



Aviation Rulemaking Advisory Committee Task Notice December 13, 2024

ACTION: Notice of a new task assignment for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: The FAA assigned ARAC a new task for transport category airplane designs. The task is to provide recommendations regarding new or updated standards and guidance material for transport airplane performance and handling characteristics. This notice informs the public of the new ARAC activity for the Flight Test Harmonization Working Group.

BACKGROUND: ARAC is governed by the Federal Advisory Committee Act (Title 5 U.S.C. §§ 1001). The FAA established the ARAC to provide information, advice, and recommendations on aviation related issues that could result in rulemaking to the FAA Administrator, through the Associate Administrator of Aviation Safety.

In March 2013, the FAA tasked the ARAC to provide recommendations regarding new or updated standards and guidance material related to the performance and handling characteristics of transport category airplanes. which ARAC designated to the Transport Airplane and Engine (TAE) Subcommittee Flight Test Harmonization Working Group (FTHWG). Participants of the Flight Test Harmonization Working Group serve as members of the work group only, reporting to ARAC through the TAE Subcommittee. The working group will provide advice and recommendations on the assigned task. The TAE Subcommittee will review and approve submission of the recommendation report to ARAC for consideration. ARAC must deliberate and discuss the report prior to voting on whether to submit the recommendation report to the FAA.

Due to the number and complexity of topic areas under consideration, ARAC divided the tasking into phases. In phase 1, the FTHWG prioritized over 30 potential topic areas for further consideration in 3 follow-on phases. A number of those topics were addressed in phases 1 through 3. In December 2020, an additional tasking for a fourth phase was requested by the FTHWG and granted by ARAC.

The follow-on tasking for phase 4 addressed the following topics:

- Failure Assessment: Methodology and Evaluation
- Narrow Runway Operations
- Takeoff and Landing Performance Assessment (TALPA)
- Landing Distance on Dry Runway
- Reduced/Derated Takeoff Thrust
- Landing in Abnormal Configurations

As the end of phase 4 approaches, the FTHWG has developed recommendations for the next highest priority topic areas remaining:

- Failure Assessment: Methodology and Evaluation (continuation)
- Narrow Runway Operations (continuation)
- Use of Simulation for Certification
- Autoland & Flare Cue Guidance Landing Distance
- Controllability During Approach and Landing
- Stall Identification/Protection Systems
- Tail Clearance during Certification Testing

THE TASK: The Flight Test Harmonization Working Group will provide advice and recommendations to the ARAC, through the TAE Subcommittee, on the most effective regulatory requirements and/or associated guidance as specified in the following topic areas to standardize as much as possible:

1. Airplane Handling Qualities/Characteristics

- a. Advisory Circular (AC) 25-7D, Flight Test Guide for Certification of Transport Category Airplanes, dated May 4, 2018, contains a handling-quality rating method for systematically determining appropriate minimum handling-quality requirements and evaluating those handling qualities for conditions affecting an airplane's flying qualities. The handling-quality rating method in the AC is not universally accepted within industry nor is it accepted by the European Union Aviation Safety Agency (EASA). The Flight Test Harmonization Working Group will review and recommend a universally acceptable method to supplement or replace the handling qualities rating method currently in the AC. This is a follow-on to the work on this topic in the phase 3/4 task, with the addition of subject matter experts from system safety to ensure cross-discipline harmonization.
- b. Assess minimum speed required for approach climb and airplane controllability when conducting a go-around with an engine failed. Transport Canada has additional guidance establishing a minimum margin between approach speed and the landing minimum control speed.
- c. Assess advisory material from regulatory authorities relating to reliability and safety considerations for stall identification and stall protection systems.
- d. Assess advisory material from regulatory authorities relating to the acceptability of the use of simulations in lieu of flight testing to show compliance with Subpart B requirements.

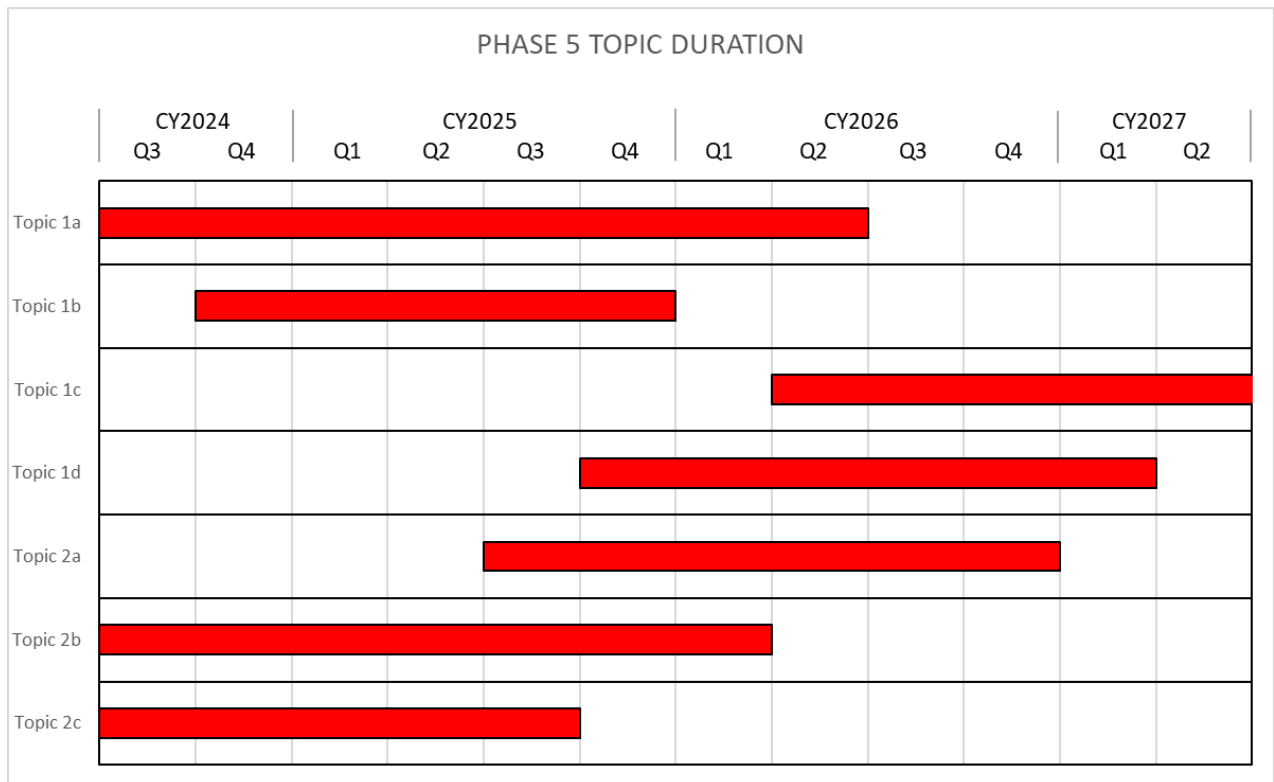
2. Airplane Performance (Takeoff, Climb, Approach, and Landing)

- a. Assess narrow runway certification requirements for takeoff and landing. The FAA methodology for assessing the effects of narrow runways on determination of minimum control speeds and crosswind guidelines differs from that of other authorities. This task seeks to harmonize methodologies.
- b. Assess Means of Compliance or alternate Means of Compliance for determining the autoland distance and the landing distance where a landing flare initiation cue or flare pitch guidance is presented on a display (heads-up or heads-down).

- c. Assess advisory material from regulatory authorities relating to reliability and safety considerations for early rotation, one-engine-inoperative tests.
3. Develop a report containing recommendations on the findings and results of the tasks explained above.
 - a. The recommendation report should document both majority and dissenting positions on the findings and the rationale for each position.
 - b. Any disagreements should be documented, including the rationale for each position and the reasons for the disagreement.

SCHEDULE: The recommendation report should be submitted to the FAA in phases, according to the following schedule:

This tasking notice requires seven recommendation reports.



- The recommendation report for item 1a is due to the FAA for review and acceptance no later than 24 months from the date that ARAC accepted the tasking.
- The recommendation report for item 1b is due to the FAA for review and acceptance no later than 18 months from the date that ARAC accepted the tasking.
- The recommendation report for item 1c is due to the FAA for review and acceptance no later than 36 months from the date that ARAC accepted the tasking.

- The recommendation report for item 1d is due to the FAA for review and acceptance no later than 33 months from the date that ARAC accepted the tasking.
- The recommendation report for item 2a is due to the FAA for review and acceptance no later than 30 months from the date that ARAC accepted the tasking.
- The recommendation report for item 2b is due to the FAA for review and acceptance no later than 21 months from the date that ARAC accepted the tasking.
- The recommendation report for item 2c is due to the FAA for review and acceptance no later than 15 months from the date that ARAC accepted the tasking.

WORKING GROUP ACTIVITY: The working group must comply with the procedures adopted by the ARAC and as follows:

1. Conduct a review and analysis of the assigned tasks and any other related materials or documents.
2. Draft and submit a work plan for completion of the task, including the rationale supporting such a plan, for consideration by the TAE Subcommittee.
3. Provide a status report at each TAE Subcommittee meeting.
4. Draft and submit the recommendation report based on the review and analysis of the assigned tasks.
5. Present the recommendation report at the TAE Subcommittee meeting.

PARTICIPATION IN THE WORKING GROUP: The Flight Test Harmonization Working Group will be comprised of technical experts having an interest in the assigned task. A working group member need not be a member representative of ARAC. The FAA would like a wide range of stakeholders to ensure all aspects of the tasks are considered in development of the recommendations.

The provisions of the August 13, 2014, Office of Management and Budget guidance, “Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions” (79 FR 47482), continues the ban on registered lobbyists participating on Agency Boards and Commissions if participating in their “individual capacity.” The revised guidance now allows registered lobbyists to participate on Agency Boards and Commissions in a “representative capacity” for the “express purpose of providing a committee with the views of a nongovernmental entity, a recognizable group of persons or nongovernmental entities (an industry, sector, labor unions, or environmental groups, etc.) or state or local government.” (For further information see Lobbying Disclosure Act of 1995 (LDA) as amended, 2 U.S.C 1603, 1604, and 1605.)

Confidential Information

All final work products submitted to the ARAC are public documents. Therefore, it should not contain any non-public proprietary, privileged, business, commercial, and other sensitive information (collectively, confidential information) that the working group members would not want to be publicly available. With respect to working groups, there may be instances where members will share commercial information within the working group for purposes of completing an assigned task. Members must not disclose to any third party, nor use for any purposes other than the assigned task, any and all confidential information disclosed to one party by the other party, without the prior written consent of the party whose confidential information is being disclosed. All parties must treat the confidential information of the disclosing party as it would treat its own confidential information, but in no event shall it use less than a reasonable degree of care. If any confidential information is shared with the FAA representative on a working and/or task group, it must be properly marked in accordance with the FAA Committee Manual.

The Secretary of Transportation determined the formation and use of the ARAC is necessary and in the public interest in connection with the performance of duties imposed on the FAA by law. The ARAC meetings are open to the public. However, working group meetings are not, except to the extent individuals with an interest and expertise are selected to participate. The FAA will not publicly announce working group meetings.

FOR FURTHER INFORMATION CONTACT: Troy A Brown, Federal Aviation Administration, 1801 South Airport Road, Wichita, KS 67209-2190; telephone: 405-666-1050; email: troy.a.brown@faa.gov.