

New asymmetric ice-breaker ship to clear larger path by moving at an angle

August 5 2013, by Bob Yirka



Officials for Finnish shipbuilder Arctech Helsinki have confirmed reports that a ship is currently under construction at its shipyard that will demonstrate a revolutionary new approach to clearing ice to allow for passage. Called the Baltika, the new ship is to have an asymmetric shape that will allow it to attack ice at a 30 degree angle, creating a much wider channel than it would were it to travel straight ahead—the normal approach.

For many years, shipbuilders have been working on improving the design of [ice-breakers](#)—the better the ships are at their job, the more money to be made by their owners. Ice breakers that can forge a path through [ice](#) allow ships following them to carry cargo in the winter months. The rush to build even better ice-breakers has intensified due to reports of thinning ice due to global warming. Countries such as nearly land-locked Russia (which is supplying some of the parts for the ship) are eager to create new shipping routes to Europe. Better ice-breakers such as Baltika could make that happen.

The new ship will have a bow curved on one side—that will allow for moving forward at an angle. It will also have three engines (9 MW of total power/7.5 MW total propulsion power) mounted underneath that are able to swivel 360 degrees. Also, the ship will use a unique system of pumps to move liquid fuel and bilge water between tanks inside the hull to change its center of gravity. Thus the ship will be able to travel straight ahead, at an angle or even in reverse. In their announcement, Arctech officials said that in addition to cutting new paths through the ice in the Bay of Finland, the new ship will also be used to help combat oil spills and to offer rescue services for ships that become stuck in the ice. The ship will be approximately 76 meters long and 20 meters wide. Normally such a ship would only be able to clear a path slightly wider than its width—Baltika will be able to clear a path 50 meters wide in ice up to 2 feet thick—wide enough to allow tanker ships to follow.

The builders say the ship should be ready for delivery by this spring.

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