Mercer County Regional Airport

Airfield Alternatives Meeting
December 12, 2023

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Agenda

- Introductions
- Airport Authority History
- Operations Review
- Crosswind Alternatives
- Questions/Comments



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Why Hazen was Chosen

- Beulah and Hazen had their own airport and in 1989 the cities agreed to accept a single airport site.
- There were other aviation needs to serve the community other than Beulah and Hazen as far as agriculture, recreation, energy, medical, and business and bring in light business jet traffic.
- Three sites were evaluated last master plan; Beulah Municipal Airport, Hazen Municipal Airport, and an undeveloped site.
- A main determination was based on a site able to accommodate a 4,400-foot runway with anticipation to expand to a 5,500-foot-long runway and instrument approach capability.
- The Hazen site was recognized most practical for development.

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Operations Review

- According to the TAF in 2022…

Based Aircraft	Air Taxi/Commuter Ops.	GA Itinerant Ops.	Military Itinerant Ops.	Total Itinerant Ops.	Total Local Ops.
16	200	500	30	730	800

- According to the TFMS in 2022, 222 IFR operations were reported.
- Fuel from the previous six years

Year	100LL (Gallons Sold)	Jet A (Gallons Sold)	Total Gallons (Annual)
2016	11,712	13,535	25,247
2017	7,241	12,874	20,115
2018	8,667	10,291	18,958
2019	6,776	10,775	17,551
2020	11,476	1,967	13,443
2021	8,875	3,203	12,078
2022	9,660	8,008	17,668

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Wind Analysis

ALL-WEATHER WIND COVERAGE				
CONFIGURATION	CROSSWIND COMPONENT			
	10.5 KNOTS	13 KNOTS	16 KNOTS	20 KNOTS
RUNWAY 15-33	93.50%	97.60%	99.17%	-
	-	-	-	-
	-	-	-	-
COMBINED	93.50%	97.60%	99.17%	-
SOURCE: KHZE AWOS (2012-2021, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER				
83,657 TOTAL OBSERVATIONS				

INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE				
CONFIGURATION	CROSSWIND COMPONENT			
	10.5 KNOTS	13 KNOTS	16 KNOTS	20 KNOTS
RUNWAY 15-33	91.19%	96.67%	98.97%	-
	-	-	-	-
	-	-	-	-
COMBINED	91.19%	96.67%	98.97%	-
SOURCE: KHZE AWOS (2012-2021, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER				
5,233 TOTAL OBSERVATIONS				
IFR = VISIBILITY LOWER THAN 3 MILES OR CEILING LOWER THAN 1,000 FEET				

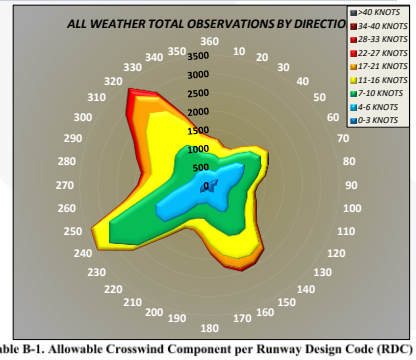


Table B-1. Allowable Crosswind Component per Runway Design Code (RDC)

RDC	Allowable Crosswind Component
A-I and B-I *	10.5 knots
A-II and B-II	13 knots
A-III, B-III, C-I through D-III D-I through D-III	16 knots
A-IV and B-IV, C-IV through C-VI, D-IV through D-VI	20 knots
E-I through E-VI	20 knots

Note: * Includes A-I and B-I small aircraft.

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Items Considered for the Crosswind

- Current Property
- Wind Coverage
- Coulee to the West
- Runway Protection Zones (RPZs) and Part 77 Surfaces
- Possible Runway Length



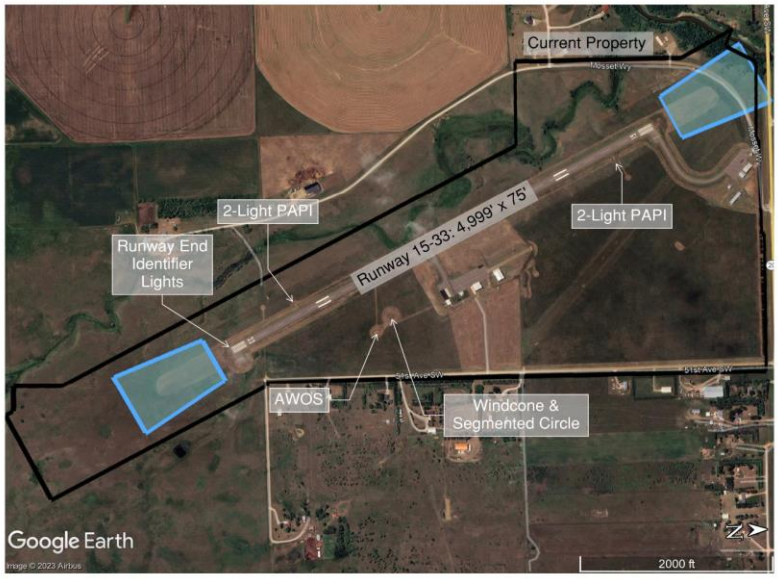


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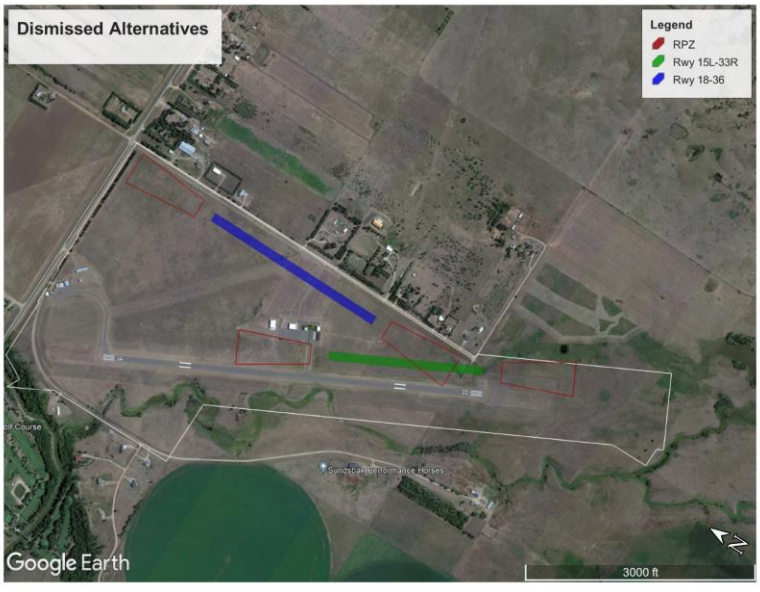
Current Facilities

- 10.5 knot all-weather wind coverage is at 93.50%
- 13 knot all-weather wind coverage is at 97.60%
- Not currently meeting 95% wind coverage for 10.5 knots



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Options Eliminated



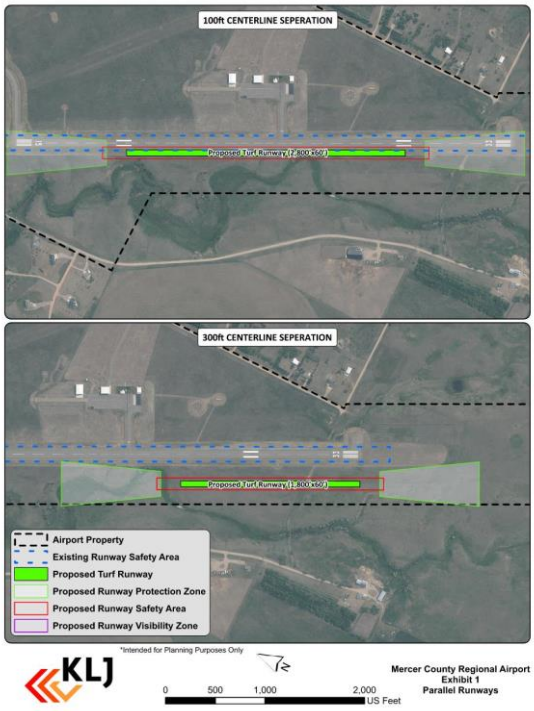
- North-South Crosswind East Side
  - Would not meet the 95% wind coverage
- East of the 33 End Crosswind
  - Safety areas will restrict terminal area development
  - Would not increase wind coverage

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Parallel to Runway 15-33 Options

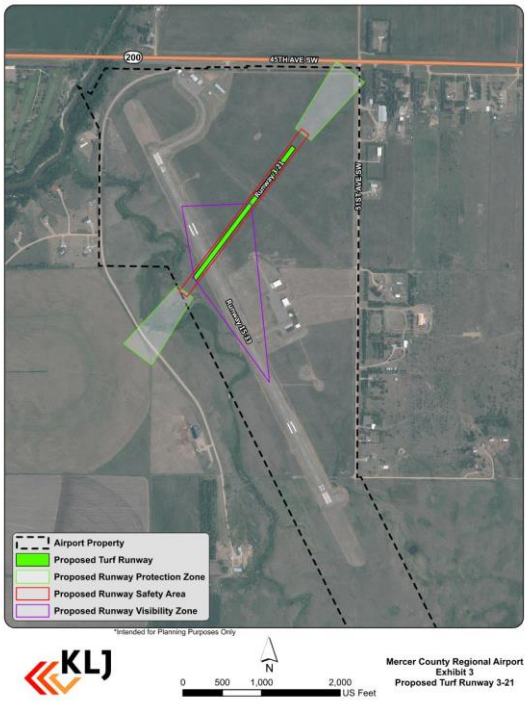
- Within the Runway Safety Area (RSA)
  - 2,800’ long
  - Runway 15-33 paved and turf are considered the same runway
- 300’ Centerline Separation
  - 1,800’ long
  - No additional property needed



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Runway 3-21 Alignment

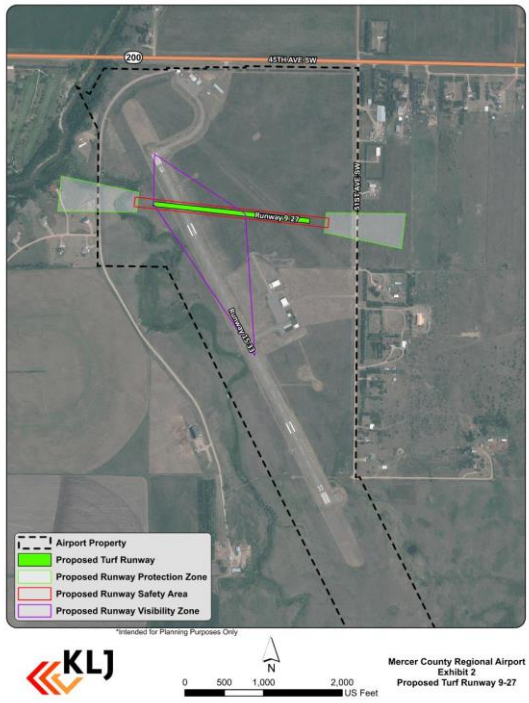
- 2,000’ long
- Exceeds 95% wind coverage (97.22%)
- Intersects with Runway 15-33
- Runway Visibility Zone (RVZ) requirements would restrict future terminal area development
- Roads within both RPZs



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Runway 9-27 Alignment

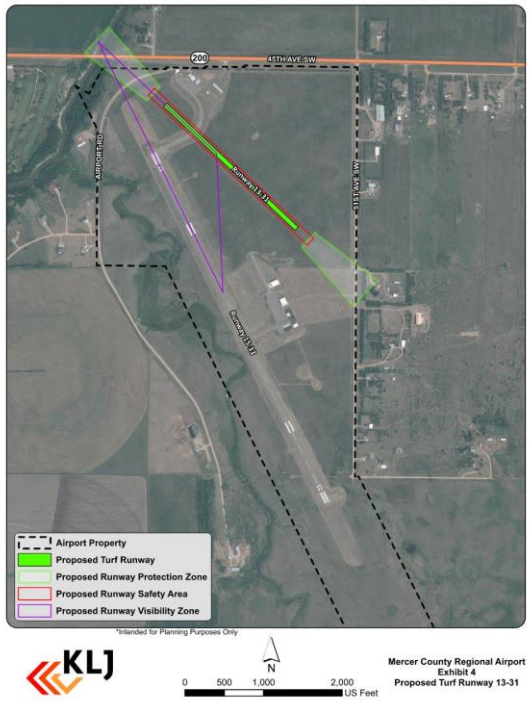
- 2,000’ long
- Exceeds 95% wind coverage (98.85%)
- Intersects with Runway 15-33
- RVZ does not interfere with future terminal area development
- Roads in both RPZs



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Runway 13-31 Alignment

- 2,300’ long
- Exceeds 95% crosswind coverage (96.79%)
- Does not interfere with future terminal area development
- Roads in both RPZs and access road
- Crosses north taxiway



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	Parallel within RSA	Parallel outside RSA	3-21	9-27	13-31
Length	2,800’	1,800’	2,000’	2,000’	2,300’
Wind Coverage	94.13%	94.13%	97.22%	98.85%	96.79%
Terminal Area Impact	None	None	Yes	None	None
Things Affected	Use of Runway 15-33	None	Crosses Runway 15-33	Crosses Runway 15-33	Access road & crosses north taxiway
RPZ Items	None	Airport Fence	Mosset Wy, 45th Ave & 51st Ave	Mosset Wy, Archers Ln & 51st Ave	Mosset Wy, 45th Ave & 51st Ave
Land Requirements	None	Less than 0.1 acres needed for RPZs	9.4 acres needed for RPZs	11.7 acres needed for RPZs	6.4 acres needed for RPZs
Fencing	Roughly 333’ of fence needs to be moved 43’ west	Roughly 4,055’ of fence needs to be moved at least 135’ west	Roughly 287’ of fence needs to be moved 265’ west	Roughly 297’ of fence needs to be moved 315’ west	No change

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Open Discussion

- Issues
- Forecast
- Alternatives
- Terminal/Hangar Needs



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Typical Hangar Attributes

Typical Aircraft Hangar Attributes				
	T-Hangars	Small Storage Less than 6,000 sf	Large Storage More than 6,000 sf	FBO/SASO
Photo Examples				
Dedicated Apron	None	None	Equal to depth of hangar	Equal to depth of hangar (plus apron for services)
Airport Apron Access	No	No	No	Yes
Setbacks from Taxilanes	Yes - for Design Group (I or II)	Yes - for Design Group (I or II)	Yes plus Apron - for Design Group (II+)	Yes plus Apron - for Design Group (II+)
Airside Taxi Route	Yes - for Design Group (I or II)	Yes - for Design Group (I or II)	Yes - for Design Group (II+)	Yes - for Design Group (II+)
Public Road Access/Parking	No	Yes or No *	Yes*	Yes*

* Any business/corporate hangar located on an airport should have public road access and parking for customers/passengers. Particularly those customers/passengers who are not trained in driving on an airport.

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Next Steps

- Complete Airport Inventory
- Complete Aviation Forecasting
- Draft Facility Requirements
- Terminal/Hangar Area Alternatives

- Next Meeting: Terminal/Hangar Area Alternatives

- Website: inputcentral.com/hze-airportplan

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Questions/Comments

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