DENTON ENTERPRISE AIRPORT

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AIRPORT MASTER PLAN

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Planning Advisory Committee Meeting #2 October 23, 2024

- 1. Welcome/Introductions
- 2. Master Plan Status
- 3. Review of Phase 1 Materials
 - a. Inventory
 - b. Aviation Demand Forecasts
- 4. Open Discussion/Questions

MASTER PLAN PROCESS

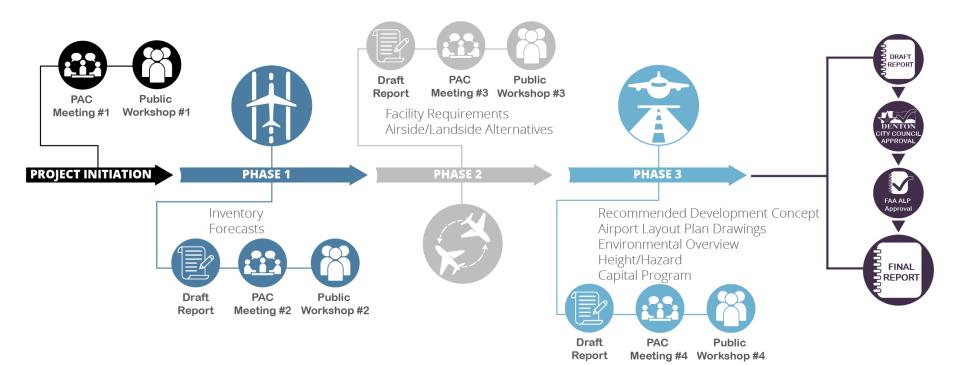


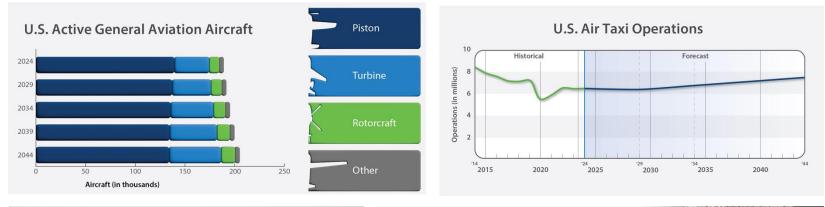


Exhibit 1C: Existing Airside Facilities



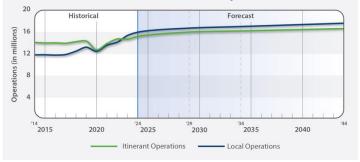


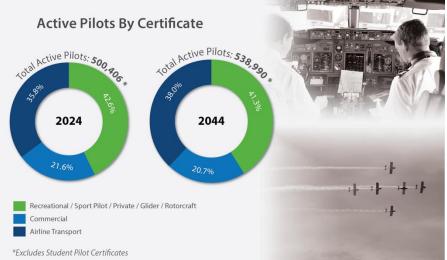
Exhibit 2A: National GA Forecasts





U.S. General Aviation Operations





Source: FAA Aerospace Forecasts FY2024-2044

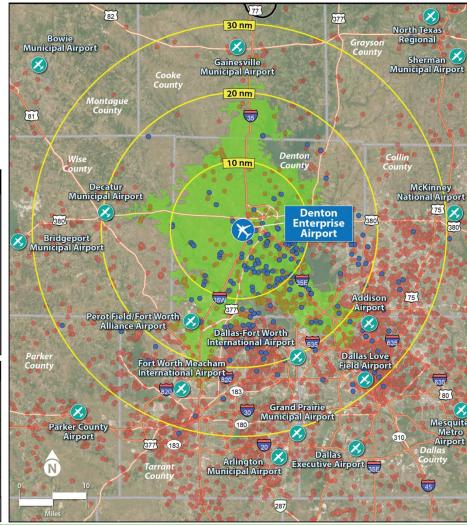
Table 2D: National Business Jet Operations by ARC

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Aircraft Reference Code		OPERATIONS									
(ARC) Example Aircraft	2018	2019	2020	2021	2022	2023	CAGR				
A-I Cirrus Vision SF50	13,460	25,240	36,700	62,547	82,853	98,641	48.9%				
B-I Beechjet 400	783,248	751,782	619,231	788,859	805,071	719,046	-1.7%				
C-I Learjet 45	398,732	368,053	292,293	397,439	385,763	335,301	-3.4%				
B-II Phenom 300	1,598,020	1,653,404	1,298,810	1,926,275	2,018,435	1,970,766	4.3%				
C-II Challenger 300	1,439,252	1,429,196	1,054,897	1,560,040	1,634,500	1,554,406	1.6%				
D-II Gulfstream G400	181,856	177,559	133,027	202,549	196,146	175,076	-0.8%				
B-III Falcon F7X	37,790	46,527	39,367	64,736	87,139	97,955	21.0%				
C-III Global Express	161,970	178,013	128,218	195,516	234,013	249,602	9.0%				
D-III Gulfstream G500	135,211	133,554	89,818	127,765	150,344	136,674	0.2%				
CAGR = compound annual gro	owth rate										

Exhibit 2B: Based Aircraft Service Area

X,



LEGEND

Denton Enterprise Airport (DTO) NPIAS Airport

- DTO Based Aircraft
- FAA Registered Aircraft
 - 30 Minute Drive Time
- County Boundary

DTO Based & FAA Registered Aircraft								
Distance from DTO	FAA Registered Aircraft	DTO Based Aircraft						
0-10 nm	759	195						
10-20 nm	1,310	91						
20-30 nm	3,506	56						
Total 5,575 342*								
*84 DTO based aircraft are 30nm from DTO.	e registered to add	resses beyond						

TABLE 1K | Regional Airports within 30 Nautical Miles – Denton Enterprise Airport

Airport	Nautical Miles/ Direction from DTO ¹	FAA Service Level ²	Towered ³	Based Aircraft ³	2023 Annual Operations ⁴	Longest Runway ³	Visibility Minimum ¹
Denton Enterprise Airport (DTO)	-	Reliever	Yes	412 ⁵	204,797	7,002'	½-mile
Fort Worth Alliance Airport (AFW)	14.1 nm SSW	Reliever	Yes	16	111,778	11,125'	½-mile
Decatur Municipal Airport (LUD)	19.4 nm W	GA	No	39	36,500 ³	4,200'	1-mile
Kenneth Copeland Airport (4T2)	20.0 nm SW	-	No	5	2,700 ³	5,943'	1-mile
Dallas-Fort Worth International Airport (DFW)	20.0 nm SSE	Primary	Yes	0	689,569	13,401'	½ mile
Aero Country Airport (T31)	23.0 nm E	-	No	255	2,100 ³	4,352'	-
Addison Airport (ADS)	23.0 nm SE	Reliever	Yes	598	119,149	7,203'	¾-mile
Fort Worth Meacham Airport (FTW)	24.4 nm SSW	Reliever	Yes	290	181,712	7,502'	½-mile
Gainesville Municipal Airport (GLE)	27.0 nm N	GA	No	114	70,000 ³	6,000'	¾-mile
Dallas Love Field Airport (DAL)	27.6 nm SE	Primary	Yes	307	251,988	8,800'	½-mile
Notes: GA = General Aviation nm = nautical mile							

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Table 2E: Socioeconomic Information

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Year	POPULATION		EMPLO	YMENT	PER CAPITA PERSONAL INCOME (2017 DOLLARS) OF 2017 DC			(MILLIONS
	Denton County	DFW MSA	Denton County	DFW MSA	Denton County	DFW MSA	Denton County	DFW MSA
Historical								
2014	750,659	6,879,061	343,043	4,464,858	\$51,413	\$51,620	\$26,521	\$430,114
2015	776,070	7,025,043	363,123	4,634,309	\$53,371	\$52,245	\$28,319	\$450,245
2016	804,342	7,175,705	376,890	4,794,803	\$54,259	\$52,356	\$30,169	\$464,687
2017	830,783	7,314,691	393,859	4,930,540	\$55,127	\$54,001	\$32,263	\$480,016
2018	853,505	7,429,882	416,086	5,085,293	\$57,498	\$56,008	\$33,604	\$501,500
2019	883,339	7,543,556	427,954	5,184,757	\$59,743	\$57,412	\$35,762	\$522,036
2020	914,398	7,666,418	439,264	5,170,447	\$61,717	\$58,945	\$37,761	\$516,239
2021	943,883	7,774,647	480,791	5,492,350	\$65,328	\$62,323	\$40,887	\$548,925
2022	977,760	7,947,439	511,765	5,845,179	\$64,093	\$60,718	\$43,962	\$581,798
2023	1,007,703	8,100,037	529,270	5,977,584	\$65,335	\$63,343	\$47,115	\$611,810
2024	1,030,322	8,215,046	544,797	6,106,951	\$66 <i>,</i> 527	\$64,674	\$49,165	\$631,695
Forecast								
2029	1,149,177	8,800,501	634,701	6,797,728	\$73,201	\$71,675	\$61,048	\$738,624
2034	1,277,079	9,397,522	737,969	7,506,003	\$80,644	\$79,103	\$75,487	\$854,998
2044	1,559,212	10,615,729	985,715	9,002,703	\$97,702	\$95,577	\$113,669	\$1,121,736
CAGRs								
2014-	3.2%	1.8%	4.7%	3.2%	2.6%	2.3%	6.4%	3.9%
2024	5.270	1.070	4.770	5.270	2.070	2.370	0.470	5.570
2024- 2044	2.1%	1.3%	3.0%	2.0%	1.9%	2.0%	4.3%	2.9%
CAGR = co	ompound annua	l growth rate						

Exhibit 2C: Based Aircraft Projections

LEGEND	CAGR*
••• Increasing Market Share (Selected)	2.8%
– – Constant Market Share	2.2%
TAF Growth Rate	2.4%
DTO 2024 TAF	2.4%
10-Year Growth Rate	0.8%
State TAF Growth Rate	1.1%
Service Area Population Growth Rate	2.1%
Service Area Employment Growth Rate	3.0%
Service Area Income Growth Rate	1.9%
Service Area GRP Growth Rate	4.3%
Regression with Texas Based Aircraft	2.0%

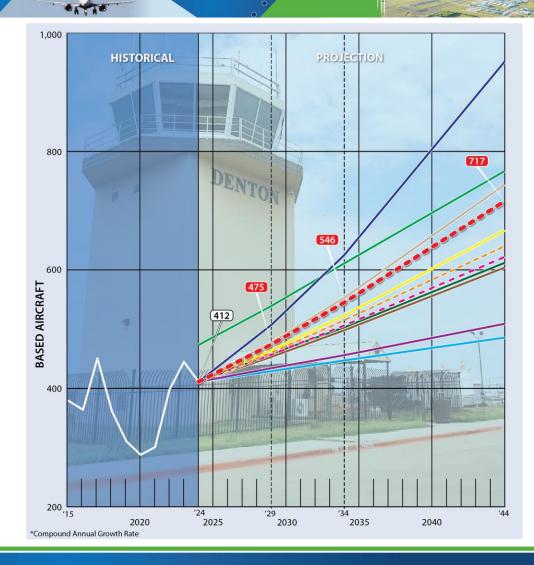


TABLE 2N | Historical Operations Data

Calendar			ITINERANT				LOCAL		Total
Year	Air Carrier	Air Taxi	General Aviation	Military	Subtotal	General Aviation	Military	Subtotal	Operations
2004	0	566	22,175	14	22,755	34,855	2	34,857	57,612
2005	1	1,094	34,081	35	35,211	51,423	168	51,591	86,802
2006	199	849	30,853	22	31,923	56,901	8	56,909	88,832
2007	23	726	30,576	66	31,391	68,119	224	68,343	99,734
2008	7	1,130	40,041	117	41,295	85,373	2	85,375	126,670
2009	0	392	46,911	175	47,478	94,602	24	94,626	142,104
2010	0	685	49,236	256	50,177	91,911	24	91,935	142,112
2011	4	756	64,380	130	65,270	82,735	26	82,761	148,031
2012	39	1,103	65,446	202	66,790	91,164	32	91,196	157,986
2013	12	1,473	68,676	227	70,388	90,298	54	90,352	160,740
2014	38	1,919	70,351	178	72,486	85,708	16	85,724	158,210
2015	54	1,457	73,215	169	74,895	89,852	50	89,902	164,797
2016	5	1,665	61,514	189	63,373	73,279	4	73,283	136,656
2017	16	1,932	60,504	158	62,610	62,949	49	62,998	125,608
2018	35	1,440	61,535	50	63,060	84,703	14	84,717	147,777
2019	10	1,337	63,098	125	64,570	71,166	8	71,174	135,744
2020	15	963	64,154	31	65,163	71,463	4	71,467	136,630
2021	24	1,572	58,357	60	60,013	78,672	18	78,690	138,703
2022	17	2,574	71,679	50	74,320	99,426	12	99,438	173,758
2023	10	1,590	89,063	76	90,739	114,054	4	114,058	204,797
2024*	5	3,075	102,829	51	105,960	115,514	4	115,518	221,478
20yr CAGR	N/A	8.8%	8.0%	6.7%	8.0%	6.2%	3.5%	6.2%	7.0%
10yr CAGR	-18.4%	4.8%	3.9%	-11.7%	3.9%	3.0%	-12.9%	3.0%	3.4%
*2024 data re	present a 12-	-month perio	d ending July	2024					

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Source: FAA Operations and Performance Data (OPSNET)

Exhibit 2D: Itinerant GA Operations Forecasts

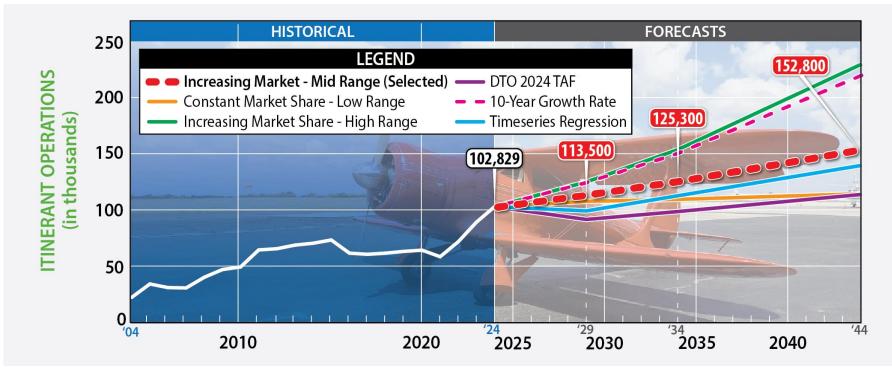


Exhibit 2D: Local GA Operations Forecasts

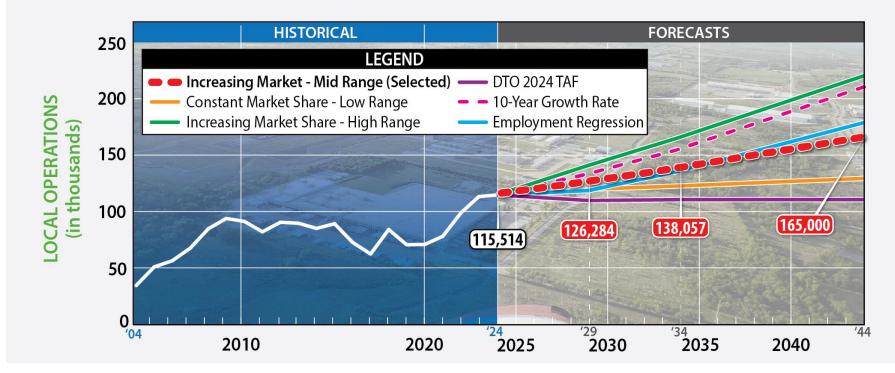


Exhibit 2D: Air Taxi Operations Forecasts

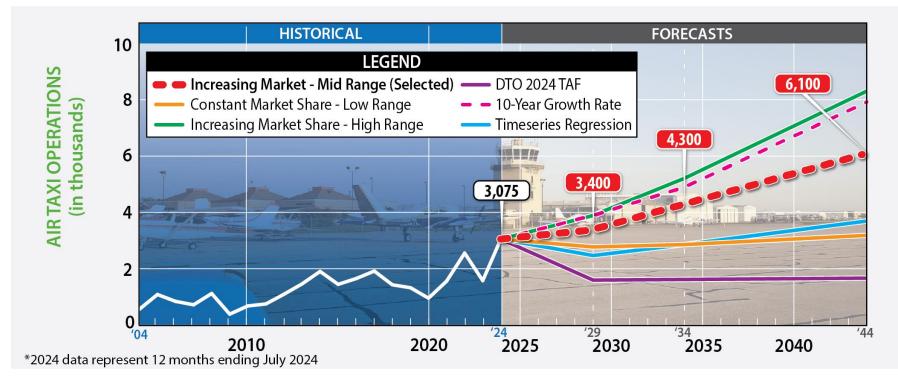


Exhibit 2E: Forecast Summary

	2024	2029	2034	2044	CAGR
ANNUAL OPERATIONS					
Itinerant		<i></i>			
Air Carrier	14	14	14	14	0.0%
Air Taxi	3,075	3,400	4,300	6,100	3.5%
General Aviation	102,829	113,500	125,300	152,800	2.0%
Military	51	81	81	81	2.3%
Total Itinerant	105,969	116,995	129,695	158,995	2.0%
Local					
General Aviation	115,514	126,284	138,057	165,000	1.8%
Military	4	0	0	0	N/A
Total Local Subtotal	115,518	126,284	138,057	165,000	1.8%
TOTAL ANNUAL OPERATIONS	221,487	243,279	267,752	323,995	1.9%
OPERATIONAL PEAKING CHAR	RACTERISTICS				
Peak Month	22,043	25,226	27,763	33,595	2.1%
Design Day	711	814	896	1,084	2.1%
Busy Day	898	1,028	1,131	1,369	2.1%
Design Hour	205	235	259	313	2.1%
BASED AIRCRAFT		-			
Single Engine Piston	306	351	401	520	2.7%
Multi-Engine Piston	58	68	79	105	3.0%
Jet	34	40	46	65	3.3%
Helicopter	14	16	19	25	2.9%
Glider/Other	0	0	1	2	N/A
TOTAL BASED AIRCRAFT	412	475	546	717	2.8%

N/A - Not Applicable *CAGR* - Compound annual growth rate

Sources: Coffman Associates analysis

350

300

OPERATIONS (in thousands)



BASED AIRCRAFT

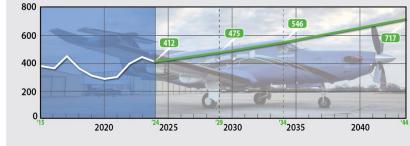


Exhibit 2F: Aircraft Reference Codes

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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 1 A 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 2A		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		• 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 2A 1A 1A 1A	A/B-III	• Bombardier Dash 8 • Bombardier Global 7500 • Falcon 7X, 8X	3 2B 2A	C/D-III lessthan 150,000 lbs.	• Gulfstream V • Gulfstream 550, 600, 650 • Global 5000, 6000	2B 2B 2B	C/D-V	• 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-IIII over 150,000 lbs.	• Airbus A319, A320, A321 • Boeing 737-800, 900 • MD-83, 88	3 3 4	E-I	• F-15	1B

Table 2U: Historical and Forecast Operationsby Airport Reference Code

Year	B-I	B-II	B-III	C-I	C-II	C-III	D-II	D-III
Historical								
2019	1,097	3,702	6	324	876	14	17	4
2020	643	3,693	5	250	763	30	4	4
2021	970	3,558	16	476	977	40	23	22
2022	1,095	4,419	25	425	1,003	41	12	14
2023	889	2,994	42	354	1,290	66	36	6
2024*	882	2,901	52	191	1,116	71	26	2
CAGR	-4.3%	-4.8%	54.0%	-10.0%	5.0%	38.4%	8.9%	-12.9%
Forecast								
2029	810	3,581	84	161	1,424	109	42	7
2034	743	4,420	135	135	1,818	168	67	28
2044	626	6,733	350	96	2,961	398	175	380
CAGR	-1.7%	4.3%	10.0%	-3.4%	5.0%	9.0%	10.0%	30.0%

*2024 data represent a 12-month period ending July 2024

A-I and A-II are not shown, as smaller/slower aircraft are unlikely to impact critical design aircraft.

C-IV through C-V and D-I and D-IV and above are not shown due to minimal activity at DTO.

Critical Aircraft Summary

TABLE 2W | Airport and Runway Classifications

	Runway	y 18L-36R	Runway 18R-36L
	Existing	Ultimate	Existing/Ultimate
Airport Reference Code (ARC)	C-II	C/D-III	B-II
Critical Aircraft (Typ.)	Bombardier Challenger 600	Gulfstream G550/G650	Beechcraft King Air 90/200/300/350
Runway Design Code (RDC)	C-II-2400	C/D-III/2400	B-11-4000
Taxiway Design Code (TDG)	3	3	2A
Source: FAA AC 150/5300-13B, Airp	ort Design, Change 1		

Challenger 600

Gulfstream G650





POTENTIAL COMMERCIAL PASSENGER SERVICE ENPLANEMENTS

- The Dallas-Fort Worth metroplex has grown to become the fourth largest metro area in the US with an estimated 8.5 million residents in 2024 according to the NCTCOG.
- The need for a third commercial service airport in the Dallas-Fort Worth metroplex is becoming increasingly critical. A market analysis study conducted for McKinney National Airport (TKI) in June 2022 identified that DFW and DAL are forecast to reach maximum capacity by 2038.
- DFW is currently undergoing a \$9.0 billion expansion and modernization program in its efforts to increase its capacity to accommodate over 100 million passengers.
- DAL is constrained by federal law to 20 gates, 18 of which are controlled by Southwest Airlines. Southwest is barred from operating at DFW until 2025, and the airline has indicated that it is considering expanding operations at a second airport in North Texas.

POTENTIAL COMMERCIAL PASSENGER SERVICE ENPLANEMENTS

- McKinney National has a head start, with plans to construct a passenger terminal building in the coming years; however, a 2023 ballot measure to fund a \$200 million TKI expansion, was defeated by voters. The McKinney City Council has continued to move forward with the design of the terminal while seeking new funding options.
- If TKI fails in its attempt to attract commercial service activity, other airports such as DTO may seek to fill the role.
- If TKI is successful, the market would not support a fourth commercial service airport, especially two located in the northern suburbs.

Table 2X: Secondary/Tertiary Commercial Passenger Airport Enplanements

- Orlando Sanford International 26 mi NE of Orlando (Allegiant/Sun Country)
- Westchester County 39 mi N of NYC (American/Breeze/Delta/jetBlue)
- Phoenix-Mesa Gateway 36 mi SE of Phoenix (Allegiant/Sun Country)
- Bellingham International 94 mi N or Seattle/52 mi S of Vancouver (Allegiant/Alaska)
- Chicago Rockford International 85 mi NW of Chicago (Allegiant)
- Stockton Metro 80 mi E of San Francisco (Allegiant)
- Portsmouth International 58 mi N of Boston (Allegiant/Breeze)

Name	2003	2008	2013	2018	2023
Orlando Sanford – FL	619,894	927,188	971,522	1,504,888	1,446,884
Westchester County – NY	426,864	904,482	764,002	789,283	1,156,719
Phoenix-Mesa – AZ	218	190,281	725,048	778,972	964,132
Bellingham International – WA	66,437	277,281	596,142	368,186	311,234
Chicago Rockford – IL	16,982	110,151	109,384	106,710	120,494
Stockton Metro – CA	13,700	36,935	71,757	98,908	67,688
Portsmouth International – NH	27,096	49,962	22,540	92,836	57,448

Table 2Z: Tertiary Airports and Propensity Factor

			2023	
Airport	Market	Market MSA Population	Enplanements	TPF
Orlando Sanford – FL	Orlando	2,817,933	1,446,884	0.513
Westchester County – NY	New York	11,864,322	1,156,719	0.097
Phoenix-Mesa – AZ	Phoenix	5,070,110	964,132	0.190
Bellingham International – WA	Seattle/Vancouver	4,044,837	311,234	0.077
Chicago/Rockford – IL	Chicago	9,262,825	120,494	0.013
Stockton Metro – CA	San Francisco	4,566,961	67,688	0.015
Portsmouth International – NH	Boston	4,919,179	57,448	0.012
TPF = travel propensity factor				

Table 2Y: Small Texas Markets and Travel Propensity Factor

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Texas Small Markets	2019			2023			Miles to
Texas Small Warkets	Population	Enp.	TPF	Population	Enp.	TPF	Nearest Hub
Abilene Regional (ABI) – Abilene, TX	124,351	81,813	0.658	131,676	79,831	0.606	150 – Lubbock (LBB)
Easterwood Field (CLL) – College Station, TX	119,336	83,832	0.702	123,498	60,072	0.486	70 – Houston (IAH)
Waco Regional (ACT) – Waco, TX	137,223	62,907	0.458	145,192	51,867	0.357	90 – Dallas (DAL)
San Angelo Regional/Mathis Field (SJT) – San Angelo, TX	99,609	66,390	0.667	99 <i>,</i> 565	51,865	0.521	110 – Midland (MAF)
Tyler Pounds Regional (TYR) – Tyler, TX	105,174	59,807	0.569	110,734	50,155	0.453	95 – Dallas (DAL)
East Texas Regional (GGG) – Longview, TX	81,559	27,160	0.333	83,591	32,613	0.390	125 – Dallas (DAL)
Jack Brooks Regional (BPT) – Beaumont/Port Arthur, TX	171,884	29,068	0.169	168,064	32,150	0.191	70 – Houston (IAH)
Sheppard AFB/Wichita Falls Municipal (SPS) – Wichita Falls, TX	102,023	40,418	0.396	102,774	25,075	0.244	110 – Dallas/Ft Worth (DFW)
Enp. = passenger enplanements TPF = travel propensity factor							

Table 2AA: Market Share and Travel Propensity Projections

Year	DTO Enplanements	DFW MSA Population	Travel Propensity Factor				
Low Small Market Airport TPF							
2029	1,683,500	8,800,501	0.191				
2034	1,797,700	9,397,522	0.191				
2044	2,030,700	10,615,729	0.191				
Low Tertiary Airport TPF							
2029	102,800	8,800,501	0.012				
2034	109,700	9,397,522	0.012				
2044	124,000	10,615,729	0.012				
Average Tertiary Airport TPF							
2029	1,153,600	8,800,501	0.131				
2034	1,231,800	9,397,522	0.131				
2044	1,391,500	10,615,729	0.131				
DFW MSA = Dallas-Fort Worth Metropolitan Statistical Area							

Table 2BB: Enplanements and Operations Based on Potential Flight Schedules

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Aircraft Type	ARC	Seats	BLF %	Occupied Seats	Departure Frequency	Total Enplanements	Total Operations		
Passenger Membership Model Scenarios									
Pilatus PC-12	A-II	8	80%	6	12x Weekly	3,700	1,248		
Pilatus PC-12	A-II	8	80%	6	24x Weekly	7,500	2,496		
Pilatus PC-12	A-II	8	80%	6	48x Weekly	15,000	4,992		
Regional Carrier Scenarios									
CRJ200	D-II	50	80%	40	6x Weekly	12,500	624		
CRJ200	D-II	50	80%	40	12x Weekly	25,000	1,248		
CRJ200	D-II	50	80%	40	24x Weekly	49,900	2,496		
CRJ700	C-II	70	80%	56	6x Weekly	17,500	624		
CRJ700	C-II	70	80%	56	12x Weekly	34,900	1,248		
ERJ E175	C-III	76	80%	61	6x Weekly	19,000	624		
ERJ E175	C-III	76	80%	61	12x Weekly	38,100	1,248		
Irregularly Sche	Irregularly Scheduled Charter Operator Scenarios								
A320	C-III	177	90%	159	2x Weekly	16,500	208		
A320	C-III	177	90%	159	4x Weekly	33,100	416		
A320	C-III	177	90%	159	8x Weekly	66,100	832		
A320	C-III	177	90%	159	12x Weekly	99,200	1,248		
A320	C-III	177	90%	159	16x Weekly	132,300	1,664		
A320	C-III	177	90%	159	24x Weekly	198,400	2,496		

POTENTIAL COMMERCIAL PASSENGER SERVICE ENPLANEMENTS

- Enplanement scenarios for DTO range from 10,000 to over 1 million annually.
- TKI market analysis study identified a potential 2025 market range of between 178,000 and 888,000 annual enplanements growing to a range of 273,000 to 1,367,000 by 2040.
- The DTO market range for passenger enplanements is similar to that of TKI.

NEXT STEPS

Phase 2 Elements

- Facility Requirements
- Alternatives
- PAC Meeting #3 & Public Workshop Early 2025

QUESTIONS?

We want to hear from you!

Direct any questions or comments after this meeting to Eric Pfeifer with Coffman Associates at 816-524-3500 or <u>epfeifer@coffmanassociates.com</u> or visit the project website to submit comments online.

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