

EDINA MODEL YACHT CLUB

SAIL & SCALE

NEWSLETTER

FEBRUARY 2012

VOLUME 21, NUMBER 2

USCG Buoy Tender WLB 404 Sundew



The Sundew, a 180 foot buoy tender

By Bill Hamelink

Why should we have an interest in a buoy tender ship, and why did I pick out the Sundew? A buoy tender is a ship that is constantly on duty in the Great Lakes and thus is easily encountered by us in Lake Superior or Lake Michigan.

It's duties are to aid and supply all 'aides to navigation' (AtoN), including some lighthouses, to set and maintain navigation buoys, to assist ships as required, to extend the shipping season by clearing channels in

(continued on page 4)

SCHEDULE OF EVENTS:

February 21, Tuesday7:00 p.m.-:9:00 p.m.	Membership Meeting
March 20, Tuesday7:00 p.m.- 9:00 p.m.	Membership Meeting
April 17, Tuesday7:00 p.m.-9:00 p.m.	Membership Meeting

COMMODORE'S CORNER



By **Wayne Snyder**

It was great to see the good turnout for Captain Dave Robb's presentation. I had no idea on how the interaction if propellers and rudders acted on the boat itself. The props he had to demonstrate the actions really helped. I am still looking for ideas on programs and anyone wanting to do a program for club night. It's always interesting to see your projects and to hear about your experiences with other clubs and contests. My prognosis for ice out this year is 6 weeks from now, so get those boats ready for a great 2012 season on the pond.

-Wayne

RICHFIELD
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OPEN...MON-FRI, 10:00-9:00...SAT, 9:30-5:30...SUN, 12:00-5:00

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Capt. David Robb, discussing boat navigation at our meeting.

EDINA MODEL YACHT CLUB INCOME & EXPENSES 2011

Balance on January 1, 2011 \$833.16

2010 Income

Dues:	
86 Adult 2 Youth	\$2,180.00
Newsletter Ads	\$355.00
Donations	\$121.00
Poster Sales	\$51.00
Anniversary Magnets	\$178.00
ODOM Nationals	\$735.12
River Cruise	\$838.00

Total Income: \$4,458.12
Balance on December 31, 2011 **\$131.72**

Respectfully Submitted January 2012

2011 Expenses

Newsletter Printing	\$1,248.53
Web Site	\$308.30
Parade Of Boats	\$140.53
2011 Dry Dock Party	\$1,775.16
Commodore Shirts 2 Ea.	\$59.00
ODOM Nationals	\$735.12
River Cruise	\$838.00
Miscellaneous	\$54.92

Total Expense: \$5,159.56

Larry Wheeler, Treasurer

NAUTICAL KNOW-IT-ALL - BODIES OF WATER

By Captain Nautilus Nemo

Answers to January's Know-It-All Questions

1. The Amundsen Sea is located off the coast of western Antarctica. Scientists have observed increased glacial flow in the area, but the exact cause is unknown. Some scientists believe it to be because of undersea volcanic activity, while others attribute it to deep ocean water welling up as a result of global warming.

2. The Milford Sound is located in the South Island of New Zealand, and is fed by the Tasman Sea and stretches 15 kilometres inland from its mouth at Dale Point. Rudyard Kipling once called the Milford Sound the eighth Wonder of the World.

3. The Caspian Sea is the largest freshwater lake in the world. It has an incredible 69,400 cu km of water over an area of around 370,000 sq km.

4. The answer was not the Le Seuer River, even though it is located in the land of the Jolly Green Giant, who eats a lot of vegetables. The Chicago River originally flowed through Chicago into Lake Michigan. Some of its flow was diverted in 1871, and in 1900 the flow was completely reversed so that it

flowed from Lake Michigan to the Chicago Sanitary and Ship Canal and eventually to the Mississippi River. Due to high pollution level, the river actually caught on fire several times in the twentieth century (though it has been cleaned up quite a bit in recent years).

5. The Detroit River is only 32 miles long. It runs between Lake St. Clair and Lake Erie, past the city of Detroit, Michigan. It forms the boundary between the United States and Canada. Looking southward across this river from Detroit, you are looking into Windsor, Ontario,

6. The George Washington Bridge. It is about 3,500 feet in length and connects Fort Lee, New Jersey with Manhattan, New York City. There are longer suspension bridges in the US, but they don't cross rivers.

7. The largest bay in the world is not E-Bay (sorry about that, Joe Steele) The Bay of Bengal is the largest bay in the world, with a surface area of over 2,000,000 sq km.

UPCOMING RC COMPETITION EVENTS

The Week Signals - R/C Expo, otherwise known as "The Toledo Show" is comin' 'round again in two months The show is located at Sea Gate Centre 401 Jefferson Avenue Toledo, Ohio 43604

April 13th, 14th, & 15th, 2012 (<http://www.toledoshow.com/>)

Show hours: Fri/Sat 9am to 5pm - Sun 9am to 2pm Admission is \$10.00 per person per day.

It bears repeating that there are several EMYC members who could do some serious damage at the competition venue. Paul, Dick, Joe ... are ya listening? Boats compete in "Working Vessel - Unarmed", "Pleasure Boat", "Military Scale Boat", "Competition Boat" (both sail and powered) and "Best Finish" classes.

I might mention that last year, "Best in Show" went to a huge Truck! So Streetcar Boats, Schooners and Klass Koted growling race boats stand an excellent chance of recognition.

And, while on the subject of competition, it's not too early to begin thinking about the **36th Annual Midwestern Model Ships & Boats Contest and Display** at Manitowoc over the May 18, 19, 20 weekend! See the museum web site for details as they develop over the next few weeks. <http://www.wisconsinmaritime.org/special-events> -submitted by Jim Smith

USCG Buoy Tender WLB 404 Sundew (CONT.)

the ice, and in general to be a good Samaritan on the lakes and harbors.

OK, so why the Sundew. She served on the Great Lakes almost all of her 60 year life and was often seen in Duluth and other nearby harbors. The Sundew was decommissioned in May of 2004 and



was given to the City of Duluth for a museum ship. A number of us must have seen her there. She has now been sold to a local Duluth businessman, Jeff Foster. Buoy tenders for inland and coastal waters have been around for a long time and were generally under private control until the federal Light House Establishment took an interest in them in 1839 and bought the top-sail schooner Richard Rush for buoy tending work. She left a lot to be desired and in 1857 the government built a steam powered ship, the USLHT Shubrick, specifically for the buoy tending job. The fleet grew to 30 vessels in 1890 and to 47 in 1910 when control was passed on to the Bureau of Lighthouses which was absorbed in 1939 by the recently established U.S. Coast Guard.

In January of 1941 the USCG contracted with Marine Iron and Shipbuilding Company of Duluth, MN to build a 180 foot multi-purpose buoy tender based on an earlier 177 foot all welded steel ship Jupiter. All but one of the fleet of 39 ships were built in Duluth from 1942 to 1944; remember, this was war-time. Remarkable! The Sundew was started 29 November 1943, launched 8 February 1944, and Commissioned 24 August 1944.



Thus was born the 180 foot buoy tender class of ships. They were tagged as the black hull fleet; black so the hulls didn't show the scars from buoy hoisting to badly. The details of this ship were: Length 180 feet, Beam 37 feet, Displacement 1041 tons, 12 feet of water draw, and hardened waterline for ice breaking. They had a single propeller powered by an electric motor and twin diesel electric generators. This gave them a range of 12,000 miles at a cruising speed of 12 knots, or 17,000 miles at 8.3 knots. Due to the war, some units featured depth charge racks, mousetrap launchers, and deck mounted guns.

There were 3 classes of these ships, all named after plants, these were the class A Cactus with 13 ships, the Class B Mesquite with 6 ships, and the class C Iris with 20 ships. These classes were distinguishable from each other but also very similar. Our Sundew was of the Iris class.

The Sundew was built by Marine Ironworks and Shipbuilding Corporation in Duluth, MN in 1944 and was commissioned in 1944. In 1958, after being assigned to Charlevoix, Michigan, she responded to the storm emergency, and sinking, of the Carl D. Bradley and was able to rescue 2 of the crew members.

USCG Buoy Tender WLB 404 Sundew (CONT.)

Her duties included buoy (and other aids to navigation) placing and maintenance, ice breaking, search and rescue, and general aide to marine vehicles.

The 180's and the Sundew were updated and improved regularly. These regular updates included equipment modernizations, habitability improvements, drive-train repair and replacement, and the addition of bow thrusters.

In 1983 the fleet was cycled thru the Curtis Bay Shipyard for 'life extension' modifications which included drive-train replacement, extensive structural modifications, electronics updating, new navigation systems, and refurbishing and repainting. The duty assignments for the Sundew were:



Commissioned in 1944 and assigned to Manitowoc, WI,
 1945-1953 assigned to Milwaukee, WI
 1953-1958 assigned to Sturgeon Bay, WI
 1958-1977 assigned to Charlevoix, MI
 1977 Gone to Curtis Bay, MD for renovation
 1978-1980 assigned to Charlevoix, MI
 1980-2004 assigned to Duluth, MN
 1987,1988 winter assignment to Caribbean on law enforcement duty
 2004 decommissioned at Duluth

Other 180's you might have seen in our area were the; Mesquite class Sweetgum WLB-309, 1943 to 1944 in Grand Haven, MI
 Iris class Mariposa WLB-397, 1974 to 1990 in Detroit, MI

Cactus class Woodbine WLB-289, 1947 to 1972 in Grand Haven, MI

The 180' fleet of buoy tenders served us long and well but now they are all retired. When the Sundew retired in 2004 her duties were taken over by the Alder, WLB-216, a 225' buoy tender of the Juniper Class. She was built by Marinette Marine Corp. in 2004 in Marinette, WI. Duluth is her home port.

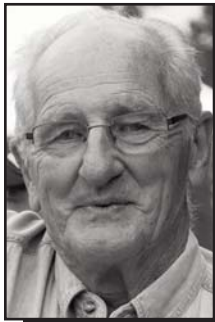
If this sparked your interest, there are plans (\$37.50) and hull kits (\$220) for a 180 footer from Taubman Plans.

---Bill Hamelink



The Alder WLB-216, a 225' buoy tender

BUILDERS CORNER



BUILDING SUNITA

By Dick Walker

This boat is a Snekk design hull, which is a Norwegian term for a double-ender hull construction. The hull is lap stroke construction. This type of boat is used for fishing, utility, and pleasure, on the fjords of Norway.

The model is scratch built, meaning obtaining plans, purchasing materials and hands on construction. The first step was to obtain the hull plan from the University of Oslo, and the deck plan layout was from pictures of a real boat in Kragero Harbor, Norway. The decision was to build a working model 33" long. This

gave me a scale of 1 1/2" to the 1'. The next step was to cut out frames and build a stand to support the hull construction. The frame support is made up of 10 frames, keel, stem and sternposts. All frames, keel and stern are shaped and measured accurately. Accuracy is very important as it dictates the final shape of the boat. The step before planking is to place a furring strip along frames to make sure there are no high or low points along the length of the boat. This is important whether scratch or kit built.

My next step was to mark all frames for planking, nine total. By making a template against the hull form, then placing this template on a length of bass wood, cut and shape two planks (garboards) to fit along the keel. The garboards were glued to the hull and much care is needed not to get glue on building frames, or the boat will not come off the frames. After garboards are attached on both sides then a template is made for the next plank to be installed, and continue the process until the hull is planked. The planks are held in place with pins or small clamps. The planks have more than one curve, so soaking in hot water or steaming was used to accomplish this task. Once the two planks were dry, and checked for accuracy, they were then glued to the previous plank, stem, and sternpost. The process takes days as you must dry the plank, glue, and then continue to the next plank. Once all the planks are attached, the hull was thoroughly sanded.

The second step is the simulation of rivets. The hull is marked where the ribs are located, then small holes are drilled

(continued on page 7)



BUILDER'S CORNER (CONT.)

to accept the brass and copper wire that simulate rivets. The wire is placed thru the hole, with a small amount of epoxy, snip off excess. When all rivets are attached, then file flat with a flat file.

The third step in hull construction was to stain to the desired color. I used a shellac stain, amber color, and then coated the hull with four coats of spar varnish. The inside of the hull is stained, and coated with diluted epoxy to waterproof. The deck was installed using Swiss and natural pear wood. Using a deck layout starting with the king plank, I laid the deck planks from the king plank on out, alternating port and starboard. Between each plank black construction paper was used to show caulking. Once the deck was finished, it was sanded, coated with sanding sealer, then a number of coats of varnish (Golden artist varnish), to get the final finish.

It is paramount that all wood, deck underside benches, trim, etc., be waterproofed. I used 50% epoxy ad 50% denatured alcohol.

Interior seats, motor box, and windows, were constructed with appropriate wood, widow glass plastic, and blue seat cushions and red pillows add color. The boat is powered electrically, with steering and speed control capabilities.

This was a fun model to build as I had not built a lap strake boat of this size before. Maybe a learning experience for a better one in the future. -*Dick Walker*

MATERIALS AND EQUIPMENT USED

1. Basswood - assorted sizes
2. Pear wood - Swiss and natural
3. Tite Bond Glue #3
4. Epoxy - Hobby Center (30 min.)
5. Stain -Xinsser - Amber color
6. Deck Varnish Golden Hard MSA satin

7. Speed Control RIP MAX
8. Receiver SPECTRUM AR6110e
9. Transmitter SPECTRUM DX 6I
10. STEER SERVO FUTABA S3003
11. Brass wire #
12. Copper wire #
13. Batteries TENERGY 6V
14. Norwegian Flag
15. Navigational lights
16. Steering Wheel - Blue Jacket
17. Spar Varnish
18. Sleg - Paul Olson constructed

NAUTICAL KNOW-IT-ALL QUESTION



This is not a fake photo, it is a real guitar boat. Where is this photo taken & who is it? Hint: A YouTube video features this songwriter and his boat. What an idea for a RC boat... Anybody have an old guitar? ---*Todd Moen*

Special Thanks...To members that contributed to this Sail & Scale issue: Bill Hamelink, Larry Wheeler, Jim Smith, Dale Johnson & Wayne Snyder. Your efforts are appreciated!





EDINA MODEL YACHT CLUB

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Edina, Minnesota 55435
www.emyc.org



FEBRUARY MEETING

TUESDAY, FEBRUARY 21, 2012 7:00 P.M.
CENTENNIAL LAKES GARAGE BAND ROOM

AGENDA:

- Paul Olsen: Current Building Project from Paul's shipyard
- Show 'N Tell: Bring your building projects

Special Interest Contacts:

Scale Boating:

To Be Determined (Anybody Intersted?)

Sail Boating:

Tony Johnson (952) 470-8818 tjohnson@emyc.org

Fast Electric:

Dan Proulx (763) 551-4953 dproulx@emyc.org

2011 Board Members

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