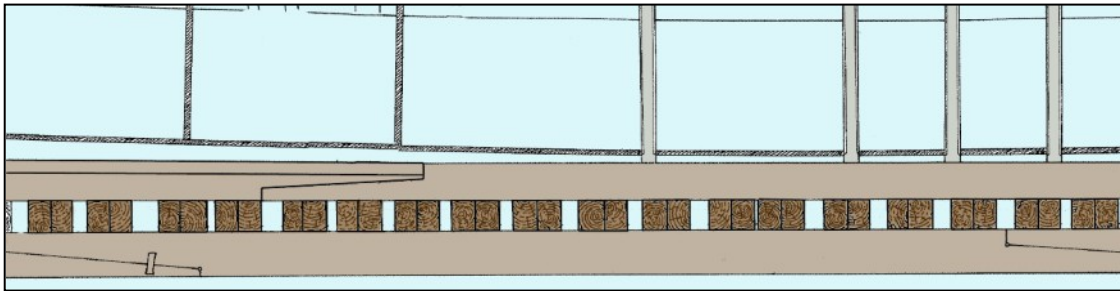
Information collected from the remains of ships built during the war of 1812 provided enough data to support a working hypothesis for the development of the North American standard of hull framing.

We can begin the investigation with a look at two prominent American ship builders born in northern New York, Adam and Noah Brown. Noah trained as a house carpenter from 1785 to 1792. Brown worked in New York until 1804. After he and his brother Adam built a North West Company schooner, the Work, at Newark, Upper Canada, in 1804, Noah was employed at Forman Cheesman Yard in New York. Next spring, the brothers built a whale ship at Sag Harbor, Long Island, and in 1807 worked at George Peek's shipyard. The two cut live oak in North Carolina for the frigate New York from 1807 to 1808, built five navy gunboats in 1809, repaired the Brooklyn, and built the privateers, General Armstrong, Paul Jones, Prince De Neufchatel, Warrior, Yorktown, and Zebra.

In January 1813, when Commodore Isaac Chauncey hired Henry Eckford to build lake vessels, he appointed Noah to work with Daniel Dobbins at Erie, Pennsylvania. From late February to June 1813, Brown finished three gunboats, a despatch schooner, and Perry's brigs Lawrence and Niagara. Noah and Adam built the US sloop Peacock at Corlears Hook, New York, from July through September 1813. By March 1814, they were working for master Commandant Thomas Macdonough on Lake Champlain, building the ship Saratoga, 26

guns, and nine gunboats and converting the steamer *Vicennes* into *Ticonderoga*, 17 guns. In June, they commenced the brig *Eagle*, 18 guns, launched August 11. They returned to New York to build Robert Fulton's *Demologus* and his torpedo-boat *Mute*. They next worked with Eckford on two 120 gun ships at Sackett's and Henderson's Harbors. Noah Brown ceased shipbuilding in 1833 after completing the ferry-boat *Sussex*.

One of Noah Browns ships that survived was the *Eagle* the frame arrangement consisted of double frames spaced along the keel.

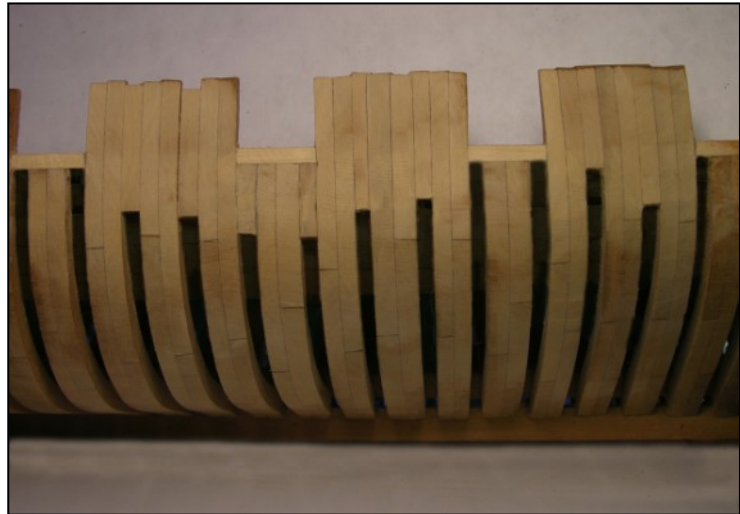


A description of the wreck states the floor timbers were placed along the keel at approximately two foot centers and varied in their sided dimension from 8 to 10 inches. The first futtocks had the same dimension as the floors and were fastened against the floors by one inch bolts. Heels of the first futtocks butted one another over the center of the keel. Second futtocks were of the same dimension as the first futtocks and bolted to the side of the first futtock with the heels butting the floor heads. The third futtocks and top timbers were the same dimensions and fit to the frame same as the first and second futtocks.

The next ship builder we will take a look at is Henry Eckford, who was a Scotchman, he had served three or four years at his trade under his uncle, who was a shipbuilder at Quebec, Canada. He came to the United States in 1796, and after a few years employment in New York he built one vessel in 1801, and by 1803 was in partnership with Edward Beebe under the firm name of Eckford and Beebe, and began building vessels at their yard near the foot of Jefferson street, where they built four or five vessels, two of them being ships for John Astor of New York. Henry Eckford, through his knowledge of his trade, and skill in designing a vessel, he built up a reputation in a few years as a first class ship-builder. He had not been taught the higher branches of the trade, but taking advantage of his practical experience of the old school of "cut and fit" he made many changes in the forms of his vessels that proved of value. His partnership with Edward Beebe ended in 1809. When the war of 1812-14 came on he had a well-equipped yard, but the building of merchant vessels coming to a close for a time, the Navy department obtained his services, and he was sent to the northern lakes to take full charge of the construction of the naval vessels on these bodies of water, where he remained during the war of 1812. He came back to New York, opened his yard again, and built several vessels for the merchant service up to about 1825, among them being the first steam vessel built especially for ocean service, the "*Robert Fulton*" in 1819 for Dunham & Co., for the trade between New York and the island of Cuba. He was also employed in 1819-20 by the Navy department as Naval Constructor in charge at the Brooklyn Navy Yard, but official life was not in line with his advanced business ideas, and he handed in his resignation after the completion of the frigate "*Ohio*". He was no doubt the ruling spirit in the shipbuilding line in New York City at this time, and had large influence in naval construction, so much so that in 1825-26 he built in connection with other builders four 44 gun frigates for navies of South American governments. He continued in the business world until the Turkish government made him

an offer to assume charge of their navy yard for the construction of their naval vessels, which he accepted, and left New York for Constantinople in June 1831, but only one vessel was built there under his supervision, as he died there in November, 1832.

We do have an example of Henry Eckford's work, the Jefferson. Like the Eagle, built by Noah Brown the Jefferson was built with double frames spaced on 22 inch centers as apposed to the 24 inch center spacing of the Eagle. The 9 inch sided floor timbers were notched over the keel, next the adjoining first futtock was sided 8 inches and sat on top of the keel with the heels meeting at the centerline. One aspect of both ships is the unevenness of the frame spacing and timber sizes. Both ships archaeological reports state the frames were on an average of 24 and 22 inch centers with a space



between frames of 4 to 6 inches and timber sizes varied from frame to frame. Although there was an abundance of standing timber, production of lumber was a long and labor intensive process, when timbers were cut by hand in a saw pit tolerances for measurement were a bit loose. As more saw mills were set up and cutting of lumber became closer in measurements ship building followed and became more precise. In larger established shipyard with a large inventory of timber, ships could be built with more precision. In the wild back country of the Great Lakes and under tight deadlines to get the ships in the water a framing timber would not be rejected because it is + or - an inch in thickness.

Getting back to the Jefferson's archaeological report a couple interesting notes, first is the bulwarks were filled in to produce a solid wall of timbering, knees were not used in the hull and when timbering sizes were compared to contracts for ocean going vessels the Jefferson's were generally much larger.

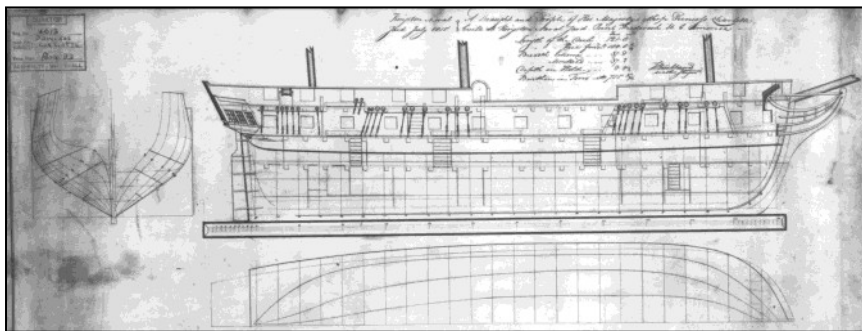
On the other side of the lakes the British had established shipyards and were also building war ships, so lets take a closer look at the shipwrights and their work, first master builder is William Moodie Bell he was born on 9 January and baptized on 12 January 1777 in the parish of Aberdour, near Kirkcaldy in Fifeshire, Scotland. He entered the employ of the Provincial Marine as a naval shipwright and began his career at Amherstburg, Upper Canada, in June 1799. There he designed and built vessels for the Great Lakes service. Many of these were lost in 1813 at the Battle of Lake Erie, after which he was evacuated from Amherstburg, at the time of the retreat from the Western District, and served thereafter at the Kingston dockyard. The Admiralty's appointment of Thomas Strickland as Master Builder in Upper Canada displaced Bell from that position, but in 1814 he was appointed as Strickland's assistant. Upon Strickland's death in 1815, Bell became Acting Master Builder in Upper Canada until the end of 1816, when the establishment at Kingston was reduced and Bell returned to Scotland. Having succeeded in obtaining a government pension, Bell returned to Canada, for a brief period he worked with his brother John, also a shipwright, and a French Canadian shipbuilder, François Romain, at Quebec producing at least 4 vessels at Quebec City in the mid-1820s. William Bell retired and settling down as

a farmer at Little River, Lower Canada.

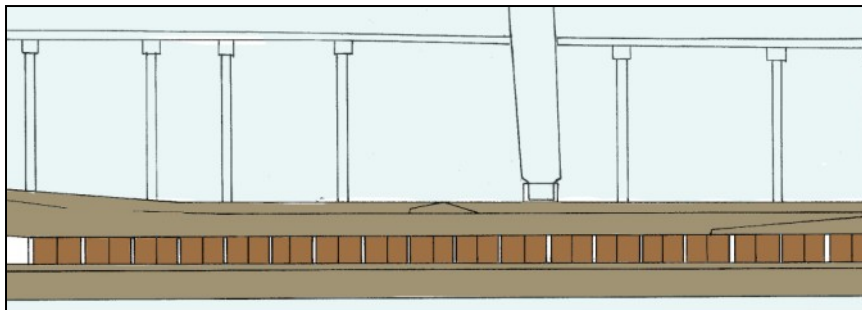
An example of Bells work can be examined by looking at the wreck of the General Hunter built by Bell at the British naval yard at Amherstburg. Even though the General Hunter was a British warship built in a British naval yard the construction has no resemblance to British ship construction. The hull framing was very heavy with the frames set on 24 inch centers, the timbers measured from 8 to 10 inches leaving about 4 to 6 inch space between frames. Each frame was built of two frames creating one double frame that maintained the same sided dimension from the keel to the cap rail, once again resulting in almost a solid wall of timbering.



The last example we will take a look at are the ships built at the British shipyard at Kingston Canada. There were three frigates and one ship of the line launched during the war of 1812. Archaeological study of three wrecks show they were all built the same. The one example we will look at is the frigate Princess Charlotte, shown is the as built plan of the ship.



Taken from the archaeological data the framing was double sistered frames spaced 25 to 28 inches on center, with floors and futtocks 11 to 12 inches sided. Spaces between frames were from 2 to 4 inches. The configuration of the framing was the same as the American frigates built by Humphries creating almost a solid wall of timbering.



The Kingston frigates and other ships built by the Royal Navy in North America were designed to compete with American ships being built. They therefore differed in many ways from the ships Britain was building in her shipyards back in England. British having lost three seagoing frigates to the American super frigates, it appears the Admiralty shipwrights understood that their vessels needed to be built to match the strength of the American frigates. The Kingston frigates were very heavily built with only minimal space between the frames. In 1815 Commodore Edward Owen surveyed the British ships built in North America and the American built ships sending reports back to Britain on his observations. Owen noted in comparing the construction of the British and American ships, the Americans kept a greater amount of timber in their ships, which gives them greater strength, and their people greater shelter. In North America their ships are built much faster than we do, and for this reason, strength is the chief object with them, and if that be obtained they care but little about beauty of model or elegance of finish. On the other hand, in the European dock yards we employ as much time upon ours as we should, they are handsomer and much better finished, but they are far more expensive, and will not endure a longer period of service. Owen also remarked the ship of the line St Lawrence which was of a hybrid design and the other three deckers on the stocks were as great a bulk as any on the ocean. The design influence suggested by one observer the British ship St. Lawrence was built in the American style.

So ends part two of this three part article on ship framing in North America. In the final part we shall look at the evolution of ship framing from the end of the war of 1812 on to the end of wooden ship building in the 19th century.

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## ***Historic Naval Shipyards***

# ***HMNB Devonport***

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Her Majesty's Naval Base (HMNB) Devonport (formerly HMS Drake), is one of three operating bases in the United Kingdom for the Royal Navy (the others being HMNB Clyde and HMNB Portsmouth). HMNB Devonport is located in Devonport, in the west of the city of Plymouth in Devon, England. It is the largest naval base in Western Europe[2] and is the sole nuclear repair and refuelling facility for the Royal Navy. The co-located Royal Dockyard is owned and operated by the Marine division of Babcock International Group (BM), who took over the previous owner Devonport Management Limited (DML) in 2007. The BM operation is commonly called Devonport Royal Dockyard.



In 2009 the Ministry of Defence announced the conclusion of a long-running review of the long-term role of three naval bases. Devonport will no longer be used as a base for attack submarines after these move to Faslane by 2017, and the next generation of frigates will be based at Portsmouth. However, Devonport retains a long-term role as the dedicated home of the amphibious fleet and survey vessels.

HM Naval Base Devonport is the home port of the Devonport Flotilla which includes the largest ship in the Royal Navy HMS Ocean and the Trafalgar-class submarines.

### **History**

In 1588, the ships of the English Navy set sail for the Spanish Armada through the mouth of the River Plym, thereby establishing the military presence in Plymouth. Sir Francis Drake is now an enduring legacy in Devonport, as the naval base has been named HMS Drake.

In 1689 Prince William of Orange became William III and almost immediately he required the building of a new dockyard. The town of Plymouth he dismissed as inadequate. Edmund Dummer a Naval Officer travelled the West Country searching for an area where a dockyard could be built; he sent in two estimates for sites, one in Plymouth, Cattewater and one further along the coast, on the Hamoaze, a section of the River Tamar, in the parish of Stoke Damerel. On 30 December 1690, a contract was let for a dockyard to be built in the Hamoaze area, which was the start of the Devonport Royal Dockyards.

At Devonport, Dummer was the designer of the first successful stepped stone dry dock in Europe. Previously the Navy Board had relied upon timber as the major building



material, which resulted in high maintenance costs and was also a fire risk. The docks Dummer designed were stronger with more secure foundations and stepped sides that made it easier for men to work beneath the hull of a docked vessel. These innovations also allowed rapid erection of staging and greater workforce mobility. He discarded the earlier three-sectioned hinged gate, which was labour intensive in operation, and replaced it with the simpler and more mobile two-sectioned gate. He wished to ensure that naval dockyards were efficient working units that maximised available space, as evidenced by the simplicity of his design layout for Devonport (which then was known as Plymouth Dock, not to be confused with the nearby town of Plymouth). He introduced a centralised storage area and a logical positioning of buildings, and his double rope-house combined the previously separate tasks of spinning and laying while allowing the upper floor to be used for the repair of sails.

The nearby Royal William Victualling Yard was established in Stonehouse in the mid-18th century for supplying the Royal Navy but is no longer in military use and is now open to the public.

### **Today**

The Royal Navy Dockyard consists of 14 dry docks (Docks Numbered 1 to 15, but there is no 13 Dock), four miles (6 km) of waterfront, 25 tidal berths, five basins and an area of 650 acres (2.6 km<sup>2</sup>). It is the base for the Trafalgar-class nuclear-powered hunter killer submarines and the main refitting base for all Royal Navy nuclear submarines. Work was completed by Carillion in 2002 to build a refitting dock to support the Vanguard-class Trident missile nuclear ballistic missile submarines.

Locals and tourists have long been able to visit the Dockyard during "Navy Days", a two-day event where visitors can tour the facility, go aboard active naval ships and watch various displays of naval prowess. Among the most popular attractions is the nuclear-powered submarine HMS Courageous, used in the Falklands War.  
USS Philippine Sea visiting Devonport

Devonport serves as headquarters for the Flag Officer Sea Training, which is responsible for the training of all the ships of the Navy and Royal Fleet Auxiliary, along with many from foreign naval services.

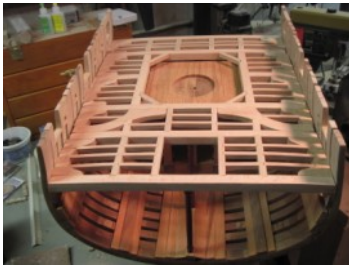
The Devonport Naval Heritage Centre is a maritime museum in Devonport Historic South Yard.

No.2 Wharf and No.3 Wharf has been passed over to Devonport Yachts, for the construction of superyachts.

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# ***The Bomb Vessel Cross Section Model***

An exclusive Model Ship Builder  
Modeling Project



*"...This is the finest set of  
drawings I ever worked with!"*  
Mike Rohrer—Proto-type builder

*"These drawings are amazing! I'm  
looking forward to building this  
model"*  
Daniel Richardson—USA



*"Extremely detailed plans for a model. I have to  
say, I'm very impressed. Great Job!"*  
Alfred Anderson—U.K.

*"Plans arrived today... They far exceeded my  
expectations... Thank you!"*  
Tristan Rockstrom—Canada

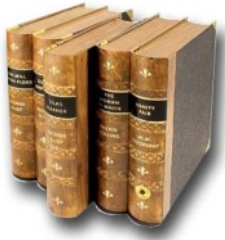
A 1:48 scale model based on Peter Goodwin's "Anatomy of the Ship—Bomb Vessel  
Granado and original Bomb Vessel drawings by Thomas Slade.

Contains 63 pages of detailed drawings and templates of every part of the model.

Numerous 3-dimensional constructional drawings provide you all the information  
you need to know to build this model. As well, it is supported by an online forum  
where you can ask questions, view other builds as they occur and even display  
your build if you wish.

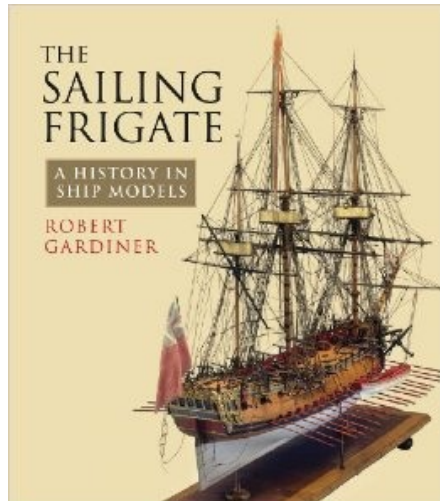
**Plans: \$57.50CND set + Shipping/Handling**

**Available at [www.modelshipbuilder.com](http://www.modelshipbuilder.com)**



## The Book Nook

Books of interest for the Model Ship Builder  
and ship building enthusiasts



### **The Sailing Frigate**

A history in ship models

By Robert Gardiner

Naval Institute Press

**ISBN-10:** 1848321600

**ISBN-13:** 978-1848321601

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Review by Dr. Ian Tizzard

Robert Gardiner has written several excellent books on the sailing frigates of the Royal Navy. This one is in effect, an annotated catalogue of the frigate models in the National Maritime museum. It explains through the beautiful photographs, the evolution of this ship type. It is an important contribution to the literature on this topic, mainly because it illustrates many models that have not been examined closely and which the NMM has not chosen to place on public display. I see it as a useful ship modeling resource, a source of ideas on potential new models, and a well illustrated text. I highly recommend it and look forward to other books in this series. The author has indicated that he plans to produce several more books of this type, each focusing on a different type of sailing warship. I recommend it strongly.

Don't forget to check out the  
[Model Ship Builder Amazon Bookstore.](#)

## ***Badges: Heraldry of Canadian Naval Ships***

### **HMCS Huron DDG 281**



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Or nicotine bloom Gules seed pod Vert and stamens Or.

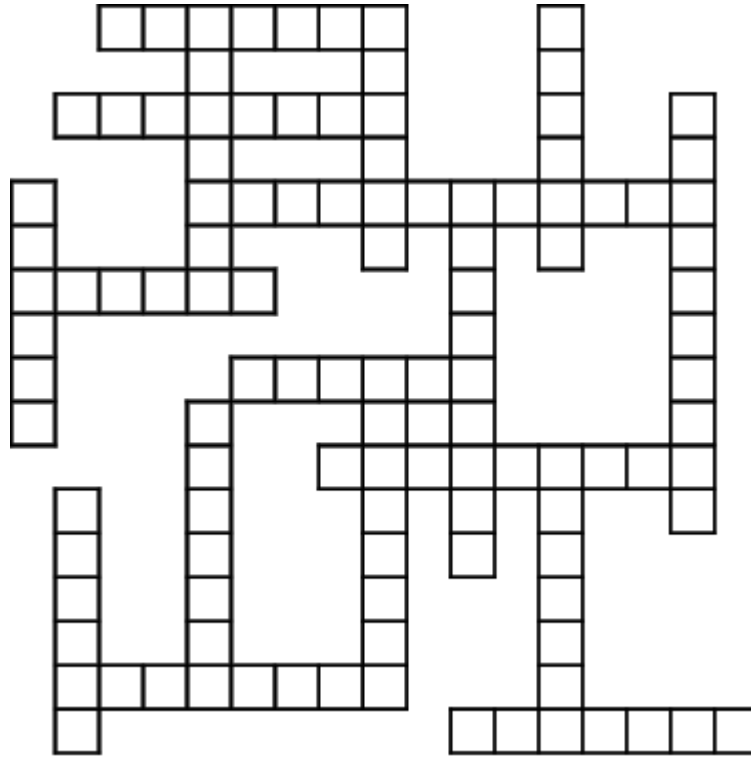
Significance: The Hurons were known as the Tobacco Indians. Hence the badge design is derived from that plant and shows the conventionalized representation of the nicotine bloom. This is in keeping with the traditional use of flower and plant forms as fighting emblems such as the Rose of York and Lancaster and our own Maple Leaf.

Source: Various



# Gene's Nautical Trivia

## Ships of the Bolitho Novels



### 6 letter words

ATHENA  
GORGON  
ONWARD  
TROJAN  
UNDINE  
WINGER

### 7 letter words

ACHATES  
AVENGER  
DESTINY  
SPARROW  
TEMPEST

### 8 letter words

EURYALUS  
HYPERION  
NAUTILUS

### 9 letter words

ARGONAUTE  
PHALAROPE

### 10 letter word

UNRIVALLED

### 12 letter word

GOLDENPLOVER



## Bolitho Novels

Here is a list of some of the titles of the Bolitho novels written by Alexander Kent. Can you fill in the missing word in each title?

1. BAND OF \_\_\_\_\_
2. STAND INTO \_\_\_\_\_
3. IN \_\_\_\_\_ COMPANY
4. TO \_\_\_\_\_ WE STEER
5. PASSAGE TO \_\_\_\_\_
6. \_\_\_\_\_ IN SIGHT!
7. \_\_\_\_\_ CAPTAIN
8. THE INSHORE \_\_\_\_\_
9. \_\_\_\_\_ THIS DAY
10. THE ONLY \_\_\_\_\_
11. BEYOND THE \_\_\_\_\_
12. \_\_\_\_\_ PURSUIT
13. \_\_\_\_\_ OF OAK
14. IN THE \_\_\_\_\_ NAME
15. RICHARD BOLITHO, \_\_\_\_\_

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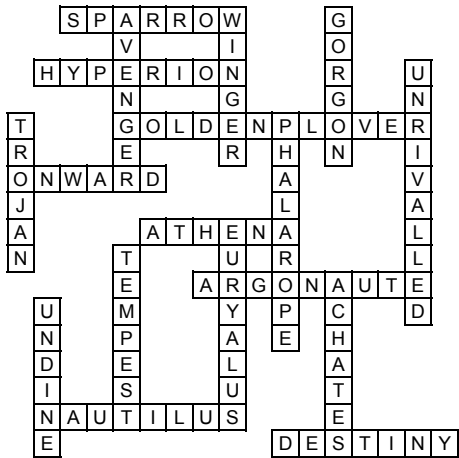
## Fictional Ships Quiz

1. What was the name of the sealing schooner in Jack London's "The Sea Wolf"?
2. What was the name of Captain Flint's ship in "Treasure Island"?
3. What was the name of Captain Hook's pirate ship?
4. What was the name of the whaling ship in Herman Melville's "Moby Dick"?
5. What was the name of the frigate in C. S. Forester's "The Captain from Connecticut"?
6. What was the name of the nuclear submarine in Tom Clancey's "Red Storm Rising"?
7. What was the name of the ship in Joseph Conrad's "Heart of Darkness"?
8. What was the name of the Roman galley in Lew Wallace's "Ben-Hur"?
9. What was the name of Herman Wouk's most famous fictional ship?
10. What was the name of the ship in H. G. Wells' "War of the Worlds"?

## ANSWERS:



### SHIPS OF THE BOLITHO NOVELS



### BOLITHO NOVELS

1-BROTHERS, 2-DANGER, 3-GALLANT, 4-GLORY, 5-MUTINY, 6-ENEMY, 7-FLAG,  
 8-SQUADRON, 9-HONOUR, 10-VICTOR, 11-REEF, 12-RELENTLESS, 13-HEART, 14-KING'S,  
 15-MIDSHIPMAN

### FICTIONAL SHIPS QUIZ

1-Ghost, 2-The Walrus, 3-Jolly Roger, 4-Pequod, 5-HMS Calypso, 6-USS Chicago, 7-Nellie, 8-Astrea, 9-USS Caine, 10-HMS Thunder Child