

U.S. Department of Transportation
Federal Aviation Administration
Southwest Region

FINDING OF NO SIGNIFICANT IMPACT

Reconstruction of Runway 13R-31L and Associated Improvements

Dallas Love Field Airport
Dallas, TX

May 2019

1. PURPOSE AND NEED

1.1 Background

Dallas Love Field (DAL) is located approximately four miles northwest of downtown Dallas and 11 miles southeast of Dallas Fort Worth International Airport (DFW). The airfield includes a system of taxiways and two parallel runways (Runway 13R-31L and Runway 13L-31R). The Airport is generally bound by Bachman Lake to the northwest, Lemmon Avenue to the northeast, Mockingbird Lane to the southeast, and Denton Drive to the southwest.

At 8,800 feet (ft) long, Runway 13R-31L is the longer of the parallel runways and serves as the main commercial air carrier runway at DAL. FAA pavement design criteria specifies a 20-year design life. After 28 years of use, the existing overlay has performed beyond its effective design life.

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Additionally, changes in airport fleet mix and pavement design methodology since 1990 suggest that the existing overlay is too thin for current aircraft traffic. A pavement evaluation completed in May 2014 reported that Runway 13R-31L had deteriorated from the condition reported in the previous pavement evaluation conducted in 2008. The pavement evaluation report recommended closely monitoring the runway for further deterioration.

1.2 Purpose and Need

Pursuant to the National Environmental Policy Act (NEPA) and FAA Orders 1050.1F and 5050.4B, an Environmental Assessment (EA) must include a description of the purpose of a proposed action and the reasons it is needed. The purpose of and the need for the Proposed Action are discussed below.

1.2.1 Purpose of the Proposed Project

The purpose of the Proposed Action is to meet FAA runway and taxiway design criteria while enhancing airfield safety and improving airfield efficiencies associated with Runway 13R-31L.

The Proposed Action is needed to address Runway 13R-31L and accompanying taxiway deficiencies to meet FAA design criteria and to reduce airfield inefficiencies.

1.2.2 Need for the Proposed Project

The need for the proposed project includes:

- Runway 13R-31L and Taxiway Pavement has performed beyond its effective 20-year design life as specified by FAA pavement design criteria and exhibits unacceptable pavement condition index (PCI) values. Multiple taxiway pavements have also deteriorated to unacceptable PCI levels.
- Per FAA design standards, Runway 13R-31L is classified as D-III runway which requires a standard 500-foot RSA. DAL previously had a modification of standards for a 400-foot RSA but recently implemented changes to comply with the full 500-foot RSA standard. The existing grading along Runway 13R-31L for the 50-foot outboard of the previous 400-foot RSA does not meet FAA design standards for a 500-foot RSA.
- Taxiway and runway geometry are not compliant with FAA taxiway geometry design criteria per AC 150/5300-13A, change 1, *Airport Design*.
- To improve efficiency of airport operations (see Section 1.4.2 of the attached EA for additional information).

2. PROPOSED ACTION AND FEDERAL ACTION

2.1 Proposed Action

The Proposed Action includes the following proposed actions:

- Reconstruction of Runway 13R-31L (i.e., full depth replacement of the existing 8,800 ft runway and improvements to the existing grade, drainage structures, airfield lighting, and communications pathways);
- Reconstruction of Taxiway C from Taxiway D to Runway 31L end (including hold pad);
- Reconstruction of Taxiway C from the Runway 13R end to the midpoint between the Taxiway K and C5 connectors;
- Reconstruction of the Runway 13R and 31L ends at their intersection with Taxiway C;
- Demolition of all non-90-degree taxiway connectors between Taxiway C and Runway 13R-31L;
- Demolition of Taxiway E end (decommissioned Runway 36 end pavement);
- Demolition of taxiway connectors from apron areas providing direct access to Runway 13R-31L;
- New 90-degree taxiway connectors between Taxiway C and Runway 13R-31L;
- New Partial Parallel Taxiway from the Runway 13R Threshold to future Denton Drive Development;

- New 90-degree taxiway connectors between Runway 13R-31L and New Partial Parallel Taxiway; and
- New Vehicle Service Road (VSR) to connect existing Perimeter Road segments.

2.2 Requested Federal Action

The requested FAA actions include the following:

- Provide unconditional approval of the portion of the Airport Layout Plan (ALP) depicting the Proposed Action as described in Chapter 2 of the attached EA.
- The determination of eligibility for Federal funding under 49 U.S.C. § 47101 et. seq. for the proposed airport development.

3. ALTERNATIVES

The following alternatives were identified to potentially address the purpose of and need for the Proposed Action. These alternatives are briefly described below:

3.1 Construction Phasing

3.1.1 Temporary Relocation of Runway 13R Threshold

A construction phase that temporarily relocates the threshold for Runway 13R would allow the runway to remain open for approximately 90-120 days at the onset of runway reconstruction. With the temporarily relocated threshold, the runway would be shortened to a length of 5,480 feet for 13R departures and 5,880 feet for 31L departures.

3.1.2 Close Runway 13R-31L without Temporary Relocation of Runway 13R Threshold

This construction phasing scenario would close Runway 13R-31L in its entirety soon after beginning construction. This alternative would allow contractors full access to the runway to expedite the overall construction schedule and would not temporarily relocate the Runway 13R threshold, thus eliminating the time and cost needed to relocate the threshold.

3.2 Taxiway Locations

3.2.1 Airport Layout Plan Taxiway Improvements

The 2016 approved ALP includes the proposed demolition and taxiway development for Runway 13R-31L as shown on Figure 2-3 of the attached EA. The approved ALP taxiway improvements would meet FAA taxiway design criteria, enhance airfield safety, and improve airfield efficiencies in limited areas.

3.2.2 2018 Taxiway Improvements

A taxiway layout analysis was completed in 2018 to determine opportunities for additional taxiway improvements (i.e., safety and efficiency enhancements) along Runway 13R-31L. The analysis included the taxiway improvements shown on Figure 2-4 of the attached EA which provide the same improvements as the ALP taxiway layout but with additional improvements.

3.3 Preferred Alternative

FAA Order 1050.1F requires that the preferred alternative be identified if one has been selected by the proponent. In this case the Proposed Action as defined in Section 2.1 above and the Sponsor's Preferred Alternative are one and the same. The Proposed Action would also include Close Runway 13R-31L without Temporary Relocation of Runway 13R Threshold and 2018 Taxiway Improvements. The Proposed Action would meet the operational needs of the Airport by allowing Runway 13R-31L to operate safely into the future, meeting FAA design criteria while also reducing airfield efficiencies.

3.4 No Action

The No Action Alternative would leave Runway 13R-31L and taxiways in their current state and would not implement the associated improvements. Runway and taxiway pavements would continue to deteriorate, creating unsafe conditions for aircraft operation. FAA runway safety criteria would not be met, and the airfield would not meet operational needs for airfield safety and efficiency.

4. ENVIRONMENTAL CONSEQUENCES

FAA evaluated the potential impacts associated with the proposed action by following the guidance in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *the National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* in accordance with NEPA and Council on Environmental Quality (CEQ) regulations. FAA Orders require the evaluation of specific environmental impact categories. Chapter 4 of the EA provides an analysis of anticipated environmental impacts resulting from the proposed action. In accordance with NEPA, the FAA compared the proposed action alternative to the no build alternative in evaluating potential impacts.

A number of resources will not be impacted by implementation of the proposed action and will not be further discussed in detail in this Finding of No Significant Impact (FONSI). These categories include: Biological Resources; Climate; Coastal Resources; Department of Transportation Act, Section 4(f); Farmlands; Floodplains; Hazardous Materials and Solid Waste; Historical, Architectural, Archeological, and Cultural Resources; Land Use; Natural Resources and Energy Supply; Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks; Visual Effects; and Water Resources.

However, because implementation of the proposed action has the potential to impact the following resource categories, FAA's review is more detailed:

4.1 Air Quality

The Airport is located in the City of Dallas. The Dallas-Fort Worth area has been designated by the Environmental Protection Agency as being in attainment for all criteria pollutants except ozone, for which it is designated as a moderate nonattainment area for the 8-hour ozone standard. The applicable *de minimis* thresholds for ozone general conformity purposes are 100 tons per year of volatile organic compounds (VOC) and 100 tons per year of oxides of nitrogen (NO_x).

4.1.1 Operational Emissions

Table 4.2.1 of the attached EA presents the aircraft, ground support equipment (GSE), and auxiliary power units (APU) emissions inventories for the 2021 No Action Alternative and 2021 Proposed Action Alternative during construction efforts. During construction there will be a slightly higher average taxi-in time (5.80 minutes), as compared to the No Action Alternative (5.18 minutes). Therefore, aircraft emissions are slightly higher for the Proposed Action during construction as compared to the No Action, with the exception of NO_x. Default GSE and APU assignments for commercial aircraft were applied in Aviation Environmental Design Tool 2d (AEDT), FAA's approved model, and therefore the emissions are the same for the No Action and Proposed Action Alternatives. The Proposed Action Alternative would not affect the number or type of aircraft using DAL, which is the main contributor to emissions.

4.1.2 Construction Emissions

Table 4.2.2 of the attached EA presents the construction emission inventories for the years of proposed construction (2020/2021/2022). NO_x and VOC would not exceed the *de minimis* threshold levels (for marginal and serious ozone nonattainment) in any construction year. As such, the General Conformity requirements of the CAA are not applicable, and it can be assumed that the emissions would not cause or contribute to a violation of or exceed the NAAQS for O₃, and therefore would not result in a significant impact.

4.2 Noise

The noise contours for 2021 No Action and 2021 Proposed Action were modeled using the fleet mixes developed as part of this EA, see *Appendix E, Fleet Mix Forecast*, for details. The noise contours were modeled using AEDT version 2d, which is the current FAA approved noise model. The day-night average sound levels (DNL) metric was used as required by FAA Order 1050.1F. The noise analysis results were tabulated to evaluate potential impacts to the following:

- Population impacted within the 65 DNL noise contour.
- Noise sensitive land uses within the 65 DNL noise contour.
- General land use within the 65 DNL noise contour.

Under the Proposed Action Alternative, Runway 13R-31L would be closed for nine months from mid-February to mid-November for reconstruction and would be open for the remaining three

months in 2021. Therefore, the Airport would operate with a single runway, Runway 13L-31R, for nine months and two runways for the remaining three months. This assumption was applied in development of runway use for the modeling of the Proposed Action Alternative noise contour during the year of construction. A noise impact analysis was completed for noise sensitive areas within the 65+ dB DNL to evaluate whether the Proposed Action would cause a noise increase of 1.5 dB DNL or more compared with the No Action.

The Proposed Action would cause noise contours associated with Runway 13R-31L to decrease during the project while the noise contours associated with 13L-31R are expected to grow. Refer to Figures 4-1 and 4-2 for the No Action and Proposed Action noise contours, respectively.

The total acres of residential land use (mobile home, single-family and multi-family residential) within the Proposed Action Alternative during construction contour decreases by 53.9 acres as compared to the No Action Alternative contour. However, during construction the total acres of multi-family residential land use increases in the Proposed Action Alternative (136.6 acres) as compared to the No Action Alternative (119.1 acres), especially within the 70 DNL contour, while the total acres of single-family residential land use decreases in the Proposed Action Alternative (89.0 acres) as compared to the No Action Alternative (159.3 acres). Therefore, during construction while the total residential area/population within the Proposed Action Alternative contour may decrease, the residential area/population within the 70 DNL contour will increase under the Proposed Action Alternative. The temporary runway closure results in a shift of the contour, benefiting some areas and increasing noise exposure for other areas.

There are 19 noise sensitive sites within the 65+ DNL No Action Alternative noise contour and 16 noise sensitive sites within the 65+ DNL Proposed Action Alternative during construction noise contour. Table 4.10.5 of the attached EA summarizes the change in noise exposure at these noise sensitive sites. As is expected with the shift in the noise contour, some noise sensitive sites will experience a noise increase of 1.5 DNL while others will experience a decrease in noise under the Proposed Action. However, the noise impacts would be temporary and aircraft operations would return to previous runway usage once construction is complete.

4.2.1 Mitigation

The City of Dallas Department of Aviation (DOA) will mitigate temporary noise impacts through community outreach and meetings with the leaders of the surrounding communities and will provide updates on the project and construction impacts via the DAL website, the Good Neighbor Program, and other community meetings. Mailings/flyers will be sent to noise affected residents notifying them of the construction timeline and temporary closure of Runway 13R-31L.

4.3 Cumulative Impacts

Consideration of potential cumulative impacts applies to those impacts resulting from implementation of the Proposed Action. The consideration of cumulative impacts addresses the potential for individually minor but collectively significant impacts to occur over time.

CEQ Regulations, Section 1508.7, define cumulative impacts as the incremental impacts of the action when added to the past, present, and reasonably foreseeable future actions regardless of the agency (federal or non-federal) undertaking such actions. Because the Proposed Action would result in minor construction impacts and have no or minimal impact on other resources and would only change aircraft operations temporarily, the Proposed Action in combination with other foreseeable projects in the area of potential effect would not reach or exceed thresholds of significance. See Section 4.14 of the attached EA for a more detailed analysis.

5. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

5.1 Scoping

Scoping letters were sent to regulatory agencies and the DOA sent scoping information to City of Dallas officials on November 15, 2018. The scoping letters included a Scoping Information Package that included discussion of the project background, proposed action, preliminary purpose and need, preliminary alternatives, environmental analysis, and preliminary schedule. Agencies and officials were asked to review the materials and provide any scoping comments by December 14, 2018 to ensure early consideration in development of the EA.

5.2 Public Involvement

The DOA related project information at two Good Neighbor Program meetings, January 22, 2019 and April 23, 2019. The meetings included a presentation on the proposed action, purpose and need, and potential effects outside the airport including temporary noise contours. The proposed project was also presented at Love Field Environmental Advisory Committee meetings on January 17, 2019 and April 18, 2019. These meetings also included a presentation on the temporary noise contours.

The Draft EA was made available for review and comment by the general public and agencies for 30 days on March 22, 2019. A Notice of Availability (NOA) for the Draft EA was published in *The Dallas Morning News* and *Al Día* on March 22, 2019, and March 27, 2019, respectively. No public comments were received on the draft EA by the DOA or by FAA.

The FAA and DOA have determined that neither a public workshop nor public hearing are required for this project because there are no environmental impacts associated with the proposed action that would exceed applicable thresholds of significance. In addition, no special purpose laws are applicable to the project, which require public participation.

5.3 Agency Coordination

The FAA conducted consultation with Texas Historical Commission (THC) on January 3, 2019. THC responded by email on February 1, 2019 with a finding of no historic properties present or affected by the proposed project. See *Appendix C, THC Consultation* of the attached EA, for the FAA consultation letter and THC's response email.

6. CONDITIONS AND MITIGATION

As prescribed by 40 CFR §1505.3, the FAA shall take steps as appropriate to the action, such as through special conditions in grant agreements, property conveyance deeds, releases, airport layout plan approvals, and contract plans and specifications and shall monitor these as necessary to assure that representations made in the EA and FONSI will be carried out. Specific conditions of approval associated with this project are listed below:

- The DOA will mitigate temporary noise impacts through community outreach and meetings with the leaders of the surrounding communities and will provide updates on the project and construction impacts via the DAL website, the Good Neighbor Program, and other community meetings. Mailings/flyers will be sent to noise affected residents notifying them of the construction timeline and temporary closure of Runway 13R-31L.
- Construction activities would be subject to requirements of the Texas Pollutant Discharge Elimination System General Permit to Discharge Wastes (TXR150000) for construction sites and the Airport's established Stormwater Pollution Prevention Plan (SW3P).
- Mitigation measures shall be incorporated into the project to include use of best management practices (BMPs) during construction to minimize erosion and sedimentation; controlling runoff; and controlling waste and spoils disposal to prevent ground contamination.
- Mitigation measures shall be incorporated into the project to include use of BMPs during construction to minimize fugitive dust and to minimize mobile and stationary emissions sources.

7. FEDERAL FINDINGS

Throughout the development of the airport, including the proposed improvements described above, the FAA has made every effort to adhere to the policies and purposes of NEPA, as stated in CEQ Regulations for Implementing NEPA, 40 CFR §1500-1508. The FAA has concentrated on the truly significant issues related to the action in question. In its determination whether to prepare an EIS or process the EA as a FONSI, the FAA weighed its decision based on an independent examination of the EA, comments from Federal and state agencies, and all other evidence available to the FAA.

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101 of NEPA and other applicable environmental requirements and, with the required mitigation referenced above, will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, the FAA has determined that preparation of an EIS is not necessary for this Proposed Action and is therefore issuing this FONSI.

RECOMMENDED
FOR APPROVAL: John MacFarlane
John MacFarlane
Environmental Protection Specialist

DATE: 5/16/2019

APPROVED: Ben Guttery
Ben Guttery
Manager, Texas Airports
District Office

DATE: 5/16/19