

MO MCI RNAV (RNP) Z RWY 9 AMDT 2

4-25-22 PRB Results: Returned for Rework

REQUESTED BY: AJV-A

PRB RESULTS: RETURN FOR REWORK

- APPROVAL LETTER: IAW 8260.3E, 2-2-7 ALTITUDES, F. STAR TERMINATION ALTITUDE, (1): AN ALTITUDE RESTRICTION MUST BE ESTABLISHED AT THE TERMINATION FIX OF THE STAR IF THE SAME FIX IS CHARTED ON AN APPROACH PROCEDURE. IF THE APPROACH PROCEDURE FIX HAS AN ALTITUDE RESTRICTION ASSOCIATED WITH IT, THEN THE STAR TERMINATION ALTITUDE RESTRICTION MUST BE IDENTICAL TO IT. FOR EXAMPLE, IF THE APPROACH PROCEDURE'S FIX IS A MANDATORY ALTITUDE, THEN THE STAR MUST END WITH AN IDENTICAL MANDATORY ALTITUDE. IF THE APPROACH PROCEDURE'S FIX IS A MINIMUM ALTITUDE, THEN THE STAR MUST END WITH AN IDENTICAL MINIMUM ALTITUDE.

- THIRD PARAGRAPH STATES: "...GIRLZ CONNECTS TO RUDDH ONE STAR WHICH IS PUBLISHED AT 6000 FT MSL AND 210K. MAMMA CONNECTS TO MHOMS ONE AT 6000 FT MSL AND 210K."

O GIRLZ LINES-UP WITH THE RUDDH ONE ARRIVAL AND THE ALTITUDE AND SPEED MATCH. MAMMA LINES UP WITH THE MHOMS ONE ARRIVAL AND INCLUDES THE SPEED RESTRICTION. HOWEVER, THE MHOMS ONE SHOWS MAMMA AT 7000. -MHOMS STAR FIG was incorrect and will show at 6000 to match the RNP procedure.

- ADDITIONAL WAIVER REQUIRED: IAW 8260.58B, PARA 1-3-1C: THE LEG LENGTH FROM NOMEET TO WOOKE (3.65), AND GURRA TO WOOKE (3.64) MUST BE AT LEAST 3.79 NM TO SUPPORT ATC VECTORS -Historical tailwinds (2016-2020 – 99th percentile) used for procedure development along with a speed restriction according to 8260.58 Table 1-2-2, maybe we can add a comment on the back of the 8260-9 or in the segment remark for future development.



- MISSING DOCUMENTATION:

O SAT FLIGHT CHECK PC Awaiting FC results.

Digitally signed by
DONALD H LANIER

May 10, 2022

FIPC BASIC FORM							
PROCEDURE: RNAV (RNP) Z RWY 9 AMDT 2			AIRPORT NAME: KANSAS CITY INTL		AIRPORT ID: KMCI	SPECIAL CONTROL NO: OG-03-297-22	
FAC ID: KMCI09.02Z		CITY: KANSAS CITY			ST: MO	ORIG CHART DATE: 07/14/2022	
DFL TYPE: PROC/P	THIRD PARTY: <input type="checkbox"/> YES	EST. TIME ON SITE: 0.4	REIMB. NUMBER:		PTS TASK ID:		
PREFLIGHT NOTES							
REVIEWER:					DATE:		
COMMENTS:					CHECK ONE:		
					<input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT		
							YES
					CPV COMPLETE?		X
PROCEDURE RESULTS							
INSPECTION DATE: 05/11/2022		CREW #: VN389	N #: N89	INSTRUMENT PROCEDURE STATUS: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT		ARINC CODING: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
FLIGHT INSPECTOR SIGNATURE: john kearby @ 05/16/2022 13:04			PRINTED NAME: KEARBY, JOHN DAVID				NOTAM INITIATED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
FLIGHT INSPECTOR REMARKS:							
IN-FLIGHT OBSTACLE REPORT							
OBSTRUCTION ID #:	COORDINATES OR LOCATION:		GNSS ALTITUDE (MSL):		BAROMETRIC ALTITUDE (MSL):		HEIGHT ABOVE GROUND LEVEL:

Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: IAP	Estimated Chart Date: 05/19/2022	APWS Task ID: 178ADA84C7474D218D361C1A61941385	APWS Project ID: C27DEBF515B14C8A8398DBC830E56430
Procedure: RNAV (RNP) Z RWY 9 AMDT 2		Enroute: NO	Specialist: Jackson, Frank		Agreement Number:
Airport ID: KMCI			Airport City: KANSAS CITY		State: MO
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<p>Procedure Comments: ACTIVE DATA USED FOR KMCI.</p> <p>APPROVAL LETTER FOR MANDATORY ALTITUDES AT INTERMEDIATE FIXES MAMMA AND GIRLZ.</p> <p>CONTACT: DON LANIER, AJV-A430 LEAD, 405.954.8242.</p> <div style="text-align: right;">  <p>2.17.2022 BD</p>  </div>					

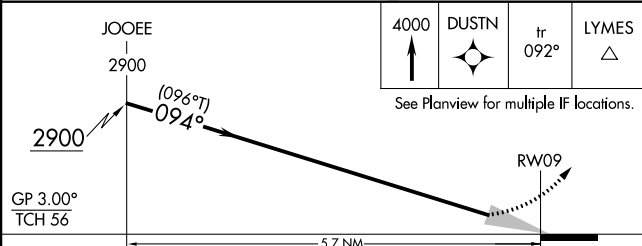
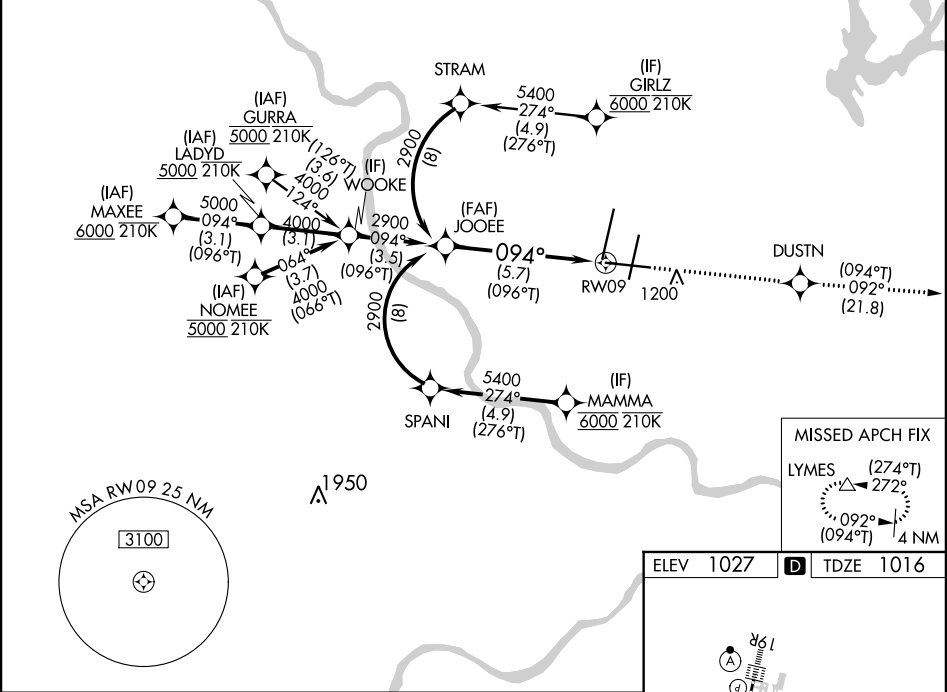
APP CRS	Rwy Idg	9501
094°	TDZE	1016
	Apt Elev	1027

RNAV (RNP) Z RWY 9

KANSAS CITY INTL (MCI)

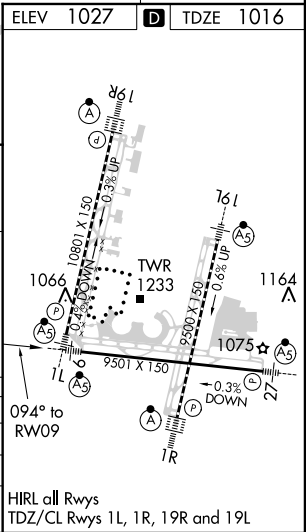
RNP AR APCH - GPS. ▼ Use of FD or AP required during simultaneous operations. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. For inop ALS, increase RNP 0.20 all Cats visibility to RVR 4500; increase RNP 0.30 all Cats visibility to RVR 6000.			MALSR 	MISSED APPROACH: Climb to 4000 direct DUSTN and on track 092° LYMES and hold.	
D-ATIS 128.375	KANSAS CITY APP CON 120.95 318.1	INTERNATIONAL TOWER 128.2 254.25	GND CON 121.8	CLNC DEL 135.7	CPDLC

PROTOTYPE-NOT FOR NAVIGATION



CATEGORY	A	B	C	D
RNP 0.20 DA		1319/24	303 (300-½)	
RNP 0.30 DA		1418/40	402 (400-¾)	

AUTHORIZATION REQUIRED



KANSAS CITY, MISSOURI

AL-780 (FAA)

21224

APP CRS	Rwy Idg	9501
094°	TDZE	1015
	Apt Elev	1026

OLD
RNAV (RNP) Z RWY 9
 KANSAS CITY INTL (MCI)


For uncompensated Baro-VNAV systems, procedure NA below -20°C (-4°F) or above 54°C (130°F). For inop MALSR, increase RNP 0.30 visibility to RVR 6000. GPS required.

MALSR



MISSED APPROACH: Climb to 4000 on track 094° to DUSTN and on track 092° to LYMES and hold.

 D-ATIS
128.375

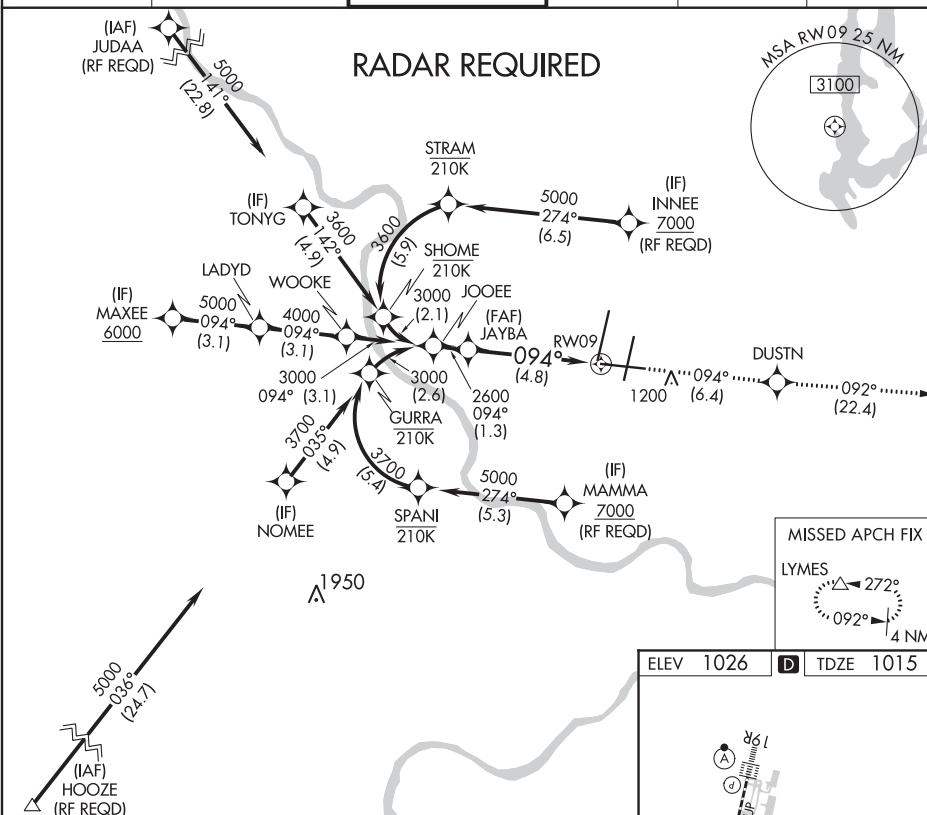
 KANSAS CITY APP CON
120.95 318.1

 INTERNATIONAL TOWER
128.2 254.25

 GND CON
121.8

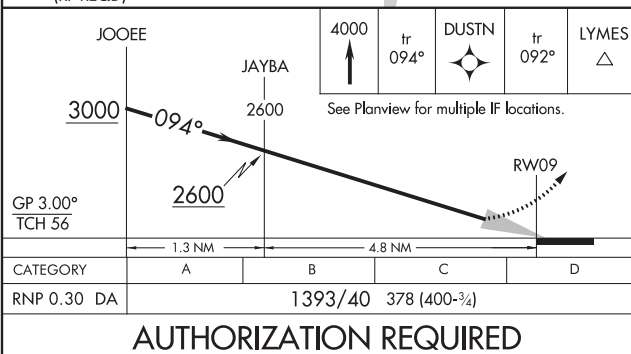
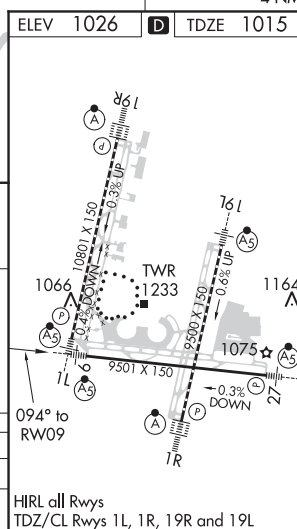
 CLNC DEL
135.7

CPDLC

RADAR REQUIRED

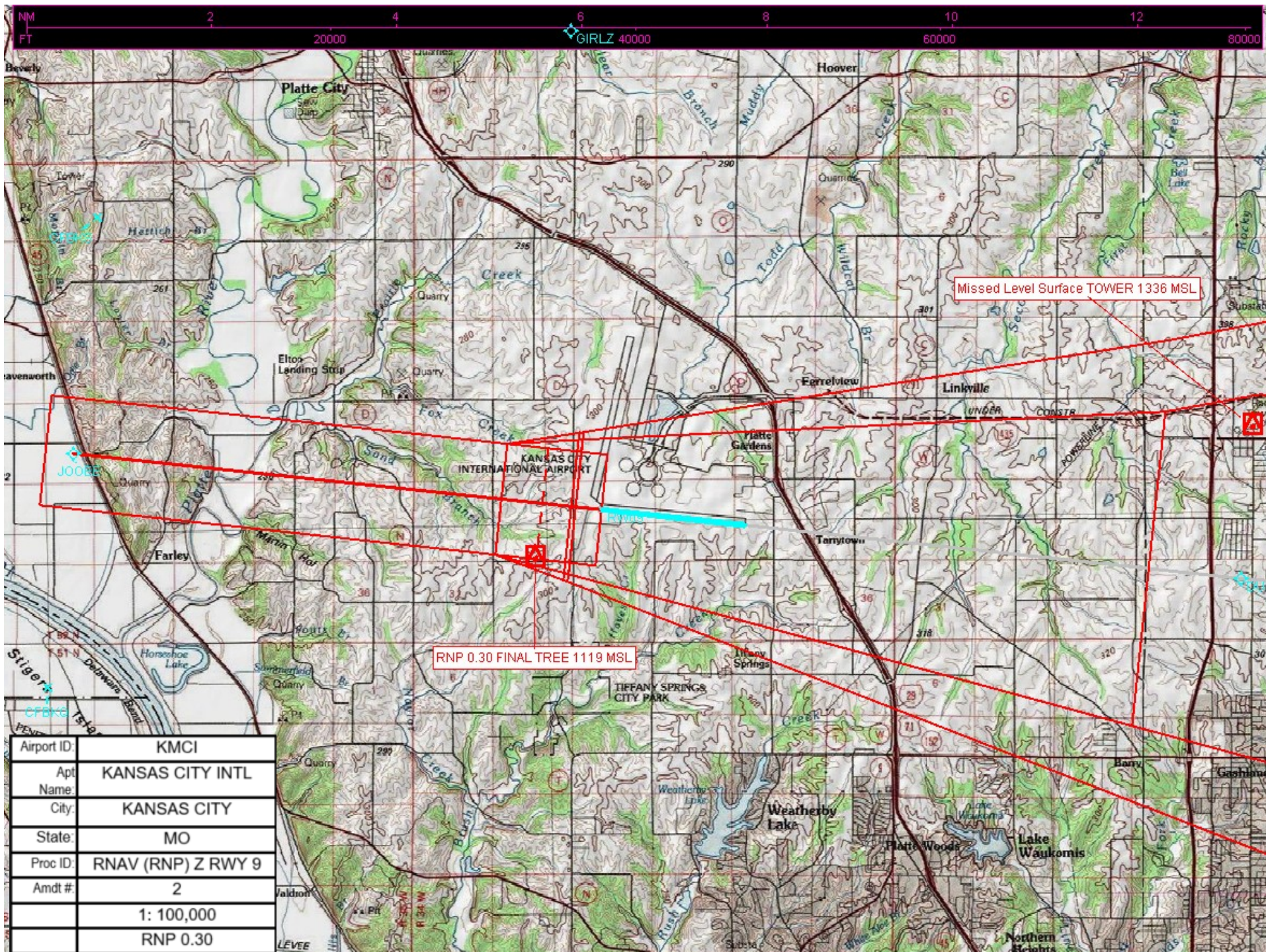
NC-3, 30 DEC 2021 to 27 JAN 2022

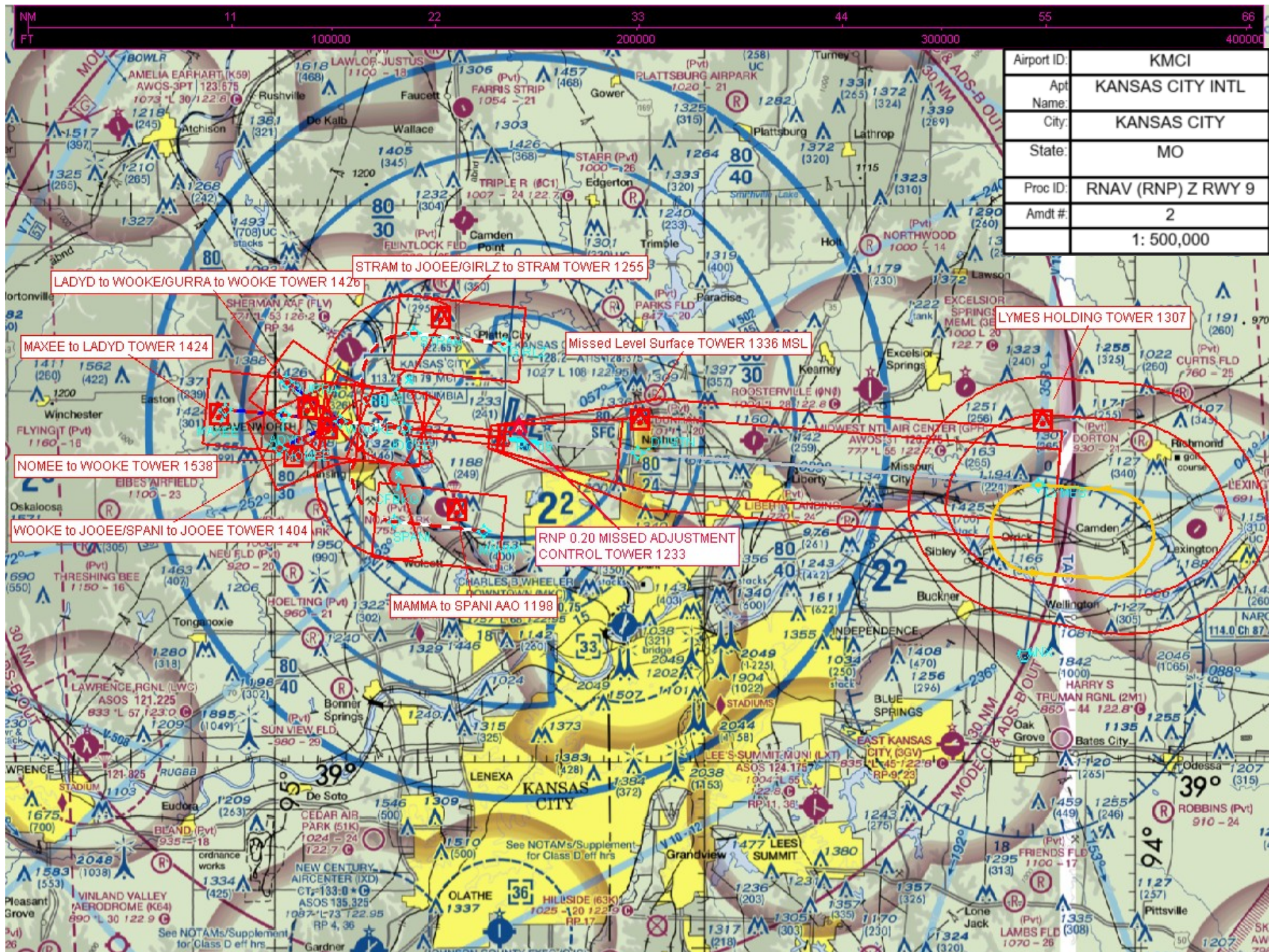
NC-3, 30 DEC 2021 to 27 JAN 2022

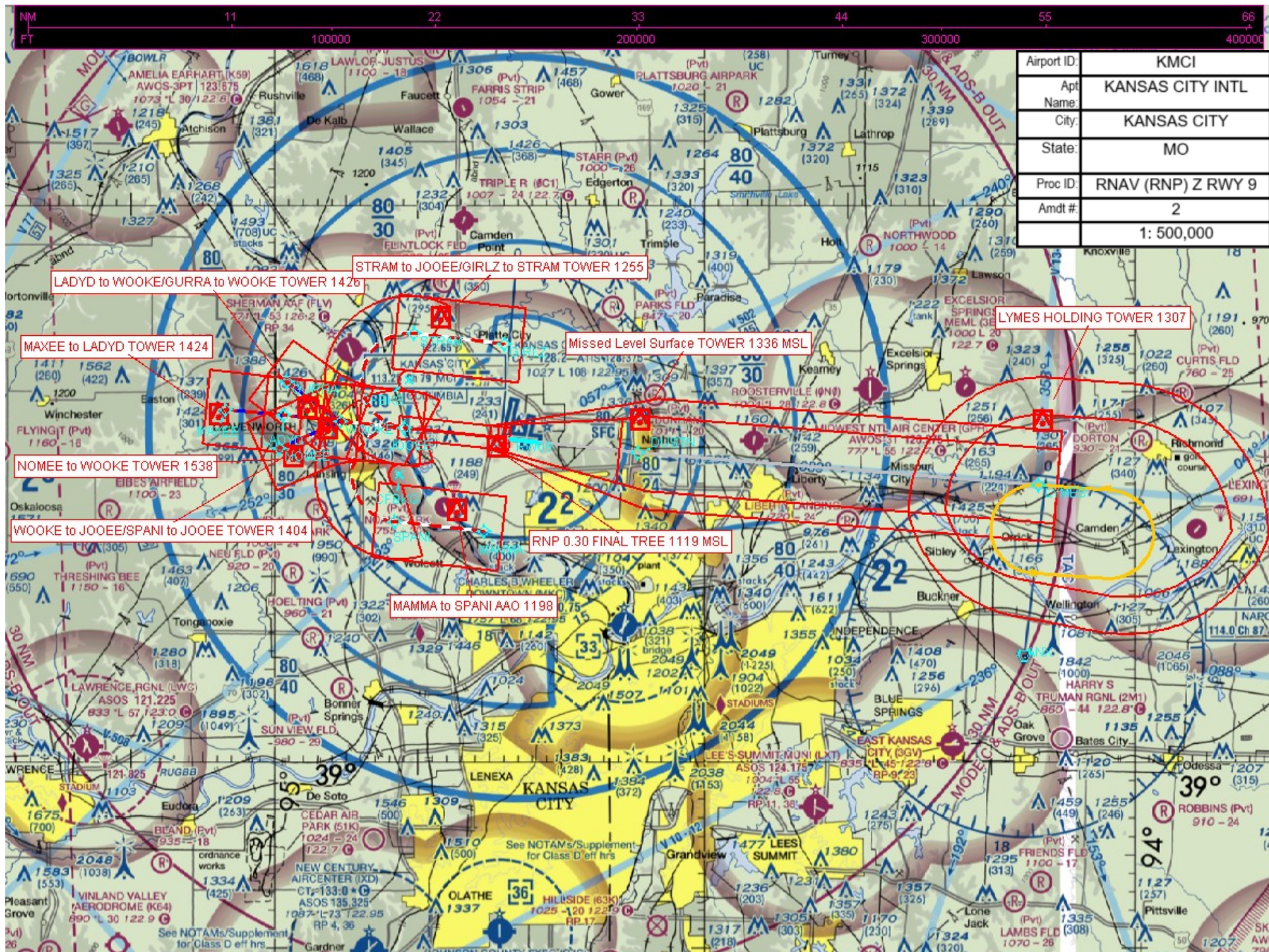
**AUTHORIZATION REQUIRED**
 KANSAS CITY, MISSOURI
 Amdt 1A 21AUG14

39°18'N-94°43'W

 KANSAS CITY INTL (MCI)
RNAV (RNP) Z RWY 9









Federal Aviation Administration

Memorandum

Date: Oct 20, 2021
To: Tom Lattimer, Airspace Manager CSA PBN Team
From: Ryan Grampp, ATM, Kansas City International ATCT/TRACON
Prepared by: Dustina Bailey, Senior ATC Specialist, NAVTAC Support
Subject: Letter of Approval Request RNAV RNP Z RWY 9, KMCI

KMCI RNAV RNP Z RWY 9: MAMMA and GIRLZ Mandatory Altitudes.

KMCI TRACON requests AFS approval to chart a mandatory altitude restriction at the following fixes; MAMMA at 6000 ft MSL and GIRLZ at 6000ft MSL for RNAV RNP Z RWY 9 instrument approach procedure for Kansas City International Airport (KMCI).

Currently, FAAO 8260.19I paragraph 8-6-10n (1) requires Flight Standards approval from the Flight Technologies and Procedures Division to chart a mandatory altitude on the intermediate segment of an instrument approach procedure.

Therefore, Kansas City TRACON requests to chart the mandatory restrictions at MAMMA and GIRLZ for RNAV RNP Z RWY 9. GIRLZ connects to RUDDH ONE STAR which is published at 6000 ft MSL and 210K. MAMMA connects to MHOMS ONE at 6000 ft MSL and 210K. These are ATC operational requests to ensure vertical separation between aircraft on the approach.

Sincerely,

RYAN E
GRAMPP

Digitally signed by RYAN
E GRAMPP
Date: 2021.10.25
06:49:06 -05'00'

**FEDERAL AVIATION ADMINISTRATION
CATEGORICAL EXCLUSION DECLARATION**

**Arrival Procedures at
Kansas City International Airport, Kansas City, MO**

Background:

The FAA is updating arrival procedures at Kansas City International Airport (MCI), in Kansas City, Missouri. These new procedures will allow aircraft to enter the airspace surrounding the airport more efficiently. This project is part of FAA's nationwide strategy to modernize the entire national airspace system and meet the future demand at busy airports.

In the past, aircraft have flown point to point by passing over ground-based navigational aids. Many of these ground-based aids are now old, inefficient and costly to maintain the FAA is replacing them with satellite-based procedures. These new procedures allow pilots and controllers to use more direct routes, which can help the environment by reducing fuel burn. More direct routes also reduce delays.

Purpose and Need:

The purpose of the proposed action is to replace the current arrival procedures because they will be canceled due to the decommissioning of several very high frequency omni-directional range (VORs). The need for the proposed action is to provide arrival procedures into MCI.

Description of Action:

The new procedures are the JSONN Standard Terminal Arrival Route (STAR), the RUDHH STAR, the MHOMS STAR, and the WUTNG STAR. As well as the Required Navigation Performance (RNP) procedures will be updated.

JSONN STAR: The JSONN STAR is an Area Navigation (RNAV) Global Positioning System (GPS) arrival. It updates the current JSONN arrival.

RUDHH STAR: The RUDHH STAR is an RNAV (GPS) arrival. It replaces the BRAYMER arrival, a conventional arrival.

MHOMS STAR: The MHOMS STAR is an RNAV (GPS) arrival. It replaces the TYGER arrival, a conventional arrival.

WUTNG STAR: The WUTNG STAR is an RNAV (GPS) arrival. It replaces the JHAWK arrival, a conventional arrival.

Declaration of Exclusion:

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, "Environmental Impacts: Policies and Procedures." The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F. See attached Initial Environmental Review (IER) for a detailed analysis.

Basis for this Determination:


This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, "Procedures for Considering Environmental Impacts" and FAA Order 1050.1F.

The proposed procedure amendment change meets the following categorical exclusions contained in FAA Order 1050.1F:

5-6.5 i. Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima.

Recommended by:

**KRISTI
REGOTTI**

 Digitally signed by KRISTI
REGOTTI
Date: 2022.01.24 11:04:37
-06'00'

Kristi Regotti, Environmental Protection Specialist, Operations Support Group, ATO Central Service Center, AJV-C25

Approved by:

**CHRISTOPHER L
SOUTHERLAND**

 Digitally signed by CHRISTOPHER
L SOUTHERLAND
Date: 2022.01.24 14:57:35 -06'00'

Christopher L. Southerland, Manager, Operations Support Group, ATO Center Service Center, AJV-C2

Appendix 5. Air Traffic Initial Environmental Review (IER)

Section 1. Proposed Project Description

Describe the proposed project. Include general information identifying procedure(s) and/or airspace action(s) to be implemented and/or amended. Identify the associated airports and/or facilities.

- 1.1.** Describe the operational and/or environmental benefits that may result if the proposed action is implemented.

Performance-Based Navigation (PBN) provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts.

- 1.1.1.** Is a reduction of fuel cost and/or energy consumption anticipated as a result of the proposed action?

☒ Yes ☐ No

- 1.1.1.a.** If so, can it be quantified, and how?

☐ Yes ☒ No

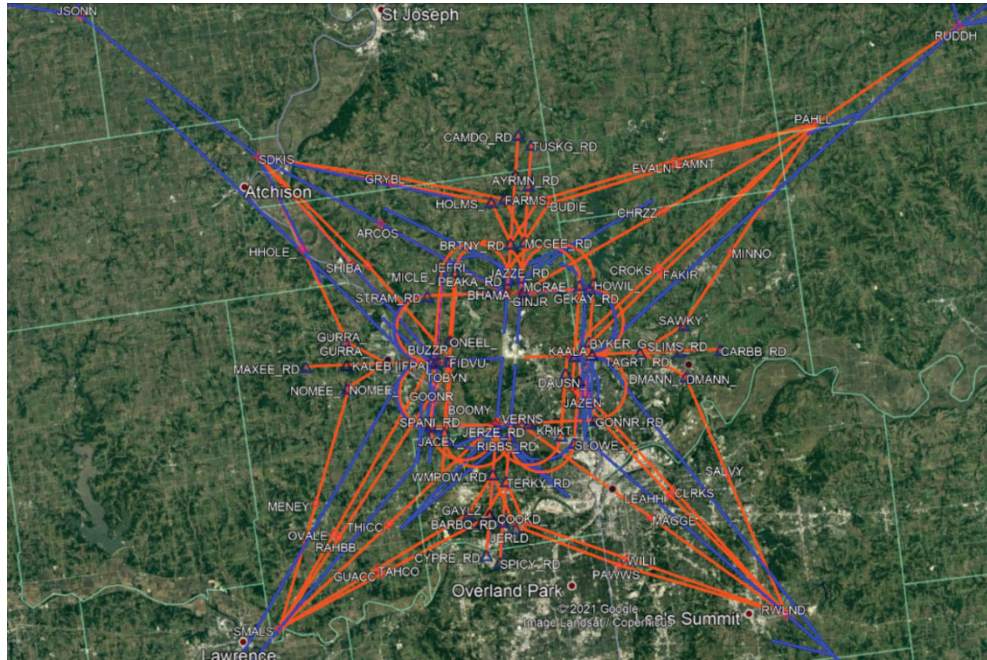
- 1.1.1.b.** If not quantifiable, describe the approximate anticipated benefits in lay term

- 1.1.2.** Describe any additional operational and/or environmental benefits that may result from the proposed action.

N/A

- 1.2.** Describe the existing procedure(s) (the no action alternative) in full detail. Provide the necessary chart(s) depicting the current procedure(s). Describe the typical fleet mix, including (if possible) the number and types of aircraft on the route (both annually and average day) and depict their altitude(s) along the route.

The blue procedures are existing and the orange are the proposed procedures.



- 1.3. Describe the proposed action, providing the necessary chart(s) depicting changes. Describe anticipated changes to the fleet mix, numbers of aircraft on the new routes and their altitude(s), if any.

See graphic above depicting the proposed procedures. No change in fleet mix or number of operations is anticipated.

- 1.3.1. Has airspace modeling been conducted using Sector Design Analysis Tool (SDAT), Aviation Environmental Screening Tool (AEST), Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS), or another airspace/air traffic design tool?

☒ Yes. Model: ☐ No

TARGETS was used to design the procedures.

- 1.3.2. Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local?

☐ Yes ☒ No

Describe: No change in hours of operations is expected.

- 1.3.3. Are any noise abatement programs presently in effect for the affected airport(s), formal or informal?

☒ Yes ☐ No

Describe:

There is an informal noise abatement program as a result of the 2009 Part 150 study. With 60% of arrivals and departures in north flow, louder departures are over

mostly vacant land, and arrivals over straight-in approach corridors. Informal nighttime runway use program with landings on Runways 1L and 19L, and takeoffs on Runways 1R and 19R.

- 1.3.4.** Will airport preferential runway configuration use change as a result of the proposed action?

☐ Yes ☒ No

Explain:

The proposed project would not change the runway use but a runway use change is anticipated in an unrelated airport project. That project had a separate environmental analysis conducted; however, those changes have also been considered in this analysis where there could be cumulative impacts.

- 1.3.5.** Is the proposed action primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both?

☐ VFR ☒ IFR ☐ Both

If the proposed action specifically involves a charted visual approach (CVA) procedure, provide a detailed local map indicating the route of the CVA, along with a discussion of the rationale for how the route was chosen.

[Click or tap here to enter text.](#)

- 1.3.6.** Will there be a change in takeoff power requirements?

☐ Yes ☒ No

If so, what types of aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets?

[Click or tap here to enter text.](#)

- 1.3.7.** Will all changes occur over 3,000 feet above ground level (AGL)?

☐ Yes ☒ No

Some changes will be below 3,000 feet.

- 1.3.8.** What is the lowest altitude on newly proposed routes or on existing routes that will receive an increase in operations?

An increase in operations is not anticipated.

- 1.3.9.** Will there be actions involving civil jet aircraft arrival procedures between 3,000-7,000 feet AGL or departures between 3,000-10,000 feet AGL?

☒ Yes ☐ No

The proposed procedure changes are from the ground to approximately 10,000 feet.

Section 2. Purpose and Need

- 2.1.** Describe the purpose and need for the proposed action. Present the problem being addressed and describe what the FAA is trying to achieve with the proposed action. The purpose and need for the proposed action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

Multiple Very High Frequency Omnidirectional Range (VORs) are expected to be decommissioned in the coming years. As this ground based navigation is retired, there is an impact on procedures at some airports. In anticipation of the VORs decommissioning, the FAA is replacing the old procedures with new procedures that will use satellite based procedures.

- 2.1.1.** Is the proposed action the result of a user or community request or regulatory mandate?

☐ Community Request ☒ Regulatory Mandate

☐ User Request.

- 2.1.2.** If not, describe what necessitates this proposed action:

Click or tap here to enter text.

Section 3. Alternatives

- 3.1.** Are there alternatives to the proposed action?

☐ Yes ☒ No

If yes, describe any alternatives to the proposed action.

Click or tap here to enter text.

- 3.2.** Please provide a summary description of eliminated alternatives and the reasons for their elimination.

Click or tap here to enter text.

Section 4. Environmental Review and Evaluation

The determination of whether a proposed action may have a significant environmental effect is made by considering requirements applicable to the specific environmental impact categories discussed below (see FAA Order 1050.1, appendix B).

4.1. Describe the Affected Environment

- 4.1.1.** Describe the existing land use, including noise sensitive areas (if any) in the vicinity of the proposed action.

The land use is a mixture of urban and suburban areas. As an urban and suburban area, there are several noise sensitive areas in the vicinity of the proposed project. The land surrounding the airport consists of compatible land uses, however.

- 4.1.2.** Will the proposed action introduce air traffic over noise sensitive areas not currently affected?

☐ Yes ☒ No

Describe: The new procedures will be implemented in areas currently overflown.

Click or tap here to enter text.

4.2. Environmental Consequences

As stated in FAA Order 1050.1, paragraph 5-2. b., extraordinary circumstances exist when a proposed action meets both of the following criteria:

4.2.a. Involves any of the following circumstances below; and

4.2.b. May have a significant impact (see 40 CFR 1508.4).

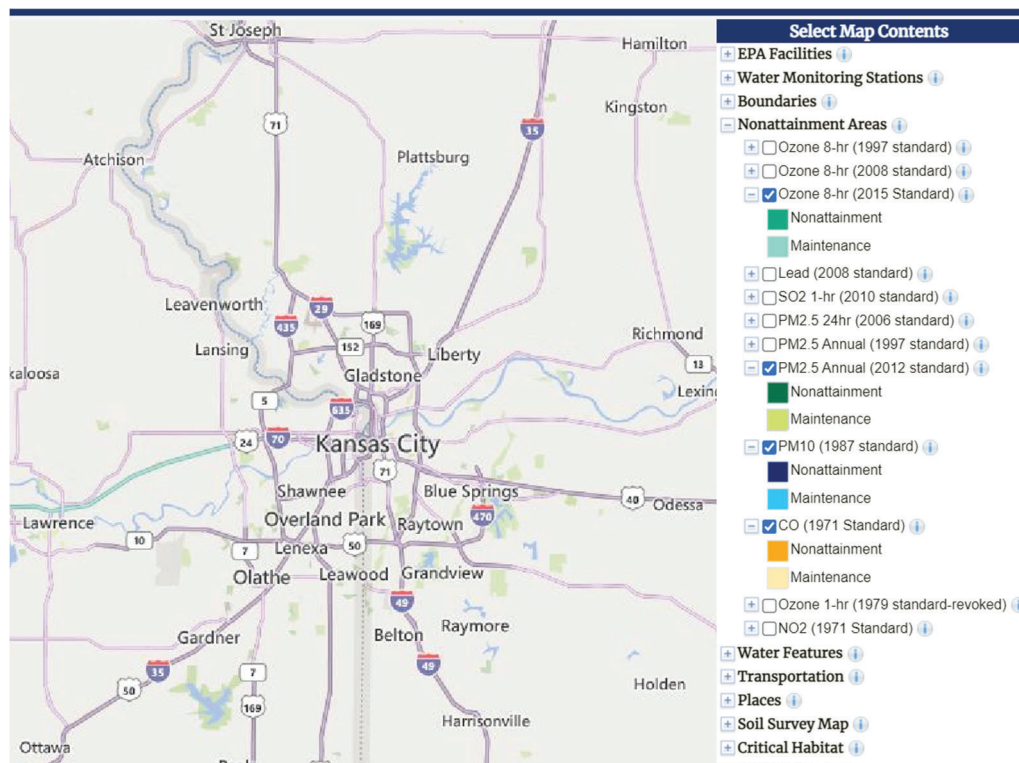
4.2.1. Air Quality

Has research been conducted to identify areas of concern or communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?

☒ Yes ☐ No

Comment:

The project is not in a non-attainment area or maintenance area.



Evaluation: Will implementation of proposed action result in an impact on air quality or a violation of local, state, tribal, or federal air quality standards under the Clean Air Act amendments of 1990? (See FAA Order 1050.1, paragraph 5-2. b. (8), the Air Quality

Handbook, and 1050.1 Desk Reference, chapter 1, for details on how to make the determination.)

☐ Yes ☒ No

Comment:

Because the project is not in a non-attainment area or maintenance area, and no changes in fleet mix or number of operations is expected, no changes to air quality are expected.

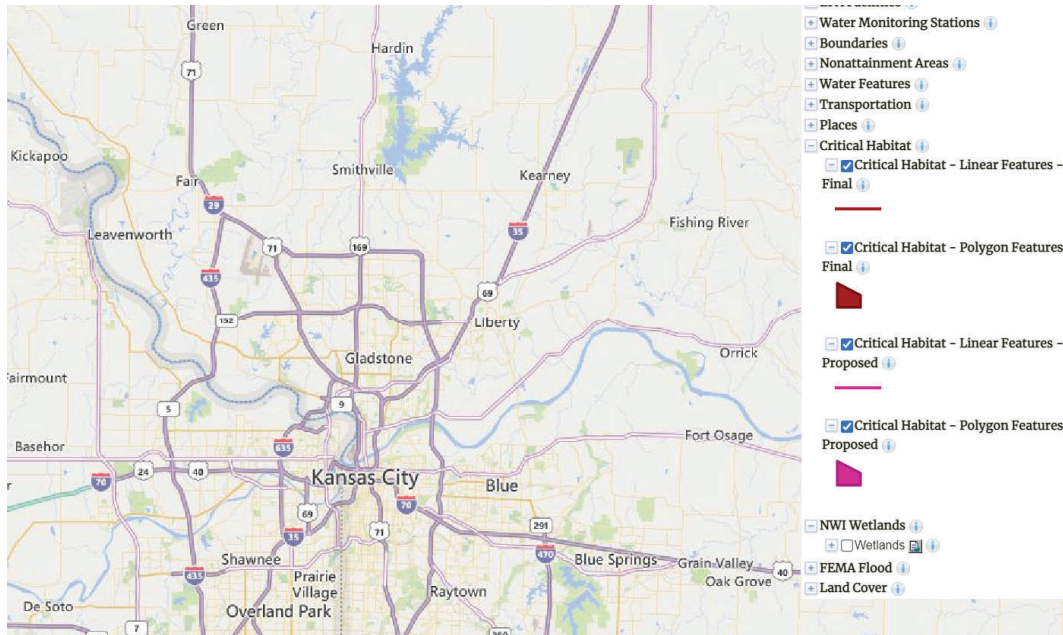
4.2.2. Biological Resources (including Marine Mammals; Wildlife and Waterfowl; Endangered/Threatened Species; Critical Habitat)

4.2.2.1. Are wildlife and/or waterfowl refuge/management areas, protected or critical habitats within the affected area of the proposed action?

☐ Yes ☒ No

Identify:

NEPAssist does not show any critical habitats in the area.



4.2.2.2. If so, has there been any communication with the appropriate wildlife management regulatory agencies (federal or state) agencies to determine if endangered or protected species inhabit the area?

☐ Yes ☐ No

If yes, identify endangered or protected species.

N/A

4.2.2.3. At what altitude would aircraft overfly these habitats?

N/A

4.2.2.4. During what times of the day would operations be more/less frequent?

N/A

4.2.2.5. **Evaluation:** Will implementation of the proposed action result in an impact on natural, ecological or biological resources of federal, tribal, state, or local significance (for example, federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act)? (See FAA Order 1050.1, paragraph 5-2. b. (3), and 1050.1 Desk Reference, chapter 2, for details on how to make the determination.)

4.2.2.a. ☐ Yes

Comment:

Click or tap here to enter text.

4.2.2.b. ☒ No.

No impact is expected.

4.2.3. Climate

NOTE: The FAA has not established a significance threshold for climate. The Council on Environmental Quality (CEQ) has noted that "...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand.¹"¹ Accordingly, it is not useful to attempt to determine the significance of such impacts. (See FAA Order 1050.1, Desk Reference, chapter 3.)

4.2.4. Coastal Resources

NOTE: Coastal resources include both coastal barriers and coastal zones.

4.2.4.1. Are there designated coastal resources in the affected area?

☐ Yes ☒ No

Identify:

Click or tap here to enter text.

4.2.4.2. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground with the potential to affect coastal resources?

☐ Yes ☒ No

This project is completely off ground.

Evaluation: Will implementation of the proposed action result in an impact in to coastal resources? (See FAA Order 1050.1, paragraph 5-2. b. (4), and 1050.1 Desk Reference, chapter 4, for details on how to make the determination.)

¹ Draft NEPA Guidance on *Consideration of the Effects of Climate Change and Greenhouse Emissions*, CEQ (2010).
http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_ofGHG_Draft_NEPA_Guidance_FINAL_02182010.pdf

4.2.4.a. ☐ Yes.

Comment:

[Click or tap here to enter text.](#)

4.2.4.b. ☒ No. An impact to coastal resources is not anticipated.

There are no coastal resources near the project area.

4.2.5. Department of Transportation Act, Section 4(f)

4.2.5.1. Are there cultural or scenic resources, of national, state, or local significance, such as national parks, publicly owned parks, recreational areas, and public and private historic sites in the affected area?

☒ Yes ☐ No

Identify: **Any properties that might be in the project area are already overflown.**

4.2.5.2. If so, during what time(s) of the day would operations occur that may impact these areas?

[Click or tap here to enter text.](#)

Evaluation: Will implementation of the proposed action result in an impact to properties protected under Section 4(f) of the Department of Transportation Act? (See FAA Order 1050.1, paragraph 5-2. b. (2), and 1050.1 Desk Reference, chapter 5, for details on how to make the determination.)

4.2.4.c. ☐ Yes.

Comment:

[Click or tap here to enter text.](#)

4.2.5.a. ☒ No.

The project does not plan to introduce aircraft overflights to areas that are not currently already overflown.

4.2.6. Farmlands

Are the following resources present: National Resources Conservation designated prime and unique farmlands or, state, or locally important farmlands including pastureland, cropland, and forest?

☐ Yes ☒ No

Identify:

[Click or tap here to enter text.](#)

Evaluation: Will the implementation of the proposed action involve the development of land regardless of use, or have the potential to convert any farmland to non-agricultural uses? (See FAA Order 1050.1, paragraph 5-2. b. (4), and the 1050.1 Desk Reference, chapter 6, for details on how to make the determination.)

4.2.6.a. ☐ Yes.

Comment:

[Click or tap here to enter text.](#)

4.2.6.b. ☒ No.

The project is completely off ground and no development is expected.

4.2.7. Hazardous Material, Solid Waste, and Pollution Prevention

Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground in an area known to contain hazardous materials, hazardous waste, solid waste, or other forms of pollution or contamination?

☐ Yes ☒ No

Evaluation: Is implementation of the proposed action likely to cause contamination by hazardous materials, hazardous waste, or likely to disturb existing hazardous materials, hazardous waste site, or other area of contamination? (See FAA Order 1050.1, paragraph 5-2. b. (12), and the 1050.1 Desk Reference, chapter 7, for details on how to make the determination.)

4.2.7.a. ☐ Yes.

Comment:

[Click or tap here to enter text.](#)

4.2.7.b. ☒ No. An impact to existing areas of hazardous material, hazardous or solid waste, or pollution prevention activities, is not anticipated; and implementation of the proposed action is not anticipated to result in the production of hazardous material, hazardous or solid waste.

4.2.8. National Historic Preservation Act of 1966 (NHPA)

***NOTE:** Section 106 of the NHPA applies to actions that have the potential to affect historic properties in a way that alters any of the characteristics that make the property significant, including changes in noise where a quiet setting is an attribute of significance. Direct effects include the removal or alteration of historic resources. Indirect effects include changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.*

4.2.8.1. Are there historic resources protected under Section 106 of the NHPA in the study area of the proposed action?

☒ Yes ☐ No

Identify:

4.2.8.2. Will the proposed action include removal or alteration of historic resources (direct effect)?

☐ Yes ☒ No

4.2.8.3. Do any of the historic resources identified have quiet as a generally recognized feature or attribute?

☐ Yes ☒ No

[Click or tap here to enter text.](#)

If yes, explain:

[Click or tap here to enter text.](#)

4.2.8.4. Will the proposed action substantially interfere with the use or character of the resource (indirect effect)?

☐ Yes ☒ No

Evaluation: Will the proposed action result in an adverse effect on resources protected under the National Historic Preservation Act of 1966, as amended? (See FAA Order 1050.1, paragraph 5-2. b. (1), and the 1050.1 Desk Reference, chapter 8, for details on how to make the determination.)

4.2.8.a. ☐ Yes.

Explain:

[Click or tap here to enter text.](#)

4.2.8.b. ☒ No.

An impact to resources subject to Section 106 review is not anticipated.

Section 106 Consultation was conducted. Letters were sent to the following recipients.

Section 106 Consultation
Missouri Department of Natural Resources
Kansas State Historical Society
Kansas City Planning and Development
Cheyenne and Arapaho Tribes, Oklahoma
Kaw Nation, Oklahoma
Prairie Band Potawatomi Nation
Iowa Tribe of Oklahoma
Sac & Fox Tribe of the Mississippi in Iowa
Sac & Fox Nation, Oklahoma
Stockbridge Munsee Community, Wisconsin
Delaware Tribe of Indians
Otoe-Missouria Tribe of Indians, Oklahoma
Sac & Fox Nation of Missouri in Kansas and Nebraska
Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma
Osage Nation
Seneca-Cayuga Nation
Omaha Tribe of Nebraska
Delaware Nation, Oklahoma
Iowa Tribe of Kansas and Nebraska
Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas
Apache Tribe of Oklahoma
Miami Tribe of Oklahoma

We received two responses of concurrence and no other responses.

4.2.9. Land Use

The compatibility of existing and planned land uses with an aviation or aerospace proposal is usually associated with noise impacts. In addition to the impacts of noise on land use compatibility, other potential impacts of FAA actions may affect land use compatibility. The

impact on land use, if any, should be analyzed and described under the appropriate impact category.

Evaluation: The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts. (See 1050.1 Desk Reference, chapter 9, for details on how to make the determination.)

4.2.10. Natural Resources and Energy Supply

NOTE: *This resource category excludes fuel burn.*

Will the proposed action have the potential to cause demand or strain on a natural resource(s) or material(s) that exceeds current or future availability of these resources? (See FAA Order 1050.1, paragraph 5-2. b. (4).

☐ Yes ☒ No

Click or tap here to enter text.

If yes, explain:

Click or tap here to enter text.

Evaluation: Will implementation of the proposed action result in an impact in relation to natural resources and energy supply?

4.2.10.a. ☐ Yes.

Comment:

Click or tap here to enter text.

4.2.10.b. ☒ No.

This is an air traffic procedure only and is not anticipated to have any impacts on natural resources and materials and/or energy supply.

4.2.11. Noise and Noise-Compatible Land Use

The significance threshold for noise is whether the proposed action would increase noise by Day-night average sound level (DNL) 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level; or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the No Action alternative for the same timeframe.

NOTE: *An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. See FAA Order 1050.1, paragraph 11-5. b. (10), for the full definition of noise sensitive areas.*

Noise compatibility or non-compatibility of land use is determined by comparing the proposed action DNL values to the values in the 14 CFR Part 150, Appendix A, Table 1, Land-Use Compatibility guidelines. (See FAA Order 1050.1 and the 1050.1 Desk Reference, section 11.)

NOTE: *14 CFR Part 150 guidelines are not sufficient to address the effects of noise on some noise sensitive areas.*

Click or tap here to enter text.

4.2.11.1.1. Will the proposed action introduce air traffic over noise sensitive areas *not* currently affected?

☐ Yes ☒ No

Comment:

Click or tap here to enter text.

Click or tap here to enter text.

4.2.11.1.2. Do the results of the noise analysis indicate that the proposed action would result in an increase in noise exposure by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level?

☐ Yes ☒ No

4.2.11.1.3. If yes, are the results of the noise analysis incompatible with one or more of the Land Use Compatibility categories? (See FAA Order 1050.1, Desk Reference Exhibit 11-3.)

☐ Yes ☐ No

N/A

If yes, explain:

Click or tap here to enter text.

4.2.11.1.4. Do the results of the noise analysis indicate a threshold of significance over noise sensitive areas *not* listed under the Land Use Compatibility categories (for example, national parks, wildlife/waterfowl refuges)?

☐ Yes ☒ No

If yes, explain:

Click or tap here to enter text.

4.2.11.2. Do the results of the noise analysis indicate a change in noise meeting threshold criteria considered “reportable”?

i. For DNL 60 dB to <65 dB: + 3 dB ☐ Yes ☒ No

ii. For DNL 45 dB to <60 dB: + 5 dB ☐ Yes ☒ No

Evaluation:

4.2.11.a. Will the proposed action result in a significant noise impact over noise sensitive land use? (See FAA Order 1050.1, paragraph 5-2. b. (7), and the 1050.1 Desk Reference, chapter 11, for details on how to make the determination.)

☐ Yes

If yes, explain:

Click or tap here to enter text.

4.2.11.b. ☒ No. The results of the noise screening indicate that no significance

threshold in noise criteria are reached as a result of the implementation of the proposed action on its own.

- 4.2.11.c.** Will the proposed action result in a significant noise impact over noise sensitive areas? (See FAA Order 1050.1, paragraph 5-2. b. (7), and the 1050.1 Desk Reference, chapter 8, for details on how to make the determination.)

☐ Yes

If yes, explain:

[Click or tap here to enter text.](#)

- 4.2.11.d.** ☒ No. **The results of the noise screening indicate that no reportable noise impacts are expected to result from the implementation of the proposed action on its own.**

4.2.12. Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risk

4.2.12.1. Socioeconomics

- 4.2.12.1.a.** Will the proposed action result in a division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the proposed action is located? (See FAA Order 1050.1, paragraph 5-2. b. (5).)

☐ Yes ☒ No

- 4.2.12.1.b.** Will the proposed action result in an increase in congestion from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency? (i.e., a highway agency) [See FAA Order 1050.1, paragraph 5-2 b. (6).]

☐ Yes ☒ No

This is an air traffic procedure only and is not expected to have any impacts on congestion from surface transportation

Evaluation: Will implementation of the proposed action result in an impact to socioeconomics? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

- 4.2.12.a.** ☐ Yes

Comment:

[Click or tap here to enter text.](#)

- 4.2.12.b.** ☒ No.

This is an air traffic procedure only and is not expected to have any impacts on acquisition of real estate, relocation of residence or community business, disruption of local traffic patterns, loss of community tax base, or changes to the fabric of the community.

4.2.12.2. Environmental Justice

NOTE: FAA has not established a significance threshold for Environmental Justice. Impacts to Environmental Justice in the context of other impact categories should be considered.

Evaluation: Will the proposed action have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, (i.e., a low income or minority population) due to significant impacts in other environmental impact categories or impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

4.2.12.2.a. ☐ Yes

Comment:

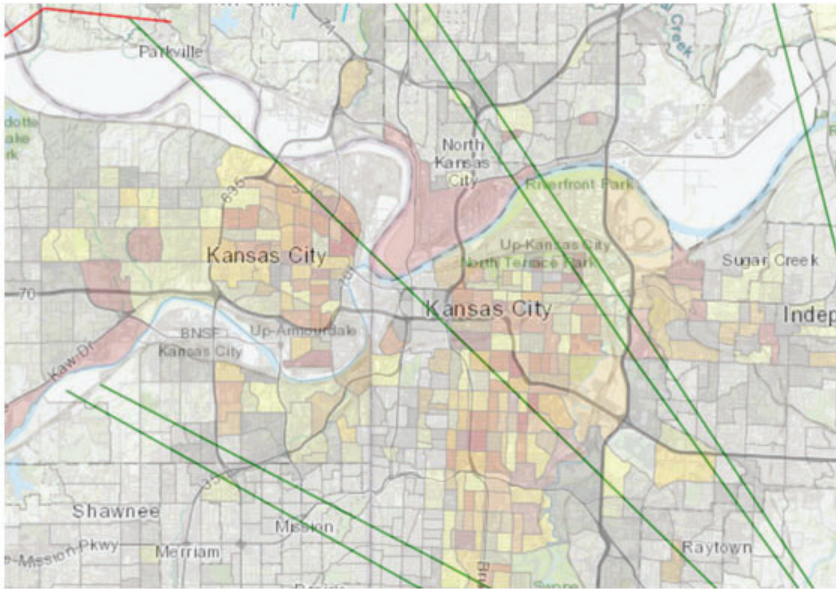
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4.2.12.2.b. ☒ No.

An impact related to environmental justice is not anticipated.

Socioeconomic and Environmental Justice Data

State	County	Income per Household	Population	Low Income	State Low Income	National Low Income	Minority Population	State Minority	National Minority
Kansas	Leavenworth	\$75,840	81,881	11.36%	13.57%	15.47%	20.65 %	22.96%	37.68%
	Wyandotte	\$47,292	169,245	23.86%			57.42%		
	Atchison	\$50,439	16,348	19.25%			11.75%		
	Doniphan	\$49,703	7,510	12.39%			9.75%		
	Jefferson	\$64,864	18,368	7.54%			5.76%		
	Johnson	\$89,087	609,863	6.16%			19.0%		
	Douglas	\$59,435	118,785	19.01%			19.88%		
Missouri	Platte	\$84,456	106,718	7.69%	15.62%		17.2%	19.78%	
	Clay	\$70,705	253,335	8.85%			17.25%		
	Clinton	\$64,541	21,184	9.32%			6.11%		
	Buchanan	\$51,916	84,793	18.07%			15.47%		
	Caldwell	\$49,839	8,815	13.42%			4.88%		
	Jackson	\$55,134	717,204	17.88%			37.23%		
	Ray	\$61,957	23,158	15.89%			5.82%		



New procedures over low income and minority populations



Current flight tracks over low income and minority populations

The top image shows the new procedures going over some low income and minority populations. When compared to the current flight tracks, no change in overflights is expected from the new procedures.

The transition in the middle that takes aircraft directly over those communities goes to the least used runway at less than 4% of all arrivals, or approximately 6 daily arrivals. The aircraft are expected to be flying at approximately 7,000 feet over these communities. The noise levels in this area from the procedure changes all fell under 45dB, below the thresholds of what would be a significant impact.

4.2.12.3. Children's Environmental Health and Safety Risk

NOTE: FAA has not established a significance threshold for Children's Environmental Health and Safety Risk. Impacts to Children's health and safety in the context of other impact categories should be considered.

Evaluation: Will the proposed action have the *potential* to lead to a disproportionate health

or safety risk to children due to significant impacts in other environmental impact categories? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

4.2.12.3.a. ☐ Yes

Comment:

[Click or tap here to enter text.](#)

4.2.12.3.b. ☒ No.

4.2.13. Visual Effects

NOTE: *There are no special purpose laws for light impacts and visual impacts. Impacts from light emissions are generally related to airport aviation lighting.*

4.2.13.1. Will implementation of the proposed action create annoyance or interfere with normal activities from light emissions?

☐ Yes ☒ No

Explain:

No changes in light emissions is expected from the proposed action.

4.2.13.2. Will implementation of the proposed action affect the visual character of the area including the importance, uniqueness, and aesthetic value of the affected visual resources?

☐ Yes ☒ No

Explain:

Aircraft will continue to fly in the same areas they are currently flying.

Evaluation: Will the proposed action result in an impact to visual resources? (See FAA Order 1050.1, paragraph 5-2. b. (5), and 1050.1 Desk Reference, chapter 13, for details on how to make the determination.)

4.2.13.a. ☐ Yes

Comment:

[Click or tap here to enter text.](#)

4.2.13.b. ☒ No.

Aircraft will continue to fly in the same areas they are currently flying so no change in visual resources is expected.

4.2.14. Water Resources (including Wetlands, Flood Plains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

4.2.14.1. Are there wetlands, flood plains, and/or Wild and Scenic Rivers in the proposed action study area?

☐ Yes ☒ No

4.2.14.2. Are there reservoirs or other public water supply systems in the affected area?

☐ Yes ☒ No

4.2.14.3. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground?

☐ Yes ☒ No

4.2.14.4. Will implementation of the proposed action result in any changes to existing discharges to water bodies, create a new discharge that would result in impacts to water quality, or modify a water body?

☐ Yes ☒ No

If yes, is there a potential for an impact to water quality, sole source aquifers, a public water supply system, federal, state or tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act?

☐ Yes ☐ No

Evaluation: Will the proposed action result in an impact to water resources? (See FAA Order 1050.1, paragraph 5-2. b. (9), and 1050.1 Desk Reference, chapter 14, for details on how to make the determination.)

4.2.14.a. ☐ Yes

Comment:

[Click or tap here to enter text.](#)

4.2.14.b. ☒ No.

This is an air traffic procedure only therefore it is not anticipated that there will be any impacts to water resources.

4.2.15. Effects on the Quality of the Human Environment that are Likely to be Highly Controversial on Environmental Grounds.

NOTE: The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement regarding the impacts of a proposed action exists.

NOTE: If in doubt about whether a proposed action is highly controversial on environmental grounds, consult the Line of Business/Staff Office (LOB/SOB) headquarters environmental division, AEE, Regional Counsel, or AGC for assistance. (See FAA Order 1050.1, paragraph 5–2. b. (10).)

4.2.15.1. Will implementation of the proposed action result in the likelihood of an inconsistency with any federal, state, tribal, or local law relating to the environmental aspects of the proposed action. (See FAA Order 1050.1, paragraph 5-2. b. (11).)

☐ Yes ☒ No

If yes, explain:

[Click or tap here to enter text.](#)

Evaluation: Is there likelihood for the proposed action to be highly controversial based on environmental grounds?

4.2.15.a. ☐ Yes

Comment:

[Click or tap here to enter text.](#)

4.2.15.b. ☒ No. **The potential for controversy is not anticipated because aircraft will continue flying in the general areas they are already flying.**

Section 5. Mitigation

Are there measures which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, NAVAIDS, etc.?

☐ Yes ☐ No ☒ N/A

Describe:

There are no potential impacts expected that would need to be mitigated.

Section 6. Cumulative Impacts

What other projects (FAA, non-FAA, or non-aviation) are known, planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

A new terminal is being built at the airport. Due to its new location on airport property, a change in runway use is anticipated. An environmental assessment was completed for the terminal project in 2019. At the time, the procedure changes were unknown and not included in the analysis.

When we ran the noise model for the new procedures, we ran one without a change in runway use and one with the change in runway use. There were no changes in the noise footprint when considering the procedure changes alone. However, when the runway use changes were factored in, there was a significant increases in noise and reportable decreases in noise. The majority of the changes were on airport property with some to the north off airport property. The area off airport property is depicted in the figure below. It is compatible land use (zoned industrial) with no noise sensitive areas or historic properties.

The terminal project is expected to be complete in early 2023. The new procedures are expected to be implemented in 2022.



7.1. Are the airport proprietor and/or users providing general support for the proposed action?

7.2. Are local community leaders or groups who could have an interest in FAA activity (i.e., aviation roundtables, historical preservation society, etc.) due to their location or by their function in the community been notified, consulted, or otherwise informed of this proposed action?

7.2.1. Are any ☐ opposed to or ☒ supporting it? ☐ Not Known

7.2.2. Identify the parties and indicate whether they are in opposition or in support of the proposed action.

SHPO for both Kansas and Missouri were notified and concurred with the proposed procedures.

THPOs were notified with no objections.

ACE Regional Administrator briefed the project in early December 2021 to the congressional representative with no objections noted.

7.2.3. If they are opposed, what is the basis of their opposition?

7.3. Are local citizens aware of the proposed action?

7.3.1. Are any ☐ opposed to or ☐ supporting it? ☒ Not Known

7.3.2. Identify the parties and indicate whether they are in opposition or in support of the proposed

action.

Live panel workshops were conducted on January 19 and 20, 2022, during which the public had an opportunity to ask questions. Public notice for the workshops can be found on the FAA project Community Engagement page at https://www.faa.gov/air_traffic/community_engagement/mci/. The workshops were livestreamed on various social media sites as well, giving people who have not registered an opportunity to engage.

7.3.3. If they are opposed, what is the basis of their opposition?

NA

7.4. Has the FAA received one or more comments objecting to the proposed project on environmental grounds from local citizens or elected officials?

☐ Yes ☒ No

7.4.1. If so, state the nature of the comment and how the FAA was notified (for example, resolution, Congressional, Public meeting/workshop, etc.).

NA

7.4.2. How is the comment(s) being responded to? Can the comment(s) be mitigated through changes in design?

Public comments are not being accepted outside of the above described workshops.

7.5. Is the proposed project consistent with local plans and development efforts?

☒ Yes ☐ No

Click or tap here to enter text.

7.6. Has there been any previous aircraft-related environmental or noise analysis, including a FAR Part 150 Study, conducted at this location?

☒ Yes ☐ No

In 2009, a Part 150 Study was conducted.

7.6.1. If so, was the study reviewed as a part of this initial review?

☒ Yes ☐ No ☐ N/A

Section 8. References/Correspondence

See IER Attachments.

Section 9. Additional Preparers

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

Karol K Archer (for Section 7- Community Involvement)
CI and NAS Analytics Lead, Operations Support Group
Central Service Center, AJV-C25

Air Traffic Initial Environmental Review (IER)

Section 10. Service Area Conclusions

☒ This initial review and analysis indicates that no extraordinary circumstances or other reasons exist that would cause the responsible federal official to believe that the proposed action might have the potential for causing significant environmental impacts. The undersigned have determined that the proposed action qualifies as a categorically excluded action in accordance with FAA Order 1050.1, and on this basis, recommend that further environmental review need not be conducted before the proposed project is implemented.

Service Area Environmental Specialist Review/Concurrence

**KRISTI
REGOTTI**

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Date: 2022.01.24 11:01:34 -06'00'

Kristi Regotti
Environmental Protection Specialist, Operations Support Group
Central Service Center, AJV-C25

Group Manager Review/Concurrence

**CHRISTOPHER L
SOUTHERLAND**

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CHRISTOPHER L SOUTHERLAND
Date: 2022.01.24 14:59:00 -06'00'

Christopher L. Southerland
Manager, Operations Support Group
Central Service Center, AJV-C2

Initial Environmental Review

Attachments

Noise Screen of New Procedures

Noise Screening Analysis Report

For

Kansas City International Airport

KMCI

Kansas City, MO

Prepared by:

AJV-C25 Environmental, CI & NAS Analytics Team

January 18, 2022

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

Summary

Noise analysis was completed to assess potential impacts resulting from proposed air traffic actions at Kansas City International Airport (KMCI) in Kansas City, MO, using the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) Environmental Plug-in tool and the Aviation Environmental Design Tool (AEDT).

Historical radar track data was used to create a baseline scenario. After the baseline scenario was built, aircraft operations were reassigned to the proposed procedures, which provides the alternative scenario. A change to the runway usage data was added to the alternative scenario due to the construction of a new passenger terminal. Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for the scenarios using AEDT. The scenarios were then compared to determine the potential for significant noise impacts. In the case of KMCI, there were **no reportable or significant impacts** resulting from the proposed procedure changes.

Kansas City International Airport Noise Screening Analysis Report

1. Purpose

The purpose of this report is to document the analysis of potential noise impacts resulting from proposed airspace actions at Kansas City International Airport (KMCI) in Kansas City, MO and to present the results of that analysis. Table 1 shows the procedures(s) included in the proposed action. Figure 1-1 shows the airport diagram for KMCI, which provides the runway layout and the airport's field elevation.

Noise Screening uses FAA-Approved tools to determine the potential for extraordinary circumstances and may be used to rule out the need for more detailed noise analysis where a Categorical Exclusion (CATEX) may apply. The results presented in this document do not provide an environmental decision, but are intended to inform the responsible FAA Service Center Environmental Specialist in determining the appropriate level of environmental review.

Table 1: Proposed Procedure Modeled for KMCI

Procedure Name	Procedure Type
JSONN TWO (RNAV)	STAR
MHOMS ONE (RNAV)	STAR
WUTNG ONE (RNAV)	STAR
RUDDH ONE (RNAV)	STAR
RNAV (RNP) Z RWY 1L	IAP
RNAV (RNP) Z RWY 1R	IAP
RNAV (RNP) Z RWY 19L	IAP
RNAV (RNP) Z RWY 19R	IAP
RNAV (RNP) Z RWY 27	IAP
RNAV (RNP) Z RWY 9	IAP
RNAV (GPS) Y RWY 1L	IAP
RNAV (GPS) Y RWY 1R	IAP
RNAV (GPS) Y RWY 19L	IAP
RNAV (GPS) Y RWY 19R	IAP
RNAV (GPS) Y RWY 27	IAP

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

Procedure Name	Procedure Type
RNAV (GPS) Y RWY 9	IAP
ILS OR LOC RWY 1L	IAP
ILS OR LOC RWY 1R	IAP
ILS OR LOC RWY 19L	IAP
ILS OR LOC RWY 19R	IAP
ILS OR LOC RWY 27	IAP
ILS OR LOC RWY 9	IAP

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

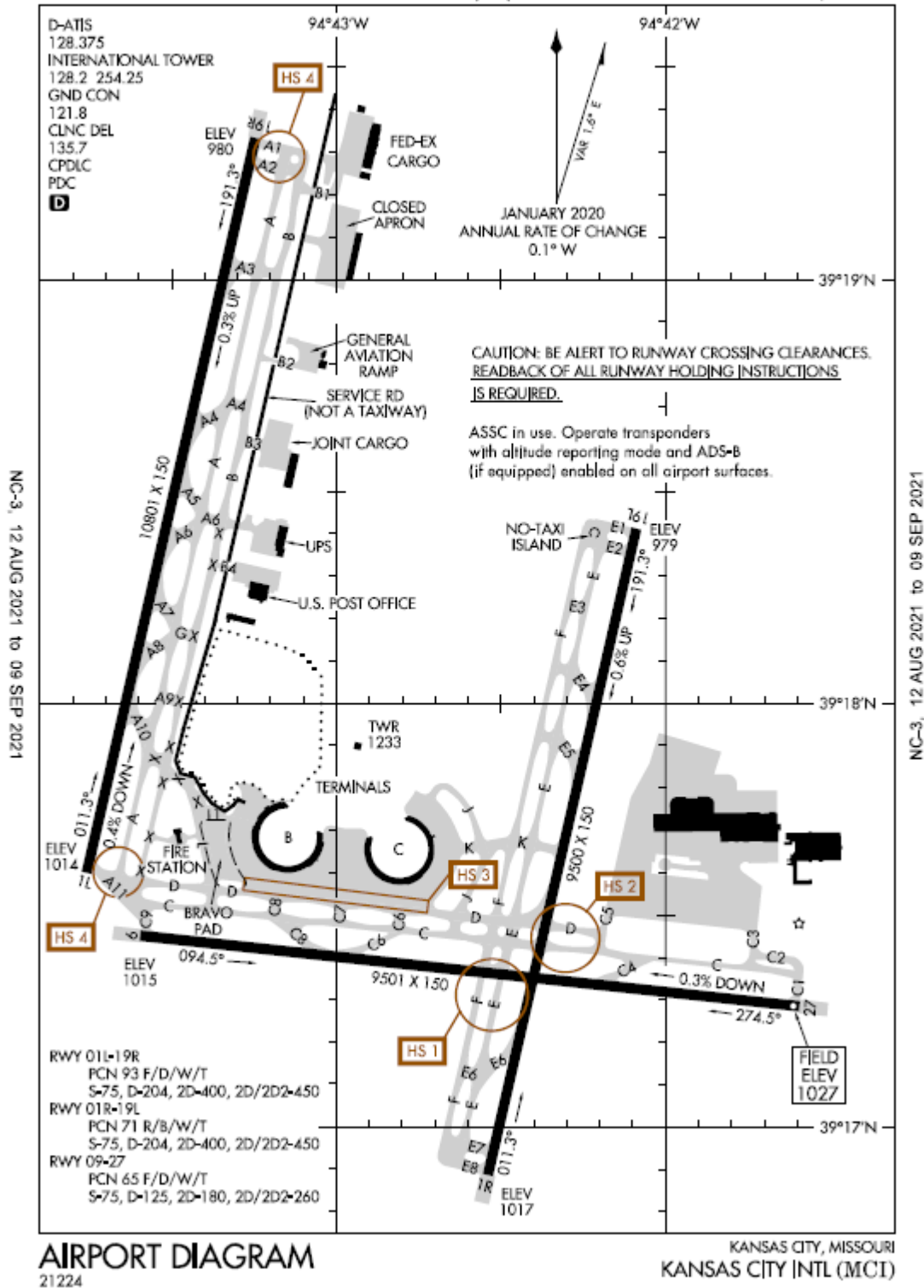


Figure 1-1: Airport Diagram of KMCI

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

2. Methods

Historical radar track data for KMCI was obtained from the Performance Data Analysis and Reporting System (PDARS). Dates where runways were closed for construction projects were removed from consideration and dates were randomly selected from the remaining available dates within a recent 12-month period. The random dates are assumed to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions. A list of dates selected for the analysis is provided in Appendix A

After the removal of overflights and incomplete track segments, 13,716 total tracks were used for the analysis which is representative of the airport runway usage found in Appendix B. Arrival and departure tracks are analyzed regardless of type of procedure being planned in order to capture any changes to the overall noise footprint. The altitude of the historical tracks was considered and a range ring was set to contain the area where most of the tracks reached above 10,000 feet above ground level (AGL). This established the study area for the analysis. In the case of KMCI, the study area is a circle with a radius of 35 nautical miles centered over the airport.

Annual operation counts and runway usage were obtained through a runway usage report from the FAA's AFS Data Analytics Runway Usage Module and were used to calculate the Average Annual Day (AAD) impacts. Dates were chosen from January 1, 2019 through December 31, 2019 due to COVID-19 decreasing operations in 2020 and 2021. Utilizing data from 2019 ensures the capture of more typical traffic counts. The analysis does not take into account terrain. All calculations were made in reference to the airport's field elevation. RNAV equipped aircraft were separated from non-RNAV equipped aircraft (as indicated in the track data). Only RNAV equipped aircraft were modeled as flying the RNAV procedure. Where non-RNAV procedures are proposed, non-RNAV equipped aircraft were modeled as flying those procedures. The remaining aircraft were modeled as remaining on their historic flight paths. Runways usage and annual operations counts were held constant between the baseline and alternative scenarios. The runway usage chart broken down by annual operations, daily operations, arrivals, departures and runway is shown in Appendix B. A second alternate scenario was run to capture a change to runway usage numbers due to construction on a new passenger terminal with results in a second report dated September 3, 2021.

Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for all three scenarios. The Environmental Plug-in Tool uses the Aviation Environmental Design Tool version 3d (AEDT 3d) to calculate noise. The noise output files from AEDT 3d for both the baseline and alternative noise exposures consist of a series of equally spaced grid points, each showing a DNL value. The noise grid (receptor set) consists of grid points (receptors) spaced 0.25 nm apart. The noise impact is a comparison between the baseline and the alternative noise exposure that depicts reportable and significant noise changes at all affected receptors per the criteria indicated in FAA Order 1050.1F and Chapter 32 of FAA Order 7400.2K.

3. Baseline Noise Exposure

The baseline noise exposure is shown in Figure 3-1, which depicts the levels and locations of the noise produced by the historical radar track data for arrivals and departures. Table 3-1 is the legend for the baseline noise exposure figures.

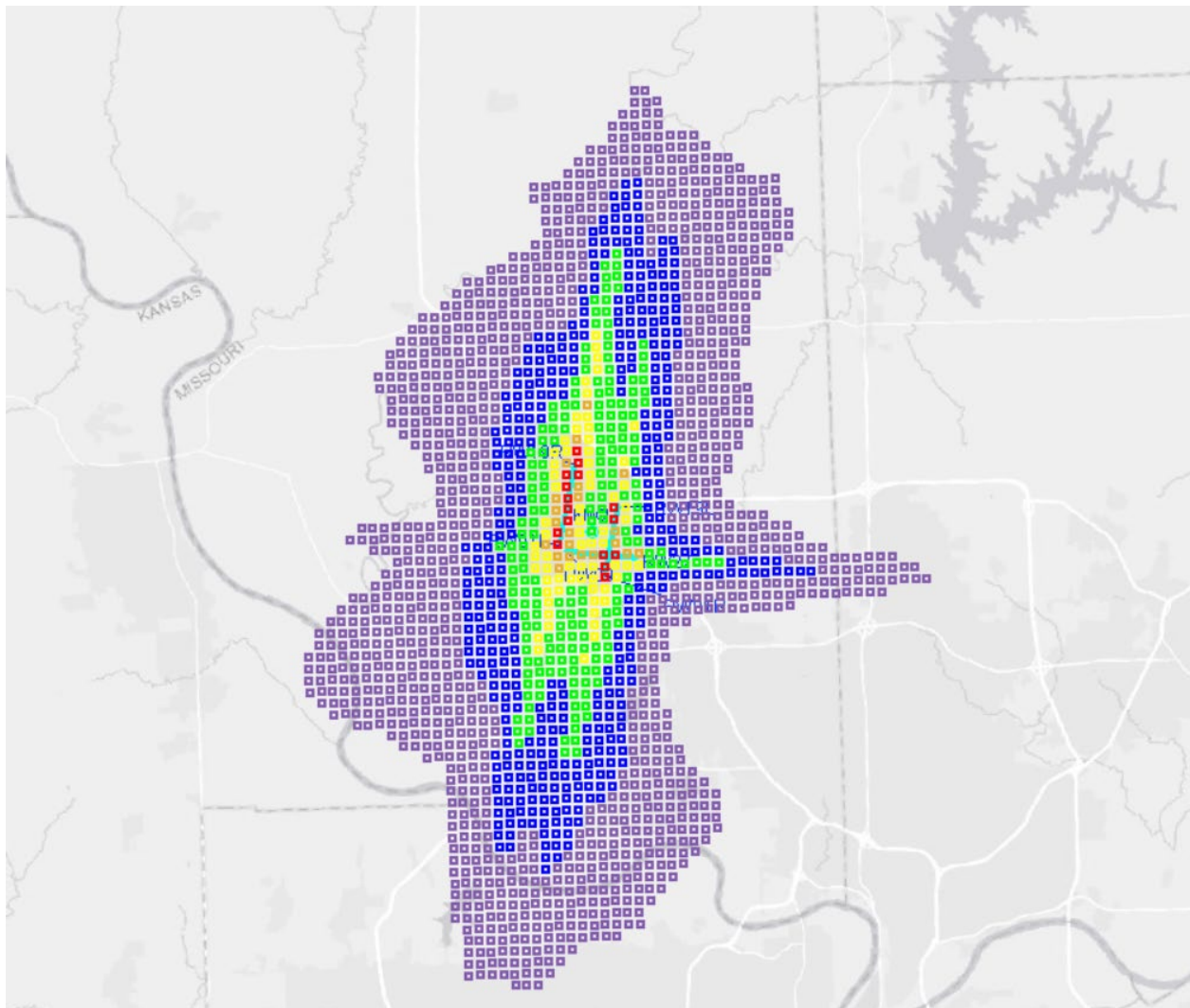


Figure 3-1: Baseline Noise Exposure in TARGETS

Table 3-1: Legend for Noise Exposure

Geometric shape	Color	DNL value
Square	Purple	45–50 dB
Square	Blue	50–55 dB
Square	Green	55–60 dB
Square	Yellow	60–65 dB
Square	Orange	65–70 dB
Square	Red	70 dB or more

4. Alternative Noise Exposure

The alternative noise exposure is shown in Figure 4-1, which depicts the levels and locations of the noise exposure output from the model of the proposed action. Table 4-1 is the legend for the alternative noise exposure figures.

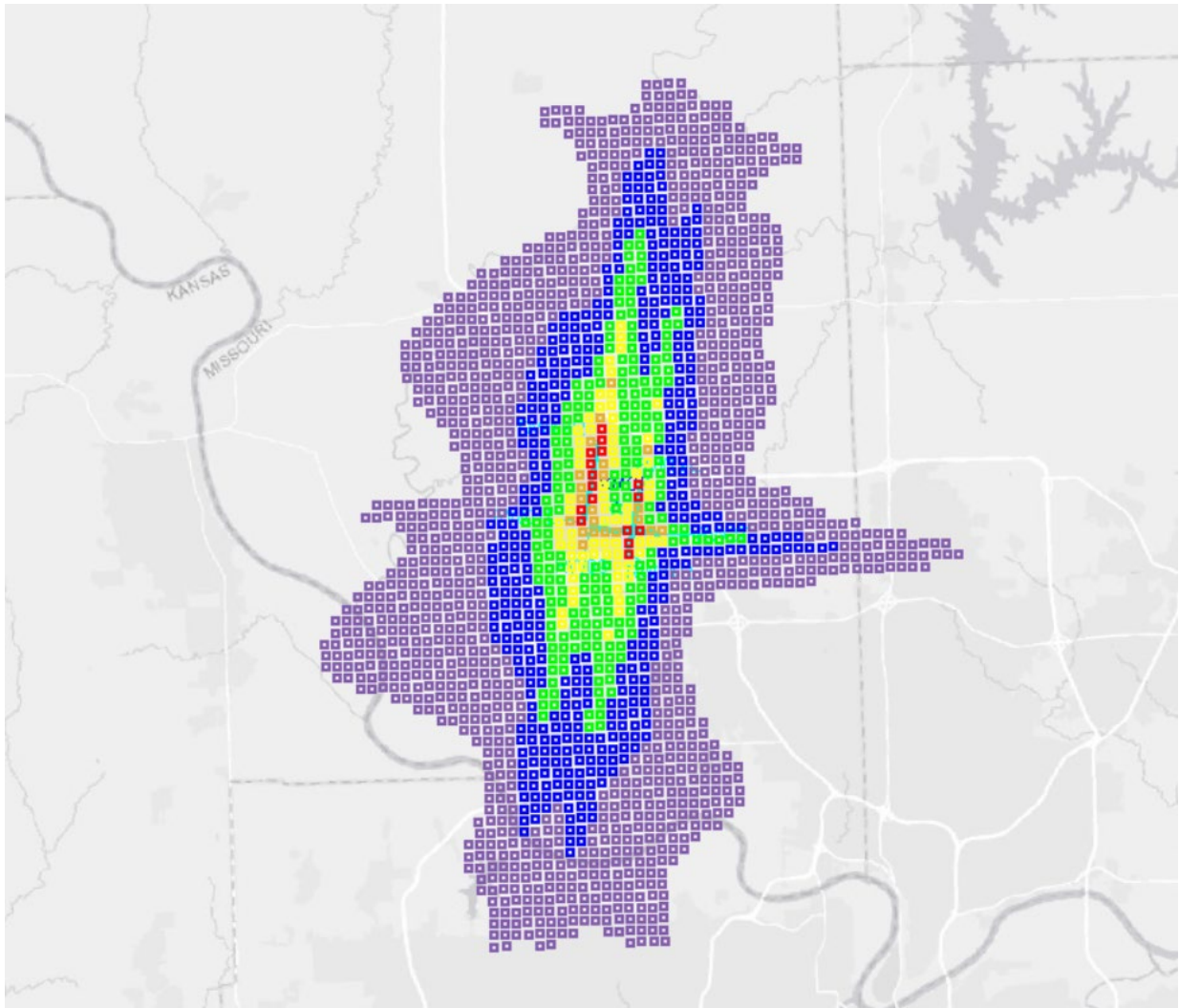


Figure 4-1: Alternative Noise Exposure for the Proposed Procedures in TARGETS

Table 4-1: Legend for Noise Exposure

Geometric shape	Color	DNL value
Square	Purple	45–50 dB
Square	Blue	50–55 dB
Square	Green	55–60 dB
Square	Yellow	60–65 dB
Square	Orange	65–70 dB
Square	Red	70 dB or more

5. Noise Impacts

A comparison of the baseline and alternative scenarios by the TARGETS Environmental plug-in determines the noise impacts of the proposed action. Significance of noise impacts is defined by FAA Order 1050.1F¹ which establishes the threshold for significant increases in noise exposure. Where the proposed action results in a noise impact, TARGETS graphically displays a noise impact layer that indicates the relative locations of reportable and significant changes.

The noise impacts resulting from the analysis are shown in the map below (Figure 5-1). Table 5-1 shows the legend for the noise impacts. The baseline (Figure 5-2) and alternative (Figure 5-3) noise exposure results are shown again below for reference and to provide a side-by-side comparison. In the case of KMCI, there were **no reportable or significant impacts** resulting from the proposed procedure changes.

¹ According to Exhibit 4-1 of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, a noise impact is significant if “The action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.”

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

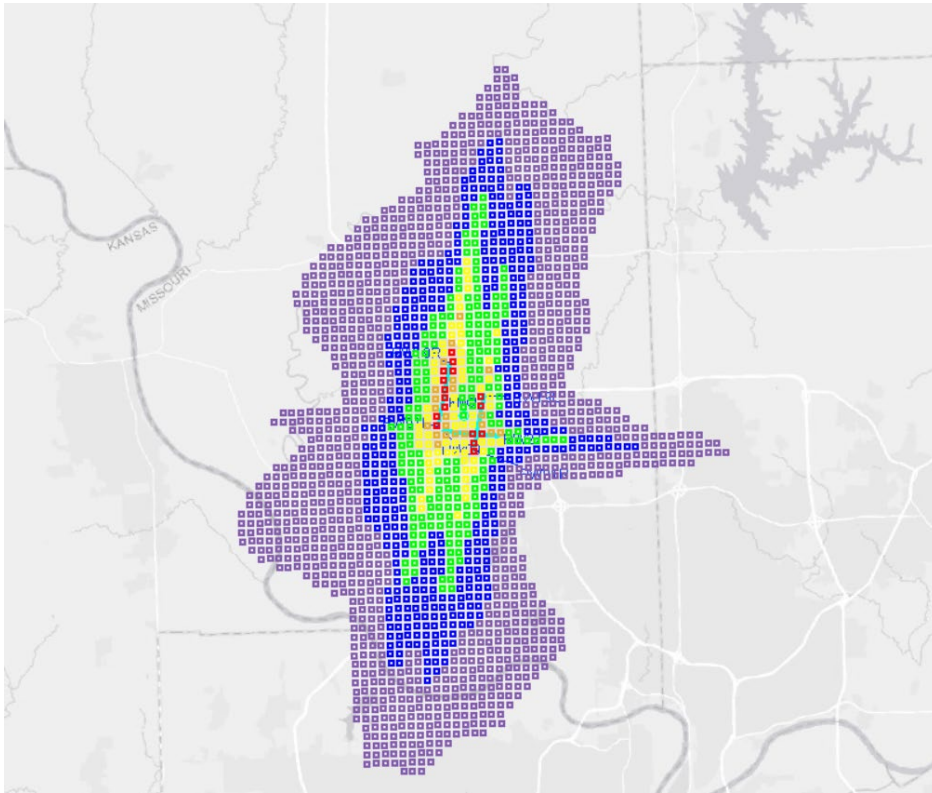


Figure 5-2: Baseline Noise Exposure in TARGETS

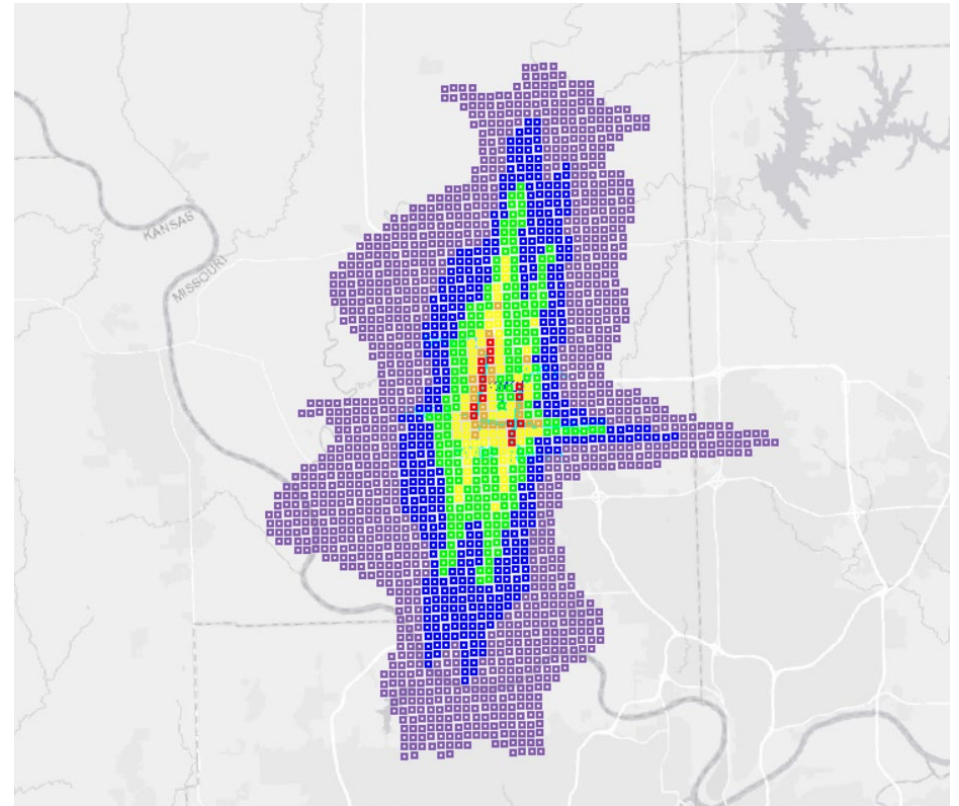


Figure 5-3: Alternative Noise Exposure for the Proposed Procedures in TARGETS

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Appendix A

Randomized Dates

ID	DATES		23	7/8/2019
1	1/5/2019		24	7/17/2019
2	1/10/2019		25	7/25/2019
3	1/18/2019		26	8/6/2019
4	1/24/2019		27	8/10/2019
5	2/6/2019		28	8/22/2019
6	2/16/2019		29	8/28/2019
7	2/27/2019		30	9/3/2019
8	3/4/2019		31	9/9/2019
9	3/13/2019		32	9/18/2019
10	3/25/2019		33	9/26/2019
11	4/4/2019		34	10/2/2019
12	4/12/2019		35	10/10/2019
13	4/22/2019		36	10/22/2019
14	4/30/2019		37	10/28/2019
15	5/7/2019		38	11/6/2019
16	5/12/2019		39	11/13/2019
17	5/22/2019		40	11/22/2019
18	5/27/2019		41	11/30/2019
19	6/7/2019		42	12/4/2019
20	6/18/2019		43	12/10/2019
21	6/24/2019		44	12/19/2019
22	6/28/2019		45	12/30/2019

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

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Appendix B

KMCI Runway Usage

Current Runway Usage from IOAA						
Runway	2019 Annual Departure	Daily Departures	Percent of Departures	2019 Annual Arrival	Daily Arrivals	Percent of Arrivals
01L	22449	61.5	36.6	13633	37.4	22.2
01R	2448	6.7	4	10580	29	17.4
9	3015	8.3	4.9	2296	6.3	3.7
19L	8778	24	14.3	11207	30.7	18.3
19R	21939	60.1	35.9	19983	54.7	32.6
27	2641	7.2	4.3	3576	9.8	5.8
TOTAL	61270	167.8	100%	61275	167.9	100%

Noise Screen of New Procedures With Runway Use Changes

For

Cumulative Impacts Section

Noise Screening Analysis Report

For

Kansas City International Airport

KMCI

Kansas City, MO

Prepared by:

AJV-C25 Environmental, CI & NAS Analytics Team

September 3, 2021

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

Summary

Noise analysis was completed to assess potential impacts resulting from proposed air traffic actions at Kansas City International Airport (KMCI) in Kansas City, MO, using the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) Environmental Plug-in tool and the Aviation Environmental Design Tool (AEDT).

Historical radar track data was used to create a baseline scenario. After the baseline scenario was built, aircraft operations were reassigned to the proposed procedures, which provides the alternative scenario. A change to the runway usage data was added to the alternative scenario due to the construction of a new passenger terminal. Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for the scenarios using AEDT. The scenarios were then compared to determine the potential for significant noise impacts. In the case of KMCI, there were **reportable and significant impacts** resulting from the proposed runway usage action.

Kansas City International Airport Noise Screening Analysis Report

1. Purpose

The purpose of this report is to document the analysis of potential noise impacts resulting from proposed airspace actions at Kansas City International Airport (KMCI) in Kansas City, MO and to present the results of that analysis. Table 1 shows the procedures(s) included in the proposed action. Figure 1-1 shows the airport diagram for KMCI, which provides the runway layout and the airport's field elevation.

Noise Screening uses FAA-Approved tools to determine the potential for extraordinary circumstances and may be used to rule out the need for more detailed noise analysis where a Categorical Exclusion (CATEX) may apply. The results presented in this document do not provide an environmental decision, but are intended to inform the responsible FAA Service Center Environmental Specialist in determining the appropriate level of environmental review.

Table 1: Proposed Procedure Modeled for KMCI

Procedure Name	Procedure Type
JSONN TWO (RNAV)	STAR
MHOMS ONE (RNAV)	STAR
WUTNG ONE (RNAV)	STAR
RUDDH ONE (RNAV)	STAR
RNAV (RNP) Z RWY 1L	IAP
RNAV (RNP) Z RWY 1R	IAP
RNAV (RNP) Z RWY 19L	IAP
RNAV (RNP) Z RWY 19R	IAP
RNAV (RNP) Z RWY 27	IAP
RNAV (RNP) Z RWY 9	IAP
RNAV (GPS) Y RWY 1L	IAP
RNAV (GPS) Y RWY 1R	IAP
RNAV (GPS) Y RWY 19L	IAP
RNAV (GPS) Y RWY 19R	IAP
RNAV (GPS) Y RWY 27	IAP

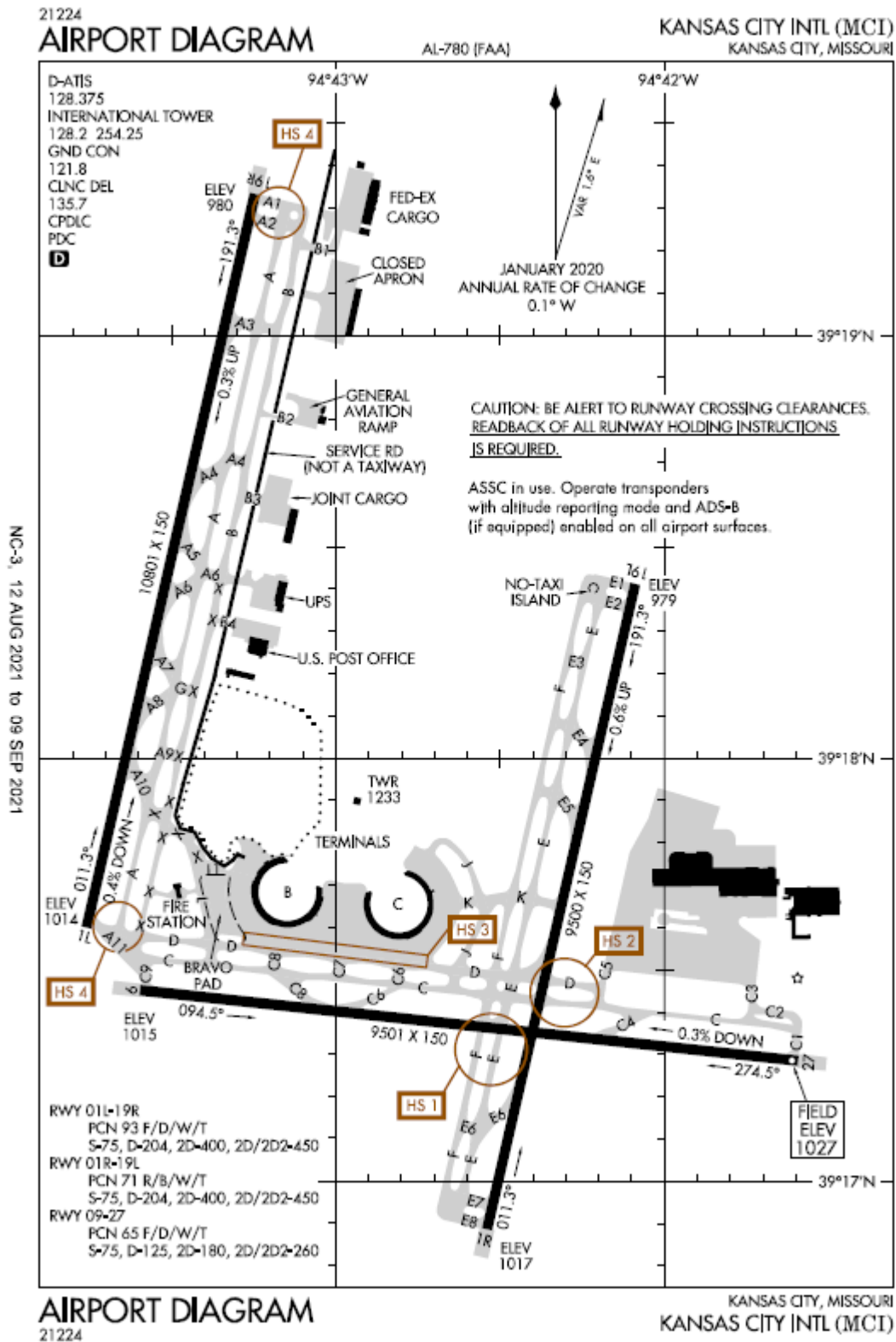
KMCI Noise Screening Analysis Report *For Official Internal Use Only*

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Procedure Name	Procedure Type
RNAV (GPS) Y RWY 9	IAP
ILS OR LOC RWY 1L	IAP
ILS OR LOC RWY 1R	IAP
ILS OR LOC RWY 19L	IAP
ILS OR LOC RWY 19R	IAP
ILS OR LOC RWY 27	IAP
ILS OR LOC RWY 9	IAP

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

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2. Methods

Historical radar track data for KMCI was obtained from the Performance Data Analysis and Reporting System (PDARS). Dates where runways were closed for construction projects were removed from consideration and dates were randomly selected from the remaining available dates within a recent 12-month period. The random dates are assumed to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions. A list of dates selected for the analysis is provided in Appendix A

After the removal of overflights and incomplete track segments, 13,716 total tracks were used for the analysis which is representative of the airport runway usage found in Appendix B. Arrival and departure tracks are analyzed regardless of type of procedure being planned in order to capture any changes to the overall noise footprint. The altitude of the historical tracks was considered and a range ring was set to contain the area where most of the tracks reached above 10,000 feet above ground level (AGL). This established the study area for the analysis. In the case of KMCI, the study area is a circle with a radius of 35 nautical miles centered over the airport.

Annual operation counts and runway usage were obtained through a runway usage report from the FAA's AFS Data Analytics Runway Usage Module and were used to calculate the Average Annual Day (AAD) impacts. Dates were chosen from January 1, 2019 through December 31, 2019 due to COVID-19 decreasing operations in 2020 and 2021. Utilizing data from 2019 ensures the capture of more typical traffic counts. The analysis does not take into account terrain. All calculations were made in reference to the airport's field elevation. RNAV equipped aircraft were separated from non-RNAV equipped aircraft (as indicated in the track data). Only RNAV equipped aircraft were modeled as flying the RNAV procedure. Where non-RNAV procedures are proposed, non-RNAV equipped aircraft were modeled as flying those procedures. The remaining aircraft were modeled as remaining on their historic flight paths. Runways usage and annual operations counts were held constant between the baseline and alternative scenarios. The runway usage chart broken down by annual operations, daily operations, arrivals, departures and runway is shown in Appendix B. The alternate scenario included a change to runway usage numbers due to construction on a new passenger terminal. Proposed runway usage data was calculated using information from an Environmental Assessment Evaluation dated August 2018. The proposed runway usage chart broken down by annual operations, daily operations, arrivals, departures and runway is shown in Appendix B.

Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for all three scenarios. The Environmental Plug-in Tool uses the Aviation Environmental Design Tool version 3d (AEDT 3d) to calculate noise. The noise output files from AEDT 3d for both the baseline and alternative noise exposures consist of a series of equally spaced grid points, each showing a DNL value. The noise grid (receptor set) consists of grid points (receptors) spaced 0.25 nm apart. The noise impact is a comparison between the baseline and the alternative noise exposure that depicts reportable and significant noise changes at all affected receptors per the criteria indicated in FAA Order 1050.1F and Chapter 32 of FAA Order 7400.2K.

3. Baseline Noise Exposure

The baseline noise exposure is shown in Figure 3-1, which depicts the levels and locations of the noise produced by the historical radar track data for arrivals and departures. Table 3-1 is the legend for the baseline noise exposure figures.

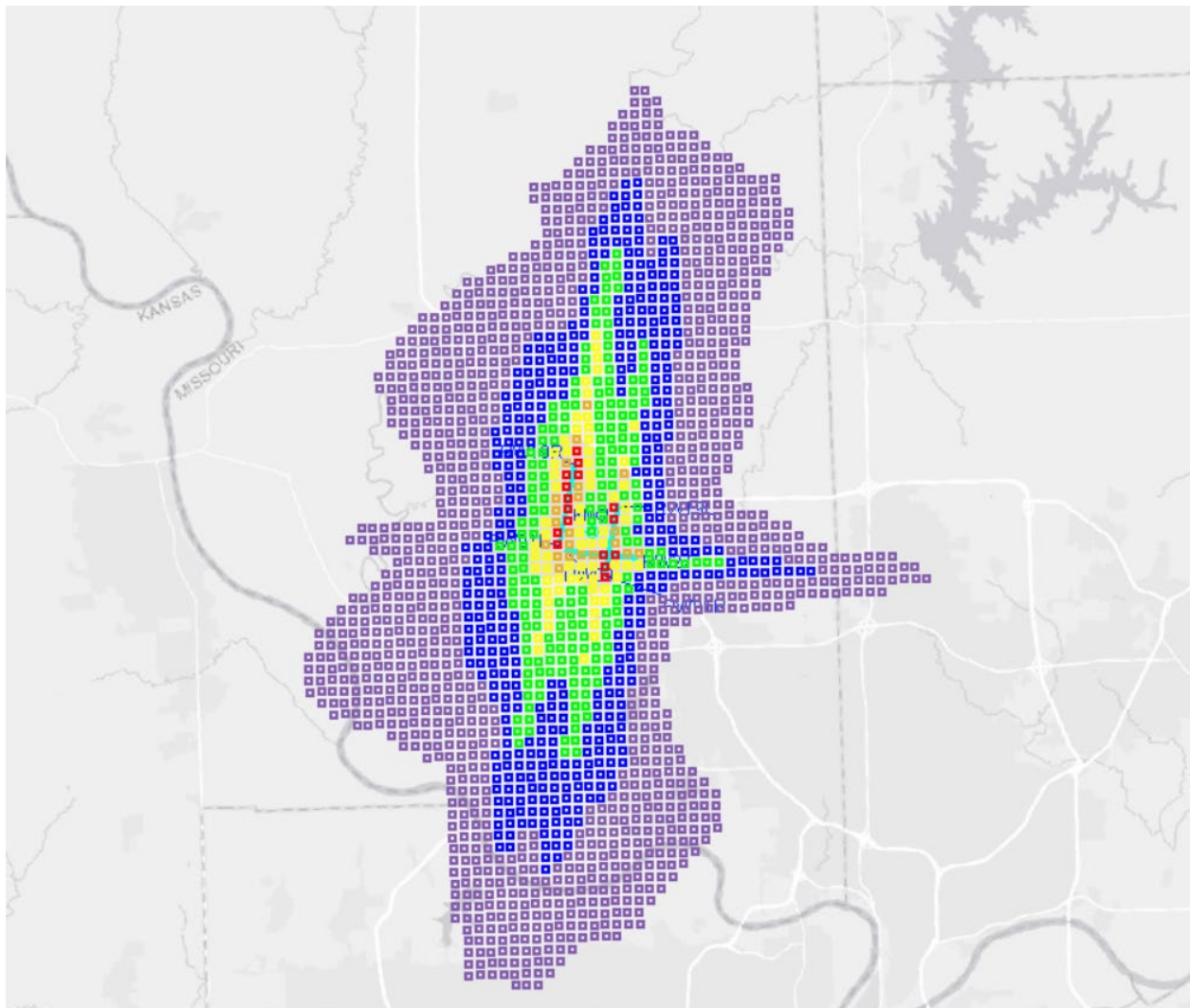


Figure 3-1: Baseline Noise Exposure in TARGETS

Table 3-1: Legend for Noise Exposure

Geometric shape	Color	DNL value
Square	Purple	45–50 dB
Square	Blue	50–55 dB
Square	Green	55–60 dB
Square	Yellow	60–65 dB
Square	Orange	65–70 dB
Square	Red	70 dB or more

4. Alternative Noise Exposure

The alternative noise exposure is shown in Figure 4-1, which depicts the levels and locations of the noise exposure output from the model of the proposed action. Table 4-1 is the legend for the alternative noise exposure figures.

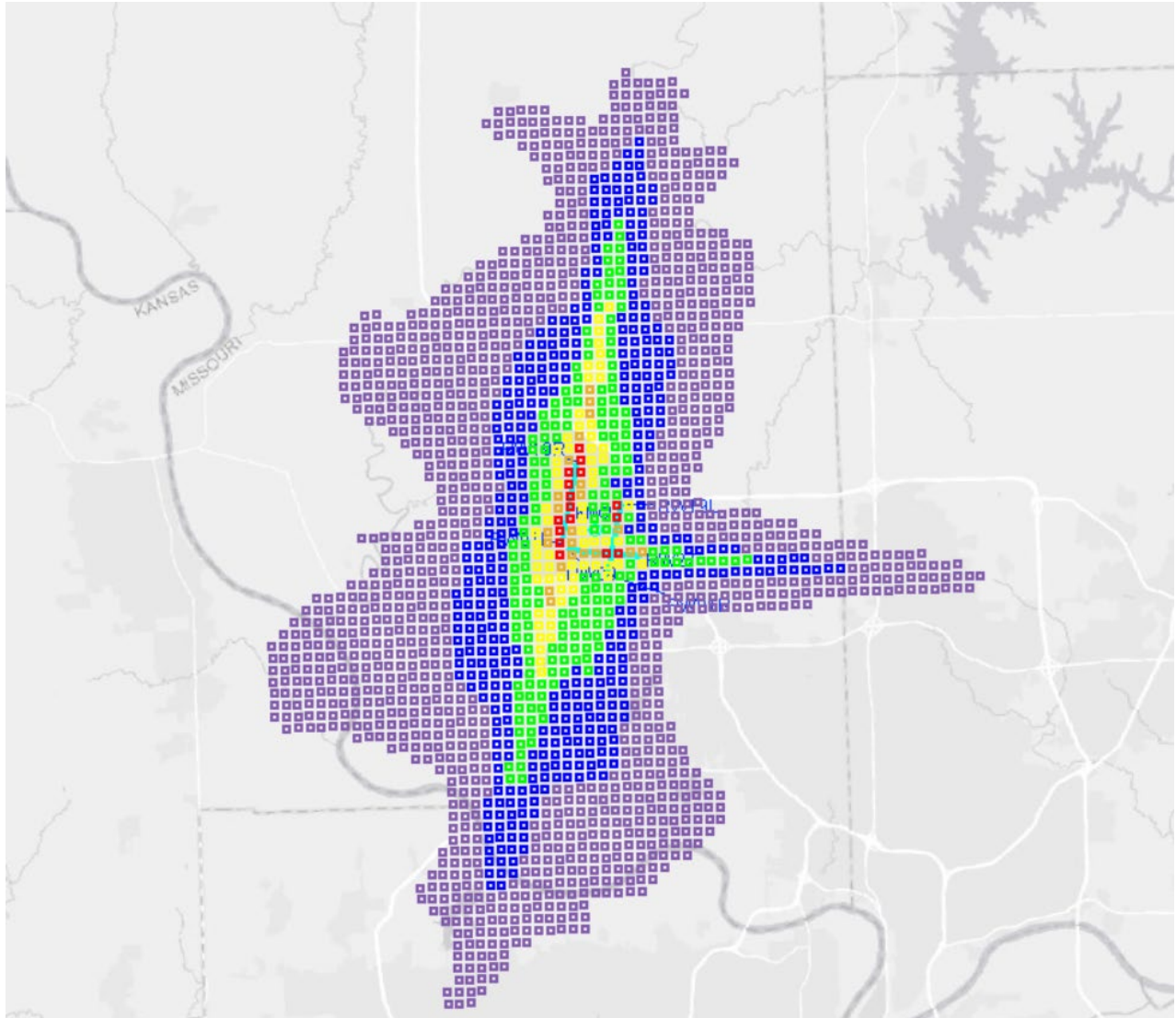


Figure 4-1: Alternative Noise Exposure for the Proposed Procedures in TARGETS

Table 4-1: Legend for Noise Exposure

Geometric shape	Color	DNL value
Square	Purple	45–50 dB
Square	Blue	50–55 dB
Square	Green	55–60 dB
Square	Yellow	60–65 dB
Square	Orange	65–70 dB
Square	Red	70 dB or more

5. Noise Impacts

A comparison of the baseline and alternative scenarios by the TARGETS Environmental plug-in determines the noise impacts of the proposed action. Significance of noise impacts is defined by FAA Order 1050.1F¹ which establishes the threshold for significant increases in noise exposure. Where the proposed action results in a noise impact, TARGETS graphically displays a noise impact layer that indicates the relative locations of reportable and significant changes.

The noise impacts resulting from the analysis are shown in the map below (Figure 5-1). Table 5-1 shows the legend for the noise impacts. The baseline (Figure 5-2) and alternative (Figure 5-3) noise exposure results are shown again below for reference and to provide a side-by-side comparison. In the case of KMCI, there were **reportable and significant impacts in noise resulting from the proposed action to include the change in runway usage due to a new passenger terminal.**

¹ According to Exhibit 4-1 of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, a noise impact is significant if “The action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.”

KMCI Noise Screening Analysis Report *For Official Internal Use Only*

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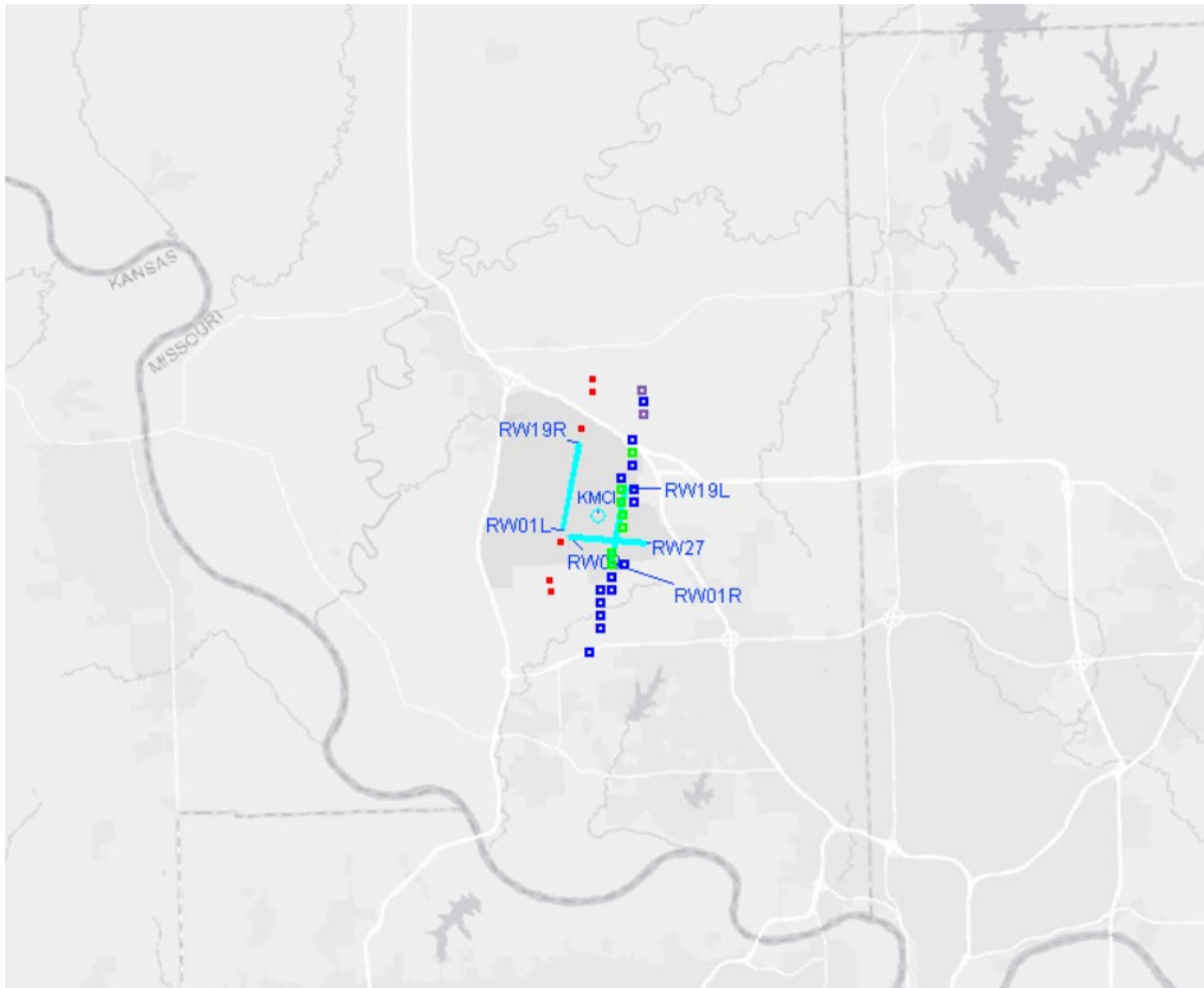


Figure 5.1: Noise Impacts from the KMCI Analysis in TARGETS

Table 5.1: Legend for Noise Exposure

Geometric Shape	Color	DNL difference
Square	Purple	<u>Decrease</u> of ≥ 5.0 dB over DNL 45-60 dB baseline
Square	Blue	<u>Decrease</u> of ≥ 3.0 dB over DNL 60-65 dB baseline
Square	Green	<u>Decrease</u> of ≥ 1.5 dB over DNL ≥ 65 dB baseline
Oval	Red	Alternative of ≥ 65 dB with a ≥ 1.5 dB <u>Increase</u> over baseline (<i>Significant</i>)
Oval	Orange	Alternative of 60-65 dB with a ≥ 3.0 dB <u>Increase</u> over baseline (<i>Reportable</i>)
Oval	Yellow	Alternative of 45-60 dB with a ≥ 5.0 dB <u>Increase</u> over baseline (<i>Reportable</i>)

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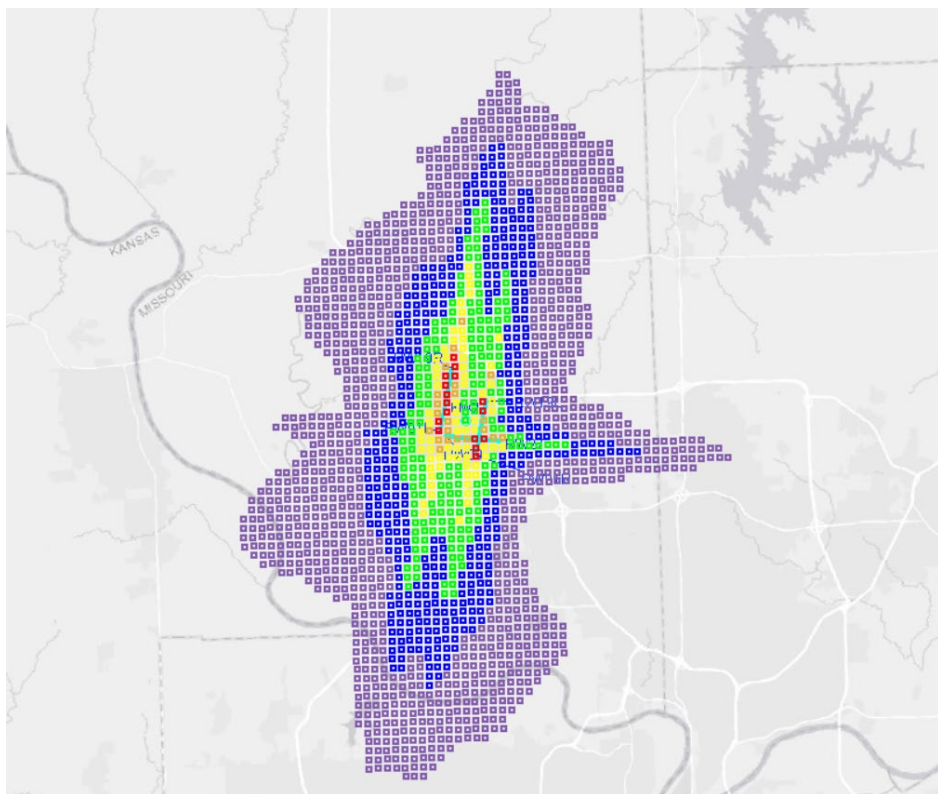


Figure 5-2: Baseline Noise Exposure in TARGETS

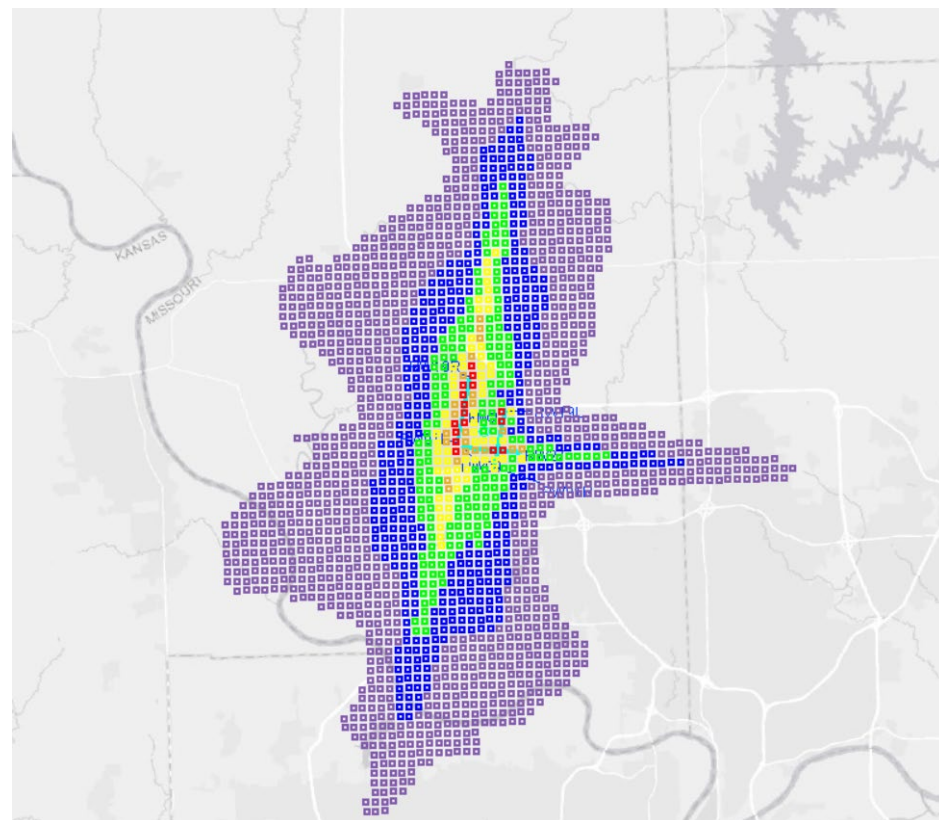


Figure 5-3: Alternative Noise Exposure for the Proposed Procedures in TARGETS

Appendix A

Randomized Dates

ID	DATES		23	7/8/2019
1	1/5/2019		24	7/17/2019
2	1/10/2019		25	7/25/2019
3	1/18/2019		26	8/6/2019
4	1/24/2019		27	8/10/2019
5	2/6/2019		28	8/22/2019
6	2/16/2019		29	8/28/2019
7	2/27/2019		30	9/3/2019
8	3/4/2019		31	9/9/2019
9	3/13/2019		32	9/18/2019
10	3/25/2019		33	9/26/2019
11	4/4/2019		34	10/2/2019
12	4/12/2019		35	10/10/2019
13	4/22/2019		36	10/22/2019
14	4/30/2019		37	10/28/2019
15	5/7/2019		38	11/6/2019
16	5/12/2019		39	11/13/2019
17	5/22/2019		40	11/22/2019
18	5/27/2019		41	11/30/2019
19	6/7/2019		42	12/4/2019
20	6/18/2019		43	12/10/2019
21	6/24/2019		44	12/19/2019
22	6/28/2019		45	12/30/2019

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Appendix B

KMCI Runway Usage

Current Runway Usage from IOAA						
Runway	2019 Annual Departure	Daily Departures	Percent of Departures	2019 Annual Arrival	Daily Arrivals	Percent of Arrivals
01L	22449	61.5	36.6	13633	37.4	22.2
01R	2448	6.7	4	10580	29	17.4
9	3015	8.3	4.9	2296	6.3	3.7
19L	8778	24	14.3	11207	30.7	18.3
19R	21939	60.1	35.9	19983	54.7	32.6
27	2641	7.2	4.3	3576	9.8	5.8
TOTAL	61270	167.8	100%	61275	167.9	100%
Proposed Runway Usage from EA						
Runway	2019 Annual Departure	Daily Departures	Percent of Departures	2019 Annual Arrival	Daily Arrivals	Percent of Arrivals
01L	24079	66	39.3	22916.8	62.8	37.4
01R	1225	3.4	0.2	1041.7	2.9	1.7
9	3015	8.3	4.9	1164.2	3.2	1.9
19L	3676	10	6	612.8	1.7	1
19R	27816	76.2	45.4	29412	80.5	48
27	2573	7.1	4.2	6127.5	16.8	10
TOTAL	62384	167.9	100%	61275	167.9	100%

Community Involvement Demographic Identification (CIDI) Report

For

Kansas City International Airport

KMCI

Kansas City, MO

Prepared by:

AJV-C25 Environmental, CI & NAS Analytics Team

December 6, 2021

Overview

AJV was tasked with identifying communities defined by the Environmental Protection Agency as Environmental Justice (EJ) communities in the vicinity of Kansas City International Airport (KMCI) for the purpose of community involvement. AJV-C25 used the Aviation Environmental Design Tool's (AEDT) capability to identify these populations in the vicinity of KMCI, which is undergoing NEPA review in accordance with FAA Order 1050.1F.

The intent of this analysis is to quantitatively identify potential populations based on readily available Census data using standard techniques. The analysis process is identified as the Community Involvement Demographic Identification (CIDI) process. Where feasible, information specific to the proposed action (flight tracks, proposed procedures, etc.) have been incorporated. The information presented in this screening report should be verified through consultation with local sources. No efforts to determine potential impacts to CIDI populations due to the proposed action were undertaken. Noise exposure and potential noise impacts are analyzed separately and the results are included in a separate report.

AEDT in the CIDI process

The AEDT EJ capability relies on U.S. Census demographic data to identify communities that may be candidates for meaningful involvement in project communication and/or outreach activities. This process is being identified as Community Involvement Demographic Identification (CIDI) in order to differentiate it from the environmental justice section of an environment assessment or environmental impact statement. AEDT incorporates Census 5-year American Community Survey (ACS) data that includes low-income and minority information to the Block Group level. CIDI relies on AEDT (for analysis) and the Environmental Visualization Tool (EVT) for graphics.

Proposed Action/Study Area

The Air Traffic Organization (ATO) is proposing to implement new procedures in the vicinity of KMCI

Methodology

The following considerations were included in this analysis, and are shown in the accompanying figures:

- Recent representative sample of track data
- Procedures under consideration (Proposed Action)
- Community demographics generated by AEDT's environmental justice feature

The first step in the process is to determine the study area to be used in the CIDI calculations. The study area was determined by evaluating the existing tracks and the proposed procedure together to estimate an area of potential flight path change. The study area encompasses areas of Kansas and Missouri. Table 1 summarizes the counties included in the study area.

Census Data

Within this study area, minority and low-income populations were identified. In order to identify minority and low-income populations, the average minority and low-income populations within the study area were determined, and any census block group within the study area that has a minority or low-income percentage that is higher than the average of the study area were identified. Note that the data is presented by Census Block Group, and actual concentrations of poverty and minority populations may not be uniformly distributed within the block group.

Results

Minority

Within the study area, the average minority population is 34.24%. By comparison, using the same methodology, the average state level minority population is 22.96% for Kansas and 19.78% for Missouri. The average county level minority populations within the study area ranges from 0% to 100%. Table 1 presents the states and counties in the study area and the county, state, and national level minority percentages.

Table 1: Minority data for the counties included in the KMCI study area

State	County	County % Minority	State % Minority	National % Minority
Kansas	Atchison County	11.75%	22.96%	37.68%
	Doniphan County	9.75%		
	Douglas County	19.88%		
	Jefferson County	5.76%		
	Johnson County	19%		
	Leavenworth County	20.65%		
	Wyandotte County	57.42%		
Missouri	Buchanan County	15.47%	19.78%	
	Caldwell County	4.88%		
	Clay County	17.25%		
	Clinton County	6.11%		
	Jackson County	37.23%		
	Platte County	17.20%		
	Ray County	5.82%		

Low Income

Within the study area, the average low income population is 16.34%. For comparison, using the same methodology, the average state level low income population is 13.57% for Kansas and 15.62% for Missouri. The average county level low income populations within the study area ranges from 0% to 86.30%. Table 2 presents the states and counties in the study area and the county, state, and national level low income percentages.

Table 2: Low income population data for the counties included in the KMCI study area

State	County	County % Low Income	State % Low Income	National % Low Income
Kansas	Atchison County	19.25%	13.57%	15.47%
	Doniphan County	12.39%		
	Douglas County	19.01%		
	Jefferson County	7.54%		
	Johnson County	6.16%		
	Leavenworth County	11.36%		
	Wyandotte County	23.86%		
Missouri	Buchanan County	18.07%	15.62%	
	Caldwell County	13.42%		
	Clay County	8.85%		
	Clinton County	9.32%		
	Jackson County	17.88%		
	Platte County	7.69%		
	Ray County	15.89%		

Demographics by Location

The following figures display the results of the AEDT analysis.

Environmental Justice Map with Procedures

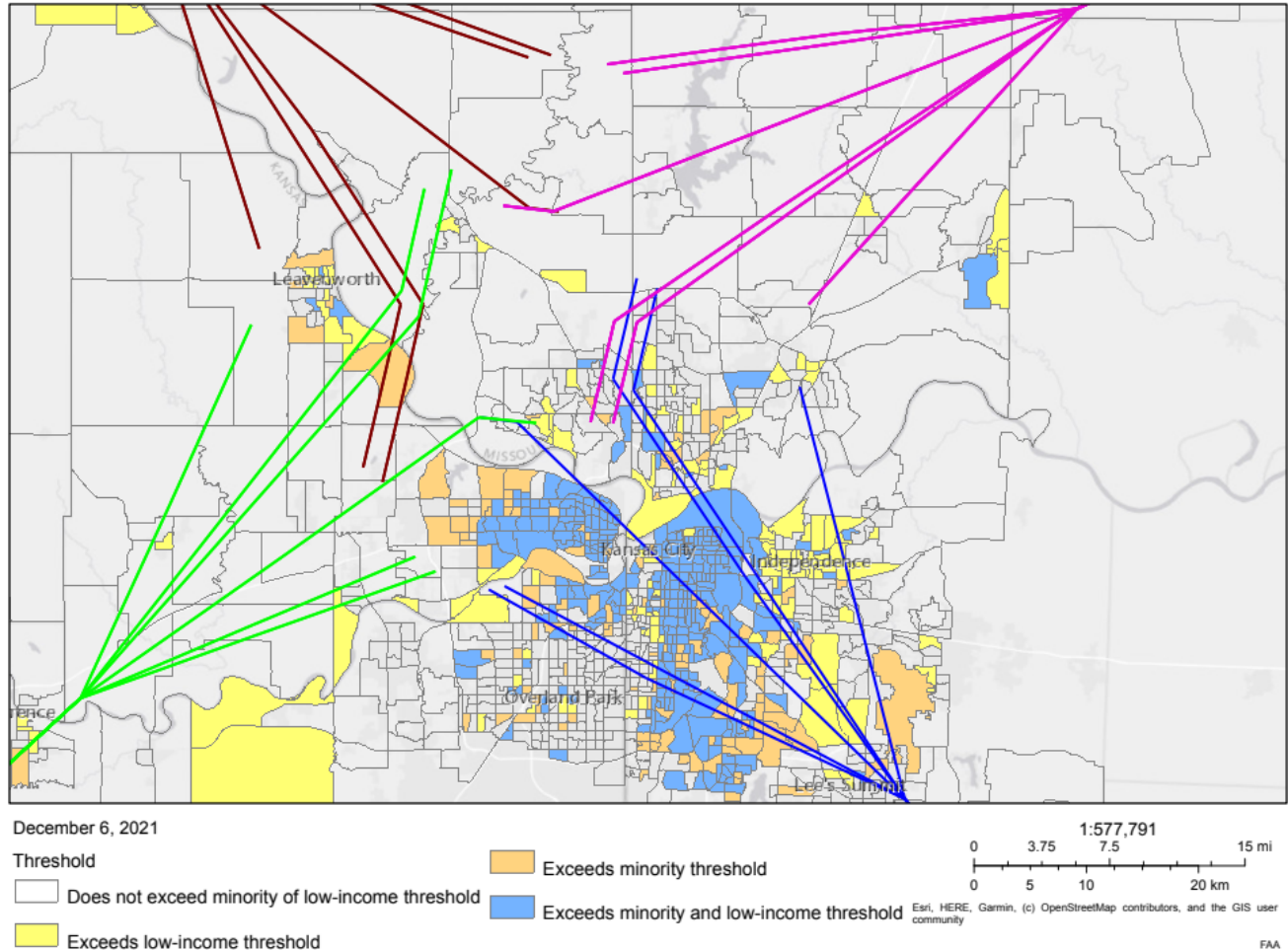


Figure 1: KMCI Demographics

Environmental Justice Map with Procedures

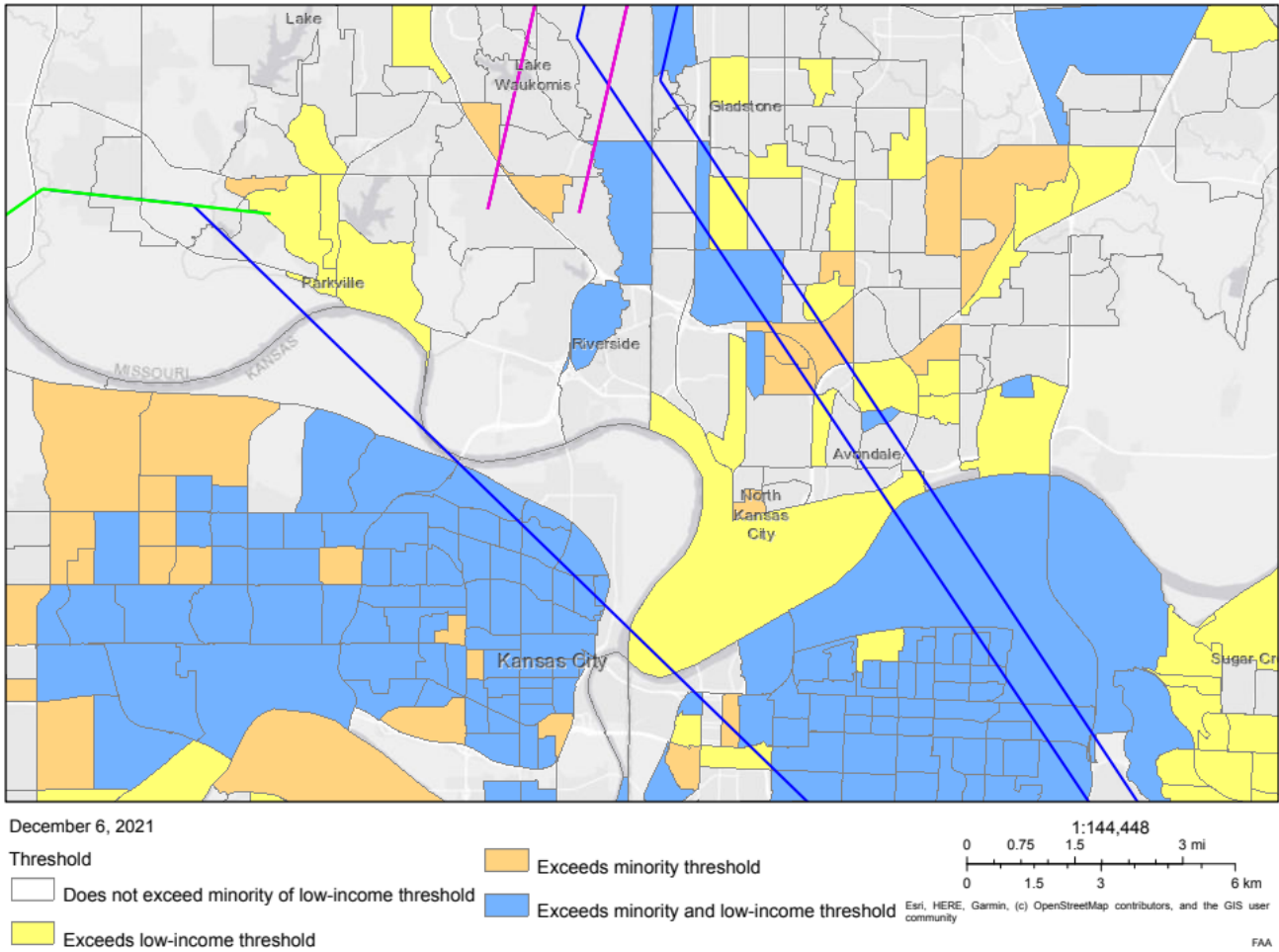


Figure 2: KMCI Demographics Zoomed In

Section 106 Letters

To

State and City Historic Preservation Officers



U.S. Department
of Transportation

**Federal Aviation
Administration**

November 9, 2021

Ms. Dru Buntin
Acting SHPO/Acting Director
State Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

RE: Section 106 Consultation for proposed FAA procedure amendments at Kansas City International Airport

Dear Ms. Buntin,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Kansas City International Airport (MCI) in Kansas City, Missouri. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

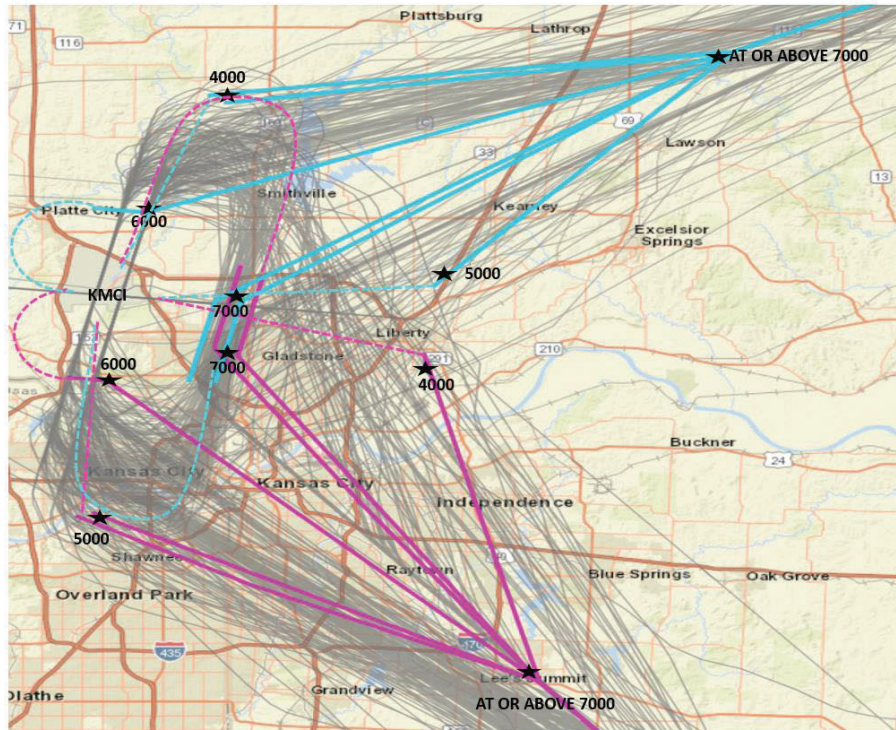
Proposed Action

The FAA is proposing to replace the conventional arrivals into MCI with Area Navigation (RNAV) Standard Terminal Arrival Routes (STAR). RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and controllers and take advantage of the aircraft’s onboard navigation system.

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of a historic property’s significant historic features. The FAA compared the flight tracks of aircraft flying the current arrival procedures to the locations of the proposed procedures. Currently, aircraft are expected to remain at approximately the same altitudes with the proposed procedure. The comparison is depicted in the figure below. Based on this comparison, the FAA determined that there would be no new areas overflown by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.



MHOMS ARRIVAL (PINK) AND
RUDDH ARRIVAL (BLUE) WITH
TRACK OVERLAY

*All Altitudes in MSL

Comparison of existing flight tracks to proposed procedures

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change. They are expected to remain below 45dB DNL (day-night average sound level).

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and, therefore, should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

CHRISTOPHER L
SOUTHERLAND

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L SOUTHERLAND
Date: 2021.11.09 15:04:41 -06'00'

Christopher L. Southerland
Manager, Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

November 9, 2021

Ms. Jennie Chinn
SHPO, Exec. Director
Kansas State Historical Society
6425 Southwest 6th Avenue
Topeka, KS 66615-1099
via E-mail: jennie.chin@ks.gov

RE: Section 106 Consultation for proposed FAA procedure amendments at Kansas City International Airport

Dear Ms. Chinn,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Kansas City International Airport (MCI) in Kansas City, Missouri. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

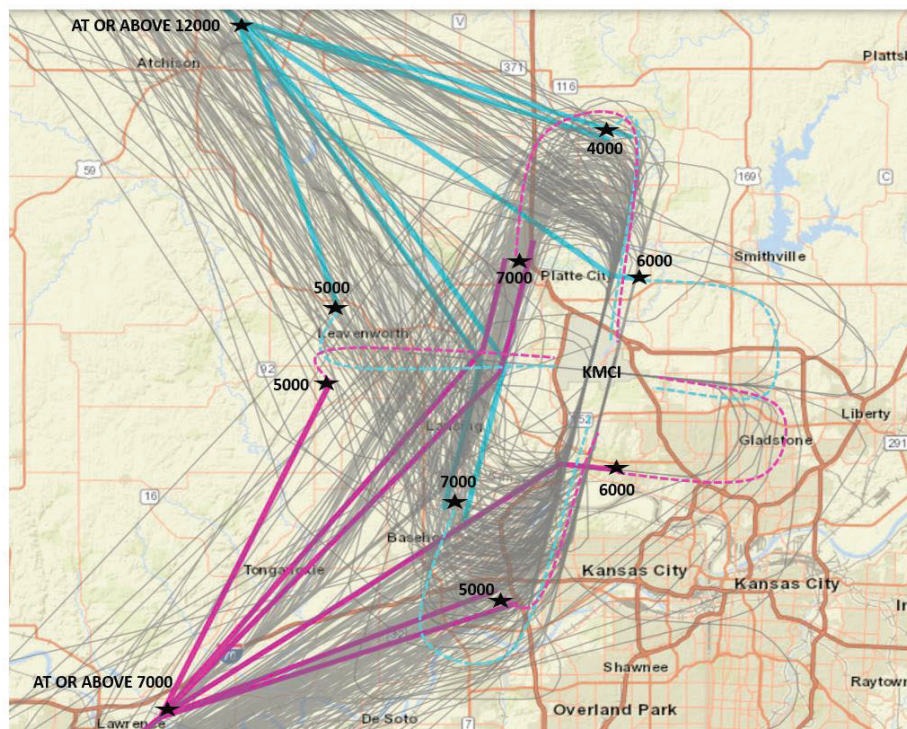
The FAA is proposing to replace the conventional arrivals into MCI with Area Navigation (RNAV) Standard Terminal Arrival Routes (STAR). RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help

to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and controllers and take advantage of the aircraft's onboard navigation system.

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the flight tracks of aircraft flying the current arrival procedures to the locations of the proposed procedures. Currently, aircraft are expected to remain at approximately the same altitudes with the proposed procedure. The comparison is depicted in the figure below. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.



WUTNG ARRIVAL (PINK) AND
JSONN ARRIVAL (BLUE) WITH
TRACK OVERLAY

*All Altitudes in MSL

Comparison of existing flight tracks to proposed procedures

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change. They are expected to remain below 45dB DNL (day-night average sound level).

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

CHRISTOPHER L
SOUTHERLAND

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CHRISTOPHER L SOUTHERLAND
Date: 2021.11.09 09:43:19 -06'00'

Christopher L. Southerland
Manager, Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

November 9, 2021

Mr. Bradley Wolf
City Historic Preservation Officer
City Planning and Development
City of Kansas City, MO
16th Floor, City Hall, Room 1603
414 E 12th Street,
Kansas City, MO 64106
via email: bradley.wolf@kcmo.org

RE: Section 106 Consultation for proposed FAA procedure amendment at Kansas City International Airport

Dear Mr. Wolf,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Kansas City International Airport (MCI) in Kansas City, Missouri. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

The FAA is proposing to replace the conventional arrivals into MCI with Area Navigation (RNAV) Standard Terminal Arrival Routes (STAR). RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational

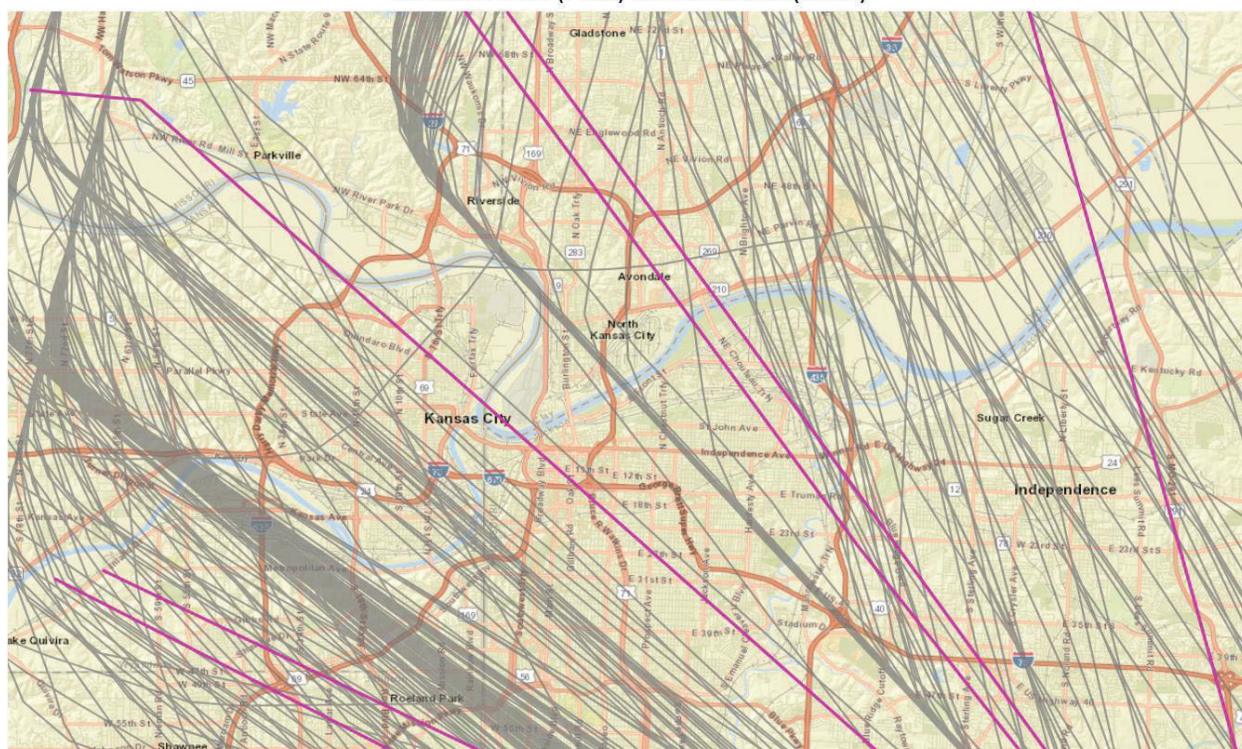
efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and controllers and take advantage of the aircraft's onboard navigation system.

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the flight tracks of aircraft flying the current arrival procedure (gray) to the location of the proposed procedure (pink). Currently, aircraft are at or above approximately 6,500 feet mean sea level (MSL) or 5,600 feet above ground level (AGL) when flying over the downtown area and that is expected to remain the same with the proposed procedure. The comparison is depicted in the figure below. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action; and therefore, no potential to introduce new visual, atmospheric, or audible elements.

MHOMS STAR (PINK) WITH TRACKS (GRAY)



The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking would affect current aircraft noise exposure levels. The noise levels in the APE did not change. They are expected to remain below 45dB DNL (day-night average sound level).

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

CHRISTOPHER L
SOUTHERLAND

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Date: 2021.11.09 09:32:24
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Christopher L. Southerland
Manager, Operations Support Group,
ATO Central Service Center, AJV-C2

Example

Section 106 Letter

To

Tribal Historic Preservation Officers



U.S. Department
of Transportation

Federal Aviation
Administration

November 9, 2021

Mr. Bobby Komardley
Chairman
Apache Tribe of Oklahoma
P.O. Box 1330
Anadarko, OK 73005
via E-mail: bkomardley@outlook.com

RE: Section 106 Consultation for proposed FAA procedure amendments at Kansas City International Airport

Dear Mr. Komardley,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Kansas City International Airport (MCI) in Kansas City, Missouri. The FAA has determined that this proposal is an 'undertaking' subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

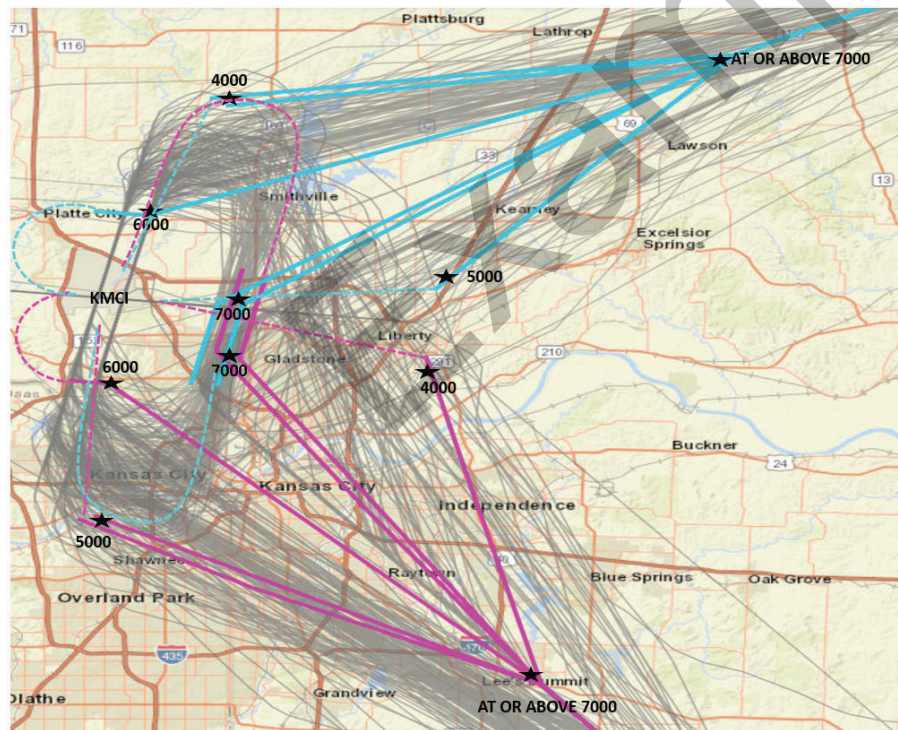
Proposed Action

The FAA is proposing to replace the conventional arrivals into MCI with Area Navigation (RNAV) Standard Terminal Arrival Routes (STAR). RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and controllers and take advantage of the aircraft's onboard navigation system.

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

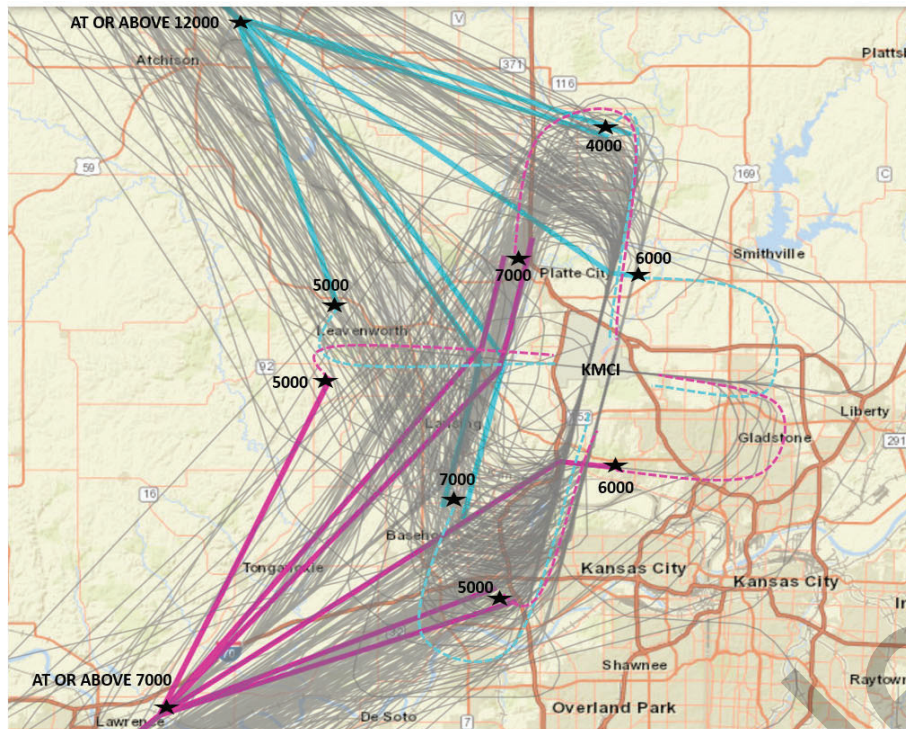
The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property’s significant historic features. The FAA compared the flight tracks of aircraft flying the current arrival procedures to the locations of the proposed procedures. Currently, aircraft are expected to remain at approximately the same altitudes with the proposed procedure. The comparisons are depicted in the figures below. Based on this comparison, the FAA determined that there would be no new areas overflown by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.



MHOMS ARRIVAL (PINK) AND
RUDDH ARRIVAL (BLUE) WITH
TRACK OVERLAY

*All Altitudes in MSL

Comparison of existing flight tracks to proposed procedures
arriving from the east side of the airport



WUTNG ARRIVAL (PINK) AND
JSONN ARRIVAL (BLUE) WITH
TRACK OVERLAY

*All Altitudes in MSL

Comparison of existing flight tracks to proposed procedures
arriving from the west side of the airport

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change. They are expected to remain below 45dB DNL (day-night average sound level).

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

CHRISTOPHER L
SOUTHERLAND

Digitally signed by
CHRISTOPHER L SOUTHERLAND
Date: 2021.11.10 10:39:16 -06'00'

Christopher L. Southerland Manager,
Operations Support Group,
ATO Central Service Center, AJV-C2

Example

Section 106

Responses

CULTURAL RESOURCE COMMENTS
Section 106 Review

CONTACT PERSON/ADDRESS:

Kristi Regotti
10101 Hillcrest Parkway – Operations Support Group – AJV-C25
Fort Worth, TX 76177

COPIED:

Scott Tener, FAA
Brian Boehmer, Aviation, MoDOT

PROJECT:

Proposed FAA Procedure Amendments for Kansas City International Airport (MCI), 601 Brasilia Venue, Kansas City

FEDERAL AGENCY:

FAA

COUNTY:

Platte, Clinton, Clay, Jackson

The Missouri State Historic Preservation Office (SHPO) has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

☒

Adequate documentation has been provided as outlined in 36 CFR Section 800.11. After review of the initial submission, the project area has no known historic properties present and a low potential for the occurrence of cultural resources. SHPO concurs with your determination of **No Historic Properties Affected**.

☐

An adequate cultural resource survey of the project area has been previously conducted; therefore, SHPO concurs with your determination of **No Historic Properties Affected**.

☐

An adequate cultural resource survey has been conducted for this project titled, by . Based on this survey and its negative findings, SHPO concurs with your determination of **No Historic Properties Affected**.

PLEASE BE ADVISED THAT, IF THE CURRENT PROJECT AREA OR SCOPE OF WORK CHANGES, SUCH AS A BORROW AREA BEING ADDED, OR CULTURAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, APPROPRIATE INFORMATION MUST BE PROVIDED TO THIS OFFICE FOR FURTHER REVIEW AND COMMENT. Please retain this documentation as evidence of consultation with SHPO under Section 106 of the National Historic Preservation Act, as amended. SHPO concurrence does not complete the Section 106 process as federal agencies will need to conduct consultation with all interested parties.

By: Toni M. Prawl

Toni M. Prawl, Ph.D., Deputy State Historic Preservation Officer

December 9, 2021

Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Amanda Burke, (573) 522-4641.

Please be sure to refer to the project number: 007-PL-13



The Delaware Nation
Historic Preservation Department
31064 State Highway 281
Anadarko, OK 73005
Phone (405)247-2448

December 16, 2021

To Whom It May Concern:

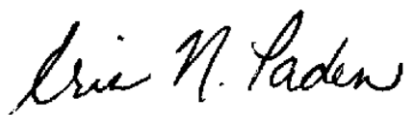
The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project(s): Proposed FAA Procedure Amendments at Kansas City International Airport

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger cultural, or religious sites of interest to the Delaware Nation. **Please continue with the project as planned** keeping in mind during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.



Erin Paden
Director of Historic Preservation
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005
Ph. 405-247-2448 ext. 1403
epaden@delawarenation-nsn.gov