Hampton Roads Ship Model Society

Logbook!

No. 421 WWW.HRSMS.ORG July 2021

What's Happening at the Museum?

Well, we're back! I feel sure that most organizations such as ours lack the support and attention that we are very fortunate to enjoy from our world-class museum! I'm also sure that most of us consider ourselves an integral part of the Museum's multitude of maritime offerings to the regional, national and international audience of visitors who have the means and inclination to visit America's National Maritime Museum. As often as we can, we should thank the folks who make our avocation an interesting part of those visitors' experience. And I'm not just speaking to the Model Shop crew. As often as we can we should share our knowledge of ships and the sea with those folks we pass on our way up to our meeting room or on a casual visit to the Museum. Did you know that TMM's collections (ships, artifacts, documents, art, etc.) number over 35,000? Did you know our library contains the largest maritime history collection in the western hemisphere? Did you know the Monitor Center is the home of the largest metals conservation project in the world and The Mariners' Museum itself is one of the largest maritime museums in North America? The Museum will celebrate its first century in just nine years and plans are already being discussed to make it an anniversary worthy of the institution. Big Deal? You bet! Yes, I'm a TMM Volunteer in a number of areas and I'm in my 30th year as an interpreter, Committee chair, Council Chair, patron, Speakers Bureau member etc. I wear two hats, TMM and HRSMS. I'm proud to be a member of both and to associate with the finest group of folks anyone could hope for! Can I get an AMEN, brothers and sisters?!

Ron Lewis

Mystery Photo

Mystery Photo # 420: Last Month the U.S. Government released a report on UFO sightings titled: "Preliminary Assessment Unidentified Aerial Phenomena (UAP)." The nine page, unclassified, largely useless document, provides an overview of the challenges faced by policymakers to explain documented video footage of strange phenomena and the difficulty in developing a means to definitively explain and understand it. It follows that it would be difficult to develop a possible and reasonable defense. They call UAPs a threat. I guess they are scared about what we don't know…

This month's Mystery Photo may provide a similar challenge. In the grossly over exposed or overdeveloped image we see a vessel that has a catamaran hull with unidentifiable script on the side, room for two aft, and something that looks like a used paper towel roll riding vertically. The vessel is making significant headway and is accompanied by two chase boats. The style of the chase boats and the dress of the sailors provide the best clues for a timeline.

So, how is this vessel making headway? Towing? Don't see a cable. Outboard? Don't see one. Intenal engine,

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Nautical Term

Catwalk: A walkway above deck-level, running fore-and-aft, to enable the crew to avoid "no-mans-land" in rough weather. Seen first aboard the big square-riggers of the late XIX, these later became common on tankers. The origin of the term is unknown, but it does imply the nimbleness of a cat. It was also known as a monkey bridge.

Tim Wood

MEETING NOTICE

Date: July 10, 2021
Place: Mariners' Museum
Time: 1000 Hours

The meeting will be broadcast on Zoom.

Hampton Roads Ship Model Society Picnic

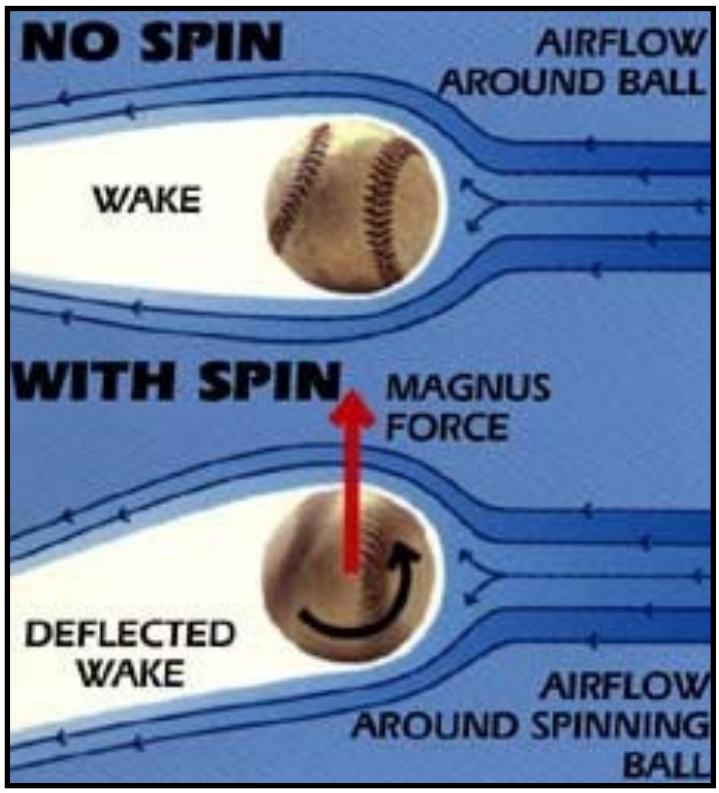
Saturday September 11, 2021

Newport News Park

(Continued from page 1)

prop shaft and all? Perhaps. Sail.....sail? What sail? Perhaps it's being willed along by some unidentified phenomena. Or maybe some smart guy like Einstein has unlocked one of the mysterious forces of the universe. Believe it or not, If you took the Einstein option, you would be closer than you think to being right!

This may be a reach but then again we have to reach to solve this one. In sailing, to sail a reach means that you are sailing at a right angle to the direction of the wind. There is none of that pointing into the wind, and how many points can you point the point of your sailboat stuff involved here. No close hauling or wing and wing stuff either. This is a pure reach if there ever was one.



Magnus effect on a baseball

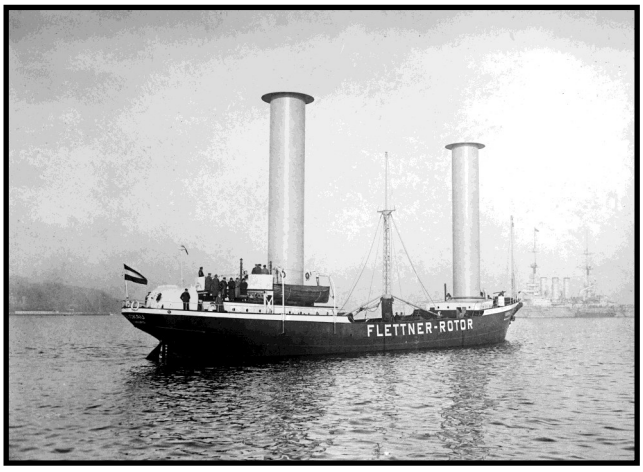
Vertical cylinders—we have one in this Mystery Photo. Let's look closer at it. In physics there is a phenomenon called the Magnus effect. Baseball pitchers, place kickers, soccer players, tennis players, and those damn golfers are very familiar it. Basically it means that a spinning object passing through air or another fluid will be "influenced and deflected in a manner that is not present when the object is not spinning." We used to call that "putting English on it." The Wikipedia entry offers this as explanation: "An intuitive understanding of the phenomenon comes from Newton's third law, that the deflective force on the body is a reaction to the deflection that the body imposes on the air-flow. The body "pushes" the air in one direction, and the air pushes the body in the other direction. In particular, a lifting force is accompanied by a downward deflection of the air-flow. It is an angular deflection in the fluid flow, aft of the body." Simply put, the cylinder, in this case, will move tangential to the wind in the direction of rotation.

We need to acknowledge Heinrich Gustav Magnus, the German physicist who investigated this theory and has it named for him. But we also need to acknowledge Martin Kutta, and Nikolai Joukowski who investigated this effect against a rotating cylinder. And finally we need to acknowledge Anton Flettner whose "spinning bodies were vertical cylinders" and whose idea which "revolutionized the art of harnessing the wind" was to use these vertical cylinders "to replace the old sailing rig. These types of propulsion cylinders are now commonly called Flettner rotors."

Let's look closely Anton Flettner—I have edited portions of this long citation:

> "Anton Flettner (November 1, 1885 – December 29, 1961) was a German aviation engineer and inventor. Born in Eddersheim (today a district of Hattersheim am Main), Flettner made important contributions to airplane, helicopter, vessel, and automobile designs. After serving Germany in both World Wars, Anton Flettner emigrated to the United States post World War II as a consultant to the office of Naval Research at the United States Navy. Anton Flettner attended the

The Barbara, designed from the ground up with Flettner's rotorsail technology in mind



The Buckau, the Flettner Rotor Ship, photographed in 1924

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Fulda State Teachers College in Fulda, Germany. He was the village teacher in Pfaffenwiesbach from 1906 to 1909. Flettner subsequently taught high school mathematics and physics in Frankurt, where he developed ideas that would assist Germany in World War I", particularly in the development of remote contols and the servo tab used on large movable rudders.

Following WWI, in 1920 Flettner invented the rotary ventilator widely used on buses, campers, vans, boats, and railway cars which assists in cooling without using energy. Examples can still be found today, if you look closely.

"In 1926, Anton Flettner shifted his focus to aviation in founding his own company, the Anton Flettner Aircraft Corporation in Berlin, aiming at the application of the Flettner-rotor as a wing replacement on large wind turbines.

In 1935, Flettner built a German night reconnaissance and anti-submarine autogyro called the Fl 184. Flettner followed this accomplishment by building the Flettner Fl 185 in 1936, an experimental German gyrodyne, which could fly as both a helicopter and as a gyroplane.

In 1938 Flettner, together with Kurt Hohenemser, built the Flettner Fl 265. The Flettner Fl 265 as the likely pioneering example of a twin-lift rotor synchropter, addressed the problem of torque compensation as the first helicopter with intermeshing rotors.

During World War II, Anton Flettner headed Flettner Flugzeubau GmbH, which specialized in reconnaissance helicopters for the German Luftwaffe (Air Force).

Flettner's helicopter inventions were financed from wealth acquired from his ventilator business, a company that was enhanced by the skill of his wife, Lydia Freudenberg Flettner. Anton Flettner built his helicopters for the German military, primarily for navy spotter use. Although his wife was Jewish, he held a personal relationship with the head of gestapo, Heinrich Himmler. Himmler had Flettner's wife and family escorted safely to Sweden for the duration of the war. Anton Flettner's partner and confidant was Dr. Kurt Hohenemser, a brilliant and thorough engineer who developed the details necessary for the success of Flettner's helicopters. Dr. Hohenemser's father was also Jewish, yet both remained unharmed during their tenure together throughout the war as they worked to develop the helicopter for military use.

Upon the war's conclusion, Anton Flettner was held in the "Dustbin" interrogation camp at Kransberg Castle. After 1945, Flettner, along with many other aviation pioneers, was brought to the United States as part of Operation Paperclip. Flettner and his partner, Dr. Kurt Hohenemser, were among the first German emigrants into the United States after World War II.

Flettner started Flettner Aircraft Corporation, which developed helicopters for the U.S. military.In 1949, Flettner employed Kurt Hohenemser as a consultant to the Flettner Aircraft Corporation. Flettner and Kurt Hohenemser, who together developed numerous patents in Germany, kept in close contact after both men emigrated to the United States.

Flettner's company in the U.S. was not commercially successful, but his work was shared with the US Army Air Forces. Throughout his 14 years in the United States, Flettner was active in carrying out research projects for the US Army, US Air Force, and the US Navy.

Flettner became the chief designer of Kaman Aircraft and many of the Flettner design concepts are found in Kaman helicopters of later years.

Today the Flettner rotor is in operation as a supplemental propulsion system for transport and research vessels. There are two ships utilizing the concept of the Flettner rotor in a modified form, the turbosail Acyone developed by Jacques-Yves Cousteau in 1985 and the E-Ship 1, a cargo ship that made its first voyage in 2010. Albert Einstein praised the Flettner Rotor ship as having great practical importance.

Anton Flettner's colleague and former partner, Kurt Hohenemser, worked his remaining years in the United States to prove Flettner's idea that properly designed flexible helicopter-type rotors are more suitable for producing electricity from the wind than rigid airplane-type rotors. An offshore wind energy project announced in February 2017, involving Seawind Ocean Technology B.V., aims to demonstrate the wind energy applications put forth by Anton Flettner, Kurt Hohenemser, and Glidden Doman (American aeronautical engineer) in harsh wind and sea conditions.

Anton Flettner died at age 76 in New York City on December 29, 1961. Among his many distinctions, Anton Flettner was an honorary member of the American Helicopter Society and the Convertible Aircraft Pioneers. Flettner's birthplace home and tomb are national historic protected monuments in Germany."

Back to our Mystery vessel:

"With Assistance from Albert Betz, Jacob Ackeret, Ludwig Prandtl and Albert Einstein, Flettner constructed an experimental rotor vessel, and in October 1924 the Germania werft finished construction of a large two-rotor ship named Buckau."

"The vessel was a refitted schooner which carried two cylinders (or rotors) about 15 metres (50 ft) high, and 3 metres in diameter, driven by an electric propulsion system of 50 hp (37 kW) power. Following completion of its trials, the Buckau set out on her first voyage in February 1925, from Danzig to Scotland across the North Sea. The rotors did not give the slightest cause for concern in even the stormiest weather, and the Flettner rotor vessel could tack (sail into the wind) at 20-30 degrees, while the vessel with its original sail rig could not tack closer than 45 degrees to the wind. On 31 March 1926, the Buckau, now renamed Baden-Baden after the German spa town, sailed to New York via South America, arriving in New York harbor on 9 May."

Now here was a system that could score points by sailing points. But the timing was off. Even with proven functional reliability and a demonstration trip to the "States" ship owners did not step to the plate and order the system. Why? Well, at this time commercial sail was waning for a lot of reasons. The most obvious being that engine powered vessels were not wind dependent and, therefore, could operate to a consistent schedule, and "fuel was so cheap at that [time] that the savings achieved by the rotor were too small for shipping companies to recoup the investment quickly enough." The stock market crash and accompanying worldwide recession of 1929 saw interest in the idea completely dry up.

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There was, however, interest from a group of engineers from the Massachusetts Institute of Technology (MIT) who equipped a US Navy launch with an experimental Flettner Rotor. We know this because noted photographer Leslie R. Jones captured the vessel in a series of images that show her flittering around the USS Constitution in Boston Harbor. If you want a real treat, go to Boston Public Library. A Digital Library and enjoy the almost 40,000 Leslie Jones images stored there.

Perhaps Flettner's real genius lay in his hybrid design developed long before it became popular and "green". We are seeing a resurgence in wind driven energy, and why not, it's free and mostly available year round in certain locations. We just need to harness it efficiently. "Flettner revolutionized the art of harnessing the wind, used essentially in an unaltered form for thousands of years—the canvas sail—by a modern machine—the Flettner Rotor ship—that could permit ocean liners to reduce their crews by two-thirds and save 90 percent in fuel." And in that vein, we are seeing a resurgence of the Flettner rotor.

A company called Norsepower leads the way. "When wind conditions are favorable, the Rotor Sails allow main engines to be throttled back, saving fuel and reducing emissions while providing the power needed to maintain speed and voyage time." Their claim is that "rotor sail technology is around ten times more efficient than conventional sail."

In an interesting twist to this story, their company page also claims that the rotor sail concept was co-developed by Anton Flettner and Sigurd Savonius. Reading further you can see how Savonius followed Flettner's idea but made changes and improvements that are used in today's rotor sails. I sense the seeds of another Mystery being sowed.

The Mystery Photo shows the world's first rotor ship. The image was made in Potsdam—the one in Germany—in 1925. While it is not clear whether Savonius or Flettner was first on the scene with the concept, both men filed and received patents for their ideas. The answer to this question may lie in the classified, heavily redacted, version of the UAP report—you can research it yourself at your leisure. Nevertheless, the Flettner rotor sail, in my opinion, is a good example of a UAP—especially to the great, gap-eyed unwashed ship modeler. Perhaps we will see rotor sail turbines atop our cars in the near future when Lithium supplies run low and the Chinese restrict the supply of rare-earth minerals. Meanwhile, let's sail on….

John Cheevers

Maersk Pelican.

AMERICAN NAVAL HISTORY

1861

May 2-3: The Anaconda Plan. A plan for a complete blockade of the Confederate coast and a powerful movement down the Mississippi River. This will be pursued through the four years of the war to final victory.

May 6: Confederate privateering. The Confederate Congress authorizes the issue of letters of marque and reprisal. Few Southern privateers ever put to sea, however as blockade running offers greater profit at lesser risks. The Confederate war on Union shipping is waged almost exclusively by government cruisers.

May 9: Bulloch to England. Commander Bulloch, CSN, is sent to Great Britain to purchase and outfit the warships the Confederacy cannot build for herself. Because of neutrality laws, these purchases must be disguised. Almost 4 years Bulloch wages a battle of wits with the U.S. Ambassador. He is able to commission the cruisers Alabama, Florida and the Shenandoah. They sweep the Northern merchant marine from the seas.

May24: Capture of Alexandria. Commander Rowan, captain of the screw sloop Pawnee, occupies Alexandria, Virginia.

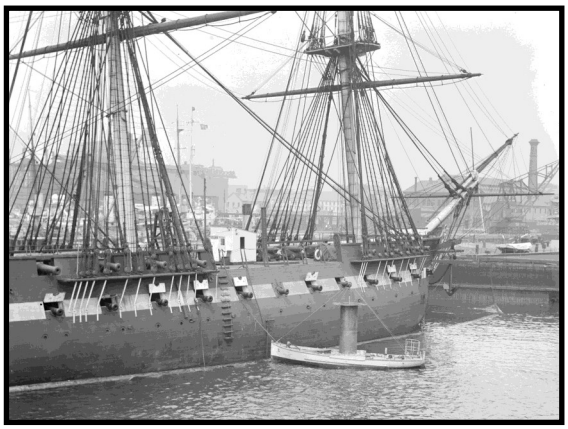
May 26: The blockade of New Orleans, Louisiana and the mouth of the Mississippi is established by the screw sloop Brooklyn, Commander Poor. The blockade of Mobile, Alabama is established by the side-wheel steamer Powhatan, Lieutenant David Dixon Porter.

May 29: The blockade of Savannah, Georgia, is established by the steamer Union, Commander Goldsborough.

1861 End of part 2 of the Civil War.

THE ANSWER

Mystery photo 421: The picture was taken in Potsdam in 1925, shows the world's first rotor ship - also called Flettner ship after its inventor, German engineer Anton Flettner. (Flettner applied for a patent for his invention in 1922).



Roto ship next to the USS Constitution

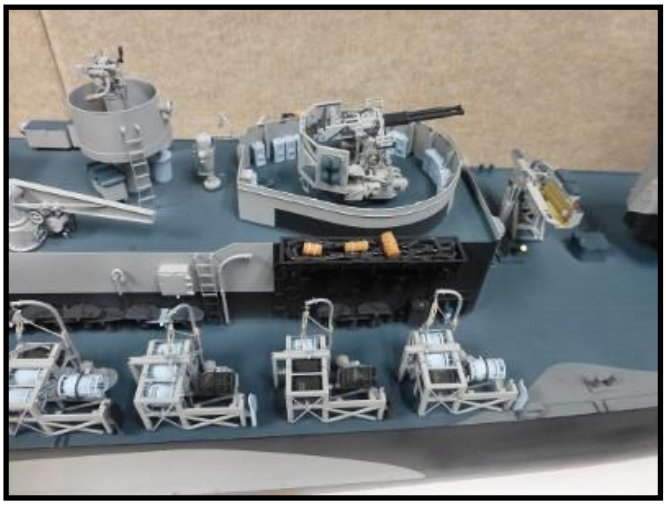
Stewart Winn's Intrepid

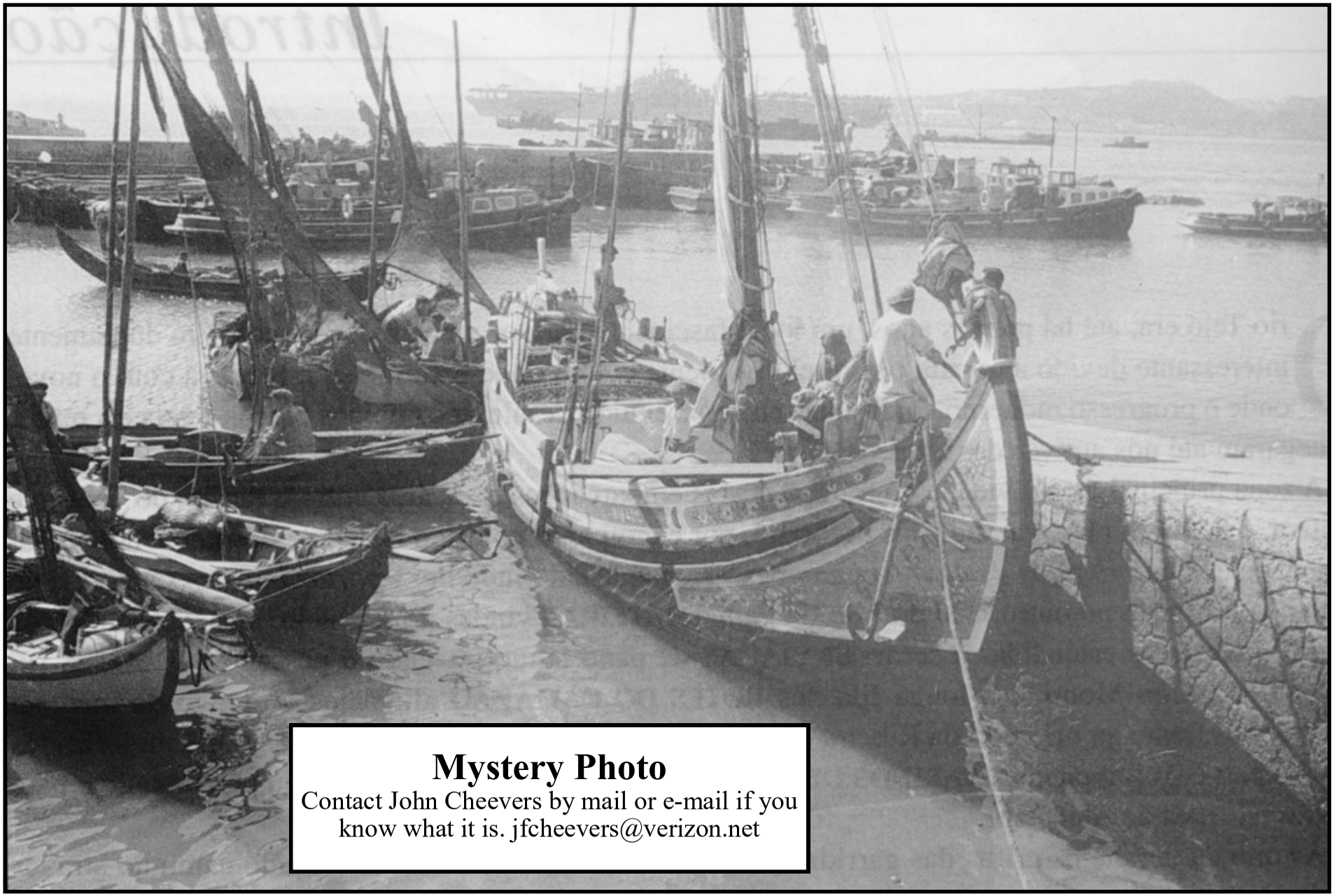
Uni-Cat Flensburg of Flensburg University
June 19, 2007

Marty Gromovsky's USS England

Two views of Gene Berger's DE

Bill Clarke's 1969 project of the USS Oregon





Mystery Photo

Contact John Cheevers by mail or e-mail if you know what it is. jfcheevers@verizon.net

NOTABLE EVENTS

JULY

10 **HRSMS** Monthly Meeting: Mariners' Museum
Presentation: TBA

AUGUST

14 **HRSMS** Monthly Meeting:
Presentation, TBA

SEPTEMBER

11 **HRSMS** Monthly Meeting, Picnic Newport News Park
19 Talk Like a Pirate Day

OCTOBER

9 **HRSMS** Monthly Meeting:
Presentation, TBA

NOVEMBER

13 **HRSMS** Monthly Meeting: Zoom
Presentation, TBA

DECEMBER

8 **HRSMS** Monthly Meeting:
Presentation: TBA

JANUARY

8 **HRSMS** Monthly Meeting: Online Zoom
Nomination of officers

FEBRUARY

12 **HRSMS** Monthly Meeting: Mariners' Museum
Election of officers

MARCH

12 **HRSMS** Monthly Meeting:,

APRIL

9 **HRSMS** Monthly Meeting: Zoom
:,

MAY

14 **HRSMS** Monthly Meeting:

JUNE

11 HRSMS Monthly Meeting: Mariners' Museum

WATCH, QUARTER AND STATION BILL

Skipper: Greg Harrington (757) 218-5368
Mate: Gene Berger (757) 850-4407
Purser: Ryland Craze (804) 739-8804
Clerk: Tom Saunders (757) 850-0580
Historian: Tim Wood (757) 481-6018
Editors: John Cheevers (757) 591-8955
Tom Saunders (757) 850-0580
Webmaster: Greg Harrington (757) 218-5368
Photographer: Marty Gromovsky

MINUTES

Hampton Roads Ship Model Society
Monthly Meeting
Mariners' Museum
June 12, 2021

Guests: Joseph Fickland 1st meeting
Mort Stoll 2nd meeting
Mitch Woods 1st meeting
Joe Lorenzo 2nd meeting

The me meeting was called to order by Skipper, Greg Harrington at 1006 hours. The guests were recognized by the Skipper. There was no correction to the minutes as published.

Old Business: Greg Presented Gene Berger a plaque with a picture of the SS United States for his service as Skipper. Stewart Winn was given the Founders' Award Trophy for 2021. These two presentations would have been made at the cancelled 2020 banquet. Ryland Craze gave the Purser's report, detailing membership status and account balance. Ryland stated that the Northeast Ship Modelers Conference would be held on October 2, in New London Connecticut. Joshua Fichmann talked about the Philadelphia Ship Model Society's ModelCon to be held on August 7, aboard the Battle Ship New Jersey.

New Business: Beth Heaton said that she was still in need of volunteers to fill in at the model builder's booth and at other areas of the museum. Gene Berger was asked to be a judge in the Nautical Research Guild's 2021 Photographic Ship Model Review and Juried Competition. Tony Clayton asked to be relieved as presentation coordinator. Greg said that he was looking for someone to assume that task. Tony Clayton was asked if Norge Hall was still available to use for an auction. Tony said that he would check on the availability and get back to us. Ron Lewis said that we have space for two more models in the showcase at the model builders stand. Dennis Hobbs suggested that we put Chesapeake Bay workboats in the case.

Show & Tell: Bruce Brown showed his model of Ernest Shackleton's ship, Endurance. Stewart Winn showed pictures of his model of the 1804 Intrepid and talked about the research on the ship and finding that it was originally a French bomb ketch. Marty Gromovsky showed his 1:44 U20, Destroyer Escort England, and U-Boat SM U-9. Lee Martin showed his Soleil Royal. John Cheevers showed a rare example of Bill Clarke's work a partially completed model of the USS South Dakota. Greg Harrington showed the progress on his Danish eel drifter. Joe Finkler showed the progress on his Providence New England Whale Boat and his Virginia American Schooner Model. Joshua Fichmann showed the progress on his Black Pearl. Mort Stoll showed the progress on his Caldercraft Victory.

There was no presentation so the meeting was adjourned.

Give a man a fish and feed him for a day. Give him a fishing lesson and he'll sit in a boat drinking beer every weekend.

Alex Blackwell