EDINA MODEL YACHT CLUB
SAIL & SCALE NEWSLETTER
APRIL, 2010 VOLUME 19, NUMBER 4

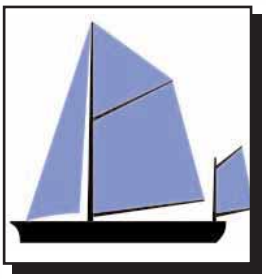
A PRIMER ON SAIL PLAN CONFIGURATIONS

Compiled By Todd Moen

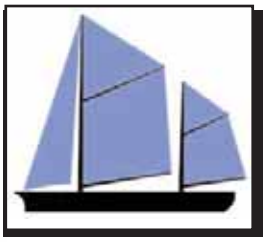
Last month's fantastic presentation on sailboats by Tony Johnson inspired me to publish a quick reference to identify the many different types of sail plans. Sailing vessels are distinguished by hull configuration, mast configuration, keel type, purpose, as well as the sail plan configuration.

SLOOP: A Bermuda or gaff mainsail lifted by a single mast with a single jib bent onto the forestay, held taut with a backstay. This rig is popular for recreational boating because of its potential for high performance.

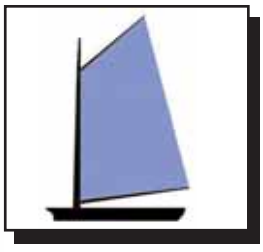
CUTTER: Like a sloop with two or more headsails in the foretriangle. Better than a sloop for light winds, it is also easier to manage. The mast is located at about 50% to 70% of sailplan length. A mast located aft of 50% would be considered a mast aft rig.



YAWL: Like a sloop or catboat with a mizzen mast located aft (closer to the stern of the vessel) of the rudder post. The mizzen is small, and is intended to help provide helm balance. A very frustrated RC boater once yelled out to his boat "Yawl come back now, ya hear!"



KETCH: Like a yawl, but the mizzenmast is larger, and is located forward of the rudder post. Generally the rig is safer and less prone to capsize than a sloop. The ketch is a classic small cargo boat.



CATBOAT: A sailboat with a single mast and single sail, usually gaff-rigged. This is the easiest sail-plan to sail, The catboat is a classic fishing boat.

(Continued on Page 5)

SCHEDULE OF EVENTS:

April 20, Tuesday .....7:00-9:00 p.m. .....Membership Meeting
April 24, Saturday .....9:30a.m.-5:00 p.m. .....Three Pond Race
May 18, Tuesday .....7:00-9:00 p.m. .....Membership Meeting

COMMODORE'S CORNER

By Joe Steele

The season has started and Wayne Snyder was the first to run. The forecast for the summer is a great one so let's see what you have been working on all winter. Dust off all your boats, charge them up and run them on the pond. Tony Johnson, at the last meeting, got us all excited about sailing with his presentation on how to know enough about sailing to enjoy it. Thanks Tony for the information.

Tim Smalley, a nationally recognized authority on submarines, will tell us all we need to know to get started with submarines at the next meeting. See you there. There is nothing worse than going to the pond and no one is there or you bring the wrong boat. To help solve this problem we have a topic on the web site called "Going to the Pond".

Posting your plans there will encourage others to run their boats. Thanks goes to Dale Johnson for his work keeping the web site up-to-date. Don't miss out on the fun.

Joe Steele

A thought to chew on..

Noah was a brave man to live on a wooden boat with two termites.

Special Thanks...

To members that contributed to this Sail & Scale issue : Dale Johnson, Ray Meifert, Dan Lewandowski, Joe Steele., and especially Don Westley, for helping out with preparing the March meeting minutes in Julia Moen's absence.

AT THE MEMBERSHIP MEETING

MARCH 16, 2010

By Don Westley

Thirty five members were in attendance at the March meeting.

Visitors attending were Doug Harvey of Wayzata, interested in sailboats, possesses nine sailboats, and Bob McDonald, visiting for the second time, who has some sailboats, and is currently building a model of the tugboat, Lord Nelson.

Todd Moen reminded the membership that more articles for the newsletter would be appreciated.

Meet Your Member: Terry Mackey presented some personal background: He possesses seven sailboats, including a Soling, a 914, a Fairwind, and an Odom. He came from Indiana, worked in graphic design in Chicago, now has a local packaging business employing 7-10 people. He used to be in a Triumph car club. He traveled around the US when he was a member of a four man stunt kite team. He has been racing a M-16 scow at White Bear Lake.

Tony Johnson presented the March meeting feature, R/C Sailing and Sail Shape. Tony is a national champion sailor of R/C boats, including the Fairwind and the 914. His presentation involved sail tuning basics and terminology, such as center of balance, center of effort, vector forces, and obtaining airfoil shape of sails. He demonstrated how to tune rigging to acquire optimum sail shape for maximum efficiency. Balance between main and foresail was illustrated. He showed how to adjust for weather helm and lee helm, and adjustment of the topping lift to open the slot between the main and jib. Fractional rigs, positive luff curve, boom vangs, outhauls, and other equipment and concepts were demonstrated. Optimum sail shape for different wind conditions was discussed. This presentation easily explained why Tony is a national champion sailor. One of his key sailing philosophies is "Good speed and balance equals a boat that is easy to sail."

Don Sektnan informed the membership about a store in Oakdale ("Tools Plus More"), that has an inventory that is useful to the R/C modeler.Dan Lewandowski demonstrated his low cost, highly efficient and effective "Smoker kit" which is available to the membership for boat projects that need smoke mechanisms. The brief demonstration of his device resulted in an attractive haze in the meeting room, but was soon terminated for fear of setting off building smoke alarms.

Joe Steele displayed and discussed features of his Redline GX1 pickle fork hyro and his modified Aquacraft tunnel fast boats.

Tony Johnson explaining sail shape

Joe Steele & his Redline GX1 pickle fork

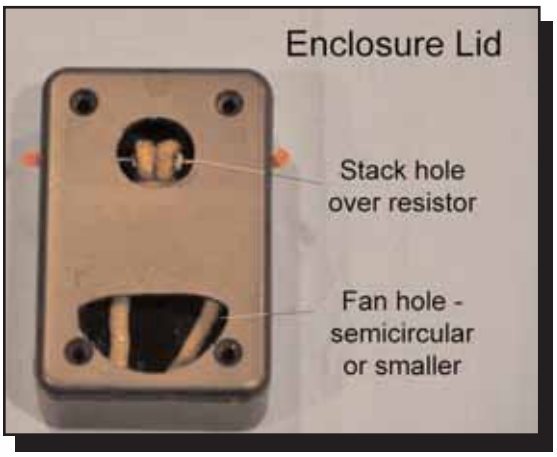
BUILDER'S CORNER

SIMPLE FOG JUICE (GLYCOL) SMOKER -A 12V DESIGN FOR YOUR BOAT - PART 2

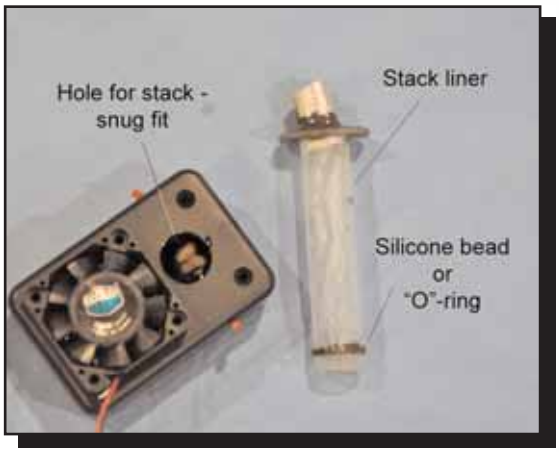
By Dan Lewandowski

(Continued from last month)

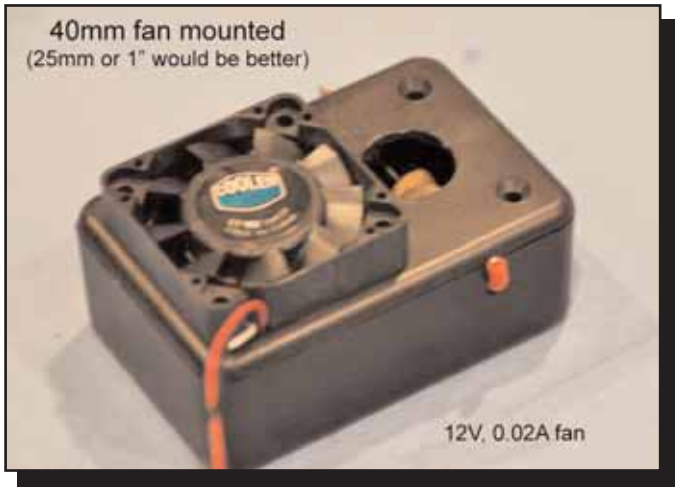
Position the hole for the stack directly over the resistor and wick. This keeps the plastic of the lid from being too close to and directly above the heat source. The opening should be a tight fit to the stack. The stack should fit into the hole so condensate drips back into the box, but should not be inserted so far as to touch the resistor, wick or power leads.



Use a thin bead of silicone or an O-ring to make a collar at the bottom of the tube to help seal around the hole and to control the insertion depth of the stack. Remember that this stack is a liner that goes inside your scale stack. Don't use metal for the stack - it will cool and condense some of the fog that you used precious battery power to produce. Plastic syringe tubes make good stacks because they are heat resistant and come in many sizes.



Experiment with the fan opening. The pictures show a half circle with a diameter matching the fan blade. Start with a small hole (maybe only 1/2") and test run the smoker. Enlarge the hole in gradual steps to get good smoke flow without creating a "smoke jet". Another reason to keep the hole small is to prevent the smoke fluid from splashing up into the fan. Building a baffle into the fan opening to prevent fluid splashback would be a good design addition.



The fan can be simply sealed to the lid with a very light bead of silicone. All openings need to be sealed well or smoke will fill your hull or cabin.

Add fog juice to the container and wet the wick. The smoker can be filled through the stack. Add power to the resistor and fan and get smoke!

Some additional thoughts:

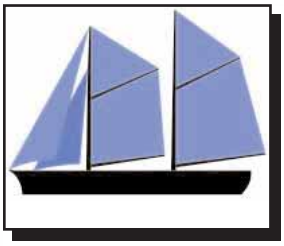
- Check the wick occasionally for burning or fouling. And remember not to run the wick dry.

- Use a fuse and a quickly accessible switch in the power circuit.

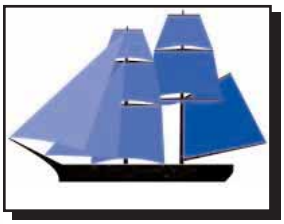
- The system may overheat (melt) if the heater is powered

(Continued on page 6)

A PRIMER ON SAIL PLAN CONFIGURATIONS (CONT.)



SCHOONER: A fore-and-aft rig having at least two masts, with a foremast that is usually smaller than the other masts. Schooners have traditionally been gaff-rigged and in small craft are generally two-masted, Larger boats have as many as seven masts. One of the easiest types to sail, but performs poorly to windward without gaff topsails.



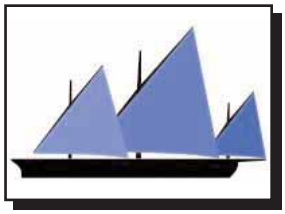
BRIG: Two masts, both square-rigged with a spanker on the mainmast. Brigs were once seen as fast and maneuverable and were used as both naval war ships and merchant ships. Popular in the 18th Century to early 19th Century.

BRIGANTINE: Two masts, square-rigged on only the foremast and fore-and-aft rigged on the mainmast. Originally the brigantine was a small ship carrying both oars and sails. It was a favorite of Mediterranean pirates. The name is from the Italian word "brigantino" which meant brigand's ship.

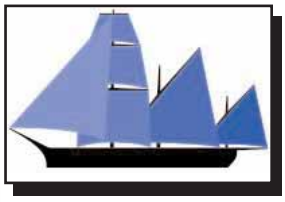
BARQUENTINE: is a three masted vessel, square rigged on the foremast and fore-and-aft rigged on the main and mizzen masts. Some sailors who have sailed on them say it is a poor-handling compromise between a barque and a ship, though having more speed than a barque or schooner. Barquentines were very popular at the end of the 19th Century as they could carry almost as much cargo as barques or full rigged ships and needed much smaller crews.

BARQUE: Three masts or more, square rigged on all except the aftmost mast. Usually three or four masted, but five masted barques have been built. Lower-speed, especially downwind, but requiring fewer sailors than a ship. This is a classic slow-cargo ship.

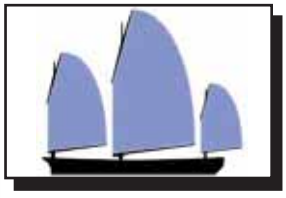
FULLY RIGGED SHIP: Three or more masts, square rigged on all, with stay-sails between. The classic sailing warship was fully rigged in this way, because of high performance on all points of wind. They were larger than brigs and brigantines, and faster than barques or barquentines, but required more sailors.



BRAGANA or FELUCCA: A classic in the Indian or Mediterranean Ocean. They are able to board ten passengers and 2 or 3 crew.



POLACCA: A three master with a narrow hull; carrying a square-rigged foremast, followed by two triangular sails. Similar to a Xebec.



JUNK: A Chinese design: Elliptical sails made flat with bamboo inserts, permitting them to sail well on any point of sail. The rig places no extreme loads anywhere on the sail or rigging, and built using light-weight, less expensive materials.

Information from Wikipedia - The Free Encyclopedia

BUILDER'S CORNER (CONT.)

without running the fan to provide some cooling.

- Only a couple of two screws is necessary to hold down the lid.

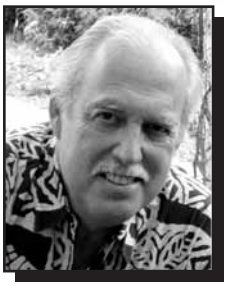
- A metal lid is also provided with the box. That can be used instead of the plastic one.

- Don't overfill or tip the box - spilled glycol solution is sticky.

- WARNING - glycol solutions are extremely poisonous, especially to pets. It smells and tastes sweet and your pet will find and lick any spills it finds. Even a few licks can be enough to kill your pet! And wash your hands after handling - for your safety and your pets!

CLUB SHIRTS HATS ETC.
Contact:
Kevin Waldo [redacted]

Cub Burgees and Stickers
Contact:
Mickey Kirihara [redacted]



RARE PHOTO OF BRITISH PT BOAT FLOTILLA

By Ray Meifert

On April 27th, 1937, Motor Torpedo Boats (MTB's) escorted King GeorgeVI with a young Princess Elizabeth down the Thames from Westminster to Greenwich to the opening of the National Maritime Museum . The boat used was a Scott Paine/ British Power Boat Company Admirals Barge. This was the first public appearance of the post WW1 Scott-Paine MTB's that were pioneered by Hubert Scott Paine and the British Power Boat Company. MTBs 01 and 02 were officially commissioned into the Royal Navy on June 30th 1936.

Mr. Scott-Paine discovered how to build a craft which in contrast to the ordinary ship, travels over the surface of the water instead of forcing its way through it. This type of craft attained high speed with commercially usable horse power and although it was a planing craft, it had neither the disadvantages of lack of manoeuvrability or seaworthiness associated with stepped hydroplanes, nor the lack of directional stability and longitudinal stability associated with other types of planing craft. This development of MTB's placed Britain in the forefront of high speed craft and armed the British Navy with a type of Motor Torpedo Boat superior to any other in seaworthiness and cruising endurance, combined with speed.

March Nautical Know-It-All answer: "Stars and Bars" refers to the British assortment of bar-shot and star shot fired from the guns of American ships. American ingenuity created many shot designs specifically intended to rip and destroy the rigging of an enemy ship & causing horrific bodily injury. Through the War of 1812, the British Admiralty specified that only ball, grape and chain shot be carried by British naval vessels and disallowed using stars & bars. British newspapers had critical cartoons relating the "Stars and Bars" flagged ships with the use of the horrific "stars and bars" shot to explain the losses of the British navy to the American revolutionaries.

NAUTICAL KNOW-IT-ALL

By Dan Lewandowski

Dating back to 300B.C. & early Roman navigation, the type of sailing rig shown in the picture became the favorite sail in the Age of Discovery. Today, it is in use by Mediterranean fisherman, on the upper Nile, and on parts of the Indian Ocean, where it is the standard rig for feluccas and dhows. This sail is used today in a different form on small boats like the popular Sailfish and Sunfish. What is this very old style sail called? "Triangular" won't do.

EDINA MODEL YACHT CLUB

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

April Meeting

Tuesday, April 20, 2010 7:00 P.M.
Centennial Lakes Garage Band Room

Agenda:

Tim Smalley -Information on Submarines

Special Interest Contacts:

Scale Boating:
Dan Lewandowski [redacted]
Sail Boating:
Tony Johnson [redacted]
Fast Electric:
Dan Proulx [redacted]

2010 Board Members

Commodore:	Joe Steele
Vice Commodore:	Paul Olsen
Vice Commodore:	Don Westley
Vice Commodore:	Dick Walker
Vice Commodore:	Kevin Waldo
Secretary:	Julia Moen
Treasurer:	Larry Wheeler

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Newsletter Editors: Todd & Julia Moen
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Webmaster: Dale Johnson
[redacted]

Please send articles by email to:
[redacted]

Deadline for articles to be considered for the May publication will be Friday April 30, 2010