

Appendix B: Forecast Tables

TABLE 1
U.S. SHORT-TERM ECONOMIC FORECASTS

ECONOMIC VARIABLE	FISCAL YEAR 2023				FISCAL YEAR 2024				FISCAL YEAR 2025			
	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.
Real Personal Consumption												
Expenditure per Capita												
(2017 \$)	45,358	45,735	45,768	46,145	46,364	46,515	46,567	46,654	46,747	46,860	46,997	47,141
Year over year change	0.7%	1.6%	1.3%	1.9%	2.2%	1.7%	1.7%	1.1%	0.8%	0.7%	0.9%	1.0%
Refiners' Acquisition Cost - Average												
(Dollars per barrel)	83.05	74.46	74.05	82.12	82.91	75.33	76.41	80.66	72.74	68.92	70.57	76.26
Year over year change	8.7%	-19.5%	-32.7%	-13.6%	-0.2%	1.2%	3.2%	-1.8%	-12.3%	-8.5%	-7.6%	-5.5%
Consumer Price Index												
(1982-84 = 1)	2.99	3.01	3.03	3.06	3.08	3.10	3.12	3.14	3.16	3.16	3.18	3.20
Year over year change	7.1%	5.8%	4.1%	3.6%	3.2%	2.7%	2.8%	2.7%	2.5%	2.2%	1.9%	1.9%
Source: S&P Global												

TABLE 2

U.S. LONG-TERM ECONOMIC FORECASTS

FISCAL YEAR	REAL GROSS DOMESTIC PRODUCT (Billions 2017 \$)	REAL PERSONAL CONSUMPTION EXPENDITURE PER CAPITA (2017 \$)	CONSUMER PRICE INDEX (1982-84=1.00)	REFINERS' ACQUISITION COST AVERAGE (Dollars per barrel)
<u>Historical</u>				
2010	16,675	36,370	2.17	74.61
2019	20,531	41,921	2.54	59.77
2020	20,291	41,021	2.58	43.15
2021	21,127	43,537	2.67	58.91
2022	21,786	45,130	2.88	93.50
2023E	22,205	45,752	3.02	78.42
<u>Forecast</u>				
2024	22,609	46,525	3.11	78.83
2025	22,875	46,936	3.17	72.12
2030	24,802	49,965	3.55	88.63
2035	26,949	54,423	3.95	97.39
2040	27,141	57,563	4.35	106.31
2044	31,308	63,380	4.77	107.28
<u>Avg Annual Growth</u>				
2010-23	2.2%	1.8%	2.6%	0.4%
2023-24	1.8%	1.7%	2.9%	0.5%
2024-34	1.6%	1.4%	2.2%	2.0%
2024-44	1.6%	1.6%	2.2%	1.6%
Source: S&P Global				

TABLE 3

INTERNATIONAL GDP FORECASTS BY TRAVEL REGION

CALENDAR YEAR	GROSS DOMESTIC PRODUCT (In Billions of 2019 U.S. Dollars)				
	CANADA	EUROPE / AFRICA / MIDDLE EAST	LATIN AMERICA / CARIBBEAN / MEXICO	JAPAN / PACIFIC BASIN / CHINA / OTHER ASIA / AUSTRALIA / NEW	WORLD
				ZEALAND	
<u>Historical</u>					
2010	1,439	21,622	4,647	19,890	67,023
2019	1,744	25,872	5,414	30,637	87,496
2020	1,656	24,461	5,051	30,377	84,837
2021	1,743	25,950	5,404	32,368	90,099
2022	1,810	26,981	5,617	33,425	92,833
2023E	1,831	27,231	5,741	34,879	95,312
<u>Forecast</u>					
2024	1,845	27,534	5,831	36,261	97,520
2025	1,877	28,069	5,986	37,705	100,049
2030	2,064	30,973	6,948	45,656	114,268
2035	2,253	33,906	8,021	54,382	129,739
2040	2,456	36,960	9,210	63,888	146,423
2044	2,631	39,477	10,280	72,059	160,775
<u>Avg Annual Growth</u>					
2010-23	1.9%	1.8%	1.6%	4.4%	2.7%
2023-24	0.8%	1.1%	1.6%	4.0%	2.3%
2024-34	1.8%	1.9%	3.0%	3.8%	2.6%
2024-44	1.8%	1.8%	2.9%	3.5%	2.5%
Source: S&P Global, Comparative World Overview Tables (Interim Forecast, Monthly)					

TABLE 4

INTERNATIONAL GDP FORECASTS – SELECTED AREAS/COUNTRIES

CALENDAR YEAR	GROSS DOMESTIC PRODUCT (In Billions of 2019 U.S. Dollars)				
	NORTH AMERICA (USMCA)	EUROZONE	UNITED KINGDOM	JAPAN	CHINA
<u>Historical</u>					
2010	19,990	11,952	2,398	4,731	7,549
2019	24,571	13,489	2,851	5,117	14,278
2020	23,892	12,647	2,556	4,903	14,594
2021	25,271	13,394	2,777	5,032	15,828
2022	25,818	13,857	2,898	5,080	16,297
2023E	26,433	13,926	2,913	5,178	17,177
<u>Forecast</u>					
2024	26,841	13,990	2,910	5,218	17,985
2025	27,212	14,189	2,938	5,275	18,810
2030	29,520	15,247	3,106	5,488	23,397
2035	32,155	16,196	3,267	5,714	28,356
2040	34,974	17,110	3,446	5,919	33,623
2044	37,468	17,855	3,593	6,041	37,945
<u>Avg Annual Growth</u>					
2010-23	2.2%	1.2%	1.5%	0.7%	6.5%
2023-24	1.5%	0.5%	-0.1%	0.8%	4.7%
2024-34	1.6%	1.4%	1.1%	0.8%	4.3%
2024-44	1.7%	1.2%	1.1%	0.7%	3.8%
Source: S&P Global, Comparative World Overview Tables (Interim Forecast, Monthly)					

TABLE 5

U.S. COMMERCIAL AIR CARRIERS¹
TOTAL SCHEDULED U.S. PASSENGER TRAFFIC

FISCAL YEAR	REVENUE PASSENGER ENPLANEMENTS (Millions)			REVENUE PASSENGER MILES (Billions)		
	DOMESTIC	INTERNATIONAL	TOTAL	DOMESTIC	INTERNATIONAL	TOTAL
<u>Historical</u>						
2010	635	77	712	555	231	786
2019	813	104	917	752	292	1,044
2020	465	49	513	423	129	551
2021	508	49	557	476	92	567
2022	739	91	830	696	213	909
2023E	811	111	922	763	290	1,053
<u>Forecast</u>						
2024	864	120	984	802	328	1,130
2025	872	123	995	818	340	1,159
2030	963	143	1,106	913	391	1,304
2035	1,093	168	1,261	1,050	449	1,499
2040	1,242	196	1,438	1,210	514	1,723
2044	1,368	221	1,589	1,347	571	1,918
<u>Avg Annual Growth</u>						
2010-23	1.9%	2.8%	2.0%	2.5%	1.8%	2.3%
2023-24	6.5%	8.2%	6.7%	5.2%	13.3%	7.4%
2024-34	2.1%	3.1%	2.2%	2.4%	2.9%	2.6%
2024-44	2.3%	3.1%	2.4%	2.6%	2.8%	2.7%
Source: Forms 41 and 298-C, U.S. Department of Transportation.						

¹Sum of U.S. Mainline and Regional Air Carriers.

TABLE 6

U.S. COMMERCIAL AIR CARRIERS¹

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

FISCAL YEAR	DOMESTIC			INTERNATIONAL			SYSTEM		
	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
<u>Historical</u>									
2010	679	555	81.7	281	231	82.1	961	786	81.8
2019	883	752	85.2	352	292	82.9	1,235	1,044	84.5
2020	618	423	68.3	178	129	72.3	796	551	69.2
2021	658	476	72.3	171	92	53.5	829	567	68.5
2022	834	696	83.4	278	213	76.6	1,112	909	81.7
2023E	907	763	84.1	348	290	83.4	1,255	1,053	83.9
<u>Forecast</u>									
2024	947	802	84.7	394	328	83.3	1,341	1,130	84.3
2025	965	818	84.8	408	340	83.4	1,373	1,159	84.4
2030	1,069	913	85.4	467	391	83.7	1,536	1,304	84.9
2035	1,219	1,050	86.2	536	449	83.7	1,755	1,499	85.4
2040	1,401	1,210	86.4	613	514	83.8	2,013	1,723	85.6
2044	1,558	1,347	86.4	681	571	83.9	2,239	1,918	85.7
<u>Avg Annual Growth</u>									
2010-23	2.2%	2.5%		1.6%	1.8%		2.1%	2.3%	
2023-24	4.4%	5.2%		13.4%	13.3%		6.9%	7.4%	
2024-34	2.3%	2.4%		2.8%	2.9%		2.4%	2.6%	
2024-44	2.5%	2.6%		2.8%	2.8%		2.6%	2.7%	
Source: Forms 41 and 298-C, U.S. Department of Transportation.									

¹Sum of U.S. Mainline and Regional Air Carriers.

TABLE 7

U.S. COMMERCIAL AIR CARRIERS¹

TOTAL SCHEDULED U.S. INTERNATIONAL PASSENGER TRAFFIC

FISCAL YEAR	REVENUE PASSENGER ENPLANEMENTS				REVENUE PASSENGER MILES			
	LATIN		TOTAL		LATIN		TOTAL	
	ATLANTIC	AMERICA	PACIFIC	INTERNATIONAL	ATLANTIC	AMERICA	PACIFIC	INTERNATIONAL
	(Mil)	(Mil)	(Mil)	(Mil)	(Bil)	(Bil)	(Bil)	(Bil)
<u>Historical</u>								
2010	25	40	13	77	109	63	59	231
2019	28	63	13	104	121	96	75	292
2020	11	32	6	49	48	49	31	129
2021	6	43	1	49	27	60	4	92
2022	23	65	3	91	100	97	15	213
2023E	32	72	7	111	141	106	43	290
<u>Forecast</u>								
2024	34	75	11	120	152	110	66	328
2025	34	76	13	123	154	113	74	340
2030	37	92	14	143	169	138	84	391
2035	41	112	16	168	186	169	95	449
2040	44	134	18	196	204	204	106	514
2044	48	154	20	221	220	235	117	571
<u>Avg Annual Growth</u>								
2010-23	2.0%	4.6%	-4.2%	2.8%	2.0%	4.1%	-2.4%	1.8%
2023-24	7.4%	3.9%	53.2%	8.2%	7.8%	4.1%	53.4%	13.3%
2024-34	1.6%	3.7%	3.2%	3.1%	1.8%	4.0%	3.4%	2.9%
2024-44	1.7%	3.7%	2.8%	3.1%	1.9%	3.9%	2.9%	2.8%
Source: Forms 41 and 298-C, U.S. Department of Transportation.								

¹Sum of U.S. Mainline and Regional Air Carriers.

TABLE 8

U.S. AND FOREIGN FLAG CARRIERS
TOTAL PASSENGER TRAFFIC TO/FROM THE UNITED STATES

CALENDAR YEAR	TOTAL PASSENGERS BY WORLD TRAVEL AREA (Millions)				
	ATLANTIC	LATIN AMERICA	PACIFIC	U.S./CANADA TRANSBORDER	TOTAL
<u>Historical</u>					
2010	56	53	27	22	158
2019	89	89	44	32	253
2020	17	33	9	7	67
2021	24	66	4	5	99
2022	71	88	15	21	195
2023E	87	100	29	28	244
<u>Forecast</u>					
2024	93	102	34	32	261
2025	96	105	39	33	273
2030	111	125	51	38	326
2035	127	147	59	43	377
2040	144	171	68	49	433
2044	159	194	76	54	483
<u>Avg Annual Growth</u>					
2010-23	3.4%	5.0%	0.7%	2.1%	3.4%
2023-24	6.7%	2.8%	15.6%	12.0%	6.8%
2024-34	3.0%	3.3%	5.4%	2.9%	3.5%
2024-44	2.7%	3.2%	4.1%	2.7%	3.1%
Source: US Customs & Border Protection data processed and released by Department of Commerce; data also received from Transport Canada.					

TABLE 9

U.S. COMMERCIAL AIR CARRIERS' FORECAST ASSUMPTIONS¹
SEATS PER AIRCRAFT MILE AND PASSENGER TRIP LENGTH

FISCAL YEAR	AVERAGE SEATS PER AIRCRAFT MILE			AVERAGE PASSENGER TRIP LENGTH		
	DOMESTIC (Seats/Mile)	INTERNATIONAL (Seats/Mile)	SYSTEM (Seats/Mile)	DOMESTIC (Miles)	INTERNATIONAL (Miles)	SYSTEM (Miles)
<u>Historical</u>						
2010	121.9	216.4	139.7	874.9	2,988.0	1,104.2
2019	141.1	221.3	157.4	924.9	2,813.9	1,138.8
2020	141.1	217.1	153.1	909.2	2,647.9	1,073.7
2021	144.9	198.6	153.4	937.3	1,859.6	1,018.9
2022	149.0	215.4	161.5	941.2	2,347.5	1,094.8
2023E	154.6	224.9	169.3	940.4	2,610.0	1,141.6
<u>Forecast</u>						
2024	155.0	228.8	171.2	928.4	2,732.5	1,148.7
2025	155.3	229.9	171.8	938.4	2,759.6	1,164.0
2030	157.0	230.7	173.8	948.8	2,722.2	1,178.8
2035	160.2	231.6	176.8	961.3	2,669.1	1,189.2
2040	163.7	232.7	180.0	974.0	2,618.9	1,198.4
2044	166.6	233.6	182.5	984.3	2,584.2	1,206.8
<u>Avg Annual Growth</u>						
2010-23	1.8%	0.3%	1.5%	0.6%	-1.0%	0.3%
2023-24	0.2%	1.7%	1.1%	-1.3%	4.7%	0.6%
2024-34	0.3%	0.1%	0.3%	0.3%	-0.2%	0.3%
2024-44	0.4%	0.1%	0.3%	0.3%	-0.3%	0.2%
Source: Forms 41 and 298-C, U.S. Department of Transportation.						

¹Sum of U.S. Mainline and Regional Air Carriers.

TABLE 10

U. S. MAINLINE AIR CARRIERS

SCHEDULED PASSENGER TRAFFIC

FISCAL YEAR	REVENUE PASSENGER ENPLANEMENTS (Millions)			REVENUE PASSENGER MILES (Billions)		
	DOMESTIC	INTERNATIONAL	SYSTEM	DOMESTIC	INTERNATIONAL	SYSTEM
<u>Historical</u>						
2010	473	75	548	480	230	710
2019	654	100	754	674	290	963
2020	370	47	417	376	127	503
2021	402	47	449	422	90	512
2022	613	89	701	634	211	845
2023E	696	109	805	710	289	998
<u>Forecast</u>						
2024	740	118	858	746	327	1,073
2025	745	121	866	760	339	1,099
2030	817	141	957	844	389	1,232
2035	927	165	1,092	969	447	1,416
2040	1,053	193	1,246	1,116	511	1,627
2044	1,161	217	1,378	1,242	569	1,811
<u>Avg Annual Growth</u>						
2010-23	3.0%	3.0%	3.0%	3.1%	1.8%	2.7%
2023-24	6.4%	8.2%	6.6%	5.0%	13.3%	7.4%
2024-34	2.0%	3.1%	2.2%	2.4%	2.9%	2.5%
2024-44	2.3%	3.1%	2.4%	2.6%	2.8%	2.7%
Source: Form 41, U.S. Department of Transportation.						

TABLE 11

U.S. MAINLINE AIR CARRIERS

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

FISCAL YEAR	DOMESTIC			INTERNATIONAL			SYSTEM		
	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
<u>Historical</u>									
2010	581	480	82.7	279	230	82.2	860	710	82.5
2019	785	674	85.8	349	290	83.0	1,134	963	85.0
2020	547	376	68.7	176	127	72.4	723	503	69.6
2021	582	422	72.6	169	90	53.4	751	512	68.2
2022	756	634	83.9	276	211	76.6	1,032	845	81.9
2023E	842	710	84.3	346	289	83.4	1,188	998	84.1
<u>Forecast</u>									
2024	877	746	85.0	393	327	83.3	1,270	1,073	84.5
2025	893	760	85.1	406	339	83.4	1,299	1,099	84.6
2030	983	844	85.8	465	389	83.7	1,448	1,232	85.1
2035	1,121	969	86.5	534	447	83.7	1,654	1,416	85.6
2040	1,287	1,116	86.7	610	511	83.8	1,897	1,627	85.8
2044	1,431	1,242	86.8	678	569	83.9	2,109	1,811	85.9
<u>Avg Annual Growth</u>									
2010-23	2.9%	3.1%		1.7%	1.8%		2.5%	2.7%	
2023-24	4.2%	5.0%		13.5%	13.3%		6.9%	7.4%	
2024-34	2.2%	2.4%		2.8%	2.9%		2.4%	2.5%	
2024-44	2.5%	2.6%		2.8%	2.8%		2.6%	2.7%	
Source: Form 41, U.S. Department of Transportation.									

TABLE 12

U.S. MAINLINE AIR CARRIERS

SCHEDULED INTERNATIONAL PASSENGER ENPLANEMENTS

FISCAL YEAR	REVENUE PASSENGER ENPLANEMENTS (MIL)			
	ATLANTIC	LATIN AMERICA	PACIFIC	TOTAL
<u>Historical</u>				
2010	24.5	37.2	12.9	74.6
2019	27.9	59.2	13.2	100.2
2020	10.8	30.3	5.6	46.7
2021	5.7	40.9	0.8	47.4
2022	22.6	63.3	2.6	88.5
2023E	31.8	69.7	7.4	109.0
<u>Forecast</u>				
2024	34.2	72.4	11.3	117.9
2025	34.4	73.9	12.6	120.9
2030	37.4	89.2	14.2	140.7
2035	40.7	108.5	15.9	165.2
2040	44.4	130.3	17.9	192.6
2044	47.7	149.9	19.6	217.2
<u>Avg Annual Growth</u>				
2010-23	2.0%	5.0%	-4.2%	3.0%
2023-24	7.4%	3.8%	53.2%	8.2%
2024-34	1.6%	3.7%	3.2%	3.1%
2024-44	1.7%	3.7%	2.8%	3.1%
Source: Form 41, U.S. Department of Transportation.				

TABLE 13
U.S. MAINLINE AIR CARRIERS
SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS
BY INTERNATIONAL TRAVEL REGIONS

FISCAL YEAR	ATLANTIC			LATIN AMERICA			PACIFIC			INTERNATIONAL		
	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
<u>Historical</u>												
2010	131	109	82.9	78	62	79.2	70	59	84.1	279	230	82.2
2019	146	121	82.9	112	94	83.5	91	75	82.6	349	290	83.0
2020	69	48	69.3	63	48	76.2	44	31	71.8	176	127	72.4
2021	57	27	47.8	92	59	63.5	20	4	22.4	169	90	53.4
2022	128	100	78.1	121	96	79.6	27	15	56.3	276	211	76.6
2023E	171	141	82.6	122	104	85.8	54	43	80.5	346	289	83.4
<u>Forecast</u>												
2024	184	152	82.6	127	109	85.8	82	66	80.9	393	327	83.3
2025	186	154	82.6	130	111	85.8	90	74	81.7	406	339	83.4
2030	205	169	82.6	158	136	85.8	101	84	82.5	465	389	83.7
2035	225	186	82.6	194	167	85.8	115	95	82.5	534	447	83.7
2040	247	204	82.6	234	201	85.8	129	106	82.5	610	511	83.8
2044	266	220	82.6	271	232	85.8	141	117	82.5	678	569	83.9
<u>Avg Annual Growth</u>												
2010-23	2.1%	2.0%		3.5%	4.1%		-2.1%	-2.4%		1.7%	1.8%	
2023-24	7.8%	7.8%		4.0%	4.0%		52.7%	53.4%		13.5%	13.3%	
2024-34	1.8%	1.8%		4.0%	4.0%		3.2%	3.4%		2.8%	2.9%	
2024-44	1.9%	1.9%		3.9%	3.9%		2.8%	2.9%		2.8%	2.8%	
Source: Form 41, U.S. Department of Transportation.												

TABLE 14
U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS
SEATS PER AIRCRAFT MILE

		INTERNATIONAL				
	DOMESTIC	ATLANTIC	LATIN AMERICA	PACIFIC	TOTAL	SYSTEM
FISCAL YEAR	(Seats/Mile)	(Seats/Mile)	(Seats/Mile)	(Seats/Mile)	(Seats/Mile)	(Seats/Mile)
<u>Historical</u>						
2010	152.0	231.7	171.7	287.2	220.9	169.2
2019	166.0	251.6	177.9	269.9	225.6	180.7
2020	166.7	256.2	178.5	256.5	221.8	177.4
2021	171.7	255.4	178.8	205.8	202.4	177.8
2022	171.0	260.0	180.4	265.8	218.3	181.5
2023E	172.2	256.3	183.1	278.8	227.2	185.2
<u>Forecast</u>						
2024	172.7	256.8	183.6	279.5	231.0	187.4
2025	173.3	257.3	184.1	280.3	232.1	188.2
2030	175.8	259.8	186.6	284.0	233.0	190.9
2035	178.9	262.3	189.1	287.8	233.8	193.6
2040	182.5	264.8	191.6	291.5	234.9	196.6
2044	185.3	266.8	193.6	294.5	235.8	199.0
<u>Avg Annual Growth</u>						
2010-23	1.0%	0.8%	0.5%	-0.2%	0.2%	0.7%
2023-24	0.3%	0.2%	0.3%	0.3%	1.7%	1.1%
2024-34	0.3%	0.2%	0.3%	0.3%	0.1%	0.3%
2024-44	0.4%	0.2%	0.3%	0.3%	0.1%	0.3%
Source: Form 41, U.S. Department of Transportation.						

TABLE 15
U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS
AVERAGE PASSENGER TRIP LENGTH

		INTERNATIONAL				
	DOMESTIC	ATLANTIC	LATIN AMERICA	PACIFIC	TOTAL	SYSTEM
FISCAL YEAR	(Miles)	(Miles)	(Miles)	(Miles)	(Miles)	(Miles)
<u>Historical</u>						
2010	1,015	4,433	1,660	4,587	3,077	1,296
2019	1,030	4,330	1,582	5,709	2,890	1,278
2020	1,015	4,442	1,577	5,634	2,725	1,207
2021	1,050	4,756	1,434	5,809	1,906	1,140
2022	1,035	4,435	1,517	5,835	2,388	1,206
2023E	1,020	4,428	1,498	5,841	2,649	1,241
<u>Forecast</u>						
2024	1,008	4,446	1,501	5,851	2,774	1,250
2025	1,020	4,464	1,505	5,861	2,801	1,269
2030	1,033	4,527	1,524	5,902	2,762	1,287
2035	1,046	4,563	1,536	5,929	2,706	1,297
2040	1,059	4,586	1,544	5,941	2,654	1,306
2044	1,070	4,604	1,550	5,945	2,618	1,314
<u>Avg Annual Growth</u>						
2010-23	0.0%	0.0%	-0.8%	1.9%	-1.1%	-0.3%
2023-24	-1.3%	0.4%	0.3%	0.2%	4.7%	0.8%
2024-34	0.3%	0.2%	0.2%	0.1%	-0.2%	0.4%
2024-44	0.3%	0.2%	0.2%	0.1%	-0.3%	0.2%
Source: Form 41, U.S. Department of Transportation.						

TABLE 16

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS
PASSENGER YIELDS

FISCAL YEAR	REVENUE PER PASSENGER MILE					
	DOMESTIC		INTERNATIONAL		SYSTEM	
	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)
<u>Historical</u>						
2010	12.62	17.55	12.84	17.85	12.69	17.64
2019	14.12	16.79	13.47	16.00	13.92	16.55
2020	13.40	15.70	13.48	15.79	13.42	15.72
2021	11.73	13.31	12.84	14.57	11.93	13.53
2022	15.58	16.37	15.35	16.14	15.52	16.31
2023E	16.65	16.65	16.93	16.93	16.73	16.73
<u>Forecast</u>						
2024	16.41	15.95	17.30	16.83	16.68	16.22
2025	16.55	15.76	17.55	16.72	16.86	16.05
2030	18.09	15.42	19.03	16.23	18.39	15.67
2035	19.57	14.99	20.53	15.73	19.88	15.22
2040	21.02	14.53	22.01	15.23	21.33	14.75
2044	22.35	14.17	23.37	14.83	22.67	14.38
<u>Avg Annual Growth</u>						
2010-23	2.2%	-0.4%	2.2%	-0.4%	2.1%	-0.4%
2023-24	-1.4%	-4.2%	2.2%	-0.6%	-0.3%	-3.1%
2024-34	1.6%	-0.6%	1.6%	-0.6%	1.6%	-0.6%
2024-44	1.6%	-0.6%	1.5%	-0.6%	1.5%	-0.6%
Source: Form 41, U.S. Department of Transportation.						

TABLE 17

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS
INTERNATIONAL PASSENGER YIELDS BY REGION

FISCAL YEAR	REVENUE PER PASSENGER MILE							
	ATLANTIC		LATIN AMERICA		PACIFIC		TOTAL INTERNATIONAL	
	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)
<u>Historical</u>								
2010	12.73	17.71	13.33	18.54	12.50	17.38	12.84	17.85
2019	14.04	16.69	14.20	16.88	11.63	13.83	13.47	16.00
2020	13.49	15.80	14.60	17.10	11.75	13.77	13.48	15.79
2021	11.82	13.41	12.59	14.28	22.48	25.49	12.84	14.57
2022	15.68	16.48	14.63	15.38	17.79	18.70	15.35	16.14
2023E	17.09	17.09	16.75	16.75	16.85	16.85	16.93	16.93
<u>Forecast</u>								
2024	17.49	17.01	17.08	16.61	17.23	16.76	17.30	16.83
2025	17.77	16.92	17.29	16.47	17.51	16.68	17.55	16.72
2030	19.35	16.50	18.59	15.86	19.08	16.28	19.03	16.23
2035	21.01	16.10	19.87	15.22	20.76	15.91	20.53	15.73
2040	22.69	15.70	21.09	14.59	22.47	15.54	22.01	15.23
2044	24.24	15.39	22.22	14.10	24.04	15.26	23.37	14.83
<u>Avg Annual Growth</u>								
2010-23	2.3%	-0.3%	1.8%	-0.8%	2.3%	-0.2%	2.2%	-0.4%
2023-24	2.3%	-0.5%	2.0%	-0.8%	2.2%	-0.5%	2.2%	-0.6%
2024-34	1.7%	-0.5%	1.4%	-0.8%	1.7%	-0.5%	1.6%	-0.6%
2024-44	1.6%	-0.5%	1.3%	-0.8%	1.7%	-0.5%	1.5%	-0.6%
Source: Form 41, U.S. Department of Transportation.								

TABLE 18

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS
JET FUEL PRICES

FISCAL YEAR	DOMESTIC		INTERNATIONAL		SYSTEM	
	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)	CURRENT \$ (Cents)	FY 2023 \$ (Cents)
<u>Historical</u>						
2010	219.16	304.74	220.12	306.08	219.49	305.20
2019	205.67	244.45	207.82	247.00	206.42	245.33
2020	166.65	195.23	167.21	195.88	166.84	195.45
2021	177.23	201.01	171.82	194.86	175.49	199.02
2022	309.28	325.03	315.20	331.25	311.24	327.10
2023E	295.26	295.26	290.77	290.77	293.70	293.70
<u>Forecast</u>						
2024	289.91	281.87	285.49	277.58	288.37	280.38
2025	264.64	251.98	260.61	248.15	263.24	250.65
2030	291.17	248.19	286.74	244.42	289.63	246.88
2035	320.85	245.71	315.97	241.97	319.15	244.41
2040	338.45	234.00	333.30	230.44	336.66	232.77
2044	353.96	224.52	348.58	221.11	352.10	223.34
<u>Avg Annual Growth</u>						
2010-23	2.3%	-0.2%	2.2%	-0.4%	2.3%	-0.3%
2023-24	-1.8%	-4.5%	-1.8%	-4.5%	-1.8%	-4.5%
2024-34	0.9%	-1.3%	0.9%	-1.3%	0.9%	-1.3%
2024-44	1.0%	-1.1%	1.0%	-1.1%	1.0%	-1.1%
Source: Form 41, U.S. Department of Transportation						

TABLE 19
U.S. COMMERCIAL AIR CARRIERS
AIR CARGO REVENUE TON MILES^{1, 2, 3}

FISCAL YEAR	ALL-CARGO CARRIER RTMS (Millions)			PASSENGER CARRIER RTMS (Millions)			TOTAL RTMS (Millions)		
	DOMESTIC	INT'L.	TOTAL	DOMESTIC	INT'L.	TOTAL	DOMESTIC	INT'L.	TOTAL
<u>Historical</u>									
2010	11,306	15,971	27,276	1,495	6,246	7,742	12,801	22,217	35,018
2019	14,737	19,668	34,405	1,468	6,984	8,452	16,205	26,652	42,857
2020	16,665	21,964	38,630	1,136	4,130	5,266	17,801	26,095	43,896
2021	18,555	26,580	45,135	1,318	4,836	6,154	19,873	31,416	51,289
2022	18,376	26,090	44,466	1,447	5,625	7,072	19,823	31,715	51,539
2023E	16,358	24,174	40,532	1,219	5,521	6,740	17,577	29,695	47,272
<u>Forecast</u>									
2024	16,900	24,888	41,788	1,248	6,258	7,506	18,147	31,146	49,293
2025	17,299	25,762	43,061	1,265	6,887	8,152	18,564	32,649	51,212
2030	19,367	32,298	51,665	1,350	7,995	9,345	20,717	40,293	61,010
2035	21,448	38,535	59,983	1,421	8,801	10,222	22,869	47,336	70,205
2040	23,532	45,493	69,026	1,479	9,545	11,025	25,012	55,039	80,050
2044	25,323	51,840	77,163	1,523	10,127	11,651	26,846	61,967	88,814
<u>Avg Annual Growth</u>									
2010-23	2.9%	3.2%	3.1%	-1.6%	-0.9%	-1.1%	2.5%	2.3%	2.3%
2023-24	3.3%	3.0%	3.1%	2.4%	13.3%	11.4%	3.2%	4.9%	4.3%
2024-34	2.2%	4.1%	3.4%	1.2%	3.3%	3.0%	2.1%	3.9%	3.3%
2024-44	2.0%	3.7%	3.1%	1.0%	2.4%	2.2%	2.0%	3.5%	3.0%
Source: Form 41, U.S. Department of Transportation									

¹Includes freight/express and mail revenue ton miles on mainline air carriers and regionals/commuters.

²Domestic figures from 2000 through 2002 exclude Airborne Express, Inc.; international figures for 2003 and beyond include new reporting of contract service by U.S. carriers for foreign flag carriers.

³Domestic figures from 2003 and beyond include Airborne Express, Inc.

TABLE 20

U.S. COMMERCIAL AIR CARRIERS
INTERNATIONAL AIR CARGO REVENUE TON MILES BY REGION^{1, 2}

FISCAL YEAR	ATLANTIC (MILLIONS)	LATIN AMERICA (MILLIONS)	PACIFIC (MILLIONS)	OTHER INTERNATIONAL (MILLIONS)	TOTAL (MILLIONS)
<u>Historical</u>					
2010	6,786	1,990	7,897	5,545	22,217
2019	7,426	1,661	10,429	7,135	26,652
2020	6,669	1,296	10,198	7,931	26,095
2021	7,603	1,608	11,555	10,650	31,416
2022	8,763	1,666	10,905	10,382	31,715
2023E	8,352	1,418	12,005	7,920	29,695
<u>Forecast</u>					
2024	8,636	1,446	12,669	8,395	31,146
2025	8,909	1,476	13,197	9,067	32,649
2030	10,241	1,698	15,793	12,560	40,293
2035	11,588	1,889	18,457	15,402	47,336
2040	13,016	2,031	21,304	18,687	55,039
2044	14,243	2,146	23,863	21,716	61,967
<u>Avg Annual Growth</u>					
2010-23	1.6%	-2.6%	3.3%	2.8%	2.3%
2023-24	3.4%	2.0%	5.5%	6.0%	4.9%
2024-34	2.7%	2.5%	3.5%	5.8%	3.9%
2024-44	2.5%	2.0%	3.2%	4.9%	3.5%
Source: Form 41, U.S. Department of Transportation					

¹Includes freight/express and mail revenue ton miles on mainline air carriers and regionals/commuters.

²Figures for 2003 and beyond include new reporting of contract service by U.S. carriers for foreign flag carriers.

TABLE 21

U.S. MAINLINE AIR CARRIERS
PASSENGER JET AIRCRAFT

	LARGE NARROWBODY				LARGE WIDEBODY						
CALENDAR YEAR	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	LARGE JETS	REGIONAL JETS	TOTAL JETS
<u>Historical</u>											
2010	3,120	8	1	3,129	470	9	43	522	3,651	71	3,722
2019	3,775	0	0	3,775	553	0	0	553	4,328	60	4,388
2020	2,860	0	0	2,860	298	0	0	298	3,158	23	3,181
2021	2,828	0	0	2,828	281	0	0	281	3,109	23	3,132
2022	3,429	0	0	3,429	426	0	0	426	3,855	60	3,915
2023E	4,210	0	0	4,210	550	0	0	550	4,760	72	4,832
<u>Forecast</u>											
2024	4,268	0	0	4,268	580	0	0	580	4,848	37	4,885
2025	4,263	0	0	4,263	603	0	0	603	4,866	17	4,883
2030	4,205	0	0	4,205	650	0	0	650	4,855	4	4,859
2035	4,684	0	0	4,684	740	0	0	740	5,424	4	5,428
2040	5,350	0	0	5,350	838	0	0	838	6,188	0	6,188
2044	5,944	0	0	5,944	950	0	0	950	6,894	0	6,894
<u>Avg Annual Growth</u>											
2010-23	2.3%	N.A.	N.A.	2.3%	1.2%	N.A.	N.A.	0.4%	2.1%	0.1%	2.0%
2023-24	1.4%	N.A.	N.A.	1.4%	5.5%	N.A.	N.A.	5.5%	1.8%	N.A.	1.1%
2024-34	0.7%	N.A.	N.A.	0.7%	2.2%	N.A.	N.A.	2.2%	0.9%	N.A.	0.8%
2024-44	1.7%	N.A.	N.A.	1.7%	2.5%	N.A.	N.A.	2.5%	1.8%	N.A.	1.7%
Note: N.A. - Not Applicable											

TABLE 22

U.S. MAINLINE AIR CARRIERS

CARGO JET AIRCRAFT

	LARGE NARROWBODY				LARGE WIDEBODY				
CALENDAR YEAR	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	TOTAL
<u>Historical</u>									
2010	153	104	31	288	265	200	97	562	850
2019	216	10	2	228	419	120	112	651	879
2020	200	10	0	210	414	115	109	638	848
2021	213	8	0	221	434	111	110	655	876
2022	219	7	0	226	469	118	122	709	935
2023E	225	9	0	234	494	107	133	734	968
<u>Forecast</u>									
2024	239	7	0	246	516	107	140	763	1,009
2025	242	5	0	247	538	107	143	788	1,035
2030	328	0	0	328	695	107	143	945	1,273
2035	324	0	0	324	884	104	138	1,126	1,450
2040	293	0	0	293	1,241	25	115	1,381	1,674
2044	292	0	0	292	1,505	5	97	1,607	1,899
<u>Avg Annual Growth</u>									
2010-23	3.0%	-17.2%	N.A.	-1.6%	4.9%	-4.7%	2.5%	2.1%	1.0%
2023-24	6.2%	-22.2%	N.A.	5.1%	4.5%	0.0%	5.3%	4.0%	4.2%
2024-34	3.4%	N.A.	N.A.	3.1%	5.0%	0.0%	0.1%	3.6%	3.5%
2024-44	1.0%	N.A.	N.A.	0.9%	5.5%	-14.2%	-1.8%	3.8%	3.2%
Note: N.A. - Not Applicable									

TABLE 23
TOTAL JET FUEL AND AVIATION GASOLINE FUEL CONSUMPTION
U.S. CIVIL AVIATION AIRCRAFT
(Millions of Gallons)

FISCAL YEAR	JET FUEL					AVIATION GASOLINE			TOTAL FUEL CONSUMED
	U.S. AIR CARRIERS ^{1, 2}			GENERAL AVIATION	TOTAL	AIR CARRIER	GENERAL AVIATION	TOTAL	
<u>Historical</u>									
2010	12,036	6,315	18,351	1,435	19,786	2	221	223	20,009
2019	14,648	7,043	21,691	1,510	23,202	2	200	202	23,404
2020	10,538	4,732	15,270	1,342	16,612	2	204	206	16,818
2021	11,578	4,823	16,402	1,909	18,311	2	229	231	18,542
2022	14,154	6,094	20,248	2,048	22,295	2	233	235	22,531
2023E	14,470	6,921	21,391	2,077	23,467	2	231	233	23,700
<u>Forecast</u>									
2024	14,952	7,771	22,723	2,107	24,830	2	228	230	25,060
2025	15,089	7,958	23,047	2,138	25,184	2	225	227	25,412
2030	15,903	8,665	24,568	2,321	26,889	2	215	217	27,107
2035	17,254	9,471	26,725	2,547	29,272	2	211	213	29,485
2040	18,861	10,300	29,161	2,768	31,929	2	206	208	32,137
2044	20,165	11,001	31,166	2,933	34,099	2	205	207	34,306
<u>Avg Annual Growth</u>									
2010-23	1.4%	0.7%	1.2%	2.9%	1.3%	0.0%	0.3%	0.3%	1.3%
2023-24	3.3%	12.3%	6.2%	1.4%	5.8%	0.0%	-1.0%	-1.0%	5.7%
2024-34	1.3%	1.8%	1.5%	1.8%	1.5%	0.0%	-0.8%	-0.8%	1.5%
2024-44	1.5%	1.8%	1.6%	1.7%	1.6%	0.0%	-0.5%	-0.5%	1.6%
Source: Air carrier jet fuel, Form 41, U.S. Department of Transportation; all others, FAA APO estimates.									

Source: Air carrier jet fuel, Form 41, U.S. Department of Transportation; all others, FAA APO estimates.

¹Includes both passenger (mainline and regional air carrier) and cargo carriers.

²Forecast assumes 1.0% annual improvement in available seat miles per gallon for U.S. Commercial Air Carrier

TABLE 24

U.S. REGIONAL CARRIER FORECAST ASSUMPTIONS

FISCAL YEAR	AVERAGE SEATS PER AIRCRAFT MILE			AVERAGE PASSENGER TRIP LENGTH			REVENUE PER PASSENGER MILE**	
	DOMESTIC (Seats/Mile)	INT'L (Seats/Mile)	TOTAL (Seats/Mile)	DOMESTIC (Miles)	INT'L. (Miles)	TOTAL (Miles)	CURRENT \$ (Cents)	2023 \$ (Cents)
<u>Historical</u>								
2010	56.1	53.2	56.1	464	503	465	15.74	21.88
2019	64.1	70.9	64.3	492	670	496	11.48	13.64
2020	64.6	70.7	64.8	494	675	497	10.96	12.84
2021	66.0	72.9	66.1	508	662	511	9.63	10.92
2022	66.3	72.5	66.4	488	640	490	12.77	13.42
2023E	66.9	73.4	67.1	458	630	461	13.61	13.61
<u>Forecast</u>								
2024	67.4	73.7	67.6	455	626	458	13.42	13.05
2025	67.9	74.0	68.0	459	632	462	13.54	12.89
2030	70.4	75.5	70.5	478	658	481	14.79	12.61
2035	73.0	77.0	73.1	487	671	491	16.00	12.25
2040	75.8	78.5	75.8	497	684	500	17.17	11.87
2044	78.0	79.7	78.0	505	695	508	18.25	11.58
<u>Avg Annual Growth</u>								
2010-23	1.4%	2.5%	1.4%	-0.1%	1.7%	-0.1%	-1.1%	-3.6%
2023-24	0.7%	0.4%	0.7%	-0.6%	-0.6%	-0.6%	-1.4%	-4.1%
2024-34	0.7%	0.4%	0.7%	0.6%	0.6%	0.6%	1.6%	-0.6%
2024-44	0.7%	0.4%	0.7%	0.5%	0.5%	0.5%	1.5%	-0.6%

Source: Form 41 and 298C, U.S. Department of Transportation.

** Reporting carriers.

TABLE 25

U.S. REGIONAL CARRIERS
SCHEDULED PASSENGER TRAFFIC
(In Millions)

FISCAL YEAR	REVENUE PASSENGERS			REVENUE PASSENGER MILES		
	DOMESTIC	INTERNATIONAL	TOTAL	DOMESTIC	INTERNATIONAL	TOTAL
<u>Historical</u>						
2010	162	3	164	75,028	1,347	76,375
2019	159	4	163	78,358	2,376	80,734
2020	94	2	96	46,667	1,229	47,896
2021	106	2	108	53,699	1,221	54,921
2022	127	2	129	61,839	1,335	63,175
2023E	115	2	117	52,785	1,348	54,133
<u>Forecast</u>						
2024	124	2	126	56,357	1,440	57,796
2025	127	2	129	58,355	1,491	59,846
2030	146	3	149	69,800	1,783	71,583
2035	166	3	169	80,797	2,064	82,861
2040	188	3	192	93,653	2,393	96,045
2044	208	4	212	104,824	2,678	107,501
<u>Avg Annual Growth</u>						
2010-23	-2.6%	-1.7%	-2.5%	-2.7%	0.0%	-2.6%
2023-24	7.4%	7.4%	7.4%	6.8%	6.8%	6.8%
2024-34	2.7%	2.7%	2.7%	3.4%	3.4%	3.4%
2024-44	2.6%	2.6%	2.6%	3.2%	3.2%	3.2%
Source: Form 41 and 298C, U.S. Department of Transportation.						

TABLE 26

U.S. REGIONAL CARRIERS

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

YEAR	DOMESTIC			INTERNATIONAL			TOTAL		
	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR
<u>Historical</u>									
2010	98,454	75,028	76.2	1,857	1,347	72.5	100,311	76,375	76.1
2019	98,120	78,358	79.9	3,116	2,376	76.3	101,236	80,734	79.7
2020	70,861	46,667	65.9	1,812	1,229	67.9	72,673	47,896	65.9
2021	75,964	53,699	70.7	1,836	1,221	66.5	77,800	54,921	70.6
2022	77,916	61,839	79.4	1,833	1,335	72.8	79,749	63,175	79.2
2023E	65,416	52,785	80.7	1,685	1,348	80.0	67,101	54,133	80.7
<u>Forecast</u>									
2024	69,576	56,357	81.0	1,793	1,440	80.3	71,369	57,796	81.0
2025	72,044	58,355	81.0	1,856	1,491	80.3	73,900	59,846	81.0
2030	85,855	69,800	81.3	2,212	1,783	80.6	88,067	71,583	81.3
2035	98,467	80,797	82.1	2,537	2,064	81.4	101,004	82,861	82.0
2040	113,793	93,653	82.3	2,932	2,393	81.6	116,725	96,045	82.3
2044	127,221	104,824	82.4	3,278	2,678	81.7	130,499	107,501	82.4
<u>Avg Annual Growth</u>									
2010-23	-3.1%	-2.7%		-0.7%	0.0%		-3.0%	-2.6%	
2023-24	6.4%	6.8%		6.4%	6.8%		6.4%	6.8%	
2024-34	3.2%	3.4%		3.2%	3.4%		3.2%	3.4%	
2024-44	3.1%	3.2%		3.1%	3.2%		3.1%	3.2%	
Source: Form 41 and 298C, U.S. Department of Transportation.									

TABLE 27
U.S. REGIONAL CARRIERS
PASSENGER AIRCRAFT

	REGIONAL AIRCRAFT											
AS OF JANUARY 1	LESS THAN 9 SEATS	10 TO 19 SEATS	20 TO 30 SEATS	31 TO 40 SEATS			OVER 40 SEATS			TOTAL FLEET		
				PROP	JET	TOTAL	PROP	JET	TOTAL	NON JET	JET	TOTAL
<u>Historical</u>												
2010	440	92	82	144	28	172	99	1,728	1,827	857	1,756	2,613
2019	374	72	19	11	0	11	39	1,846	1,885	515	1,846	2,361
2020	276	74	20	11	0	11	40	1,434	1,474	421	1,434	1,855
2021	268	69	16	10	0	10	38	1,406	1,444	401	1,406	1,807
2022	247	59	18	3	3	6	49	1,623	1,672	376	1,626	2,002
2023E	245	57	7	3	1	4	24	1,435	1,459	336	1,436	1,772
<u>Forecast</u>												
2024	240	56	7	0	1	1	22	1,468	1,490	325	1,469	1,794
2025	235	55	7	0	1	1	23	1,482	1,505	319	1,483	1,802
2030	210	49	6	0	0	0	23	1,424	1,447	288	1,424	1,712
2035	185	43	5	0	0	0	23	1,551	1,574	257	1,551	1,808
2040	156	36	4	0	0	0	23	1,703	1,726	219	1,703	1,922
2044	130	30	4	0	0	0	23	1,813	1,836	187	1,813	2,000
<u>Avg Annual Growth</u>												
2010-23	-4.4%	-3.6%	-17.2%	N.A.	-22.6%	-25.1%	-10.3%	-1.4%	-1.7%	-6.9%	-1.5%	-2.9%
2023-24	-2.0%	-1.8%	0.0%	N.A.	0.0%	-75.0%	-8.3%	2.3%	2.1%	-3.3%	2.3%	1.2%
2024-34	-2.2%	-2.3%	-2.4%	N.A.	N.A.	N.A.	0.4%	0.3%	0.3%	-2.0%	0.3%	-0.1%
2024-44	-3.0%	-3.0%	-3.1%	N.A.	N.A.	N.A.	0.2%	1.1%	1.0%	-2.7%	1.1%	0.5%
Note: N.A. - Not Applicable												

TABLE 28

ACTIVE GENERAL AVIATION AND AIR TAXI AIRCRAFT

AS OF DEC. 31	FIXED WING												TOTAL		
	PISTON		TURBINE			GENERAL									
	SINGLE ENGINE	MULTI- ENGINE	TOTAL	TURBO PROP	TURBO JET	TOTAL	PISTON	TURBINE	TOTAL	EXPERI- MENTAL**	LIGHT SPORT AIRCRAFT**	OTHER	AVIATION FLEET	TOTAL PISTONS	TOTAL TURBINES
Historical*															
2010	139,519	15,900	155,419	9,369	11,484	20,853	3,588	6,514	10,102	24,784	6,528	5,684	223,370	159,007	27,367
2019	128,926	12,470	141,396	10,242	14,888	25,130	3,089	7,109	10,198	27,449	2,675	4,133	210,981	144,485	32,239
2020	124,059	11,947	136,006	10,317	15,316	25,633	2,930	6,816	9,746	26,367	2,570	3,818	204,140	138,936	32,449
2021	126,735	11,885	138,620	10,391	15,270	25,661	3,012	7,020	10,032	27,960	2,650	4,271	209,194	141,632	32,681
2022	126,076	11,652	137,728	10,713	16,126	26,839	2,748	7,021	9,769	28,062	2,666	4,476	209,540	140,476	33,860
2023E	125,490	11,580	137,070	10,785	16,570	27,355	2,765	7,160	9,925	28,160	2,730	4,490	209,730	139,835	34,515
Forecast															
2024	124,965	11,520	136,485	10,860	17,045	27,905	2,780	7,310	10,090	28,265	2,835	4,525	210,105	139,265	35,215
2025	124,485	11,460	135,945	10,935	17,540	28,475	2,800	7,465	10,265	28,465	2,935	4,555	210,640	138,745	35,940
2030	122,580	11,220	133,800	11,270	20,235	31,505	2,915	8,305	11,220	29,555	3,445	4,650	214,175	136,715	39,810
2035	121,105	11,030	132,135	11,800	23,115	34,915	3,040	9,195	12,235	30,665	4,015	4,700	218,665	135,175	44,110
2040	120,215	10,900	131,115	12,535	26,030	38,565	3,165	10,070	13,235	31,805	4,615	4,740	224,075	134,280	48,635
2044	119,930	10,860	130,790	13,255	28,325	41,580	3,265	10,760	14,025	32,705	5,105	4,770	228,975	134,055	52,340
Avg Annual Growth															
2010-23	-0.8%	-2.4%	-1.0%	1.1%	2.9%	2.1%	-2.0%	0.7%	-0.1%	1.0%	-6.5%	-1.8%	-0.5%	-1.0%	1.8%
2023-24	-0.4%	-0.5%	-0.4%	0.7%	2.9%	2.0%	0.5%	2.1%	1.7%	0.4%	3.8%	0.8%	0.2%	-0.4%	2.0%
2024-34	-0.3%	-0.4%	-0.3%	0.7%	2.8%	2.1%	0.8%	2.1%	1.8%	0.7%	3.2%	0.4%	0.4%	-0.3%	2.1%
2024-44	-0.2%	-0.3%	-0.2%	1.0%	2.6%	2.0%	0.8%	2.0%	1.7%	0.7%	3.0%	0.3%	0.4%	-0.2%	2.0%

* Source: 2001-2010, 2012-2022, FAA General Aviation and Air Taxi Activity (and Avionics) Surveys.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

TABLE 29
ACTIVE GENERAL AVIATION AND AIR TAXI HOURS FLOWN
(In Thousands)

AS OF DEC. 31	FIXED WING						ROTORCRAFT						TOTAL		
	SINGLE ENGINE	PISTON MULTI-ENGINE	TOTAL	TURBO PROP	TURBO JET	TOTAL	PISTON	TURBINE	TOTAL	EXPERI-MENTAL**	LIGHT SPORT AIRCRAFT**	OTHER	GENERAL AVIATION HOURS	TOTAL PISTONS	TOTAL TURBINES
<u>Historical*</u>															
2010	12,161	1,818	13,979	2,325	3,375	5,700	794	2,611	3,405	1,226	311	181	24,802	14,773	8,311
2019	12,700	1,731	14,431	2,619	3,926	6,546	628	2,369	2,997	1,269	189	135	25,566	15,059	8,914
2020	11,603	1,336	12,939	2,344	3,336	5,681	537	1,871	2,408	1,176	202	86	22,492	13,477	7,552
2021	12,808	1,494	14,302	2,720	4,868	7,587	578	2,178	2,756	1,394	245	156	26,441	14,880	9,765
2022	12,999	1,432	14,431	2,846	5,238	8,084	537	2,238	2,775	1,279	231	153	26,953	14,969	10,322
2023E	12,702	1,458	14,160	2,932	5,355	8,287	551	2,305	2,857	1,311	240	157	27,012	14,711	10,593
<u>Forecast</u>															
2024	12,449	1,478	13,927	2,994	5,479	8,473	563	2,377	2,940	1,339	251	162	27,092	14,490	10,850
2025	12,145	1,487	13,632	3,044	5,614	8,657	575	2,444	3,020	1,365	262	165	27,102	14,208	11,102
2030	11,312	1,489	12,802	3,165	6,446	9,611	635	2,780	3,414	1,477	319	170	27,794	13,436	12,391
2035	10,954	1,492	12,446	3,313	7,371	10,684	684	3,106	3,789	1,560	380	174	29,033	13,130	13,789
2040	10,616	1,508	12,124	3,515	8,323	11,838	730	3,427	4,156	1,638	445	176	30,378	12,854	15,265
2044	10,517	1,528	12,045	3,718	9,061	12,780	762	3,684	4,445	1,698	500	178	31,646	12,807	16,463
<u>Avg Annual Growth</u>															
2010-23	0.3%	-1.7%	0.1%	1.8%	3.6%	2.9%	-2.8%	-1.0%	-1.3%	0.5%	-2.0%	-1.1%	0.7%	0.0%	1.9%
2023-24	-2.0%	1.3%	-1.6%	2.1%	2.3%	2.2%	2.1%	3.1%	2.9%	2.1%	4.7%	3.0%	0.3%	-1.5%	2.4%
2024-34	-1.2%	0.1%	-1.1%	0.9%	2.8%	2.1%	1.8%	2.5%	2.4%	1.4%	3.9%	0.7%	0.6%	-0.9%	2.2%
2024-44	-0.8%	0.2%	-0.7%	1.1%	2.5%	2.1%	1.5%	2.2%	2.1%	1.2%	3.5%	0.5%	0.8%	-0.6%	2.1%

* Source: 2001-2010, 2012-2022, FAA General Aviation and Air Taxi Activity (and Avionics) Surveys.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

TABLE 30

ACTIVE PILOTS BY TYPE OF CERTIFICATE, EXCLUDING STUDENT PILOTS*

AS OF DEC. 31	RECREA- TIONAL	SPORT PILOT	PRIVATE	COMMERCIAL	AIRLINE TRANSPORT	ROTOR- CRAFT ONLY	GLIDER ONLY	TOTAL LESS STUDENT PILOTS	INSTRUMENT RATED PILOTS ¹
<u>Historical**</u>									
2010	212	3,682	202,020	123,705	142,198	15,377	21,275	508,469	318,001
2019	127	6,467	161,105	100,863	164,947	14,248	19,143	466,900	314,168
2020	105	6,643	160,860	103,879	164,193	13,629	19,753	469,062	316,651
2021	85	6,801	161,459	104,610	163,934	13,191	20,328	470,408	317,169
2022	79	6,957	164,090	104,498	166,738	13,180	20,804	476,346	321,217
2023	71	7,144	167,711	106,711	174,113	13,428	21,292	490,470	332,313
<u>Forecast</u>									
2024	66	7,390	170,450	108,250	178,900	13,650	21,700	500,406	340,200
2025	65	7,640	172,350	109,250	179,200	13,800	22,100	504,405	340,600
2030	55	8,855	174,900	111,100	183,000	15,150	23,400	516,460	346,200
2035	40	10,020	173,200	111,375	190,000	16,600	24,050	525,285	354,300
2040	20	11,085	170,050	111,425	198,000	17,950	24,300	532,830	363,100
2044	5	11,885	167,650	111,450	204,700	18,900	24,400	538,990	370,500
<u>Avg Annual Growth</u>									
2010-23	-8.1%	5.2%	-1.4%	-1.1%	1.6%	-1.0%	0.0%	-0.3%	0.3%
2023-24	-7.0%	3.4%	1.6%	1.4%	2.7%	1.7%	1.9%	2.0%	2.4%
2024-34	-3.8%	2.9%	0.2%	0.3%	0.5%	1.8%	1.0%	0.5%	0.4%
2024-44	-12.1%	2.4%	-0.1%	0.1%	0.7%	1.6%	0.6%	0.4%	0.4%

** Source: FAA U.S. Civil Airmen Statistics.

* Starting with April 2016, there is no expiration date on the new student pilot certificates. This generates a cumulative increase in the student pilot numbers and breaks the link between student pilot and private pilot or higher level certificates. Since there is no sufficient data yet to forecast the student certificates under the new rule, student pilot forecast is suspended and excluded from this table.

¹Instrument rated pilots should not be added to other categories in deriving total.

Note: An active pilot is a person with a pilot certificate and a valid medical certificate.

TABLE 31
GENERAL AVIATION AIRCRAFT FUEL CONSUMPTION
(In Millions of Gallons)

CALENDAR YEAR	FIXED WING				ROTORCRAFT		EXPERI- MENTAL**		TOTAL FUEL CONSUMED		
	PISTON		TURBINE		PISTON	TURBINE	/ OTHER	LIGHT SPORT**	AVGAS	JET FUEL	TOTAL
	SINGLE ENGINE	MULTI- ENGINE	TURBO PROP	TURBO JET							
<u>Historical*</u>											
2010	133	54	187	1,123	11	125	22	1	221	1,435	1,656
2019	131	45	213	1,170	8	127	16	1	200	1,510	1,711
2020	146	35	201	1,036	8	105	14	1	204	1,342	1,546
2021	155	47	230	1,557	8	123	18	1	229	1,909	2,138
2022	158	45	242	1,683	8	123	21	1	233	2,048	2,281
2023E	154	46	248	1,703	8	125	21	1	231	2,077	2,308
<u>Forecast</u>											
2024	151	46	253	1,725	8	129	22	1	228	2,107	2,335
2025	147	46	256	1,750	8	132	22	1	225	2,138	2,363
2030	136	45	261	1,914	9	146	24	2	215	2,321	2,537
2035	130	44	267	2,122	10	158	25	2	211	2,547	2,758
2040	123	44	277	2,323	10	168	26	2	206	2,768	2,974
2044	122	44	289	2,471	11	173	27	3	205	2,933	3,138
<u>Avg Annual Growth</u>											
2010-23	1.1%	-1.2%	2.2%	3.3%	-2.4%	0.0%	0.0%	-0.8%	0.3%	2.9%	2.6%
2023-24	-2.2%	0.9%	1.7%	1.3%	2.0%	2.9%	2.2%	4.7%	-1.0%	1.4%	1.2%
2024-34	-1.4%	-0.4%	0.5%	1.9%	1.7%	2.0%	1.3%	3.3%	-0.8%	1.8%	1.5%
2024-44	-1.1%	-0.3%	0.7%	1.8%	1.4%	1.5%	1.1%	3.0%	-0.5%	1.7%	1.5%
*Source: FAA APO Estimates.											

*Source: FAA APO Estimates.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: Detail may not add to total because of independent rounding.

TABLE 32

**TOTAL COMBINED AIRCRAFT OPERATIONS AT AIRPORTS
WITH FAA AND CONTRACT TRAFFIC CONTROL SERVICE**
(In Thousands)

FISCAL YEAR	AIR CARRIER	AIR TAXI/ COMMUTER	GENERAL AVIATION			MILITARY			TOTAL	NUMBER OF TOWERS	
			ITINERANT	LOCAL	TOTAL	ITINERANT	LOCAL	TOTAL		FAA	CONTRACT
<u>Historical</u>											
2010	12,658	9,410	14,864	11,716	26,580	1,309	1,298	2,607	51,255	264	244
2019	16,192	7,234	14,245	13,109	27,354	1,349	1,134	2,483	53,264	264	256
2020	11,737	5,472	12,608	12,333	24,941	1,192	1,020	2,212	44,362	264	256
2021	12,214	5,885	13,775	13,479	27,254	1,290	1,077	2,366	47,720	264	258
2022	15,150	6,522	14,635	14,029	28,664	1,288	986	2,274	52,610	264	260
2023	16,158	6,456	14,591	15,282	29,873	1,194	866	2,060	54,547	264	262
<u>Forecast</u>											
2024	17,303	6,476	15,125	15,900	31,026	1,194	866	2,060	56,864	264	262
2025	18,374	6,549	15,489	16,283	31,772	1,194	866	2,060	58,755	264	262
2030	20,703	6,457	15,965	16,714	32,679	1,194	866	2,060	61,899	264	262
2035	22,611	6,819	16,176	17,011	33,186	1,194	866	2,060	64,677	264	262
2040	24,692	7,187	16,392	17,318	33,709	1,194	866	2,060	67,649	264	262
2044	26,454	7,490	16,569	17,571	34,140	1,194	866	2,060	70,144	264	262
<u>Avg Annual Growth</u>											
2010-23	1.9%	-2.9%	-0.1%	2.1%	0.9%	-0.7%	-3.1%	-1.8%	0.5%		
2023-24	7.1%	0.3%	3.7%	4.0%	3.9%	0.0%	0.0%	0.0%	4.2%		
2024-34	2.5%	0.4%	0.6%	0.6%	0.6%	0.0%	0.0%	0.0%	1.2%		
2024-44	2.1%	0.7%	0.5%	0.5%	0.5%	0.0%	0.0%	0.0%	1.1%		
Source: FAA Air Traffic Activity.											

TABLE 33

TOTAL TRACON OPERATIONS
(In Thousands)

FISCAL YEAR	AIR CARRIER	AIR TAXI/ COMMUTER	GENERAL AVIATION	MILITARY	OVERFLIGHT	TOTAL
<u>Historical</u>						
2010	12,575	8,512	10,761	2,050	4,840	38,738
2019	16,014	6,600	10,960	1,946	3,706	39,227
2020	11,617	5,153	9,691	1,763	3,050	31,274
2021	12,045	5,462	10,742	1,894	3,393	33,536
2022	14,967	5,925	11,376	1,825	3,601	37,694
2023	15,957	5,823	11,001	1,699	3,509	37,988
<u>Forecast</u>						
2024	17,093	5,842	11,425	1,699	3,670	39,729
2025	18,158	5,833	11,712	1,699	3,806	41,208
2030	20,464	5,635	12,031	1,699	4,051	43,880
2035	22,361	5,956	12,172	1,699	4,291	46,478
2040	24,428	6,291	12,317	1,699	4,549	49,282
2044	26,178	6,566	12,435	1,698	4,766	51,643
<u>Avg Annual Growth</u>						
2010-23	1.8%	-2.9%	0.2%	-1.4%	-2.4%	-0.2%
2023-24	7.1%	0.3%	3.9%	0.0%	4.6%	4.6%
2024-34	2.5%	0.1%	0.6%	0.0%	1.5%	1.5%
2024-44	2.2%	0.6%	0.4%	0.0%	1.3%	1.3%
Source: FAA Air Traffic Activity.						

TABLE 34
IFR AIRCRAFT HANDLED
AT FAA EN ROUTE TRAFFIC CONTROL CENTERS
(In Thousands)

FISCAL YEAR	IFR AIRCRAFT HANDLED			
	COMMERCIAL	GENERAL AVIATION	MILITARY	TOTAL
<u>Historical</u>				
2010	30,965	6,550	2,982	40,498
2019	35,783	6,309	1,645	43,737
2020	25,608	5,096	1,404	32,108
2021	26,449	6,124	1,525	34,098
2022	32,891	7,034	1,511	41,437
2023	34,436	6,461	1,416	42,313
<u>Forecast</u>				
2024	38,739	6,684	1,416	46,840
2025	40,978	6,846	1,416	49,241
2030	45,361	7,117	1,416	53,895
2035	49,797	7,311	1,416	58,524
2040	54,622	7,514	1,416	63,552
2044	58,696	7,684	1,416	67,796
<u>Avg Annual Growth</u>				
2010-23	0.8%	-0.1%	-5.6%	0.3%
2023-24	12.5%	3.5%	0.0%	10.7%
2024-34	2.4%	0.8%	0.0%	2.1%
2024-44	2.1%	0.7%	0.0%	1.9%
Source: FAA Air Traffic Activity				