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Aerospace- Aerodynamics CFD Capabilities Overview

AEROSPACE – AERODYNAMICS

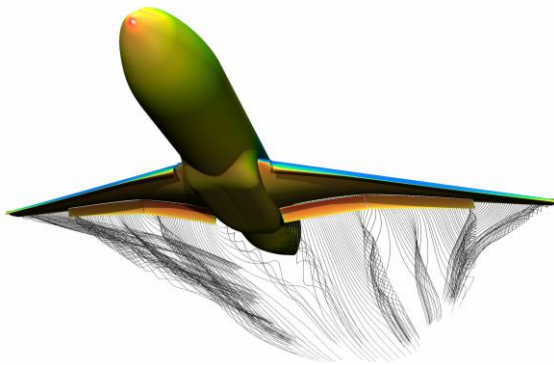
CFD CAPABILITIES OVERVIEW



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Navier provides CFD based aerodynamic analysis services to understand and predict the aerodynamic behaviour and characteristics of a wide range of flight vehicles

Computational Fluid Dynamics (CFD) is a crucial tool in the aerospace and aeronautical sector, it is routinely used to understand and predict the aerodynamic behaviour and characteristics of flight vehicles.



At Navier our CFD based aerodynamic analysis tools, working procedures, and methodology are state-of-the-art. Our CFD predictions can aid in both aerodynamic and stability/control analysis for conventional and unconventional types of aircraft, across the complete flight envelope.

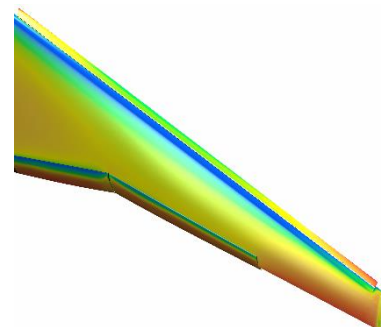
This includes the evaluation of prototypes and novel unconventional geometries for everything from civil transport aircraft to UAV's for civil and military applications, and hybrid air/ground vehicles, including VTOL aircraft.

We also leverage our high fidelity CFD and optimisation capabilities to deliver substantial aerodynamic drag savings.

We are well versed in carrying out practical CFD simulations for typical aerospace challenges and have validated our techniques and methodology against experimental test rig, wind tunnel and flight test data where possible.

Key Outputs:

- Full aircraft aerodynamic analysis at low speed, transonic and supersonic Mach numbers
- Optimisation campaigns to deliver substantial aerodynamic drag savings
- Aerodynamic impact of proposed novel changes to existing aircraft
- High fidelity lift and drag forces and moments on components
- Aeroelasticity under gust loads
- Evaluation of static and dynamic stability derivatives for manned and unmanned air vehicles (drones)



To find out more, contact us:

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