

#### TSUS e-Brief April 2023 | Issue 4

### Strategic CFD Adoption Requires the Right Partner

The right CFD partner is one who can meet you wherever you are, providing a range of guidance and capabilities to suit your needs now and into the future. At TotalSim we are ready to meet you where you are and help you along the journey of getting where you need to be, knowing that CFD needs are ever-evolving.

Whether you want to outsource any needed CFD work, or are looking to develop an inhouse CFD department, we can collaborate with you to make these options easier.

Clients who partner with TotalSim benefit from our streamlined, automated workflows and a deep technical expertise. You can read more about the CFD adoption process and what TotalSim can assist with at <u>our website</u>.



# Ohio Air Symposium Talks New Advancements in Air Mobility

TotalSim was excited to return to the third annual Ohio Air Mobility Symposium to learn about the continuous advancements within the state's air mobility industry.

Each year we enjoy staying in touch with where this new industry is headed and seeing where our CFD services could fit into the supply chain of Ohio advancements.



The process of the total supply chain involves designing and developing the aircraft, prototyping, performing flight testing and certification, scaling up manufacturing and then legitimate use.

As it turns out, a lot of the testing for the aircraft can be done through modeling and simulation in parallel with physical and flight testing. By doing these virtual assessments with the help of companies who are experts in this technology, such as TotalSim, money and resources can be saved throughout the whole process.

To read more about our time at the symposium check out our blog.

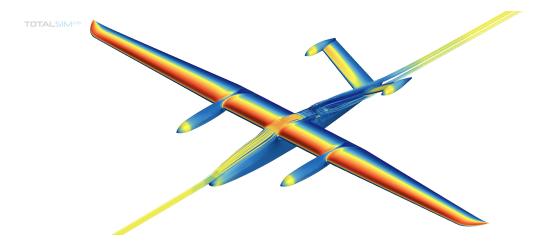
## TotalSim US and Griffon Work Together to Increase Time Airborne in Unmanned Aircraft

Recently, TotalSim had the opportunity to work with Griffon Aerospace. The Alabamabased manufacturing company produces unmanned aerial vehicles (UAV) for a diverse cliental, including the Department of Defense.

Griffon came to us with the goal of increasing time airborne in one of the battery operated UAV with the addition of a generator. The generator would serve as a flight extender for the battery system.

Through just nine simulations, TotalSim produced the result Griffon was seeking. Griffon's aircraft now has an increase in time airborne along with a net drag reduction.

Click <u>here</u> for the full case study.







## **Greg Padgett**

## Senior CFD Engineer

- Joined TSUS Team in 2011
- Specializes in top-level motorsports
- Our "go-to" guy on testing new tweaks to our CFD codes & methods
- Received his Bachelor of Science in Mechanical & Aeronautical Engineering from The Ohio State University
- Dad to part-time office dog, Buzz
- Enjoys woodworking, rock climbing & piano



Meet our Senior CFD Engineer, Greg Padgett! With a specialization in top-level motorsports, Greg has helped design championship winning cars like the NSX GT3, Acura ARX05 DPi. In addition to motorsports, Greg also specializes in the Aerospace industry and was the lead engineer on the Griffon Aerospace project.

#### **Jagger Jones Prepares for Upcoming Races**

TotalSim is excited to see Jagger Jones race his Cape Motorsports Indy NXT car this weekend at Barber Motorsports Park in Birmingham, AL and then at the Indianapolis Motor Speedway Road Course on May 13th.

Both races will feature TotalSim as the primary sponsor of the car, just as in the first race of the season in March at St Petersburg, FL.



The Firestone Indy NXT series is the highest step on the Road to Indy, which is a program of race series leading ultimately up to the IndyCar Series itself.

You can stream the race on Peacock and join us in cheering him on at all the races this year. Good luck Jagger!

Stay up to date and check out the series' official schedule.

#### **Trade Shows and Conferences**

Ray recently attended the Ohio Air Mobility Symposium at the Ohio State University where he had the chance to connect with innovators in the air mobility industry and learn about the progress being made in Ohio.

This month Ray and Naethan also attended SAE's International WCX in Detroit, Michigan. They were able to participate in leading discussions critical to the mobility industry and learn about the end goal of eventually reaching net zero emissions, accidents and fatalities.





#### **Upcoming Events**

Offshore Technology Conference, May 1-4, Houston, TX

Advanced Clean Transportation Expo, May 2-4, Anaheim, CA

AUVSI Xponential, May 5-11, Denver, CO











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