



SAN DIEGO SHIP MODELERS GUILD

Pilot Boat *Phantom* (1868)

Alex Roel / completed March 2019

Kit: Model Shipways #MS2027

Length: 13^{1/2}" (108')

Scale: 1/8"=1' 1:96

Height: 14^{1/2}" (116')

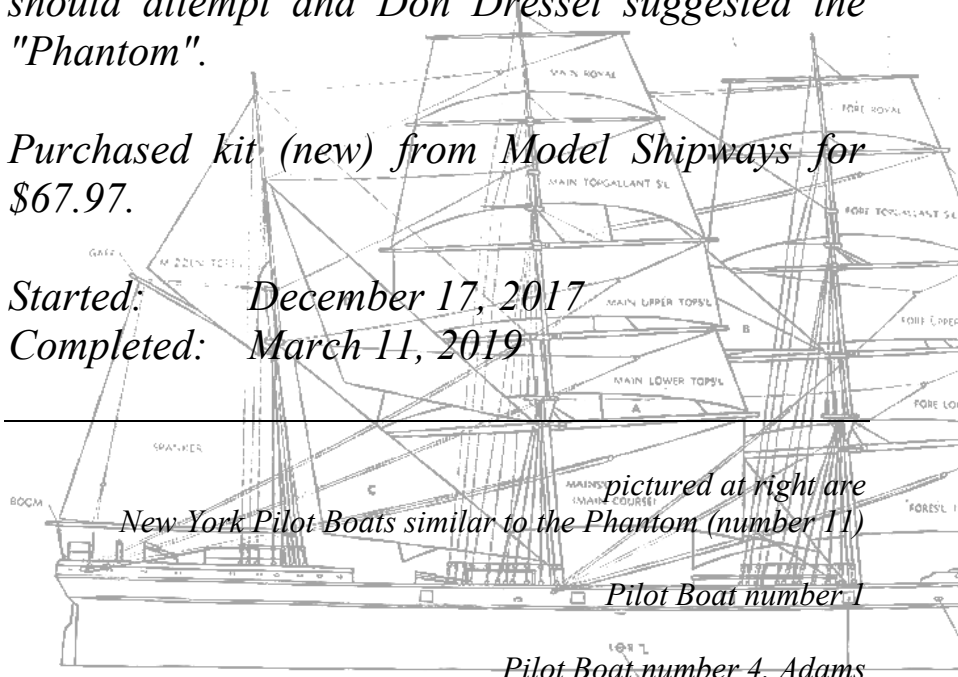
Build No. 1 Pilot Boat *Phantom* (1868)

At one of my first meetings at the San Diego Ship Modelers' Guild I raised the topic of what model I should attempt and Don Dressel suggested the "Phantom".

Purchased kit (new) from Model Shipways for \$67.97.

Started: December 17, 2017

Completed: March 11, 2019



*pictured at right are
New York Pilot Boats similar to the Phantom (number 11)*

Pilot Boat number 1

Pilot Boat number 4, Adams

*SAIL PLAN of the BARK STAR of INDIA
Pilot Boat number 10, Widgeon*

Pilot Boat number 13, Caldwell H Colt





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Background



The Pilot Schooner

Phantom (at left) meeting a merchant brig off New York

1891 by Antonio Jacobsen

The *Phantom* was designed as a schooner by Dennison J. Lawlor and was built in the Lawlor Boatyard of East Boston in 1868 for the pilots of Boston. The *Phantom* was later sold to the Sandy Hook pilots and operated out of the Port of New York for several years.



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In the early morning hours of Sunday, March 14 1886, the *SS Oregon* collided with and was holed by an unidentified schooner as she approached the Port of New York inbound from Liverpool. The schooner in question was probably the *Charles H. Morse* which subsequently went missing with all hands. After unsuccessfully trying to plug the hole in the *Oregon*, the ship was abandoned; however, lifeboat capacity could handle only half the passengers and crew.



The Phantom comes to the rescue of the SS Oregon

Phantom (at left) laden with passengers from lifeboats

1903 by Antonio Jacobsen

Four hours after the collision the *Phantom* was the first of several vessels to respond to the accident and all *Oregon* passengers and crew were rescued.

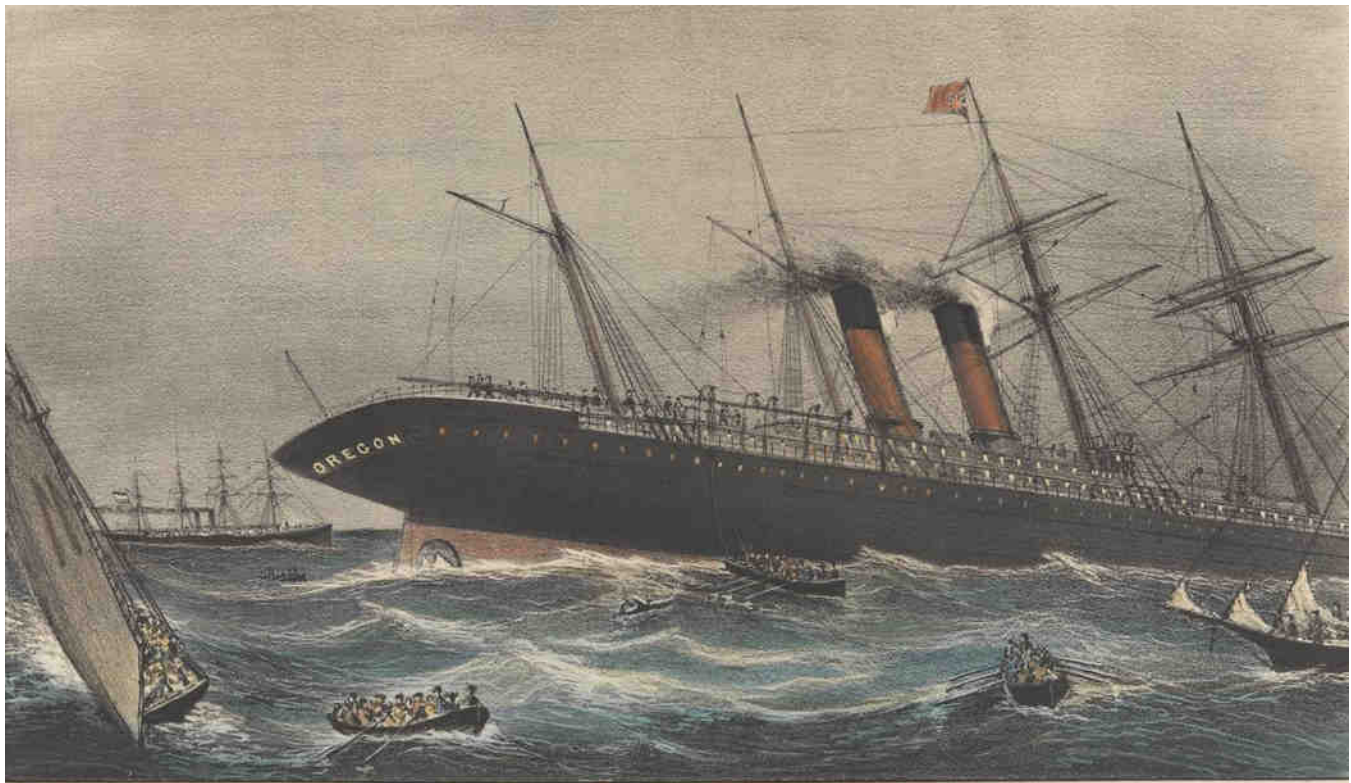


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SINKING OF THE STEAMSHIP OREGON OF THE CUNARD LINE

By collision with an unknown Schooner off the Coast of Long Island, on her voyage from Liverpool to New York, on Sunday Morning, March 14th, 1886, and Rescue of the Passengers, Officers and Crew (845 persons) by the Steamship FULDA of the North German Lloyds Line, Pilot Boat Phantom, and Schooner Fannie A. Gorham.

Sinking of the Steamship Oregon of the Cunard Line

Phantom (at far left) approaches the Oregon

1886 by Currier & Ives

SAIL PLAN of the BARK SEAR of INDIA

The *Phantom* was lost during the Great Blizzard of 1888, going ashore and breaking up at Sandy Hook, New Jersey with a loss of six hands and the vessel. She was one of at least fifteen vessels lost or missing in the storm.



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Build Notes

⚓ *I quickly learned that I don't care much for carving: while the hull came roughly pre-carved I did not like the carving suggested and preferred to finish shaping the hull by sanding.*



⚓ *I primed the hull and added the false keel and stern and bow pieces.*

⚓ *Coppering the hull required a number of "restarts": this resulted in my running out of copper strip; Isaac Wills came to my rescue by providing me with additional material from his build of the Phantom. I chose not to copper the bottom of the keel at this time anticipating much handling of the hull until secured to the waterway.*

⚓ *After finishing coppering the hull the thought occurred to me to detail each copper sheet by adding three dimples with the tip of my XACTO blade to represent nails. I did this and then later realized that **at this scale the nails would be essentially invisible to the naked eye and that what I had done was grossly out of scale.** I chose not to fix this error as it would require re-coppering the entire hull.*



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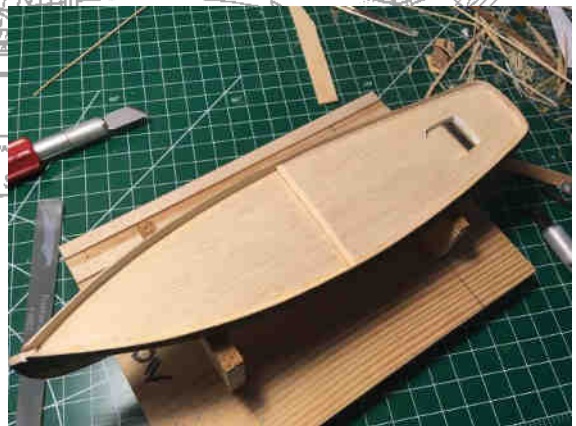
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 *I didn't follow the suggestion in the instructions to ignore the detail that the cockpit deck is one foot lower than the rest of the aft decking: I cut out the cockpit area to lower it appropriately.*



 *The instructions outlined how the kit-provided scribed decking could be used "as is" or separated into individual planks. The plans show the fore deck as parallel planking aligned with the centerline and nibbed along the waterways. The plans also show the aft deck planking following the curve of the bulwarks and tapering to meet at the centerline. I chose to separate the planks from the scribed decking and lay them according to the plans, making appropriate waterways fore and aft.*

 *I read much about highlighting the caulking between the deck planking by painting the edges of the planks or using graphite to darken the edges. I decided to leave the decking "as is" without embellishment to see how it would come out.*





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⚓ *The kit came with strips of pre-cut grating material but the scale was much too large. Since the area of grating in the cockpit was quite small, I chose to make my own grating (closer) to scale: hours of work later I had my grating but also learned how difficult it is to scratch build grating at 1/8" scale.*

⚓ *The instructions called for thinning the bulwarks as close to 1/32" as practical: I thinned them to 1/16" and called it good. I think taking them down any more than that would have made them too fragile to work with on my first build.*

⚓ *After putting in so many hours of work to this point, I found the prospect of drilling holes for scuppers, hawse lines, masts, et cetera, somewhat intimidating: after procrastinating for a few days I took the plunge and drilled away... it wasn't as hard as I had feared, except for...*

⚓ *The first "disaster": while drilling one of the port scuppers I angled the pin vise improperly, gouging the deck two planks inboard of the waterway significantly. Using rubbing alcohol, I removed the entirety of both planks and replaced them with new ones.*

⚓ *I found the scratch building of much of the deck furniture to be a fun problem and was pleased with the resulting companionways, skylight, and wheelhouse.*

⚓ *While working on installing deck hardware the second "disaster" occurred: I applied too much force while using pliers to fit an eyebolt to the fore starboard bulwarks, caving in about an inch of it. Had to repair before moving on.*



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⚓ *Creating gudgeons and pintles for the rudder from copper tape and wire and attaching the assembly to the hull was a bit tricky.*

⚓ *I finally coppered the bottom of the keel and attached the build to the previously constructed waterway.*

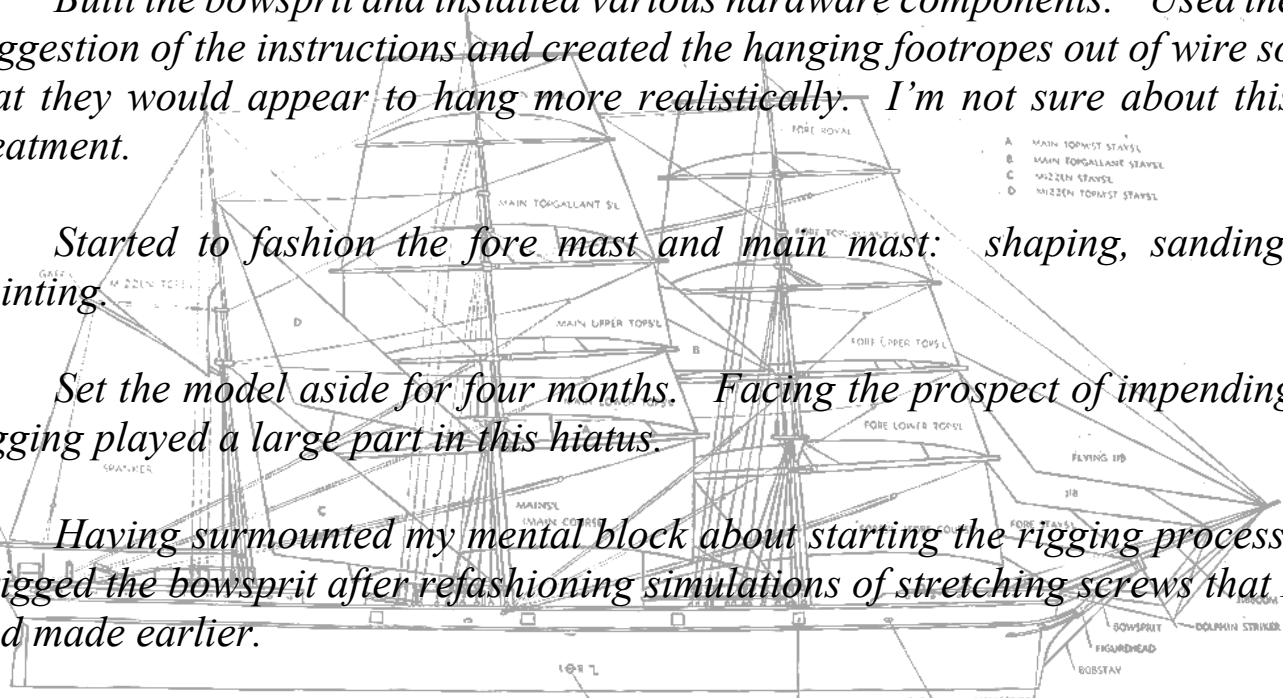
⚓ *Built the bowsprit and installed various hardware components. Used the suggestion of the instructions and created the hanging footropes out of wire so that they would appear to hang more realistically. I'm not sure about this treatment.*

⚓ *Started to fashion the fore mast and main mast: shaping, sanding, painting.*

⚓ *Set the model aside for four months. Facing the prospect of impending rigging played a large part in this hiatus.*

⚓ *Having surmounted my mental block about starting the rigging process, I rigged the bowsprit after refashioning simulations of stretching screws that I had made earlier.*

⚓ *Resumed work on finishing the fore- and main mast. Added various hardware including blocks. While reviewing my work **I realized that three of the blocks were "upside-down"** and had to remove and rerig them.*





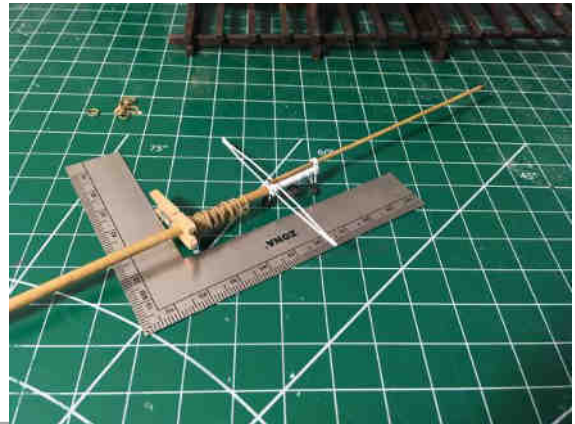
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⚓ *Test fitting the fore and main mast to the deck caused me to notice that something about the mast heights did not look right. Referring back to the plans I found that I had made the main topmast identical to the fore topmast, mistakenly assuming they were the same length. I had to remove the topmast from the fore mast and refashion a new one, stain and paint it, reaffix to the main mast and rerig the blocks.*



⚓ *I glued the fore and main mast to the deck assuring the rakes and alignments were satisfactory. To hold the fore mast at the proper rake angle I used two rubber bands, each looped round the mast and affixed over the port and starboard bulwarks to opposite corners of the ways. Inspecting the fore mast the next morning I found the mast cap (and thus the mast) out of alignment by a few degrees port. I assume this happened as I was making final adjustments and failed to check this alignment for true one final time. After soaking the foot of the fore mast several times in isopropyl alcohol I was unable to rotate or remove the mast. Since the model is to be displayed in a shadowbox I decided to pick my battles and skip this one.*

SAIL PLAN of the BARK *SEAR* of INDIA

⚓ *As I began to rig the forestay on the fore mast, I encountered my next problem: there was **no possibility of the rigging thread going through the eyebolt** affixed to the mast, the hole was much too small. I removed the eyebolts from the mast and stem, removed the paint on them, and “opened” them up by twisting the eyebolt about 45° and reglued them. After I threaded the line through the opening and seizing it I closed the eyebolt.*



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⚓ *While reviewing my seizings on the forestay and jib stay I found that they looked a little fuzzy. I realized that **I had used beeswax on the rigging lines but not on the fine thread** I used to do the seizings.*

⚓ *I finally jumped “all-in” on rigging: rigged the main and fore mast completely. I decided to leave making rope coils for each belaying points until the end when I can fashion them all at the same time. I am wondering if I’m going to have enough running rigging thread to complete all... that could be a problem downstream.*

⚓ *I made a decision to belay the main topsail halliard to the starboard cap rail instead of the main fife rail: the fife rail was already crowded with lines and the only open belaying point would have forced the halliard to cross over other lines.*

⚓ *I’ve chosen to omit all flags from the model, although I will do the running rigging for same. I don’t like how flags look on models... scale-wise the thickness and stiffness usually looks wrong to me.*

⚓ *Making rope coils took some practice to make them the right scale and look natural hanging from a belaying pin or laying coiled on the deck. I made a solution of white glue and water and “painted” the solution on the coils after they had been placed. For those hanging from a belaying pin or bollard I created “gravity” by putting a dowel in the lower loop of the coil so that it hung perpendicularly to the deck.*

⚓ *Using a couple images of a paintings of the Phantom as well as an image of the soundings around Sandy Hook, New Jersey, I made a 19”x19” Photoshop collage and layered text about the Phantom over that. I enquired*



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at Staples and they indicated that they can print a 19" square image on a variety of materials.

⚓ I talked with Frank Dengler at a meeting about how he 1) mounted his model ("John D Ford") and 2) applied his artwork in his shadowbox.

⚓ While reviewing the rigging I found that the boom's yoke was not seated on the main mast's boom rest: it was floating above it by about 1/2" due to the tension of the peak lines. **I had not glued the boom yoke to the boom rest previously**, and pushing the boom yoke to the rest only bent the main gaff: this meant I need to re-rig. I untied the cleat hitches for the peak lines on either side of the boom, and glued the boom yoke to the boom rest. Finally, I re-rigged the peak lines.

⚓ I next found that the triatic stay was no longer taut, but sagged in a sorry fashion. I was able to use the topping lift tackle line to tighten the topping lift which in turn set the triatic stay taut.

⚓ I spent some time touching up the *Phantom*: I very lightly sanded the hull above the coppering and applied a fresh coat of black paint. I cleaned up the scupper edges and went over the coppering by smoothing out any panels that had "snagged" during handling. I also went over all painted areas looking for spots that needed touching up.

⚓ I built the shadow box using birch (sides and top and bottom) and birch plywood (backboard.) After thorough sanding, the entire box was stained with Minwax "Golden Oak", the same as used on all the *Phantom*'s spars.

⚓ The first attempt to affix the artwork to the backboard failed: I used



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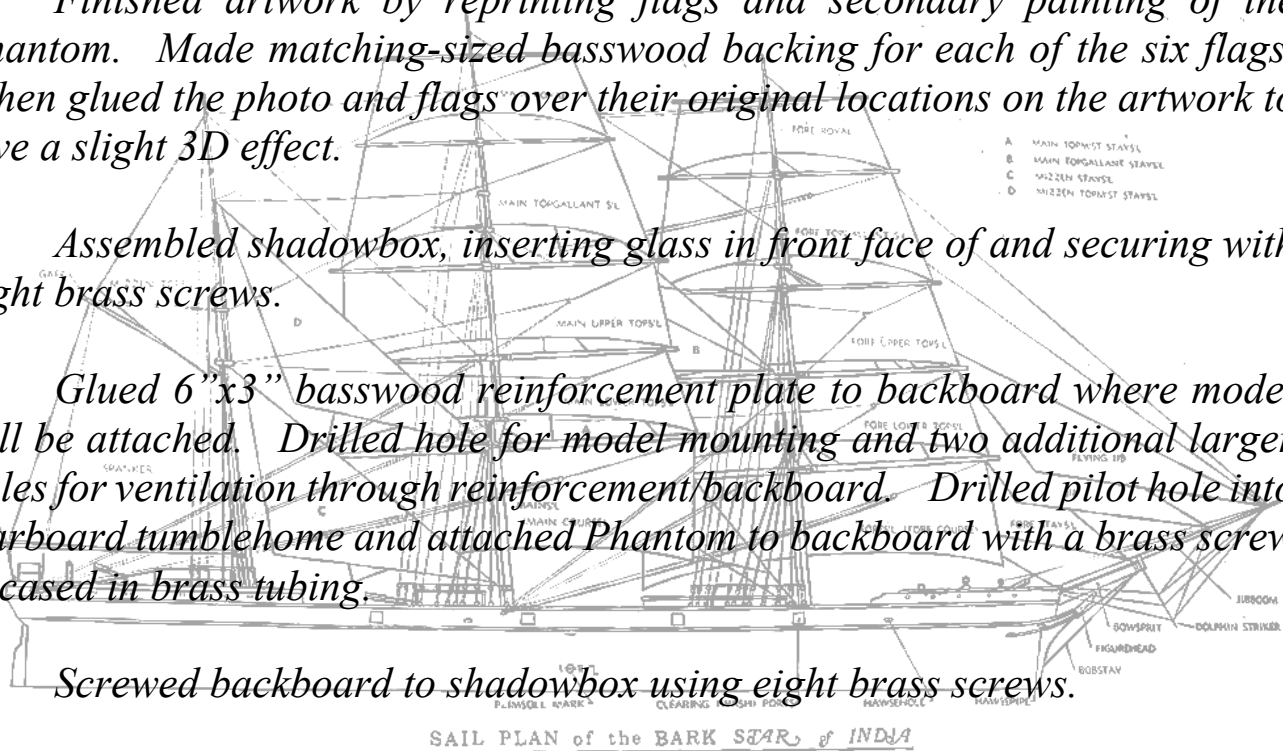
Krylon Matte "Easy Gloss" as a fixative, spraying both the backboard and back of artwork. The two materials failed to adhere as the Krylon dried, but fortunately damaged neither. I then used Titebond III spread extremely thin (using a metal kitchen spatula) to the backboard and laid the artwork on that, smoothing out with cotton-gloved hands.

⚓ *Finished artwork by reprinting flags and secondary painting of the Phantom. Made matching-sized basswood backing for each of the six flags. I then glued the photo and flags over their original locations on the artwork to give a slight 3D effect.*

⚓ *Assembled shadowbox, inserting glass in front face of and securing with eight brass screws.*

⚓ *Glued 6"x3" basswood reinforcement plate to backboard where model will be attached. Drilled hole for model mounting and two additional larger holes for ventilation through reinforcement/backboard. Drilled pilot hole into starboard tumblehome and attached Phantom to backboard with a brass screw encased in brass tubing.*

⚓ *Screwed backboard to shadowbox using eight brass screws.*





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
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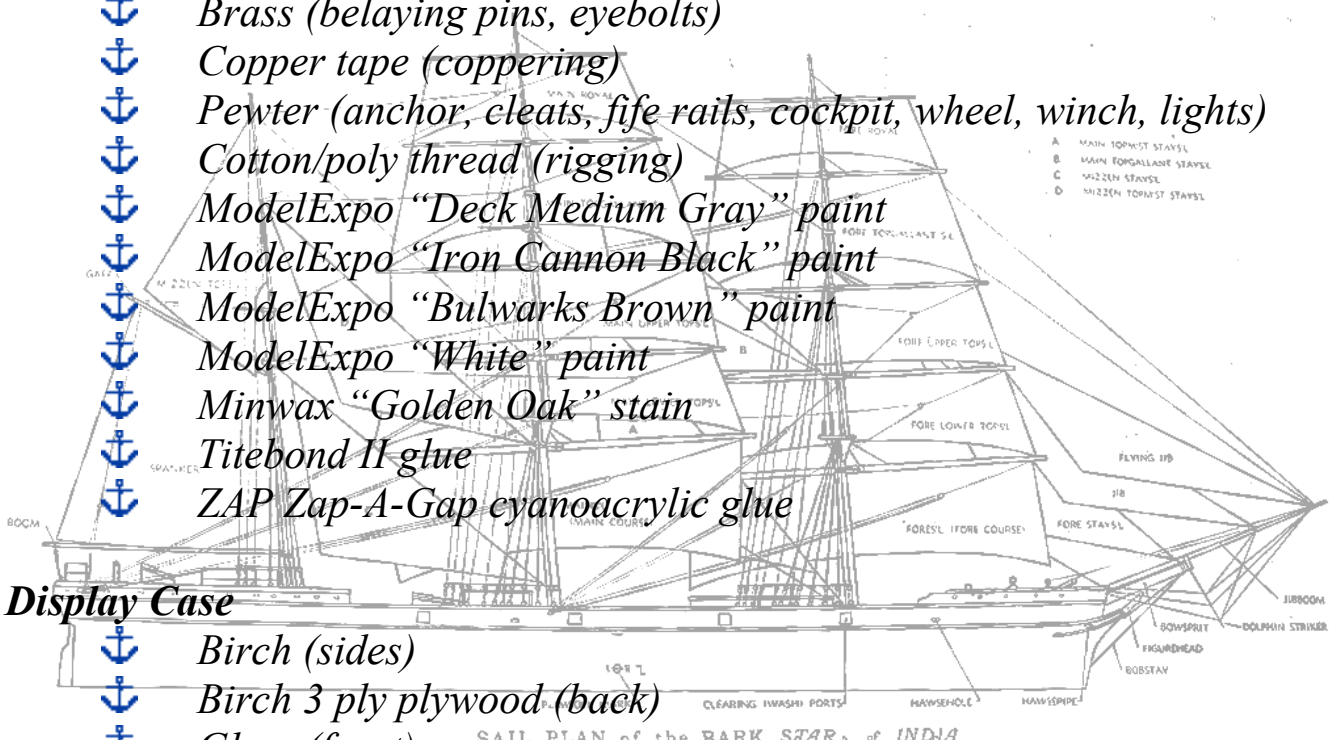
Materials Used

Model

-  Basswood (hull, stem, keel, rudder, deck furniture)
-  Beech (spars)
-  Walnut (blocks, deadeyes)
-  Brass (belaying pins, eyebolts)
-  Copper tape (coppering)
-  Pewter (anchor, cleats, fife rails, cockpit, wheel, winch, lights)
-  Cotton/poly thread (rigging)
-  ModelExpo "Deck Medium Gray" paint
-  ModelExpo "Iron Cannon Black" paint
-  ModelExpo "Bulwarks Brown" paint
-  ModelExpo "White" paint
-  Minwax "Golden Oak" stain
-  Titebond II glue
-  ZAP Zap-A-Gap cyanoacrylic glue

Display Case

-  Birch (sides)
-  Birch 3 ply plywood (back)
-  Glass (front)
-  Brass (screws)
-  Minwax "Golden Oak" stain
-  Titebond III glue





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Lessons Learned

⚓ *Have artistic license, but temper it with some research first (learned from rushing to add simulated nail holes to copper plating.)*

⚓ *Apply force sparingly while using tools (learned from destroying the forward port bulwarks when affixing a stubborn eyebolt.)*

⚓ *Beware mental blocks, it's probably not as hard as it seems (learned from waiting for four months to attempt rigging.)*

⚓ *Thin paint before applying (learned from painting the detail areas of the chain plates affixed to the hull.)*

⚓ *Blocks have an "up" orientation; understand and rig accordingly (learned from rigging the fore mast blocks improperly.)*

⚓ *Don't assume anything when interpreting instructions (learned from making the main topmast the same length as the fore topmast having read the instruction "the main mast is made exactly the same way as the fore mast".)*

⚓ *When adjusting final placement of a part be sure to check all orientations (port, starboard, fore, aft, aloft, and alow) for true before letting the glue set (learned from gluing and adjusting the fore mast improperly.)*

⚓ *Use beeswax even on the fine sewing thread used for seizing in order to avoid a fuzzy appearance (learned from failing to do so on several bowsprit related seizings.)*



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Regrets and Delights

⚓ *Regret: I wish that I had not dimpled each of the copper bottom pieces trying to simulate nailheads.*

⚓ *Delight: I'm very pleased that I split the supplied scribed decking into individual planking and laid the fore and aft decks according to their actual patterns; also, that the fore deck nibbing came out so well.*

⚓ *Regret: I wish I had used regular standing rigging thread for the foot ropes on the bowsprit instead of the wire solution suggested in the instructions.*

⚓ *Delight: I'm very happy with the cockpit by lowering the cockpit deck to its' proper depth (ignoring the suggestion to omit this detail in the instructions.)*

⚓ *Delight: I like the way the grating in the cockpit came out although it took a lot of work to make it at the proper scale.*

⚓ *Regret: I wish I had not used CA (cyanoacrylic) glue. The more I read and hear about it the more concerned I become about its' long-term effect on the build.*

