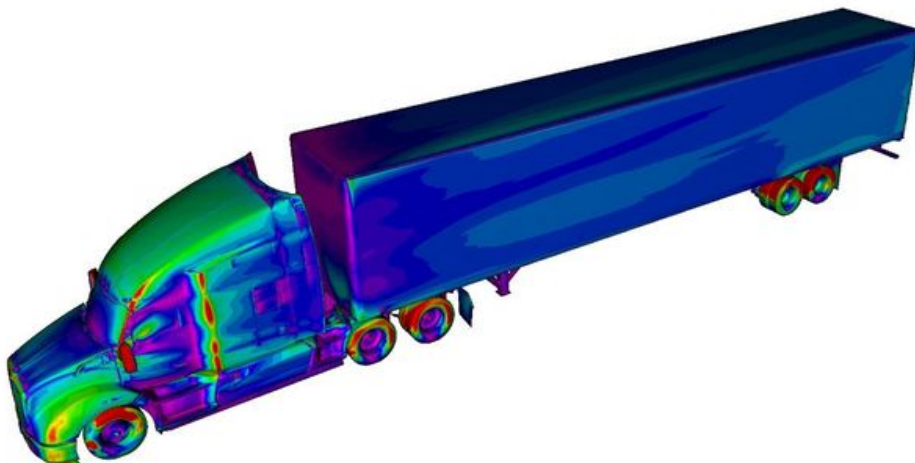


Fleet Fuel Economy Tests: Why CFD Might Be The Best Choice For You

Nowadays, fleets are increasingly focusing on improving fuel economy for sustainability, requiring reliable test results to make informed decisions on technology investments. Back in October, Naethan gave his own input in the *Heavy Duty Trucking* (HDT) weekly newsletter "Fuel Smarts" about the advantages of CFD tests and their ability to test without physical vehicles.

"CFD allows you to look at how air flow passes from the front of the vehicle, through the vehicle, and off the back of the vehicle," Naethan is quoted. "You can also see how the drag is building up, the interactions that are happening across the vehicle, how specific components or add-ons work, and how the truck interacts with the trailer."



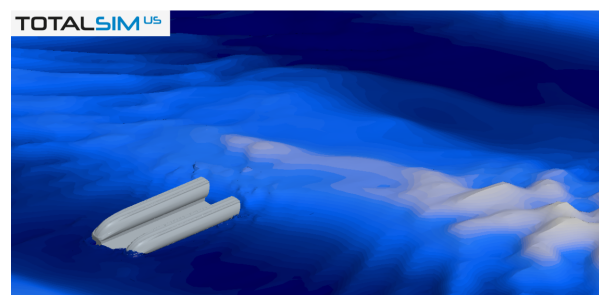
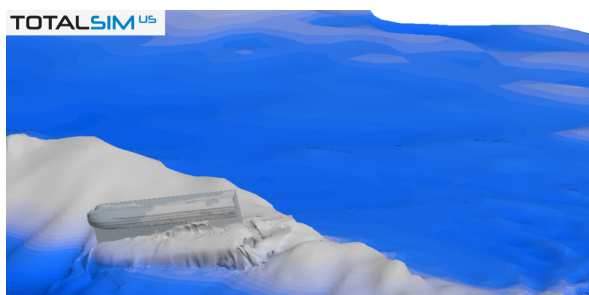
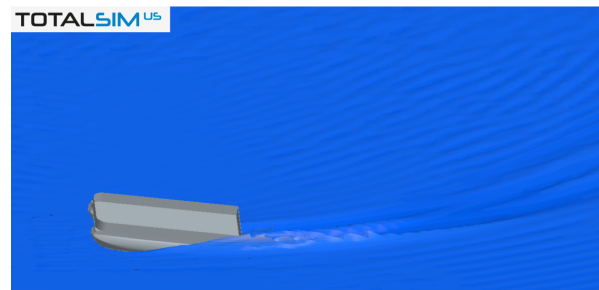
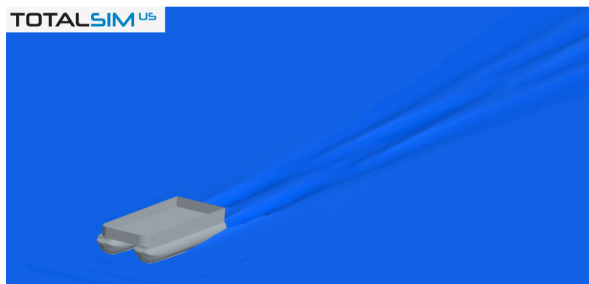
CFD provides insights into airflow, drag buildup, and interactions between components, aiding decisions on aerodynamic setups. Additionally, properly conducted CFD tests can yield reliable results, guiding decisions on components like skirts, boat tails, wheel covers,

flaps, and gap devices. Check out the [full article](#) for more on the different types of fleet fuel economy tests and why CFD could be the best option for you.

Pontoon Boat Flipovers: Why They Happen And How To Mitigate The Risk

TotalSim addressed the complex challenge of accurately modeling the motion of pontoon boats during various turning scenarios, aiming to resolve stability issues reported by boat owners. The challenges stemmed from factors like speed variations, turn tightness, wave conditions and currents, which could lead to pontoon boats flipping over.

Our team developed a simulation workflow, starting with approximating a propeller's thrust in flat water to understand the boat's speed-thrust relationship. We then adjusted the propeller for turns and introduced waves to induce instabilities and simulate potential flips.



The results of the simulations demonstrated the ability to model pontoon boats under specific conditions that lead to a simulated boat flip over. Ultimately, this simulation helps enhance pontoon stability and mitigate the risk of flipping over during actual use. Read the [full case study](#) to see how we can accurately model the motion of a pontoon boat given specific parameters.

An Un-Fore-Gettable Team Holiday Party!

If you were a fly on the wall at this year's company holiday party then you should probably duck because golf balls were flying! The TotalSim crew took a night off at TopGolf this month and everybody had a great time. Between a few drinks and a BBQ spread, the team met family members, practiced their swing and shared lots of laughs.

It was actually such a good time that we barely took any photos - so please enjoy this image of our logo playing golf!!



Upcoming Events

Ohio Air Mobility Symposium // March 4 - 5 // Columbus, OH

Work Truck Week // March 5 - 8 // Indianapolis, IN

SAE World Congress // April 16 - 18 // Detroit, MI

Industries Where We Excel





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