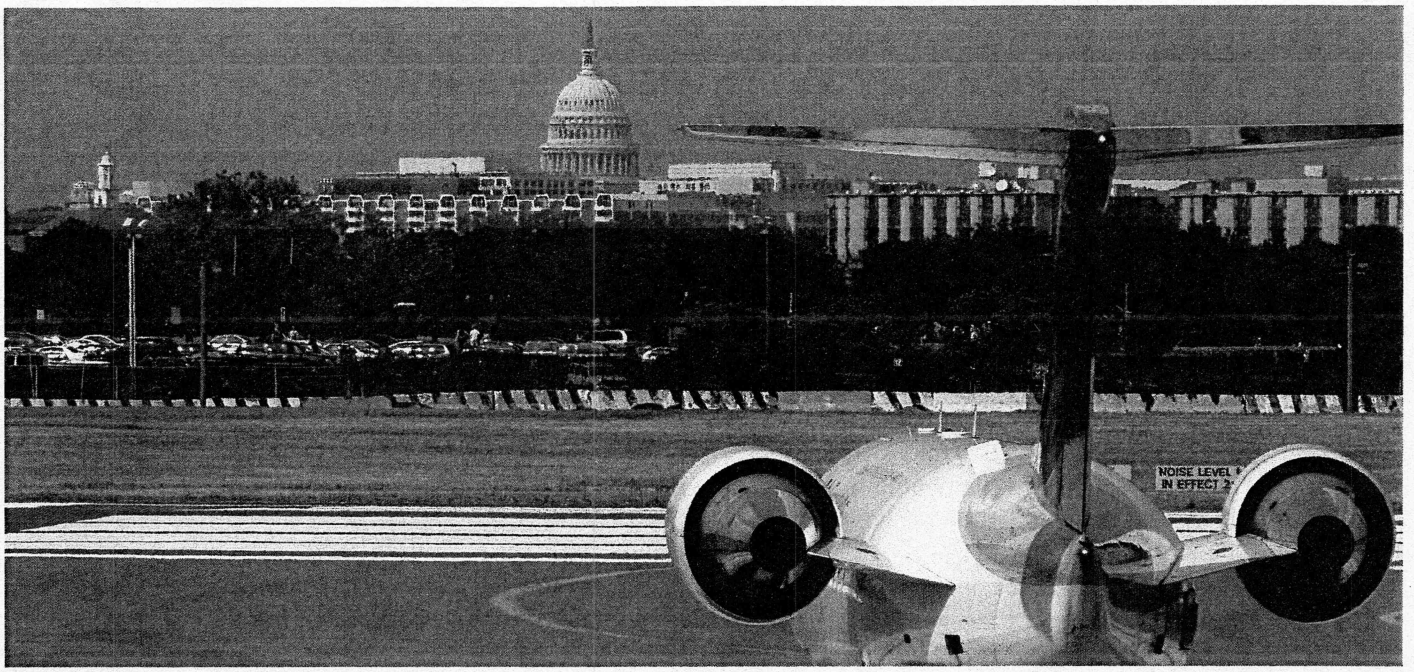

White Paper: 2018 FAA Reauthorization Noise Provisions

This White presents HMMH's analysis of the FAA Reauthorization Act of 2018 (H.R. 302, Pub.L. 115–254) and implications for US airports.

The Federal Aviation Administration (FAA) Reauthorization Act of 2018 reauthorizes the FAA and other programs until the end of fiscal year 2023. The bill was passed by Congress on October 3, 2018, and was signed by President Donald Trump on October 5, 2018. Title I, Authorizations, devotes an entire Subtitle D to "Airport Noise and Environmental Streamlining". Among the twenty-two provisions enacted by the Subtitle, fourteen deal directly or indirectly with aircraft noise.

The noise provisions of Subtitle D fall into several broad categories:

Studies: As described below, there are few provisions in the Reauthorization bill that have direct impact on US airports. Many of the provisions require FAA to conduct or complete studies regarding aircraft noise effects and/or resulting policy, including the FAA's noise annoyance survey (Sections 173, 187, and 188). Section 189 requires a health impacts study that will affect a number of airports (Boston, Chicago, the District of Columbia, New York, the Northern California Metroplex, Phoenix, the Southern California Metroplex, Seattle, or such other area as may be identified by the FAA). Section 186 would require the GAO to conduct a study evaluating the potential phase out of Stage 3 aircraft. The provision also requires consultation with airports and community stakeholders.

NextGen: There are a number of provisions targeted to addressing some of the challenges that have arisen from NextGen implementation, including a review of stakeholder engagement in Metroplex studies (Section 176) and the appointment of regional ombudsmen (Section 180). Section 179 requires FAA to conduct a study to review and evaluate the relationship between jet aircraft approach and takeoff speeds and corresponding noise impacts on communities surrounding airports. Though not directly related to NextGen, this is likely a result of proposals made by MIT at Boston-Logan from a study addressing challenges that have arisen there from RNAV implementation.

Supersonic: Section requires FAA to "exercise leadership in the creation of Federal and international policies, regulations and standards relating to the certification and safe and efficient operation of civil supersonic aircraft." FAA is already doing this, but this provision reemphasizes the importance of FAA leadership in this area.

Miscellaneous: Section 182 requires the mandatory use of the New York North Shore Helicopter Route in Long Island. Section 172 allows flights by stage 2 aircraft at a small number of airports (this appears to be targeted to MRO operations at a small airport in Louisiana).

The only provisions specifically directed at airports are described below:

- Section 174, Updating Airport Noise Exposure Maps: This provision requires that airport operators update their Noise Exposure Maps (NEMs) if there is a change in operations that would result in a "substantial new noncompatible use", or would "significantly reduce noise over existing noncompatible uses" occurring during the period of the then-current NEM (including forecast period) or during Noise Compatibility Program implementation. Many FAA regions and ADOs already have this policy in place, so there would likely be no practical impact to airports from this provision.
- Section 175, Addressing Community Noise Concerns: This provision requires FAA to consider the feasibility of implementing dispersal headings for new RNAV departure procedures below 6,000 AGL, if: (1) requested by the airport, (2) it would not have safety of efficiency implications, and (3) it would not increase noise over other noise-sensitive areas. It provides a possible option for airport influence over flight paths, but also put them in the uncomfortable position regarding whether and when to make such requests (as public concern with its actions or inaction).
- Section 190 allows airports to apply for FAA grant funding for environmental mitigation (Section 190) for pilot environmental mitigation programs that would "measurably reduce or mitigate aviation impacts on noise, air quality, or water quality at the airport or within 5 miles of the airport."

Table 1 summarizes these provisions, in the order in which they appear in the bill, along with the implications for US airports. Our interpretation of implications for airports are provided in the third column of the table, for each provision.

Table 1. FAA Reauthorization Noise Provisions

Section	Purpose	Implications for US Airports
SEC. 172. AUTHORIZATION OF CERTAIN FLIGHTS BY STAGE 2 AIRCRAFT	Permits 1 or more operators of a stage 2 aircraft to operate that aircraft in nonrevenue service into not more than 4 medium hub airports or non-hub airports.	This provision was added to allow a Maintenance, Repair and Overhaul provider at an airport in Louisiana to service aircraft from Latin America. No impact to most airports.
SEC. 173. ALTERNATIVE AIRPLANE NOISE METRIC EVALUATION DEADLINE	Requires FAA to complete research on alternative noise metrics as a possible replacement to DNL within one year.	This is already in FAA's research roadmap, but this provision will accelerate that work. This will be difficult for FAA to accomplish in the time identified. Airports should track FAA activity on this provision.
SEC. 174. UPDATING AIRPORT NOISE EXPOSURE MAPS	Requires that airport operators update their Noise Exposure Maps (NEMs) if there is a change in operations that would result in a "substantial new noncompatible use", or would "significantly reduce noise over existing noncompatible uses" occurring during the period of the then-current NEM (including forecast period) or during Noise Compatibility Program implementation.	Many FAA regions and ADOs already have this policy in place, so there will likely be no practical impact to airports from this provision. Most airports update their maps regularly, so this provision would have no impact.
SEC. 175. ADDRESSING COMMUNITY NOISE CONCERNS.	Requires FAA to consider the feasibility of implementing dispersal headings for new RNAV departure procedures below 6,000 AGL, if: (1) requested by the airport, (2) it would not have safety of efficiency implications, and (3) it would not increase noise over other noise-sensitive areas.	This provision will provide a possible option for airport influence over flight paths, but also put them in the uncomfortable position regarding whether and when to make such requests (as public concern with its actions or inaction). Airports need to remain actively involved with FAA as it designs new RNAV routes; they may also want to share this information with airport stakeholders.
SEC. 176. COMMUNITY INVOLVEMENT IN FAA NEXTGEN PROJECTS LOCATED IN METROPLEXES	Requires FAA to prepare a report (within 180 days) containing: (1) recommendations for improving community involvement for NextGen projects in Metroplexes like the SoCal Metroplex; (2) discussion of how and when the FAA will engage airports and communities in PBN proposals, and (3) lessons learned from NextGen projects.	FAA has issued guidance on community engagement, and may consider that they are ahead of this requirement (except for issuing report). Airports may want to comment on FAA's report, if provided an opportunity (unlikely).

Section	Purpose	Implications for US Airports
SEC. 179. AIRPORT NOISE MITIGATION AND SAFETY STUDY.	Requires FAA to conduct a study to review and evaluate existing studies and analyses of the relationship between jet aircraft approach and takeoff speeds and corresponding noise impacts on communities surrounding airports.	This provision will require a safety analysis of the speed changes that MIT has proposed in their work at BOS. FAA will have two years to do the study, after which airports might consider implementing as part of a review of its Noise Compatibility Program. In practice, this provision puts FAA in the position of reviewing the procedures, which have gained significant attention and interest among community groups. Airports should monitor FAA progress on this provision.
SEC. 180. REGIONAL OMBUDSMEN.	Not later than one year, FAA is required to designate an individual to be the Regional Ombudsman for the region to address "issues regarding aircraft noise, pollution, and safety".	FAA already is in the process of hiring regional noise specialists, who will likely serve in this role. Airports should monitor FAA progress on this provision, and make efforts to meet with the Regional Ombudsman.
SEC. 181. FAA LEADERSHIP ON CIVIL SUPERSONIC AIRCRAFT.	Requires FAA to "exercise leadership in the creation of Federal and international policies, regulations and standards relating to the certification and safe and efficient operation of civil supersonic aircraft.	FAA is already doing this through ICAO. Airports should monitor FAA progress on this provision.
SEC. 182. MANDATORY USE OF THE NEW YORK NORTH SHORE HELICOPTER ROUTE.	FAA will initiate a review of (1) noise impacts of the North Shore Route for communities, including communities in locations where aircraft are transitioning to or from a destination or point of landing; (2) enforcement of applicable flight standards, including requirements for helicopters operating on the relevant route to remain at or above 2,500 feet mean sea level; and (3) availability of alternative or supplemental routes to reduce the noise impacts of the regulations, including the institution of an all water route over the Atlantic Ocean.	This provision is limited to Long Island.
SEC. 186. STAGE 3 AIRCRAFT STUDY.	Requires the General Accountability Office to conduct a study evaluating the potential phase out of Stage 3 aircraft. The provision also requires consultation with airports and community stakeholders.	Airports should analyze their fleet mix to determine specific impact. This might also be an opportunity to proactively engage with community.
SEC. 187. AIRCRAFT NOISE EXPOSURE	Requires that the FAA complete "ongoing review of the relationship between aircraft noise exposure and its effects on communities" within two years. It specifically requires FAA to revise its Part 150 land use compatibility guidelines (14 CFR 150).	In practice, this will accelerate FAA policy work that is already underway. Changes in FAA's use of the DNL 65 dB threshold for land use compatibility, significant environmental and other purposes could substantially affect community relations, noise programs and environmental reviews. Airports should monitor FAA progress on this provision.
SEC. 188. STUDY REGARDING DAY-NIGHT AVERAGE SOUND LEVELS.	Within one year, FAA is required to evaluate alternative metrics to the current average day-night level standard, such as the use of actual noise sampling and other methods, to address community airplane noise concerns.	This is similar to Section 173, except requires consideration of measured noise levels, and an accelerated schedule (one year instead of two). Airports should monitor FAA progress on this provision.

Section	Purpose	Implications for US Airports
SEC. 189. STUDY ON POTENTIAL HEALTH AND ECONOMIC IMPACTS OF OVERFLIGHT NOISE	Requires FAA to engage a university to conduct a health study in a number of metropolitan areas (Boston, Chicago, the District of Columbia, New York, the Northern California Metroplex, Phoenix, the Southern California Metroplex, Seattle, or such other area as may be identified by the FAA), focusing on: "incremental health impacts on residents living partly or wholly underneath flight paths most frequently used by aircraft flying at an altitude lower than 10,000 feet, including during takeoff or landing"; and "an assessment of the relationship between a perceived increase in aircraft noise, including as a result of a change in flight paths that increases the visibility of aircraft from a certain location, and an actual increase in aircraft noise, particularly in areas with high or variable levels of non-aircraft-related ambient noise."	The results of any such study will undoubtedly affect discussions regarding noise programs and project environmental reviews. Airports should monitor FAA progress on this provision.
SEC. 190. ENVIRONMENTAL MITIGATION PILOT PROGRAM	Provides for FAA grants of up to $2.5M to six airports to carry out pilot environmental mitigation programs that would "measurably reduce or mitigate aviation impacts on noise, air quality, or water quality at the airport or within 5 miles of the airport." The federal share of this project would be up to 50%, and projects must be carried out by a consortium of entities that includes two or more of the following: businesses, educational or research organizations, state or local governments, and/or federal laboratories.	Provides a funding mechanism for innovative mitigation programs. Airports might consider submitting a grant application for such a grant. Note that federal funding is only 50%, and the grant must be submitted by a consortium that includes business, research organizations, or federal laboratories.

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Ground Noise Study Scope

- Ground Noise Data Research
  - Meet with StART
  - Identify ground noise sources and locations
  - Identify atmospheric conditions that may increase ground noise
- Noise Monitoring
  - Obtain and analyze data from permanent monitors
  - Collect and analyze additional temporary noise monitoring data
- Identify Mitigation Options
  - Present findings on ground noise sources and levels and solicit input on mitigation measures
  - May include changes in aircraft operating procedures or utilization of new or existing structures to reduce community noise exposure
- Report Project Results