

EDINA MODEL YACHT CLUB

SAIL & SCALE

NEWSLETTER

JANUARY 2014

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USCG Water Jet Powered Ships

By Bill Hamelink

The United States Coast Guard has recently introduced a line of really fast ships. These are referred to as littoral combat ships and they achieve speeds greater than 46 mph (40 knots). I had to look up littoral and I found it merely

meant shoreline, where else would you expect to find the Coast Guard? They are designed to carry out the usual shoreline duties, including destroying mines and submarines in coastal waters, and engaging in light surface to surface combat. They can be an operating base for manned and unmanned air and water craft and can house such vehicles.



USS Independence (LCS-2)

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SCHEDULE OF EVENTS:

January 21, Tuesday	7:00 p.m- 9:00 p.m.	Membership Meeting
February 18, Tuesday	7:00 p.m- 9:00 p.m.	Membership Meeting
March 18, Tuesday	7:00 p.m- 9:00 p.m.	Membership Meeting

COMMODORE'S CORNER



**By John
Bertelsen**

Welcome to a new year of model boating!! Yes, it is frozen outside but the year gets started with all kinds of boating related activities now that the Holidays are once again completed. I am really looking forward to the activities in 2014 which will be here before you know it and can get that new boat completed or that old one repaired! I have been talking to many of the club members and find there is a renewed vigor in letting people know about the incredible boating club that we have right in the heart of the twin cities. I still consider myself a new member to the club as there are still so many things I am learning about, but one of the things that has amazed me the most is that with all the questions that we field at the ponds, and with all of us there at the ponds sailing and boating, there is very little awareness that this is a local club. We need to do more to let people know who we are, which should not be too difficult given all the pedestrian traffic in the park. People have offered some excellent ideas for enhancing the awareness of the club that we can toss around at the January meeting.

We also need to discuss all of the club events that we have throughout the year as there are some that need someone new to step in to take under their wing and some that may need to change date and/or location. There is a lot to discuss and a lot of great suggestions, so please plan on attending and sharing your ideas! If you are unable to attend, let me know your thoughts or comments by phone or email.

Finally, if you have a topic or something you would like to see at a future meeting, or if you spot something that would make a good presentation at a future meeting, please let me know and I will do my best to follow up on the suggestion. Right now I am hopefully finalizing a presentation on weathering techniques by a model railroader who is one of the best modelers that I have seen. His traveling railroad will knock your socks off! Also, contact me by phone or email if you are planning on bringing something for show and tell.

--John Bertelsen 763-274-4405 johnb@cesminn.com

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Special Thanks...To members that contributed their time & talents to this issue: Bill Hamelink, Bill Uhl, John Bertelsen, Larry Wheeler, & Dale Johnson

Thank You to David S. Holman's law office for free newsletter printing.. David specializes in Estate planning, Business, Real Estate & Creditor Representation, located in Burnsville, Minnesota.



NAUTICAL KNOW-IT-ALL - WEATHER CONDITION FORECASTING

By Ben Colder & Karl Start

The recent crispy -20 below temperatures and the stiffness of car engines (usually known as carthritis or va-room-a-tism) inspired a few questions regarding weather conditions.

1. "Red sky at night, sailor's delight" is an old observation about the weather. Why is it true?

- A. ships always looked cleaner in reflected red light
- B. it's easier to use a sextant for navigation
- C. it indicates favorable weather coming
- D. sea captains used to give sailors a 'red sky' day off

2. What may clouds moving against the wind indicate?

- A. really strong & stubborn clouds
- B. subduction of a thermal inversion layer
- C. fair weather on the way
- D. rainstorm coming

3. The old folks used to say "Dew on the grass, rain won't come to pass". Why is this so?

- A. the atmosphere is already saturated
- B. it has already rained
- C. it derived from voodoo rituals
- D. high barometric pressure

4. "Ring around the moon, rain will be approaching soon" goes the old tale. What causes the ring?

- A. ice crystals in the air
- B. meteors
- C. the rare "lumina circula" cloud
- D. it's an illusion

5. If a tree's leaves' undersides are on top, what does that mean?

- A. fair weather to follow
- B. drought to come
- C. the tree fell over
- D. rain approaching

6. Moisture-laden summer air would be responsible for which of the following old wives' tales?

- A. Three days' rain will empty any sky.
- B. Cold is the night when the stars shine bright.
- C. No weather's ill if the wind be still.
- D. When sounds travel far and wide, a stormy day will betide.

7. If a lot of seagulls are on the beach, what does that mean?

- A. party time!
- B. the barometer is rising
- C. a tsunami will soon bring a lot of marine life ashore
- D. strong winds approaching

8. Aches and pains are said to be aggravated by coming storms. What would cause this?

- A. rising atmospheric pressure
- B. the little-understood 'Moody effect'
- C. ionization of the air
- D. falling atmospheric pressure

9. The old maxim is "The higher the clouds the better the weather". Why would this be true?

- A. more clear air volume
- B. sunshine covers a bigger area when the clouds are high
- C. high clouds indicate high pressure
- D. no one likes clouds looking over their shoulder

USCG Water Jet Powered Ships (cont.)

and can house such vehicles.

Two versions of this class of ships have been produced in very limited quantities.

One, the *USS Independence (LCS-2)*, (with a trimaran hull) was designed by General Dynamics and built by Austal USA in 2006. It was (commissioned in Jan 2010). Austal USA is an Australian firm with facilities in Mobile, Alabama.

The other was a more conventionally semi-planing hulled ship designed by Lockheed Martin and built by Marinette Marine in Wisconsin in 2005 as the *USS Freedom (LCS-1)*. She was commissioned in Nov. 2008.

The other real novelty here is the propulsion means of these ships. They are both powered by water jets, no conventional propellers.

This gives the *USS Independence* a draft of only 14 feet at a displacement of 3100 tons.

Similarly the *USS Freedom's* draft is only 12.8 feet at a displacement of 3000 tons.

The four water jet nozzles of the *Freedom* are shown here on the left. She has 2 directed steering and reversing nozzles and 2 booster nozzles. Pictures of her wake indicate all 4 jets in operation.

I don't have any good shots of the nozzles on the *Independence* but the wake picture to the lower left makes me believe all 4 of the nozzles are in the center pod. It would also be difficult to get the power to any nozzles in the outer pods. The *Independence* nozzles are described as "four large steering and reversing ... jets". At full power these 4 jets expel 27,000 gallons per second at a speed of 90 mph.

I wonder; Do we have any water jet



The USS Freedom (LCS-1)



Freedom drive nozzles

powered model boats in the club yet? The specs for these two ships are: *USS Freedom LCS-1*

Length 378.3 feet, **Beam** 57.4 feet **Draft** 12.1 feet

Disp. 3000 metric tons full **Power:** 2 Diesel engines

2 Gas turbines 4 Diesel generators

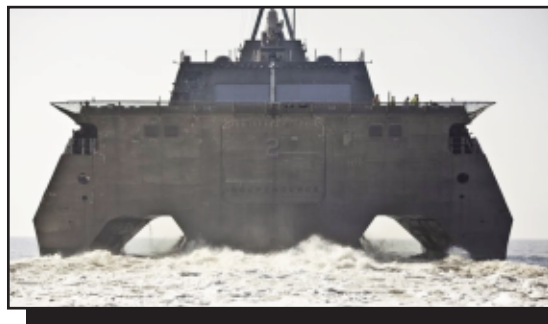
Speed 47+ knots, 54+ mph **Range** 3500 nm at 18 knots

Crew 50 + up to 48 mission crew

USCG Water Jet Powered Ships (cont.)



USS Independence wake



Stern view of the USS Independence

Here are a few pictures to give a more complete picture of these 2 ships. The bow shot shows the anti radar emphasis of the USS Independence and the seemingly small footprint it leaves in the water. The view of the stern shows the relatively large landing deck for helicopters. If you look carefully you can make out the door in the center of the stern. This covers a ramp that can be lowered to water level to load small boats into the Independence.

Here are a couple of additional views of the USS Freedom. The bow view doesn't show anything radical and all I see in



Bow shot of the USS Independence



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USCG Water Jet Powered Ships (cont.)

in the view of the stern is the nice landing ramp and the impressive wake. I am quite sure that this ship also has the rear loading ramp facility.

There is a lot of state-of-the-art equipment on both of these ships and the internet is well equipped to fill in the blanks regarding these features.

The almost current status of this program is as follows:

LCS-1 USS Freedom is in service in Singapore (April 2013)

LCS-2 USS Independence is conducting testing & misc. duties in the Pacific (March 2013)

LCS-3 USS Fort Worth [Freedom Class] Commissioned September 2012



Stern view of the USS Freedom

LCS-4 USS Coronado [Independence Class] Launched January 2012

LCS-5 USS Milwaukee [Freedom Class] Being built

LCS-6 USS Jackson [Independence Class] Being built



BUILDING A DRAGON CLASS SAILBOAT *by Bill Uhl*



Moving along. . 12 lb lead ballast keel and rudder complete. Deck well under way. Not sure whether to glass the hull & paint or finish it bright with varnish. Maybe glass below and bright above. Need to start thinking about sails. - *Bill Uhl*



**Please visit us at our new store location at
5260 Independence Street - Maple Plain, Minn**



ANSWERS TO NOVEMBER'S NAUTICAL KNOW-IT-ALL QUESTIONS

1. The HMS Ontario, discovered in June 2008, was an 80 foot Sloop-of-War built on Carleton Island on the St. Lawrence River. She had a displacement of 226 tons, and was armed with 22 cannons.
2. The Marquette and Bessemer No. 2 distinction as a "ghost ship" stems from the following legend: It is said that on clear nights in December, the doomed ferry's call's for help can still be heard off Conneaut, Ohio's shores.
3. The 580 foot William C. Moreland's stern was grafted onto the ship Sir Trevor Dawson, in 1915.
4. The crew of the fishing boat Three Brothers, took it upon themselves to go out into the Armistice Day storm to rescue the sailors of the SS Novadoc.
5. The SS Pewabic was sunk in a collision with her sister ship Meteor in Thunder Bay, Ontario on August 9, 1865. When sunk, the Pewabic was carrying \$40,000 dollars in her safe and a shipment of 170 tons of copper. Salvage of the wreck proved to be deadly, killing an estimated five divers. It was not until 1917 that the cargo of copper and most of the cash were successfully recovered.
6. The James Carruthers, builders gave up valuable cargo space and used extra hull steel for additional strength, making her not only the largest and strongest Canadian flagged bulk carrier.
7. Built in Lorain, Ohio, the SS Carl D. Bradley, had just unloaded a cargo of crushed limestone and was traveling in ballast with a crew of 35.
8. On May 7, 1965, the SS Cedarville was rammed on her portside in a dense fogbank while transiting the Straits of Mackinac. The ship that struck her was the Topdalsfjord, a Norwegian "Saltie".
9. 26 year old Dennis Hale of Ashtabula, Ohio, was the only survivor of the 603 footer Daniel J. Morrell.



EDINA MODEL YACHT CLUB

Centennial Lakes
Hughes Pavilion
7499 France Avenue South
Edina, Minnesota 55435
www.emyc.org

JANUARY MEETING

TUESDAY, JANUARY 21, 2014 7:00 P.M.
CENTENNIAL LAKES GARAGE BAND ROOM

AGENDA:

- Overview for 2014 Events & promotional ideas
- Show and Tell of Boat Projects

Special Interest Contacts:

Scale Boating:

To Be Determined (Anybody Interested?)

Sail Boating:

Tony Johnson

Fast Electric:

Dan Proulx

2014 Board Members

Commodore: John Bertelsen

Vice Commodore: Paul Olsen

Vice Commodore: Joe Steele

Vice Commodore: Mike Ross

Vice Commodore: Kevin Waldo

Secretary: To Be Determined

Treasurer: Larry Wheeler

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Please send articles by email to:

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