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[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Docket No. FAA-2014-0510]

Implementation of Legislative Categorical Exclusion for Environmental Review of Performance Based Navigation Procedures

AGENCY: Federal Aviation Administration, Transportation.

ACTION: Final Notice to Announce Implementation of Section 213(c)(2) CATEX and Disposition of Public Comments.

SUMMARY: On August 19, 2014, the Federal Aviation Administration (FAA) published in the **Federal Register** [79 FR 49141-49144] a notice regarding the FAA's consideration of how to implement Section 213(c)(2) of the FAA Modernization and Reform Act of 2012. Section 213(c)(2) directs the FAA to issue and file a categorical exclusion for any navigation performance or other performance based navigation procedure that would result in measureable reductions in fuel consumption, carbon dioxide emissions, and noise on a per flight basis as compared to aircraft operations that follow existing instrument flight rule procedures in the same airspace. To inform the FAA's consideration of interpretative guidance regarding Section 213(c)(2), the FAA's August 19 notice requested public comment on a Net Noise Reduction Method recommended by the NextGen Advisory Committee (NAC) and possible variations on this method. The FAA has reviewed and considered all comments and has decided to issue interpretative guidance to implement Section 213(c)(2) using the Net Noise Reduction Method with two variations to the NAC's recommendation, as described in this final notice.

DATE: The effective date of this implementation will be the date the FAA issues the interpretative guidance.

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SUPPLEMENTARY INFORMATION:

Background

The National Environmental Policy Act (NEPA) establishes a broad national policy to protect the quality of the human environment and to ensure that environmental considerations are given careful attention and appropriate weight in decisions of the Federal Government. Regulations promulgated by the Council on Environmental Quality (CEQ) (40 CFR parts 1500–1508) to implement NEPA establish three levels of environmental review for federal actions. An environmental impact statement (EIS) is the detailed written statement as required by section 102(2)(C) of NEPA, and is prepared for those actions when one or more environmental impacts are potentially significant and mitigation measures cannot reduce the impact(s) below significant levels. 40 CFR 1508.11. An environmental assessment (EA) is a more concise document that provides a basis for determining whether to prepare an environmental impact statement or a finding of no significant impact. 40 CFR 1508.9. A categorical exclusion (CATEX) is used for actions which do not individually or cumulatively have a significant effect on the human environment. 40 CFR 1508.4. A CATEX is not an exemption or waiver of NEPA review; it is a level of NEPA review.

CEQ regulations require agency procedures to identify classes of actions which normally require an EIS or an EA, as well as those actions which normally do not require either an EIS or an EA (i.e., a CATEX). 40 CFR 1507.3(b). In addition to identifying actions that normally are CATEXed, an agency's procedures must also provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect which would preclude the use of a CATEX. 40 CFR §1508.4.

The FAA has adopted policy and procedures for compliance with NEPA and CEQ's implementing regulations in Order 1050.1F, Environmental Impacts: Policies and Procedures, dated July 16, 2015 [80 **Federal Register** 44207, July 24, 2015]. Order 1050.1F lists FAA actions subject to a CATEX in accordance with CEQ regulations, including CATEXs for FAA actions involving establishment, modification, or application of airspace and air traffic procedures.

In the FAA Modernization and Reform Act of 2012 (Pub. Law 112-95), Congress created two additional legislative CATEXs for certain air traffic procedures being implemented as part of the Next Generation Air Transportation System (NextGen).[1] Section 213(c) of this Act provides:

(c) COORDINATED AND EXPEDITED REVIEW.

> (1) IN GENERAL. – Navigation performance and area navigation procedures developed, certified, published, or implemented under this section shall be presumed to be covered by a categorical exclusion (as defined in section 1508.4 of title 40, Code of Federal Regulations) under chapter 3 of FAA Order 1050.1E unless the Administrator determines that extraordinary circumstances exist with respect to the procedure.

[1] The Next Generation Air Transportation System, referred to as NextGen, is a term used to describe the ongoing transformation of the National Airspace System (NAS). At its most basic level, NextGen represents an evolution from a ground-based system of air traffic control to a satellite-based system of air traffic management.

> (2) NEXTGEN PROCEDURES. – Any navigation performance or other performance based navigation procedure developed, certified, published, or implemented that, in the determination of the Administrator, would result in measurable reductions in fuel consumption, carbon dioxide emissions, and noise, on a per flight basis, as compared to aircraft operations that follow existing instrument flight rules procedures in the same airspace, shall be presumed to have no significant affect [sic] on the quality of the human environment and the Administrator shall issue and file a categorical exclusion for the new procedure.

These two new legislative CATEXs have been included in Order 1050.1F. The FAA issued implementing guidance on the CATEX described in Section 213(c)(1) on December 6, 2012. Technical and legal issues have hindered implementing guidance on the CATEX in Section 213(c)(2) because none of the current noise methodologies measure noise on a per flight basis as contemplated by the statute.

The CATEX in Section 213(c)(2) has some unique characteristics. It presumes no significant effect on the quality of the human environment based on a review of three factors—fuel consumption, carbon dioxide emissions, and noise. To apply this CATEX, the FAA is directed to determine that all three factors would be measurably reduced when compared to what is generated by existing instrument flight rules procedures, instead of determining that there would be no potential for significant impacts. It bases the determination of measurable reductions on a per flight basis. It does not provide for extraordinary circumstances to override the CATEX.

Section 213(c)(2) states that this CATEX applies to "any navigation performance or other performance based navigation procedure…." The FAA interprets this to mean NextGen performance based navigation (PBN) procedures based on the terminology and because the provision is entitled "NextGen Procedures" and is within a more comprehensive Section 213 that

is entitled "Acceleration of NextGen Technologies". PBN procedures are flight procedures that rely on satellite-based navigation, i.e. Area Navigation (RNAV) and Required Navigation Performance (RNP). Accordingly, the FAA finds that the use of this CATEX is limited to PBN procedures. The CATEX cannot be used for conventional procedures (flight procedures that rely on ground-based navigational aids) or for projects involving a mix of conventional and PBN procedures, which is commonly the case for sizeable projects such as an Optimization of the Airspace and Procedures in the Metroplex (Metroplex). In addition, for projects involving only PBN procedures, 95 percent or more already meet the conditions of existing FAA CATEXs. Under these circumstances, the Section 213(c)(2) CATEX would be expected to be used infrequently. It could expedite review of a PBN-only project that would otherwise be subject to an EA or possibly an EIS due to a high level of environmental controversy or potential environmental impacts that would preclude the use of another existing CATEX.

The statutory language of Section 213(c)(2) states that the CATEX cannot be implemented unless the FAA can determine that there are measurable reductions of fuel consumption, carbon dioxide emissions, and noise on a per flight basis. While measurable reductions in fuel consumption and carbon dioxide emissions can be determined on a per flight basis using current methodologies, aircraft noise poses unique challenges for such a determination. Noise depends not only on the varying noise levels of an aircraft as it flies, but also on the position of the aircraft in relation to noise sensitive receivers on the ground. Noise tends to increase at some locations and decrease at other locations as PBN procedures shift and concentrate flight tracks. Total noise in an area of airspace cannot be calculated by adding up the noise levels at various locations on the ground, and noise levels cannot be divided by the number of aircraft to produce noise per flight. The FAA could not find a technically sound way to make

the noise determination required by the statute based on an analysis of methodologies currently in use.

In September 2012, the FAA tasked the NextGen Advisory Committee (NAC) for assistance in further exploring how to make use of this legislative CATEX. The NAC, established September 23, 2010, is a 28-member Federal advisory committee formed to provide advice on policy-level issues facing the aviation community in developing and implementing NextGen. In response to FAA's request, the NAC created a Task Group of diverse stakeholders representing airlines, airports, manufacturers, aviation associations, consultants, and community interests. The Task Group agreed with the FAA's technical analysis of current methodologies and went on to develop a Net Noise Reduction Method. The Net Noise Reduction Method received unanimous support from Task Group members and was recommended to FAA by the NAC on June 4, 2013.[2]

Following extensive evaluation of the NAC's recommended Net Noise Reduction Method, the FAA decided to solicit public comment to further inform the FAA's consideration of interpretive guidance to implement Section 213(c)(2) using the Net Noise Reduction Method and possible variations on it. The FAA noted several reasons for seeking public review in addition to the NAC's public forum. One reason is that this CATEX has some unique statutory requirements that have presented challenges to the FAA in determining how to implement the CATEX. In addition, the Net Noise Reduction Method would introduce a new method for assessing noise for certain proposed PBN procedures under NEPA that is different in a number of respects from current noise analysis methodologies. The NAC also suggested an additional test, at the FAA's discretion, involving a determination of significant noise impact; and the FAA

[2] http://www.rtca.org/Files/Miscellaneous%20Files/CatEx2%20Report%20NAC%20June%202013final.pdf

wanted input from the public on the use of such a test. Finally, there appears to be substantial public interest and concern regarding this CATEX, as reflected in numerous comments submitted on the inclusion of this CATEX in Order 1050.1F.

FAA's Decision to Implement the Noise Determination in Section 213(c)(2)

The FAA will determine that there is a measurable reduction in noise on a per flight basis under Section 213(c)(2) if proposed PBN procedures, when compared to existing procedures they replace in the same airspace, would result in a net noise reduction within that area of airspace and would not significantly increase noise. The FAA will use the Day-Night Average Sound Level (DNL)[3] to determine average changes in noise and whether there is a net noise reduction within an area exposed to noise levels of DNL 45 decibels (dB) and higher.[4] The FAA interprets "measurable reductions in…noise" to preclude situations where there would be significant increases in noise. Therefore, the FAA will not use this CATEX when proposed PBN procedures would result in a noise increase of DNL 1.5 dB or more over noise sensitive areas at levels of DNL 65 dB and higher, which would constitute a significant noise impact under FAA's long-standing NEPA criterion.[5]

This interpretation uses the NAC's recommended Net Noise Reduction Method with two modifications: (1) FAA will base the determination of measurable reductions in noise on net changes in noise, instead of net changes in the affected population, to be more consistent with the

[3] DNL, the Day-Night Average Sound Level, is the FAA's primary metric for assessing aircraft noise. DNL accounts for the noise levels of individual aircraft events, the number of times those events occur, and the period of day/night in which they occur.

[4] For NEPA purposes, FAA normally performs noise screening to determine DNL changes at noise levels of DNL 45 dB and higher for air traffic airspace and procedure actions.

[5] The FAA's criterion for a significant noise impact under NEPA is an increase of DNL 1.5 dB or more for a noise sensitive area (e.g. homes, schools) that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above this level due to a 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. FAA Order 1050.1F.

statute; and (2) FAA interprets measurable reductions in noise to preclude use of the CATEX in situations where noise increases would be significant.

The application of the FAA's interpretation is illustrated below in Table 1. Using the same source data used by the NAC in one of its examples,[6] the FAA calculated the average change in the DNL resulting from PBN procedures versus existing procedures at thousands of locations within an area of airspace. The total average change in noise is a decrease, and absent significant noise increases, the required noise reduction determination could be made, enabling the CATEX to be used for the PBN procedures if fuel consumption and carbon dioxide emissions would also be reduced. If there are significant increases in noise, the FAA would not use the CATEX irrespective of the average change in noise.

Table 1. Average Changes in DNL Level
PBN Procedures vs Existing Procedures

DNL Noise Exposure Band	Average Change in DNL
45-60	-0.3 DNL
60-65	0
Above 65	0
Total Change	-0.3 DNL

[6] This example uses noise and population data from an EA for procedural changes at Chicago Midway International Airport. This example was also in the FAA's August 19, 2014 notice.

In the August 19, 2014 notice, the FAA calculated net changes in noise in two ways—(1) a straight average of all locations as in Table 1 of this notice and (2) a population weighted average. The FAA decided to use the straight average because it is more consistent with the statutory text as well as easier to understand. In both calculations shown in the previous notice, the total average change in noise was a decrease, which was the same result produced by the NAC method.

The FAA has determined that its interpretation of the statutory language is a reasonable interpretation that enables the agency to fulfill its responsibility to implement enacted legislation. It provides an additional CATEX that may be used for environmental reviews of PBN procedures consistent with legislative intent. It provides a method to quantify measurable noise reductions within a sizeable geographic area[7] using the widely-accepted DNL noise metric. It supports a determination of measureable noise reductions on a per flight basis because, if cumulative noise from multiple flights in a geographic area is lower, noise would also be lower per flight if one could divide the cumulative noise by the number of flights in the area. It is based on a methodology developed by a diverse stakeholder group and recommended by a committee that advises the FAA on NextGen (i.e., the NAC), and it produces the same CATEX results as the NAC's method when applied to the examples used by the NAC.[8] It precludes the use of this CATEX if there are noise increases that would be considered significant based on a recognized standard. This final characteristic places this CATEX within the normal range of NEPA CATEXs and is responsive to community concerns.

[7] FAA will evaluate net changes at DNL 45 dB and higher, consistent with FAA's NEPA practice for PBN procedures and also consistent with the NAC's recommendation.

[8] The NAC used procedural changes at Chicago Midway International Airport and Seattle Tacoma International Airport to test the results of its method.

The FAA is keenly aware of the general negative community response to this CATEX. The FAA and the NAC realize that community controversy can counterbalance the streamlining effects of any CATEX and result in opposition to PBN procedures. These issues are currently receiving more attention within FAA and by the NAC.

Discussion of Public Comments

The FAA initially provided for a 30-day public comment period and then, upon request, extended the comment period to 60 days. The FAA invited public comment on the entirety of the prospective implementation of the CATEX in Section 213(c)(2) of the FAA Modernization and Reform Act of 2012, and particularly invited comment on the following specific aspects of the Net Noise Reduction Method which were under consideration by the FAA as described in the August 19, 2014 notice:

1. Extent to which the FAA should rely on the Net Noise Reduction Method to determine measurable reductions in noise on a per flight basis.
2. Appropriateness of determining that there is a measurable reduction in noise if people receiving a noise decrease outnumber the people receiving an increase, but the noise decrease is small compared to the noise increase.
3. Different approaches to a net noise reduction methodology (i.e., population change, noise change, population weighted noise change), and whether the selection of one approach over another is preferred and increases public understanding.
4. Extent to which a mix of noise increases and decreases could support a determination of measurable noise reduction, especially when reductions at lower noise levels outweigh increases at higher noise levels, and whether an alternative approach that would require

reductions in all three noise exposure bands to support the use of the CATEX should be used.

5. Whether a significant noise impact threshold test should be used; and if so, if it should be used only when there is a net increase in people exposed to noise at DNL 65 dB and above, or if it should be used when there is any increase in the number of people exposed to noise at DNL 65 dB and above—even if there is a net population benefit at that level.

The FAA received 80 comments, including 10 letters of comment from parties representing aviation interests; 18 letters from Federal and state elected representatives, local governments, organizations and a law firm on behalf of their constituents, members, and community interests; 52 letters from individuals, and a neighborhood petition signed by 140 individuals. In general, aviation interests supported the FAA's adoption of the NAC's recommended Net Noise Reduction Method, while other commenters expressed opposition to or reservations about this methodology, opposition to this legislated CATEX and to CATEXs in general, and noise concerns about the implementation of PBN procedures. The FAA reviewed and considered all comments in reaching its decision. Specific issues that were commented on and FAA's responses are presented in more detail below.

Comment: Aviation commenters supported NextGen and PBN procedures. They viewed the CATEX in Section 213(c)(2) as an advantageous step taken by Congress to expedite the environmental review of PBN procedures that can reduce fuel burn, emissions, and noise. They supported the NAC's recommended Net Noise Reduction Method as technically and legally sound. They emphasized that it was developed by a diverse group of stakeholders including representatives of airlines, airports, manufacturers, aviation associations, consultants, and

community interests, and that it received unanimous support from the NAC. They urged FAA to fulfill its responsibility to carry out a legislated mandate by adopting this method without further delay. They provided additional details in support of the above points.

FAA Response: The FAA sought the advice of the NAC and appreciates the efforts of the NAC Task Group that resulted in a recommendation that was unanimously supported by such a broad diversity of interests. Following additional evaluation and consideration of public comments, FAA has decided to use the NAC's recommended Net Noise Reduction Method with two modifications for greater consistency with the statute, as described in this notice.

Comment: An airport supported the benefits of PBN procedures, while noting the importance of local airport operator and community involvement in PBN implementation. This commenter expressed the need to balance airport operations and impacts with community concerns. The commenter asked if a decrease in noise below DNL 65 dB could offset an increase in noise above DNL 65 dB using the Net Noise Reduction Method, and if the residents that are added to the noise exposure area at DNL 65 dB and higher would be entitled to mitigation. The commenter expressed concern that the Net Noise Reduction Method would not adequately account for community annoyance and opposition that can occur when flight operations are concentrated over more narrow corridors as is common with PBN procedures.

FAA Response: The FAA agrees with the importance of local airport operator involvement and community concerns. The FAA and the NAC are currently giving increased attention to improving airport operator and community involvement in PBN implementation. Regarding the question about whether a decrease in noise below DNL 65 dB could offset an increase in noise above DNL 65 dB using the Net Noise Reduction Method, the answer is yes. The statutory text provides for comparison of PBN procedures versus existing procedures in the

same airspace. The FAA interprets "in the same airspace" to encompass the entire airspace study area under review in relation to the proposed PBN procedures. With respect to the prospect of adding residents to areas exposed to noise at DNL 65 dB and higher, this CATEX will be no different from other existing CATEXs. If the additional noise exposure is a significant noise increase, this CATEX cannot be used. If it is not a significant noise increase, this CATEX may be used with respect to noise just as other CATEXs are currently used. Also, as is currently the case, residents exposed to aircraft noise of DNL 65 dB and higher may be eligible for mitigation such as sound insulation; however, the provision of mitigation depends on whether the airport has a noise mitigation program, which residents are covered by the program, funding availability, and timing. Regarding the commenter's final concern, if the concentration of noise from PBN implementation is sufficient to increase noise to an extent that it would be considered a significant increase, this CATEX would not be used. This same qualification applies to other existing CATEXs.

Comment: A number of elected representatives, local governments, organizations representing community and environmental interests, and individuals commented that the implementation of PBN procedures should require more detailed environmental review than a CATEX and should be subject to public disclosure and review. Some commenters regard a CATEX as an exemption from environmental review under NEPA. Many objected to the use of CATEXs in general for PBN implementation, as well as to the Section 213(c)(2) CATEX. A number of commenters said that PBN procedures should not be expedited with a CATEX. Some commented that a CATEX should not be used if there is any noise increase, as well as that the criteria for a CATEX should require noise reductions in all areas under flight paths. One commenter asserted that a CATEX should not be allowed if newly impacted people are exposed

to incompatible conditions, i.e., noise exposure of DNL 65 dB and higher. Another commenter asserted that PBN procedures do not meet CEQ's standard for a CATEX because they have significant negative environmental impacts. Additional details were provided by commenters regarding why a CATEX is not appropriate.

FAA Response: The FAA first wants to clarify that a CATEX is not a NEPA exemption. A CATEX is a recognized category of NEPA review. CEQ regulations define a categorical exclusion, referred to by FAA as a CATEX, as "a category of actions which do not individually or cumulatively have a significant effect on the human environment…",[9] and, therefore, for which neither an environmental assessment nor an environmental impact statement is required. Each procedure subject to the use of a CATEX is individually reviewed for consistency with CATEX requirements. PBN procedures may qualify for CATEXs just as conventional air navigation procedures have for many years. Most procedures—whether PBN or conventional procedures—do not have significant environmental impacts, in part because of their altitude above ground level. Most CATEXs are established through agency administrative procedures that are reviewed and concurred in by CEQ, as is the case for FAA's CATEXs in Order 1050.1F, Environmental Impacts: Policies and Procedures. The CATEX that is the subject of this notice is in enacted legislation, and within this legislative framework, the U.S. Congress clearly intended for this CATEX to expedite PBN procedures.

CEQ regulations do not require environmental impacts to be reduced in order to determine that a CATEX is appropriate, i.e., a CATEX may still be the appropriate NEPA review if there are noise increases, provided that the noise increases are not significant. In the case of the Section 213(c)(2) CATEX, the FAA's interpretation of the statutory language is that

[9] 40 CFR §1508.4.

noise must actually be reduced on a net basis, and the CATEX would not be used if any noise increases would be significant.

Comment: Many commenters who objected to using a CATEX for PBN procedures also objected to the Net Noise Reduction Method. Some objected to the netting of noise, and said that certain community areas would suffer noise increases with PBN implementation that would be ignored when noise effects are netted or averaged. A number of commenters viewed the Net Noise Reduction Method as a way of masking PBN noise focusing effects. A local government commented that the Net Noise Reduction Method pits one group of citizens against another. One commenter said that the method does not measure adverse effects on public health, student learning, a peaceful environment, property values, or social community costs; and, therefore, doesn't meet the tests for determining the significance of procedural changes. A Community Noise Roundtable commented that the Net Noise Reduction Method would allow new people to be exposed to incompatible noise of DNL 65 dB and higher with no opportunity for mitigation.

FAA Response: Congress legislated a CATEX that is clearly different from other existing CATEXs. Congress used mandatory language in the relevant legislation, and the FAA does not have discretion under the statute to disregard the legislatively created CATEX. However, the FAA cannot directly apply the CATEX as written due to technical challenges associated with the language used by Congress in creating the CATEX. As a result, the FAA has expended substantial effort evaluating how to make the required noise determination and has concluded that the Net Noise Reduction Method with two modifications as described in this notice provides the best methodology. The FAA has not found a methodology that would not involve averaging or netting, as further described in response to the comment below. The FAA's methodology considers significant impacts and precludes use of this CATEX if noise increases

would be significant. People newly exposed to noise levels at DNL 65 dB and higher would be in the same position with respect to eligibility for noise mitigation as they would be absent this CATEX, as explained in more detail in response to a previous comment.

Comment: A number of commenters stated that the Net Noise Reduction Method does not measure noise on a per flight basis as the statute directs. Some commented favorably on analyzing noise on a per flight basis, while others opposed such an approach. A local government commented that noise impact cannot be meaningfully measured on a per flight basis. Commenters also objected to averaging noise in this respect, i.e., that an average is not a per flight basis. One commenter said that if "average" is read into the statute, it would also apply to fuel consumption and carbon dioxide emissions, but that averaging of these effects is not proposed. Some commenters criticized DNL and said it is inappropriate to use DNL to determine noise on a per flight basis. Several commenters offered alternative methodologies, including single-event noise metrics.

FAA Response: The FAA has been unable to identify a methodology that would not involve averaging for calculating reductions in noise, fuel consumption, or carbon dioxide emissions on a per flight basis for PBN procedures "as compared to aircraft operations that follow existing instrument flight rules procedures in the same airspace…" as the statute requires. Multiple operations in a sizeable geographic area of airspace involving multiple aircraft having different noise, fuel, and emission characteristics must be evaluated to support the determinations required for this CATEX. For fuel consumption and carbon dioxide emissions, FAA will arithmetically total all fuel consumed and all carbon dioxide emitted from aircraft in the area of airspace that comprises the project study area and divide by the number of aircraft in that area to calculate reductions on a per flight basis. However, total noise in an area of airspace cannot be

calculated by adding noise levels at various locations on the ground, and noise levels that are expressed in logarithmic decibels cannot arithmetically be divided by the number of aircraft to produce a meaningful calculation of noise per flight. The FAA's methodology announced in this notice supports a determination of measureable noise reductions on a per flight basis because, if cumulative noise from all flights in a geographic area is lower, it is reasonable to conclude that noise would also be lower per flight if one could divide the cumulative noise by the number of flights in the area.

All known noise metrics, including single-event metrics, were examined by FAA experts and by expert consultants advising the NAC Task Group. The single-event noise metrics that were examined in detail were the maximum A-weighted sound level (LAMAX)[10] and the sound exposure level (SEL)[11]. LAMAX was determined not to be a good metric for purposes of complying with Section 213(c)(2) because LAMAX is the maximum noise level of an event (i.e., aircraft overflight). LAMAX does not include the total noise of a flight and does not appear to respond to the legislative mandate to determine noise reduction on a per flight basis. SEL was also rejected. SEL does not account for the temporal aspects of noise exposure (e.g., more annoying nighttime noise), and it has drawbacks in accounting for the spatial aspect of noise exposure (i.e., a measurable reduction in SEL for any particular flight does not ensure that community noise would be reduced within the area of airspace being reviewed for potential application of the CATEX). Experts agreed that DNL is the best metric to calculate noise from multiple flights in a geographic area of airspace. The FAA has decided to use reductions in noise (DNL), instead of the NAC's recommended reductions in the number of people at DNL exposure

[10] LAMAX is the maximum sound level of a particular event.
[11] SEL is the energy averaged A-weighted sound level over a specified period of time or single event, with reference duration of one second.

levels, to be more consistent with the statute. The FAA' selected methodology produces the same results as the NAC's methodology when applied to the examples used by the NAC.

Comment: Several commenters supported an approach that would net noise increases and decreases within each noise exposure band, instead of across all bands, and that would require noise to be reduced in each band in order to use the CATEX. Several commenters noted that a total netting of noise across all bands is inconsistent with FAA policy that gives greater importance to changes at higher noise levels.

FAA Response: The FAA considered such an approach and sought comment on it in the August 19 Federal Register notice. As indicated throughout this notice, there is no existing methodology that can produce the precise noise comparison required by the statutory text. As a result, the FAA has weighed various approaches and has concluded that the approach recommended in these comments is less consistent with the statutory text than the FAA's selected methodology because the statute requires a comparison of noise, fuel consumption, and carbon dioxide emissions of PBN procedures compared to existing procedures "in the same airspace…." The FAA will calculate fuel consumption and carbon dioxide emissions in the entirety of the airspace area under study and believes the same should be done for noise for statutory consistency. A total netting of noise across all noise exposure levels is not current FAA policy or practice; however, it is FAA's best interpretation of this new legislated CATEX. The FAA continues to give greater importance to changes at higher noise levels by precluding the use of this CATEX if increases in noise at DNL 65 dB and higher levels would be considered significant.

Comment: A number of commenters said that the law should be changed to either revise or eliminate the Section 213(c)(2) CATEX. Some opined that the law conflicts with NEPA.

FAA Response: In this notice, the FAA is fulfilling its responsibility to implement existing law. The FAA does not believe that the law conflicts with NEPA; rather, it legislatively establishes a new CATEX under NEPA.

Comment: Some commenters objected to the Net Noise Reduction Method on the basis that it would not preclude a CATEX if there are significant noise impacts. Several commenters advocated lowering FAA's significant noise threshold from DNL 65 dB to DNL 55 dB.

FAA Response: The NAC's recommendation provided for the FAA to exercise discretion not to use this CATEX in certain circumstances, even if PBN procedures would result in an overall net noise reduction, based on an additional test for significant impacts. The FAA has modified this aspect of the NAC's recommendation. The FAA interprets the phrase "measurable reductions in…noise" in the statutory text to be inconsistent with noise increases that would be considered significant; therefore, the FAA would not use this CATEX if noise increases would be significant. The issue of the FAA's NEPA threshold of significance for aircraft noise is entirely separate from the implementation of this legislated CATEX and is not addressed in this Federal Register notice.

Comment: Multiple commenters and the petition signed by 140 people did not comment directly on the CATEX or the Net Noise Reduction Method, but commented generally on adverse effects of aircraft noise over their homes and requested that the FAA undo objectionable flight patterns. Specific objections to the TNNIS procedure in New York and to the CATEX for this procedure were raised.

FAA Response: These comments refer to the implementation of PBN procedures that were supported by other existing CATEXs that were administratively established following public notice and comment and review by CEQ. The FAA understands that these commenters

object to aircraft noise in their neighborhoods, even when noise is below significant levels. As part of NextGen, FAA has a robust research program to reduce aircraft noise and is currently giving increased attention to improving FAA's community involvement.

AUTHORITY: FAA Modernization and Reform Act of 2012, Sec. 213(c)(2), Pub. L. 112-95, 126 Stat. 11, 49-50.

Issued in Washington, DC on July 27, 2015.

Lourdes Q. Maurice

Executive Director, Office of Environment and Energy

Federal Aviation Administration

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