

PHILADELPHIA



THE SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS

CHAIR ROD SUTHERLAND NDI ENGINEERING 100 GROVE ROAD P.O. BOX: 518 THEROFARE, N.J. 08086 RSUTHERLAND@NDIENG.COM (856) 848-0033

VICE - CHAIR TIMOTHY KEYSER U.S.ARMY CORPS OF ENGINEERS MARINE DESIGN CENTER 100 PENN SQUARE EAST PHILADELPHIA, PA. 19107 TIMOTHY.J.KEYSER@USACE.ARMY.MIL TIMOTHY.J.KEYSER@USACE.ARMY.MIL (215) 656-6171

SECRETARY/TREASURER TIMOTHY KEYSER U.S.ARMY CORPS OF ENGINEERS MARINE DESIGN CENTER 100 PENN SQUARE EAST PHILADELPHIA, PA. 19107 (215) 656-6171

EXECUTIVE COMMITTEE SANJAY DESHMUK AL LEVESQUE MITCHELL D. WALKER MICHAEL KEARNEY DON LINDQUIST DAVE MOORHEAD DENNIS PURVES TOM CUMMINGS STEVE MATZ HERRON MILLER JIM SANIAL

THE SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS PHILADELPHIA SECTION

PRESENTS

STUDENT PRESENTATION NIGHT WEDNESDAY APRIL 15, 2009

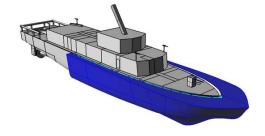
PRESENTATION OF A U.S. COAST GUARD ACADEMY NAVAL ARCHITECTURE AND MARINE ENGINEERING SENIOR DESIGN PROJECT

COAST GUARD ICEBREAKING TUG

BEAVER BOAT-BUILDING COMPANY (BBC) DESIGN GROUP



WTGB



WTGB with Ice Breaking Barge

THE USCGA CLASS OF 2009

NAVAL ARCHITECTS AND MARINE ENGINEERS

Throughout the 2008-2009 academic year, the Naval Architecture and Marine Engineering Cadets from the U.S. Coast Guard Academy have been working on their capstone design projects. This year there are three different design groups trying to satisfy mission requirements for a new class of Coast Guard Icebreaking tugs.

The Coast Guard's current fleet of 140 ft WTGB Icebreaking tugs is aging, and there is current growth in Coast Guard mission areas, causing for a need to begin the process to replace these vessels. Each of the three senior design groups was assigned different variants to design an icebreaker from, all of which could serve as a solid base of information for the Coast Guard. The three variants were an Escort Icebreaking Tug, an Icebreaking Tug designed to work with a Aids to Navigation barge, and a law enforcement focused Icebreaking tug

The design group the Beaver Boat-Building Company (BBC) will be presenting their variant of the Coast Guard Icebreaking Tug. The group was required to design law enforcement vessel with a top speed of 20 kts that can break through 3 feet of ice at 2 knots, and is powered by medium speed diesel engines. The presentation will cover the Cadets' first iteration through the design process including: generation of the hull form, general arrangements, intact and damaged stability analysis, seakeeping analysis, midship section design, propulsion plant design, model testing, electrical distribution, HVAC design, cost analysis, and crewing considerations. The design team will prepare a full presentation of their project and field questions from the audience.

JOIN US:

WEDNESDAY ~ APRIL 15, 2009

Where: Ramada Inn - Philadelphia Airport South

76 Industrial Highway Essington, PA 19029

Phone: 610-521-9600 / Fax: 610-521-9388

Dinner Cost: \$25 for member, \$30 for non-member, Free for students

*Cocktail Hour: 5:30 pm ~ Dinner: 6:30 pm

(ASNE and other Engineering Society Members pay member price)

For reservations or information, please call or send Email by Monday April 13, 2009

Tim Keyser: (215) 656-6171: Timothy.J.Keyser@usace.army.mil

If you have any questions, please let me know.

Or

ROD SUTHERLAND (856) 848-0033 rsutherland@ndieng.com

TIM J. KEYSER: (215) 656-6171: Timothy.J.Keyser@usace.army.mil

<u>ELECTIONS FOR THE 2009-2010 YEAR WILL BE HELD</u> <u>BEFORE THE PRESENTATION.</u>

The Philadelphia Section is currently looking for candidates for the following officer positions:

Membership Chair Secretary / Treasurer Vice-Chair

If you are interested, please contact Rod Sutherland or Tim Keyser.