

United States Department of Transportation
Federal Aviation Administration
Southwest Region
Houston, Texas

RECORD OF DECISION (AMENDMENT)

FOR
RUNWAY 8L-26R AND ASSOCIATED NEAR
TERM MASTER PLAN PROJECTS
AND ASSOCIATED FEDERAL ACTIONS
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON, TEXAS

JANUARY 2002
(ADDENDUM TO SEPTEMBER 8, 2000 RECORD OF DECISION)

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I. Background

On September 8, 2000, the Federal Aviation Administration (FAA) issued a Record of Decision (September ROD) for actions associated with the construction of a new air carrier length runway (8L-26R) and related near-term master plan improvements at George Bush Intercontinental Airport (IAH) in Houston, Texas. The September ROD approved a length of 8,500 feet for Runway 8L-26R. A detailed description and analysis of the Federal actions and proposed actions were provided in the Final Environmental Impact Statement, George Bush Intercontinental Airport/Houston, Texas, July 2000 (FEIS). By letter dated May 5, 2001, the city of Houston requested the FAA to approve an increase of 250 feet at each end of the unfinished Runway 8L-26R.

Purpose and Need

The city of Houston submitted to the FAA a request dated May 5, 2001, to increase the length of the unfinished Runway 8L-26R from 8,500 to 9,000 feet by adding an additional 250 feet on each end of the runway. After the September 2000 ROD had been issued, the city of Houston reviewed their plans and determined that a slightly longer runway, one 9,000-feet in length, could be accommodated without any roadway relocations and that such a runway length would better serve the needs of the airport during wet conditions.

During wet conditions, Runway 8L-26R would provide either marginal or unacceptable braking distance for landing the largest aircraft serving the airport including B-747, MD-11, An-124, and DC-10 aircraft. To better accommodate these large aircraft on Runway 8L-26R in wet conditions, an additional 500 feet of runway length would be needed. The additional length simply provides an added margin of safety when landing aircraft in poor weather. Thus, the proposed extension does not constitute a substantial change to the purpose and need set forth in the FEIS or September ROD.

The FAA reviewed the FEIS forecast, noise analysis, and runway use assumptions and has concluded the following regarding aircraft operations. The forecast for the airport (Appendix D, Table D-5, Annual Average Day Aircraft Operations by Aircraft Type and Stage Length - 2017 Unconstrained Forecast) indicate the arrivals per day for the aircraft noted above are as follows:

Aircraft Ops Per Day

B-747 5.1
MD-11 2.3
An-124 0.1
DC-10 0

Total 7.5

Total operations per day are forecast to be 1040.8 in 2017. The 7.5 operations per day by these marginal aircraft represent 0.0072059% of total operations and are the heavy aircraft the additional runway length will aid. Heavy aircraft ("heavies") are defined as those weighing over 255,000 pounds (FEIS, Appendix C, Page A-4, Runway Capacity and Aircraft Delay Analysis). Operations by these aircraft will typically be spread over the three parallel, east-west runways (8L-26R, 8R-26L, and 9-27). In east flow, the new runway will accept 45% of arrivals by heavies (FEIS, Appendix C, Attachment D-1, Runway Use Assumptions, Table 5.4). This represents approximately 3.375 operations per day, which are 0.0032426% of the total airport operations per day. In west flow, the new runway will accept 25% of arrivals by heavies. This represents approximately 1.875 operations per day, which are 0.0018014% of the total airport operations per day. This analysis indicates the additional runway length will allow approximately two to three planes per day to land on the runway that may not have been able to utilize that runway without the additional length during wet conditions.

In accordance with Order 5050.4A, the FAA prepared a Written Re-evaluation to determine whether the contents of the previously prepared environmental documents remain valid. The FAA concluded that the data and analysis contained in the previous FEIS remained substantially valid for purposes of assessing the proposed action and that a Written Re-evaluation was appropriate. The FAA further determined that there would be no significant impacts as a result of adding an additional 250

feet to each end of Runway 8L-26R.

II. Analysis of Request

According to FAA Order 5050.4A, Airport Environmental Handbook, Chapter 10, Paragraph 103, a Written Re-evaluation is appropriate for this type of action. "The preparation of a new EIS, Finding of No Significant Impact (FONSI) or supplement is not necessary when it can be documented that: the proposed action conforms to plans or projects for which a prior EIS or FONSI has been filed; the data and analyses contained in the previous EIS or FONSI are still substantially valid; and that all pertinent conditions and requirements of the prior approval have been or will be met in the current condition." The proposed additional 250 feet on each end of Runway 8L-26R substantially conforms to the preferred alternative (Alternative B/C-4) described in the FEIS and the September ROD. It does not alter the type of aircraft operations previously analyzed for Runway 8L-26R in the FEIS. As discussed below, the Written Re-evaluation confirmed that the previous EIS is still substantially valid. Finally, all conditions in the September ROD are still effective.

A Written Re-evaluation of the FEIS was prepared to determine whether the purpose and need, alternatives, impacts, existing environment, and mitigation measures set forth in the FEIS continue to remain applicable, accurate and valid. The FAA has determined that there are no significant changes in purpose and need, alternatives, impacts, existing environment, or mitigation measures since issuance of the FEIS or September ROD. As discussed above, there is no substantial change to the purpose and need described in the FEIS as a result of the proposed extension.

In addition to purpose and need, the Written Re-evaluation evaluated the following factors:

- Alternatives

The FEIS contains a comparison of different runway lengths, including the no action alternative and the preferred alternative. In addition, Leigh Fisher Associates compared day/night level (DNL) from the no action alternative (Alternative A), the original 8,500-foot Runway 8L-26R (Alternative B/C.4) and the proposed modification to Runway 8L-26R for both 2002 and 2017. The proposed additional 250 feet on either end of Runway 8L-26R does not reflect a substantial change to the preferred alternative (Alternative B/C-4) as described and analyzed in the FEIS. The proposed additional 250 feet on each end of Runway 8L-26R substantially conforms to the preferred alternative (Alternative B/C-4) described in the FEIS and the September ROD. It does not alter the type of aircraft operations previously analyzed for Runway 8L-26R in the FEIS and there are no significant impacts as a result of the 500 feet to be added to Runway 8L-26R. The Written Re-evaluation describes what minimal changes will occur as a result of the additional runway length.

- Existing Environment

No significant changes or impacts to the existing environment have occurred since the circulation of the FEIS and the issuance of the September ROD.

- Potential Impacts

The FAA has reviewed the impact categories in the FEIS for potential changes due to the addition of 500 feet of runway length. No impact categories other than noise and air quality were affected by the proposed addition.

- Noise

The proposed addition would have two relatively minor effects: (1) in areas off either end of the runway, the noise of arriving aircraft would be slightly louder because the landing threshold would be closer, and the aircraft would therefore be lower; and (2) in these areas, the noise of departing aircraft would be slightly quieter because the aircraft starting at the opposite end of the runway would be slightly higher. Because Runway 8L-26R would be used primarily for arrivals, the overall effect is to slightly increase noise levels. This supplemental noise analysis dated March 26, 2001, was prepared by Leigh Fisher Associates and is contained in the Written Re-evaluation. This analysis contains a depiction of the noise contours resulting from the proposed additional runway length.

The maximum change in significant noise levels, DNL 65 and above, would be approximately 0.2 decibels (dB) measured in DNL. The change in noise levels would be well below the threshold of significance of 1.5 dB. Even when considered cumulatively with the noise impacts identified in the FEIS, no additional noise sensitive areas fall within the 65 DNL contour or suffer an increase of 1.5 dB. The area where this increase was identified in the noise contours has already been acquired by the city of Houston and is in the process of being cleared.

- Air Quality

The air quality analysis examined the increase in construction emissions and associated activities that would occur as a result of lengthening Runway 8L-26R an additional 250 feet on each end of the runway. This supplemental analysis dated March 26, 2001, was prepared by Leigh Fisher Associates and is contained in the Written Re-evaluation. There is no increase in clearing or grubbing due to this proposed addition. The grading plan will require minor modifications with a resulting 3.3% increase in the volume of earthwork and a corresponding increase in emissions associated with the construction activities. Because both site preparation and paving include new taxiways, in addition to the new runway, the proposed increases in runway area represents only 1.7% of the total project site preparation and 1.7% of the total project paving. It is expected that the associated construction equipment activities would increase by the same amounts. It was estimated that the proposed addition would increase miscellaneous activities (off-site transport, employee trips and generators) by 2.0%. The total estimated increases are 1.342 tons per year (TPY) of nitrous oxides (NOx) and 0.192 TPY of volatile organic compounds (VOCs). Since these increases from the proposed project are below the de minimis thresholds of 25 TPY, a general conformity determination is not required. As discussed above, the additional emissions represent a very small percentage of overall emissions. The FAA's previous General Conformity Determination issued June 30, 2000, is therefore still considered valid.

The following table indicates the total emissions of the original project and the proposed addition. The emissions for the proposed addition were added to the 2001 construction year, as it was the most sensitive to cumulative impacts because that year represented the year with the greatest project emissions. Although the increase in emissions will take place in 2002, for purposes of the analyses, we took the more conservative approach in adding the emissions to 2001.

	NOx (TPY)	VOC (TPY)
Original Project	924.500	721.200
Proposed Addition	1.342	0.192
Total	925.842	721.392

These increased emissions would be well below the de minimis threshold levels of 25 TPY.

- Airspace

Aeronautical Study Number 01-ASW-5040-NRA was conducted to determine the airspace impacts of adding an additional 250 feet to each end of Runway 8L-26R. The FAA determined that the subject proposal was not objectionable from an airspace utilization standpoint.

- Wetlands/Floodplains/Biotic Communities

No new impacts will occur with the addition of this additional runway length.

- Cumulative Impacts

Minimal impacts in noise and air quality will result, as discussed previously, but the cumulative impacts are not significant. All practical means to avoid or minimize impacts have been adopted.

III. Conclusions

No additional noise sensitive areas fall within the 65 DNL contour or suffer an increase of 1.5 dB as a result of the proposed addition. The maximum increase in emissions would be 1.3 TPY of NOx and 0.2 TPY of VOCs. These increased emissions would be well below the de minimis threshold levels of 25 TPY. The additional emissions represent a very small percentage of the total cumulative emissions. There were no negative airspace impacts from the proposal. No new wetlands impacts will occur with the addition of this additional runway length. Thus, there are no significant impacts as a result of adding an additional 250 feet to each end of Runway 8L-26R, lengthening the runway to 9,000 feet.

Public Coordination

No public coordination is required by Federal regulation or FAA Order 5050.4A for Written Re-evaluations. However, the FAA placed a notice in the Houston Chronicle advising the public of the availability of the Written Re-evaluation at the following nine locations: seven local public libraries, the Houston Airport System, and the Federal Aviation Administration. This notice ran on Sunday, December 9, 2001. Three faxes were received from one family in the Woodcreek neighborhood northwest of the airport. With respect to the inquiry concerning the location of pages 3 and 4 of the noise and air quality analysis, the FAA responded that Figures 1 and 2 are actually pages 3 and 4 of the analysis. They also suggested that a 9,400-foot runway would be safer for all weather conditions. A runway length of 9,400 feet was considered in the FEIS under Alternatives C.1, C.2, C.3, and B/C.3. See FEIS, page 3-3 through page 3-4. However, only Alternative B/C.3 was retained for detailed consideration in the FEIS. Thus, no new issues or concerns were raised concerning the proposed additional length.

IV. Mitigation Measures

The FEIS and the September ROD discussed mitigation of impacts associated with the originally approved projects. There is no change in that mitigation as a result of the proposed addition.

Approval

I have carefully considered the FAA's goals and objectives for the air transportation system, including safety considerations, in relation to the operation objectives of the proposed action and potential impacts to the environment. Accordingly, I have decided to issue an Addendum to the September ROD to reflect approval of an additional 250 feet at each end of approved Runway 8L-26R. Other than adding 500 feet to the previously approved runway length of 8,500 feet through this Addendum, making the total approved runway length 9,000 feet, the September ROD remains unchanged. Based upon my review, I find that the proposed action is reasonably supported and should be approved.

I certify, as prescribed by 49 U.S.C. 44502, that the proposed project is reasonably necessary for use in air commerce or in the interests of national defense. Therefore, I approve an additional 250 feet to be added to each end of Runway 8L-26R. The approved length for this runway is now 9,000 feet.

This action is to be taken under the authority of 49 U.S.C. 40104, 44502, 40113, 44701, and 46110; and 49 U.S.C. 47101, 47105, 47106, 47120, and 47122.

This decision, which is limited to the approval of an additional 500 feet to the previously approved runway length of 8,500 feet, as well as subsequent approvals of the proposed action for Federal assistance, constitutes an order of the Administrator reviewable in the Circuit Court of Appeals in accordance with the provisions of 49 U.S.C. 46110.

Right of Appeal

This order constitutes final agency action under 49 U.S.C. 46110. Any party to this proceeding having a substantial interest may appeal this amendment to the courts of appeals of the United States or the United States Court of Appeals for the District of Columbia upon petition, filed within 60 days after entry of this order.

/s/ 2/5/02 by Ruth Leverenz, Southwest Regional Administrator
