

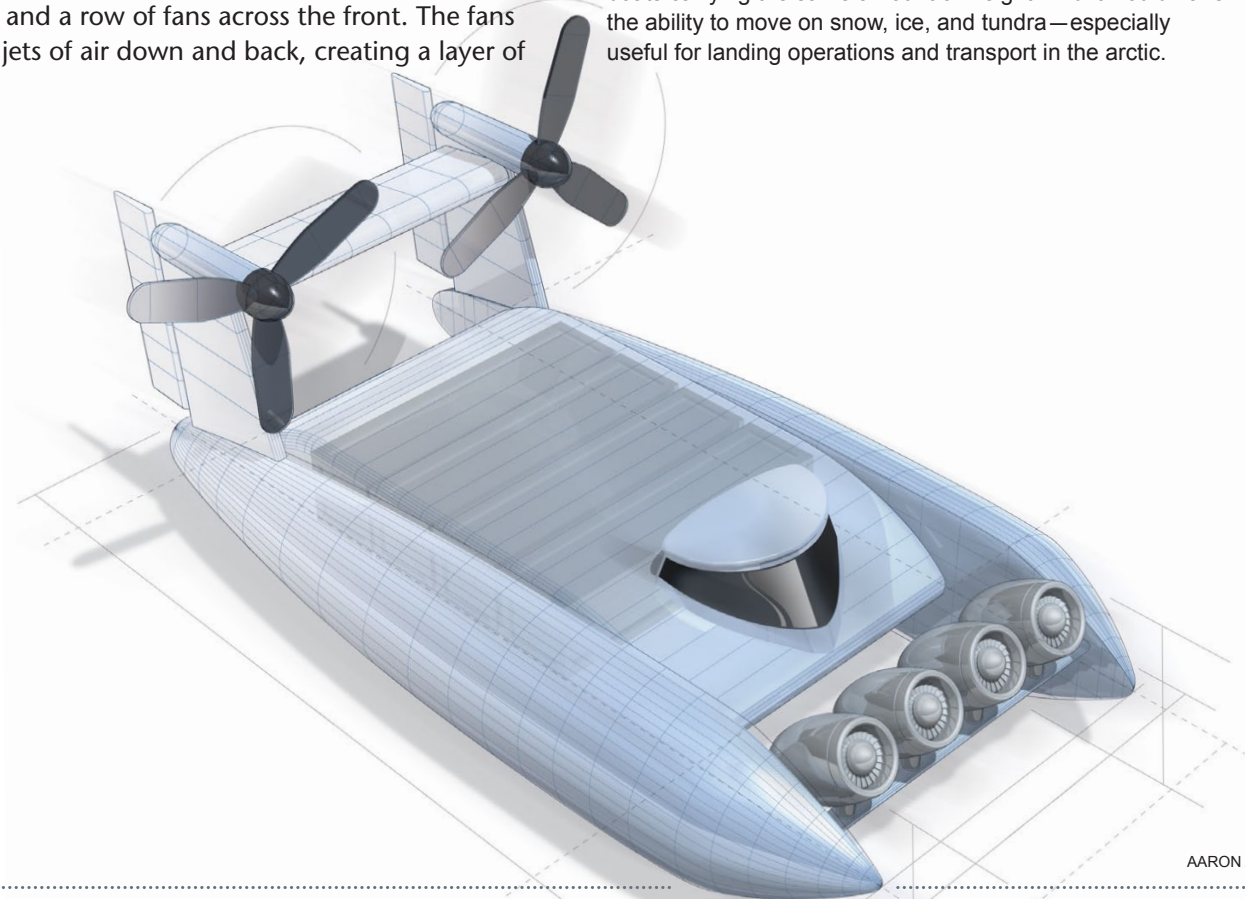
The PARV, or Power Augmented Ram Vehicle

A new kind of watercraft—a boat that can run up on shore to be unloaded (and then turn around and run back into the water), scoot over marshy ground without tearing up the sensitive vegetation, and zoom over snow on its way to remote outposts.

The PARV has twin hulls connected by a cargo platform, a stabilizer wing and two propellers at the back, and a row of fans across the front. The fans blow jets of air down and back, creating a layer of

air beneath the boat that reduces friction between the boat and the water. When the platform is loaded with cargo, much of the weight actually rests on a cushion of air.

The prototype was designed and built by Konstantin Matveev and mechanical engineering students Zach Malhiot '07, Ryan Soderlund '08, and Alex Ockfen '07 B.S., '08 M.S. The vehicle can go much faster than conventional cargo boats carrying the same amount of weight. And it would have the ability to move on snow, ice, and tundra—especially useful for landing operations and transport in the arctic.



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