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FINAL ENVIRONMENTAL ASSESSMENT

TAXIWAY A RELOCATION

BIRMINGHAM-SHUTTLESWORTH INTERNATIONAL AIRPORT

EAXX-021-12-ARP-1740561283

This environmental assessment becomes a federal document when evaluated, signed, and dated by the Responsible FAA Official.

I attest that FAA has considered the factors mandated by NEPA; that the EA represents FAA's good-faith effort to prioritize documentation of the most important considerations required by the statute within the congressionally mandated page limits; that this prioritization reflects FAA's expert judgement; and that any considerations addressed briefly or left unaddressed were, in FAA's judgment, comparatively not of substantive nature that meaningfully informed the consideration of environmental effects and the resulting decision on how to proceed.

I attest that this EA represents FAA's good-faith effort to fulfill NEPA's requirements within the Congressional timeline; that such effort is substantially complete; that, in FAA's expert opinion, it has thoroughly considered the factors mandated by NEPA; and that, in FAA's judgment, the analysis contained therein is adequate to inform and reasonably explain FAA's final decision regarding the proposed federal action.

ERIC TOMASOVIC

Digitally signed by ERIC TOMASOVIC
Date: 2026.08.05 07:28:17 -05'00'

Responsible FAA Official **Date**

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Chapter 1

Background, Purpose and Need

1.1 Introduction

Birmingham-Shuttlesworth International Airport (BHM or the Airport) is situated four miles northeast of Downtown Birmingham in Jefferson County, Alabama, and is the state's largest and busiest airport. Serving as a gateway to the state's central region, BHM manages scheduled and unscheduled flights and provides cargo services by five major airlines and three all-cargo operators- American, Delta, Southwest, United, Spirit, as well as FedEx, UPS, and Kuehne + Nagel, respectively. The passenger terminal is located southeast adjacent to Taxiway A and the primary runway (Runway 6-24). The airside of the Airport is shared with the Alabama Air National Guard (ANG), which includes approximately 100 facilities covering a total of 147 acres. BHM is home to a Kaiser Aircraft Industry Facility, encompassing maintenance, repair and overhaul (MRO) facilities, manufacturing units, and office space.

BHM is located north of the interchange to Interstate 20 and 65 in central Alabama, northeast of Tuscaloosa by 63 miles. The Airport's location within the region is illustrated in **Figure A1,** located in Appendix A. As shown in **Figure A1,** Huntsville and Montgomery are located north and south of the Airport with Talladega National Forest located to the east. The Airport is positioned approximately five miles northeast of Birmingham's central business district.

The Airport recently undertook the preparation of an Airport Master Plan (AMP) and Airport Layout Plan (ALP), which was approved in July 2018. The approved plans provided the guidance needed to conduct the developments to satisfy the increasing aviation demand at BHM. The AMP evaluated various aspects of the Airport, including both landside and airside facilities, assessed the need for a future runway, boosted adaptability, and identified ways to diversify revenue and economic influence.

This Environmental Assessment (EA) was prepared in alignment with the National Environmental Policy Act (NEPA). The preparation of this EA adheres to the FAA Order 1050.1G, Environmental Impacts: Policies and Procedures (herein referred to as FAA Order 1050.1G or 1050.1G), the FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, and the Department of Transportation (DOT) Order 5610.1D, Procedures for Considering Environmental Impacts. This EA examines the Proposed Action and assesses the potential environmental impacts that may arise from the project or operational disturbances upon completion.

1.1.1 Ownership and Role

BHM is owned and operated by the Birmingham Airport Authority (BAA), which is governed by a seven-member Board of Directors. The Airport is classified as a primary commercial service airport by the FAA's National Plan of Integrated Airport Systems (NPIAS). The Airport provides a safe operating environment for various classes of aircraft including small general aviation aircraft, corporate business jets, and commercial service passenger and cargo aircraft.

1.1.2 Airport Facilities

BHM operates with two runways, along with a complex taxiway system that facilitates the safe and efficient movement of aircraft to the passenger terminal and other airport facilities. Refer to Appendix A for **Figure A2**, which shows the location of current airport facilities. BHM is sited at 650 feet above mean sea level (AMSL).

The primary runway at the Airport is designated as Runway 6-24 and is 12,007 feet in length and 150 feet in width, with a grooved, asphalt surface. The crosswind runway at the Airport is designated as Runway 18-36 and is 7,099 feet in length and 150 feet in width, with a grooved, asphalt surface. These runways are connected to a taxiway system that support aircraft movement to and from the landside aviation use areas (i.e., passenger terminal, hangars, etc.). Taxiway A is 7,850 feet in length, 150 feet in width, and has eight connector taxiways that provide access to the runway and passenger terminal facility. Taxiway H is 6,026 feet in length and 150 feet in width. Taxiway H has four connector taxiways that provide access to Runway 6-24, corporate hangar tenant aprons, a Fixed Based Operator (FBO), and the Air National Guard's flightline.

1.1.3 Overview of Airport Activity

With more than 1.3 million annual passenger enplanements, BHM serves as Alabama's most active commercial service airport. As indicated below, approximately 42 percent of aircraft operations are categorized as General Aviation (GA) operations. Alongside a significant GA presence at BHM, there is also a notable military presence from the ANG base, which houses the Air Force 117th Air Refueling Wing and the ANG 109th Air Evacuation Hospital. Historical aviation activity, distributions of activity, and a cargo tonnage summary are presented in the following sections.

1.1.4 Historical Activity

Indicated in **Table 1-1**, the number of based aircraft has declined from 242 in 2014 to 233 in 2023. Despite this decrease in based aircraft, annual aircraft operations have seen variability, reaching a low of 74,686 in 2020 and peaking at 104,847 in 2019. Enplaned passenger counts have continued to increase since 2020, with 622,789 enplanements compared to 1,499,027 enplanements in 2023.

TABLE 1-1
HISTORICAL AVIATION ACTIVITY

Calendar Year	Based Aircraft[1]	Annual Operations[2]	Annual Enplaned Passengers[3]
2014	242	94,534	1,299,214
2015	228	95,030	1,325,897
2016	220	94,401	1,304,467
2017	227	96,053	1,333,967
2018	235	101,202	1,457,562
2019	225	104,847	1,516,075
2020	230	74,686	622,789
2021	230	92,742	1,081,328
2022	230	95,773	1,331,035
2023	*233*	99,544	1,499,027

[1] Terminal Area Forecast (TAF), FAA
[2] The Operations Network (OPSNET), FAA
[3] Air Carrier Activity Information System (ACAIS), FAA

As illustrated in **Table 1-2**, operations across all user categories have experienced fluctuations over the past decade. Air Carrier operations saw a rise from 48,230 in 2014 to 70,334 in 2023, representing an increase of nearly 45%. Similarly, General Aviation and Military operations grew from 78,308 and 11,582 in 2014 to 79,006 and 15,325 in 2023, respectively. This data reveals a trend of rising activity in Air Carrier, General Aviation, and Military sectors, alongside a decline in Commuter activity over the last ten years.

TABLE 1-2
DISTRIBUTION OF AERONAUTICAL ACTIVITY

Calendar Year	Air Carrier	Commuter	General Aviation	Military
2014	48,230	49,332	78,308	11,582
2015	50,584	48,230	78,672	11,583
2016	52,058	47,868	75,857	12,427
2017	59,158	41,666	75,282	13,660
2018	65,566	40,760	76,241	17,825
2019	67,988	40,732	78,546	19,217
2020	42,324	26,858	62,670	13,079
2021	55,834	32,998	79,093	14,643
2022	55,512	36,548	82,234	15,767
2023	*70,334*	32,478	*79,006*	*15,325*

Source: *The Operations Network (OPSNET), FAA*

Detailed in **Table 1-3,** the landed weight of cargo has fluctuated over the past decade but increased significantly in 2023. This is due to the introduction of Kuehne + Nagel flights to and from Germany on widebody aircraft primarily providing auto parts to Alabama factories. To accommodate this increase in air cargo, BHM constructed a new 53,500-square-foot facility that has increased its processing capabilities for the various cargo operators it serves. This facility's location provides easy access to major U.S. markets.

TABLE 1-3
CARGO TONNAGE SUMMARY

Calendar Year	Landed Weight (Lbs.)	% Change
2014	176,272,280	-0.39%
2015	177,166,860	+0.51%
2016	178,257,470	+0.62%
2017	163,825,910	-8.10%
2018	177,936,690	+8.61%
2019	171,410,935	-3.67%
2020	173,209,320	+1.05%
2021	172,919,560	-0.17%
2022	166,855,040	-3.51%
2023	207,861,305	+24.58%

***Source*:** Air Carrier Activity Information System (ACAIS), FAA

1.2 Project Purpose and Need

The purpose of the proposed project is to enhance the airfield's ability to accommodate the increasing demand for both passenger and cargo aircraft operations in a safe and efficient manner by addressing the non-standard runway to taxiway separation located on the southwest portion of Runway 6/24 and Taxiway A.

As a result of the existing non-standard 350-foot separation distance between Runway 6-24 and Taxiway A on the southwest portion of the airfield, the majority of the Airport's mainline traffic cannot operate in an optimal environment as the existing separation distance does not meet current FAA design standards. By relocating Taxiway A, most commercial aircraft will be able to utilize Taxiway A efficiently with minimal operational restrictions. The relocation of Taxiway A is necessary to enhance airfield and aircraft safety, ensure the protection of personnel, and support the demand for the existing and future fleet mix.

In addition to the need to relocate Taxiway A, the pavement condition of the taxiway is rapidly deteriorating. The current Pavement Condition Index (PCI) is listed below in **Table 1-4**.

TABLE 1-4
PAVEMENT CONDITION INDEX (PCI)

Branch Name	Section ID	Area (Sq Ft)	PCI	PCI Category
Taxiway A	TWY A-04	188,853	68/100	FAIR
Taxiway A	TWY A-05	190,013	54/100	POOR
Taxiway A	TWY A-06	185,195	51/100	POOR
Taxiway A	TWY A-07	34,946	94/100	GOOD
Taxiway A	TWY A-08	30,431	69/100	FAIR

***Source*:** Taxiway A Pavement Evaluation, Garver 2024

1.3 Proposed Action

The Airport is proposing to relocate existing Taxiway A to enhance airfield safety, accommodate the future aircraft fleet mix, and to meet airfield design standards as outlined in FAA AC 150/5300-13B, *Airport Design*. The proposed actions, listed as follows, will increase the separation distance between Runway 6-24 and Taxiway A in order to meet current FAA design standards and enhance safety at BHM.

- Realignment, reconstruction, and widening of parallel Taxiway A
- Realignment, reconstruction, and widening of associated connector taxiways
- Strengthening a portion of Taxiway A, including its connectors
- Relocation or encapsulation of approximately 3,200 linear feet of Village Creek
- Relocation of portions of the vehicle service roads
- Realignment of existing utilities
- Staging areas and haul routes during construction

1.4 Federal Action Requested

Federal action is being sought for the relocation of Taxiway A at BHM. This Environmental Assessment is being prepared in alignment with FAA Order 1050.1G, *Environmental Impacts: Policies and Procedures*, FAA Order 5050.4B, *FAA National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions,* and the accompanying *FAA 1050.1 Desk Reference*. The following actions are proposed and are subject to this Environmental Assessment*:*

- Determination under 49 U.S.C. §40103(b) and §47105 (b)(3) whether the proposed project meets applicable design and engineering requirements set forth in FAA Advisory Circulars
- Unconditional approval of the ALP pursuant to 49 U.S.C. §40103(b) and §47107(a)(16), and determination of effects upon the safe and efficient utilization of navigable airspace pursuant to 14 CFR Parts 77, 157 and 49 U.S.C. §44718
- A determination under CFR Part 147 (49 U.S.C. §40113(a)) as to whether or not it objects to the airport development proposal from an airspace perspective, based on aeronautical studies

- A determination, through the aeronautical study process, under 14 CFR 77 (49 U.S.C. §40103(b), §40113) regarding obstructions to navigable airspace
- Determination of project eligibility for the Federal Grant-in-Aid Program authorized by the Airport and Airway Improvement Act of 1982, as amended (recodified as 49 U.S.C. §47107), and/or determination of project eligibility to impose Passenger Facility Charges (PFCs) and determinations that the proposed project is in conformance, for environmental purposes exclusively, with Federal grant eligibility and other requirements, pursuant to CFR Parts 77, 150, 152, 157, 169

1.4.1 Other Federal Actions

The following permits and clearances could potentially be required from other federal agencies:

- Section 404 Individual Permit for Placement of Fill in Wetlands-U.S. Army Corps of Engineers (*USACE*)

1.4.2 Airport Operator Actions

The actions expected by the BAA to occur in the normal course of proposed project implementation include:

- Application for federal financial assistance (SF424)
- Application for and approval of a building and grading permit
- Land use approval
- Construction of the preferred alternative (i.e. the final, surviving alternative that is determined by BHM after the conclusion of the EA)
- Village Creek Public Outreach efforts

1.4.3 State and Local Actions

The following permits and clearances are required from state and local agencies:

- Clearance from the Alabama State Historic Preservation Office (SHPO)
- Section 402 Water Quality Certification- State of Alabama and City of Birmingham.
- Floodplain Development Approval- City of Birmingham
- Conditional Letter of Map Revision (CLOMR)/ Letter of Map Revision (LOMR)- FEMA/ADECA OWR