



Cruden and Artemis Technologies take car simulator technology to develop best in class sailing simulator

Technology arm of America's Cup racing team looked to Formula One and automotive simulators to test design directions earlier, reduce the development cycle and improve race strategy and results.

SLOUGH, UK – Artemis Technologies, a spin off from America's Cup challenger Artemis Racing, has developed a new fast craft simulator with Cruden. The simulator runs on Cruden's Panthera simulator software and features a bespoke top platform based on a key section of an F50 catamaran.

The simulator will be used for engineering analysis of different designs, developing control systems and training crews for future race series.

"The professional sailing world is starting to take simulation technology seriously and in making the decision to move ourselves forward with Cruden, who we knew from motorsport, we are confident we have created a new concept of yacht simulator. The simulator will enable Artemis Technologies to make design direction decisions much earlier. We learn too much too late, only discovering whether the offline engineering has been successful once we get the boat in the water," explains Jonathan Nicols, Lead Systems Engineer at Artemis Technologies.

"Importantly, integrating the Cruden simulator and Panthera software has allowed us to focus all our simulation tools into one capstone project. Now, instead of passing data back and forth, our whole tool chain – boat model, control systems, performance prediction software and simulator – can be synched together and used by all groups within the business, with a human-in-the-loop. The ability, allowed by Panthera, to overlay simulator data with actual data, as in motorsport, means we can use the simulator to advance race strategy. We can replay actual races because the course, positioning and speed of the boats are logged, with the same weather conditions, and make different decisions and train how to tactically do better."

The simulator's realism is essential for crew training, which consists of familiarisation with the boat's latest systems, rehearsing responses to emergency and failure modes, and building muscle memory and rhythm for manoeuvres. The platform, or cockpit, can be changed for each new maritime application.

A 4.5 metre high, 210 degree wraparound screen, the highest ever specified by Cruden, conveys images from three Barco F70-4K6 4K UHD laser phosphor projectors.

Says Maarten van Donselaar, CEO of Cruden, "Cruden has pioneered the use of human-in-the-loop simulators in the marine industry where the need for new training solutions is strong across the board. This project and the ease of knowledge transfer from motorsport to Artemis Technologies'

application at the pinnacle of yacht racing is testament to the flexibility of our simulator, which is fundamentally a standard product.”

The Cruden hardware was delivered in September 2018, to Artemis Technologies’ base near London. “We have aspirations for the simulator to not only progress our race programmes, but potentially to create a new commercial offer – as foiling technology becomes more prevalent in mainstream sailing, it is not as easy to just design or buy a boat and race it anymore. Simulators are an important part of the future of the industry,” concludes Nicols.

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About Cruden

Cruden is the world’s leading designer and manufacturer of professional, open architecture HIL/DIL driving simulators, simulator components and software. Originating from Fokker Aircraft Company in the late 1990s, Cruden was formed in 2004 and today serves the automotive, motorsport and marine industries. The company’s complete simulator packages interface with any customer vehicle model and include on- and off-board projection systems. Cruden also produces vehicle, road/track and tire models in-house. The company launched its open architecture Panthera software suite in 2015. www.cruden.com

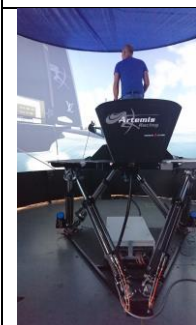
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Video:

3 mins 15 secs from Artemis Technologies: <https://youtu.be/zXsh3Kg3U3Y>

Images



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