Research, Engineering and Development Advisory Committee

Subcommittee Report -Aircraft Safety (SAS)

> Terry McVenes, SAS Chair July 9, 2020



## SAS Meeting February 25-26, 2020

- R&D Landscapes Initiative
- Briefings and Updates
  - FAA Budget
  - FY2020 Research Portfolio
  - Previous F&Rs from FY2019
  - UAS Integration Research
  - Seat Pitch Study
  - Automation Strategy
  - Cyber Safety CAT Status

# SAS Meeting February 25-26, 2020

- FY2022 Portfolios
  - Aircraft Safety Assurance
  - Digital Systems Technologies
  - Environment & Weather Impact Mitigation
  - Human Performance & Aeromedical Factors
  - Aviation Performance & Planning
- Fatigue Management Working Group
- SAS F&R Discussion

# Finding #1– Funding of Fatigue Management Working Group

- Briefing to SAS included several studies into fatigue issues
- Not enough detail to determine if those studies have been proposed, funded, or initiated
- Budgetary information presented showed several fatigue research requirements are unfunded in FY2022

#### Recommendation # 1

The Subcommittee requests additional information on the FAA's fatigue-related projects to enable a better understanding of funded research objectives and deliverables. This information could be provided via supplemental material, SAS participation in the FMWG, annual updates to the SAS, or a scheduled deep-dive.

#### Recommendation # 2

The Subcommittee also requests further clarification of the funding profiles and prioritization of fatigue-related research in the FAA. Additionally, the Subcommittee recommends for the FAA to restore full funding for the research which follows up on the effectiveness and utility of the FRMS/FRMP and allows the FAA to identify shortfalls and potential enhancements to the current flight time/duty time regulations. Also, options for the airline industry to provide joint funding should be explored.

# Finding #2- FY2022 Aviation Safety Research Portfolio Budget Programming Plan

- Concerns about planned elimination of aircrew stress biomarker research at CAMI
- Urgent need for objective means to identify degraded aircrew performance and health in assessing human factors in accident causation
- CAMI has conducted ground-breaking research into this area

#### Recommendation #3

The Subcommittee requests that the FAA consider the potential short- and long-term benefits of objective geneticbased biomarkers for aircrew stress and impaired performance and evaluate possible funding strategies to support this important and unique forward-looking research program.

#### SAS Meeting

# Next Meeting:

August 11-12, 2020

## Questions?