FAA R&D Landscapes

REDAC Feedback & Landscape Plan

Presented to: Research, Engineering and Development Advisory Committee (REDAC)
By: Maureen Molz, Manager, R&D Management Division
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REDAC Feedback to Landscape Effort

- Aid in strategic planning and prioritization of FAA R&D investments
- Help identify duplicative research with industry for elimination
- Help identify partnership potential and/or leverage opportunities
- Impressed with this effort to structure dialogue for collaboration on strategic direction
- Should be regularly updated
- Could support education needs of next generation of aviation professionals
What is a Landscape?

- A collection/set of research drivers that represent technology trends, aviation industry needs, and FAA requirements.
Research Drivers

• A force or motivation that stimulates R&D investment

• Complexities
  – Level
  – Importance
  – Commonality Across Research Areas
Roles & Responsibilities

• ANG-E4
  – Project Management - Plan, track and oversee landscape effort

• Research Domain Area Leads
  – Lead inputs & analysis for each emerging technology application
  – Develop landscapes for the area and coordinate across research areas as needed

• MITRE
  – Identify and analyze emerging technology applications
  – Provide context and framing for landscapes
  – Participate in landscape development
  – Document results in a paper and briefing

• Advisors
  – Shelley Yak, WJHTC Research Director
  – R&D Executive Board (REB)

• Stakeholders
  – Will be identified by research domain area leads
  – Provide feedback to the landscape development
  – REDAC
Research Domain Area Leads

R&D Research Domain Areas

- Airport Technology
- Aircraft Safety Assurance
- Digital Systems & Technologies
- Human and Aeromedical Factors
- Environment & Weather Impact Mitigation
- Aviation Performance & Planning

Leads

- Michel Hovan, ANG-E2
- Ryan King, ANG-E2
- Eric Neiderman, ANG-E2
- Ken Knopp, ANG-E2
- Eric Neiderman, ANG-E2
- Hossein Eghbali, ANG-E2
- Kenneth Allendoerfer, ANG-E2
- Estrella Forster, AAM (CAMI)
- Carla Hackworth, AAM (CAMI)
- Carol Manning, AAM (CAMI)
- Jim Hileman, AEE
- Randy Bass, ANG-C6
- Warren Fellner, ANG-C6
- Francisco Bermudez, ANG-C5
R&D Landscape Approach

Baseline Documents and Information
- REDAC Study (2014)
- NAS Horizons Report
- MITRE Airline Industry Projections
- Gov’t forecasts
- NASA ARMD Planning
- National Academy of Sciences Aeronautics Studies
- Industry trends and direct inputs

1. Develop Landscape Method and Scope
   - Define Landscape
   - Define Drivers
   - Understand context and framing

2. Develop R&D Landscapes
   - Validate framing
   - Validate landscape document structure
   - Draft landscape documents

Output
- FAA R&D landscape document and supporting briefing material (lead, participate, watch)

Stakeholder Feedback
- Small group workshops
- REB
- CSTAs

REDAC REVIEW
Landscape Schedule

Phase 1

- Develop Plan
- 11/30/18

Phase 2

- Compile Drivers
- Frame Landscape Structure
- Draft Landscape Doc/Brief

Phase 3

- REDAC Review
- 6/30/19
- Complete 1st Landscape

Q1 FY19
- October
- November
- December
- January

Q2 FY19
- February
- March
- April
- May
- June

Q3 FY19
- October
- November
- December
- January
- February
- March
- April

Federal Aviation Administration