



Wayne County Airport Master Plan Update

Technical Advisory Committee Meeting #1

December 14, 2023



Agenda



Master Plan Process

Inventory Overview

Forecast Overview

Gather TAC Feedback

Next Steps



What Is An Airport Master Plan?

- A facility plan that guides an airport's development and improvements
- Two components
 - Narrative Report
 - Airport Layout Plan (ALP) (drawing set)
- Covers 5, 10, and 20-year horizons
- Updated every 10 years
- Follows FAA guidance & standards



What Is An Airport Layout Plan?

Critical planning tool

Federal requirements

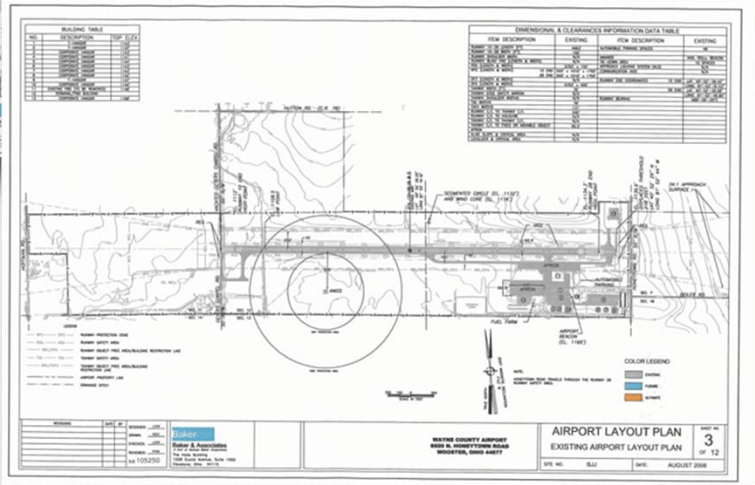
- Existing Facilities
- Proposed projects

FAA Approval

Portrait of the airport's potential



**Last Approved
ALP Completed
in 2008**



Why Conduct An Airport Master Plan?

- Facilitate modernization and expansion
- Meet foreseeable aviation demand and customer needs
- Ensure that future development is:
 - Planned and logical
 - Feasible and flexible
 - Environmentally compatible
 - Regionally supported
- Promote customer convenience and competitive advantage
- Allow for federal funding on eligible projects



Scope of Work



- FAA Airport GIS (Aerial Mapping)
- Inventory
- Aviation Forecasts
- Facility Requirements
- Alternatives Development
- Recommendations
- Environmental Overview
- Airport Layout Plan Drawing Set
- Exhibit 'A' Property Map
- Meetings
 - TAC Meetings (3)
 - Public Information Meetings (2)

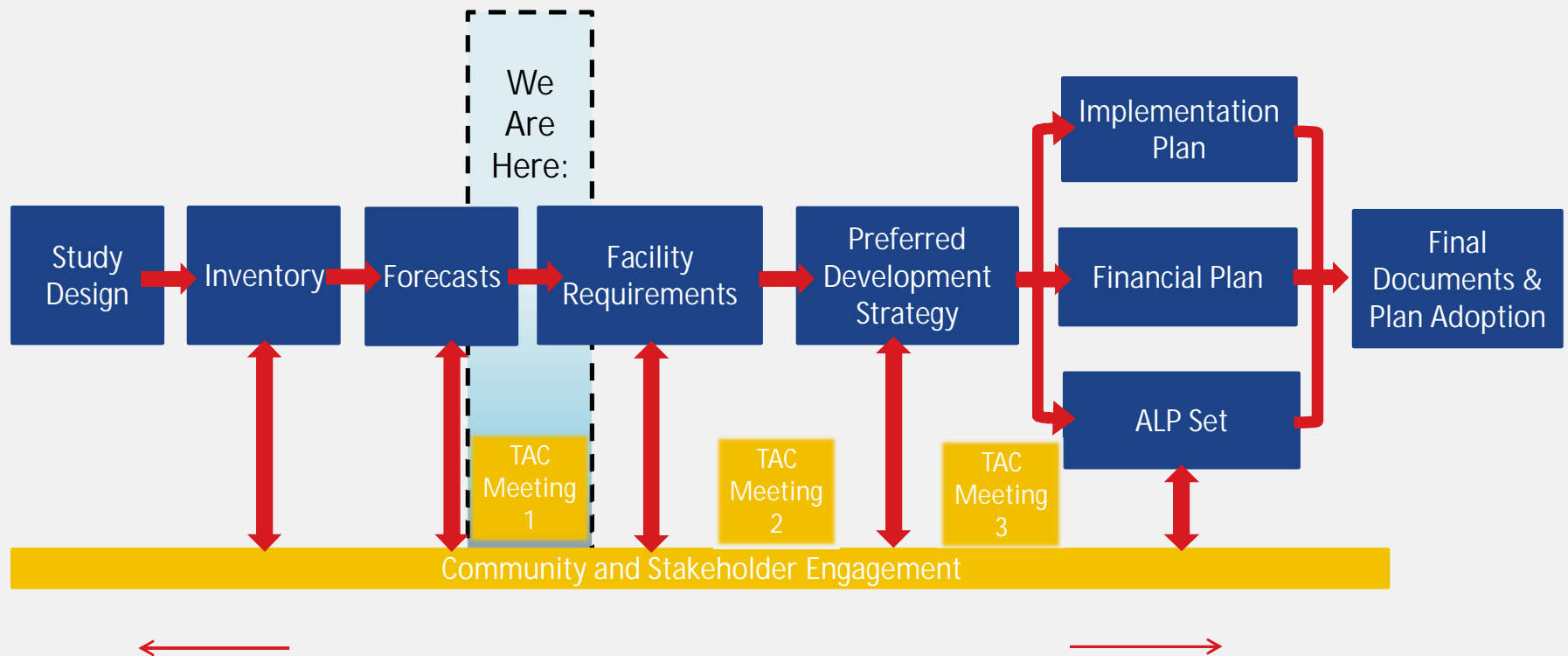
TAC: Why Are You Here?

- Valued stakeholders
- Integral to the process
- Insight on the Airport, community and regional issues
- Technical input on operational and facility matters
- Review/comment on the Master Plan Update findings and recommendations




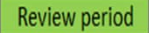





TAC Member	Organization
Matt Long	Manager, Wayne County Airport
Patrick Herron	Wayne County Administrator
Sue Smail	Wayne County Commissioner
Rob Kastner	Soil and Water Conservation District
Chris Hershberger	Airport Tenant
Mark Mosier	Airport Tenant
Maribeth Burns	Economic Development

Airport Master Planning Process



BJJ Master Plan Schedule

2023				2024								2025																
Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov		
Inventory & Forecasts			W																									
				Facility Requirements			W																					
						Alternatives Evaluation				W																		
								Airport Layout Plan																				
Meetings		★	TAC				TAC					TAC	★															
Documentation			W				W					W	D													F		

 Working Period	 Review period	 Draft Report	 Final Report	 Working Paper	 Technical Advisory Committee Meeting	 Public Meetings
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FAA General Aviation Asset Study

- National
- Regional
- Local
- Basic



Department of Transportation
Federal Aviation
Administration

General Aviation Airports:
A National Asset

*A fresh look at the many roles
General Aviation Airports play in the
National Air Transportation System*



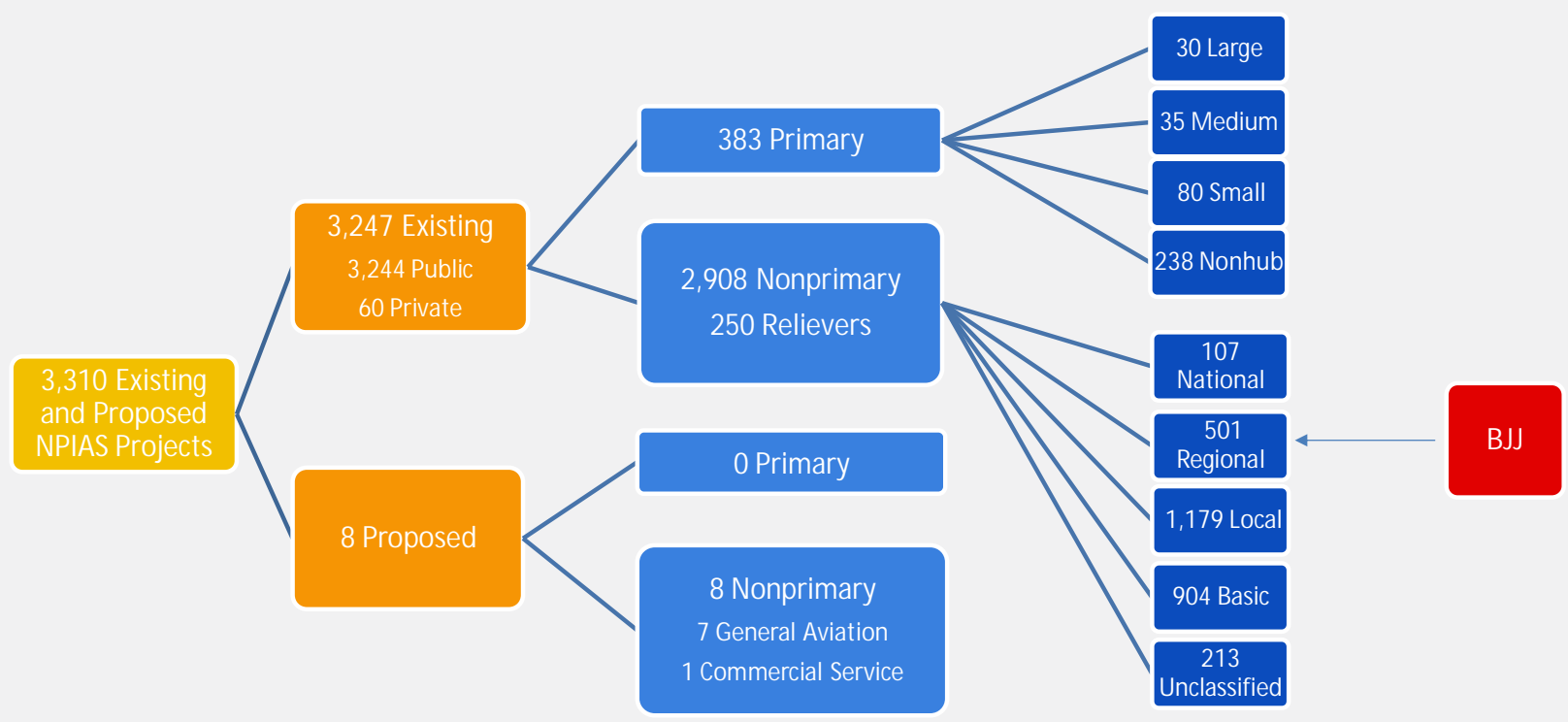
TAC Meeting #1





Role of BJJ

National Plan of Integrated Airport Systems (NPIAS)



Ohio Airports Focus Study

- 2014 State System Plan
- BJJ – Level 1
- Recommendations

2014 State System Plan Classifications

Item	Description
Level 1	Airport meets all of the needs of GA turbine-powered aircraft and their users. These airports are able to provide all of the services necessary to support corporate jet aircraft.
Level 2	These airports are intended to support smaller corporate aircraft, such as small jets and turboprop aircraft, and meet many but not all of their needs. This type of airport is intended to serve business, pleasure, and training.
Level 3	These airports serve light, twin-engine, and single-engine aircraft flying for business, pleasure, or training. Its purpose is to fulfill all of the needs of piston-powered aircraft. Turbine-powered aircraft may use these airports, but the primary focus is to serve piston-powered aircraft.
Level 4	These airports serve the need for flight operations of small GA aircraft. Single-engine aircraft represent the primary aircraft type.

Source: Ohio Airports Focus Study, 2014.

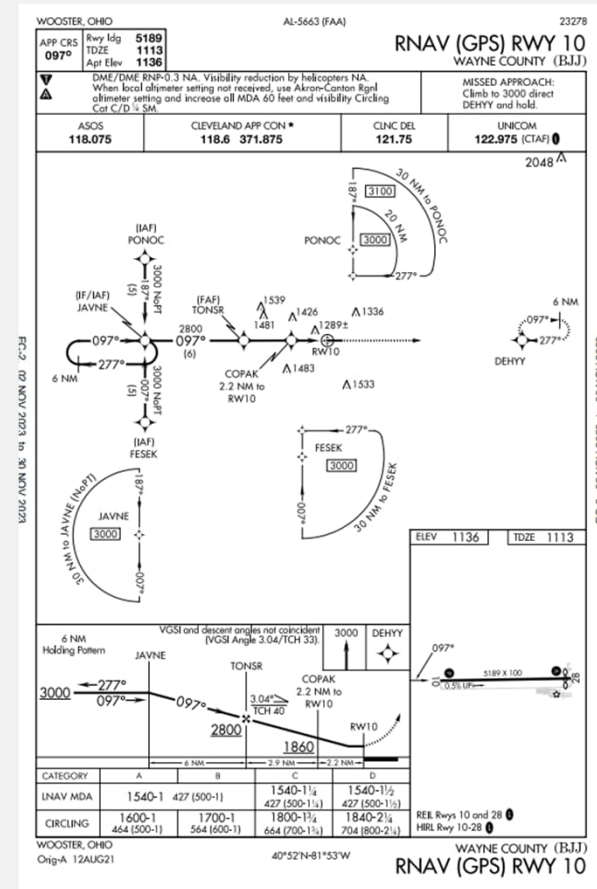


Inventory

Existing Conditions

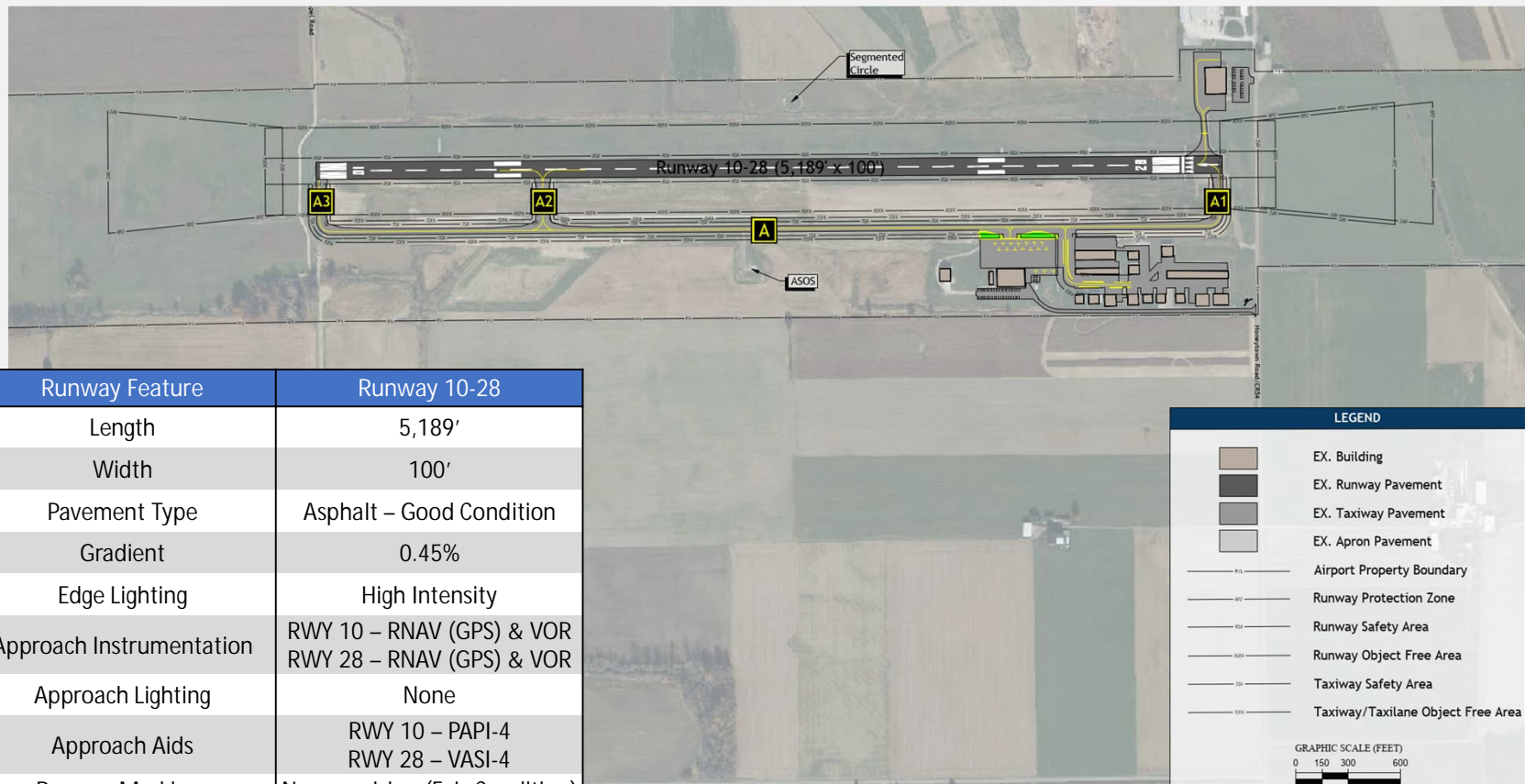


- The following areas are included in the inventory:
 - Airport background
 - Management structure
 - Airfield infrastructure
 - Navigational aids
 - Airspace/approach procedures
 - Terminal area



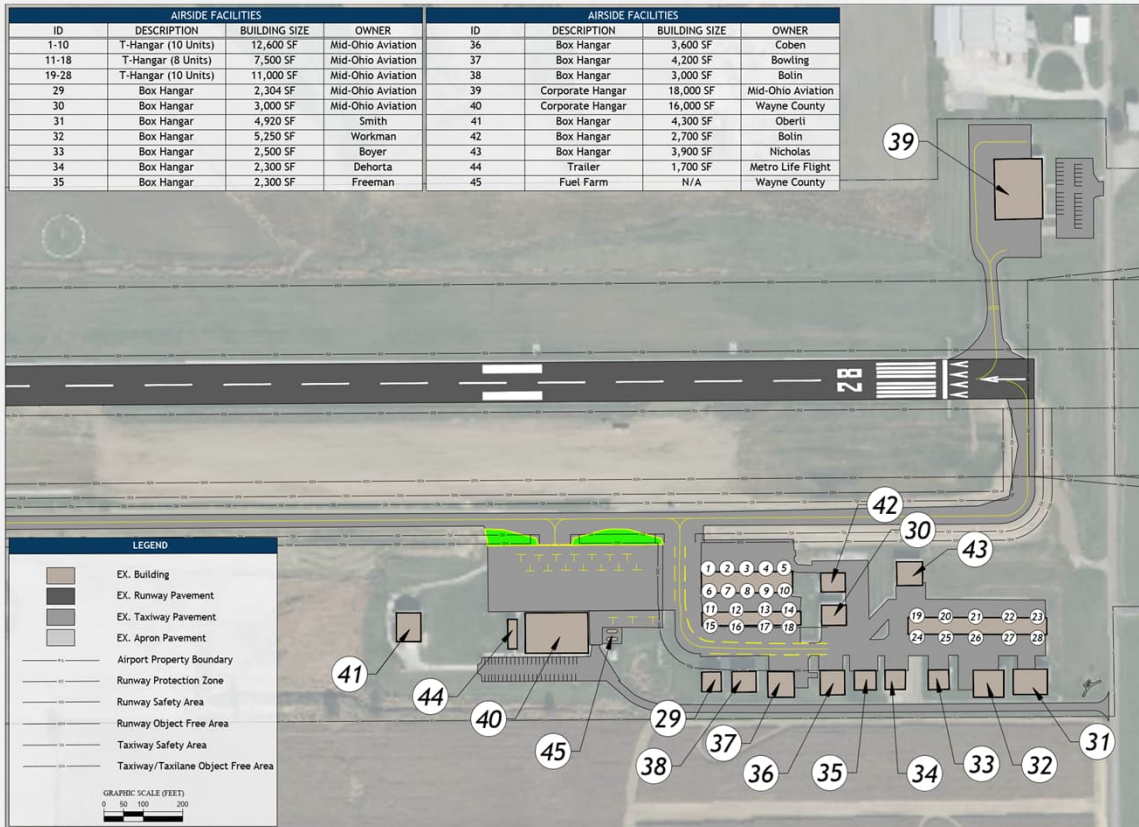
Source: Air Nav <https://www.aimnav.com/airport/KBJJ> FAA Information Effective 11/2/2023

Key BJJ Features



Runway Feature	Runway 10-28
Length	5,189'
Width	100'
Pavement Type	Asphalt – Good Condition
Gradient	0.45%
Edge Lighting	High Intensity
Approach Instrumentation	RWY 10 – RNAV (GPS) & VOR RWY 28 – RNAV (GPS) & VOR
Approach Lighting	None
Approach Aids	RWY 10 – PAPI-4 RWY 28 – VASI-4
Runway Markings	Non-precision (Fair Condition)

Key BJJ Features



- 45 based aircraft
- 13 box hangars
- 2 corporate hangars
- 3 T-hangars
- 8,300 SY Apron



Forecasts of Aviation Demand



Aviation Activity Forecast

20-Year Forecast

- Operations (takeoffs and landings)
- Based aircraft
- Requires FAA approval

Various Methodologies Using Quantitative Methods

- FAA Terminal Area Forecast (TAF)
- Regional market share
- Historical trends
- Econometric (population, jobs, income)
- Operations per Based Aircraft (OPBA)
- FAA Aerospace Forecast (for based aircraft)

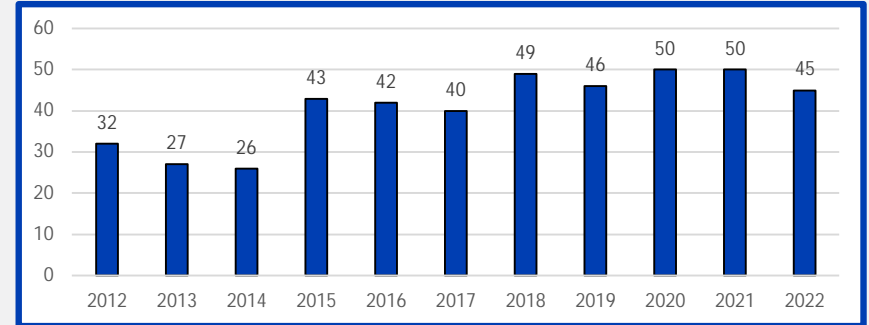
Considers Qualitative Factors

- Impacts of COVID-19 on the general aviation industry and at BJJ
- Socioeconomic trends and outlook
- Fleet mix

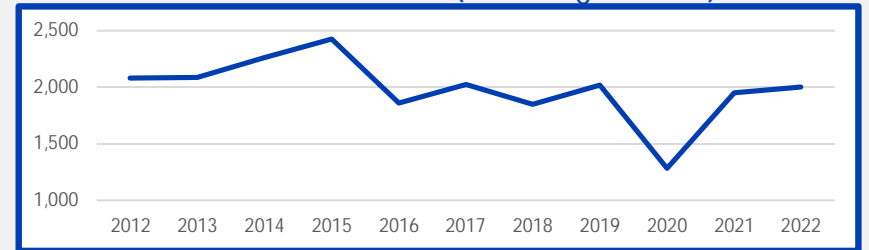
Historical Activity Levels

- Historical Based Aircraft
 - 2022: 45 validated based aircraft
 - 32 single-engine aircraft
 - 3 multi-engine aircraft
 - 5 jets
 - 5 helicopters
- Historical Operations
 - Historical trends (see filed flight plans)
 - Operations in 2022 via ADS-B Data: 5,800
 - 1200.aero (aircraft operation counting & analysis system): Installed July 2023

Historical Based Aircraft



Historical Trends (Filed Flight Plans)



Historical Operations (2022 ADS-B Data)

Year	General Aviation	Military	Historical Ops
2022	5,794	6	5,800

Source: FAA 2022 TAF, FAA TFMSC, FAA's National Based Aircraft Inventory Program, FlightAware, CHA, 2023.

Recommended Forecast (20-Years)

Year	Based Aircraft	Operations				
		General Aviation		Military		Total
		Itinerant	Local	Itinerant	Local	
2022	45	4,389	1,405	6	0	5,800
2023	46	4,487	1,436	6	0	5,929
2024	47	4,584	1,468	6	0	6,058
2025	48	4,681	1,499	6	0	6,186
2026	49	4,779	1,530	6	0	6,315
2027	50	4,877	1,561	6	0	6,444
2028	51	4,974	1,593	6	0	6,573
2029	51	5,071	1,624	6	0	6,701
2030	52	5,169	1,655	6	0	6,830
2031	53	5,267	1,686	6	0	6,959
2032	54	5,365	1,717	6	0	7,088
2033	55	5,461	1,749	6	0	7,216
2034	56	5,559	1,780	6	0	7,345
2035	57	5,657	1,811	6	0	7,474
2036	58	5,755	1,842	6	0	7,603
2037	59	5,852	1,873	6	0	7,731
2038	60	5,949	1,905	6	0	7,860
2039	61	6,047	1,936	6	0	7,989
2040	63	6,145	1,967	6	0	8,118
2041	64	6,242	1,998	6	0	8,246
2042	65	6,339	2,030	6	0	8,375
CAGR 2012-2042	1.9%	1.9%	1.9%	0.0%	-	1.9%
Growth 2012-2042	44.4%	44.4%	44.4%	0.0%	-	44.4%

Source: FAA 2022 TAFs, FAA TFMSC, FAA's National Based Aircraft Inventory Program, FlightAware, Woods & Poole Economics, Inc., CHA, 2023.



Recommended Forecast Overview

- Recommended Based Aircraft
 - Population-Employment-Income Econometric Scenario
 - CAGR 2012-2042 (1.9%)
 - Growth 2012-2042 (44.4%)
- General Aviation Operations
 - Operations Per Based Aircraft (OPBA) Scenario
 - Assumed 116 operations per based aircraft
 - Local (24.3%) vs. Itinerant (75.7%)
- Military Operations
 - Assumed to remain static

Recommended GA Based Aircraft Forecast
(By Aircraft Type)

Year	Single-Engine	Multi-Engine	Jet	Helicopter	Total
2022	32	3	5	5	45
2027	35	3	6	6	50
2032	38	4	6	6	54
2037	41	4	7	7	59
2042	47	4	7	7	65

Recommended Operations Forecast

Year	Operations				Total
	General Aviation		Military		
	Itinerant	Local	Itinerant	Local	
2022	4,389	1,405	6	0	5,800
2027	4,877	1,561	6	0	6,444
2032	5,365	1,717	6	0	7,088
2037	5,852	1,873	6	0	7,731
2042	6,339	2,030	6	0	8,375
CAGR 2012-2042	1.9%	1.9%	0.0%	-	1.9%
Growth 2012-2042	44.4%	44.4%	0.0%	-	44.4%

Source: FAA 2022 TAFs, FAA TFMSC, FAA's National Based Aircraft Inventory Program, FlightAware, Woods & Poole Economics, Inc., CHA, 2023.



Master Plan Forecast vs. FAA TAF

- FAA Requirements
 - Within 10% of FAA TAF in 5-Years
 - Within 15% of TAF in 10-Years
- Recommended vs. FAA TAF
 - Based Aircraft
 - 5-Years: 2.0% (Above)
 - 10-Years: 10.2% (Above)
 - Total Operations
 - 5-Years: 68.4% (Below)
 - 10-Years: 68.3% (Below)

Comparing Airport Planning and TAF Forecasts

Specified Base Year: 2022	Year*	Master Plan Forecast	FAA 2022 TAF	Master Plan Forecast vs. FAA 2022 TAF (% Difference)
Based Aircraft				
Base Yr.	2022	45	49	-8.2%
Base Yr. + 5 Yrs.	2027	50	49	2.0%
Base Yr. + 10 Yrs.	2032	54	49	10.2%
Base Yr. + 15 Yrs.	2037	59	49	20.4%
Operations				
Base Yr.	2022	5,800	18,636	-68.9%
Base Yr. + 5 Yrs.	2027	6,444	20,411	-68.4%
Base Yr. + 10 Yrs.	2032	7,088	22,351	-68.3%
Base Yr. + 15 Yrs.	2037	7,731	24,471	-68.4%

Note: Actual operations at in 2022 was approximately 68.9 percent lower than the FAA's TAF projections. Given the large difference in FAA projected activity in 2022 when compared to reported activity, the FAA 2022 TAF projections over the 20-year planning horizon are not believed to be reflective of activity at BJJ.

Source: FAA 2022 TAFs, FAA TFMSC, FAA's National Based Aircraft Inventory Program, FlightAware, Woods & Poole Economics, Inc., CHA, 2023.



Airport Reference Code (ARC)

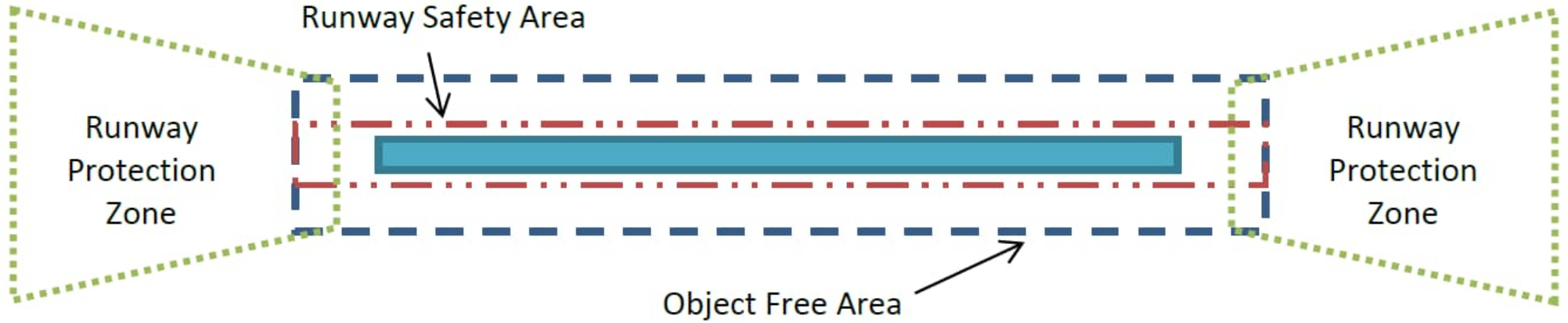


- System used by FAA to classify airports
- Based on size & approach speed
- Critical Aircraft
 - Aircraft or grouping of aircraft that operate >500 times/year
- Dimensional requirements for the airfield

Design Group	
	Wingspan (feet)
I	< 49
II	49 ≤ 79
III	79 ≤ 118
IV	118 ≤ 171
V	171 ≤ 214
VI	214 ≤ 262

Approach Category	
	Airspeed (knots)
A	< 91
B	91 ≤ 121
C	121 ≤ 141
D	141 ≤ 166
E	166+

Design Standards



Critical Aircraft Family

- Existing & Future
 - ARC and Aircraft Grouping: B-II
 - An example of a B-II aircraft operating at BJJ is the Cessna Citation Excel

BJJ Operations by AAC Category and ADG Group (2022 & Projected)

AAC & ADG		2022	2027	2032	2037	2042
Subtotal by AAC	A	3,510	3,922	4,313	4,706	5,096
	B	1,258	1,405	1,546	1,686	1,827
	C	60	67	74	80	87
Subtotal by ADG	I	3,730	4,167	4,584	4,999	5,416
	II	1,094	1,222	1,344	1,466	1,588
	III	4	4	5	5	6
Helicopter		938	1,048	1,153	1,257	1,362
Balloon		2	2	2	3	3
Unknown		32	-	-	-	-

Note: Unknown represents aircraft users who blocked the aircraft's identifying information.

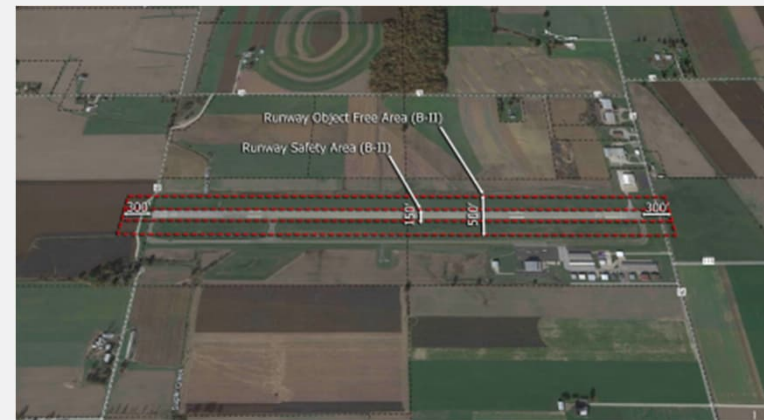
Source: FlightAware, CHA, 2023.

Next Steps



Open Discussion

- Hangar Development
 - Jet/Corporate
 - T-hangars
- Cargo
- Runway Safety Areas
- Improved NAVAIDs
- Lower landing minimums
- Taxiway Connector
- Main Terminal Apron
 - Expansion
 - Entrance Reconfiguration





Questions/Comments

Any questions or comments regarding the Airport Master Plan Update or any of the information discussed today?



www.bjj-master-plan.com

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NO VEHICLES

