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May 3, 2019

*Via Electronic & U.S. Mail*  
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Ms. Lisa A. Bartlett, Chairwoman  
Attn: Robin Stieler  
Orange County Board of Supervisors  
333 W. Santa Ana Blvd.  
Santa Ana, CA 92701

**Re: May 7<sup>th</sup> Agenda Item No. 20 –Environmental Impact Report 627;  
General Aviation Improvement Project**

Dear Chairwoman Bartlett and Honorable Members of the Board:

We submit this letter on behalf of the City of Newport Beach (City) regarding the City's ongoing concerns with the adequacy of the Environmental Impact Report (EIR 627) prepared for the John Wayne Airport General Aviation Improvement Program (GAIP or Project) pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), and, specifically, the adequacy of the analysis for the previously recommended adoption of Alternative 1. As the Board is aware, the City is supportive of Alternative 3 because it addresses the concerns raised by the Federal Aviation Administration, while limiting the effect on the public and environment.

If the Board is not inclined to adopt Alternative 3, it is important for the Board to know that the City remains deeply concerned with the adequacy of the EIR, particularly with respect to noise, greenhouse gas emissions and air quality/health risk effects. As set forth below, after review of the Final EIR, which the City had limited time to review, it is evident that the Final EIR understates the impacts of the Project, as well as Alternatives 1 and 2, in part, because the Final EIR fails to present an accurate assessment of future baseline conditions at the airport and in the vicinity. Therefore, if the Board is inclined to approve the Project or any Alternative other than Alternative 3, the City requests that the EIR first be revised and recirculated, including the wholly new Health Risk Assessment (HRA) that was included in the Final EIR, so that the public can have an adequate opportunity to review and comment.

These comments were prepared with the assistance of air quality experts Dr. Peggy Lobnitz and Dr. Marianne Aydil of Pika Environmental, LLC, who were

commissioned by the City to peer review the HRA included in the Final EIR. Dr. Lobnitz's and Dr. Aydil's comments and curriculum vitae are attached as Attachment 1.

### **I. The EIR's Cumulative Noise Analysis Improperly Focuses on the GAIP Noise Levels**

First, the City remains concerned that the EIR fails to accurately disclose the noise impacts that will result when the effects of the Project are coupled with future cumulative conditions. The EIR repeatedly emphasizes that the future increase in noise levels and noise contours is largely attributable to commercial aircraft operations as opposed to general aviation. On this basis, the EIR concludes that the cumulative noise impacts of the GAIP are less than significant.

The primary flaw in the EIR's approach is that it incorrectly focuses on the Project's effects. To evaluate the Project's cumulative noise impacts, the EIR considers two "thresholds." (See DEIR, pp. 4.7-36 to 41.) First, the EIR considers whether under future (2026) cumulative conditions noise levels would increase by 1.5 CNEL or more in areas where the existing noise exposure is 65 CNEL or higher. (DEIR, pp. 4.7-39 to 40.) Second, the EIR considers whether the change in the noise contours as a result of future cumulative conditions would increase the number of receptors exposed to noise levels in excess of 65 CNEL. (DEIR, pp. 4.7-40 to 41.) With regard to the latter, under future Alternative 1 cumulative conditions, the EIR explains that 29 new dwelling units will be within the 65 to 70 CNEL contour in 2026.<sup>1</sup> (DEIR, p. 4.6-50; DEIR, App. H, p. 77, Table 19.) Nonetheless, the EIR states that although "areas exposed to noise levels in excess of 65 CNEL would increase [under the future cumulative scenario], the GAIP . . . would not substantially contribute to the cumulative noise increase." (DEIR, p. 4.7-41.) Thus, the EIR concludes that the incremental increase in noise generated by Alternative 1 in the GAIP would be less than significant. (DEIR, p. 4.7-41.)

To properly evaluate a project's cumulative impacts under CEQA, the lead agency must make two determinations: (1) whether the combined effects from both the proposed project and other projects would be cumulatively significant and, if so, (2) whether the proposed project's incremental effects are cumulatively considerable. (CEQA Guidelines, § 15130, subd. (a).) Here, the EIR skips the first inquiry— i.e., whether the increased noise contours will result in a significant noise impact in the future cumulative scenario. Instead, the EIR focuses on the GAIP's comparatively small contribution to the expanded noise contours to support its less than significant conclusion. This approach

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<sup>1</sup> Notably, while figures in the EIR and appendices generally depict the future expanded noise contours, neither fully discloses or describes the location of the residences that will be affected. The response to comments describe the general location of residences that would fall within the expanded 65-70 CNEL contour under the earlier "proposed project," but do not address the residences affected under the Alternative 1 or cumulative scenarios.

deprives the public of a full understanding of the Project's potential cumulative effects on an already degraded environment.

While we recognize that the GAIP's contribution to future noise contours may be relatively small compared to noise levels generated by commercial aircraft operations, the EIR's analysis of cumulative noise impacts fails to recognize that the severity of existing and future environmental conditions is intrinsically tied to what amounts to a "cumulatively considerable" contribution.<sup>2</sup> When determining whether a project's contribution to an already significant cumulative impact is considerable, an EIR may not conclude a project's impact is less than considerable (significant) simply because the project's contribution to that impact is allegedly small. This basic principle of cumulative impact analysis under CEQA has been reiterated by the courts for over 29 years. In *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 718, for example, an EIR concluded that a proposed power plant's air emissions would not cause a significant cumulative impact because the plant's emissions would be less than one percent of area emissions. The court in that case rejected the County's approach, finding the EIR's conclusion improperly focused on the impacts of the project rather than its contribution to an already degraded air basin. (*Id.* at 721.)

Thus, agencies should not merely compare the incremental effect of a proposed project against the collective impacts of all other relevant projects, yielding the proposed project's "relative" impact vis-à-vis the impacts of the other projects. Rather, in making the first required inquiry, the lead agency must add the project's incremental impact to the anticipated impacts of other projects. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 117-121.) The larger the existing problem, as the noise environment here, the more likely it is a project's contribution will be found significant. (*Id.* ["the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant"]; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1123 [while an increase in noise levels may be insignificant when viewed in isolation, when added to an already high noise level, such an increase may be a "tipping point" for noise problems for the public].)

By failing to meaningfully disclose and analyze impacts resulting under the future cumulative scenario, the EIR deprives the public and decision-makers of a full understanding of the potential for adverse noise impacts to occur. Specifically, whether an impact is cumulatively considerable is highly dependent on the existing (and future) environmental setting and the environmental analysis should not look at the GAIP's influence on noise impacts in isolation. Rather than performing a "de minimis" analysis as the EIR does here, the County must first assess whether cumulative noise impacts are

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<sup>2</sup> The EIR's assumptions regarding future general aviation levels also appear to be undermined by ACI Jet's observations that fuel price and sales are no longer a barrier at JWA with aircraft based at ACI Jet's facility increasing by 145% since April 2017. (See Final EIR, p. 3-107 thru -108.)

significant so that it may properly determine what constitutes a considerable contribution. Here, in light of the planned future expansion of activities at the airport, as well as the existing level of concern in the surrounding communities over noise originating at the airport, the County needs to analyze whether the increase in noise levels as a result of the GAIP creates a cumulatively significant noise impact.

## **II. The County's Assumptions Regarding the Boeing 737 MAX Aircraft are Unsupported and Overly Optimistic**

In addition to the City's general concerns with the EIR's analysis of future noise conditions, the City is also deeply concerned that the EIR's assumptions regarding the future commercial aircraft fleet are overly optimistic. As explained in the EIR and Noise Technical report, it was assumed that 40% of the Boeing 737 and Airbus A320 aircraft utilizing the airport in 2026 will be of the Boeing 737-MAX and Airbus A320-NEO families. These assumptions are especially relevant to the EIR's analysis of cumulative noise, land use, and air quality impacts because the newer aircraft are quieter and more efficient. For example, the EIR shows that the assumptions regarding future commercial aircraft affect the anticipated change in noise levels in the future cumulative scenario. (DEIR, p. 4.7-40, Table 4.7-13 [showing projected change in CNEL values under future cumulative conditions].) The assumptions also influence the future noise contours and, as a result, the number of receptors anticipated to be affected by increased noise levels. (DEIR, p. 4.6-49 [showing 65-70 CNEL contour size under future conditions based on increased usage of MAX and NEO aircraft]; DEIR, p. 4.6-51 [reduction in the number of places of worship in the 65 CNEL or greater contour due to increased usage of MAX and NEO aircraft in the cumulative scenario].)

The City noted this overly optimistic assumption in its comments on the Draft EIR. In response to the City's comments, the Final EIR defends this approach on two grounds. First, the Final EIR claims the assumptions regarding the future commercial fleet mix are only relevant for purposes of analyzing the Project's cumulative impacts. (Final EIR, p. 3-35 [responses to comments Volume 2A].) According to the Final EIR, modification of the commercial fleet mix assumptions would not change the finding of significance regarding the Project's cumulative noise impacts because, "even if the fleet assumptions for commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change." (*Ibid.*) As described above, however, the EIR's reasoning is flawed and unsupported by substantial evidence.

Second, the County's response to comments states that all modeling requires certain assumptions be made, and that the assumptions in the EIR are supported by current utilization of the Boeing 737-MAX and Airbus 320 NEO, orders for these aircraft, and statements by Southwest Airlines representatives. (Final EIR, p. 3-34.) However, all of the documents cited in the County's response pre-date the grounding of the 737-MAX earlier this year and ignore the reality that orders have plummeted and the FAA must still reinstate the aircraft. (See Final EIR, pp. 3-34 to 35 [citing articles from January and March 2018 in support of assumptions].) In short, the documents

referenced do not provide substantial evidence to support the assumptions underlying the EIR's analysis, particularly in light of recent developments pertaining to the MAX aircraft.<sup>3</sup>

Glaringly, the Final EIR also omits information necessary to verify what effect the assumptions regarding the commercial fleet mix have on future noise levels. Nowhere in the EIR or response to comments is it explained the extent to which the MAX and NEO aircraft reduce noise levels over similar but older commercial aircraft. The AEDT modeling assumptions and manufacturing specifications for the MAX and NEO are completely missing. The EIR should have included a list of engine noise levels in the Technical Report.

Also, in response to one comment on this issue, the EIR directs the commenter to Figure 24 in the Noise Technical Report (DEIR, Appendix H), but Figure 24 is wholly irrelevant because it is just a basic graphic comparing the departure SENEL contours for the different aircraft models (which appear to differ substantially). There is no explanation of the information presented in that figure.<sup>4</sup> Furthermore, virtually all analysis and impact conclusions contained in the EIR are presented in terms of CNEL rather than SENEL, thus it is unclear how the information in Figure 24 translates to the impact analysis.

In light of the recent controversies surrounding the Boeing 737-MAX aircraft, it is a very real possibility that the EIR presents an overly optimistic view of future cumulative noise levels by 2026. While these aircraft may be implemented at the level projected at some point in the future, an accurate forecast of future conditions, supported by substantial evidence, is necessary to properly evaluate the Project's contribution to cumulative noise and air quality impacts. Accordingly, the EIR should be revised to disclose and analyze cumulative impacts using assumptions more consistent with the present reality or, at an absolute minimum, clearly explain the extent to which these assumptions affect the impact calculations.

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<sup>3</sup> Attachment 2: April 17, 2019 letter from A. Leisy, Remy Moose Manley, to John Clarey, Chair, Orange County Airport Commission regarding April 17, 2019 Airport Commission Special Meeting – Proposed Recommendations Regarding General Aviation Improvement Program (ASR 19-000429), at Attach. B (news articles discussing Boeing 737-MAX grounding).

<sup>4</sup> Attachment 3: Fig. 24, Appendix H, Noise Study Report, Environmental Impact Report 627, John Wayne Airport General Aviation Improvement Program (SCH No. 2017031072) (Comparing departure SENEL contours for Boeing 737-800 A and Airbus A320 to Boeing 737-800 MAX A and Airbus A320-NEO).

### III. The EIR's Analysis of GHG Emissions is Inadequate

In addition to the EIR's analysis of potential noise impacts, the City is also concerned that the EIR fails to adequately disclose and analyze the significance of the Project's GHG emissions. The EIR relies on the South Coast Air Quality Management District's (SCAQMD) GHG threshold of 10,000 metric tons of carbon dioxide equivalents per year (MTCO<sub>2</sub>e/yr) to assess the significance of the Project's GHG emissions. (DEIR, pp. 4.4-17 to 18.) While the asserted justification for using this threshold is that no other quantitative thresholds are currently available for this geographic region (DEIR, p. 4.4-17), there are several issues of concern with the EIR's approach.

First and foremost, as the EIR correctly notes, the SCAQMD threshold relied on is meant for the evaluation of *industrial* (stationary source) projects where SCAQMD is the lead agency.<sup>5</sup> (DEIR, pp. 4.4-17 to 18.) In other words, the threshold is expressly inapplicable to non-industrial projects such as the GAIP where much of the GHG emissions will result from mobile and building-related sources. Simply put, the EIR is incorrect in its assertion that "the source of the GHG emissions is not a relevant factor in determining the significance of the emissions." (DEIR, p. 4.4-18.) As our Supreme Court explained in *Center for Biological Diversity v. Cal. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 226, achieving statewide GHG reductions goals will depend on differing levels of reductions from different project types, and a greater degree of reduction may be needed from new land use projects than from other segments of the economy.

Second, as SCAQMD has explained, the 10,000 MTCO<sub>2</sub>e/yr threshold is intended as a screening tool. Consequently, simply comparing the Project's emissions to the numeric threshold, without more, does not address whether the Project is consistent with the state's 2030 or 2050 GHG reduction goals. Indeed, these reduction goals were not yet set at the time the SCAQMD threshold was developed. (See *Cleveland National Forest v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 519 (*Cleveland*) [agencies "must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes"].)

Third, and relatedly, the SCAQMD threshold was developed based on data that is now more than 11 years old, and was never subject to public review. (SCAQMD CEQA GHG Guidance at p. 6 [threshold developed using 2006-2007 data]; Guidelines, § 15064.4, subd. (b)(3); *Cleveland, supra*, 3 Cal.5th at 519; see also Guidelines, §§ 15151, 15064, subd. (b) [significance determinations must be based on "scientific and factual data"], 15064.4, subd. (a) [requiring good-faith effort to quantify GHG emissions based on scientific data].) Application of this threshold thereby conflicts with the direction of

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<sup>5</sup> SCAQMD, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans (Dec. 2008), p. 5 available at [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2) (SCAQMD CEQA GHG Guidance).

the CEQA Guidelines that an analysis of GHG impacts “must reasonably reflect evolving scientific knowledge and state regulatory schemes.” (CEQA Guidelines, § 15064.4, subd. (b).)

Fourth, the EIR completely fails to quantify or disclose the GHG emissions from entire categories of Project emission sources, including building-related emissions. The EIR explains, in a footnote, that building-related emissions (e.g., emissions resulting from electricity and natural gas consumption) were not quantified as part of the GHG analysis. (DEIR, p. 4.4-19, fn. 3.) The stated reason for excluding these emissions is because improvements in energy efficiency would reduce building-related energy consumption and corresponding emissions compared to existing conditions. (*Ibid.*) However, the EIR provides no evidentiary support for this statement beyond a reference to state building standards. The Project will result in a new combination of buildings and operations, and therefore different and increased emissions, when compared to the current facilities. Simply asserting that the new buildings are more efficient does not provide the substantial evidence necessary to support a determination GHG impacts will be less than significant, particularly when there will be an increase in the number of facilities constructed depending on the project or alternative ultimately approved.

Although the County has discretion in selecting thresholds of significance, since the SCAQMD’s GHG threshold was first published in 2008, a substantial body of case law has developed which addresses GHG analyses under CEQA. Most notably, in *Center for Biological Diversity v. Cal. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217-227, the California Supreme Court invalidated an EIR prepared for a master planned community, in part, because the record lacked substantial evidence to support the agency’s conclusion that GHG emissions would be less than cumulatively considerable based on the project’s 31 percent emissions reduction of a “business as usual” scenario. The EIR in that case supported its conclusion by comparing the project’s 31 percent reduction to the 29 percent reduction identified in California Air Resources Board’s statewide Scoping Plan. (*Id.* at p. 218.) The Court rejected that approach, reasoning that the method was utilized “for a purpose very different from its original design” and that the EIR lacked a reasonable explanation, based on substantial evidence, linking the individual project’s reduction to the Scoping Plan’s statewide reduction goals (*Id.* at p. 227.) The Court held that the agency had prejudicially abused its discretion by failing to provide substantial evidence that the statewide reduction levels were an appropriate measuring stick at the individual project level. (*Id.* at pp. 225-229.)

Here, the EIR has provided no substantial evidence to support its application of the SCAQMD threshold for stationary industrial projects to the Project. The EIR also lacks substantial evidence to support its conclusion that the project as a whole will result in less than significant GHG emissions. The EIR must make a good faith effort to disclose all of the Project’s GHG emissions, and assess the significance of those emissions based on an appropriate threshold of significance.

#### **IV. The County's Health Risk Assessment Underestimates Project-Related Emissions**

In response to the comments submitted by the City, SCAQMD, and others, the County prepared a HRA to assess potential toxic air contaminant-related health effects as a result of Project implementation. (Final EIR, Vol. 2A, p. 3-11 [responses to comments discussing HRA]; Final EIR, Vol. 2A, Attach. A [HRA Technical Report].) The HRA concludes that the incremental health risks resulting from the Project do not exceed the SCAQMD threshold of significance, therefore, the Project would have a less-than significant health risk impact. (Final EIR, Vol. 2A, Attach. A, p. 17.)

Based on our review of the EIR's analysis, the City is concerned that the HRA fails to accurately account for all Project-related emissions and, as a result, underestimates potential health risks. The City retained air quality experts from Pika Environmental, LLC, (Pika) to review the HRA. In their review, Pika identified several issues which call in to question the HRA's conclusions. (See Attach. 1)

First, Pika found that the HRA fails to adequately incorporate long-term growth assumptions for the airport. (Attach. 1, p. 2) A typical HRA is based on a 30-year exposure period; however, as Pika explains, the HRA here relies on operational emissions levels from the year 2026 only. (*Ibid.*) To correctly assess health risk impacts over a 30-year period, emissions levels should reflect Project activities over that same period, i.e., 2016 to 2046. Figure 26 of DEIR Appendix C includes a forecast for total general aviation and air taxi operations through the year 2040, thus, the correct calculations could be performed. Pika recommends that the high growth scenario shown in Figure 26 be used because it is reasonable to assume the project improvements will attract additional growth in general aviation and business aviation in the future, resulting in additional emissions not captured by the HRA's assumptions. (*Ibid.*)

Second, Pika found that emissions from ground support equipment (GSE) are likely underestimated because the HRA fails to take into consideration the shift from general aviation to more business jet aircraft. (*Ibid.*) In estimating health risk from the proposed project, GSE emissions were scaled and applied on an average basis to support the projected number of aircraft in future years, regardless of the type of anticipated aviation services. However, if there will be a shift from general aviation to business aviation in future years as is anticipated (DEIR, p. 3-3), then operation-specific emissions scenarios should be developed to accurately assess potential health risk impacts.

In addition, Pika notes that the EIR includes a "minimization measure" providing that 90% of the GSE fleet will be electric, including fuel trucks. (Attach. 1, p. 3; DEIR, p. 4.2-32 [Minimization Measure MN AQ-2].) While it is stated that this minimization measure will be included in the MMRP and implementation will be "tracked,"<sup>6</sup> it is

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<sup>6</sup> The County's draft CEQA Findings, Facts in Support of Findings, and Statement of Overriding Considerations for Final Program Environmental Impact Report 627 (CEQA

unclear if the measure will be enforced as a mandatory requirement. It is also unclear from the text whether the 90% reduction in emissions was taken into consideration in the emissions estimate or simply mentioned as an additional control measure. However, if GSE includes fuel trucks, then the assumption regarding the extent of GSE fleet electrification must be justified with additional documentation.

Lastly, the HRA is inadequate because it fails to evaluate health risk impacts resulting from Project construction activities. (Attach. 1, p. 3.) According to the EIR, construction of the GAIP components will be phased over more than seven years. (DEIR, p. 3-23.) Emissions from Project-construction equipment, which will emit diesel particulate matter, were not included in the HRA.

SCAQMD recommends that extended construction periods be analyzed in a HRA. (Attach. 1, p. 3. [citing SCAQMD guidance].) This is especially important in this case, where construction will occur in many phases in different areas of the airport, while airport operations are ongoing, and in varying proximities to sensitive receptors. (*Ibid.*) Pika recommends that modeling of the construction health risk should be segmented into detailed work activities and focus on sensitive receptors. (*Ibid.*) Construction health risks should also be combined with health risks from ongoing operations during the construction period. (*Ibid.*) Such an approach will not only more accurately characterize actual health risk on residences, schools, and health facilities, but also identify locations where temporary mitigation may be necessary during periods when health impacts would be the most severe.

#### **V. The County Must Continue to Exercise Its Authority Over Airport Safety in the Face of Increased Privatization**

As a final point, the City is concerned that implementation of the GAIP and the resulting shift to more private FBOs, including increased domestic, business and international aviation and jet aircraft operations, will potentially present new security risks at the airport. While the City recognizes that some elements of airport security are regulated and enforced under Federal law, historically, much of the responsibility for general aviation security fell on the County. With implementation of the GAIP, including Alternative 1's three full service Fixed Based Operators, oversight of general aviation at the airport is set to become increasingly privatized. With this increased level of privatization, the County must ensure safety and security measures are imposed as part of

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Findings), attached as Exhibit A to the Board's proposed CEQA Certification Resolution states that, "[a]lthough minimization measures are not identified as mitigation measures, the County does include them in the MMRP to ensure implementation tracking." (CEQA Findings, p. 41.) It is unclear from this language whether the County will strictly enforce the requirements of MN AQ-2 or treat this measure as a goal. If the requirement will not be strictly enforced, the County may not properly assume FBOs will in fact employ zero-emission vehicles for 90% of the GSE operating hours.

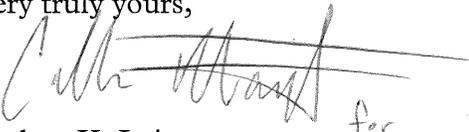
the project and remain vigorously enforced.<sup>7</sup> (See Orange County Code, § 2-1-1 [County policy to maintain and preserve all airport facilities in a safe and secure condition].)

## VI. Conclusion

For the reasons set forth above, the proposed CEQA Findings of Fact and Statement of Overriding Considerations lack the substantial evidence required to support the County's proposed impact findings as well as the overriding alleged benefits of the GAIP. If the Board is not inclined to adopt Alternative 3, the City requests that the Board direct staff to prepare a revised EIR that will be recirculated for public review and comment, particularly with respect to the new health risk analysis that was only recently prepared and made public as part of the Final EIR.<sup>8</sup>

Thank you in advance for your consideration of these comments. Please contact me or Aaron Harp if the County would like to meet to discuss these issues further.

Very truly yours,



Andrea K. Leisy

Encl.

Cc: Aaron Harp, City Attorney

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<sup>7</sup> See R. Marsh & E. Watkins, *CNN Exclusive: TSA Considering Eliminating Screening at Smaller Airports*, <https://www.cnn.com/2018/08/01/politics/tsa-considering-eliminating-screening-at-smaller-airports/index.html> (Aug. 2018).

<sup>8</sup> The revised EIR should also identify an alternative (i.e. Alternative 1 if that is the preference of the Board), as the preferred project for approval to alleviate any public confusion and burden of reviewing and commenting on the proposed project or other alternative that is unlikely to be carried forward. The Draft EIR, for example, neglected to identify Alternative 1 as the preferred project alternative for approval. (See *Washoe Meadows Community v. Dept. of Parks and Recreation* (2017) 17 Cal.App5th 277 [issuing writ and requiring EIR and project approvals to be set aside where draft EIR analyzed various alternatives but failed to identify one "preferred" alternative during the EIR process].)

# **Attachment 1**



## **JWA GENERAL AVIATION IMPROVEMENT PROGRAM (DRAFT) PEER REVIEW OF HEALTH RISK ASSESSMENT**

### **PURPOSE/BACKGROUND**

John Wayne Airport (“JWA”) is proposing to update its general aviation facilities through a comprehensive General Aviation Improvement Program (“GAIP”). A Draft Program Environmental Impact Report (“EIR”) was prepared to evaluate two GAIP alternatives at an equal level of consideration: the Proposed Project and Alternative 1. The Proposed Project includes a total of two full service Fixed Base Operators (“FBOs”) (West and East). Alternative 1 proposes a total of three full service FBOs (West, Northeast and Southeast). The FBOs would provide facilities to accommodate various sizes and types of general aviation aircraft and apron space. Although distinguished by the number of full service FBOs and a minor variation in aircraft storage capacity, both the Proposed Project and Alternative 1 have numerous features in common including, but not limited to, the following elements:

- One Limited Service FBO;
- Modifications to the airfield and buildings to achieve compliance with current Federal Aviation Administration (“FAA”) standards for airport design (i.e., to eliminate existing non-standard conditions associated with the proximate location of existing facilities to the airfield runways and taxiways);
- A general aviation terminal through one of the full service FBOs;
- A General Aviation Facility (“GAF”) to process international arrivals;
- A self-service fuel facility for general aviation aircraft; and
- Multiple types of aircraft storage (e.g., box hangars, community hangars, T-hangars, tie-downs).

As part of the response to comments on the Draft EIR for the project, the proponent commissioned a health risk assessment of future project operations. The City of Newport Beach and its legal counsel, Remy Moose Manley, requested that Pika Environmental, LLC (Pika) perform a peer review of the health risk assessment (HRA) of aircraft operations associated with the John Wayne Airport General Aviation Improvement program.

Scope of the review involved the assessment of:

- Consistency with OEHHA and SCAQMD guidance;
- Adequacy of HRA analysis in capturing appropriate planning assumptions; and
- Ability of the HRA to analyze worst-case health risk activities.

## **RESULTS OF PIKA'S REVIEW**

Based upon our review of the EIR and HRA, we have identified additional aspects that should be considered as part of the CEQA process. Given the short time frame for review and the lack of readily available electronic modeling files, a detailed review of these issues could not be conducted. The following is a brief synopsis of the issues identified during our peer review.

### The HRA Does Not Adequately Incorporate Long Term Growth Assumptions

A typical HRA is based on a 30-year exposure scenario, yet the emissions used as HRA assumptions in the FEIR are from projected operations in 2026. (FEIR, Vol 2A). To accurately assess 30-year health risk impacts, the emissions horizon should reflect project activities for the period from 2016 to 2046. Figure 26 of Appendix C of the draft EIR provided forecast data for total general aviation and air taxi operations for the project through the year 2040. This data should be utilized as a basis for growth forecasts.

In addition, to fully evaluate the impacts, the high growth scenario for "General Aviation and Air Taxi Operations" should be evaluated, consistent with Appendix C forecasts, because it is reasonable to assume that, if the project improvements are implemented, the improvements will attract additional growth in general and business aviation in future years, which should be analyzed.

### Ground Support Equipment Emissions Are Underestimated

In estimating health risk from the proposed project, GSE emissions were scaled and applied on an average basis to support the projected number of aircraft in future years, regardless of the type of anticipated aviation services. (DEIR, Section 5.2) A more likely scenario is that the mix of aircraft will shift from General Aviation to Business Aviation services in the future. Although it is acknowledged that some of this equipment is electrified and more equipment may be converted to electric power in future years, it is still important to understand the impacts, given that electrification is not certain and much of the remaining equipment such as fuel trucks would be fossil-fueled.

Given that business aviation would employ more jet aircraft than general aviation, the service requirements in terms of GSE would be different and that shift may actually increase the intensity of GSE use in future years. As described in Section 5.2.1.3 of the DEIR, it is anticipated that there will be a shift from general aviation to more business aviation in future years. Accordingly, operation-specific emissions scenarios should be developed to

accurately capture health risk impacts. That likely change in service requirements should be reflected in the emissions profile and the exposure assessment, since diesel particulate matter (DPM) tends to be the maximum contributor to health risk in most HRAs. That fact is borne out by a recent HRA for an Orange County airport, where DPM is shown to be the largest contributor to health risk.

(<http://archives.ocgov.com/eltoroairportorg/issues/AWMA-paper.pdf>)

In addition, the EIR mentions that 90% of the GSE fleet will be electric, including fuel trucks. (DEIR, p. 4.2-32.) It is unclear from the text whether the 90% reduction in emissions was taken into consideration in the emissions estimate or mentioned as an additional control measure. However, if GSE includes fuel trucks, then the assumption as to the extent of GSE equipment fleet electrification seems high and should be justified with additional documentation. This is particularly true if the 90% electrification requirement will not be enforced as a mandatory requirement.

#### The Health Risk Associated With The Construction Phase Was Not Quantified

The HRA prepared for the FEIR focused on the decreased emissions associated with the change in aircraft and did not consider the seven-year construction period when the bulk of the DPM emissions could affect sensitive receptors. DPM emissions are known to adversely affect the 0 to 2 and the 2 to 16 age groups and could be potentially significant. In addition, both OEHHA and SCAQMD recommend that extended construction periods be analyzed as part of the health risk assessment for a project (see links provided below). It is recommended that consultation with SCAQMD be initiated and additional analysis performed to ensure that the scope of the HRA has fully analyzed the construction impacts.

<https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>; p. 8-17  
[https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/fbmsm\\_airports\\_1-18-18.pdf?sfvrsn=8](https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/fbmsm_airports_1-18-18.pdf?sfvrsn=8)

The closest receptor to proposed project construction activities is 261 meters southwest of the airport (Appendix C: Air Quality Technical Report). Given that the construction build-out will be phased and affect sensitive receptors differently depending on the work location, modeling of construction health risk should be segmented into detailed work activities and focus on sensitive receptors in specific neighborhoods. This approach will not only more accurately characterize actual health risk on residences, schools, and health facilities, but also identify locations where temporary mitigation, such as HEPA filtration and activity management, may be necessary during peak demolition and excavation periods, when health impacts would be the most severe.

#### Impact of Both Operations and Construction Emissions Should Be Considered Additive

It is our understanding that general and business aviation will continue to function during the construction period; therefore, health risk from construction activities should be combined with health risk from operations during the 2019-2026 to accurately reflect the

short-term acute risk associated with the combined activities. As described above, this approach would help identify locations where temporary mitigation may be necessary to eliminate impacts.

#### Baseline Conditions Might be Under-Estimated

The DEIR represents that the emissions profile for the commercial aviation portion of John Wayne Airport will be reduced in future years as more-fuel efficient aircraft such as the Boeing 737 Max are procured and operated (see Section 6 of Appendix F in the EIR). In reality, recent software problems experienced with the Boeing 737 Max resulting in the Lion Air and Ethiopian Airlines crashes, the grounding of these planes and Boeing's challenges in getting FAA approval for the software fix, may seriously impede the schedule for replacement of existing aircraft. In addition, the stigma associated with this aircraft model could change future carrier procurement policies, resulting in changes to the fleet mix. (Please refer to the link provided below for more information). Therefore, it is recommended that future aircraft procurement assumptions and assumptions regarding improvement in emissions profiles be revisited and changed as necessary to reflect these uncertainties.

[https://www.washingtonpost.com/business/boeings-crisis-goes-from-bad-to-worse/2019/04/05/a7381092-57f4-11e9-aa83-504f086bf5d6\\_story.html](https://www.washingtonpost.com/business/boeings-crisis-goes-from-bad-to-worse/2019/04/05/a7381092-57f4-11e9-aa83-504f086bf5d6_story.html)

## MARGARET M. LOBNITZ, D.ENV.

### *Qualifications Summary*

- More than 30 years of experience in the management of multidisciplinary environmental assessment programs in southern California, with focus on air quality.
- Strategic planning support to industry in environmental health and safety.
- Environmental design criteria development for engineering projects involving landfills, cogeneration, offshore oil production, and U.S. Department of Energy (DOE) facilities.
- Comprehensive hazardous materials and waste management programs for automotive industry and educational/research institutions.
- Audit program development for environmental compliance, health and safety, vendor liability, and real estate transfer purposes.
- Office Location – Sherman Oaks (City of Los Angeles)

### **Fields of Competence**

Strategic planning; regulatory compliance; air pollution control; risk assessment; permitting; impact analysis; sustainability planning, community outreach and expert witness support.

### **Credentials**

Doctorate, Environmental Science and Engineering—University of California, Los Angeles

M.S., Biological Science—California State University, Northridge

B.S., Biological Science—University of California, Los Angeles

### **Key Projects**

**Air Quality and Source Apportionment Study, Los Angeles World Airport, Technical Advisor.** Provided technical input and coordinated resources for a short-term monitoring technology and methodology feasibility demonstration project which included analyzing ambient monitoring data for criteria pollutants and air toxics in preparation of the long-term monitoring effort, and developing a siting and access strategy. The study set the stage for understanding the relative contribution of regional sources to community pollutant levels and aided in predicting and demonstrating the improvement associated with future emission reduction strategies.

**Air Toxic Health Risk and GHG Support, SR-47 Truck Expressway, Alameda Corridor Transportation Authority, Project Manager.** Evaluated diesel risk and greenhouse benefits associated with POLA and POLB truck expressway infrastructure improvements using modified AERMOD and HARP modeling techniques. Evaluated the benefits of early action measures under AB32 and San Pedro Ports Clean Air Action Plan in terms of DPM and GHG emission reduction. Study developed new protocols for evaluation of health risk and GHG reductions associated with transportation infrastructure that were upheld in recent court decisions on NRDC lawsuits.

**Light Rail Construction Mitigation Program, SDMTDB, Project Manager** As part of San Diego's light rail development project, aided the MTDB in determining the human health risks associated with sensitive receptors (hospital patients, day care centers, rehabilitation centers). Calculated the human health

risks associated with diesel emissions and soil microbes emitted during the construction of the light rail system. These calculations were also used as the basis for retrofitting hospital and daycare HVAC systems during the construction phase of the project. Provided public relations support to the MTDB by creating easy to read fact sheets and being a conduit for communication to educate facility administrators and concerned citizens regarding the mitigation program.

**I-710 Gateway Project, Air Quality Attainment Plan, LA County MTA and Gateway Cities COG, Los Angeles County, Air Quality Expert.** Involved in identifying and developing implementation strategies for early action measures that could be taken to improve air quality prior to initiation of the plan to expand the I-710 freeway from the ports through the I-5 interchange. When preliminary measures were identified, Pika experts presented them to the technical working group, as well as facilitated a workshop with local government to ground truth their feasibility, obtain buy-in and to brainstorm on alternate implementation strategies that would achieve the desired result.

**Health Impact and Transportation Policy Benchmarking, Caltrans, Task Leader.** Compiled a synopsis of existing professionally recognized research and benchmarked domestic and international transportation agency policies on the topic of public health risk and air quality, particularly as it relates to goods movement infrastructure. Assisted Caltrans in further understanding the relationship of air contaminants to various health effects and develop mitigation strategies in anticipation of potential discussions on transportation projects such as the I-710 Gap Closure Tunnel Project.

**NEPA Air Quality Impact Analysis, Reno Retrack Project, Issue Area Coordinator.** The Reno rail project needed to quantify the long-term benefits of consolidating rail traffic along a below-grade corridor through the City of Reno, NV. Given the layout of the city, traffic impacts during construction were predicted to be severe. However, traffic improvements at major intersections in future years due to elimination of train delays were believed to be substantial. Documented these trends using MOBILE5 modeling techniques. Also included particulate matter, a major issue in Nevada, in the evaluation. The results were used to develop a comprehensive construction dust management plan to mitigate particulate matter 10 microns or less (PM<sub>10</sub>) emissions during the long construction period.

**CEQA/NEPA Process for Mare Island Dredge Pond Commercialization, City of Vallejo, Environmental Coordinator.** As part of the CEQA/NEPA process for the commercialization of Navy dredge ponds at the former Mare Island Naval Shipyard, analyzed the air quality impacts for the project. Emission scenarios were developed for transfer of dredged materials from barges to trucks and into pipelines, transport of dredged material along access routes, and placement of those materials into ponds. Construction emissions generated when raising the levees, and regular maintenance of the surface was also estimated. Activity management (dust control) techniques and associated mitigation monitoring programs were developed to ensure project emissions were maintained below significant requirements. The toxic effects of dried dredge material were also analyzed to ensure dust exposure to adjacent neighborhoods was not significant in terms of health risk.

## MARIANNE AYDIL, Ph.D.

### *Qualifications Summary*

- Over 25 years of professional experience.
- Air quality analysis for NEPA projects.
- Air quality analysis for CEQA projects.
- Emission inventories.
- Air pollution permit preparation/planning.
- Mobile source modeling/inventories.
- Air quality dispersion modeling.
- Risk management plans.
- Health risk assessments.
- Strategic permit planning.

### **Fields of Competence**

Federal, state, and local air quality compliance and planning issues including: air quality analysis for California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), dispersion modeling, health risk assessments, mobile source modeling, noise evaluations, risk management evaluation and planning, accidental release modeling, emission inventory development, greenhouse gas inventories and strategic permit planning. Extensive modeling experience with various emission and dispersion models including EMFAC, MOBILE6, CALEEMOD (URBEMIS), AERMOD (ISC), ALOHA., HARP (ACE2588)

### **Credentials**

Ph.D., Chemical Engineering—University of Houston (1992)  
B.S., Chemical Engineering—Tulane University (1987)

### **Key Projects**

**EIR Air Quality and Health Risk Analysis, Mixed Use Development, South Coast Air Quality Management District, California.** Performed air quality impact analysis of operations and construction associated with a large proposed mixed-used retail, residential and hotel development in Los Angeles Arts District. Evaluated significance of the project with regards to criteria and GHG emissions as well as diesel emissions within the context of OEHHA Risk Assessments and CEQA compliance.

**Environmental Assessment, San Carlos Municipal Airport, Air Quality Task Manager.** Conducted air quality analysis for environmental assessment addressing general conformity requirements for airport expansion. Analyzed additional emissions from both construction of the runway as well as increased emissions due to increased jet aircraft utilization.

**Health Risk Assessments, Los Angeles Unified School District.** Technical task manager for several Health Risk Assessments conducted pursuant to Public Resources Code Section 21151.8 and Education Code Section 17213 for projects involving the purchase of a school site or construction of a new elementary or secondary school. Provided technical oversight of ¼ mile survey, and conducted facility characterization for permitted and non-permitted emission sources and freeways, exposure assessment and risk characterization. Conducted both qualitative and quantitative odor analyses for site with potential odor impacts.

**Dispersion Modeling and Health Risk Assessment, Light Rail Project, Southern California.** Performed air quality dispersion modeling using ISCST3 for construction emissions from a light-rail construction project. Study evaluated risk of diesel particulate emissions to preschool-aged children at a local day care center. The health risk assessment adopts OEHHA “likelihood of risks” approach. OEHHA guidance on stochastic or probabilistic exposure assessment was applied to preschool-aged children.

**F-22 EIS, U.S. Air Force, Headquarters Air Combat Command, Air Quality Task Manager.** Air Quality Task Manager for NEPA-compliant EIS to assess potential environmental impacts of a proposal to beddown the initial F-22 Operational Wing. Project entailed quantification of emissions from aircraft, mobile source emissions from additional personnel, ground support equipment, and auxiliary power units. Conformity determinations will be

prepared for actions and/or alternatives in areas that are federal nonattainment or maintenance areas for criteria pollutants.

**Dyess-Ellsworth Force Structure Change, Air Combat Command, Air Quality Task Manager.** Analyzed air quality impacts from proposed force structure change at Dyess Air Force Base in Texas and Ellsworth AFB in South Dakota. Analysis also included analysis of emissions from mobile sources (vehicles) associated with personnel commute for each alternative.

**Mountain Home Air Force Structure Change EA, Air Quality Task Manager.** Analyzed air quality impacts from proposed force structure change at Mountain Home AFB. Used Emissions and Dispersion Modeling System (EDMS) to characterize changes in air quality emissions due to changes in B-1, KC-135 and F-15E sorties and usage of associated ground support equipment.

**Global Hawk EA, U.S. Air Force, Headquarters Air Combat Command, Air Quality Task Manager.** Air Quality Task Manager for NEPA-compliant EA to assess potential environmental impacts of a proposal to beddown the Global Hawk unmanned aerial vehicle. Project evaluated project impacts for five alternative locations from both direct and indirect sources of emissions. Conformity determinations were prepared for actions and/or alternatives in areas that are federal nonattainment or maintenance areas for criteria pollutants.

**Air Quality CEQA Analysis, East Los Angeles High School No. 1, Los Angeles Unified School District.** Prepared air quality analysis and authored EIR Air Quality Section for East Los Angeles High School No. 1. Analysis used URBEMIS2002 to address both construction and operational impacts. CO Hot Spots analyses for five impacted intersections were conducted using EMFAC2002 for emissions characterization and CALINE4 for estimating ambient concentrations. Report addressed potential odor concerns, mitigation of construction emissions, particularly fugitive dust, consistency with the SCAQMD Air Quality Management Plan (AQMP) and cumulative impacts.

**Environmental Impact Report, San Luis Obispo.** Prepared Air Quality section of EIR for a mixed land-use development in the downtown area. Project consisted of a mix of retail, commercial and residential. Calculated emissions from operational traffic impacts as well as from construction equipment and construction worker commuting. Suggested mitigation measures for heavy-duty diesel equipment to minimize risk to occupants of a nearby residential retirement hotel.

**Environmental Impact Report (EIR) Addendum, Port of Los Angeles, California.** Revised emission estimates and health risk assessments for a marine terminal for an independent oil refining company operating at the Port of Los Angeles. Revisions included changes in loading and unloading practices, as well as controlled emissions due to the proposed installation of a thermal oxidizer. Prepared protocol for submittal and approval to Southern California Air Quality Management District (SCAQMD) and prepared multipathway health risk assessment according to both local and state (California Air Pollution Control Officers Association, or CAPCOA) guidelines.

**Health Risk Assessment, San Diego Gas & Electric Company (SDG&E) Rainbow Compressor Station.** Performed air quality dispersion modeling using ISCST3 and health risk assessment according to CAPCOA guidelines in support of a variance petition and interim variance conditions. Project addressed short- and long-term health risks from toxic air contaminant emissions from four IC engines located at a natural gas transmission station.

## **Attachment 2**



REMY | MOOSE | MANLEY  
LLP

Andrea K. Leisy  
aleisy@rmmenvirolaw.com

April 17, 2019

VIA ELECTRONIC & U.S. MAIL  
[alopez@ocair.com](mailto:alopez@ocair.com)

Mr. John Clarey, Chair  
Attn: Ms. Aida Lopez  
Orange County Airport Commission  
3160 Airway Avenue  
Costa Mesa, CA 92626

Re: April 17, 2019 Airport Commission Special Meeting – Proposed  
Recommendations Regarding General Aviation Improvement Program  
(ASR 19-000429)

Dear Chairperson Clarey and Honorable Commission Members:

We submit this letter on behalf of the City of Newport Beach (City) requesting that the Commission accept public comment on the General Aviation Improvement Program (GAIP or Project) and related Environmental Impact Report (EIR) this evening and vote to continue the item before issuing any recommendations to the Board of Supervisors (Board). The Final EIR was released on April 9<sup>th</sup> - barely six business days ago. An entirely new health risk analysis was prepared and made publically available on April 15, 2019, after mistakenly being omitted from the Final EIR. (See Attachment A to Final EIR Vol. 2A.)

An inadequate amount of time has been provided for the Commissioners and the public to thoughtfully review the new health risk analysis, the responses to comments in the Final EIR and the nearly 100 pages of proposed CEQA Findings of Fact and Statement of Overriding Considerations. Given the technical nature and importance of the new health risk analysis, the County should circulate the analysis for public review and comment rather than cramming it into the Final EIR at the last minute.

The purpose of requiring public review is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. Public review permits accountability and informed self-government....Public review ensures that appropriate alternatives and mitigation measures are considered, and permits input from agencies with expertise....Thus, public review provides the dual purpose of bolstering the public's confidence in the agency's

decision and providing the agency with information from a variety of experts and sources.<sup>1</sup>

Rushing the administrative approval process, as the County appears to be doing here despite receiving 288 comment letters and generating a Final EIR consisting of four volumes, undermines these principals. That said, we have the following preliminary comments on the Final EIR, including identifying many of the inadequate responses to comments, and may submit additional comments to the Board once we have had more time to review the Final EIR:

I. Boeing 737-MAX Aircraft Assumptions Used in the EIR

The City remains deeply concerned that the EIR's future cumulative baseline assumptions are overly optimistic. Specifically, in the noise and air quality modeling of the Proposed Project and Alternative 1, the EIR assumes that 40% of the Boeing 737 and Airbus A320 aircraft utilizing the Airport will include the newer Boeing 737-MAX and Airbus A320-NEO with substantially quieter and more fuel efficient engines. As noted in our prior comments, this is different from the 2026 fleet mix assumptions used to prepare the 2014 Settlement Agreement Amendment EIR and appears to paint an overly rosy future baseline scenario against which the GAIP EIR evaluates the potential effects of the Project and Alternative 1.

The 40% assumption is important because, without it, the future baseline environmental condition for noise would be louder and the air quality around the airport more degraded with an assumed older fleet mix. (See DEIR 617 [Ch. 4.1 [Air Quality], 4.6 [Noise], 5 [cumulative impacts], Appendix B-D, available at: <https://www.ocair.com/communityrelations/settlementagreement/deir617>.) It would therefore take less of an incremental noise and air quality contribution from the increase in general aviation aircraft under the GAIP to trigger a cumulatively considerable contribution under CEQA. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692 [reasoning that an otherwise small contribution to an existing degraded environment may be cumulatively considerable and therefore a significant impact].) The EIR nevertheless refuses to engage in this analysis.

Although a lead agency has deference to determine the methodology used in an EIR's impact analysis, the assumptions must be supported by substantial evidence. (See Pub. Resources Code, § 21082.2; CEQA Guidelines, §§ 15064, 15384.) The responses to

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<sup>1</sup> *Environmental Protection Information Center v. California Dept. of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 486, quoting *Schoen v. Department of Forestry & Fire Protection* (1997) 58 Cal.App.4th 556, 573–574; see also *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 1236 [One of CEQA's goals is to foster “transparency in environmental decisionmaking”]; CEQA Guidelines, § 15201 [public participation is an essential part of the CEQA process].

comments on this issue in the Final EIR lack citation to substantial evidence. (See Final EIR, p. 3-34 [RTC NB-4 stating the assumption was “based on airline orders, statements by airlines regarding the use of the MAX and NEW, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEW at the Airport in the future”], without citing any telephone conversations or actual “substantial evidence” in support.)

The Final EIR also completely ignores the recent reality that Boeing’s production of 737-MAX aircraft has been drastically cut since March 13, 2019, when the FAA grounded all 737-MAX aircraft after the Ethiopian Airlines crash that killed 157 people and the Indonesia crash that killed 189 people. (See Attachment B [news articles relating to safety concerns regarding the Boeing 737-MAX].) Boeing has slowed production of the aircraft to 42 a month and has received only 32 new orders in the first three months of 2019 (compared to 122 during the same period of 2018). Southwest currently has 34 of the 737-MAX aircraft in their fleet with 280 ordered, leaving 246 unfulfilled. There is no time table for when, or if, the MAX will return. (See Attachment B.) The County should, in good faith and in light of these recent events, re-evaluate the EIR’s 40% assumption by 2026.

If this assumption proves to be overly optimistic, as we believe it is, and new cumulatively considerable effects of the GAIP/Alternative 1 are identified (i.e. to noise or regional ROG or NOx levels), the County should also identify mitigation measures that would avoid or substantially lessen the cumulative effect. Moreover, if additional or more polluting operations occur in the future scenarios than assumed in the EIR, the County should impose a monitoring program and threshold trigger(s) as a condition of its approval and commit to revisiting the EIR’s analysis.

## II. The Responses to the City’s Comments are Inadequate

Under CEQA, responses to comments contained within a Final EIR must demonstrate a “good faith, reasoned analysis.” (CEQA Guidelines, § 15088, subd. (c).) The Final EIR therefore represents an opportunity for lead agencies to clarify and expand upon the analysis in a Draft EIR where that analysis needs improving. Unfortunately, much of the Final EIR, here, neglects to seize that opportunity and therefore does not represent a good faith effort.

Comment NB-5 asked the County to identify the existing general aviation flight patterns. Response to Comment (RTC) NB-5 states this information was provided in Appendix H of the Draft EIR at page 42. That page refers to one-half of a page of explanation which discusses the general use of Runway 20R/02L by larger commercial aircraft, wind directions, general routes when aircraft arrive from the northwest (starting to turn near South Coast Plaza), and refers the reader to Table 6 “Existing (2016) Runway End Utilization”, none of which show, on a map, the existing general aviation flight patterns. For this information, the RTC points to Figure 9 of Appendix H “Existing Radar Tracks for Air Carrier and General Aviation Aircraft” which shows – without distinguishing between the two – both commercial and general aviation arrival (in

red) and departure (in blue) tracks. It is impossible to determine which lines on Figure 9 are general aviation tracks. Not only is this information buried deep in an Appendix to the Draft EIR, it is entirely unhelpful to the reader.

RTC NB-5 states “The analysis assumes there would not be a change in the flight patterns applicable to the type of aircraft[,]” noting such an assumption would be speculative due to FAA’s refinements to the NextGen procedures. (Final EIR, p. 3-36.) RTC NB-6, however, appears to contradict this statement when explaining the EIR’s comparison of 2016 Baseline to Baseline Plus Project under the Alternative 1 scenario and including a new figure “to allow comparison of the areas where the noise contours are expected to change.” (Final EIR, p. 3-37; see also 3-38.)

If the noise contours are expected to change, as shown in the new figure attached to the RTC, it appears the general aviation flight patterns may also be anticipated to change. The existing general aviation flight patterns assumed in the EIR’s analysis must be identified. This information is an essential part of the EIR’s assumed existing baseline conditions for noise and air quality emissions. Yet, they remain unclear.

### III. The New Health Risk Analysis Should be Circulated for Public Review and Comment prior to Certification of the Final EIR

In response to the comments of the City, the South Coast Air Quality Management District, and several others raising concerns with the County’s initial approach to evaluating the GAIP’s public health impacts, the County retained environmental consultant Ramboll to prepare a Health Risk Assessment Technical Report (HRA) for the Project. While a summary of the HRA’s conclusions was included in the FEIR topical response to comments, the HRA was initially omitted from the version of the Final EIR posted on the County’s website. After our office contacted County staff to inform them of the oversight, the HRA was made available for public review on April 15, 2019.

Public Resources Code section 21092.5, subdivision (a), provides that, at least ten days before certifying a final EIR, a lead agency “shall provide a written proposed response to a public agency on comments made by that agency” in conformance with CEQA standards. These written responses may be provided to the commenting agency in either print or electronic format. (CEQA Guidelines, § 15088.5, subd. (b).) With respect to the health risk analysis, a focal point of the City’s comments on the Draft EIR, many of the responses to comments refer to the new health risk analysis (provided for the first time two days ago on April 15<sup>th</sup>.) Ten days runs on April 25, 2019. The Board therefore must postpone its decision on the EIR until ten days has passed.

Also, the County’s decision to prepare a HRA for the Project warrants recirculation of the new analysis for public review and comment. (See *Rodeo Citizens Assn. v. County of Contra Costa* (2018) 22 Cal.App.5th 214, 218 [EIR recirculated following request from air district for more information about refinery project health risk assessment].) Under CEQA, “[a] lead agency is required to recirculate an EIR when

significant new information is added to the EIR after public notice is given of the availability of the draft EIR . . . but before certification.” (CEQA Guidelines, § 15088.5, subd. (a).) As used in CEQA Guidelines section 15088.5, “the term ‘information’ can include changes in the project or environmental setting as well as additional data or other information.” (*Ibid.* Emphasis added.) New information is considered “significant” where the EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect of the project. (*Ibid.*)

Releasing the HRA just two days before the Commission considers the adequacy of the EIR fails to provide members of the public and the Commission a meaningful opportunity to review the analysis and conclusions in the HRA and EIR. (See *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130 [CEQA’s recirculation provisions intended to encourage meaningful public comment].) Re-circulation is particularly warranted in this case where the new information and analysis included in the FEIR concerns the Project’s potential public health impacts on workers, residential receptors, and nearby sensitive receptors. Furthermore, as the HRA and multiple appendices prepared here demonstrate, health risk assessments are highly technical documents which require time and expertise to critically review.

Based upon our initial review, questions remain regarding the assessment of the GAIP’s potential public health impacts. For instance, the HRA fails to account for the Project/Alternative 1’s construction-related health risk impacts, yet the California Office of Environmental Health Hazard Assessment Air Toxics Hot Spots Program Risk Assessment Guidelines recommend assessing cancer risk for projects, including construction, lasting more than two months.<sup>2</sup> Construction of the various GAIP phases over 7 years, including under Alternative 1, will exceed two months. (See Final EIR, p. 3-39, RTC NB-8.) Construction related NOx emissions were also found significant, although use of Tier-4 equipment is expected to reduce the impact to less-than-significant. The public, nevertheless, should be given a meaningful opportunity for review and comment on this additional analysis.

Furthermore, it remains unclear what impact, if any, the fleet mix and flight path assumptions relied on in preparing the EIR factor in to the HRA. If recirculated, the revised and recirculated sections should also identify Alternative 1 as the preferred project alternative for approval, thereby alleviating the burden that the public otherwise had in reviewing and commenting, equally, on the proposed GAIP Project and Alternative 1 during the Draft EIR review period. (See *Wahoe Meadows Community v. Dept. of Parks and Recreation* (2017) 17 Cal.App.5th 277 [issuing writ and requiring EIR and project approvals to be set aside where draft EIR analyzed various alternatives in detail but failed

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<sup>2</sup> Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments (Feb. 2018), p. 8-17, available at <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

Chairperson Clarey  
Honorable Commission Members  
April 17, 2019  
Page 6

to identify one “preferred” alternative during the EIR process; court reasoned, as a matter of law, that by describing a range of possible projects, the agency had presented the public with a “moving target” which required the public to comment on all the alternatives rather than just one project and therefore imposing an undue burden to the public].) These questions, and others, are best addressed through re-circulation of portions of the EIR for public review and comment.

IV. Conclusion

We request that the Commission postpone making recommendations to the Board at this time and, instead, allow additional time for review and recirculation of sections of the EIR as noted above. For the reasons set forth in Mayor Dixon’s letter to the Board, dated March 25, 2019, and including safety, the City remains supportive of Alternative 3, as does the City of Costa Mesa. A true and correct copy of the Mayor’s letter is included herein as Attachment A.

Finally, we request that the Commission and the Board take the time needed to thoughtfully consider the Final EIR and adoption of Alternative 3. Thank you for your consideration of our comments.

Very truly yours,



Andrea K. Leisy

Encl.

Cc: Honorable Board of Supervisors

# **Attachment A**



CITY OF NEWPORT BEACH  
100 Civic Center Drive  
Newport Beach, California 92660  
949 644-3004 | 949 644-3039 FAX  
newportbeachca.gov

March 25, 2019

*Mayor*

Diane Brooks Dixon

*Mayor Pro Tem*

Will O'Neill

*Council Members*

Brad Avery

Joy Brenner

Marshall "Duffy" Duffield

Jeff Herdman

Kevin Muldoon

Lisa A. Bartlett, Chairwoman  
Orange County Board of Supervisors  
333 W. Santa Ana Blvd.  
Santa Ana, CA 92701

RE: John Wayne Airport General Aviation Improvement Project

Chairwoman Bartlett and Members of the Orange County Board of Supervisors:

After extensive review of the Draft Environmental Impact Report (DEIR) for John Wayne Airport's proposed General Aviation Improvement Project (GAIP) the Newport Beach City Council unanimously voted to endorse Alternative #3 pursuant to the GAIP DEIR.

The City of Newport Beach (City) understands the need for updating John Wayne Airport's current general aviation facilities to Federal Aviation Administration (FAA) standards and it endorsed such action with its support of Alternative #3. However, the GAIP, as currently structured, goes well beyond that. As presented in the DEIR, it would introduce commercial operations into the normal sphere of influence of general aviation (GA) and encourage international travel as well as commercial operations at privately operated, Fixed Base Operators (FBOs). While the GAIP speaks of modernization, the City's residents instead see the burden of more GA jet operations, diminished air quality, additional noise, and flights operating at all hours. Equally important, any actions concerning the GAIP must take into account safety, security and accountability for and to all, not just the select few passengers partaking in GA jet travel.

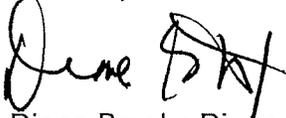
Pending further environmental review, the City believes Alternative #3 is the least impactful for the Newport Beach community. It allows for the updating of airport's GA facilities to current FAA standards, would not expand general aviation facilities at the FBOs, nor would it significantly alter the airport's current mix of GA aircraft that are based at the airport. It would also result in the least amount of GA jet operations by the year 2026.

The County of Orange has achieved what no other jurisdiction in the nation has been able to do by putting protections in place and managing JWA in a manner that helps to mitigate the airport's operations on the surrounding communities. Any proposal that seeks to limit the County's involvement, by shifting certain responsibilities to private companies operating at the airport, must be resisted. Airport security, as the Board has recognized in the past, is of utmost importance. Security for international travel should be processed in the Thomas F. Riley Terminal along with the processing of all commercial passengers where it has, until recently, historically taken place. As current national and international events have demonstrated, safety and security shall always remain of utmost importance.

On behalf of the Newport Beach City Council, I respectfully request that the Board of Supervisors adopts Alternative #3. Should any member of the Board or their representatives wish to discuss the matter in more detail, offer further explanation of the GAIP, or assurances of the County's actions, the City would be happy to meet at your convenience.

Thank you for your anticipated professional courtesy and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Diane Brooks Dixon". The signature is stylized and includes a large, sweeping flourish at the end.

Diane Brooks Dixon  
Mayor

## **Attachment B**

**AMERICAN AIRLINES EXTENDS CANCELLATIONS UNTIL**

## August 19 because of 737 Max grounding

By Victoria Cavaliere, [CNN Business](#)

Updated 4:13 AM ET, Mon April 15, 2019

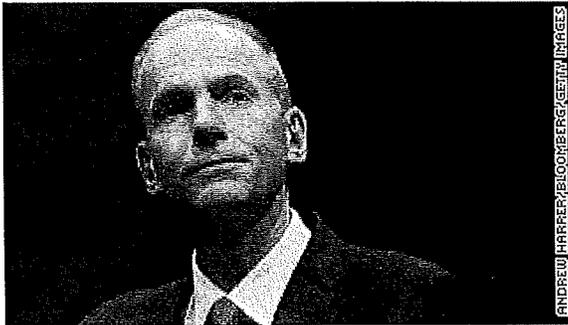
**(CNN)** – American Airlines is extending flight cancellations into mid-August because of the Boeing 737 Max grounding.

American (AAL), the world's largest airline, decided to extend cancellations from early June through August 19, to help plan ahead for the busy summer travel season. Southwest Airlines (LUV) last week also extended flight cancellations for 737 Max planes from June until August.

"Based upon our ongoing work with the Federal Aviation Administration (FAA) and Boeing, we are highly confident that the MAX will be recertified prior to this time," American Chairman and CEO Doug Parker and President Robert Isom said Sunday in a message to airline staff. "But by extending our cancellations through the summer, we can plan more reliably for the peak travel season."

Approximately 115 flights a day will be canceled through August 19, representing about 1.5% of the airline's total daily flights, they said.

The airline has 24 737 Max jets in its fleet. American has previously said that all flights that were originally scheduled on a MAX plane will not be canceled, with some being substituted with other aircraft.



The 737 Max was grounded in March after one of the planes flown by Ethiopian Airlines crashed, killing everyone on board. It was the second accident involving the jet model in less than six months, after another flown by Indonesia's Lion Air crashed last October. The crashes killed 346 people in total.

**Related Article:** Boeing CEO says new software update has been tested by most 737 Max customers

The causes of the crashes are still being investigated, but the focus has been on an automatic safety feature that may have forced the nose of each plane lower when it incorrectly sensed the plane was in danger of going into a stall.

Boeing (BA) and the FAA said they are working on an upgrade of the 737 Max software to deal with that safety feature.

Boeing CEO Dennis Muilenburg said on Thursday the planemaker is closing in on a fix for the software, and a majority of the 50 customers that have ordered 737 Max planes have had a chance to test it using a flight

"It's our responsibility to eliminate this risk," Muilenburg said.

Muilenburg did not say when 737 Max planes may begin flying again.

Boeing announced earlier this month it was cutting the production rate for all of its 737 planes from 52 a month to 42 amid the worldwide grounding.

*--CNN Business' Paul R. La Monica contributed to this report*

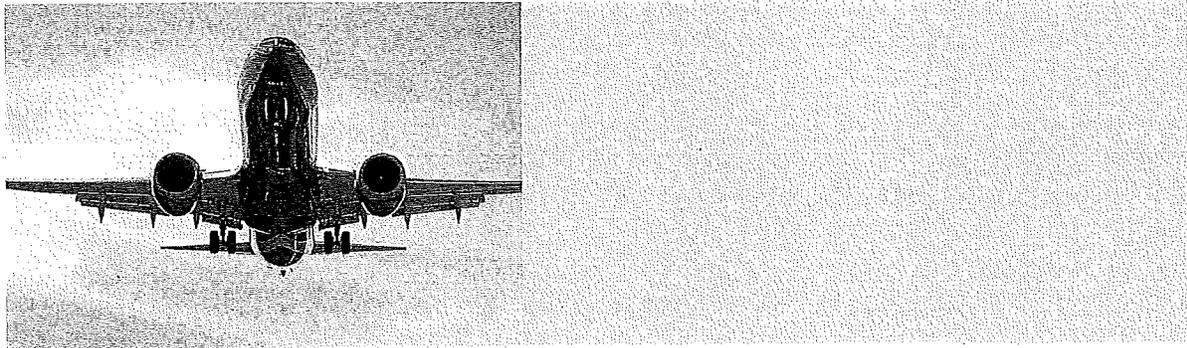
# Southwest removes Boeing 737 Max from flight schedule through early August as grounding persists

PUBLISHED FRI, APR 12 2019 • 9:21 AM EDT UPDATED FRI, APR 12 2019 • 6:25 PM EDT

[Emma Newburger@EMMA\\_NEWBURGER](mailto:Emma.Newburger@EMMA_NEWBURGER)

## KEY POINTS

- Southwest Airlines has removed the Boeing 737 Max jet from its schedule through Aug. 5, which marks a key summer travel period.
- It's unclear how many flights will be canceled as a result.
- Other major airlines like American and United have canceled thousands of flights because of the prolonged groundings.



A Southwest Boeing 737 Max 8 enroute from Tampa prepares to land at Fort Lauderdale-Hollywood International Airport on March 11, 2019.

*Joe Raedle | Getty Images*

Southwest Airlines has removed the Boeing 737 Max jet from its schedule through Aug. 5, a key summer travel period. It's unclear how many Southwest flights will be canceled as a result.

Southwest suspended all 34 of its Max jets from its fleet of more than 750 Boeing 737 models after the Max's anti-stall software was implicated in an Ethiopian crash in March that killed 157 people.

**737 Max not coming back any time soon**

There's no timetable for the return of the Max, which has been grounded since mid-March. Boeing has slowed production and stopped deliveries as it works on a software fix.

Other major airlines like American and United have canceled thousands of flights because of prolonged groundings. American, which operates 24 Max planes and has 76 more on order, canceled roughly 1,200 flights in March. United has 14 of the Boeing 737 Max 9s in its fleet, and like American, has canceled 737 Max flights through June 5.

“The limited number of customers, who have already booked their travel and will be affected by this amended schedule, are being proactively notified so that we can reaccommodate their flight plans well in advance of their travel date,” Southwest President Tom Nealon said in a statement.

# Shareholder suing Boeing, alleges investors were misled about 737 Max jet



PHOTOS: Boeing's 737 Max takes off for its maiden flight in Seattle on April 13, 2017.

By **Bernard Condon**  
Associated Press

APRIL 10, 2019, 2:20 PM | NEW YORK

**A** Boeing shareholder is suing the company for allegedly hiding problems with its 737 Max jet to push its shares higher.

Shareholder Richard Seeks argues that Boeing should have told investors about safety problems with its best-selling plane after a fatal crash in October. Instead, it pushed the stock up to artificial highs by speaking optimistically about future sales before a second fatal crash in March sent shares tumbling, he says.

The federal suit also named Boeing CEO Dennis Muilenburg and the chief financial officer, Gregory Smith, as defendants.

The company misled investors "by touting its growth prospects and profitability, raising guidance, and maintaining that the Boeing 737 MAX was the safest airplane to fly the skies," the lawsuit alleges. By doing so, investors bought shares at "artificially inflated prices."

The suit filed in U.S. District Court for the Northern District of Illinois seeks class-action status for all Boeing shareholders who bought stock between Jan. 8 and March 21.

Boeing did not immediately respond to a request for comment.

The Chicago-based company has been named as a defendant in a growing number of suits filed by families of passengers killed in a Lion Air crash off the coast of Indonesia on Oct. 29 and an Ethiopian Airlines crash on March 10. All 346 aboard the two flights died.

Its stock hit \$440 early last month, then fell to \$362 after the Ethiopian Airlines crash. The stock was at \$369 in midafternoon trading Wednesday.

Boeing announced that it is making changes to a flight-control system implicated in both crashes. It has vowed to a software fix to get the planes back in the air since a worldwide grounding last month. The company is also promising that it would provide airlines with certain safety features previously offered to them as options and that it would provide additional training for Max pilots.

The lawsuit said that Boeing should have told investors that the safety features were optional on the Max jets it sold. It also alleged that the company hid from investors that the U.S. Federal Aviation Administration had given it authority to help certify that the Max plane was safe, along with allowing the company to greenlight a flight-control system involved in the two crashes.

The practice by the FAA of delegating safety checks to manufactures has come under fire by congressional investigators since the crashes. The company is also facing probes by the U.S. Justice Department and the Transportation Department's inspector general.

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**This article is related to:** Boeing, Federal Aviation Administration

FFF

# *Costs for Boeing Start to Pile Up as 737 Max Remains Grounded*

The grounding of Boeing's 737 Max planes has the company and the airlines it supplies scrambling to adjust. Credit Ruth Fremson/The New York Times

Image



The grounding of Boeing's 737 Max planes has the company and the airlines it supplies scrambling to adjust. Credit Ruth Fremson/The New York Times

**By David Gelles**

- April 12, 2019

In the 22 months that Boeing's 737 Max flew commercially before it was grounded, the jet became the company's flagship as well as an integral part of the global aviation system, and the American economy.

Airlines around the world sped the plane into service, eager to capitalize on its efficient engines. Some low-cost carriers built new routes around the Max, which could travel farther on less fuel than its predecessor. Boeing's stock soared thanks to strong demand for the jet.

But with the Max grounded following two deadly crashes in five months, Boeing and the airlines that rely on its planes are scrambling to adjust, and the costs are mounting.

Major airlines, including Southwest, American and United, have canceled thousands of flights. Boeing has slowed production of the Max and stopped deliveries, stockpiling the finished planes in Seattle. And with no timetable for the return of the Max, Boeing is facing escalating bills, numerous legal threats and a crisis of confidence.

“Having two crashes in rapid succession with no survivors is really unprecedented in modern aviation industry,” said Chesley B. Sullenberger III, the retired pilot who landed a jet in the Hudson River. “This is going to be a huge hit to Boeing. What they need to do now is to behave in a way that proves themselves worthy of the public’s trust.”

An aerospace behemoth with more than 140,000 employees, Boeing has annual sales of some \$101 billion. It is the largest manufacturing exporter in the United States and is the largest component of the Dow Jones industrial average. When Boeing does well, it can lift the fortunes of American industry and thousands of staff. But when the company hits turbulence, the effects quickly ripple across the globe.

American Airlines, which operates 24 Max planes and has 76 more on order, canceled about 1,200 flights in March. With no sign that the Max will be flying again anytime soon, American said it was extending cancellations through June 5. The airline also said it was lowering its estimated quarterly revenues, in part owing to the grounding of the Max.

Boeing, which will report earnings this month, will undoubtedly take a financial hit this quarter, and most likely for the rest of the year.

“Boeing revenue, profit and margins for 2019 are in jeopardy after the grounding of its 737 Max,” according to a report by Bloomberg Intelligence, which estimated that the cost of lawsuits and reimbursements could total \$1.9 billion in just six months.

#### ADVERTISEMENT

And while Boeing has already taken orders for more than 4,600 additional Max jets, representing the vast majority of its total backlog and billions of dollars in future sales, it may find new orders in short supply. On Tuesday, it said there were just 32 new orders for the jet in the first three months of the year, compared with 122 a year earlier. Boeing this week slowed its production of 737 planes to 42 a month, from 52, with most of those being the Max model.

“It is difficult to expect a 737 Max order at the upcoming Paris Air Show,” Noah Poponak, an analyst at Goldman Sachs, wrote in a recent note, referring to the annual event where many commercial airline deals are sealed.



## **Boeing 737 Max: What's Happened After the Ethiopian Airlines and Lion Air Crashes**

Boeing has come under intense scrutiny after its best-selling 737 Max jet was involved in two deadly crashes in five months.

Already, some airlines are expressing reservations about continuing to fly the Max, including the national airlines of Indonesia and Ethiopia, the two countries where the Max crashed. Garuda Indonesia has asked to cancel its order for 49 Max planes. And Ethiopian Airlines is reportedly reconsidering its order for 25 additional Max planes because of the “stigma” surrounding the aircraft.

“We continue to assess the financial impact, including working capital, of our production decisions and pause in deliveries,” Boeing said in a statement. “The 737 Max return-to-service timeline, as well as future rate decisions, will influence the cash receipts profile, including both delivery and pre-delivery payments.”

Boeing is likely to need to compensate airlines for the cost of canceled flights, leasing replacement aircraft and higher fuel costs on less efficient planes needed to pick up slack for the grounded Maxes.

“It is quite obvious that we will not take the cost,” Bjorn Kjos, the chief executive of Norwegian Air, which operates 18 Max jets, said in March. “We will send this bill to those who produced this aircraft.”

Those costs could amount to about \$115 million a month for Boeing, or perhaps much more, according to the J.P. Morgan analyst Seth Seifman.

Richard Aboulafia, vice president for analysis at the Teal Group, an aviation consulting firm, said, "The company is big and incredibly profitable, but a billion or two here and there stings."

Meanwhile, it remains unclear when regulators will clear the planes to fly again. Boeing had been hoping to submit a software update to the Federal Aviation Administration soon, but last week said work on the fix had been delayed by several weeks.

Once the new software is submitted, it must be approved by the F.A.A. and other international regulators. And before the Max can fly again, all the planes will have to be updated and pilots retrained. Mr. Seifman predicted a return between August and November.

Scrutiny from lawmakers over the F.A.A.'s certification process could mean further delays, Mr. Seifman said in a note. "For the F.A.A., various investigations into its independence will likely result in a high degree of caution and the need for an extensive and compelling paper trail to back the decision," he wrote.

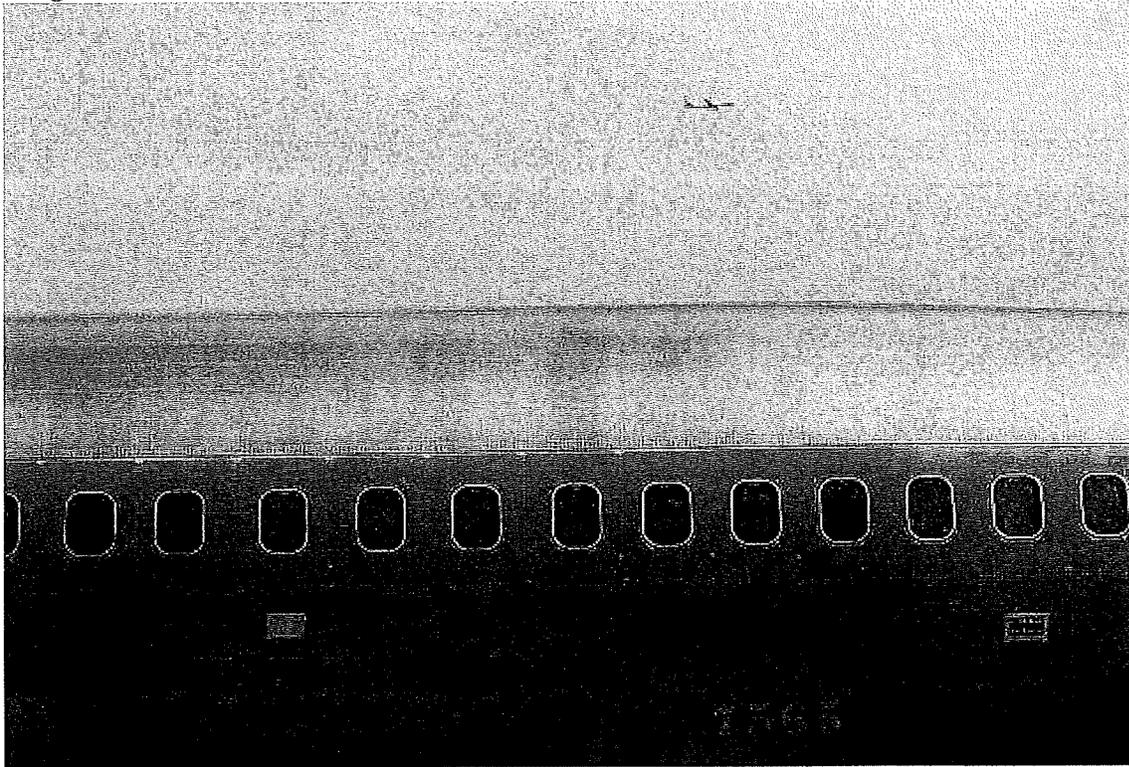
International regulators, which have traditionally followed the F.A.A.'s lead, are already signaling they may take longer to approve the planes to fly in their airspace.

"After the update, we will take a few months to check things to be careful that everything is O.K. before we allow the Max to fly again," said Polana Pramesti, the head of Indonesia's civil aviation authority.

Analysts also believe that regulators in China could drag their feet to reduce overall United States exports.

"The company is big and incredibly profitable, but a billion or two here and there stings," one analyst said. CreditElaine Thompson/Associated Press

Image



“The company is big and incredibly profitable, but a billion or two here and there stings,” one analyst said. CreditElaine Thompson/Associated Press

“This seems to have fractured the international trust that has existed for decades,” Mr. Sullenberger said. “Now it seems like each nation is prepared to go it alone.”

On Friday, F.A.A. officials met for three hours with safety representatives from the three airlines in the United States that fly the 737 Max — American, Southwest and United — as well as the airlines’ pilots unions. Daniel Elwell, the regulator’s acting administrator, discussed the preliminary findings of the investigations into the two crashes, the coming software update and pilot training.

In a statement, the F.A.A. said Mr. Elwell had also told them that “the agency values transparency” as it works on decisions related to the aircraft.

In the meantime, airlines continue to cancel flights with the plane grounded. Southwest Airlines, which has 34 Max jetliners and was operating about 140 flights a day with the plane before the grounding, has adjusted its schedule through early August. United, which has 14 Max planes, said it was working to manage the disruption and expected 130 related cancellations this month.

Air Canada, which has 24 Max jets, said it had adjusted its schedule through May 31, but was minimizing cancellations “through a series of mitigation measures, schedule changes and temporary route suspensions.”

And when the Max is approved to fly again, it remains unclear whether passengers will feel comfortable on the planes. In the days after the crash of Ethiopian Airlines Flight 302 in March, before the Max was grounded, the travel booking website Kayak.com added a filter that allowed customers to filter by plane type.

Yet for all the uncertainty facing Boeing today, analysts believe there is little long-term risk to the company. Boeing and its European rival Airbus are the only significant manufacturers of commercial aircraft. And the 737 Max, for all its problems, remains one of two midsize fuel-efficient passenger jets on the market, along with the Airbus A320neo.

“Boeing’s best protection is that this is a supply-constrained industry,” Mr. Aboulafia said. “There are only two modern airplanes that offer fuel savings. The risk of defection is minimal because of that.”

Nor is there much risk that airlines that have already placed orders with Boeing will walk away, analysts said. With Airbus also backlogged, airlines looking for new planes have no real alternatives.

“Boeing’s ability to modify the aircraft effectively, the duopoly structure of the aircraft market, the large installed base of 737s, and Boeing’s deep and long-term relationships with its customers mean that demand for the Max will not change dramatically,” Mr. Seifman wrote.

Even if Boeing weathers the immediate financial storm, it faces other unknowns. The families of passengers and crew members killed in the Ethiopian Airlines crash and the crash of Lion Air Flight 610 in October have hired lawyers to pursue legal claims against the company.

The Transportation Department’s inspector general and the Justice Department are investigating the design, manufacturing and certification of the Max. And it may be months or even years before Boeing wins back the public’s confidence.

“The general flying public seems to be asking more questions about the airplane than they have with prior fleet groundings,” Mr. PoPONAK, the Goldman Sachs analyst, wrote in a recent note. “We see a risk that lasts in the order book moving forward over the next few years.”

A version of this article appears in print on April 14, 2019, on Page B1 of the New York edition with the headline: Costs Pile Up as Boeing Crisis Drags On.

Technology

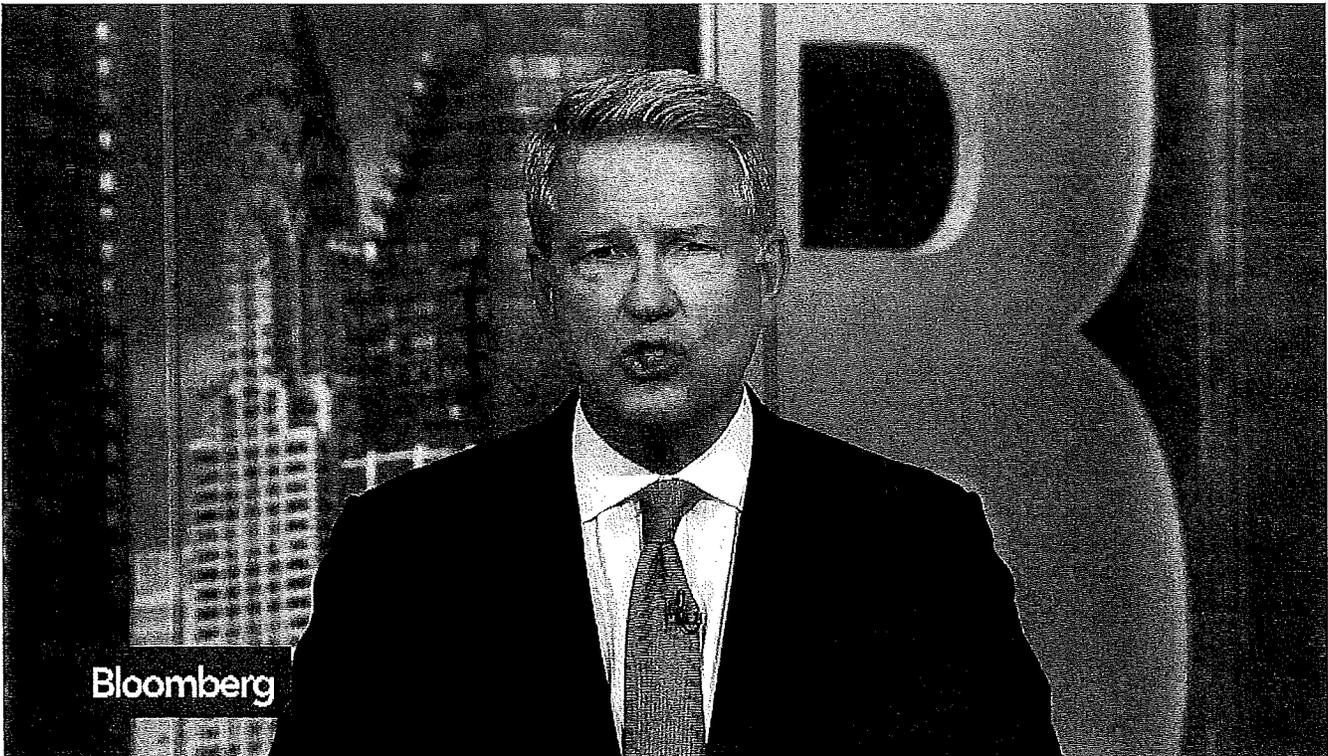
# Boeing Cuts 737 Jet Output 19% as Global Groundings Drain Cash

By [Julie Johnsson](#)

April 5, 2019, 1:03 PM PDT

Updated on April 5, 2019, 5:54 PM PDT

- ▶ Slowdown could hurt suppliers who had cranked up capacity
- ▶ Planemaker also names four-member board panel to review safety

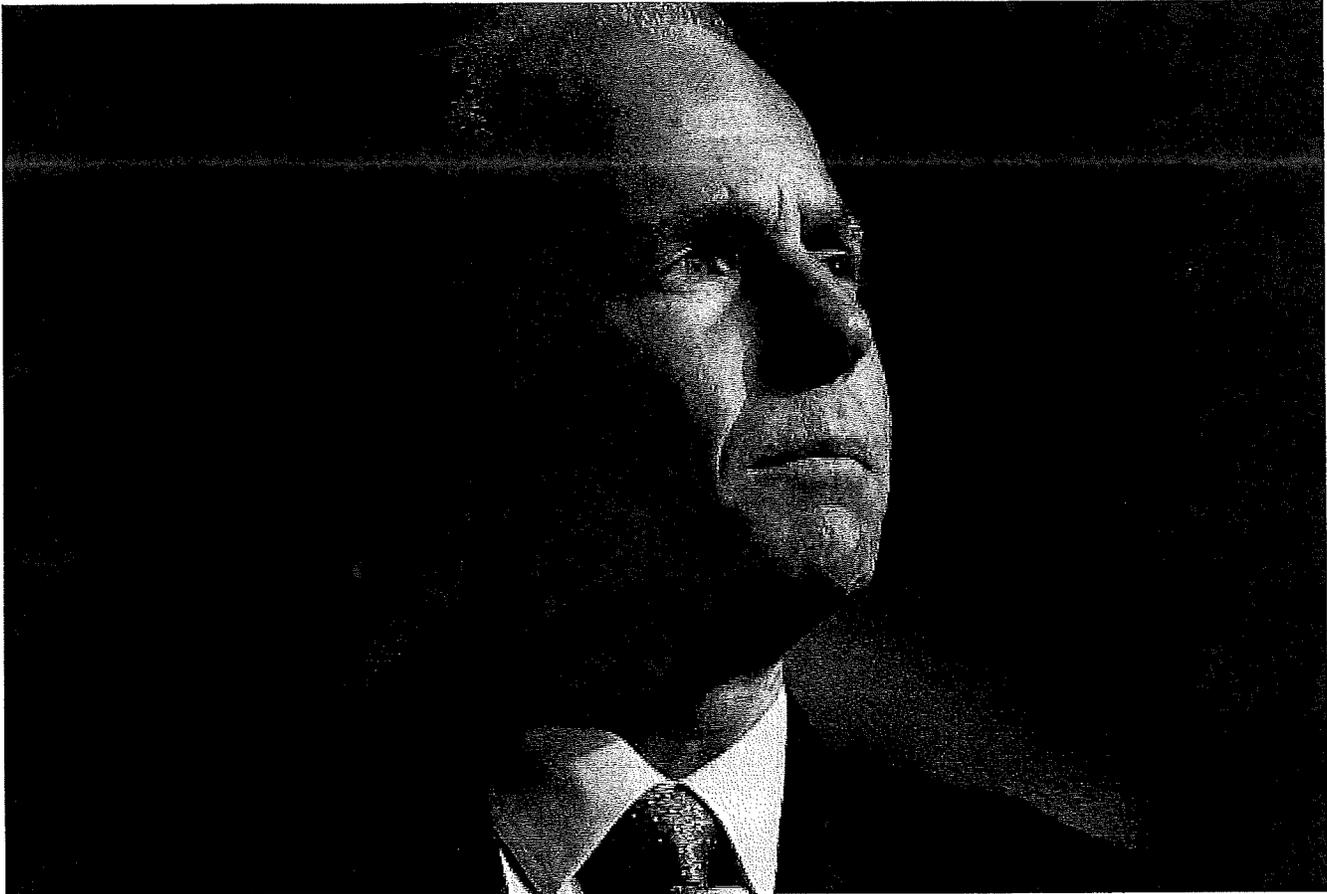


What the Ethiopia Crash Report Means for Boeing

Boeing Co. is cutting production of its 737 jetliner for the first time since the Sept. 11 attacks as the planemaker works to limit financial damage from the global grounding of its newest and best-selling aircraft model.

By slashing output 19 percent -- to 42 airplanes a month by mid-April -- Boeing will be able to reduce its spending on the 737 and preserve cash. As work slows in a Boeing factory south of

Seattle, two key suppliers, CFM International and Spirit AeroSystems Holdings Inc., indicated they would continue full-tilt at the current record pace.



Dennis Muilenburg *Photographer: Anna Moneymaker/Bloomberg*

Boeing Chief Executive Officer Dennis Muilenburg outlined the plan Friday as the company ramps up efforts to restore public confidence in the 737 Max and the planemaker's commitment to safety after two of the aircraft crashed within five months. Boeing is facing criminal and Congressional probes stemming from the disasters. To help quell concerns, the company's board named a committee dedicated to reviewing the design and development of its aircraft.

"Safety is our responsibility, and we own it," Muilenburg said in a statement..... Friday after the close of regular trading. "When the Max returns to the skies, we've promised our airline customers and their passengers and crews that it will be as safe as any airplane ever to fly."

Even at the slower production pace, Boeing faces about \$3.6 billion in quarterly losses, said George Ferguson, an analyst with Bloomberg Intelligence. As it continues to build planes, the company is foregoing payments from customers who aren't able to take delivery because of the grounding.

## What Bloomberg Intelligence Says

“Boeing’s 737 rate-cut to 42 a month from 52 starting in mid-April tells us the company thinks it will take longer than expected for regulators to end the grounding of the 737 Max.”

--George Ferguson, Americas aerospace analyst

[Click here](#): to view the research.

Before the Lion Air and Ethiopian Airlines crashes, Boeing had planned to raise output of the 737, a workhorse for budget carriers, about 10 percent by midyear. The reversal squeezes suppliers who’d hired workers and invested to expand capacity. Some had already started moving toward a 57-jet monthly pace under a carefully orchestrated schedule.

Boeing will coordinate with customers and suppliers to blunt the financial impact of the slowdown, and for now doesn’t plan to lay off workers from the 737 program, Muilenburg said.

“It’s cash conservation,” said Stephen Perry, co-founder of Janes Capital Partners, an investment bank that focuses on aerospace and defense deals. A short-term slowdown could help Spirit AeroSystems and CFM work out supplier issues of their own, he said. Though “if it lasts longer, it’s problematic.”

Both CFM and Spirit AeroSystems were plagued by delays last year. The slowdown at Boeing will give them a chance to bolster the weak links in their own supply chains, Perry said. By continuing at full speed, the companies will be positioned to accelerate to an even higher rate, if needed, once Max deliveries resume, he said.

## Supplier Plans

Maintaining the status quo will “help ensure the stability of the global CFM supply chain,” Jamie Jewell, a CFM spokeswoman, said in a statement. Spirit AeroSystems, which makes the fuselages for the Max, said it plans to store the 737 fuselages and other components around its factories. “This staggered production approach allows us and our supply base to better prepare for and support 737 production,” said CEO Tom Gentile.

Boeing shares fell 2.4 percent to \$382.69 in after-hours trading. The stock has declined 7.2 percent since the March 10 Ethiopian crash, the second-worst performance among the 30-member Dow Jones Industrial Average. Spirit Aero fell 1.9 percent to \$87.97.



A Boeing Co. 737 Max airplane at the company's manufacturing facility in Renton. *Photographer: David Ryder/Bloomberg*

The planemaker doesn't rule out further cuts to production if the grounding proves to be lengthy. "We'll continue to assess our production plan," Boeing spokesman Chaz Bickers said.

Boeing's announcement comes a day after Ethiopian officials released a preliminary report on the latest Max accident, concluding that the jet experienced the same equipment failure as a Lion Air 737 that crashed off Indonesia in October. The two incidents killed a combined 346 people.

### Ethiopian Carrier Rethinks 737 Max Purchase, Citing 'Stigma'

If regulators take their time in certifying the Max's return to the skies, Boeing would be forced to stash hundreds of factory-fresh jets in airports across the Western U.S. until commercial flights resume. As of Friday, there were 21 of the jets stored at Paine Field north of Seattle, according to 737 production blogger Chris Edwards, and eight at Boeing Field to the city's south.

A swift return to normal looks increasingly unlikely for the Max and Boeing. Engineers are still finishing work on a software update for a stall-prevention system linked to a Lion Air crash in

October and the fatal dive of an Ethiopian Airlines plane near Addis Ababa last month. The disasters killed a combined 346 people.

Ethiopian Transport Minister Dagnawit Moges recommended Thursday that Boeing review its flight-control system after releasing a report that she says showed pilots had followed proper procedures to counter the flawed anti-stall system in the plane.

## Rigorous Review

Muilenburg on Friday said he asked Boeing directors to establish a committee to review “company-wide policies and processes for the design and development of the airplanes we build.” The group, chaired by Retired Admiral Edmund Giambastiani Jr., will study the safety of the 737 Max and other programs and recommend improvements.

Boeing said April 1 that it would be several weeks before the software patch for the Max is submitted to regulators. The U.S. Federal Aviation Administration vowed a rigorous review, while authorities in Europe, Canada and China plan to do their own analysis.

By establishing a common cause behind the two crashes, the Ethiopia report eliminates the worst-case scenario for Boeing -- a new technical issue that would've made it far more complex for Boeing engineers to resolve.

“There now appears to be a sound technical fix,” Douglas Harned, analyst with Bernstein, said in a note to clients Friday morning. “Timing is still uncertain, however, with multiple investigations underway. Still, we are now looking at scenarios we believe can keep 2020-21 free cash flow roughly the same, even though 2019 will likely see large swings in inventory.”

– *With assistance by Rick Clough*

## In this article

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# Boeing will cut 737 Max production as it works to get plane back in the air

By [Nathaniel Meyersohn](#), CNN Business

Updated 5:12 PM ET, Fri April 5, 2019

**New York (CNN Business)** Boeing is cutting its 737 Max production rate as the company works to return the plane to flight.

"We have decided to temporarily move from a production rate of 52 airplanes per month to 42 airplanes per month starting in mid-April," CEO Dennis Muilenburg said in a statement Friday.

Muilenburg was talking about the company's entire 737 production system, which includes more than just the Max line of jets. But most are Max planes.

The Max came under scrutiny following two crashes in the span of about five months involving Lion Air and Ethiopian Airlines. A total of 346 people died in the two accidents.

All of Boeing's 737 Max planes were grounded after the crash in Ethiopia last month.

In a new statement Friday, Muilenburg also said he has asked the company's board to establish a committee that will review the policies and processes Boeing uses to design and develop its airplanes.

That committee will look at how effective the company is able to assure the "highest level of safety" for the Max planes, as well as Boeing's other planes.

The latest decision comes the day after a preliminary report on the Ethiopian Airlines tragedy showed that the pilots of that plane performed all of the aircraft manufacturer's procedures, but were unable to control the jet before it crashed.

On Thursday, Boeing recognized the similarities between the two crashes, and acknowledged the role of its anti-stall system. The Ethiopian report does not specifically name that system, but its findings seem to indicate that the system pushed the plane into a dive fueled by erroneous angle of attack sensor readings.

Boeing is working to develop a software fix that will get the 371 grounded 737 Max jets back in the air.

Muilenburg also said Thursday that the company was "sorry for the lives lost" in the 737 Max crashes.

"The history of our industry shows most accidents are caused by a chain of events," he wrote in his apology. "This again is the case here, and we know we can break one of those chain links in these two accidents."

Boeing's ([BA](#)) stock dipped nearly 2% in after-hours trading Friday.

# Trump administration grounds Boeing 737 Max planes

By Kevin Liptak, CNN

Updated 5:25 PM ET, Wed March 13, 2019

**Washington (CNN)** — Facing mounting pressure, President Donald Trump said Wednesday his administration was ordering Boeing 737 Max jets grounded until more information is gathered about the crash of an Ethiopian aircraft.

It was a turnabout from the administration's earlier position, which deemed the planes safe to fly even as dozens of other nations banned them after they were involved in two fatal disasters.

Trump said the decision to ground the Max 8 and Max 9 was made in light of new information about last week's crash, which killed 157 people. The Federal Aviation Administration said new evidence had been collected at the sight of the crash on Wednesday, and that information -- along with new satellite data -- led to the grounding decision.

Until Wednesday afternoon, administration officials had insisted the planes were safe, bucking calls from lawmakers and airline labor unions to suspend flights until an investigation could be completed.

Even as he was announcing his administration's decision, Trump said the move was more precautionary than mandatory.

"I didn't want to take any chances. We didn't have to make this decision today," he said. "We could have delayed it. We maybe didn't have to make it at all. But I felt it was important both psychologically and in a lot of other ways."

Trump said his decision was fact-based, even as he admitted it was made partly with regard for the mental well-being of American travelers.

"The safety of the American people, of all people, is our paramount concern," Trump told reporters.



**Related Article:** Canada grounds Boeing Max planes

Planes in the air when the announcement was made were ordered to land at their destination and remain grounded. Though Trump said airlines and pilots had been notified of the decision, one of the airlines using the plane said it was still working to confirm the order.

"We are currently seeking confirmation and additional guidance from the FAA," a Southwest Airlines spokesman said.

Speaking with reporters on a conference call, acting FAA Administrator Daniel Elwell said the grounding of the 737 Max 8 and 9 came in light of new information, including from the flight data recorder and voice recorder.

"Since this accident occurred we were resolute that we would not take action until we had data," Elwell said. "That data

coalesced today."

He said the new data tied the Ethiopian airline disaster to an earlier crash of the same model plane in Indonesia.

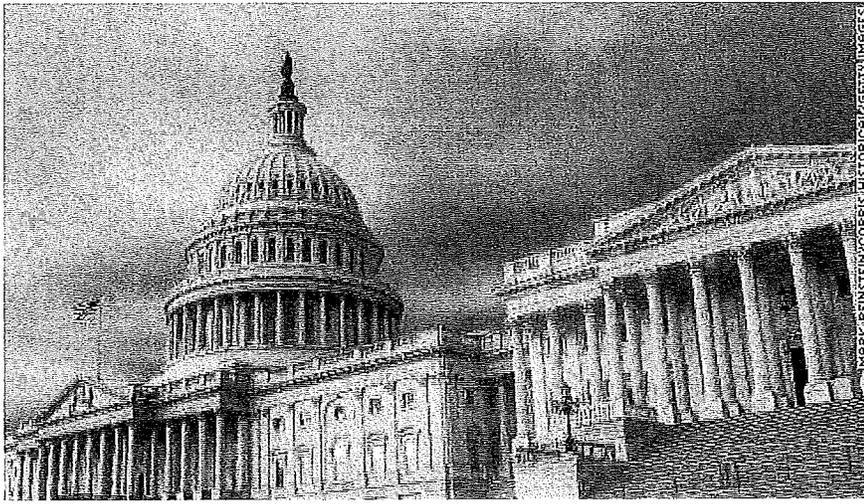
Elwell declined to guess how long the grounding would last but he said he hoped to keep it "as short as possible."

Trump described the airliner issue as "a terrible, terrible thing" and defended the jet's manufacturer, which he has maintained close ties to over the course of his presidency.

"Boeing is an incredible company," he said. "They are working very hard right now."

He said the company was looking to find answers to the plane issue, but "until they do, the planes are grounded."

## Close ties between Boeing and Trump administration



**Related Article:** Boeing a major lobbying player on Capitol Hill

The global grounding of Boeing's 737 Max 8 airliner had drawn new attention to the close ties between the manufacturer and the Trump administration.

Trump has touted Boeing sales across the globe -- including two weeks ago in Vietnam -- and has cultivated close relationships with the company's executives. His acting defense secretary served atop the company for more than three decades, including as the newly scrutinized planes were being developed. The company has spent millions over the past years lobbying decision-makers in Washington.

Now, as Boeing faces crumbling public confidence in one of its

marquee products, those ties are being viewed in a new light.

Trump spoke by phone Wednesday with CEO Dennis Muilenburg ahead of his grounding announcement, which came during a session on drug trafficking.

A day earlier, Muilenburg assured Trump in a separate phone call the 737 Max 8 was safe, despite the two recent crashes. Hours after that call, the FAA said it remained confident in the planes, even as governments across Europe and Asia grounded them.

That view changed by midday, as Canada's minister of transport said the country would no longer allow Boeing 737 Max 8 or 9 aircraft to take off or land in Canada. A day earlier, the European Union suspended operations of the model. That followed announcements from countries in Asia, Africa and the Middle East declaring use of the plane forbidden, for now.

Startling real-time flight tracking maps showed the plane flying only over North America -- and nowhere else -- as the White House and the FAA continued to deem the aircraft safe.

While the President was not explicitly pushing for the grounding over the last 24 hours, Canada's decision made it untenable for the US to hold out, according to an official familiar with the matter.

The President was eager to act given the public pressure, the official said, but it was the satellite data that finalized the decision on the grounding order.

Despite the initial reluctance to ground the planes, Trump insisted on Wednesday his administration had acted quickly and "fact-based" in response to the crash, which occurred on Sunday.

Democratic and GOP lawmakers had been agitating for a ban on the plane. Senators calling for a temporary grounding of the planes included Republicans Mitt Romney, the 2012 presidential nominee, and Ted Cruz, who chairs a subcommittee on aviation and space. Sen. Roger Wicker, another Republican, announced the Commerce Committee he chairs would hold a hearing on the matter.

Sen. Richard Blumenthal, a Connecticut Democrat who sits on the Senate Commerce, Science and Transportation Committee, said the partial government shutdown at the start of the year may have affected the FAA's ability to execute planned software changes on the Max 8 planes. But the FAA's Elwell denied the shutdown affected anything.

"We just got confirmation that the shutdown did not cause any delay in work on the software -- the software addition to the MAX," he told reporters Wednesday.

## Mixed messaging



**Related Article:** Wall Street Journal: Software fix to Boeing 737 Max 8 planes delayed in part by government shutdown

Helmed by an acting administrator for more than a year, the FAA finds itself the focus of congressional and public scrutiny for its role in inspecting and ensuring the safety of Boeing airplanes. Some US pilots who fly the Boeing 737 Max registered complaints about the way the jet has performed in flight, according to a federal database accessed by CNN.

One of the pilot complaints from the federal database include a report saying it is "unconscionable" that Boeing, the FAA and the pilot's airline (which was unnamed) would have pilots flying the aircraft without adequate training or sufficient documentation.

The same entry also charges that the flight manual for the 737 Max 8 "is inadequate and almost criminally insufficient."

The FAA didn't respond to a request for comment about the complaints.

Trump was expected to name Steve Dickson, a former Delta executive, to the permanent FAA administrator role as of last week, according to a senior administration official.

The President made the selection before the current Boeing controversy, and the timing of any announcement isn't clear. The official said no nomination is considered final until Trump makes his decision public.

The administrator role has been filled in an acting capacity by deputy administrator Elwell for more than a year. Dickson was Delta's senior vice president for flight operations and is a former military and commercial pilot, including of earlier versions of the 737 aircraft.

Trump initially wanted to name the pilot of his personal jet, John Dunkin, to the job but faced questions about Dunkin's qualifications. Trump has long cast himself as an authority on air travel and aviation, including in a tweet on Tuesday.

"Airplanes are becoming far too complex to fly. Pilots are no longer needed, but rather computer scientists from MIT," he wrote, adding: "I don't know about you, but I don't want Albert Einstein to be my pilot. I want great flying professionals that are allowed to easily and quickly take control of a plane!"

## Shanahan connection



**Related Article:** Trump airs doubts about airplane tech after Boeing crashes

Asking on Capitol Hill Tuesday whether the planes were safe to fly, acting Defense Secretary Patrick Shanahan -- who was an executive at Boeing for 31 years, including overseeing commercial aircraft -- demurred.

"Let me just say this: my condolences go out to all the all the families on Ethiopian Airlines," he said. "These situations, as you well know, are very serious and let's let the FAA and others take command of the situation and trust that part of the process."

Shanahan has faced accusations of being overly warm to his former employer in his Pentagon role, including in a new request filed Wednesday by a government watchdog group asking the Defense Department's inspector general to investigate whether Shanahan violated government ethics rules.

The complaint cites news reports claiming Shanahan has promoted Boeing's products over rival Lockheed Martin in his official tenure.

"It is extremely disturbing that acting Secretary Shanahan appears to be using his public office for Boeing's private gain," said Noah Bookbinder, executive director of Citizens for Responsibility and Ethics in Washington, which filed the complaint. "Ethics rules make clear that government employees cannot abuse their offices to promote a private company, much less work on official matters involving their former employer."

Shanahan wouldn't be alone in promoting Boeing's products. It was only two weeks ago that Trump himself oversaw the sale of 100 of the 737 Max planes while in Hanoi for a summit with Kim Jong Un.

Ahead of his nuclear talks, Trump participated in a trade signing ceremony with a number of airline executives inside the Vietnamese presidential palace. Among them was Kevin McAllister, Boeing's executive vice president CEO of Boeing Commercial Airplanes.

Among the agreements was a deal between Boeing and VietJet, a low-cost airline based in Hanoi, for 100 of the 737 Max planes -- 80 of the Max 10 variety, and 20 of the Max 8, the aircraft current under scrutiny. Boeing said the order was worth \$12.7 billion.

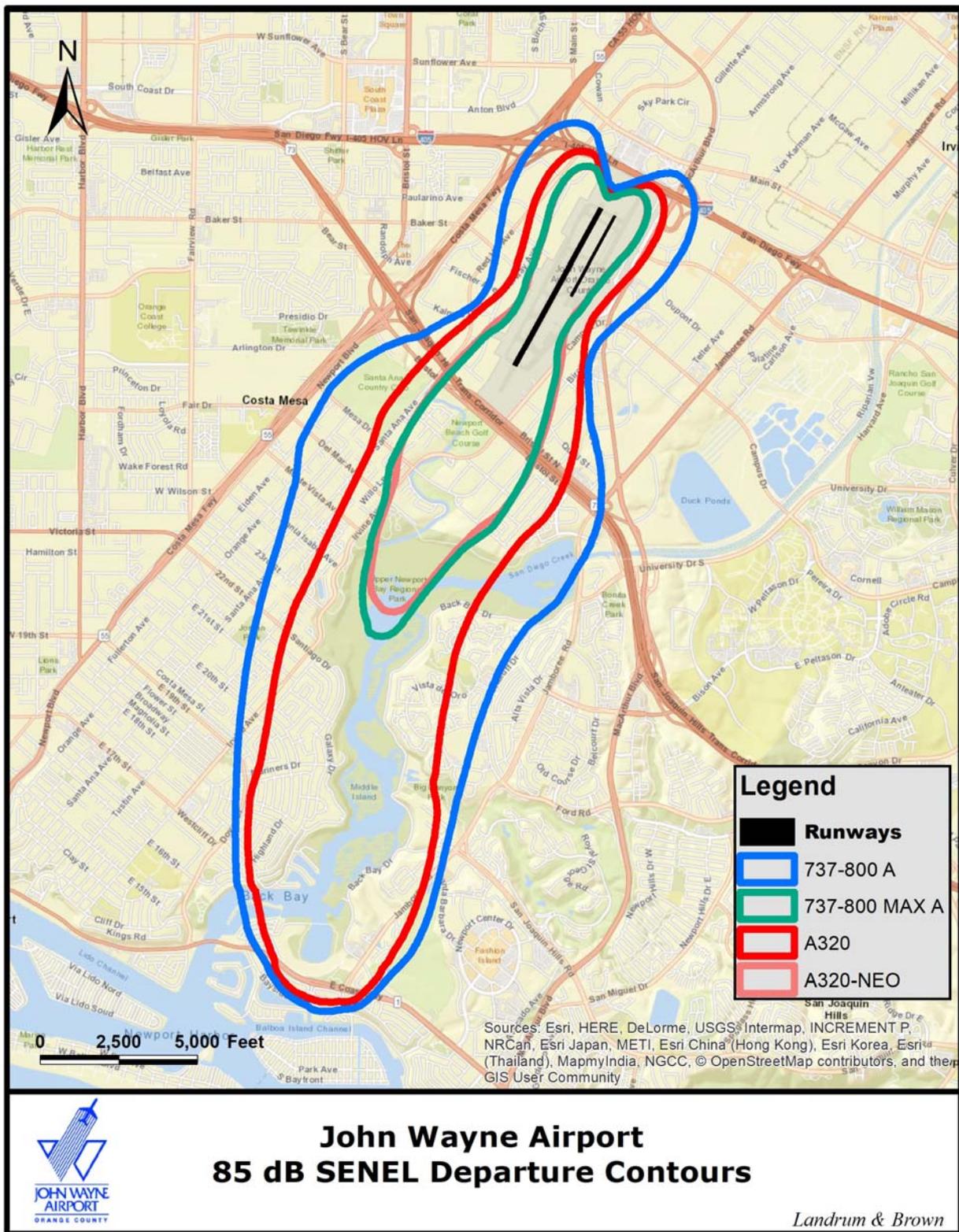
Now, Vietnam says the safety issues must be resolved before the planes can fly.

*CNN's Fredreka Schouten, Greg Wallace and Annie Grayer contributed to this report.*

*This story has been updated.*

## **Attachment 3**

**Figure 24 Departure SENEL Contour – 737-800's and A320's**



Source: Environmental Impact Report No. 617, John Wayne Airport Settlement Agreement Amendment; Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts November 2017; Landrum & Brown, 2018.