Screening Tool Development

E&E REDAC Subcommittee

Sean Doyle

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Noise Screening Tool Development Plan

- **FY19 – Noise Screening Methodology**
  - Evaluate and document potential noise screening methodologies suitable for all FAA noise screening needs
- **FY20 – Noise Screening Tool Scoping**
  - Methodology Review and Scoping
- **FY21 – Noise Screening Tool Implementation**
  - Noise screening tool implementation under AEDT for all FAA noise screening

Noise Screening Methodology Update

- **Methodologies must support FAA's current regulatory framework**
  - **Average Annual Day DNL 65dBA** as the definition of significant noise
  - **1.5dB increase within DNL 65dBA** as the definition of a significant noise impact under NEPA
- **Disclosure of reportable impacts must be fully supported**
  - 3dB increases between DNL 60dB and 65dB and 5dB increases between DNL 45dB and 60dB
  - Disclosure of reportable impacts will remain as directed under Order 1050.1
- **To the extent possible, methodologies must allow for flexibility to adapt to any future policy requirements**

Noise Screening Background

Consistent

Conservative

Credible

Agency Consistency

- **Better agency wide consistency in methodologies used for noise screening is needed**
  - An updated holistic methodology will bring all FAA actions subject to NEPA noise screenings under a common platform
  - LOB specific use cases can still be supported, but would be updated to originate from a common methodological basis

- **Ensure consistency with the latest updates in AEDT**
  - Minimizes risk of discrepancies between noise screening and detailed noise analysis

Conservative Assumptions

- **The primary goal of a screening tool is to efficiently indicate the appropriate level of environmental review needed through use of validated conservative modeling assumptions**
  - Must conclusively indicate whether a proposed action would result in environmental impacts
  - The modeling accuracy required is defined by the nature of the conservative screening assumptions used
  - Results may only be expressed to a level of detail corresponding to what is appropriate given the conservative assumptions used

Credibility: Modeling Tool Accuracy and Precision

In general modeling accuracy is dependent on a range of factors but broadly on:

1. How well the fundamental quantity to be modeled is understood and calculated, and
2. How accurately the inputs needed by the model are provided

- **Screening Tools must accurately account for the fundamentals, but can be optimized to provide more narrowly defined results**
  - Where appropriate can take advantage of simplified inputs and conservative assumptions
  - Results must always be presented in context and only for their intended purpose

Policy Need for Screening Tools

- **Under NEPA three levels of Environmental review can be required**
  - Categorical Exclusion (CATEX)
  - Environmental Assessment (EA)
  - Environmental Impact Statement (EIS)
- **A screening tool is often used to inform whether a CATEX is appropriate or whether an EA or EIS must be considered (using a comprehensive modeling tool)**
  - CATEX determinations have traditionally been made internally, but have increasingly involved public input including some level of community outreach

Current FAA Noise Screening Tools

- **Area Equivalent Method (AEM)**
  - Used for assessing changes in operational use around an airport – Primarily for Operations Specification requirements
- **Guidance For Noise Screening Of Air Traffic Actions Memo**
  - Initial Pre-screening guidance used by ATO (includes OPS,TRAF,LAT and other tests)
- **TARGETS AEDT Environmental Plug-In**
  - Air Traffic screening developed to parallel procedure design tools

Noise Screening Roadmap

- **AEE has provided clarification on guidance for proper use of noise screening tools**
- **AEE is collaborating on research to review and define conservative noise screening methodologies**
- **AEE has convened an agency workgroup to collect input on proposed Noise Screening Methodology updates**
- **AEE will be reviewing all currently approved noise screening tools and replace them with a single integrated methodology and tool**

Goals for the new noise screening tool are to:

- Use updated agency wide noise screening methodologies
- Integrate more closely with AEDT
- Simplify the workload and user input requirements
- Leverage pre-validated consistent, conservative and credible techniques to complete noise screening analysis in near real-time

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