

SEA TRIAL OF THE AVIKUS NEUBOAT SYSTEM

AI-enabled autonomous docking.

I'll admit it: I'm old-school. Technology often leaves me scratching my head, but I'm still intrigued by how it continues to reshape our world, especially when it comes to autonomous driving on the water.

I felt the same during a sea trial of the 2025 AquaSport Center Console at the 2024 Fort Lauderdale International Boat Show using the Avikus Neuboot system. Our pilot skillfully navigated through heavy traffic in the Intracoastal Waterway, as well as narrow canals filled with other boats undergoing trials. One difference: They were looking at the water; we were looking at a Raymarine screen. The radarlike image displayed nearby vessels, their proximity glowing red when close. It was impressive, yes, but unsettling. There was no sound, horn or alarm—just silent data points pulling focus away from the real-world action on deck.

Avikus, a division of HD Hyundai, renowned for its shipbuilding and advanced technologies, is leading

the charge in bringing autonomy to the water with its Neuboot Navigation and Docking Solutions—what they call Advanced Driver Assistance Systems for boats. With a new US office in Fort Lauderdale, Florida, Avikus aims to launch its systems in the second quarter of 2025 through partnerships with OEMs and dealers, offering special upgrade benefits as available.

The technology is split into three segments: Docking (Dock), Navigation (Navi) and Control. Docking utilizes six cameras to create a 360-degree view, and using AI to automatically recognize obstacles and distances. It guides boats into slips and docks with precision. Navi uses LiDAR, one camera and location (chart) data to identify and calculate the distance both of stationary and moving objects, showing speeds to avoid collisions, as well as route planning. Meanwhile, Control manages throttle and



BACKING IN Avikus' docking technology utilizes six cameras to create a 360-degree view, while also using AI to recognize obstacles and distances.

steering, with the option for manual override via the wheel. All of this integrates into any display units that has HDMI and touch-screen connectivity, offering captains an impressive suite of automated tools.

It's a natural evolution when you consider how auto-assist technologies have transformed cars. From cruise control and auto-braking in the 1970s to today's blind-spot detection, track control and auto-emergency braking, the trend toward automation is undeniable. In

the marine world, several manufacturers are now embracing auto-docking, and it's easy to see the appeal; according to the US Coast Guard, the top two contributors to boating accidents are operator inattention and improper lookout, followed by operator inexperience, excessive speed, and machinery failure. Having an automated system adds an extra layer of protection that should eliminate a lot of operator error.

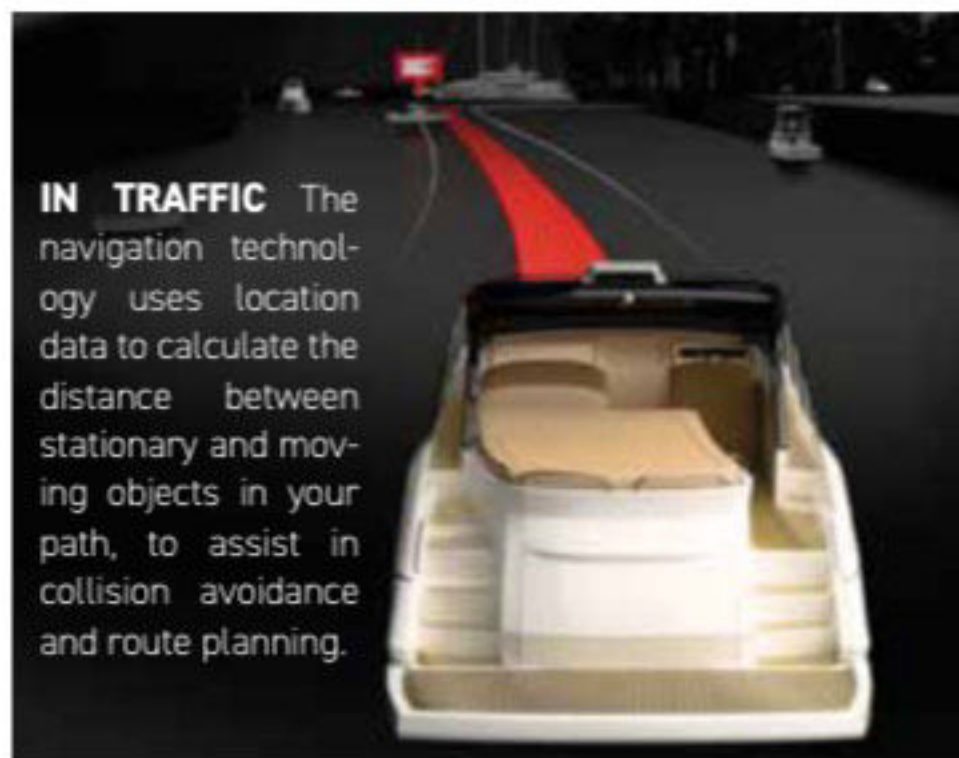
Yet I remain respectfully vigilant. Because while autonomous systems aim to

reduce human error, they also create a new type of distraction. Should we be focusing on a screen or scanning the horizon?

And it's pricey. At upwards of \$20,000 per package for Dock and Navi (Control is dependent on one or both of the other packages), this technology is hardly accessible for most boaters. It's a hefty gamble for early adopters, and while these tools will undoubtedly improve over time, there is no substitute for solid boating education and hands-on training.

Boating is unique: There are no brakes, conditions shift constantly, and the stakes are high. While autonomous technologies will likely soon enhance the experience, for now, let's keep our eyes on the water, watch for navigation markers, and stay mindful of our surroundings and other boats. In the end, the responsibility to boat safely still rests squarely on the captain.

—Marilyn DeMartini



IN TRAFFIC The navigation technology uses location data to calculate the distance between stationary and moving objects in your path, to assist in collision avoidance and route planning.