

While one man cranks the spinner, the one holding the "top" walks backwards as the rope is twisted. From Edwin Tunis, *The Young United States, 1783 to 1830* (New York: World Publishing Co., 1969), 82. Used by permission of the estate of Edwin Tunis

## <u>Ropewalk</u>

The Newsletter for <u>Shipwrights of Central Ohio</u> May 2019 Next Meeting: June 15, 2019 "Furniture & Fixtures" – Lee Kimmins

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## **May Meeting**

We had a small turnout but May is always a tough month with graduations and Muirfield demanding time. With our photo source out, your over extended president forgot his camera and had to rely on the use of his phone camera. Photos taken are in the "Ships on Deck" section.

## Correction

Alan caught, what appeared to be an error in the text on the wooden steamer *Monroe*, page 8 of the April 2019 Ropewalk. He sent me a note stating "that the ship was lost on Lake Erie near Cattaraugus, NY". Having grown up in that area of Western NY, I can tell you that not only is Cattaraugus not on Lake Erie but in fact it is a small village many miles inland to the east without even a small river near it."

As stated, Alan is correct. Cattaraugus is a small town, founded when the railroad came through in 1850. It is also located in the county of Cattaraugus in the southwest corner of New York State which does not touch Lake Erie. I went back to my original research and reviewed my sources, one of which came from the Maritime History of the Great Lakes, Kingston, Ont. web site. The information came from their scanned newspaper file and was from either the Buffalo Commercial Advertiser or the Dunkirk Beacon.

In my research I had found that the newspaper editors would crop the writer's text to fit a story into the space available. They would also repeat stories found in other newspapers without giving credit to their source. That said, though I cannot prove it, I would think that the item should have read "The bark *Monroe* was lost near Cattaraugus Creek, NY, Lake Erie. (1845)". I chose the Dunkirk Beacon since Dunkirk, NY is just south of where the creek enters Lake Erie and they were probable involved in any rescue effort.

I did additional research, and rediscovered a truism found when doing research: "Never assume anything is correct until you have additional source documentation to verify what you have found." The *Monroe* and Cattaraugus are an example. The vessel did exist, was converted to a schooner, and was lost. Where is the question.

I still have all my original research documents in an electronic file on each ship and had copied the newspaper articles found into that file, identifying who the publisher was. Reviewing the file, I did not find an article identifying how the vessel ended her days. My other sources consisted of previous research into ships on the Great Lakes that had been compiled and digitized and were maintained on the Internet by colleges/museums/libraries. Two of them are: "The Historical Collection at Bowling Green State University" and "The Special Collection of the Alpena County Library". BGSU lists the *Monroe* but provides no final disposition. Alpena also lists the vessel and provides a final disposition. As stated in the record: "1845 Lost Cattaraugus, NY". The source of my error was the research work of C. Patrick Labadie. His research includes some 14,000, 19th Century ships that sailed the Great Lakes. The database was originally housed at the Thunder Bay National Marine Sanctuary before being transferred to Alpena. Sadly, he does not provide source information for his research that covered over 40 years of work.

Now you know the whole story, and I am still sure, but cannot prove it, that the source is a story in the "Dunkirk Beacon" in 1845. Since there was no town called "Cattaraugus" in 1845, the assumption would be that the local reader would know they were writing about the creek. Labadie added the information to his research without checking that there was a conflict in the late 1900's.

## **Business**

## **Ohio State Fair**

#### 4th Annual Model Shipbuilding Competition



Registration for the 4<sup>th</sup> annual ship modeling competition is open at: <u>https://ohiostatefair.com/arts-craft-fashion/</u>

You will be at the Arts, Crafts and Fashion page. Scroll down until you see a green rectangle with "**Enter online by June 20, 2019**", click on this. The next screen with be the entry form. Click on 1 – Register. Complete the entry form, pay your processing fee and print off your completed entry form for your records.

Both wood and plastic models may enter. We, "Shipbuilding", are division 4216. The class of models are 1, Wood; 2, Plastic; 3, Wooden Sailboat Kit Workshop (Youth ship modeling).

For this year's competition, all entries are to be delivered to the Creative Arts Building (Kasich Hall) north of  $17^{th}$  Avenue on the Fairgrounds, Thursday, July  $12^{th}$  from 4 - 8 PM or Friday, July  $13^{th}$ .from 11 am to 7 pm. Judging of entries will be held on Monday, July 15th. All models entered in the competition will be on display

May 23, 2019

during the Fair. The Fair ends August 4<sup>th</sup> and model will be picked up August 5<sup>th</sup>.



Let's get those models entered. Requirements to enter: 1-Model must have been finished in the last 7 years; 2-Model must be to scale throughout; 3-You must be a resident of the State of Ohio.

#### Youth Model Building Workshop

Well we are ready. We have the kits and a 2lane, inflatable race track. All we need now is to have kids register.

We are scheduled to run a workshop for 8-10year old on Friday, August 2<sup>nd</sup> from noon to 2 PM. This will include building a sailboat and participation in a sailing competition. We will not know the number of 8-10-year old's that may participate in the workshop until June 20<sup>th</sup>. The Bermuda 8" sailboat is being sourced



from Seaworthy Small Inc.

#### Featured Artist

We are scheduled for the two Fridays, July 26<sup>th</sup> & August 2<sup>nd</sup> as part of the "Featured Artist Program". We will run two shifts, from 9-1 & 1-5 each day. We will require 2 members of the club each shift, working on some aspect of ship modeling. Each participant will also be answering question from the visitors to the Kasich, Arts and Crafts Building. We will also need some models on display. Check your calendars for when you can work at the fair.

Open positions still available: July 26<sup>th</sup>, 1-5 PM (one position); August 2<sup>nd</sup>, table monitors - two afternoon slots. Youth Workshop: one slots, 11-2. Free ticket and parking for the fair.

## Presentation Planking a Deck

We continued our 2019-year presentation schedule focused on providing instructions for someone new to ship modeling. Bob Mains took us through the interesting subject of "Spiling", as part of planking a hull. This month's subject is planking a deck which is based upon similar requirements as planking a hull. The deck beams have to be faired so that there is a solid foundation and there are a few "rules" that need to be followed so that the deck is solid.

"Camber" the athwart ship deck curvature when building solid, POB or POF. If building POB, the kit manufacturer should have cut the "camber" required for the deck in the bulkheads, in a solid hull and POF you may have to form the "camber: "Camber" follows the general boatbuilding practice: The radius of curved deck beams will be constant, so that the "height of the curve" will get lower as the deck narrows". The curve or camber of the deck beams are drawn with a constant radius or the curvature is consistent across the deck from any point on the centerline of the hulls deck.

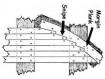
You fair your deck, from bow to stern as well as port to starboard. I use battens, straight strips of wood, laid fore & aft on the deck to check that each deck beam is true and will support a deck planks joint or butt. In the book "Elements of Wood Ship Construction" – "camber" is one-quarter of one-inch for each foot of length of the beam or .00586/.25" at 1⁄4" scale or "a forty-foot beam would have a required camber of 8 inches.

Appearance of the deck is another subject to consider. I have seen decks that show clearly the ends of the trunnels and the caulking between the planking as a dark line. Consider the following: a half-inch trunnel at  $\frac{1}{4}$ " scale is .010" =  $\frac{1}{128}$  or a #81 drill size. If you are 6-foot tall, standing on a ships deck, both the same scale, you may be able to detect both the trunnel ends and the caulking between deck planks, BUT, If you are 6 foot tall, standing over a ship model built at  $\frac{1}{4}$ " = 1' How tall are you compared to the ship model and how much detail on deck can you make out?

Depending upon the period of your ship model, the width of deck planks varies. The maximum plank width in the  $16^{th}$  C was  $18^{"}$ .  $17^{th}$  C.- $15^{"}$ ,  $18^{th}$  C -  $14^{"}$ , and

 $19^{th}$  C - 8". Plank lengths were 18 to 20' or at  $1\!\!\!/ 4$  " scale: 4.5 to 5" long.

Plankshear or margin planks are the continuous planking that covers the timber-heads of a wooden ship, also known as waterways. The margin plank is installed first on the outer edge of the deck and fitted around the stanchions and is normally wider that the average plank width.



With the Plankshear installed, the next step is finding the location of the "first" plank or "King Plank". The king plank runs down the center of the ships deck. Measure carefully from port to starboard on a deck beam at three of four locations on the deck, then draw a center line from bow to stern. At widest deck beam, divide the distance by width of planks to come up with an even number, adjust width of the plank to get an even number of planks. If required; Standardize the width of the deck planks until only three or four are left then adjust the width of the last planks to an average width.

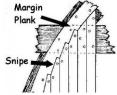
My procedure: I use a wider (2x deck plank width) board the length of the hull. Fit and clamp it in place. Install (glue) a few deck planks on the port side, covering all deck openings. When dry, glue the "King Plank" in place. Install the same number of deck planks on the starboard side, covering all deck openings When your base is firm (glue dried) cut out the deck openings.



The king plank is the lighter colored plank in the center of the deck. At the top you can see the plankshear installed on the starboard side against the stanchions.

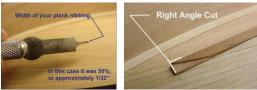
The rules for deck planking are: Planks are all the same width and, if possible, the same length. All planks run in a straight line fore and aft. All plank butts centered on a deck beam. Butts: run parallel across the deck & perpendicular to deck plank edge. Four planks between any two butts athwart ships (4 step butt deck). When a straight running deck plank butts against a margin plank at a curve, it must be joggled into the margin plank. Square end of joggled plank must be half the width of the plank. The snipe must be joggled when the "snipe" is more than twice the width of the plank.

Joggling deck planks to the plankshear.

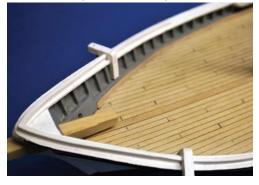


The "snipe" is not less than twice the planks width. The "nib" (square end of the plank) is half the plank's width.

We ended the presentation reviewing the tools used to cut the nib: An X-Acto knife blade ground down so the cutting edge is 1/2 the width of a plank and a jig used to mark the angle of the plank where it joins the plankshear.



We then covered the steps to cut the nib & snipe to join snugly, the end of a plank into the plankshear.



Ships on Deck: Bonhomme Richard Jerry Amato Adding interior lighting.





*Mayflower* Stan Ross It is complete.



## Models





Lobster Smack & Skipjack



Smuggler

## Pinnace

Dr. Mike Dowler



Victorine Bill Nyberg.



Silkspan sails installed. Need to carve some figures then into its case.

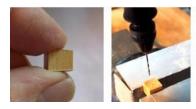
## **Odds and Ends**

## **Building Tip**

## Centering a Hole in the tip of a mast

The following is from the May 2019 issue of "The Scuttlebutt"

If you find that drilling a concentric hole in the tip of a dowel difficult, then try this jig. Our example is a 1mm hole in a 3mm diameter dowel, but the technique can be used for any sized dowel and hole. Start with a small wooden block (10mm x 10mm x 6mm in this example), making sure top and bottom are parallel and end-grained.



Put it in a vise and drill right through with a 1mm bit. Be careful to make the hole perpendicular to the table surface. Use a drill press if possible. Now put a 3mm bit in the drill and using the existing hole as a pilot drill about half way through (3mm). The larger bit will follow the smaller hole concentrically so long as you don't drill too far. You will now have a block with a small hole right through it with a larger concentric hole half way through. As long as the two holes are concentric, it does not matter if the holes are centered.



Place the 3mm dowel in a vise. Put the jig's larger hole down on the end of the dowel. It should be a good push fit and not sloppy. Now with the smaller (1mm) bit in a drill push the bit through the jig and drill in to the end of the dowel. When drilling the first hole through a wooden jig it is better to select a smaller bit than the target (in this case a 0.8mm bit). Then when the 1 mm bit is pushed through it will be held firmly and not wobble about.



Therefore, having used a wooden jig once it is best to throw it away.

## Kits & "Stuff"

Rob Giddens, from the Toledo area wrote: "I would like to donate a 32" long wooden sailing ship hull, including some rigging to your organization with the hope that a seasoned model builder could finish it. This model was probably started in the early to mid-thirties by my dad's best friend. Probably not completed because of WW II. It was given to me in the early sixties. Other than a feeble attempt by myself nothing has been done with it for 55+ years. It could have been put in the trash a number of times over the years but I kept it for posterity sake! Would very much like to see it finished finally! Contact: Rob Giddens at cell 419-276-4535 or home 419-893-1627. I can deliver it to Columbus, since I am in the area from time to time. Thank you!"



Anyone interested?

## More Kits & "Stuff"

The daughter of David Querin, a past associate member from Canfield, OH, who passed away in February of this year, sent me a list of his ship modeling kits and materials. He was a R/C builder and participated in a number of sailing events. She is trying to sell or give away much of his collection.

She has a collection of Nautical Research Journals that go back to 1980, also Ships in Scale, Model Shipwright (UK), Model Yachting, Marine Modeling International (UK) and Wooden Boat Magazines/periodicals that are free to fellow hobbyists. There are several kits for sale:

- Lighting sail boat from Dumas
- Sultana Model Shipways
- Lively Baltimore schooner Lumberyard
- Thunderbolt 1939 speed boat- R/C
- 1/12 scale of a working wood lathe kit from PM Research Model Engines

Tools: Unimat Mini lathe with accessories – make an offer.

Plans that are free to hobbyists. If interested, I can provide a list.

Engine casting kits for sale:

- Stuart Twin Engine
- Stuart No. 10V Engine
- Hubbard Marine Engine
- Whippet Engine

Plus, various airplane engines & R/C engines

I have the inventory and have included the inventory with prices with this newsletter.

## Nautical Terms

<u>Jack:</u> 1. A sailor. Also *jack tar* or just *tar*. 2. Informally, any flag flown by a ship.

<u>Jackass-barque</u>: Sometimes spelled jackass bark, is a sailing ship with three (or more) masts, of which the foremast is square-rigged and the main is partially square-rigged topsail, topgallant, etc.) and partially fore-and-aft rigged (course). The mizzen mast is fore-and-aft rigged.

<u>Jack Tar</u>: A sailor dressed in 'square rig' with square collar. Formerly with a tarred pigtail.

<u>Jacklines or jack stays</u>: Lines, often steel wire with a plastic jacket, from the bow to the stern on both port and starboard. A crewmember clips his safety harness to a jackline, allowing him to walk along the deck while still being safely attached to the vessel.

<u>Jackstaff</u>: A small vertical pole on the bow of a vessel on which it flies its flag, or *jack* (q.v.). The jackstaff was introduced in the 18th century.

<u>Jackstay</u>: Iron rod bolted clear of the mainmast, to which the luff of the mainsail is laced. On a yacht, a jackstay is a deck lifeline of rope or (preferably) flat tape, running from bow to stern. Crew will clip on to the jackstay for security.

<u>Jacob's ladder</u> (or Jacobs ladder): 1. A flexible hanging ladder consisting of vertical ropes or chains supporting horizontal rungs, used to allow access over the side of a ship, either to transfer between the ship and another vessel alongside or to perform maintenance tasks along the side of the ship. 2. A vertical ladder from the ratlines found on square-rigged ships, used to get around the top while climbing between the lower mast and the topmast.

Jetsam: Floating debris ejected from a ship.

<u>Jib</u>: A triangular staysail at the front of a yacht. The foot will be attached to the bow or to a bowsprit. A large jib that overlaps the mainmast is called a "genoa" (or "jenny").<sup>[1]</sup>

Jibboom: A spar used to extend the bowsprit.

<u>Jigger-mast</u>: The fourth mast, although ships with four or more masts were uncommon, or the aft most mast where it is smallest on vessels of less than four masts. <u>Jolly boat</u>: On a barge, the ship's boat used to ferry crew and stores when the barge is moored off.

<u>Joggle</u>: a slender triangular recess cut into the faying surface of a frame or steamed timber to fit over the land

of clinker planking, or cut into the faying edge of a plank or rebate to avoid feather ends on a strake of planking. The feather end is cut off to produce a nib. The joggle and nib in this case is made wide enough to allow a caulking iron to enter the seam.

<u>Jury rig</u>: Both the act of rigging a temporary mast and sails and the name of the resulting rig. A jury rig would be built at sea when the original rig was damaged, then it would be used to sail to a harbor or other safe place for permanent repairs.

Glossary of Nautical Terms Wikipedia;

## Nautical Research Guild

It is official, the 2019 NRG Conference will be October 24-26, at the Whaling Museum in New Bedford, MA. Check Model Ship World for additional information.

## Other Notes: "Stuff", Tugs & Things

## Crusader



The *Crusader* of Wilmington, Delaware, maneuvering in Maine's Penobscot River in 1972 after towing a fuel barge to South Brewer, Maine. This is a good view of a modern costal tug, because it shows all the important elements that make up a costal tugboat – strongback, aft steering station, towing winch, twin stacks for twin engines and screws, and superb visibility for the master in the wheelhouse. The upper works of the tug are stepped back so that when the pilot looks aft to check on the towing gear, he/she gets a clear, unobstructed view.

She was built in 1967 at Houma, LA for Interstate Ocean Transportation, Wilmington, DE. She was 99' x 30.2" x 10.9' and powered by a 1000horsepower engine.

#### Presque Isle



Although this looks like a floating battering ram with a hotel on top, it is a tug unit for a giant ore-carrying barge used on the Great Lakes.

The Presque Isle (2 units, US.553416 & US.553417), Twin Screw Self-Unloading Tug/Barge Lake Bulk Carrier built in concert by three shipyards for the Crocker National Bank, Trustee, of Los Angeles, CA., managed by Erie Marine, Inc., of Litton Great Lakes Corp., Erie, PA.

The push tug a) Presque Isle, US.553416, was launched December 12, 1972 as Hull #322 by the Halter Marine Services, Inc., New Orleans, LA. 144'4"x 54'x 31'4"; 1578 GRT, 1073 NRT. The tug completed her sea trials on October 22, 1973 and then departed New Orleans on October 29th.

The barge, also named a) Presque Isle, US.553417, was built in two sections by different shipyards. The bow section, 68' x 104'7" x 46'6"; 185 GRT, was launched July 27,1972 by Defoe Shipbuilding at Bay City, MI as Hull #447 which was towed to Erie, PA by the tugs *Maryland* and *Laurence C. Turner* arriving October 6, 1972. There it was combined with the cargo section of the barge which had a notched stern.

The cargo mid-body was built by Erie Marine, Inc. as Hull #102. 974'6" x 104'7"x 46'6"; 22,621 GRT, 22,259 NRT. The combined tug/barge dimensions are 1,000'loa, 988'6"lbp x 104'7"x 46'6"; 24,199 GRT, 23,332 NRT, 57,500 dwt.

The tug is powered by two four stroke cycle, single acting V-16-cylinder diesel engines, 381mm (15") bore x 457mm (18") stroke, built in 1972 by Mirrlees Blackstone Ltd., Stamford, CT driving through a Lufkin single reduction gear box to two controllable pitch propellers. The total power output is 14,840 bhp. and the rated service speed is 14 knots (16.1 mph). The tug was upbound in the Welland Canal on November 16, 1973 enroute to Erie to join with the barge.

The tug/barge departed light from Erie December 16,1973 on its maiden voyage bound for Two Harbors, MN. (This was the latest maiden voyage date at that time.) There the Presque Isle loaded 51,038 long tons of taconite pellets for delivery to Gary, IN. After this ice-covered trip, the vessel returned to Erie for winter lay-up.

Her photo above, is from her maiden voyage entering Lake Erie to join her barge. Visible on her bow are the hydraulic connecting ram and the locking points on the side of her hull. The steering staff juts out from the bridge walk in true Great Lakes fashion.



This photo is of both the tug and barges. She left Indiana harbor, IN May 8, 2019 bound up for Duluth, MN. (Original Source: "On the Hawser" by Steven Lang and Peter H. Spectre, 1980)

#### Wooden Steamers

## <u>1835</u>

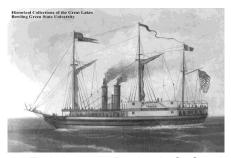
**Chicago:** John Griffith & Co., St. Joseph, MI, in 1835, built for John Wright, et al., Erie, PA a wooden sidewheel steamer with measures of 105' x 22' x 9.6' and at 186 tons (Old Style). She had a high-pressure engine which had originally been installed in the *Enterprise* (1826) or the *William Peacock* (1829). She was built for the passenger, package freight trade and ran between St. Joseph, MI and Chicago, IL. Her initial enrollment was issued in the Detroit District.

The steamer *Chicago* was listed as wrecked near St. Joseph, MI in1836. Her engine and boiler were bought by Benjamin H. Wheelock for use to power the first sawmill on Muskegon Lake in 1837. The hull was abandoned at St. Joseph, MI.

Enrollment of the *Chicago* was transferred to the Presque Isle District at Erie, PA, April 25, 1840 and showed John Wright, et al. as owners. Her master was Captain Edmunds (1842). In August of that year the steamers *Chicago* and *Commerce* (US-1837) collided on Lake Erie. Both vessels were damaged. On November 8, 1842, the steamer *Chicago* was struck by a gale between Ashtabula and Conneaut, OH, Lake Erie. In that storm she lost her stacks and became unmanageable when her fires were put out. Unable to steer, she was driven ashore 3 miles East of Silver Lake, NY. The loss to hull damage was \$5,000 and to cargo \$5,000. No lives lost of the 60 passengers and crew.

In 1844, ownership of the sidewheel steamer *Chicago* was changed to Gilman Appleby et al., Buffalo, NY. Her master was Captain G. Appleby (1844). She was recovered, rebuilt and re-enrolled at Buffalo Creek May 23, 2019 District, Buffalo, NY May 7, 1844. On June 02, 1844 the *Chicago* collided with and sank the schooner *E. Jenny* (US-1836) near Cleveland, OH.

The sidewheel steamer *Chicago* was abandoned in 1846 and enrollment surrendered.



**Columbus;** Early in 1835, Benjamin S. Goodsell, Huron OH built a wooden sidewheel steamer with measures 131' x 28' x 11.58' and tonnage of 391.58. Her original owners were Augustus Walker; A. Brown; D. Flagg; Moorhead; Kilgore; Jos. Burke; James; Huntington; S. Ruggles; Orin Ruggles; B.B. Jones as listed in the first enrollment issued at Cleveland, OH. July 26, 1835. She was equipped with a horizontal crosshead engine rated at 150 horsepower and built by Olds & Co., Sandusky, OH. She was built for the passenger, package freight trade between Buffalo, NY and Sandusky, OH. Her master was Captain Augustus Walker (1835 - 38).

In November 1835, the Columbus, experiencing high winds was driven onto the beach near the lighthouse at Erie, PA, Lake Erie. Prior to being driven ashore the crew threw over her deck load consisting of one hundred thirty barrels of oysters. She was released.

Up bound October 24, 1836, the steamer *Columbus* collided with the steamboat *Daniel Webster* off Fairport, OH, Lake Erie. The *Webster* lost her bowsprit and the *Columbus* had part of her ladies' cabin carried away. No injuries reported and the damage was repaired.

It was announced in March 1838, that Western Transportation Co., a consortium of Lake Erie steamboat owners and the proprietors of the "Commercial Line, Transportation Line and Telegraphic Line of canal boats on the Erie Canal, will be conducting a general "Forwarding and Commission Business, on the Erie and Ohio canals and on the Western lakes carrying freight and passengers. The sidewheel steamer *Columbus* joined this effort. Besides the *Columbus* the steamboats of the Western Transportation Co. were the *Wisconsin,*  Constitution, Anthony Wayne, Commodore O.H. Perry, Vermillion, Rhode Island and on the Upper Lakes the James Madison and Thomas Jefferson.

For the 1839 season, the master of the sidewheel steamer *Columbus* was Captain W. Dobbins.

Late in the 1840 season, the steamer *Columbus* sank off Huron, OH, Lake Erie, during a gale. No lives were lost and she was bailed out, righted and repaired.

Master of the sidewheel steamer *Columbus* for the 1843 season was Captain Henry Whitaker. In August of that year, the steamer *Columbus* collided with the steamer *Great Western*, off Conneaut, OH, Lake Erie. She had her cut-water and bowsprit carried away and was damaged on her forward parts. Repaired.

At start of 1846 season, the steamer *Columbus* was placed on the Buffalo, NY to Green Bay, WI run.

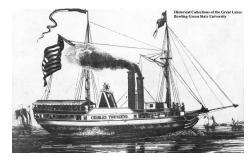
Her masters were Captain Edward Burns (1847), and Captain McQueen. (1848) During a storm on March 28, 1848, the steamer *Columbus* attempting to enter the port of Dunkirk, NY, Lake Erie, ran unto the submerged pier or break water close to the channel, stove a hole in her hull and sank in 8 to 10 feet of water. The vessel was pounded to pieces by waves. No lives lost.

**Robert Fulton:** Seth W. Johnson, Cleveland, OH, launched on August 7, 1835 the wooden sidewheel steamer *Robert Fulton.* Owned by Giddings & Co., Cleveland, OH, she had measures of: 139.67' x 25.50' x 10,67' and tonnage (Old Style): 368 43/95. Her engine was high pressure, 90 horsepower, built by Slackhouse, Pittsburg, PA. She was built for the package freight trade and ran between Cleveland, OH and Buffalo, NY connecting the Troy & Erie line of boats on the Erie Canal with the Ohio & Erie line of canal boats.

Her master for the 1835-38 season was Captain R. Hart.

Ownership was changed on October 6, 1838 to John Pease & Co., Buffalo, NY and on August 10, 1844 to Forsyth, Clark & Atwood.

October 23, 1844, the sidewheel steamer *Robert Fulton* went on the rocks and was pounded to pieces during a gale on Lake Erie, at Sturgeon Point, NY, about 14 miles east of Dunkirk, NY. The steamer was a total loss. Three lives were lost.



*Charles Townsend:* Carrick & Bidwell, Buffalo, NY built a wooden sidewheel steamer for Charles Townsend, Buffalo, NY, George Coit, Sheldon Thompson, and John L. Kimberly. She was first enrolled at Buffalo, NY, May 02, 1835 with the measures: 136' x 24' 6" x 10' and tonnage (Old Style): 312 58/95. Her engine was a Crosshead with 40" bore x 48" stroke, 60 horsepower, built by Robert McQueen, New York City, NY in 1818 and originally installed in *Walk-In-The-Water* and then in *Superior*. She was built for the passenger, package freight trade and ran mainly on Lake Erie, between Buffalo, NY and Detroit, MI from 1835 to 1840. Her master was Captain Simeon Fox, 1835 – 38.

In November 1835, she went aground on Lake Erie during a gale. Released.

Ownership of shares in the steamer *Charles Townsend* was transferred to John S. Kimberly, Sheldon Thompson, C. Townsend, George Coit, Simeon Fox and William T. Pease all from Buffalo, NY; J.R. Dorr, D.G. Jones from Detroit, MI; N.M. Standard, David Griffith, Sheldon Pease, Cleveland, OH, May 6, 1836.

In May 1837. ownership of shares in the steamer *Charles Townsend* was transferred to John S. Kimberly, Sheldon Thompson, C. Townsend, George Coit, John Pease, and Simeon Fox all from Buffalo, NY; William T. Pease, Mr. Chester and Tarleton Jones from Detroit, MI; William M. Standard, David Griffith, Sheldon Pease, Cleveland, OH.

On April 23, 1838, ownership of shares in the steamer *Charles Townsend* was transferred to John S. Kimberly, Sheldon Thompson, C. Townsend, George Coit, John Pease, and Simeon Fox all from Buffalo, NY; William T. Pease, John Chester and Tarleton Jones from Detroit, MI; William M. Standard, David Griffith, Cleveland, OH; David W. Douglass, John Z. Saxon, Thomas G. Avery, R. Robins of Fredonia, NY.

October 8, 1838. Share ownership of the *Charles Townsend* was transferred to John S. Kimberly, Sheldon Thompson, C. Townsend, George Coit, John Pease, and Simeon Fox all from Buffalo, NY; William T. Pease, John Chester and Tarleton Jones from Detroit, MI; Needham M. Standard, David Griffith, Cleveland, OH; David W. Douglass, John Z. Saxon, Thomas G. Abell, R. Robins of Fredonia, NY.

Master of the steamer *Charles Townsend* was Captain Shainhold for the 1839 season.

For the 1840 season, the *Charles Townsend* was laid up at Tonawanda, NY (1840)

After 1841, the steamer *Charles Townsend* was likely used as a towboat on the Niagara River.

In 1849, the *Charles Townsend* was inspected and found badly deteriorated, condemned and scraped.



United States: George W. Church, Huron, OH built for Needham Standard of Cleveland, OH & Standart & Hamilton & Co., B. W. Abbott, E. Andrews, P. Sutinger, T. W. Vanderburgh, M. Kimbal, T. B. Sturgess, S. Ruggles, H. Bradley, D. T. Hamilton, Griffith, Pease & Co., J. A. Baldwin, B. S. Webb, Warden & Benny, W. Stewart, O. Newberry, J. R. Dorr, A. E. Hart and Coit the wooden sidewheel steamer United States with measures: 140' x 28' 4" x 10' with tonnage (Old Style) of 366 80/95. Her engine was a Vertical Beam, high pressure, 28" bore x 84" stroke, 160 horsepower, built by Warden and Berney, Pittsburg, PA in 1834. First enrollment was issued at Sandusky, OH, August 20, 1835. She was built for the package freight trade with some passenger accommodations and ran the Lake Erie route from Buffalo, NY to Erie, PA, Cleveland, OH and Detroit, MI. Her first master was Captain John Shook (1835 - 38).

Ownership of the steamer *United States* was transferred April 23, 1838 to Needham Standard managing owner of Cleveland, OH, B. W. Abbott, E. Andrews, Griffith, Pease & Co., N. & R. Hart and Coit, Kimberly & Co., W. W. Winnous, Chester & Co., A. E. Hart, P. Litimore.

In October of that same year ownership of the United States was transferred, through shares purchased, to Needham Standard managing owner of Cleveland, OH, B. W. Abbott, E. Andrews, D. Griffith, Pease & Co., N. & R. Hart, Coit, Kimberly & Co., W. W. Winnous, Chester & Co., A. E. Hart, and P. Litimore.

Captain James M. Lundy became her master during the 1838 season.

For the start of the 1843 season, the master of the steamer *United States* was Captain George W. Jones.

On October 3, 1843 her ownership was transferred through share change to William F. Allen managing owner of Cleveland, OH, Sheldon Thompson, John Pease, W. W. Winnous, Charles Townsend, M. Kingman & Co., George Coit, John L. Kimberly, Asa Hart, N. M. Standart, and David Griffith. (10/03/1843)

Ownership was changed by share transfer, October 03, 1843, to William F. Allen managing owner, Cleveland, OH; Sheldon Pease, John Pease, D. Howe, Charles Townsend, Sheldon Thompson, George Coit, John L. Kimberly, John Pease of Buffalo, NY and C. Baldwin special commissioners of the Commercial Bank of Lake Erie.

Late in 1843 through 1845, her master was Captain Harry Whittaker.

March 7, 1844, ownership of the *United States* was changed to Captain Harry Whittaker, Buffalo, NY.

In April 1845, 14 miles out from Buffalo, NY on Lake Erie, the steamer *United States* was run into by a schooner under full sail. Both vessels were damaged. Repaired.

The steamer *United States* was laid up for the winter of 1848-49 at Buffalo, NY. March 7, 1849, while moored up the Creek near Newman's Foundry, the *United States* caught fire from an undetermined cause that destroyed her super-structure and entire inner works. The vessel was declared a complete loss.

**Wolfe:** Built as a sidewheel steamer, at Kingston Marine Railway, in 1835 for Archibald Hitchcock, Kingston, Ont. her measures were: 80' x 13' x 4' with a 15-horsepower engine.

Her engine, high pressure, 15 horsepower was built by George W. Yarker, at Yarker' Foundry, Kingston, Ont. Yarker was an Upper Canadian foundry capable of producing marine engines on the Kingston waterfront. In 1835 it supplied a small, 15 hp rotary engine using William Avery's patent. The following year it included five departments: a smelting house, casting room, workshop "with an infinite number of lathes" driven by a 10 hp engine, blacksmith's shop with four forges and a pattern shop. By the 1850s it would be absorbed into the shipbuilding complex that grew up around the Kingston Marine Railway.

The steamer *Wolfe* was built for passenger ferry trade between Kingston, Ont. and Wolfe Island in the mouth of the St. Lawrence river, about three miles.

Due to the late delivery of her engine, the steamer *Wolfe* was placed on a run between Kingston

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and Napanee, through the North Channel. The following year the steamer *Wolfe* was renamed to *Napanee*.

She was placed up for sale in August 1838. No record was found of the sale.

Her master for the 1840 season was Captain Brown. For the 1840 season the steamer *Napanee* was scheduled to run regular trips between Kingston and Napanee, running up one day and returning the next. June 13, 1840, a Saturday morning, the sidewheel steamer *Napanee*, known as "The Little Puffer", lying in the slip at the foot of Brock Street near Scobell's wharf, was found, by Mr. Scobell's watchman, to be on fire. She was towed from her wharf out into the channel where she went aground on Point Frederick and burned to the water's edge. No lives lost.

#### <u>1836</u>

**Oneida:** In 1836, George S. Weeks built at Oswego, NY the wooden sidewheel steamer *Oneida* with measures: 132' x 19' x 9' and tonnage (Old Style) 227. She was powered by two low pressure, 80 horsepower engines. She operated in the passenger, package freight trade and ran between Ogdensburgh, Rochester and Oswego, NY.

Masters of the steamer *Oneida* were Captain N. H. Throop (1836) and Captain A. Smith (1837 - 38) and Captain R. F. Childs (1838 - 44).

April 17, 1839, the steamer *Oneida*, coming out of Ogdensburgh, NY, on the St. Lawrence River, was fired upon from Prescott, Ont. In May of that year, the *Oneida* was brought into the service of the U. S. Government and proceeded to Brockville, Ont. with a company of soldiers from Sackett's Harbor on board, to inquire into the firing by Canadian citizens at defenseless vessels.

Released by the U.S. Government, her first enrollment as the steamer *Oneida* was issued at Ogdensburgh, NY, April 15, 1844.

In October 1844, Captain R. F. Childs was commended by the passengers of the steamer *Oneida* for his handling of the vessel during a gale on Lake Ontario, delivering his passengers safely to their destination. During that gale, six sidewheel steamers and a large number of sail and canal boats were driven ashore and destroyed with a loss of thirty-seven lives.

During the 1845 season, the *Oneida* was replaced by the sidewheel steamer *Niagara,* servicing Lake Ontario and the St. Lawrence River communities.

In July of 1845, the *Oneida* was converted to a schooner at Sackett's Harbor, NY. She was enrolled as a schooner at Sackett's Harbor, NY, July 24, 1846, with May 23, 2019

measures: 140' x 19' 7" x 9' 4"; 246.86 tons (old style), three masts.

November 19, 1846, the three masted schooner Oneida, laden with 350 barrels of salt, while attempting to enter the harbor at Ashtabula, OH, Lake Erie, struck the bar and became unmanageable, going ashore below the east pier.

Declared a loss, the final enrollment of the schooner *Oneida* was surrendered at Sackett's Harbor, NY, November 10, 1847.

**Princess Victoria:** The yard of Shea & Merritt, Montreal, P.Q., built, in 1836, for the Champlain & St. Lawrence Railway a sidewheel steamer to be used in the car ferry trade between Montreal – La Prairie, across the St. Lawrence River. The steamer *Princess Victoria* was enrolled at Montreal, P.Q. August 10, 1836, with measures: 169.5' x 19.7' x 10' and unit tons of 171. She was equipped with a low pressure, walking-beam engine, 120" stroke, built by Ward Brothers, Montreal, P.Q.

Ownership of the steamer *Princess Victoria* was transferred to the Quebec Forwarding Co., Quebec. In 1844, the sidewheel steamer *Princess Victoria* was converted for wrecking/towing and passenger, package freight.

Master in 1848, of the sidewheel steamer *Princess Victoria,* was Captain Dunlop.

In May 1850, ownership of the steamer *Princess Victoria* was transferred from the Quebec Forwarding Co., to the Donald McIntosh, Forwarding Co., Kingston, Ont. The *Princess of Victoria,* with four first class barges, ran between Kingston and Quebec.

Master in 1851, of the steamer *Princess Victoria* was Captain Blondeau. The sidewheel steamer, with her four barges could take 12,000 barrels of flour, and ran as a freight and tug boat.

In 1853, the steamer *Princess Victoria* hauled flour and grain to Quebec and with a return cargo of railroad iron from Quebec to Kingston for forwarding to the upper country.

June 1855, the *Princess Victoria* and an unknown schooner collided in the Lachine Canal, near Verdun, P.Q. Property loss \$1,000.

Ownership was changed in 1855 to A. H. Murphy and the steamer *Princess Victoria* was replaced on the Kingston – Quebec run by the propeller *Inkerman* 

The *Princess Victoria* was retired in 1857. Her final disposition in unknown.

*Cincinnati:* At Sandusky, OH, in 1836, William A. Jones built for D. M. Barney a wooden sidewheel steamer with measures of 88' x 20' x 7'2" and 116 tons (Old Style), named *Cincinnati* and powered by a high pressure, 80 horsepower engine. She was built for the passenger, package freight trade.

Her master for the 1836-37 season was Captain Bradley.

In May of 1837, while bound up, the *Cincinnati* and the down bound sidewheel steamer *Bunker Hill* collided on Lake Erie. The steamer *Cincinnati* was struck forward of her shaft and had her starboard wheelhouse and the Captains office carried away and broke her shaft. The captain was badly injured and the mate and a few of the crew were slightly injured. The steamer *Cincinnati* was towed into Huron, OH for repairs.

During the 1837-38 winter layup, the steamer *Cincinnati* underwent a through repair, plus the addition of four state rooms, the enlargement of both cabins and her engine improved. Her tonnage changed to 180.

For the 1838 season, Captain J. Youngs was master of the sidewheel steamer *Cincinnati*. May 12<sup>th</sup>, at the mouth of the piers at Cleveland, OH, the *Cincinnati* and the sidewheel steamer *Milwaukie* collided. The bow of the *Milwaukie* struck the *Cincinnati* just forward of the starboard wheelhouse and cut her through the guard and into the hull. The steamer *Cincinnati* was brought back to the piers where she sank. She was later raised and repaired.

Early in April 1839 the steamer *Cincinnati* ran on shore near the mouth of Sandusky Bay in the fog. Released.

In April of 1840, ownership of the steamer *Cincinnati* was changed to Gilman Appleby, et al. Her engine removed, the rig of the *Cincinnati* was changed to sail by Bidwell & Banta, Buffalo, NY and she was enrolled as *John F. Porter* with measures: 93.5' x 20.0' x 7.5' and 124.49 tons.

In June 1847, the schooner *John F. Porter*, laden with wheat and corn, and the sidewheel steamer *Chesapeake*, laden with passengers and merchandise, collided and both sank about 4 miles off Conneaut, OH, Lake Erie. Loss over \$20,000. Eight lives lost. Both vessels were raised and repaired.

In September 1848, the schooner *John F. Porter,* laden with lumber, went ashore near Buffalo, NY, Lake Erie. Released.

In November 1849, the schooner *John F. Porte,* went ashore near Conneaut, OH, Lake Erie. Released.

In August 1850, the schooner *John F. Porter,* went ashore near Racine, WI, Lake Michigan. Released.

October 1855, the schooner *John F. Porter*, went ashore in a storm off North Point, Milwaukee, Lake Michigan. Total loss.

**Dewitt Clinton:** Fairbanks Church, Huron, OH, launched a sidewheel steamer for owners Sheldon Thompson et al., named *Highlander*. She had measures of 147' x 27.2' x 11' and tonnage of 413 (Old Style). She was equipped with a high-pressure non-condensing, 90horsepower engine and had been built for the passenger, package freight trade.

Prior to going into service, the *Highlander* was renamed *Dewitt Clinton*. Her master for the 1836–38 season was Captain A. H. Squires. In a run from Buffalo to Chicago in June 1838, she made it in 102 hours. In September 1838, the *Dewitt Clinton*, bound for Chicago with a cargo of general merchandise, ran aground on Beaver Island, 60 miles west of Mackinaw, MI. Her crew jettisoned most of her cargo to release her.

November 1839, the steamer *Dewitt Clinton* broke her shaft on Lake Erie. Repaired.

Ownership of the steamer *Dewitt Clinton* was changed to J. K. Wing, Bloomfield, OH et al. in June 1848. She was chartered to the Michigan Central Railroad for the 1848-49 season to transport passengers from Monroe MI to Buffalo, NY.

May 1851, the steamer *Dewitt Clinton*, laden with merchandise for ports between Buffalo and Toledo, struck a submerged rock while entering the harbor at Dunkirk, NY and sank next to her dock. Repaired. Property loss \$3,000.

May 1852, released from the yard renewed and strengthened, the steamer *Dewitt Clinton* continued to run as a freight boat between Buffalo and Toledo and was also used for cattle transport.

Final enrollment surrendered in 1869, the steamer *Dewitt Clinton* was broken up.



*Erie:* A new wooden sidewheel steamer was built by Fairbanks Church at Detroit, MI for John Ballard et al.,

May 23, 2019

Detroit and named *Erie.* She was enrolled at Detroit, September 5, 1836 with measures: 120.33' x 18' x 7.17' and 149 35/95 tons (Old Style). She was equipped with a vertical beam, low pressure, 55 horsepower engine. She was built for the passenger ferry trade on the Detroit River.

May 22, 1837, ownership of the steamer *Erie* was changed to John Y. Petty, et al, Detroit, MI. On April 26, 1838 ownership was changed to Pease, Chester & Co. et al, Detroit, MI. The steamer *Erie* was chartered by the U.S. Government as a patrol boat on the Detroit River during the Canadian Rebellion of 1837-38.

May 1838, the steamer *Erie* broke her machinery on Lake Erie. Repaired.

Master for the 1839 season was Captain Edwards.

In 1840, ownership of the sidewheel steamer *Erie* was transferred to William T. Pease, et al, Detroit, MI.

On November 29, 1842, the steamer *Erie* sank in nine feet of water off Mt. Clemens, MI, in Lake St. Clair after being cut through by ice. She was raised and repaired.

On March 9, 1844, the steamer *Erie* was destroyed by fire after her steam boiler exploded near Malden, Ont, Detroit River.



*Erie:* At the other end of Lake Erie, new wooden sidewheel steamer was built by M. Creamer for General C. M. Reed, Erie, PA and also named *Erie*. Her measures were: 176' x 27' x 10' and 497 tons (Old Style). She was equipped with a vertical beam, low pressure, 80 horsepower engine, 52' bore x 120" stroke and two return flue boilers built by Thomas Holloway, Philadelphia, PA. Her wheels were 27' diameter. She was built for the passenger, package freight trade and ran Buffalo, NY to Detroit, MI.

September 22, 1838 the steamer *Erie* stranded between Black Rock, NY and Buffalo, NY. Released. A

month later she went aground off Milwaukee, WI. Released.

May 1839, in the Detroit River, she came in collision with the sidewheel steamer *Minnesetunk*. In July of that year the steamer *Erie* collided and sank the British steamer *Goderich* on the Detroit River. On September 10, of that year, the steamer *Erie* and the steamer *Daniel Webster* collided at the mouth of the Detroit River. The *Erie* had her wheel housing damaged and ran aground. Released and repaired.

On August 4<sup>th</sup>, 1840, while on the Detroit River, the boiler in the steamer *Erie* burst with six lives lost. Repaired, bound down on Lake Erie, she struck and sank the schooner *Iowa*.

Master of the steamer for 1841 season was Captain Titus. On August 9, 1841, having loaded demijohns filled with spirits of turpentine and varnish, which, unknown to Capt. Titus, were placed on the boiler deck directly over the boilers. The demijohns probably burst with the heat, and their inflammable contents, taking fire instantly. The vessel caught fire off Silver Creek, NY, Lake Erie, burned and sank. Over 242 lives lost, including 101 Swiss immigrants heading west.

The boilers and some machinery were recovered in 1844 and the hull was raised and towed to Buffalo, NY in 1854.

*James Madison:* John Richards, Erie, PA, built for Charles M. Reed one of the largest steamers on the Great Lakes to this time. The wooden sidewheel steamer *James Madison* built in 1836 and enrolled at Presque Isle, PA in 1837 with measures: 178' x 30' 9" x 12' 3" and gross tonnage of 630 53/95 (Old Style). Her engine was high pressure, 28" bore x 96" stroke, 180 horsepower, built by Woden & Binney, Pittsburgh, PA. She was built for the passenger, package freight trade and ran between Buffalo, NY and Chicago, IL.

Her masters for the 1837-43 seasons was Captain R. C. Bristol (1837-39) and Captain McFayden (1841–43).

Ownership of the steamer *James Madison* was transferred in May 31. 1838 to Charles M. Reed and George Williams, Erie, PA.

October 3, 1843, the steamer *James Madison* collided with another vessel near Detroit, MI, breaking some stanchions.

On July 26, 1844 the *James Madison* collided with the sidewheel steamer *Cleveland* near Detroit, MI.

On September 13, 1845 the steamer *James Madison* went ashore below Dunkirk, NY, Lake Erie.

On April 20, 1846 the *James Madison* was holed while entering Buffalo. NY harbor. Repaired. On May 15, 1846, she broke a connecting rod near the crank, when 30 miles out from Chicago, IL on Lake Michigan. In November of that year, the *James Madison* went ashore 12 miles above Barcelona, NY, Lake Erie.

On November 19, 1847, during a storm, the steamer *James Madison* had one of her smoke stacks blown down. Her final disposition "abandoned" was filed either in 1847 or 1848.

#### Some Notes:

Cargo-carrying capacity in cubic feet, another method of volumetric measurement. The capacity in cubic feet is then divided by 100 cubic feet of capacity per gross ton, resulting in a tonnage expressed in tons. <u>Mail Steamer</u>: Chartered by the Canadian government to carry the mail between ports.

<u>Navigation:</u> The reader may wonder what, with so few vessels on the lakes, why steamers could not avoid each other. Two main reasons, the visibility during storms and the vessels did not carry any lights so you came upon a vessel you could not determine if the vessel was approaching or departing from you.

Old Style Tonnage: The formula is:

Tonnage= ((length - (beam x 3/5)) x Beam x Beam/2)/94 where: *Length* is the length, in feet, from the stem to the sternpost; Beam is the maximum beam, in feet.

The Builder's Old Measurement formula remained in effect until the advent of steam propulsion. Steamships required a different method of estimating tonnage, because the ratio of length to beam was larger and a significant volume of internal space was used for boilers and machinery.

In 1849, the Moorsom System was created in Great Britain. The Moorsom system calculates the

P.Q.: Province of Quebec

<u>Package Freight</u>: almost every imaginable item of merchandise – bags of onions, grain, etc., processed foods, bags of coal, stoves, furniture, that can be packaged and moved by manpower from dock to hold and reverse.

Patriot War: A conflict along the Canada – U.S. border where bands of raiders attacked the British colony of Upper Canada more than a dozen times between December 1837 and December 1838. This so-called war was not a conflict between nations; it was a war of ideas fought by like-minded people against British forces

Ship Inventory: Will include the names of wooden steamers that will not be identified in the manuscript. The research project that the information was gathered for included all wooden steamers built on the Great Lakes of St. Lawrence and operated on the Great Lakes with a gross tonnage at or over 100 tons.

<u>Up-bound:</u> Going against the current – St. Lawrence River to Lake Superior. (Lake Michigan – steaming north)

<u>Down-bound:</u> Going with the current – Lake Superior to the Saint Lawrence River. (Lake Michigan – steaming south)

(Original Source: "Wooden Steamers on the Great Lakes" – Great Lakes Historical Society; Bowling Green State University – Historical Collection; Thunder Bay National Marine Sanctuary Collection; Maritime History of the Great Lakes; and the scanned newspaper collection of the Marine Museum of the Great Lakes, Kingston, Ont. and 746 additional documented sources.)

#### Presentation Selection:

2019 Jan 19 - Getting Started Feb 16 - Hull: Solid, POB, POF Mar 16 - Planking Apr 20 - Spiling May 18 - Planking a Deck Jun 15 - Furniture & Fixtures, Guns Jul 20 - Masts Aug 24 - Yards, Booms, Gaffs Sep 21 - Standing Rigging Oct 19 - Running Rigging Nov 16 - Sails Dec 21 - Model Display

# Events & Dates to Note: 2019

Lakeside Antique & Classic Wooden Boat Lakeside Hotel, Lakeside, OH July 20-21, 2019

Ohio State Fair Miniature Ship Building Competition July 12 – 15, 2019

Ohio State Fair **"Featured Artist in Resident" Shipwrights of Central Ohio** State Fair Grounds, Kaish Hall **July 26 & August 2, 2019** 

Toledo Antique & Classic Boat Show Promenade Dock, Maumee River, Toledo, OH Aug 24, 2019

"Artistry in Wood" Dayton Carvers Guild Woodcarving Show, Roberts Centre, Wilmington, OH www.daytoncarvers.com Oct. 12-13, 2019

NRG Conference New Bedford, MA Oct. 24 - 26, 2018

#### <u>2020</u>

Columbus Woodworking Show Ohio Expo Center Voinovich Livestock & Trade Center, 717 East 17th Avenue, Columbus, OH 43211 January 17 - 19, 2020

May 23, 2019

IPMS Columbus 46th Anniversary BLIZZCON Arts Impact Middle School 680 Jack Gibbs Blvd. Columbus 43215 Saturday, February 15, 2020

#### Miami Valley Woodcarving Show

Christ United Methodist Church 700 Marshall Rd., Middletown, Ohio 45044 March 7 & 8, 2020

64<sup>th</sup> "Weak Signals" R/C Model Show Seagate Convention Ctr. 401 Jefferson Ave. Toledo, OH April 04 - 05, 2020

North American Model Engineering Expo. Yack Arena Wyandotte, MI April 18 - 19, 2020

44th Midwestern Model & Boat Show, Wisconsin Maritime Museum, Manitowoc, WI May 15 – 17, 2020

Constant Scale R/C Run – Carmel, Ind. Indianapolis Admirals reflecting pond Carmel, IN May 16 & 17, 2020

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