HANDLING QUALITIES
Technical Meeting

Huntsville, AL / Feb. 16-17, 2027

www.vtol.org/handling-qualities

The VFS Redstone Chapter will be sponsoring a Handling Qualities Technical Meeting on February 16-17, 2027, in Huntsville, Alabama. The meeting will focus on meeting the needs of vertical flight aircraft handling qualities (HQ), flight controls and vehicle design communities. *Technical topics will differ from the Annual Forum in that the focus will be on handling qualities standards and flight test technique development, in addition to updates to ADS-33E-PRF/MIL-DTL-32742(AR) for new military and civil platform configurations — including helicopters, advanced rotorcraft, drones and electric vertical takeoff and landing (VTOL) aircraft.*

Abstracts will be accepted in technical disciplines related to commercial/military rotorcraft/VTOL aircraft handling qualities, or the certification/qualification of handling qualities and the control systems that implement them, to include the complex behaviors induced by artificial intelligence**.**

Note: presentation-only submissions will be accepted. The abstract should clearly state the intent to be *Presentation-Only,* or if a technical paper will be submitted.

Abstracts are to be submitted to meetings@redstone.vtol.org , deadline extended to **Dec. 11, 2026,** and should:

- present the status of the background data to be used, summarize figures and illustrations to be used (with samples), and include a summary of important conclusions
- conform to the abstract template that can be downloaded on the event page at
- be approximately 1,000 words and submitted in PDF or Word format, and no larger than 2MB
- include paper title, author name, organization and email contact information, and whether it will be a technical paper or a presentation-only.

Technical papers OR presentations are solicited on the following topics:

- basic vehicle stability and control/response characteristics and control methodologies utilized to enhance the crew's perception of vehicle response
- integrated crew station and pilot-vehicle interfaces including optionally manned systems
- the role of crew systems integration and human factors engineering, including the impact of increased system complexity driven by autonomous systems behavior, on HQ
- mathematical modeling and/or simulation of VTOL vehicles and preliminary HQ assessment techniques
- flight testing of VTOL vehicles and applied HQ assessment techniques
- reliability, risk and safety considerations for architectures that can include artificial intelligence, including verification and validation of artificial intelligence algorithms
- the impact of HQ requirements on cost, schedule, and performance
- the impact of advanced enhanced or synthetic vision, aural or tactile cueing on HQ
- tactical decision aids and associated systems
- computer aided/assisted tools and processes

Acceptance of an abstract is considered a professional commitment to prepare a final technical written paper or presentation by the deadline, register and pay to attend the meeting, and present on the topic. If an author finds that he or she will be unable to make the presentation, then it is incumbent upon him or her to find a substitute presenter.

Authors will be notified of abstract selection in late December. Final written technical papers will be due Feb. 5, 2027 and all presentations no later than Feb. 12, 2027, and must be submitted in electronic format (Adobe Acrobat PDF preferred, MS Word or PowerPoint for presentations are acceptable). Authors will be provided a paper template (Word) and instructions on where and how to upload their final paper/presentation.

The technical meeting is open to an international audience and therefore *it is VFS policy that all final papers and presentations are completely unrestricted. That is, they are not allowed to contain any proprietary, sensitive, classified, or otherwise-controlled information.* Authors should make note of this policy when submitting abstracts and it is the author's responsibility to obtain appropriate clearance of his/her abstract, paper and presentation in time to meet all deadlines. Note that many organizations take weeks to approve documents for public release, so authors must take this into account.

Questions? Email meetings@redstone.vtol.org or call Tia Larsen-Calcano, 256-951-7061, or Eric Grigorian, 256-716-2175.