IN MY OWN WORDS

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I grew up in Erie, Pa. My father and paternal grandfather were both Michigan engineers, so it was preordained that I would go to the University of Michigan. In Ann Arbor, my maternal grandfather would let me watch the guys carving ship models there. Naval architecture was a bug that I caught early. I earned bachelor's degrees in naval architecture and mathematics, followed by master's degree and a doctorate in naval architecture.

I started work at the David Taylor model basin in 1974 in the Resistance and Powering Branch, but I never completely fit there because I had a broad range of interests. I've designed propellers and done work on sea-keeping and maneuvering. I worked a lot on resistance and powering of SWATH (small water-plane area twin hull) ships. That got me involved in a then-very-classified program called Sea Shadow, a stealth technology test bed.

I've been working on the DDG 1000 next-generation destroyer for 10 years as the hull-form maturation lead, including all things hydrodynamic: resistance, powering, propeller design, sea-keeping and maneuvering. Sea Shadow proved that we could do signature reduction, which has enabled us to make DDG 1000 the most survivable ship we've ever built. I find that very satisfying from a technology perspective, but also good for the Navy and the country.

One of the things I'm excited about — and frustrated about — is that we really are getting to the point where we can do real hull-form optimization to minimize the resistance of ships. The first ship we really successfully have done that on is DDG 1000, where it's about 60 percent larger than the DDG 51 class but uses only 90 percent of the power to go the same speed. I see other people using the techniques of 20 and 30 years ago, even though they've been told we have these abilities, and they're not using them in ship design. That we really are getting a grasp on how to predict the motions in large waves is very exciting.

My bosses have been very good to me in that they haven't forced me into a niche where, for example, I design rudders my entire life. I've been able to work in a broad variety of topics. This new position is empowering me with the chance to work more with, and mentor, the younger engineers. Watching them learn, figure out and discover things is something I really enjoy. I could retire tomorrow but my feeling is: as long as I am having fun, why retire? How many jobs pay you to play in the bathtub? ■

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