

CALL FOR PAPERS

VFS Transformative Vertical Flight 2024

6th Decennial VFS Aeromechanics Specialists' Conference

Santa Clara Convention Center, Santa Clara, California

February 6-8, 2024

Hosted by the San Francisco Bay Area Chapter

The **2024 VFS Aeromechanics Specialists' Conference** will mark the *50th Anniversary* of the SF Bay Area Chapter's first decennial forum on emerging aeromechanics challenges and solution methods for future vertical takeoff and landing (VTOL) aircraft. Aeromechanics encompasses the technical disciplines of dynamics, aerodynamics, acoustics, and flight mechanics, all of which are strong drivers in the vehicle design process.

This conference will feature technical sessions covering the sub-disciplines of aeromechanics, in addition to special technical and plenary sessions commemorating 50 years of technical meetings and conferences hosted by the SF Bay Area Chapter of VFS. In addition, the local chapter is excited to announce the inaugural SFBAC Specialists' Conference Best Paper Award, which will be presented to the author(s) of the paper that best demonstrates technical excellence from among those published at the conference.

General Chairs:

Wayne Johnson, NASA Ames Research Center

Robert Ormiston, U.S. Army Technology Development Directorate (emeritus)

Technical Chair:

Carl Russell, NASA Ames Research Center

Topics: Papers are invited in all areas related to rotorcraft/VTOL aeromechanics, including both crewed and uncrewed aircraft, using either conventional and/or electrified propulsion systems. Papers describing aeromechanics challenges of electric VTOL for advanced and urban air mobility (AAM/UAM), and planetary rotorcraft are particularly of interest, in addition to advanced configurations for next-generation military VTOL aircraft.

Analytical papers may range from basic aerodynamics and structural dynamics to comprehensive analyses and high-fidelity CFD. Experimental papers may span wind-tunnel tests, flight-test and evaluation programs, as well as ground-based flight simulations. Test, evaluation, and validation studies that improve aeromechanics understanding and methods are encouraged, including vibratory hub loads, aerodynamic flows, aeroelastic stability, aeroacoustics, and cutting-edge data analysis techniques. Advanced aeromechanics design/analysis tools and workflows are sought for improved accuracy and speed, including the entire development timeline from concept to operation.

Abstract Submittal: Abstracts must be written in English and not exceed five (5) pages including background, approach, key results, conclusions, and sample supporting figures. The approach and results should be presented in sufficient detail to convey the quality, scope, significance, and current status of the work that will be described in the final paper. Please submit abstracts by email in PDF file format by **Monday, Aug. 14, 2023**, to the Technical Chair, **Carl Russell**, at the below email address. Please include paper title, author(s), affiliation(s), and contact information in the email, sent to: meetings@sfbac.vtol.org.

Completed Papers: Authors will be notified of final selection in **late August**. Presentations will be given in an open forum, and all papers will be digitally published in the meeting proceedings. Final papers in PDF format are due by **Tuesday, Jan. 16, 2024**. A "no paper, no podium" policy will be observed for this meeting. The author is responsible for any necessary clearances and approvals. All questions should be directed to the Technical Chair at the above email address.