Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.
A Fresh Look at Aeromedical Certification

Information Session

November 30 at 15:00 EST
December 8 at 11:00 EST
December 13 at 12:00 EST
Context

- Our goal for today’s info session is to share more about this research, how you can be involved, and answer your questions.

- During today’s conversation – and beyond – please think about:
  - Who would be best suited to participate in the workshops in 2024 (e.g., you or a colleague)?
  - What helps, hinders, or should be considered in shaping this potential collaborative?
  - What topic are you most interested in exploring with data?
Agenda

- Introductions
- Overview
  - Case for Change
  - Swiss Cheese Model
  - Collaboration Concept and Potential Benefits
- What to Expect
  - Approach, Process, Safeguards, Data Sharing, Timing, Ways to be Involved
- Discussion and Q&A
- Next Steps
The Case for Change
Many we spoke with agree that now is the time to re-envision aeromedical certification processes

- The role of pilot aeromedical certifications in aviation safety risk management has not changed substantially in a century
- Medical standards are not necessarily the only way nor the most effective way to manage risk
- Now is the time for new thinking – and we hear stakeholders are ready to work together in shaping a collaborative approach to risk management
Model for Managing Health Risks to Aviation Safety

Multiple interdependent risk control layers are involved with inherent vulnerabilities in each layer

- Multiple controls, owned by FAA, AMEs, Airlines, and Pilots, contribute to health-related aviation safety risk management
- We seek your input on bringing data-driven improvements to the system
Collaborating to Manage Risk
Reducing health safety risks requires collaboration across the stakeholder community

Pilots & Unions
• Manage pilot health and career
• Have data about their health and wellness

AMEs
• Responsible for examining pilots
• Provide clinical perspective when applying standards
• Inform future standards

Airlines
• Optimize pilot staffing
• Responsible for SMS
• Collect safety and human factors data

FAA
• Responsible for pilot medical standard
• Responsible for enforcing violation of standard
WHAT’S IN IT FOR ME?

A collaborative will give stakeholders an opportunity to engage with FAA on data-driven approaches for addressing pilot health as one part of managing risks to aviation safety.
A collaborative may:

- Increase pilot retention and availability by co-creating more data-driven standards
- Sustain safety while boosting operational efficiency and flexibility
- Lead to a more timely and transparent process that supports current and future pilots’ proactive health and career interests
What to Expect: Approach
MITRE Assemble™ addresses partner expectations for value via co-design

Drivers: shared & focused challenge, co-resourcing, co-decision making

Concept: purpose, differentiated benefit, roles, contributions

Model: collaboration methods/tools, operations plan, value delivery methods

Controls: data privacy, security, permitted uses, ethics, fairness, etc.

Risk/cost mgt: exposure, intellectual property, antitrust, business, etc.
What to Expect: Process
MITRE to help stakeholders co-design core concept and enablers/safeguards

- Collaboratively define the big issues – what’s most important, most urgent
- Co-create solutions for each topic, drawing on examples
What to Expect: Safeguards
Partners’ expectations drive safeguards for successful data sharing and analysis

As a trusted advisor with no commercial conflicts of interest, MITRE has helped partners share Medical, Proprietary, and Sensitive data with safeguards including but not limited to:

- Ground rules for collaboration
- Data de-identification and non-attribution
- Independent data stewardship
- Appropriate handling / access
- Owner-directed permitted uses

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What to Expect: Data Sharing
Given a partner-defined use case, we can link and analyze data at least 2 ways

- Securely link data then anonymize it for overarching pattern analysis
- Analyze outcomes of disqualifying conditions in the general population

Flight Data → Medical Data → Crew Scheduling Data

Then apply to pilots with conditions
What to Expect: Timing
Following these info sessions, a kickoff and workgroups in early 2024

- **2023**
  - Gather input from stakeholders on initial needs, concerns, ideas

- **2024**
  - Preliminary input on guiding principles
  - Info sessions for interested parties
  - Convene initial participant discussions
  - Co-create Collaborative concept, enablers & safeguards in workgroups

- **Start working together (prototype)**

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What to Expect: Ways to Be Involved
You may volunteer to participate in a workgroup, generally, or just be informed

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**Participate in workgroup**
Join a small team on a regular cadence to co-design the core concept, enablers and safeguards (e.g., study design, governance)

**Participate generally**
Help with occasional requests for input/surveys; join 1-2 all-hands meetings per year; review products from working groups

**Keep informed**
Consume summaries of the group’s activity and public info about this, with option to become more involved
What to Expect: Why MITRE?

FAA asked MITRE, its FFRDC operator, to research multiple new, collaborative, and data-driven ways of better managing aviation safety risk, including this fresh look at pilot aeromedical certification.

MITRE’S MISSION-DRIVEN TEAMS ARE DEDICATED TO SOLVING PROBLEMS FOR A SAFER WORLD

Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.
Questions and Discussion

- As we get ready for open discussion, please take 2 minutes to complete a brief survey that will help us plan next steps that resonate with stakeholders like you
  - [https://www.surveymonkey.com/r/ACCIS](https://www.surveymonkey.com/r/ACCIS)
Next Steps

MITRE will…

- Follow up with info session participants about what resonated, interests, etc.
- Work to shape a representative general body and workgroups by self-nomination and invitation
- Prepare for and invite the initial team to a kickoff in late January
- Provide more information

We ask that you please…

- Complete the brief survey if you haven’t yet
- Encourage others you think may be interested to register for our next info session or contact us
- Share your thoughts on:
  - Who would be best suited to participate in the workshops in 2024 (e.g., you or a colleague)?
  - What helps, hinders, or should be considered in shaping this potential collaborative?
  - What topic are you most interested in exploring with data?
- Contact us in the future with any questions or feedback at aeromed-cert-collab@mitre.org and see https://na.eventscloud.com/aeromedicalcollaboration/
Notices

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