



FAR Part 150 Update – Duluth (DLH)

Advisory Committee Meeting | September 2019



Agenda

- Introduction
- Role of the Advisory Committee
- History of Aviation Noise Abatement Planning
- Part 150 Study Overview
- History of Noise Abatement Planning at DLH
- Essential Elements of a Part 150 Study
- Next Steps

Role of the Advisory Committee

- Sounding Board
- Link to the Community
- Reviewer
- Aid to Implementation

History of Aviation Noise Abatement Planning

- Jet Age + Rapid Expansion of Airports + Continued Suburban Development/Sprawl = **Adverse Noise Impacts**
- Aviation Noise Abatement Policy of 1976
- Aviation Safety and Noise Abatement Act of 1979
 - FAR Part 150 (1981) established requirements for airport owners who choose to submit noise exposure maps and develop noise compatibility planning programs to the FAA for review and approval.
 - Voluntary on the part of the sponsor and is not a requirement of the Federal government

History of Aviation Noise Abatement Planning

- Airport Noise and Capacity Act of 1990
 - Established phase-out timeline of Stage 2 aircraft (Commercial aircraft > 75,000 lbs.)
 - Restricted airports from imposing locally based, non-voluntary restrictions without first completing a Part 161 Study (To date no Part 161 has been submitted and approved by the FAA)
- FAA Final Policy on Part 150 Noise Mitigation Measures (October 1, 1998)
 - Individuals building a home within an approved and published noise exposure contour are NOT eligible for remedial noise mitigation

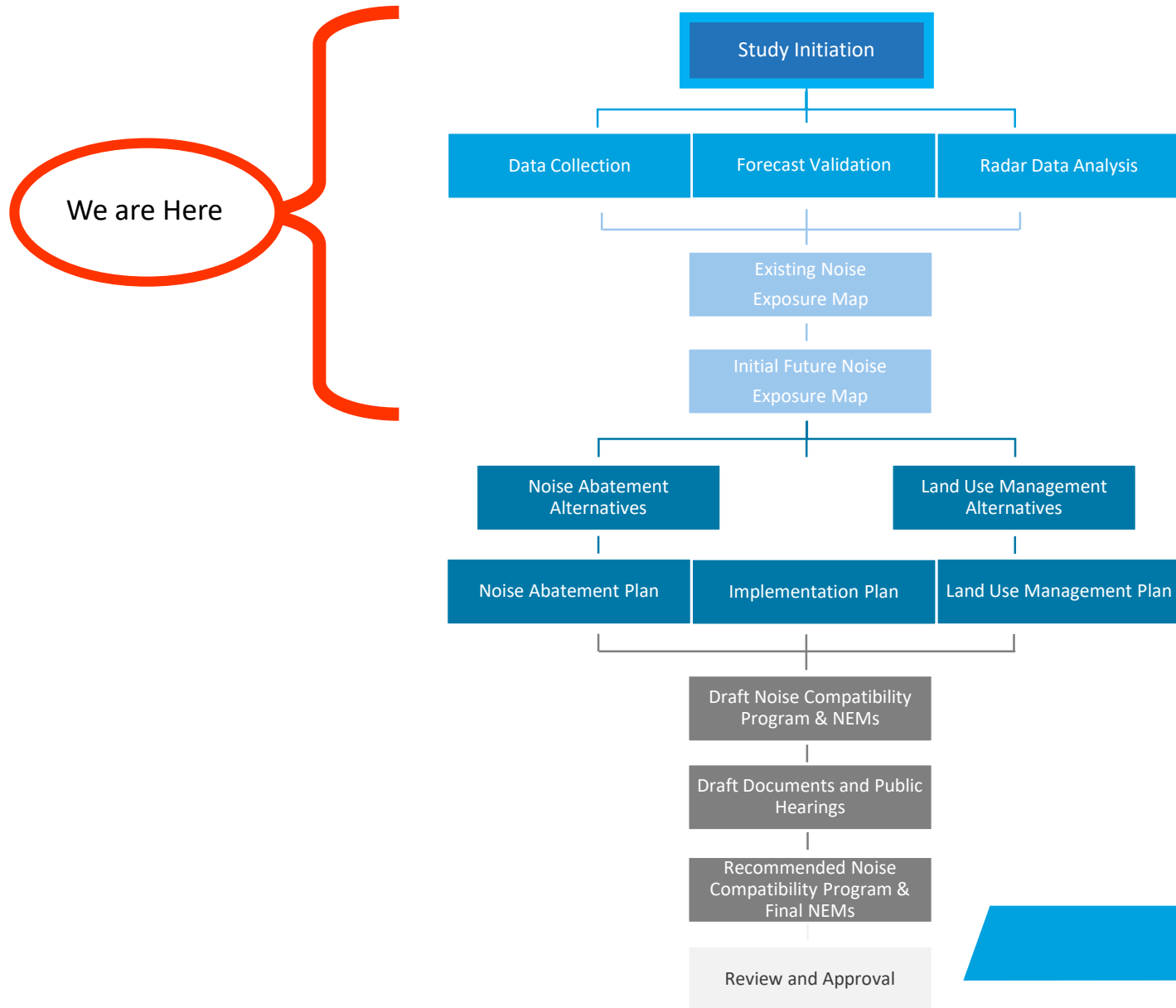
Part 150 Study Overview

- Federal Aviation Regulation (FAR) Part 150 (1981) established requirements for airport owners who choose to submit noise exposure maps and develop noise compatibility planning programs to the FAA for review and approval
- FAA recommends conducting a Part 150 Study every 5 years or if there is a substantial increase or significant decrease in the noise contour over noncompatible land uses surrounding the airport
 - A change in noise of 1.5 dB is deemed substantial
- Part 150 Study takes an in depth and public oriented approach to noise and compatible land use
 - People are more sensitive to changes in noise than other categories
 - Federal funds are potentially at stake for mitigation
 - Allows the public to participate in the development of new flight procedures and land use mitigation

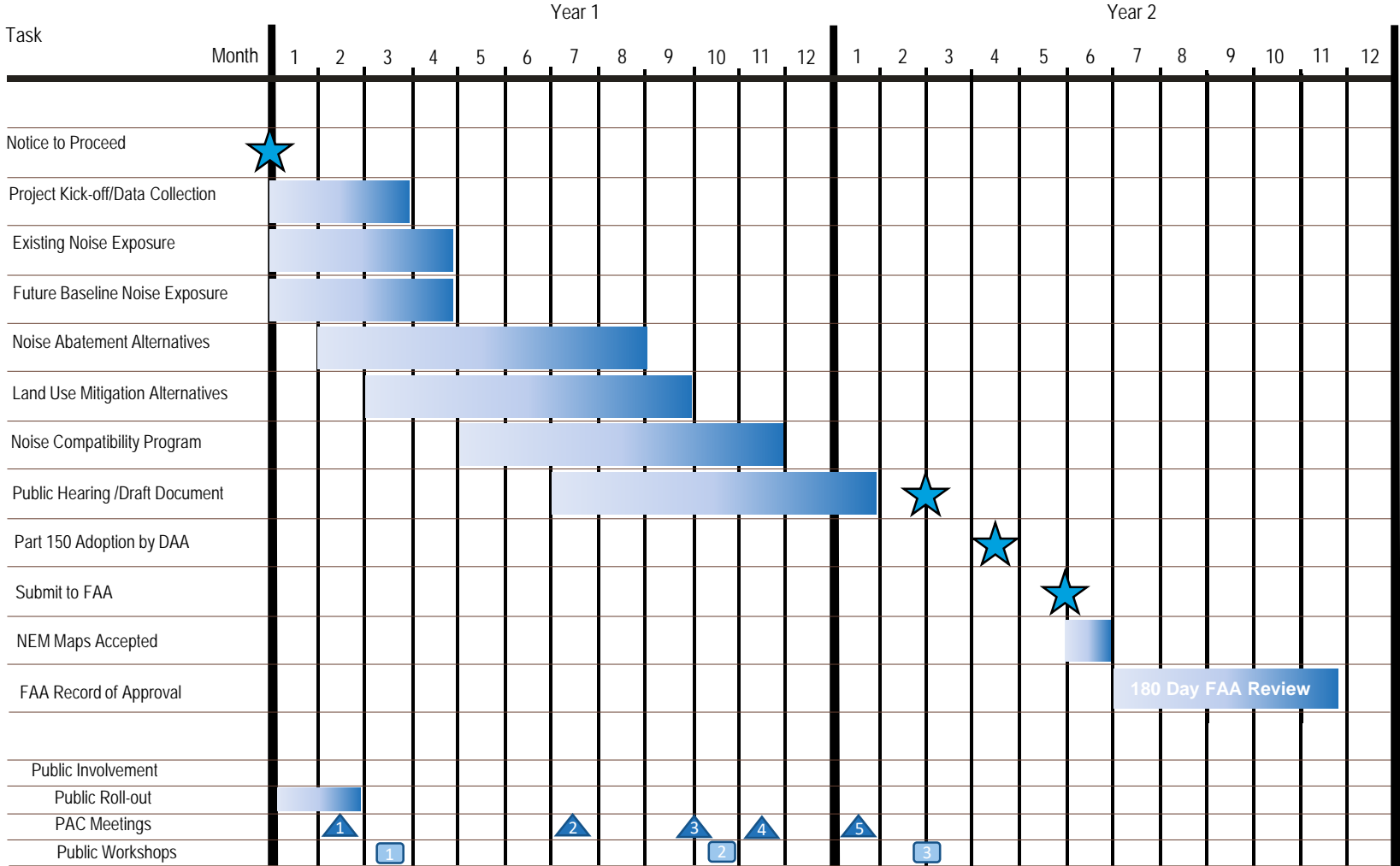
Part 150 Study Overview

- Part 150 Studies are Planning Studies
 - Identify noise and land use impacts that exist today and in the future
 - Work to develop solutions within the FAA’s framework
- Part 150 Studies can open funding sources
 - Following FAR Part 150 guidelines makes airport eligible for grants for implementing recommendations of the study
 - Funding is not guaranteed
- Part 150 Studies do not:
 - Recommend closing an airport or implementing mandatory restrictions on aircraft
 - Give environmental approval for implementing noise abatement or land use programs

Part 150 Study Overview



Part 150 Study Overview



History of Noise Abatement Planning at DLH

- Previous Part 150 Study Completed at DLH
 - 1997 Noise Exposure Map Update
 - 1997 Noise Compatibility Study
 - Recommended Noise Abatement Procedures
 - Community Relations
 - Noise Reduction
 - Recommended Land Use Alternatives
 - Noise Mitigation Measures
 - Preventative Measures

Essential Elements of a Part 150 Study

- Noise Exposure Maps
 - Description of the noise levels for existing and future conditions
 - Future condition should take into account any changes (physical or operational) that may have an effect on the noise levels around the airport
- Noise Compatibility Program
 - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
 - Noise Abatement
 - Land Use Mitigation
 - Implementation Measures
- Public Involvement
 - Public information meetings/workshops
 - Public hearings
 - Planning advisory committee

Part 150 Elements: Noise Exposure Maps

- **General:** Maps depicting the existing and the future noise levels around the airport along with residential and other noise-sensitive land uses
 - FAR Part 150 provides guidance on the size, scale, and elements to be included
 - These maps are the starting point for identifying where there are noise impacts
 - Existing condition is based on 12 months of data
 - Future condition projects noise levels five years out

Part 150 Elements: Noise Exposure Maps

Technical:

- Represents an annual-average day (1 year of operations/365 days).
- Described with a set of continuous lines that represent equal levels of noise (e.g., 65 DNL)
- Prepared using the FAA's Aviation Environmental Design Tool (AEDT) Version 2d Service Pack (SP) 2
- Must use specific noise metric -- Day-Night Level (DNL)
 - 24-Hour average
 - Penalty for nighttime (10:00 p.m. - 6:59 a.m.) flights (x 10)
 - National standard for all Federal agencies
 - 65 DNL identified as threshold for impact

Part 150 Elements: Noise Exposure Maps

Noise Modeling Methodology

– Aircraft Operations and Fleet

- Existing (2020) Noise Exposure – Based on most recent 12 months of data (FAA and DLH maintained databases)
- Future (2025) Noise Exposure – Based on interpolation of forecast

– Flight Tracks

- Existing (2020) Noise Exposure – Based on radar data from select dates from spring, summer, fall and winter (FAA maintained databases)
- Future (2025) Noise Exposure – No changes expected from existing conditions, unless directed otherwise by DLH staff.

– Runway Use

- Existing (2020) Noise Exposure – Based on most recent 12 months of available data (FAA maintained databases)
- Future (2025) Noise Exposure – Will represent conditions expected in 2025 based on discussions with DLH staff

Short-Term Noise Monitoring Program

- Purpose
 - To gather actual noise and operational data for validation of study inputs
- Potential Locations
 - Secure locations at residential neighborhoods, public facilities areas of community noise concerns
 - Areas to avoid include locations with other noise sources (e.g., near highways, construction sites etc.)
- Timeframe
 - Would be conducted shortly after the first round of Advisory Committee/Public meetings to allow public and stakeholders input into the monitoring locations

Develop Noise Abatement Alternatives

- Purpose: To reduce noise levels in surrounding communities
 - Flight location (e.g., departure flight corridors)
 - Runway use program (e.g., how often runway ends are used)
 - Ground activity restrictions (e.g., run-up locations/time)
 - Facility development (e.g., runway extensions, berms)
 - Flight restrictions (e.g., mandatory curfews / restrictions -- would require Part 161 Study)

Develop Land Use Mitigation Alternatives

- Preventive strategies prevent the introduction of additional noise-sensitive land uses within existing and future noise exposure contours
 - May also be applicable outside of the 65 DNL noise contour
- Corrective strategies mitigate existing and projected future unavoidable noise impacts in areas of existing incompatible land use
 - Applicable to 65 DNL noise contour

Recommend Community Outreach Programs

- Community roundtable
- Noise complaint website and telephone hotline

Part 150 Elements: Public Involvement

- Special Presentations / Focus Group Meetings
 - To public bodies or focus groups affected by, or having oversight responsibilities for, matters covered by the Part 150 Study Update
- Public Information Meetings
 - Open house, informational meetings to discuss and analyze potential aviation noise, land use, and other mitigation measures
- Public Hearings
 - Public hearings to receive comments (either oral or written) from the public on the Part 150 Study Update document
- Project Website / Social Media
 - Project website and social media will be updated with study information, including images and documents pertinent to the study
 - Posting of all meeting notices
 - Posting of study process and draft findings

Contacts



Rob Adams

1-513-404-0685
radams@landrum-brown.com

Rob Adams, Executive Vice President, will serve as the Officer-in-Charge (OIC) for this Part 150 Study. Rob has over 22 years of experience with L&B and is responsible for the management of EISs, EAs, Part 150 studies, and land use planning studies.

Previous assignments include managing Part 150 Studies at CLT, CMH, LCK, IND, TOL, PHX, CVG, TUS, PHL, MDT, and numerous Noise Exposure Map Updates. He has also prepared EISs at CMH, TUS, DVO, IND, and currently at RDU.

In his role as OIC, Rob will be responsible for contractual arrangements, quality control reviews, and ensuring that the resources of the firm are available to meet the required schedule deadlines.

Contacts



Jesse Baker

1-513-225-8346
jbaker@landrum-brown.com

Jesse Baker, will be the Project Manager for this Part 150 Study. Jesse has over 18 years of experience in environmental analysis and modeling. Jesse began his career with L&B and provided noise and air quality data analysis for numerous large-scale projects, including the EIS for the New York / New Jersey / Philadelphia Airspace Re-design and the EIS for the relocation of St. George Municipal Airport. Jesse also participated in Part 150 Studies at Kansas City International and Albany International Airports.

Jesse's technical background, while focused on environmental analysis, and modeling of airport design, airspace design, and air traffic control procedures also includes serving on the Aviation Environmental Design Tool (AEDT) and Aviation Environmental Screening Tool (AEST) development team as a Quality Assurance Lead and Subject Matter Expert, and providing technical support and guidance to the FAA Environmental Policy Team Office (ATO-AJV-114) and the FAA Office of Environmental and Energy Research and Development (FAA-AEE).

Through his work on the development of AEDT, Jesse has become one of the foremost experts on the use of the program for aviation noise and air quality analysis. His expertise will be of great benefit to the Part 150 Study at DLH.

Next Steps

- Review of noise complaints
- Review of existing noise abatement procedures
- Public outreach
- Short-term noise monitoring program
- Develop input and model Existing 2020 Noise Contours
- Develop input and model Future 2025 Noise Contours