



Rotorcraft Handling Qualities Technical Meeting

Feb. 18-20, 2020 - Huntsville, AL USA

Sponsored by the VFS Redstone Chapter



The Vertical Flight Society's (VFS) Redstone Chapter will be sponsoring the ROTORCRAFT HANDLING QUALITIES Technical Meeting on February 18-20 2020 in Huntsville, Alabama. **The subject matter will focus on the meeting needs of both military and civil rotorcraft handling qualities, flight controls, and vehicle design communities. This will differ from the Annual Forum HQ technical sessions in that the focus will be on:**

- handling qualities standards
- flight test technique development
- updates to ADS-33E-PRF for Future Vertical Lift (FVL)

Abstracts can be submitted to HQ2020@redstone.vtol.org by **September 13, 2019** and follow these guidelines:

- PDF no larger than 2MB.
- Approximately 1,000 words: presenting the status of background data, summary figures/illustrations (with samples), important conclusions summary.
- Finished, or draft versions of papers will not be accepted as abstracts

Abstracts will be accepted in a variety of technical disciplines related to commercial or military rotorcraft handling qualities or the certification/qualification of rotorcraft handling qualities and the control systems that implement them, to include the complex behaviors induced by artificial intelligence. Papers are solicited on the following topics:

- **basic vehicle stability and control/response characteristics and control methodologies utilized to enhance the crews perception of vehicle response**
- **integrated crew station and pilot-vehicle interfaces including optionally manned systems**
- **mathematical modeling and/or simulation of rotorcraft and preliminary HQ assessment techniques**
- **flight testing of rotorcraft 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**
- **degraded visual environment (DVE) solutions**
- **the impact of advanced enhanced or synthetic vision, aural or tactile cueing on HQ**
- **the role of crew systems integration and human factors engineering, including the impact of increased system complexity driven by autonomous systems behavior, on HQ**
- **tactical decision aids and associated systems**
- **computer aided/assisted tools and processes**

Abstract selection will be completed in October 2019 and authors will be notified via email. Final papers will be due by **Feb 7, 2020**. Questions? Email HQ2020@redstone.vtol.org or call Les Wiggins, 256-313-9034, or Marty Moulton, 256-313-9024.

The Technical Meeting is open to an international audience, it is the policy of VFS that all papers submitted for inclusion in the Proceedings, *and all presentations made at the meeting be 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.*

Submittal of an abstract is interpreted as a professional commitment to prepare a final paper, attend the Technical Meeting and make a presentation based on that final paper. 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.