

- Industry representatives also play a formal advisory role in NextGen implementation. DOT established the NextGen Advisory Committee to provide FAA with recommendations on its implementation of NextGen, including PBN. The Committee is composed of members who represent entities including aircraft manufacturers, airports, environmental interests, airlines, and the U.S. Department of Defense. In its efforts to advise FAA, the Committee has issued reports and recommendations related to PBN implementation and related community outreach.<sup>9</sup>

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## FAA Has Established Guidance and Policies for Noise Impact Analysis of Proposed PBN Changes

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### Level of Environmental Review Is Dependent on Potential Impact

FAA's Order 1050.1F (the Order),<sup>10</sup> updated in 2015, establishes policies for conducting environmental analyses and community outreach to adhere to NEPA requirements when implementing PBN procedures.<sup>11</sup> The Order applies to FAA proposed actions—that is, implementation of or changes to policies, programs, or procedures—but, for the purposes of this report, we discuss these policies in relation to FAA's implementation of PBN procedures. In addition, FAA has developed a companion Desk Reference to provide additional guidance on carrying out the policies

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<sup>9</sup> See Radio Technical Commission for Aeronautics, *Blueprint for Success to Implementing Performance Based Navigation*, Report of the NextGen Advisory Committee in Response to a Tasking from The Federal Aviation Administration, October 2014 and Radio Technical Commission for Aeronautics, *PBN Blueprint Community Outreach Task Group*, Report of the NextGen Advisory Committee in Response to a Tasking from the Federal Aviation Administration, June 2016.

<sup>10</sup> Order 1050.1F is derived from a broader order on considering environmental impacts issued by DOT, which in turn was developed from the regulations promulgated by the Council on Environmental Quality. See DOT Order 5610.1C, *Procedures For Considering Environmental Impacts*, July 30, 1985; 40 C.F.R. §§ 1500-1508.

<sup>11</sup> NEPA is intended to ensure agencies consider the environmental impacts of their actions in the decision making process and inform the public about their decision making. NEPA established the Council on Environmental Quality within the Executive Office of the President to ensure federal agencies meet their obligations under NEPA. Under Executive Order 11514, the Council on Environmental Quality is responsible for issuing regulations that implement NEPA's procedural requirements. Exec. Order No. 11,514, 35 Fed. Reg. 4,247 (Mar. 5, 1970).

established in the Order. Once proposed PBN procedures for a metroplex or single-site project have been designed to accomplish FAA's goals, FAA conducts one of three levels of environmental review and conducts associated environmental analysis, including noise impact analysis, and public outreach as outlined in the Order and described below. These activities are discussed in greater detail throughout this report.

- **Categorical exclusion:** FAA has identified a range of actions (including changes to PBN procedures) in the Order that, in general, do not individually or cumulatively have significant effects—including noise impacts—on the human environment and, thus, are categorically excluded from the more in-depth analysis and outreach required for an environmental assessment or impact statement. Although FAA has classified PBN procedure changes as categorically excluded actions, FAA's Order explains that the agency must determine if extraordinary circumstances (such as protected natural or historic areas in the affected location, for example) exist that would prevent FAA from implementing the proposed change under a categorical exclusion.<sup>12</sup>
- **Noise screening:** According to the Desk Reference, FAA conducts noise screening analysis to determine whether it is necessary to conduct a more detailed noise analysis, and could include a range of analyses including consideration of the number of flights that would be affected by proposed changes or the extent to which proposed changes would result in movement of flights from one area to another. For example, to determine if there is the potential for significant changes in noise, FAA officials might consider the scope of the proposed change. If the change is minor or administrative in nature, and would not result in a change to the altitude or positioning of flights in the sky, then FAA could conclude that the change can be implemented without further environmental analysis. If it is clear from the screening that there will not be significant noise impacts, FAA may proceed with implementing the proposed PBN changes under a categorical exclusion. If it is unclear from the screening whether the proposed action will have significant noise impacts, FAA must conduct either

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<sup>12</sup> The Order defines extraordinary circumstances as factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that requires further analysis. Additionally, the Order states that for FAA proposed actions, extraordinary circumstances exist when the proposed action meet criteria outlined in the Council on Environmental Quality's NEPA implementing regulations.

an environmental assessment or impact statement, as described below.

- **Community outreach:** For PBN changes implemented under a categorical exclusion there is no requirement to involve the public. However, the Order states that FAA may notify the public of a categorically excluded change if the agency determines it is appropriate to do so.
- **Environmental assessment:** When a proposed action that would normally qualify as a categorical exclusion presents an extraordinary circumstance that may have a significant effect that cannot be lessened or avoided, or if the action does not qualify as a categorical exclusion, NEPA regulations require that FAA prepare an environmental assessment. Environmental assessments assist the agency in determining whether potential environmental impacts are significant and generally require more in-depth environmental analysis and additional public outreach as compared to categorical exclusions.
- **Noise impact analysis:** As part of the environmental analysis required for environmental assessments, FAA models the potential noise impacts of proposed actions and reasonable alternatives, including the environmental conditions if no change were made. If FAA does not identify potential for significant environmental impacts, including noise impacts, FAA may issue a Finding of No Significant Impact and proceed with implementing the proposed changes after appropriate public outreach.<sup>13</sup> If the agency finds that the change is likely to have significant environmental impacts, which may include noise impacts, the agency must prepare an Environmental Impact Statement (see below).
- **Outreach:** For PBN changes that require an environmental assessment, FAA must involve the public to the extent practicable. FAA determines the appropriate level of public involvement on a case-by-case basis, which may vary based on the proposed action and the potential impacts. Under the Order, at a minimum, FAA must make the environmental assessment available to members of the public and may conduct additional outreach. According to the Order, in appropriate circumstances, FAA should consider public outreach activities that include seeking public

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<sup>13</sup> A Finding of No Significant Impact is a document prepared after completion of an environmental assessment. The document presents the reasons why the agency has concluded that there are no significant environmental impacts projected to occur upon implementation of the action, and that an environmental impact statement is not required.

comments on the draft environmental assessment as well as holding public meetings, hearings, and workshops.

- **Environmental impact statement:** When proposed PBN changes will likely have significant effects, which may include significant noise impacts, NEPA regulations require that FAA complete an environmental impact statement. In addition to information on the purpose and potential environmental impacts of the proposed PBN changes, NEPA regulations require that the environmental impact statement describe measures to mitigate adverse environmental impacts or alternatives.
- **Noise impact analysis:** Under the Order, FAA must, at a minimum, conduct the same type of noise impact analysis of the proposed action and alternatives that is required for environmental assessments. In addition, FAA may conduct additional analysis to determine the extent of significant noise impacts. In comparison with environmental assessments, environmental impact statements must include discussion of a broader range of alternatives and provide an in-depth comparative analysis of the environmental impacts from the proposed PBN changes and reasonable alternatives. Additionally, the Order requires that FAA consult with relevant federal, state, tribal, and local entities as determined based on the location and extent of the impacts.
- **Outreach:** FAA is required to conduct more formal public outreach for changes implemented under an environmental impact statement: NEPA regulations require that an agency publish a notice of intent to prepare an environmental impact statement in the Federal Register, and the Order states that FAA should coordinate with local media to notify the interested and impacted public that the document is available for review and comment. The public is able to submit comments on the draft document, and FAA must take into consideration all timely comments received. FAA must also append or otherwise publish all substantive comments received on the draft statement. The Order explains that public meetings and hearings may also be used to inform the public and receive public comments on the draft document.

Among our selected locations, PBN changes were implemented under a categorical exclusion for one project; under environmental assessments for 11 (comprised of one single site and 4 metroplex projects encompassing 10 of our selected airports); and under an environmental impact statement for one, as follows.

- Categorical Exclusion: