



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Office of Airport Planning  
and Programming

800 Independence Ave., SW.  
Washington, DC 20591

**MAR 15 2013**

Mr. Scott Tatro  
Airport Environmental Manager  
Los Angeles World Airports  
P.O.Box 92216  
Los Angeles, California 90009-2216

Dear Mr. Tatro:

On January 30, the Federal Aviation Administration (FAA) received your application under 14 Code of Federal Regulations (CFR) Part 161 seeking a Stage 3 aircraft noise and access restriction at Los Angeles International Airport (LAX). In accordance with 14 CFR § 161.313(a), we determined that this application was incomplete. Notice of this decision was sent to you on March 1. This letter sets forth in more detail the type of information and analysis needed to process your application.

Please advise the FAA within thirty days of receipt of this letter whether Los Angeles World Airports (LAWA) intends to resubmit and/or supplement the application. Failure to so notify the FAA within the allotted time will be cause for denial of the application and closure of the matter without prejudice to later application and does not constitute disapproval of the proposed restriction. 14 CFR §161.313(c).

Under 14 CFR § 161.311, each applicant proposing a stage 3 restriction is required to submit the following information for each restriction and alternative restriction submitted, with a request that the FAA review and approve the proposed stage 3 noise or access restriction:

- (a) A summary of evidence of the fulfillment of conditions for approval, as specified in § 161.305;
- (b) An analysis as specified in § 161.305, as appropriate to the proposed restriction;
- (c) A statement that the entity submitting the proposal is the party empowered to implement the restriction, or is submitting the proposal on behalf of such party; and
- (d) A statement as to whether the airport requests, in the event of disapproval of the proposed restriction or any alternatives, that the FAA approve any portion of the restriction or any alternative that meets the statutory requirements for approval. An applicant requesting partial

approval of any proposal should indicate its priorities as to portions of the proposal to be approved.

The FAA has determined that your application is incomplete as it relates to § 161.311(b) and (d).

### 1. Analysis

Section 161.311(b) requires an applicant to submit an analysis as specified in § 161.305.

#### A. Noise Exposure Maps (NEMs) and Noise Contours

Part 161 requires noise contours to be developed in accordance with the specifications and methods prescribed under Appendix A of 14 CFR Part 150. Noise contours must be prepared for the current condition and for a period at least five years in the future. Title 14 CFR § 150.21 provides that the existing and future condition NEM must identify each noncompatible land use. Los Angeles World Airports (LAWA) should clearly identify homes that are currently sound insulated and homes that will be sound insulated within the timeframe of the future condition NEM and assure that these sound insulated homes are not identified as noncompatible on the respective NEMs.

Under Part 150, the existing condition NEM must accurately reflect the airport's current layout, and the forecast NEM must be based upon reasonable assumptions concerning the airport layout, including any planned development. In preparing the current condition and forecast noise contours, LAWA assumed that the airport layout plan included projects approved by the FAA in the 2005 Record of Decision as part of Alternative D. Part 161 Application Section 6.4, at page 70. The FAA needs additional information to determine whether the 2013 and 2018 contours properly reflect existing conditions and planned development for future conditions.

In addition, the FAA is aware that LAWA has proposed a runway safety area project for Runway 7L/25R and is in the process of completing the LAX Master Plan Specific Plan Amendment Study. Projects planned for implementation by LAWA in 2013 and in 2018 should be appropriately reflected in the current and forecast noise contours.

In addition, section 161.305(b) requires applicants to provide maps denoting the airport geographic boundary, and the geographic boundaries and names of each jurisdiction that controls land use within the airport noise study area. The maps submitted with the application do not clearly denote the geographic boundaries and names of each jurisdiction that controls land use within the airport noise study area.

#### B. Airport Noise Study Area

Title 14 C.F.R. § 161.5 defines the "airport noise study area" as "[t]hat area surrounding the airport within the noise contour selected by the applicant for study [that] must include the noise contours required to be developed for noise exposure maps specified in 14 CFR Part 150." In your application, you identify the Community Noise Equivalent Level (CNEL) 65 dB contour as the airport noise study area. You indicate that the CNEL 65 dB contour is the airport noise study area by definition because the FAA requires you to use the Master Plan Final Environmental Impact Statement Alternative D 2015 contours for AIP funding of noise mitigation. Application.

Section 6.4, at page 70. However, in the application LAWA defines the noise problem as follows:

“The proposed runway use restriction presented in this document addresses one very specific goal:

-To reduce the occurrence and frequency of nighttime awakenings for residents living near LAX by eliminating non-conforming easterly departures between midnight and 6:30 a.m. when the airport is in Over-Ocean Operations or Westerly Operations.”

Part 161 Application, Section 1.3, page 3.

The noise problem described (i.e., sleep awakenings) has not been quantified within the noise study area you selected, and mostly falls outside the noise study area. To complete the application, LAWA must reconcile these inconsistencies. At this point, the application is incomplete because the primary problem asserted by LAWA (Application at 57) falls outside the airport noise study area selected by LAWA (Application at 70).

Based upon LAWA’s definition of the problem, LAWA identifies a sleep disturbance study area<sup>1</sup> that extends beyond the CNEL 65 dB contour selected as the noise study area. There needs to be one noise study area which is clearly defined and encompasses the problem that a proposed restriction is intended to address. The Part 161 regulations allow an applicant to select a noise contour beyond the CNEL 65 dB contour. If LAWA intends to retain its definition of the problem as nighttime sleep awakenings extending to geographic areas beyond the CNEL 65 dB, then LAWA must select a noise contour that encompasses those sleep awakenings as well as the CNEL 65 dB and higher noise contours. If LAWA elects this option, then below CNEL 65 dB it is permissible to truncate the CNEL contour to exclude large areas that do not include individuals predicted to experience sleep disturbance. The description of the noise study area should include the basis for the boundaries selected for the study area. All the analysis required under 14 CFR § 161.305 must be applied to the airport noise study area.

Your application also relies on noise complaints to support the asserted noise problem of sleep awakenings. For example, your application states that the nonconforming flights “elicited 35 complaints from residents well outside the CNEL 65 dB contour.” Application at 5. On page 32 you identify “28 specific noise complaints related to flights that would be addressed by this proposed restriction,” but you do not provide any information about where the noise complaints are relative to the airport noise study area you identified. The application should include this information.

### C. Technical Data Supporting Noise Impact Analysis

Part 161 requires noise exposure to be calculated in terms of yearly day-night average sound levels (DNL). FAA recognizes the Community Noise Exposure Level as an accepted

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<sup>1</sup> At this stage of review, FAA has made no determination whether a problem defined solely or predominantly in terms of awakenings can constitute an essential element needed to provide substantial evidence in support of an airport noise and access restriction. For purposes of completeness, if LAWA intends to base its application largely or solely on such occurrences, then, at a minimum, it must define an area that encompasses them.

methodology. In addition, 161.305 (e)(2)(i)(A)(ii)(A) requires maps of the airport noise study area overlaid with noise contours.

Title 14 C.F.R. § 161.305 (e)(2)(i)(A)(ii)(C) requires the analysis of the estimated noise impact of aircraft operations with and without the proposed restriction to include technical data supporting the noise impact analysis, including the classes of aircraft, fleet mix, runway use percentage and day/night breakout of operations.

Data regarding ground tracks and runway use percentage for non-conforming flights under the proposed restriction need to be included, as well as the assumed stage length (aircraft weight) of these flights under the proposed restriction

The noise study area must display the noise information using CNEL as the primary metric and Single Event Level (SEL) as the supplemental metric at applicable locations with and without the proposed restriction. The application must include more detail of the sleep awakening calculations. Specifically, the calculation of the probability of awakening at least once, the CNEL level, the population, outdoor SEL values, and the outdoor to indoor sound reduction assumed should be provided in electronic format at each sleep awakening grid point (census centroid). In addition, the number of awakenings should be summed by CNEL level in increments of 5 dB and provided in a table that gives the number of awakenings calculated at CNEL 65 dB and above, between CNEL 65 dB and 60 dB, between CNEL 60 dB and 55 dB, and so on to the lowest value of CNEL where awakenings are calculated.

#### D. Cost-Benefit Analysis

The application does not include evidence required under 14 CFR § 161.305(e)(2)(ii)(A)(1). Section 161.305(e)(2)(ii)(A)(1) requires evidence, based on a cost-benefit analysis, that the estimated potential benefits of the restriction have a reasonable chance to exceed the estimated potential cost of the adverse effects on interstate and foreign commerce<sup>2</sup>. The analysis must also consider the benefits of the ongoing and future residential sound insulation program when analyzing sleep awakenings. While benefits need not be quantified, a qualitative benefit basis is by nature subjective. If benefits are qualitative, a discussion is needed for each offsetting cost on operators, airports, passengers, and cargo. A more rigorous approach to forecasting nonconforming departures should be used including moving average; last observed year; historic average; and regression with independent variables (such as time, operations, pacific rim departures, and wind).

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<sup>2</sup> The application seeks to restrict non-conforming easterly departures, of which the application estimates there are about 65 per year. The application does not seek to restrict conforming easterly departures, of which there were 484 in the sample year LAWA provided (1 April 2010 through 31 March 2011). Application at 4, 45 & C-84. At this stage of review, FAA has not determined how the existence of the conforming flights, which would not be restricted, impact the analysis required under § 161.305, particularly with regard to statutory conditions 1 and 2. However, to the extent the applicant desires to provide its own analysis on this matter it may do so upon resubmission.

Title 14 CFR § 161.305 (e)(2)(ii)(A)(1)(ii)(B) requires the consideration, as appropriate, of costs associated with altered or discontinued aircraft operations, including costs incurred due to flight crew time duty and rest requirements, the reduction in operational efficiencies and evidence to support that there will not be a decrease in passenger and shipper consumer surplus due to the proposed noise restriction.

This analysis is also incomplete because it does not estimate the costs of the proposed runway use restriction to the potential affected passengers. Costs should also include the cost of disruption and reschedule and the value of passenger time. Additionally, the application should include the fuel burn costs incurred during off-loading passengers and/or cargo and the costs from the inability of cargo carriers to deliver guaranteed expedited time-definite service. Information about differences between estimated costs to cargo and passenger flights might be relevant in assessing partial alternatives.

## 2. Statement About Partial Approval

The application does not contain the statement required under section 161.311(d) about whether, in the event of disapproval, you request the FAA approve any portion that meets the statutory requirements for approval. The fact that this application is being submitted pursuant to a settlement agreement is not decisive. You must include such a statement to fulfill this requirement.

Although the application also lacks the statement concerning implementation authority, the FAA takes administrative notice that LAWA is empowered to implement the proposed restriction. See, 14 C.F.R. §161.311(c).

Finally, FAA is available to meet with LAWA representatives to answer any questions or address any concerns regarding LAWA's application and the Part 161 process.

Sincerely,



Benito De Leon  
Director, Office of Airport  
Planning and Programming