Scale Model Battleship Cruises Lakes In Style

William Terra spent four years building a "model" boat that's unlike anything you've ever seen on water.

It's a 1/20-scale replica of a WW II Battleship. Terra was working on a 1/100 radio-controlled model of the ship when he got the idea of making a larger one that he could actually ride in. So he started working on his 30-ft. long, 700-lb. replica. "If I had had more room in my basement, I'd have made it larger," he says.

The boat has a beam (width at midships) of 52 in. and is nearly exact in every detail from front and rear gun turrets to lifeboats.

The boat is powered by a 15 hp Evinrude 2-cycle outboard that he attached under the rear gun turret. The boat has room for two passengers and speeds along at about 15 mph.

Terra installed a state-of-the-art music system with loudspeakers and global positioning system. A Richard Wagner fan, he says one of his favorite things is cruising the lake

near his home while listening to "The Ride of the Valkyries."

Terra used 1/4-in. thick basswood strips to shape the canoe-like hull. He fluted and grooved each strip to make them fit together to make the sides smooth. Then he covered it with fiberglass cloth and resin to strengthen it. "I put a a steel keel on it, so when I run up on rocks, it won't do any damage," he says.

Terra is a retired New York City fire fighter. "The winters are long in Maine, and I needed something to do," he says. He's still adding railings, stairs, gang planks, secondary battery anti-aircraft guns, more lifeboats, ammunition boxes, and several other items to make it more authentic. He's also looking for 3-in. dolls he can use for sailors on the decks. And he needs several feet of 0.018-in. braided stainless steel wire cable.

Even though the ship isn't finished, Terra has been taking it out on lakes around his home. He says it always draws a crowd, and



William Terra built this 1/20-scale, 30-ft. long replica of a WW II Battleship. some people have even recognized the famous German ship it's patterned after - the Admiral Graf Spee.

Contact: FARM SHOW Follow iam Terra, 385 Brann Road, Leva

Terra's model is featured on several Internet sites, including www.bismarck-

class.dk/shipmodels.
Contact: FARM SHOW Followup, William Terra, 385 Brann Road, Levant, Maine 04456 (ph 207 884-7190; E-mail: williamterra@aol.com).

Cordwood Cuts Cost Of Home Construction

Firewood does more than heat Alan Stankevitz's house. It actually *is* the house.

More than 6,300 8-in. lengths of cordwood form the walls of the post and beam framed house he built near La Crescent, Minn. Even the mortar the cordwood is set in is part wood since he's mixed over 2,000 lbs. of recycled newspapers into the masonry cement.

"I got the idea of using newspaper slurry from the papercrete they build with in the Southwest," says Stankevitz. "They only use 10 percent cement, but I knew with the weather in this area, I would need more."

He uses a two part sand, two part newspaper and one part masonry cement mix. Stankevitz uses a high speed drill fitted with a spackle mixer to turn a 15-gal. bucket full of paper and water into a slurry before adding it to the mixer.

"The paper-enhanced mortar retards mortar setup. This reduces the number of shrinkage cracks you normally get with mortar and cordwood," says Stankevitz. "It also lightens up the wall and produces a nicer color when it has dried down. I also tried sawdust and cement, but I think the paper mortar sticks to the cordwood better."

After five years of work and \$40,000 to \$45,000, all exterior walls are finished, the roof is up and the well and septic tank are in place. Stankevitz estimates it will take him

another two years to finish the interior.

The energy efficient design includes 24-in. wide footings, an 8-in. thick outer wall, an 8-in. gap nearly filled with 5 to 6 in. of spray-on open cell foam and finally, an 8-in. thick inner wall.

"I've found that I probably didn't need the inner wall," says Stankevitz. "The outer wall is air tight, and with the solar gain we get from our windows, we don't need much added heat."

What heat is needed is provided by ten 4 by 10-ft. solar collector panels mounted near the house, in-floor radiant heat, and a wood stove. Warmed fluid from the panels circulates through a sand pad beneath the ground floor and radiates into the house.

Stankevitz worked with the area electric co-op to reduce operating costs on his electric boiler for the in-floor heat. On really cold nights, he fires up his wood stove.

Stankevitz has also designed a water trap to collect and hold rainwater from the steel roof. PVC pipe carries saved water from downspouts to an underground tank. Stankevitz plans to use the rain water for clothes washing.

When he's not working on the house, Stankevitz hosts a website with a wealth of information on cordwood home construction. Contact: FARM SHOW Followup, Alan



More than 6,300 8-in. lengths of cordwood form the walls of the post and beamframed house built by Alan Stankevitz near La Crescent, Minn. The cordwood is set in mortar that has newspapers mixed into it

Stankevitz, 8824 Cty Rd. 21, La Crescent, Minn. 55947 (ph 507 894-4140; Website: www.daycreek.com).



1/6-Scale Case Steam Engine Runs Like The Real Thing

Keith Kerr of Postville, Iowa, always wanted to own a steam engine but he couldn't justify the expense of the real thing. So he decided to build his own 1/6-scale working model, patterned after a 1915 J.I. Case 65 hp steam traction engine.

The engine measures 41 in. long, 15 1/2 in. wide, and 20 1/2 in. high. It weighs 225 lbs. and has forward gears and reverse. "The only difference between my scale model and a real engine is that mine is fired by propane instead of wood," says Kerr.

To make the engine, Kerr bought blueprints from Coles' Power Models Inc. (ph 818 762-0272; Website: www.colespowermodels.

com). He used 6-in. seamless tubing with 3/8-in. sidewalls to make the boiler. The firebox is made from 3/8-in. thick cold-rolled plate, 1/4-in. crown sheet. The super heater coil is made from 3/8-in. stainless steel, and the flue sheets from 3/16-in. stainless steel.

Kerr formed the coal bunker and water tank out of a brass sheet. The 8-in. high front wheels were made from well casing, and the 12-in. rear wheels from steel tubing. The wheel hubs were made from broken spindles, with threaded rod used for the spokes.

The flywheel, piston, cylinder, water pump and lugs were all made from purchased castings, machined to fit.

The engine has a cylinder bore of 1 5/8 in. and a 1 3/4-in. stroke. It runs on 50 lbs. of steam pressure, with the boiler holding 2 gal. of water

"It was fun to build. I didn't keep track of how many hours I spent on it," says Kerr. "I've shown it at many fairs, parades, threshing days and other events. Many people are amazed at the authenticity of the model."

Keith also made a 1/6-scale model of a 1923 Case Hay Press. The baler measures 30 in. long. It makes bales about 2 1/2 in. wide by 3 1/2 in. long by 5 in. high. The bales are tied with 26-gauge wire.

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"The only difference between my scale model and a real 1915 J.I. Case steam tractor engine is that mine is fired by propane instead of wood," says Keith Kerr.