Airport Master Plan





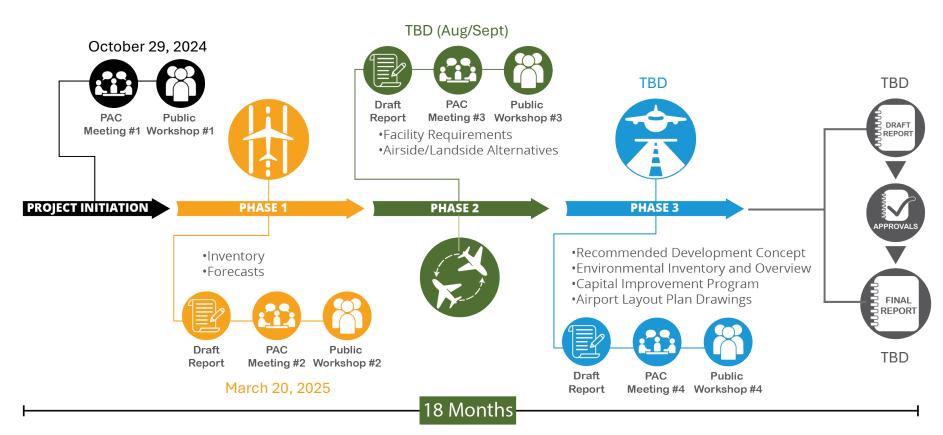
AGENDA

Planning Advisory Committee (PAC)
Meeting #2
Thursday, March 20, 2025
1:30 p.m.

- 1. Welcome/Introductions
- 2. Review of the Master Plan Process
- 3. Introduction/SWOT Review
- 4. Inventory
- 5. Forecasts
- 6. Discussion



MASTER PLAN PROCESS





PROJECT TEAM



Prime Consultant: Responsible for all aspects of the master plan. Airport planning, environmental analysis, sustainability planning, land use planning, capital improvement plan, airport layout plan.



FAA-required Airports Geographic Information System (AGIS) survey. Aeronautical surveys, data collection, and aerial photography.



Public involvement, public information workshops, project website contributions, and press releases.



Assessment of airport owned and operated facilities and the FBO facilities. Identify opportunities to improve energy efficiency.





Cultural resource literature review.



Project cost estimates.

Economic Benefit Analysis.







Table iA: SWOT Analysis

	Central location	Strong political support for the airport
	Robust community investment	Availability of sustainable aviation fuels (SAFs)
	Reputation as the premier business aviation hub	Three world class FBOs
STRENGTHS	Strong international brand	Robust public involvement program for MP
SNE	U.S. Customs processing	Transparency
TRE	Excellent facilities	Community events (movie night)
0,	Strong airport management team	Condition of airport pavements
	Clean airport	Airport/Tracon/ATCT relationship
	Good flying weather	
	Limited land for development	Airspace traffic flow
SES	Lack of auto parking	Constraints to facility growth
WEAKNESSES	Lack of aircraft parking apron	Meeting airport design standards (FAA)
AK	Need more hangars	Wingspan and weight limits
WE	Limit to size of aircraft that can use the airport	Getting from one side of SDL to the other
	Some airpark facilities are not aeronautical	Instrument approach capability (need straight-in)



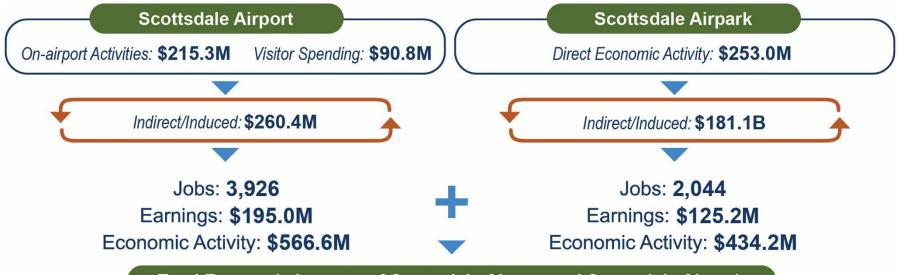
Table iA: SWOT Analysis

IES	Promoting the economic benefits	New chip plant (and other businesses) in the area
TINO	Capitalize on uptick in international interest	Sustainability is a great opportunity
₹TU	Implementing sustainability initiatives	Increase in transient operations
OPPORT	Availability of air travel through a general aviation airport	Airpark development momentum
ОР	Redevelopment of older facilities	
	Competition from other airports	Changing economic climate
(0	Growth plans of other airports	Land locked
THREATS	Other airports are striving to be "Scottsdale"	Airfield capacity
HR	Airport design standards should align with activity	PHX operations get priority
_	No straight-in instrument approaches (RNP only)	Northeast flight training area
	Congested airspace	Residential noise concerns





Figure 1-1: Economic Impact



Total Economic Impacts of Scottsdale Airport and Scottsdale Airpark



Jobs: 5,970 Number of full- and part-time persons employed



Earnings: \$320.2M
Total compensation paid to
workers including wages
and benefits

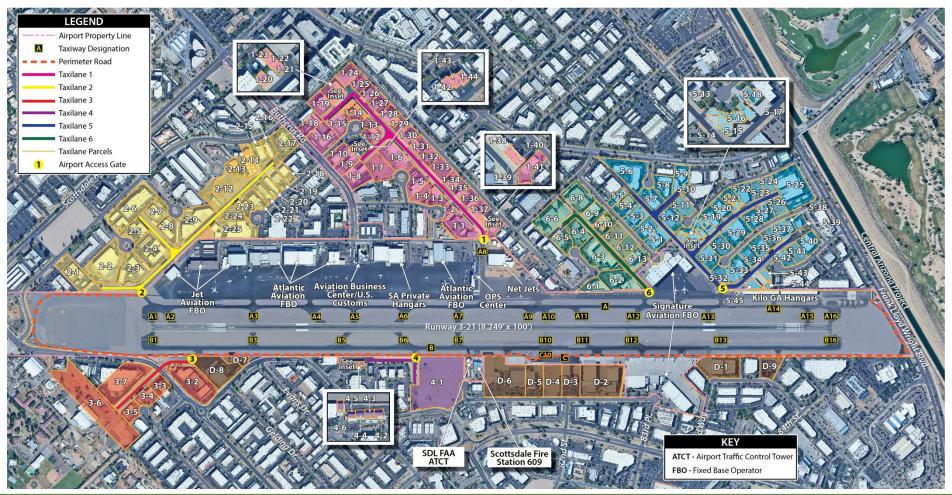


Economic Activity (Output): \$1.0B

Value of sales that occur in the Arizona economy that are ultimately attributable to airport activities



Ex 1D: Airport/Airpark Parcels





Ex 1E: Federal Grant History

FEDERAL GRANT HISTORY							
Fiscal Year	Project Description	AIP/ Entitlement	AIP/ Discretionary	Cares/Crr- Sa/Arpa	BIL/AIG	Grand Total	
2006	Construct Taxiway/Access Road	\$394,250	-	-	-	\$394,250	
2007	Construct Taxiway/Install Apron Lighting	-	\$3,794,217	-	-	\$3,794,217	
2009	Rehabilitate Apron (Design)	\$1,232,693	-	-	-	\$1,232,693	
2010	Rehabilitate Apron	\$326,307	\$1,673,693	-	-	\$2,000,000	
2010	Conduct Environmental Study	\$273,738	-	-	-	\$273,738	
2011	Rehabilitate Apron	\$69,233	\$584,863	-	-	\$654,096	
2011	Reconstruction of North Apron (32,680sy)	\$1,892,097	\$23,750	-	-	\$1,915,847	
2012	Update Master Plan Study	\$427,500	-	-	-	\$427,500	
2013	Rehabilitate Rwy Lighting & Signage	\$318,710	-	-	-	\$318,710	
2014	Rehabilitate Taxiway B	\$2,733,759	\$1,000,000	-	-	\$3,733,759	
2015	Rehabilitate Taxiway	\$161,595	\$2,121,309	-	-	\$2,282,904	
2016	Install Beacon & Misc. Improvements	\$768,546	-	-	-	\$768,546	
2017	Rehabilitate Apron	-	\$1,304,159	-	-	\$1,304,159	
2017	Rehabilitate Taxiway & Lighting	\$3,150,000	\$1,219,696	-	-	\$4,369,696	
2018	Rehabilitate Delta Apron (4,500sy)	\$150,000	\$2,291,345	-	-	\$2,441,345	
2019	Rehabilitate Runway Lighting	\$549,845	-	-	-	\$549,845	
2020	Reconstruct Apron	\$750,000	-	\$73,632	-	\$823,632	
2021	Rehabilitate Runway	\$959,956	\$8,736,515	\$988,628	-	\$10,685,099	
2021	CRRSA Act General Funds	-	-	\$57,000	-	\$57,000	
2021	General ARPA Funds	-	-	\$148,000	-	\$148,000	
2022	Extend Taxiway	\$649,602	\$3,420,000	-	-	\$4,069,602	
2022	Reconfigure Existing Taxiway	-	-	-	\$763,000	\$763,000	
2023	Apron Lighting, Rehabilitate Taxiway	-	-	-	\$844,000	\$844,000	
2024	Update Airport Master Plan	\$910,600	-	-	-	\$910,600	
2024	Rehabilitate Apron	-	-	-	\$846,003	\$846,003	
	TOTAL	\$15,718,431	\$26,169,547	\$1,267,260	\$2,453,003	\$45,608,241	

AIP: Airport Improvement Program

CARES: Coronavirus Aid, Relief, and Economic Security Act, 2020

CRRSA: Coronavirus Response and Relief Supplemental Appropriations Act, 2020

ARPA: American Rescue Plan Act of 2021

BIL/AIG: Bipartisan Infrastructure Law/Airport Infrastructure Grant

Source: FAA Records accessed on 11.10.14. http://www.faa.gov/airports/aip/grantapportion_data/



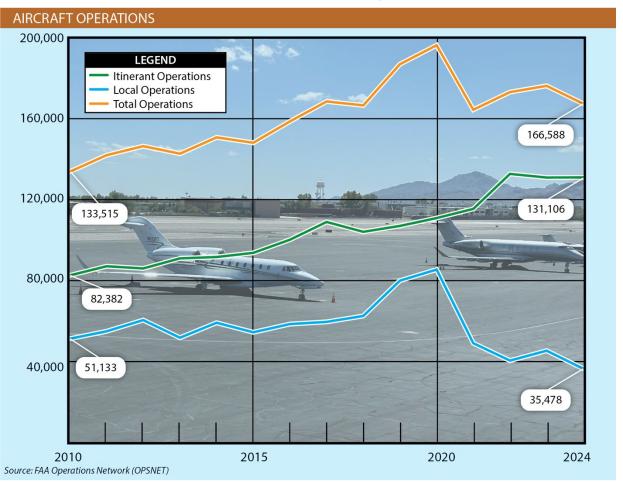
Ex 1E: State Grant History

ADOT STATE GRANT HISTORY					
Date	Project Description	Total (\$)			
TBD - 2025	Kilo Apron Rehabilitation	\$41,529			
11/22/24	Airport Master Plan	\$44,700			
2/12/24	Main Apron Lighting Upgrades	\$18,976			
1/6/23	Airport Drive Rehabilitation	\$839,736			
4/19/22	Reconstruct Perimeter Service Road	\$728,090			
11/8/22	Reconstruct 760 LF of TWY A & Associated A13 Apron Connector	\$37,455			
11/8/22	Reconstruct Taxiway A to Include Five Aircraft Runup	\$199,771			
3/18/21	Upgrade Airport Security Fence	\$301,860			
12/7/20	Rehab/Reconst Rwy 3-21 - Design Only	\$50,000			
11/13/19	Rehabilitate Runway Lighting	\$26,991			
2/1/19	Rehabilitate D Apron	\$119,842			
11/30/17	Rehabilitate Apron - Transient Aircraft Parking Apron in Front of the Terminal Building	\$64,019			
	(Matching AIP# 3-04-0032-034-2017)	304,019			
11/30/17	Rehabilitate Taxiway A and Rehabilitate Taxiway A Lighting (Matching AIP# 3-04-0032-035-2017)	\$214,502			
10/3/16	Install Airport Beacons, Misc. Airport Improvements	\$37,727			
8/29/16	Runway 3 Approach Area Rock Project	\$360,000			
8/11/15	Place Additional Rock in the Approach Area of Rwy 3 (Approx. 70,000 sy)	\$50,000			
8/10/15	Rehabilitate Taxiway Bravo	\$112,065			
3/30/15	Rehabilitate Parallel Taxiway "B" - Phase 1	\$183,284			
10/29/13	Rehabilitate Runway Lighting	\$15,645			
11/28/12	Conduct Airport Master Plan Update	\$20,986			
1/17/12	Reconstruction of Landmark North Apron (Approximately 32,680 Square Yards), Phase IV	\$50,417			
	TOTAL	\$3,517,595			

Source: Airport records



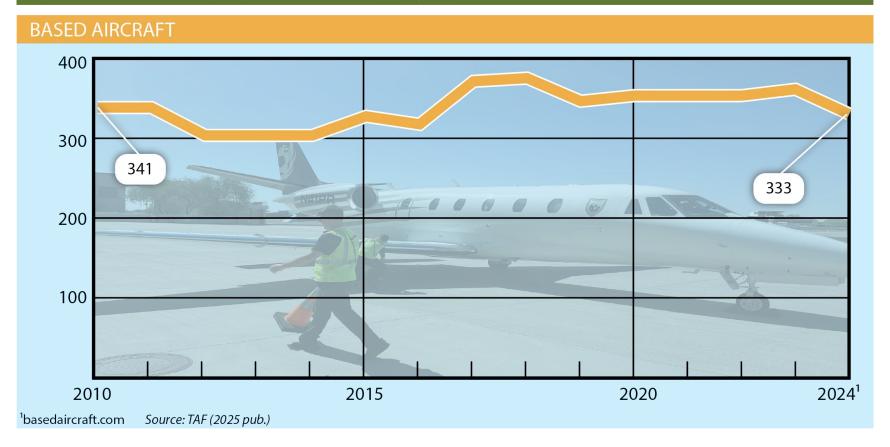
Ex 1F: Historical Activity Statistics





Ex 1F: Historical Activity Statistics

2024 CHARTER/AIR TAXI ENPLANEMENTS = 43,765





Ex 1G: Airside Facilities



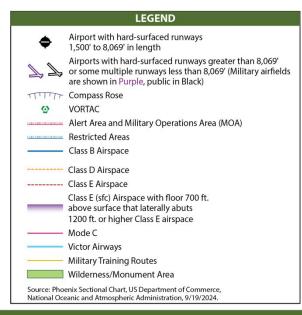


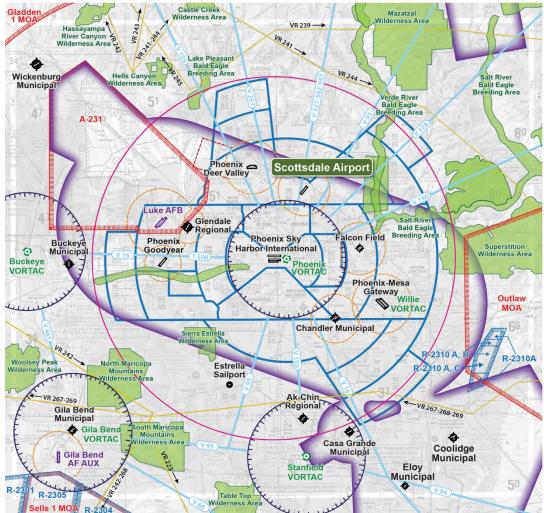
Ex 1H: Pavement Condition





Ex 1K: Vicinity Airspace







Ex 1L: Instrument Approach Procedures

Category A Category B Category C Category D RNAV (RNP) Runway 21 RNP 0.16 DA 486'/1%-mile NA RNAV (GPS) Y Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) Z Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile VOD / DMT A Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	Summary of Instrument Approach Data								
RNP 0.16 DA 486'/1¾-mile NA RNAV (GPS) Y Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) Z Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile		Category A	Category B	Category C	Category D				
RNAV (GPS) Y Runway 3 RNP 0.30 DA RNAV (GPS) Z Runway 3 RNP 0.30 DA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNAV (RNP) Runway 21								
RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) Z Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNP 0.16 DA	NP 0.16 DA 486'/1¾-mile							
RNAV (GPS) Z Runway 3 RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNAV (GPS) Y Runway 3								
RNP 0.30 DA 359'/1¼-mile NA RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNP 0.30 DA		359'/1¼-mile						
RNAV (GPS) D Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNAV (GPS) Z Runway 3	RNAV (GPS) Z Runway 3							
Circling 570'/1-mile 590'/1-mile 950'/2¾-mile 1790'/3-mile RNAV (GPS) E 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNP 0.30 DA		359'/1¼-mile		NA				
RNAV (GPS) E Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	RNAV (GPS) D								
Circling 630'/1-mile 950'/2¾-mile 1790'/3-mile	Circling	570'/1-mile	590'/1-mile	950'/2¾-mile	1790'/3-mile				
	RNAV (GPS) E								
VOD/DME A	Circling	630'/1	1790'/3-mile						
VOR/DME-A	VOR/DME-A								
Circling 870'/1½-mile 950'/2¾-mile 1790'/3-mile	Circling	870'/11	½-mile	950'/2¾-mile	1790'/3-mile				

Aircraft categories are based on the approach speed of aircraft, which is determined as 1.3 times the stall speed in landing configuration. The approach categories are as follows:

Category A: 0-90 knots (e.g., Cessna 172)

Category B: 91-120 knots (e.g., Beechcraft KingAir)

Category C: 121-140 knots (e.g., B-737, Regional Jets, Canadair Challenger)

Category D: 141-166 knots (e.g., B-747, Gulfstream IV)

Category E: Greater than 166 knots (e.g., Certain large military or cargo aircraft)

Abbreviations:

GPS - Global Positioning System

RNAV- A technical variant of GPS - area navigation

RNP - Required navigation performance

DA - Decision Altitude (Used for vertically guided approaches)

Note: (xxx'/ x-mile) = Visibility (in feet)/Cloud ceiling height (in miles)

Source: U.S. Terminal Procedures (Effective August 8, 2024)



13

14

NA

25,600

8,700

1,500

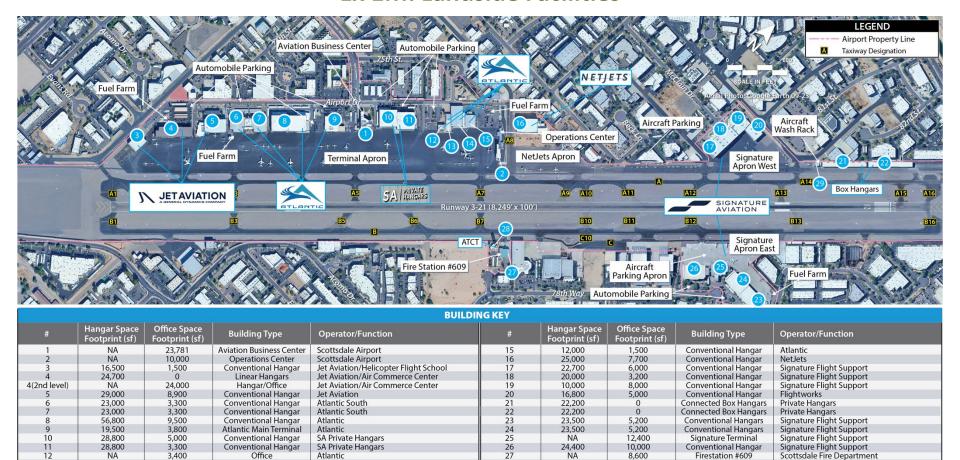
Office

Conventional Hangar

Atlantic

Atlantic

Ex 1M: Landside Facilities



28

29

NA

NA

5,000

3,400

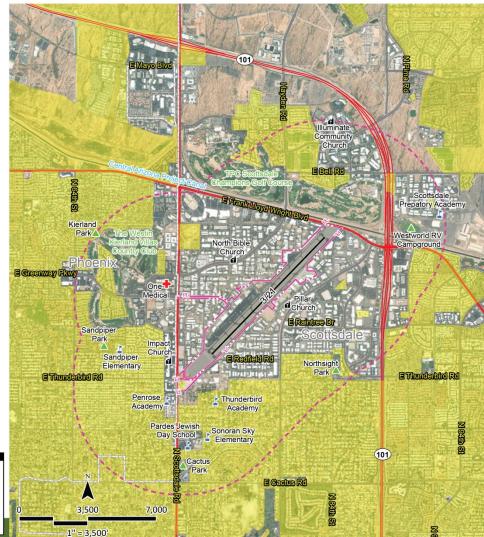
Control Tower

Aircraft Wash Rack

Scottsdale Airport



Ex 1R: Urban Environmental Sensitivities Within 1-Mile of SDL







Ex 1S: Natural Resources Near SDL

LEGEND

500-Year Flood Plain

Freshwater Pond/Lake

River/Stream

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

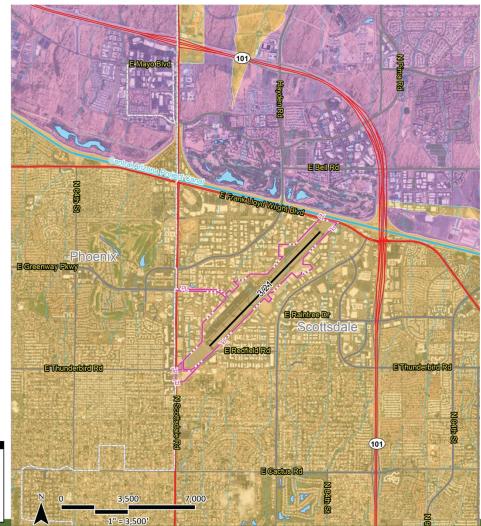
Airport Property Boundary

Municipal Boundaries
Highway

Runway Centerline

100-Year Flood Plain

---- Roads





Chapter 2

Forecasts





FORECAST ELEMENTS

- 1. General Aviation
 - Based Aircraft and Fleet Mix
 - Operations (GA, Air Taxi, Military)
 - Operations Fleet Mix
- 2. Charter Activity
 - Charter Enplanements
 - Charter Operations
- 3. Peaking Characteristics
 - Operational Peaks
- 4. Critical Aircraft Determination
 - Runway Design Code



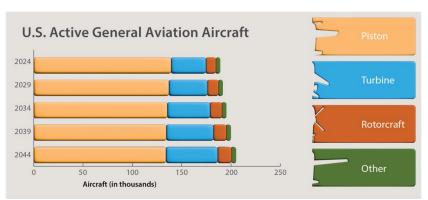
FORECAST PROCESS

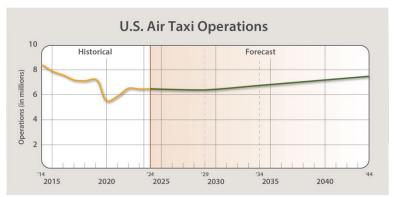
- 1. Review Existing Forecasts
- 2. Collect Recent Data (Calendar Year 2024)
- 3. Research Trends
- 4. Employ Multiple Methods Creating a Planning Envelope
 - Regression Analysis
 - Market Share Analysis
 - Ratio Trends
- 5. Select a Single Forecast (or a blend of forecasts)
- 6. Test Against the FAA Terminal Area Forecast (TAF)

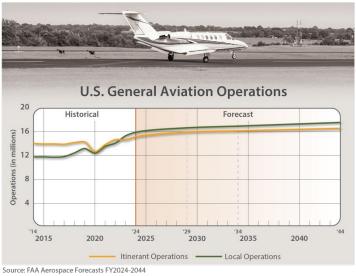




Exhibit 2A: FAA Forecasts







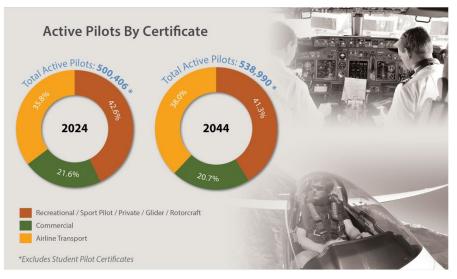




Exhibit 2B: FAA AAM Forecasts

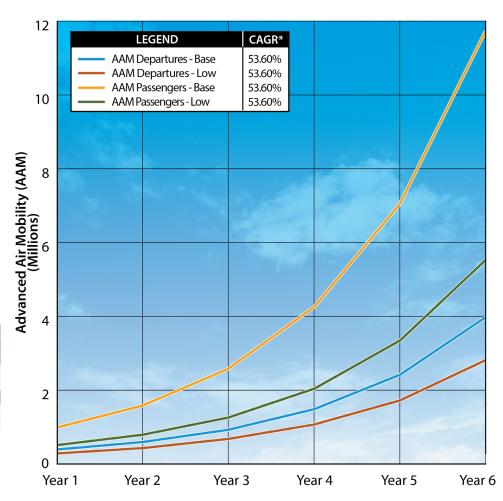




ADVANCED AIR MOBILITY (AAM) FORECASTS								
Fiscal Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	CAGR	
AAM Departures								
Base	295,530	494,637	827,887	1,385,657	2,319,213	3,881,730	53.60%	
Low*	206,871	346,246	579,521	969,960	1,623,449	2,717,211	53.60%	
AAM Passengers**								
Base	886,590	1,483,911	2,483,661	4,156,971	6,957,639	11,645,190	53.60%	
Low	413,742	692,492	1,159,042	1,939,920	3,246,898	5,434,422	53.60%	

CAGR: Compound annual growth rate

^{**}Estimate of 3 passengers per departure in base range scenario and passengers per departure in the low range scenario. Source: FAA Aerospace Forecasts FY 2024-2044



^{*}Base (risk-adjusted potential) is based on linear interpolation of ASSURE forecasts; Low forecast is 30% lower than base forecasts.



Table 2F: 2015 Master Plan Forecasts

Parameter	2012 Baseline	2022	2032	CAGR
ANNUAL OPERATIONS				
Itinerant Operations				
Air Taxi	15,258	16,590	18,900	1.08%
General Aviation	74,255	82,950	94,500	1.21%
Military	638	630	630	-0.06%
Total Itinerant Operations:	90,151	100,170	114,030	1.18%
Local Operations				
Local	63,246	70,350	78,750	1.10%
Total Local Operations:	63,246	70,350	78,750	1.10%
TOTAL ANNUAL OPERATIONS:	153,397	170,520	192,780	1.15%
BASED AIRCRAFT				
Based Aircraft	368	430	500	1.54%
TOTAL BASED AIRCRAFT:	368	430	500	1.54%



Table 2E: 2024 FAA Terminal Area Forecast (TAF)

Parameter		2024	2029	2034	2044	CAGR			
ANNUAL OPERATION	DNS								
Itinerant Operation	Itinerant Operations								
Air Taxi (Charter)		63,600	77,761	95,060	142,061	4.10%			
General Aviation		66,668	74,054	74,425	75,172	0.60%			
Military		365	365	365	365	0.00%			
	Total Itinerant Operations:	130,633	152,180	169,850	217,598	2.58%			
Local Operations									
General Aviation		38,572	55,379	56,213	57,918	2.05%			
Military		2	2	2	2	0.00%			
	Total Local Operations:	38,574	55,381	56,215	57,920	2.05%			
	TOTAL ANNUAL OPERATIONS:	169,207	207,561	226,065	275,518	2.47%			
BASED AIRCRAFT									
Based Aircraft		340	355	375	415	1.00%			
	TOTAL BASED AIRCRAFT:	340	355	375	415	1.00%			
ENPLANEMENTS									
Air Taxi (Charter)		27,323	35,904	35,904	35,904	1.37%			
	TOTAL ENPLANEMENTS:	27,323	35,904	35,904	35,904	1.37%			
CAGR = compound an	nnual growth rate								



BASED AIRCRAFT FORECASTS

Includes Registered Aircraft Forecasts for Maricopa County

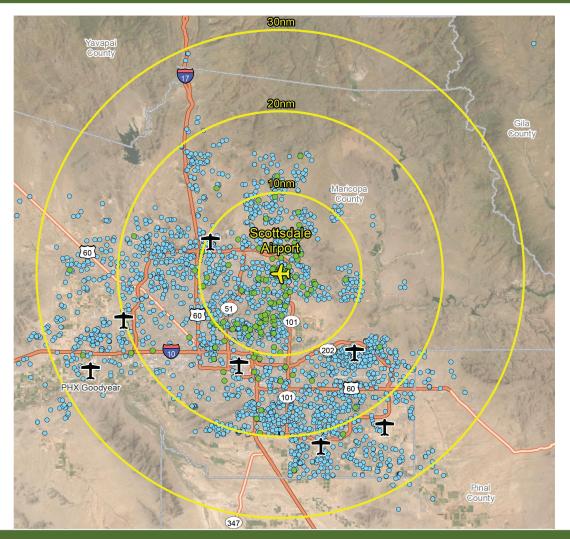


Exhibit 2C: Based Aircraft Locations



Registered & Based Aircraft							
Distance SDL Based FAA Registered							
From SDL	Aircraft						
0 - 10nm	181	1,367					
10 - 20nm	38	2,224					
20 - 30nm	6	848					
Total	225*	4,439					

*185 SDL based aircraft are registered to addresses beyond 30nm from SDL.

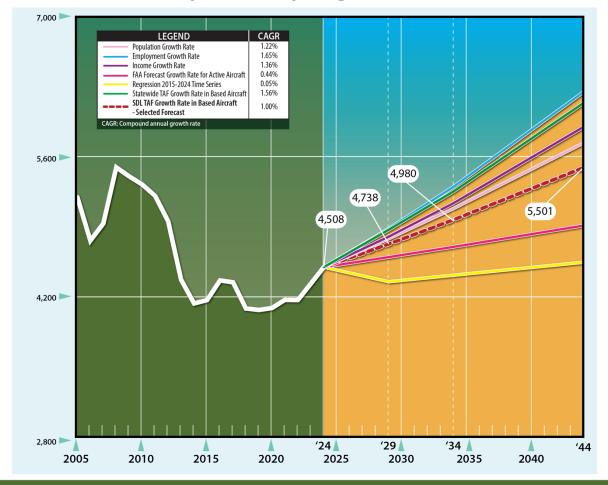




MARICOPIA COUNTY REGISTERED AIRCRAFT



Exhibit 2D: Maricopa County Registered Aircraft Forecasts





BASED AIRCRAFT FORECASTS



2024 BASED AIRCRAFT

- There are approximately 420 aircraft based at the airport. This includes those aircraft that are hangared in the Airpark, which is off airport property.
- FAA requires that airports enter based aircraft information into the National Based Aircraft Inventory Program database (basedaircraft.com).
- FAA then validates those entries by comparing against based aircraft claimed by other airports.
- FAA only validates those based aircraft that are on airport property.
- FAA requires that the validated based aircraft figure be used as the baseline for forecasting.
- Therefore, the baseline based aircraft figure is 333 rather than 420 for this master plan study.
- We will develop two sets of facility needs to address the overall airport and airpark needs.



Table 2L: Based Aircraft Forecasts as a Function of Registered Aircraft

Year	Maricopa County Registered Aircraft	Based Aircraft	Market Share
2015	4,179	330	7.90%
2016	4,375	320	7.31%
2017	4,356	374	8.59%
2018	4,095	378	9.23%
2019	4,080	349	8.55%
2020	4,099	356	8.69%
2021	4,181	356	8.51%
2022	4,179	356	8.52%
2023	4,343	364	8.38%
2024	4,508	333	7.39%
Constant Share	Projection (CAGR = 1.00%)		
2029	4,738	350	7.39%
2034	4,980	368	7.39%
2044	5,501	406	7.39%
Increasing Mark	et Share Projection (CAGR = 2.14%)		
2029	4,738	367	7.75%
2034	4,980	423	8.50%
2044	5,501	509	9.25%
Statewide TAF G	Growth Rate (CAGR = 1.56%)		
2029	4,738	360	7.60%
2034	4,980	389	7.81%
2044	5,501	454	8.25%
SDL TAF (CAGR =	= 1.11%)		
2029	4,738	355	7.49%
2034	4,980	375	7.53%
2044	5,501	415	7.54%
· ·	d annual growth rate		
TAF = Terminal Are	ea Forecast		



Table 2M: Regression Analysis Based Aircraft Forecasts

Independent Variable	r² Value	Dep	CAGR 2024-2044			
independent variable	r- value	2024	2029	2034	2044	CAGK 2024-2044
Year (Time Series)	0.03	333	362	368	379	0.65%
Population	0.04	333	363	369	381	0.68%
Employment	0.03	333	361	365	374	0.58%
Income	0.03	333	358	361	367	0.48%



Table 2N: Based Aircraft Forecasts as a Function of National Fleet Forecasts

Year	FAA Active Aircraft Forecast ¹	Based Aircraft	Market Share				
2015	210,031	330	0.15712%				
2016	211,794	320	0.15109%				
2017	211,757	374	0.17662%				
2018	211,749	378	0.17851%				
2019	210,981	349	0.16542%				
2020	204,140	356	0.17439%				
2021	209,194	356	0.17018%				
2022	209,540	356	0.16990%				
2023	209,730	364	0.17356%				
2024	210,105	333	0.15849%				
Constant Share	Projection (CAGR = 0.43%)						
2029	213,370	338	0.15849%				
2034	217,685	345	0.15849%				
2044	228,975	363	0.15849%				
Increasing Mark	et Share Projection (CAGR = 1.35%)						
2029	213,370	341	0.16000%				
2034	217,685	370	0.17000%				
2044	228,975	435	0.19000%				
CAGR = compound	CAGR = compound annual growth rate						



Table 2P: Based Aircraft Forecasts as a Function of Population

Year	Maricopa Population ¹	Based Aircraft	Aircraft per 1,000 Residents				
2015	4,106,807	330	0.08035				
2016	4,176,050	320	0.07663				
2017	4,232,574	374	0.08836				
2018	4,293,298	378	0.08804				
2019	4,364,459	349	0.07996				
2020	4,445,059	356	0.08009				
2021	4,499,438	356	0.07912				
2022	4,555,833	356	0.07814				
2023	4,585,871	364	0.07937				
2024	4,649,484	333	0.07162				
Constant Share	of Population Ratio Projection (CAC	GR = 1.22%)					
2029	4,970,672	356	0.07162				
2034	5,292,885	379	0.07162				
2044	5,929,280	425	0.07162				
Increasing Share	e of the 10-Year Average Aircraft pe	er 1,000 Residents (CAGR = 1.80%)					
2029	4,970,672	367	0.07376				
2034	5,292,885	402	0.07590				
2044	5,929,280	475	0.08017				
CAGR = compound	CAGR = compound annual growth rate						



Table 2Q: Based Aircraft Forecasts as a Function of Employment

Year	Maricopa Employment ¹	Based Aircraft	Aircraft per 1,000 Jobs				
2015	2,439,527	330	0.13527				
2016	2,517,630	320	0.12710				
2017	2,597,415	374	0.14399				
2018	2,690,527	378	0.14049				
2019	2,756,810	349	0.12660				
2020	2,755,090	356	0.12922				
2021	2,884,525	356	0.12342				
2022	3,038,704	356	0.11716				
2023	3,106,741	364	0.11716				
2024	3,163,334	333	0.10527				
Constant Share	Projection (CAGR = 1.65%)						
2029	3,465,843	365	0.10527				
2034	3,773,389	397	0.10527				
2044	4,391,689	462	0.10527				
Increasing Share	to the 10-Year Average of Aircraft	per 1,000 Jobs (CAGR = 2.59%)					
2029	3,465,843	383	0.11059				
2034	3,773,389	437	0.11592				
2044	4,391,689	556	0.12657				
CAGR = compound	CAGR = compound annual growth rate						



Table 2R: Based Aircraft Forecasts as a Function of Income

Year	Maricopa Income	Based Aircraft	Aircraft per \$1,000 of Income				
2015	44,129	330	7.47808				
2016	45,074	320	7.09944				
2017	46,390	374	8.06208				
2018	47,791	378	7.90944				
2019	49,834	349	7.00325				
2020	53,484	356	6.65620				
2021	55,911	356	6.36726				
2022	54,635	356	6.51597				
2023	56,955	364	6.39101				
2024	57,729	333	5.76833				
Constant Share	Projection (CAGR = 1.36%)						
2029	61,810	357	5.76833				
2034	66,178	382	5.76833				
2044	75,691	437	5.76833				
Increasing Share	to the 10-Year Average Aircraft pe	er \$1,000 of Income (CAGR = 2.29%)					
2029	61,810	374	6.05752				
2034	66,178	420	6.34672				
2044	75,691	524	6.92511				
CAGR = compound	CAGR = compound annual growth rate						



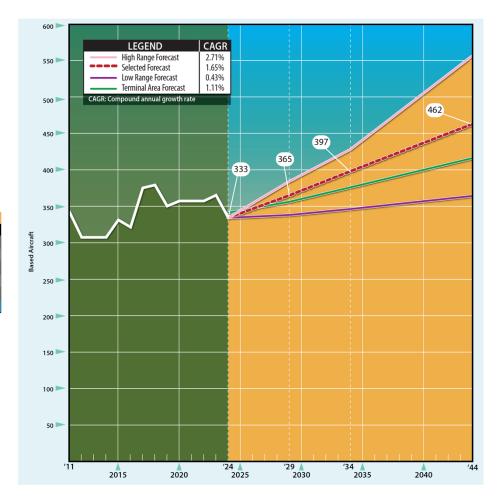
Table 2S: Based Aircraft Forecast Summary

Method	2024	2029	2034	2044	CAGR
Market Share of U.S. Active Aircraft (Constant)	333	338	345	363	0.43%
Regression 10-Year Income	333	358	361	367	0.48%
Regression 10-Year Trend Line	333	362	368	379	0.65%
Regression 10-Year Employment	333	361	365	374	0.58%
Regression 10-Year Population	333	363	369	381	0.68%
Market Share of Registered Aircraft (Constant)	333	350	368	406	1.00%
SDL Terminal Area Forecast (TAF)	333	355	375	415	1.11%
Market Share of Population to Based Aircraft (Constant)	333	356	379	425	1.22%
Market Share of U.S. Active Aircraft (Increasing)	333	341	370	435	1.35%
Market Share of Income (Constant)	333	357	382	437	1.36%
Statewide TAF Growth Rate for Based Aircraft	333	360	389	454	1.56%
Market Share of Employment (Constant) – SELECTED FORECAST	333	365	397	462	1.65%
Market Share of Population to Based Aircraft (10-Year Average)	333	367	402	475	1.80%
Market Share of Registered Aircraft (Increasing)	333	367	423	509	2.14%
Market Share of Income (10-Year Average)	333	374	420	524	2.29%
Market Share of Employment (10-Year Average)	333	383	437	556	2.59%
CAGR = compound annual growth rate					



Exhibit 2E: Based Aircraft Forecast and Fleet Mix

	EXIS	TING	FORECAST					
Aircraft Type	2024	%	2029	%	2034	%	2044	%
Single Engine Piston	115	34.5%	121	33.2%	130	32.7%	145	31.4%
Multi-Engine Piston	10	3.0%	10	2.7%	10	2.5%	10	2.2%
Turboprop	11	3.3%	18	4.9%	24	6.0%	35	7.6%
Jet	157	47.1%	171	46.8%	183	46.1%	212	45.9%
Helicopter	40	12.0%	45	12.3%	50	12.6%	60	13.0%
Totals	333	100.0%	365	100.0%	397	100.0%	462	100.0%





OPERATIONS FORECASTS

Itinerant General Aviation Local General Aviation Air Taxi Military



Table 2U: Historical General Aviation Operations

Year	Itinerant	% of Total	Local	% of Total	Total	Year Over Year Percent Change +/-
2015	77,281	58.8%	54,158	41.2%	131,439	N/A
2016	83,950	59.0%	58,270	41.0%	142,220	8.2%
2017	93,124	61.1%	59,368	38.9%	152,492	7.2%
2018	87,810	58.5%	62,245	41.5%	150,055	-1.6%
2019	89,634	52.9%	79,743	47.1%	169,377	12.9%
2020	87,161	50.6%	85,160	49.4%	172,321	1.7%
2021	78,906	61.7%	48,880	38.3%	127,786	-25.8%
2022	84,200	67.6%	40,298	32.4%	124,498	-2.6%
2023	74,486	62.2%	45,204	37.8%	119,690	-3.9%
2024	64,608	64.6%	35,478	35.4%	100,086	-16.4%



Table 2V: Regression Analysis – Itinerant GA Operations

Independent Variable	r² Value	Depe	CAGR 2024-2044			
muependent variable	r- value	2024	2029	2034	2044	CAGR 2024-2044
Time Series (2015-2024)	0.30	64,608	67,485	59,785	44,385	-1.86%
Time Series (2010-2024)	0.05	64,608	84,112	86,251	90,527	1.70%
Time Series (2000-2024)	0.54	64,608	60,487	51,137	32,437	-3.39%
Population (2015-2024)	0.27	64,608	68,484	60,908	45,945	-1.69%



Table 2W: General Aviation Itinerant Operations Forecast

Year	SDL GA Itinerant Operations ¹	U.S. GA Itinerant Operations ² (thousands)	Market Share of National GA Itinerant Operations					
2015	77,281	13,887	0.5565%					
2016	83,950	13,905	0.6037%					
2017	93,124	13,839	0.6729%					
2018	87,810	14,130	0.6214%					
2019	89,634	14,245	0.6292%					
2020	87,161	12,608	0.6913%					
2021	78,906	13,775	0.5728%					
2022	84,200	14,635	0.5753%					
2023	74,486	14,591	0.5105%					
2024	64,608	15,125	0.4272%					
Constant Marke	t Share of 2024 Share of U.S. Itiner	ant Operations (CAGR = 0.46%)						
2029	68,018	15,924	0.4272%					
2034	68,913	16,133	0.4272%					
2044	70,773	16,569	0.4272%					
SDL Terminal Ar	ea Forecast (CAGR = 0.76%)							
2029	74,054	15,924	0.2900%					
2034	74,425	16,133	0.3000%					
2044	75,172	16,569	0.3200%					
2024 FAA TAF PI	rojection Growth Rate (CAGR = 0.60	0%)						
2029	66,570	15,924	0.4181%					
2034	68,591	16,133	0.4252%					
2044	72,819	16,569	0.4395%					
Increasing Mark	et Share of U.S. Itinerant Operation	ns (CAGR = 1.65%) – SELECTED FORI	ECAST					
2029	70,812	15,924	0.4447%					
2034	77,019	16,133	0.4774%					
2044	89,636	16,569	0.5410%					
CAGR = compound	CAGR = compound annual growth rate from 2024 to 2044							



Exhibit 2F: Itinerant General Aviation Operations Forecast

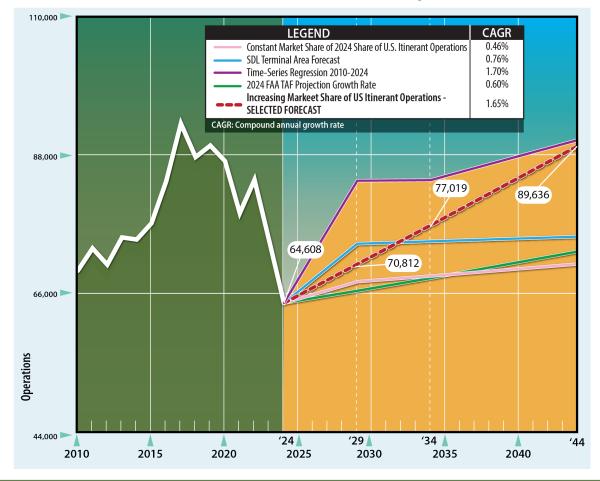




Table 2Y: Regression Analysis – Local GA Operations

Independent Variable	r² Value	Depend	CAGR 2024-2044			
independent variable	r- value	2024	2029	2034	2044	CAGR 2024-2044
Time Series (2015-2024)	0.20	35,478	34,448	22,642	-971	N/A
Time Series (2010-2024)	0.03	35,478	50,262	47,730	42,664	0.93%
Population (2015-2024)	0.17	35,478	36,370	24,971	2,458	-12.50%



Table 2Z: General Aviation Local Operations Forecast

Year	SDL GA Local Operations ¹	US GA Local Operations ² (thousands)	Market Share Local Operations
2015	54,158	11,691	0.4632%
2016	58,270	11,633	0.5009%
2017	59,368	11,732	0.5060%
2018	62,245	12,354	0.5038%
2019	79,743	13,109	0.6083%
2020	85,160	12,333	0.6905%
2021	48,880	13,479	0.3626%
2022	40,298	14,029	0.2872%
2023	45,204	15,282	0.2958%
2024	35,478	15,900	0.2231%
Constant Marke	t Share of 2024 Share of U.S. Local	Operations (CAGR = 0.50%)	
2029	37,163	16,655	0.2231%
2034	37,821	16,950	0.2231%
2044	39,205	17,571	0.2231%
Increasing Mark	et Share of U.S. Local Operations (CAGR = 3.73%)	
2029	43,304	16,655	0.2600%
2034	54,242	16,950	0.3200%
2044	73,798	17,571	0.4200%
SDL Terminal Ar	ea Forecast (CAGR = 2.48%)		
2029	55,379	16,655	0.3325%
2034	56,213	16,950	0.3316%
2044	57,918	17,571	0.3296%
2024 FAA TAF PI	rojection Growth Rate (CAGR = 2.05	5%) – SELECTED FORECAST	
2029	39,267	16,655	0.2358%
2034	43,460	16,950	0.2564%
2044	53,238	17,571	0.3030%
CAGR = compound	d annual growth rate from 2024 to 2044	· · · · · · · · · · · · · · · · · · ·	



Exhibit 2G: Local General Aviation Operations Forecast

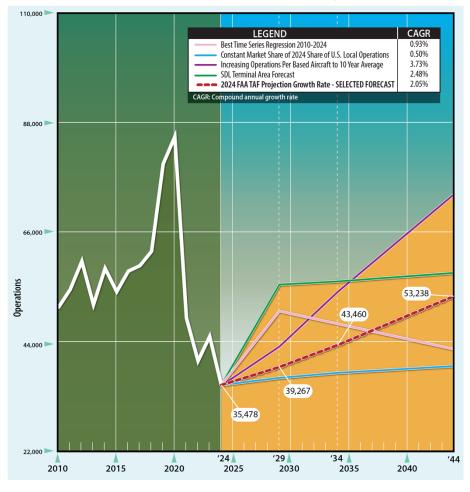




Table 2AA: Regression Analysis – Air Taxi Operations

Independent Variable	r² Value	Depend	CAGR 2024-2044			
independent variable	r- value	2024	2029	2034	2044	CAGR 2024-2044
Time Series (2015-2024)	0.84	66,178	86,477	115,884	174,699	4.97%
Time Series (2010-2024)	0.68	66,178	63,986	80,194	112,611	2.69%
Time Series (2000-2024)	0.56	66,178	45,717	53,501	69,070	0.21%
Population (2015-2024)	0.80	66,178	85,002	115,234	174,945	4.98%
Population (2010-2024)	0.66	66,178	63,204	79,912	112,910	2.71%



Table 2BB: Air Taxi Operations Forecast

Year	SDL Total Air Taxi Operations ¹	U.S. ATCT Air Taxi Operations ² (thousands)	SDL Percent
2015	15,362	7,895	0.1946%
2016	15,404	7,580	0.2032%
2017	15,000	7,180	0.2089%
2018	15,304	7,126	0.2148%
2019	16,513	7,234	0.2283%
2020	23,150	5,472	0.4231%
2021	35,805	5,885	0.6084%
2022	47,734	6,522	0.7319%
2023	55,587	6,456	0.8610%
2024	66,178	6,476	1.0219%
Constant Marke	et Share of US Air Taxi Operations (C	AGR = 0.73%)	
2029	65,261	6,386	1.0219%
2034	68,960	6,748	1.0219%
2044	76,543	7,490	1.0219%
Increasing Marl	ket Share of US Air Taxi Operations (CAGR = 4.81%)	
2029	78,470	6,386	1.2288%
2034	96,876	6,748	1.4356%
2044	169,498	7,490	2.2630%
2024 Terminal	Area Forecast (CAGR = 3.89%)		
2029	77,761	6,386	1.2177%
2034	95 <i>,</i> 060	6,748	1.4087%
2044	142,061	7,490	1.8967%
2024 FAA TAF ³	Growth Rate Projection (CAGR = 4.10	%) – SELECTED FORECAST	
2029	80,903	6,386	1.2669%
2034	98,906	6,748	1.4657%
2044	147,818	7,490	1.9735%
CAGR = compoun	d annual growth rate (2024-2044)		



Exhibit 2H: Air Taxi Operations Forecast

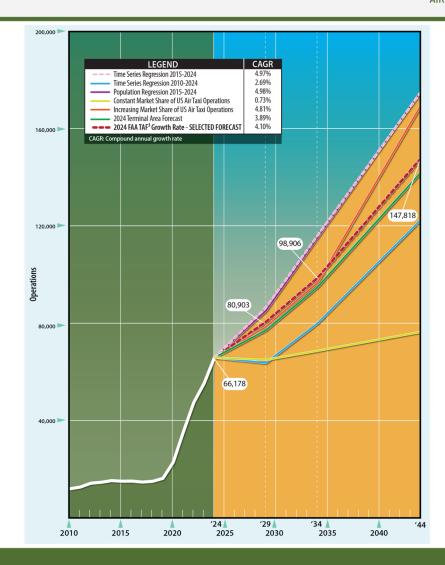




Table 2CC: Military Operations Forecast

Year	Military Itinerant	Military Local	Total
2015	824	128	952
2016	593	78	671
2017	577	62	639
2018	731	101	832
2019	606	18	624
2020	316	65	381
2021	436	24	460
2022	481	34	515
2023	541	8	549
2024	320	4	324
Military Operations Forecast	(CAGR = 0.0%)		
2029	365	2	367
2034	365	2	367
2044	365	2	367



Table 2DD: Total Operations Forecast

Year	ITINERANT OPERATIONS				LOC	AL OPERATI	TOTAL	
rear	Air Taxi	GA	MIL	Subtotal	GA	MIL	Subtotal	OPERATIONS
2024	66,178	64,608	320	131,106	35,478	4	35,482	166,588
2029	80,903	70,812	365	152,080	39,267	2	39,269	191,349
2034	98,906	77,019	365	176,290	43,460	2	43,462	219,752
2044	147,818	89,636	365	237,819	53,238	2	53,240	291,059
CAGR 2024-2044	4.10%	1.65%	N/A	3.02%	2.05%	N/A	2.05%	2.83%
CAGR = compound a	nnual growth	rate						



PEAKING CHARACTERISTICS

Peak Month Design Day Design Hour

Table 2FF: Peak Operations Forecast

Peaking Parameter	Factor	2024	2029	2034	2044
Annual Operations	100% of tower count	166,588	191,354	219,758	291,059
Peak Month	9.38% of annual operations	15,627	18,600	21,360	28,291
Design Day	3.3% of peak month	521	620	712	943
Design Hour	13.0% of design day	68	85	98	129



Table 2EE: Design Hour Operations Determination

Time	Thursday 4/4/24	Thursday 4/11/24	Thursday 4/18/24	Wednesday 4/24/24
12-1 a.m.	4	5	0	6
1-2 a.m.	0	0	0	0
2-3 a.m.	0	0	0	0
3-4 a.m.	0	0	0	0
4-5 a.m.	0	0	3	3
5-6 a.m.	2	2	1	0
6-7 a.m.	7	21	5	8
7-8 a.m.	15	20	22	32
8-9 a.m.	44	35	20	32
9-10 a.m.	43	64	70	43
10-11 a.m.	55	61	67	56
11-12 a.m.	57	43	38	56
12-1 p.m.	53	65	57	61
1-2 p.m.	42	38	46	45
2-3 p.m.	53	40	49	55
3-4 p.m.	63	47	73	49
4-5 p.m.	<i>67</i>	57	59	65
5-6 p.m.	39	33	53	31
6-7 p.m.	26	25	25	32
7-8 p.m.	33	17	17	12
8-9 p.m.	0	4	20	9
9-10 p.m.	0	0	12	6
10-11 p.m.	0	3	4	0
11-12 p.m.	0	0	0	2
Total:	603	580	641	603
Peak Hour %:	11.11%	11.21%	11.39%	10.78%

Design Hour is the average of 67, 65, 73, 65 = 68

Note: Peak Hour is **bold italicized**.



Table 2HH: Fleet Mix Operations Forecast

		2024	2029	2034	2044
Local Operations					
Single-Engine Piston		24,682	27,469	30,662	38,440
Multi-Engine Piston		800	800	800	800
Helicopter		10,000	11,000	12,000	14,000
	Total Local Operations:	35,482	39,269	43,462	53,240
Itinerant Operations					
Single-Engine Piston		60,046	63,162	67,860	75,690
Multi-Engine Piston		1,200	1,200	1,200	1,200
Turboprop		6,192	12,915	15,877	22,639
Jet		57,668	67,803	83,353	128,290
Helicopters		6,000	7,000	8,000	10,000
	Total Itinerant Operations:	131,106	152,080	176,290	237,819
	TOTAL OPERATIONS:	166,588	191,349	219,752	291,059



CHARTER/AIR TAXI ENPLANEMENTS

Private Charters, Public Charters, Fractionals, Aerial Tours, Air Ambulance



Exhibit 2J: Charter Enplanement Forecast

Year Enplanements

2024 43,765

2029 92,243

2034 140,072

2044 236,870

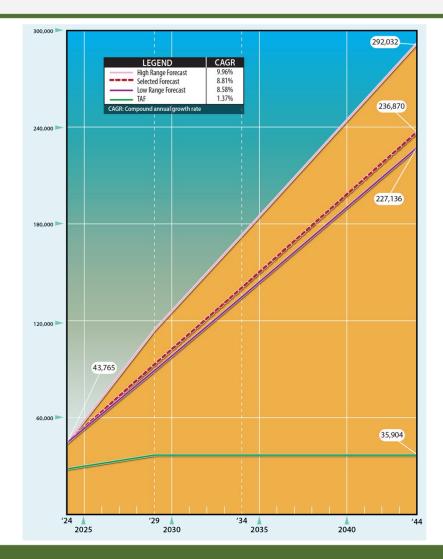




Exhibit 2K: Forecast Summary

	BASE	FORECAST			CAGR			
	2024	2029	2034	2044	2024-2044			
ANNUAL OPERATIONS								
Air Taxi/Charter Operations (Itinerant)								
Air Taxi	66,178	80,903	98,906	147,818	4.10%			
Total Air Taxi/Charter Operations	66,178	80,903	98,906	147,818	4.10%			
General Aviation Operations								
Itinerant	64,608	70,812	77,019	89,636	1.65%			
Local	35,478	39,267	43,460	53,238	2.05%			
Total General Aviation Operations	100,086	110,079	120,479	142,874	1.80%			
Military Operations								
Itinerant	320	365	365	365	0.66%			
Local	4	2	2	2	-3.41%			
Total Military Operations	324	367	367	367	0.63%			
Total Itinerant Operations	131,106	152,080	176,290	237,819	3.02%			
Total Local Operations	35,482	39,269	43,462	53,240	2.05%			
TOTAL ANNUAL OPERATIONS	166,588	191,349	219,752	291,059	2.83%			
ENPLANEMENTS								
Charter Enplanements	43,765	92,243	140,072	236,870	8.81%			



Exhibit 2K: Forecast Summary

	BASE	FORECAST			CAGR
	2024	2029	2034	2044	2024-2044
BASED AIRCRAFT					
Single Engine Piston	115	121	130	145	1.17%
Multi-Engine Piston	10	10	10	10	0.00%
Turboprop	11	18	24	35	5.96%
Jet	157	171	183	212	1.51%
Helicopter	40	45	50	60	2.05%
TOTAL BASED AIRCRAFT	333	365	397	462	1.65%

PEAKING ACTIVITY PROJECTIONS	2024	2029	2034	2044
Annual Operations	166,588	191,349	219,752	291,059
Peak Month	15,627	18,599	21,360	28,291
Design Day	521	620	712	943
Design Hour	68	85	98	129



Table 2MM: Forecast Comparison to the 2024 FAA Terminal Area Forecast (TAF)

		2024	2029	2034	2044	CAGR 2024-2044
Commercial Operation	s (Air Taxi)					
Master Plan Forecast		66,178	80,903	98,906	147,818	4.10%
FAA TAF 2024 ¹		63,600	77,761	95,060	142,061	4.10%
	% Difference:	4.0%	4.0%	4.0%	4.0%	_
Total Operations						
Master Plan Forecast		166,588	191,349	219,752	291,059	2.83%
FAA TAF 2024 ¹		169,207	207,561	226,065	275,518	2.47%
	% Difference:	1.6%	8.1%	2.8% 🛑	5.5%	_
Charter Passenger Enp	lanements					
Master Plan Forecast		43,765	92,243	140,072	236,870	8.81%
FAA TAF 2024 ¹		27,323	35,904	35,904	35,904	1.37%
	% Difference:	46.3%	87.9% 🛑	118.4%	147.3%	_
Based Aircraft						
Master Plan Forecast		333	365	397	462	1.65%
FAA TAF 2024 ¹		340	355	375	415	1.00%
	% Difference:	2.1%	2.7% 🛑	5.8%	10.8%	_
CAGR = compound annua	I growth rate					

FAA TAF Tolerance:

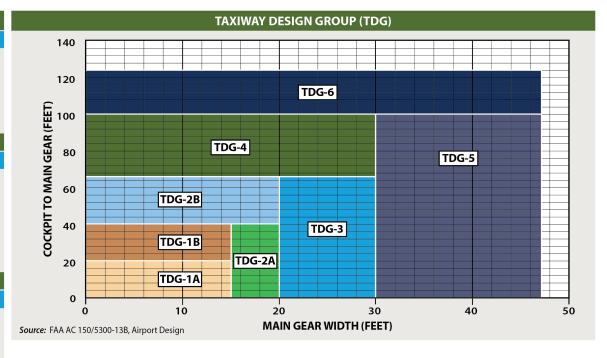
Within 10%

Within 15%



Exhibit 2L: Aircraft Classification Parameters

	AIRCRAFT APPRO	AIRCRAFT APPROACH CATEGORY (AAC)								
Category	Appr	oach Speed								
Α	less t	han 91 knots								
В	91 knots or more	but less than 121 knots								
C	121 knots or mor	e but less than 141 knots								
D	141 knots or mor	e but less than 166 knots								
E	166 k	nots or more								
	AIRPLANE DES	IGN GROUP (ADG)								
Group #	Tail Height (ft)	Wingspan (ft)								
1	<20	<49								
II	20-<30	49-<79								
III	30-<45	79-<118								
IV	45-<60	118-<171								
V	60-<66	171-<214								
VI	66-<80	214-<262								
	VISIBILIT	Y MINIMUMS								
RVR* (ft)	Flight Visibi	ility Category (statute miles)								
VIS	3-mile or grea	ater visibility minimums								
5,000	Not lo	wer than 1-mile								
4,000	Lower than 1-mile but not lower than ¾-mile									
2,400	Lower than ¾-mile	e but not lower than ½-mile								
1,600	Lower than ½-mile	e but not lower than ¼-mile								
1,200	Lowe	er than ¼-mile								



^{*}RVR: Runway Visual Range



Exhibit 2M: Aircraft Reference Codes

A-I	Aircraft	TDG	B-II over 12,500 lbs.	Aircraft	TDG	C/D-II	Aircraft	TDG	C/D-IV	Aircraft	TDG
	Beech Bonanza Cessna 150, 172 Piper Comanche, Seneca	1A 1A 1A		Beech Super King Air 350 Cessna Citation CJ3(525B) Cessna Citation CJ4 (525C) Cessna Citation Latitude Embraer Phenom 300 Falcon 20 Pilatus PC-24	2A 2A 1B 1B 1B 1B		Challenger 600/604 Cessna Citation III, VI,VII, X Embraer Legacy 135/140 Gulfstream IV (D-II) Gulfstream G280 Lear 70, 75 Falcon 50, 900, 2000 Hawker 800XP, 4000	1B 1B 2B 2A 1B 1B 2A 1B	C/D-V	• Airbus A300 • Boeing 757-200 • Boeing 767 -300, 400 • MD-11	5 4 5 6
B-I	 Eclipse 500 Beech Baron 55/58 Beech King Air 100 Cessna 421 Cessna Citation M2 (525) Cessna Citation 1(500) Embraer Phenom 100 	1A 1A 1A 2A 1A 1A	A/B-III	Bombardier Dash 8 Bombardier Global 7500 Falcon 7X, 8X	3 2B 2A	C/D-III less than 150,000 lbs.	• Gulfstream V • Gulfstream 550, 600, 650 • Global 5000, 6000	2B 2B 2B	E-I	 Airbus A330-200, 300 Airbus A340-500, 600 Boeing 747-100 - 400 Boeing 777-300 Boeing 787-8, 9 	5 6 5 6 5
A/B-II 12,500 lbs.	Beech Super King Air 200 Beech King Air 90 Cessna 441 Conquest Cessna Citation CJ2 Pilatus PC-12	2A 1A 1A 2A 2	C/D-I	• Lear 35, 40, 45 , 55, 60XR • F-16	1B 1A	C/D-III over 150,000 lbs.	• Airbus A319, A320, A321 • Boeing 737-800 , 900 • MD-83, 88	3 3 4	" O C T	•F-15	18

Note: Aircraft pictured is identified in bold type.

Note: New aircraft like the G700 and Falcon 10X have not been categorized by FAA yet but they have wingspans between 79' and 118' (ADG III) and have a MTOW greater than 100,000 lbs.



Exhibit 2N: Historical Jet and Turboprop Operations

Approach Category

AC	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Α	2,240	2,704	2,910	2,900	3,130	3,442	4,048	4,460	4,394	4,912
В	18,688	19,988	21,646	21,706	23,040	24,250	31,822	33,898	28,812	28,290
С	15,904	16,098	16,180	16,484	16,550	16,044	21,360	23,382	22,134	26,792
D	1,728	1,756	1,902	2,066	2,344	3,074	4,362	4,936	5,182	3,862
E	2	0	0	0	0	2	2	2	2	2
Total	38,562	40,546	42,638	43,156	45,064	46,812	61,594	66,678	60,524	63,858

Design Group

DG	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
I	11,146	10,690	10,844	10,640	11,576	11,676	14,552	14,642	11,320	10,870
II	26,240	28,500	30,394	30,844	31,500	33,324	44,092	48,722	45,500	49,350
III	1,176	1,356	1,400	1,672	1,986	1,812	2,950	3,312	3,704	3,638
IV	0	0	0	0	0	0	0	2	0	0
V	0	0	0	0	2	0	0	0	0	0
Total	38,562	40,546	42,638	43,156	45,064	46,812	61,594	66,678	60,524	63,858

Taxiway Design Group

TDG	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1A	9,042	9,266	9,524	9,346	10,646	10,618	12,778	12,696	10,144	9,872
1B	15,202	16,052	17,418	18,732	19,930	21,798	30,128	33,518	31,370	31,656
2A	12,680	13,756	14,094	13,316	12,456	12,444	15,464	16,560	14,860	13,938
2B	1,044	1,182	1,240	1,400	1,618	1,544	2,588	2,860	3,306	7,634
3	16	2	10	20	32	92	156	176	156	148
Total	37,984	40,258	42,286	42,814	44,682	46,496	61,114	65,810	59,836	63,248



Table 2NN: Jet & Turboprop Fleet Mix Forecast by Aircraft Reference Code

	Historica	l Jet & Tur	boprop Op	perations	Forecasted Jet & Turboprop Operations					
Design Category	2015	%	2024	%	2029	%	2034	%	2044	%
AAC A/B	20,928	54.3%	33,202	52.0%	54,154	49.0%	62,489	47.0%	80,167	42.0%
AAC C	15,904	41.2%	26,792	42.0%	47,523	43.0%	55,841	42.0%	85,893	45.0%
AAC D	1,730	4.5%	3,864	6.1%	9,947	9.0%	14,625	11.0%	24,814	13.0%
Total:	38,562	100.0%	63,858	100.0%	110,518	101.0%	132,955	100.0%	190,874	100.0%
ADG I	11,146	28.9%	10,870	17.0%	14,367	13.0%	15,955	12.0%	20,996	11.0%
ADG II	26,240	68.0%	49,350	77.3%	88,414	80.0%	105,035	79.0%	145,064	76.0%
ADG III	1,176	3.0%	3,638	5.7%	7,736	7.0%	11,966	9.0%	24,814	13.0%
Total:	38,562	100.0%	63,858	100.0%	110,518	100.0%	132,955	100.0%	190,874	100.0%

AAC = aircraft approach category

ADG = airplane design group



Table 2QQ: Airport and Runway Classifications

	Current	Future					
Airport Reference Code (ARC)	D-III	D-III					
Airport Critical Aircraft	D-III-2B	D-III-2B					
Runway Design Code (RDC)							
Runway 3-21	D-III-5000	D-III-5000					
Approach Reference Code (APRC)							
Runway 3-21	B-II-4000	B-II-4000 ¹					
Departure Reference Code (DPRC)							
Runway 3-21	B-II	B-II ¹					
¹ If the runway-to-taxiway separation were to change, the APRC and DPRC would also change.							



DISCUSSION

Direct any questions or comments after this meeting to Coffman Associates team members

Kelli Kuester: kkuester@scottsdaleaz.gov

Patrick Taylor: ptaylor@coffmanassociates.com

or visit the project website to submit comments online.

https://scottsdale.airportstudy.net





NEXT STEPS

