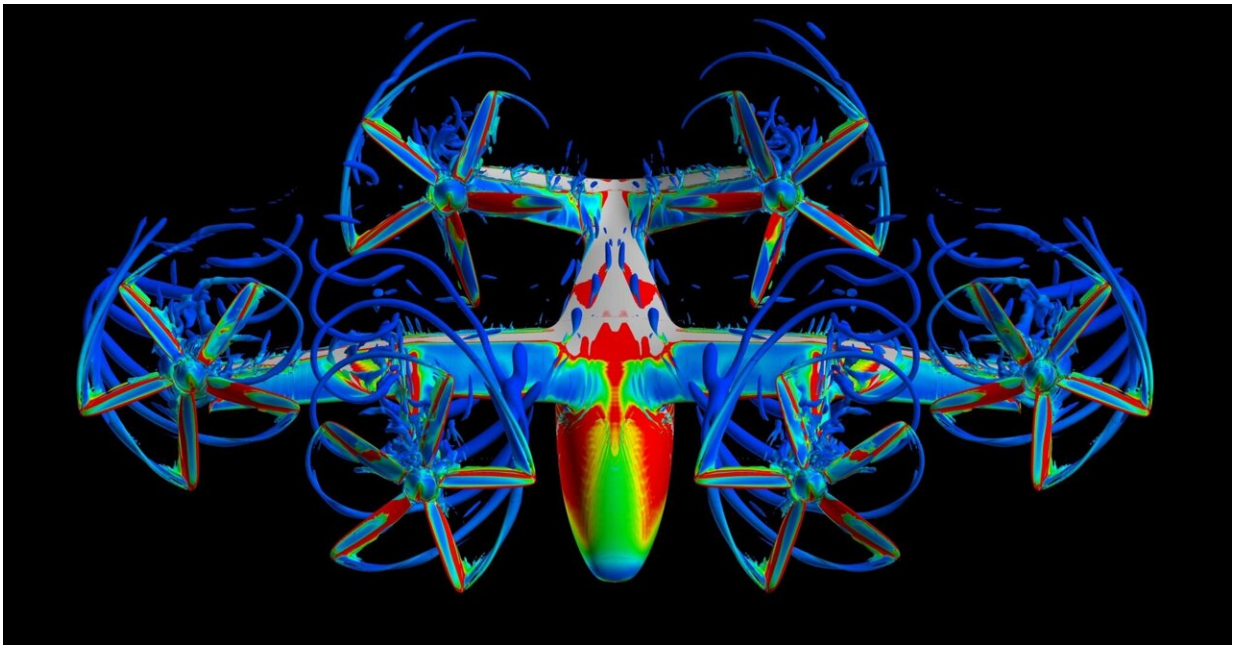


NASA noise prediction tool supports users in air taxi industry

April 5 2024, by Teresa Whiting



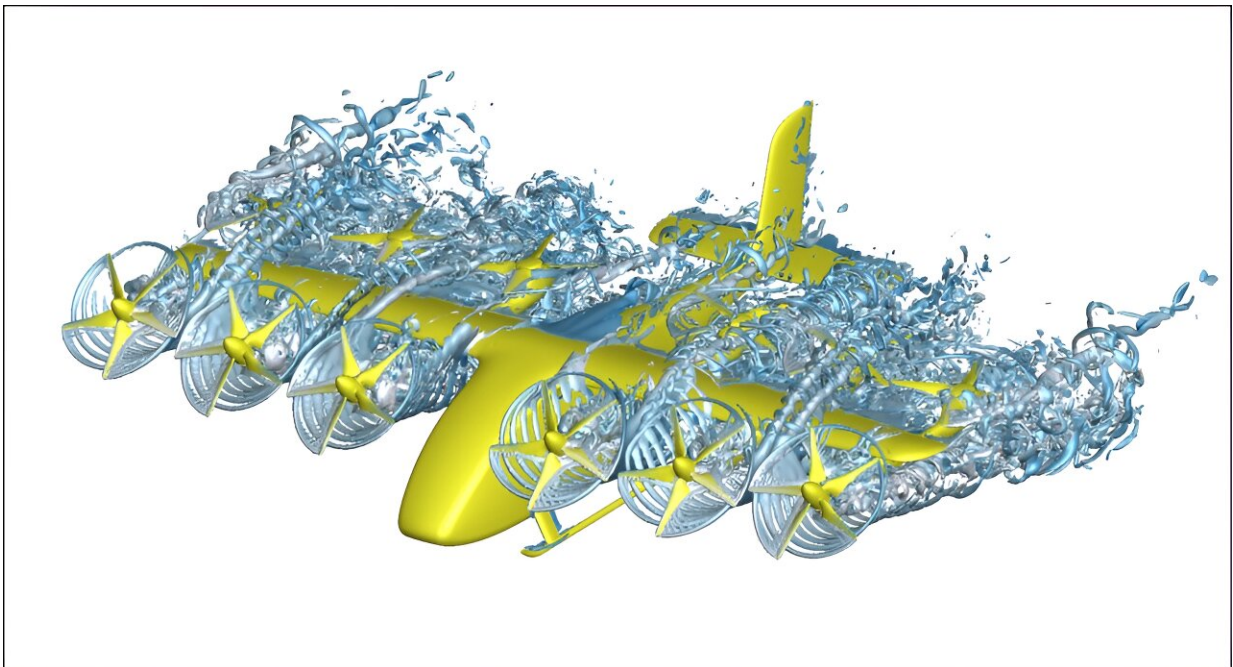
An OVERFLOW modeling image from the manufacturer Joby Aviation. Credit: Joby Aviation

Several air taxi companies are using a NASA-developed computer software tool to predict aircraft noise and aerodynamic performance. This tool allows manufacturers working in fields related to NASA's Advanced Air Mobility mission to see early in the aircraft development process how design elements like propellers or wings would perform. This saves the industry time and money when making potential design

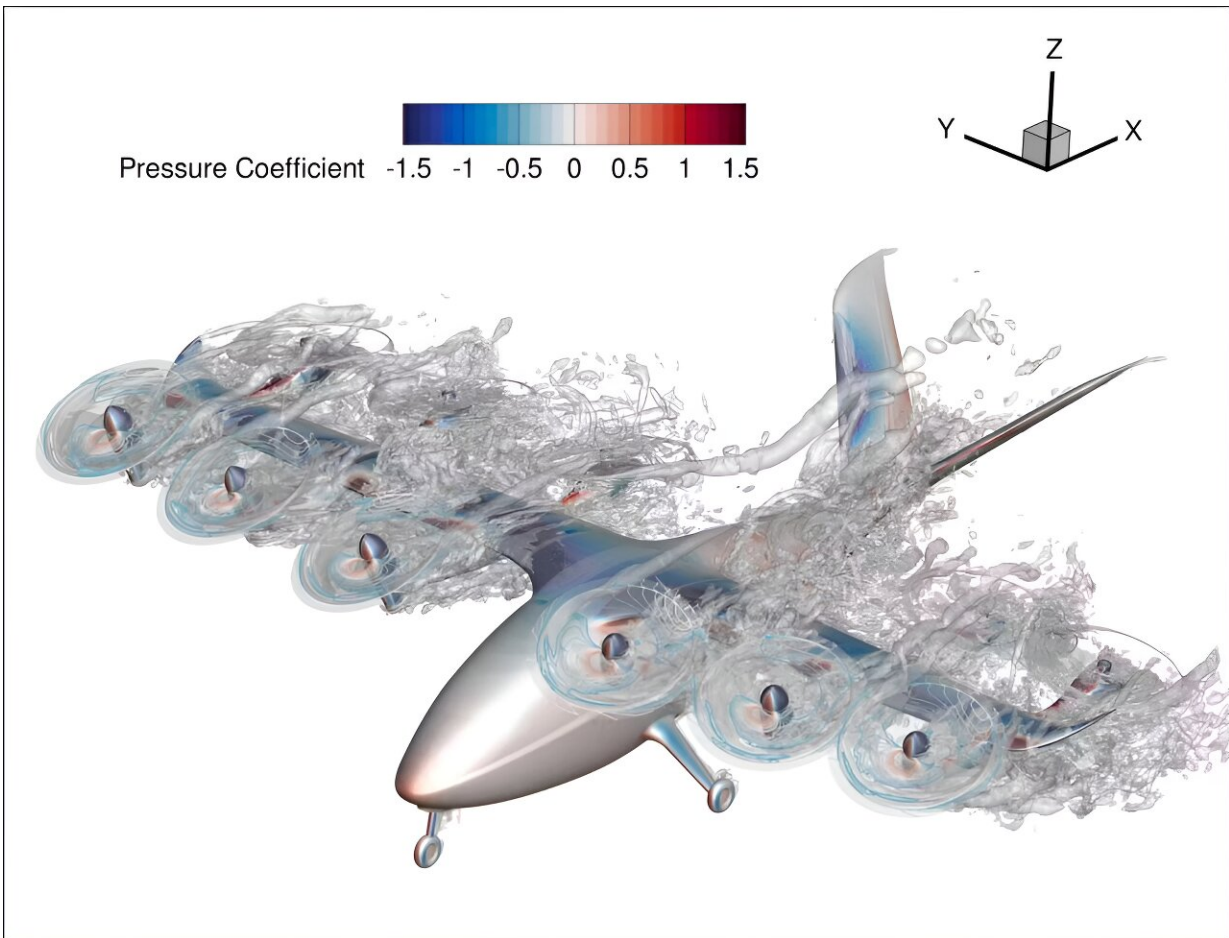
modifications.

This NASA computer code, called OVERFLOW, performs calculations to predict [fluid flows](#) such as air, and the pressures, forces, moments, and power requirements that come from the aircraft. Since these fluid flows contribute to [aircraft noise](#), improved predictions can help engineers design quieter models.

Manufacturers can integrate the code with their own aircraft modeling programs to run different scenarios, quantifying performance and efficiency, and visually interpreting how the airflow behaves on and around the vehicle. These interpretations can come forward in a variety of colors representing these behaviors.



An OVERFLOW modeling image from the manufacturer Wisk. Credit: Wisk



An OVERFLOW modeling image from the manufacturer Archer Aviation.
Credit: Archer Aviation

More information: The computer program is available to industry for U.S. release via the software.nasa.gov website.

Provided by NASA

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