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JETNET iQ Summit

Global Flight Analysis; Insights; Industry implications

1:45 PM–2:25 PM

WINGX Insights and Outlook

SPEAKER

Richard Koe, WINGX

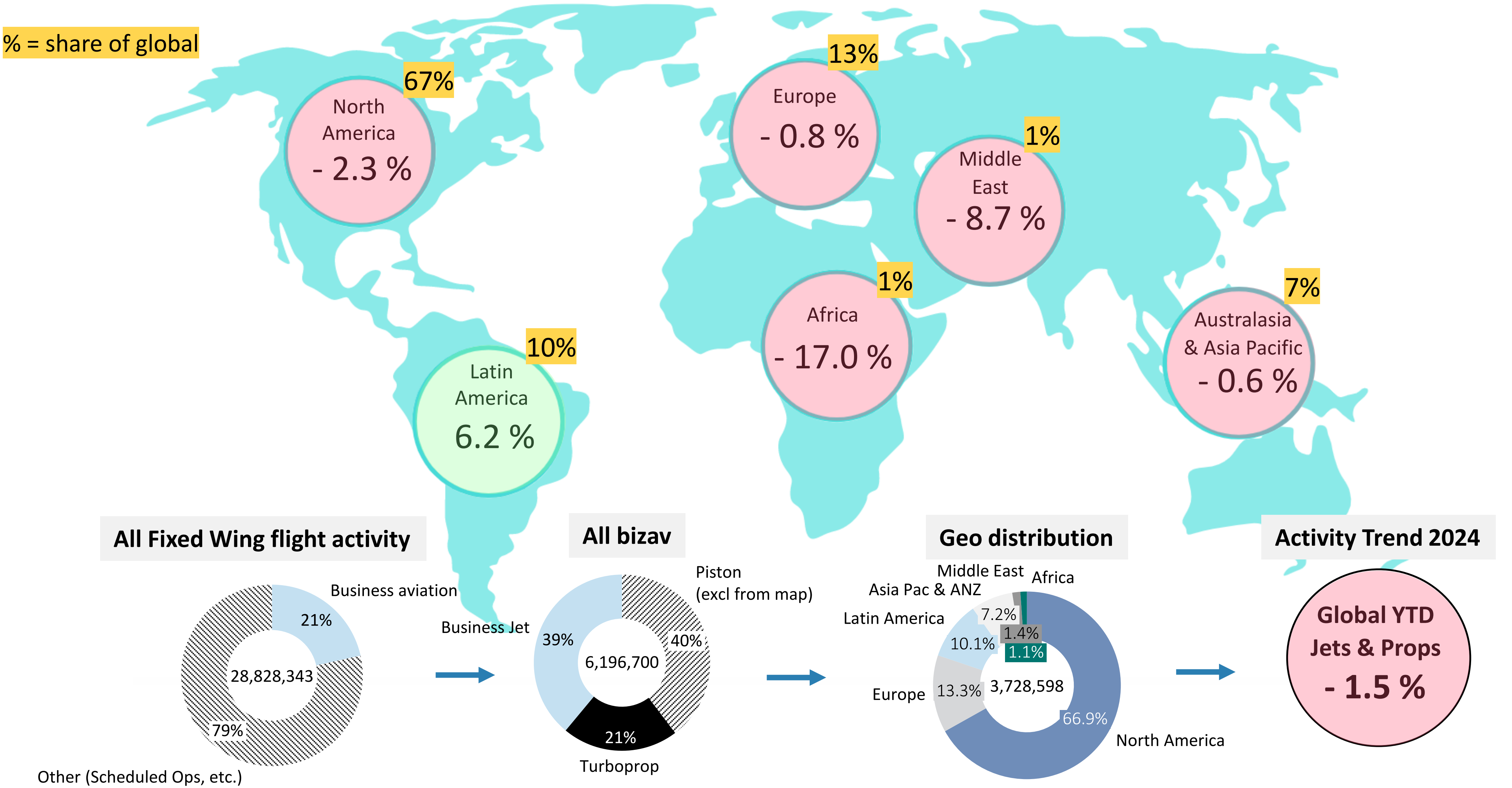
Contents

Business Aviation = non-scheduled flights on business jet and turboprop aircraft types

Source: WINGX; Global ATC and ADSB records

Global Business Aviation Flights Jan-Aug 2024 vs 2023, by region

3.6M global business jet and turboprop flights YTD 2024, slightly behind 2023



Business Aviation = non-scheduled flights on business jet and turboprop aircraft types

Source: WINGX; Global ATC and ADSB records

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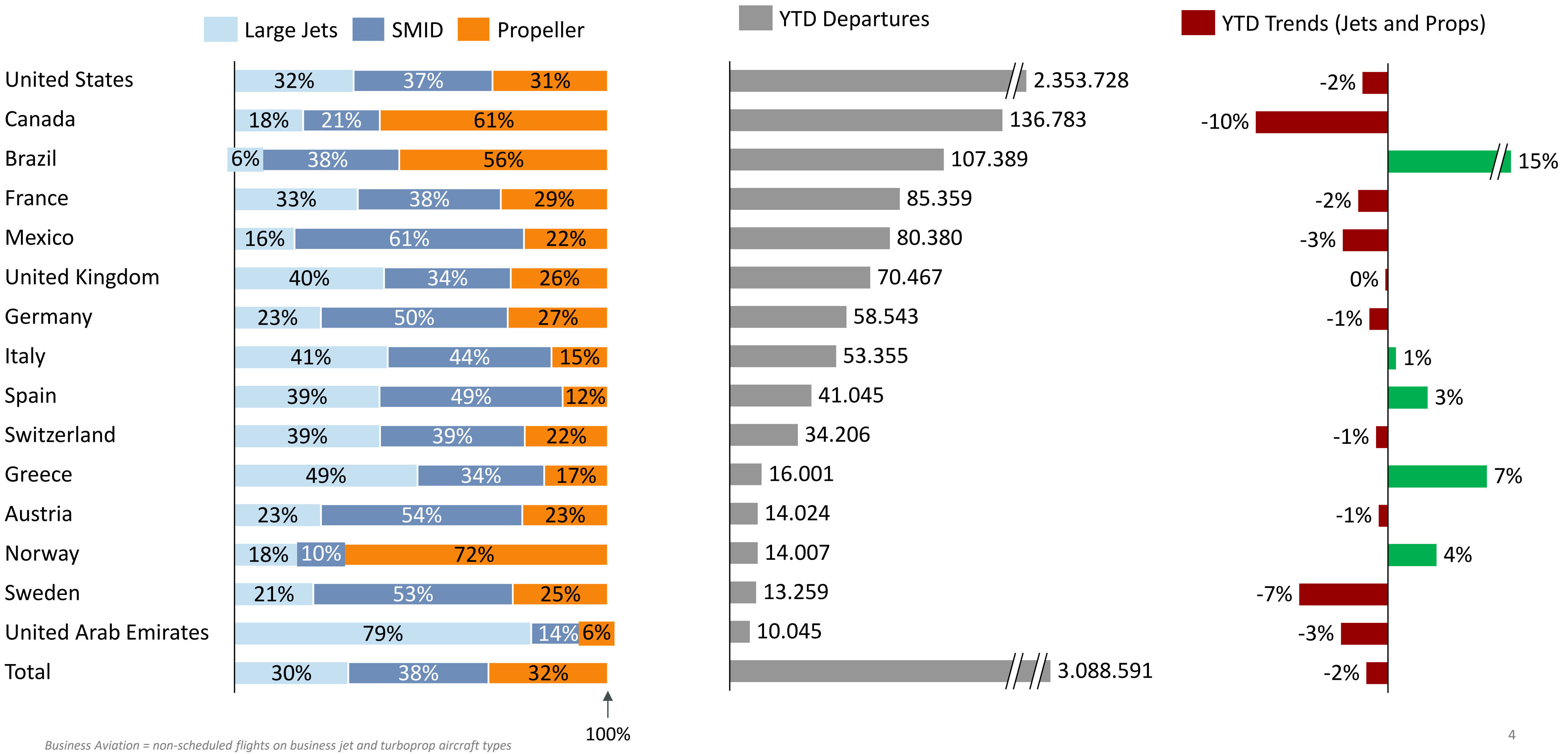
Global Business Aviation Deps: Jan-Aug 2024 vs 2023, by top-15 Countries

US, Canada, Brazil largest. For Large business jets, also UK, France. Euro-Med growth.

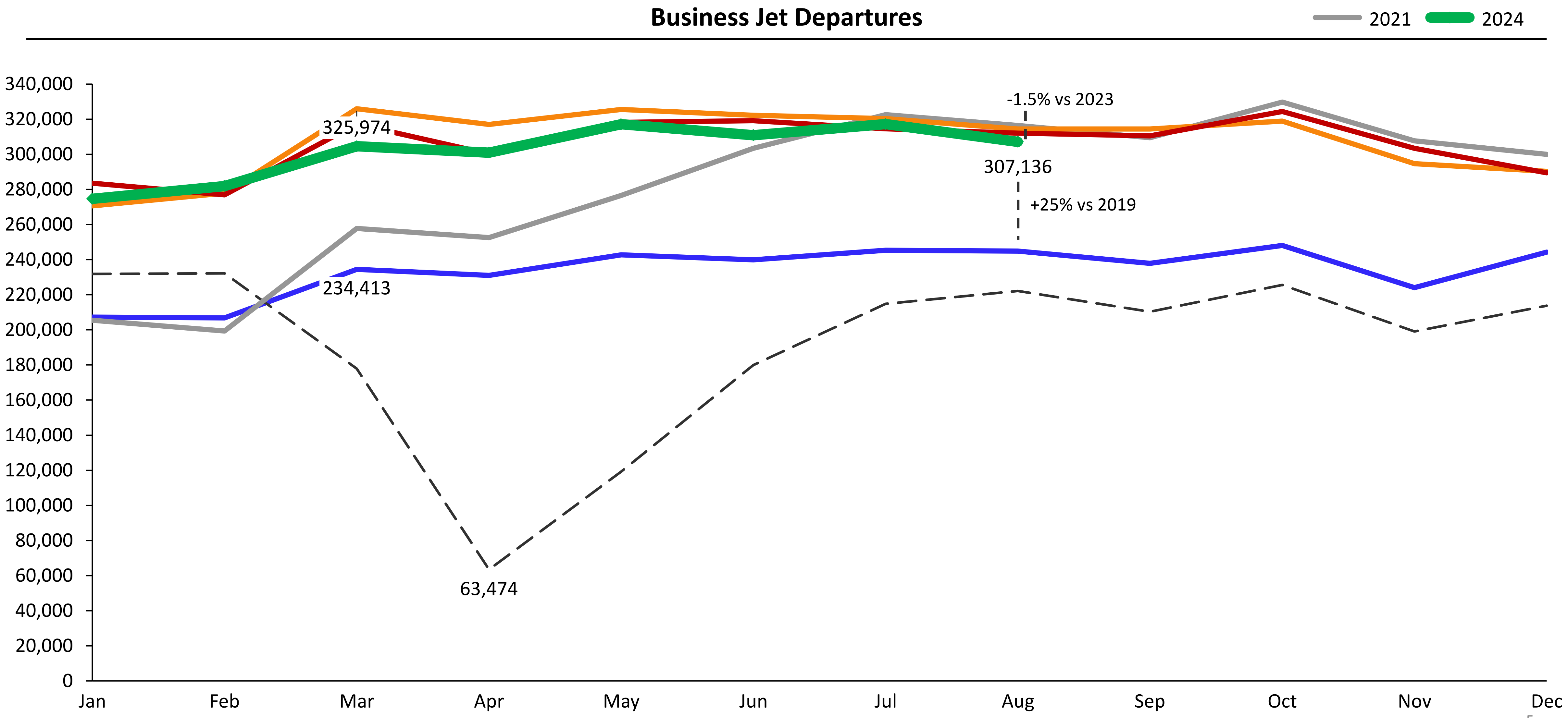


Business Aviation = non-scheduled flights on business jet and turboprop aircraft types

Source: WINGX; Global ATC and ADSB records

Global Business Jet Monthly Traffic in 2019-2024

Step-change in flight activity since the pandemic

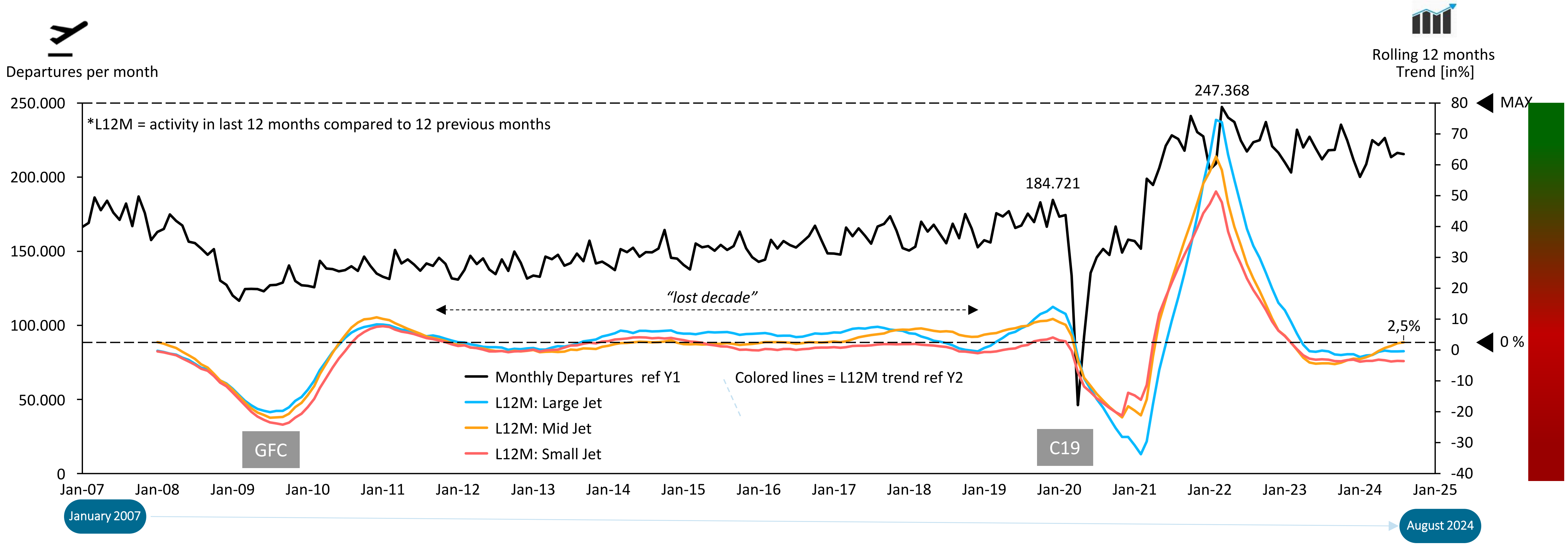


*Bizjets only: **Turboprops excluded**, data through May-24*

Source: WINGX; Global ATC and ADSB records

Long Term view on North America market

GFC trough -24% (911 was -14%), Covid was -67%, then 500% rebound. L12M trend now weakening.

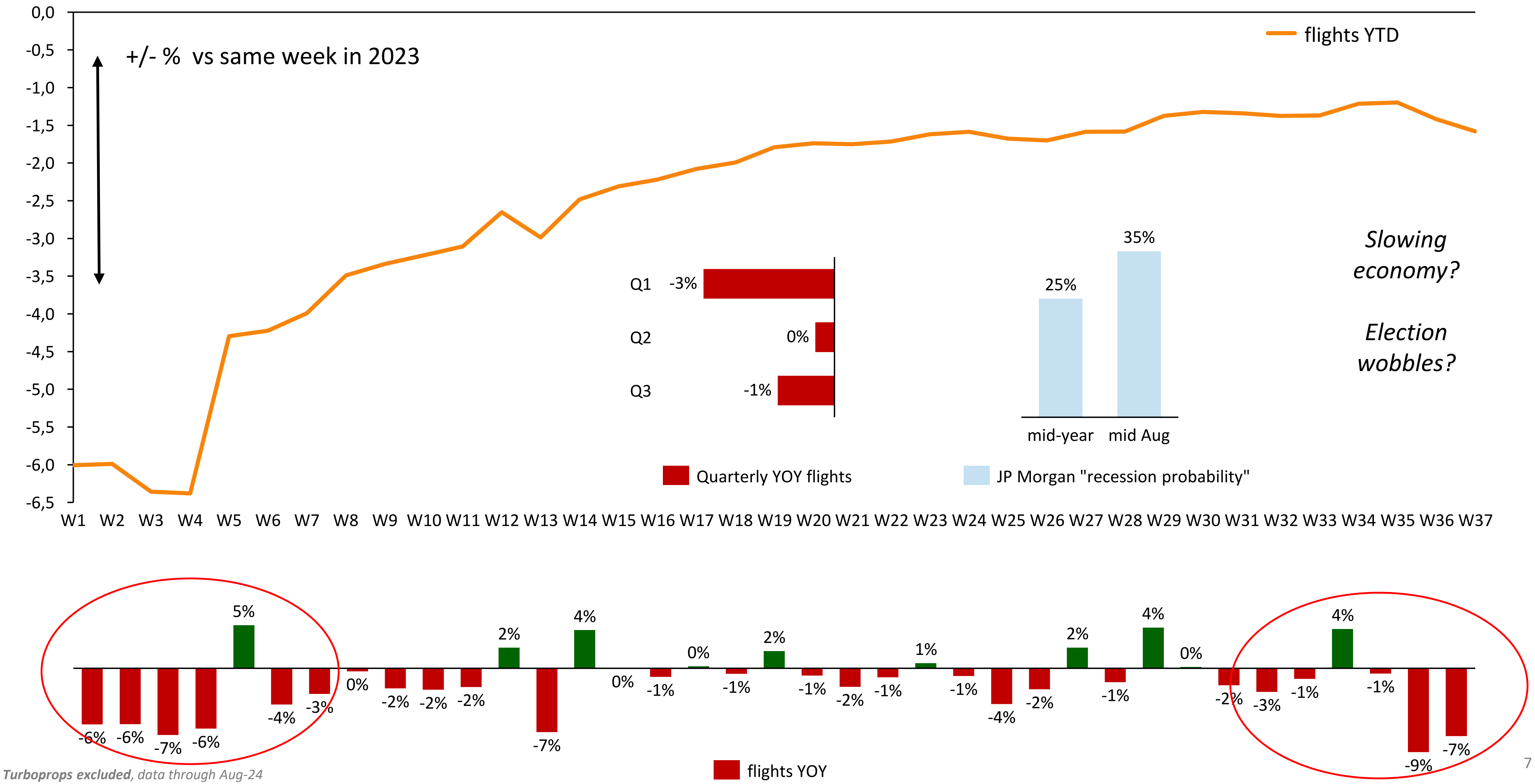


	US Business Jet Departures (in m)																			CAGR	
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 YTD	13 - '23	19 - '23
Departures	2.2	2.2	1.9	1.6	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	1.6	2.4	2.5	2.5	1.4	*3.3%*	*6.1%*
% Growth		*0.7%*	*(11.5%)*	*(18.7%)*	*8.8%*	*2.3%*	*(0.0%)*	*2.6%*	*3.5%*	*1.6%*	*2.4%*	*4.4%*	*1.2%*	*(3.9%)*	*(18.7%)*	*49.4%*	*7.5%*	*(2.9%)*	*(0.6%)*		

*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

Focus on 2024 week-week: post-summer bizjet demand looks weak

Only 9 of 37 weeks stronger than 2023; summer recovery, but corporate travel looks weak in Q3

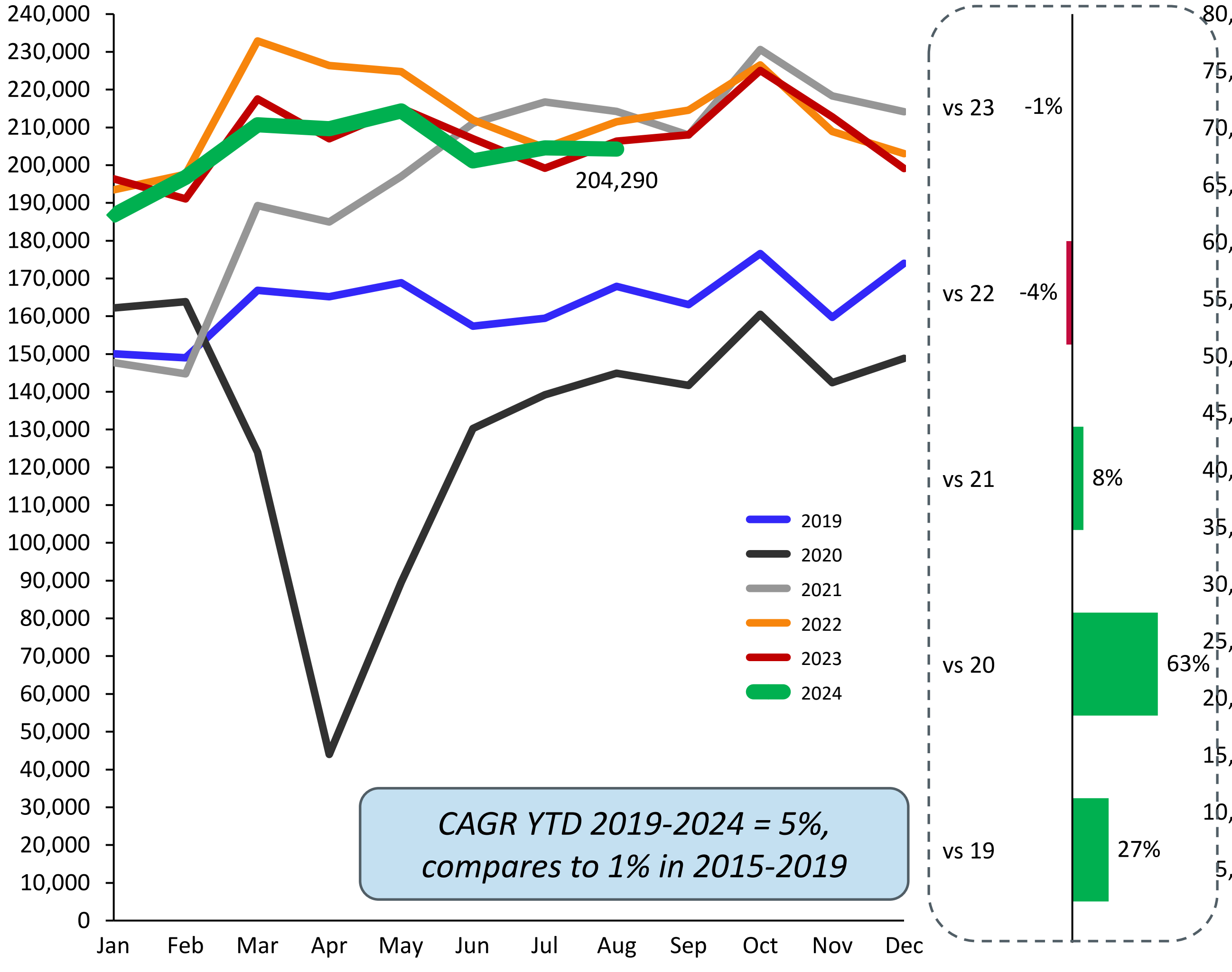


*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

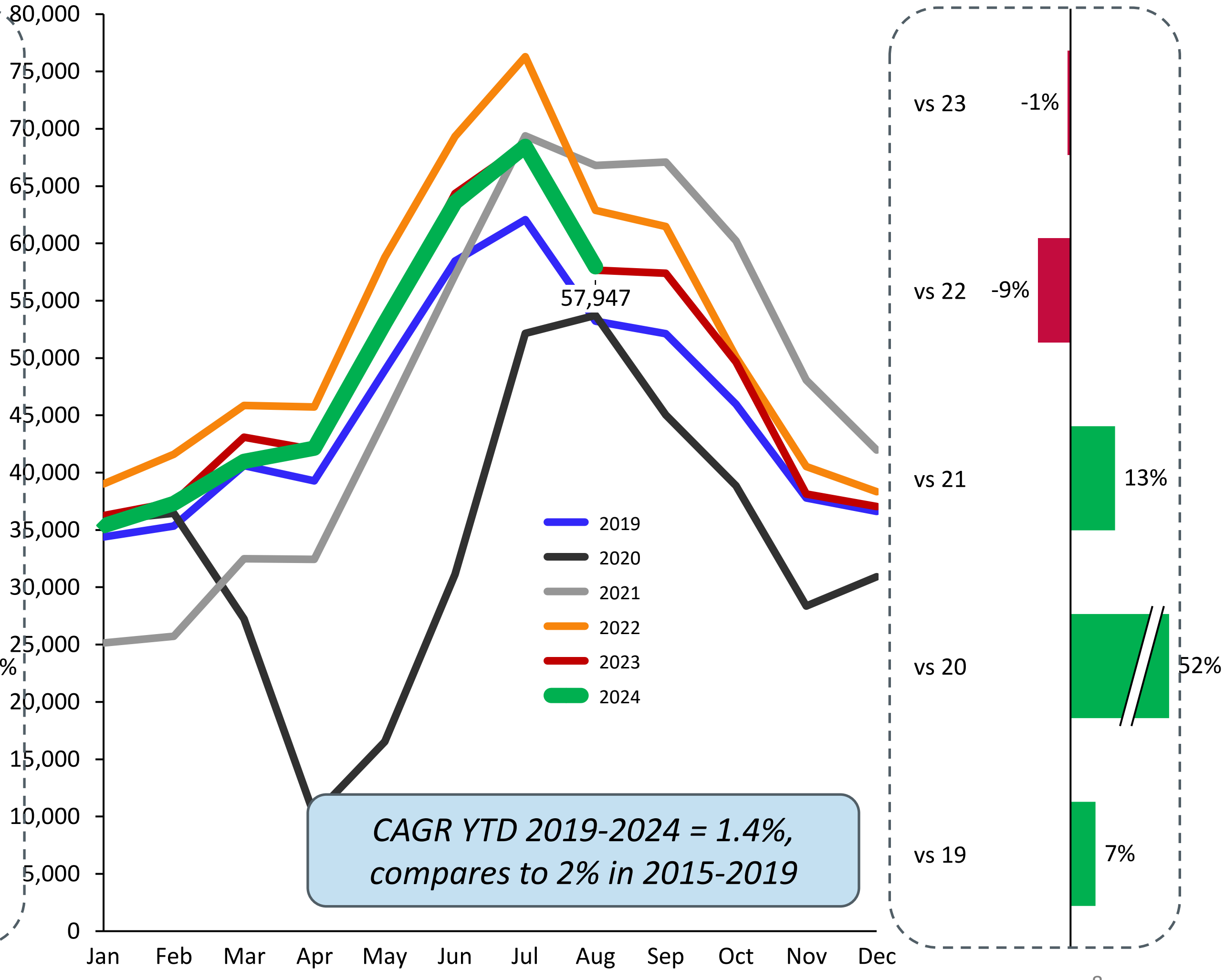
US & Europe – Comparing Business Jet Monthly Traffic in 2019-2024

In both regions 2024 slightly behind 2023, but in Europe, slender gains vs 2019, way behind the US

Business Jet Departures US



Business Jet Departures Europe



*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

High level review of European bizjet activity

Med Leisure magnet; Super Mid & Super light traction; Fractional program taking off

Central European markets in a slump (Germany); older aircraft sitting idle; Corporate Flight Departments flying less

Departure Country	Flights	vs 1Y ago: Flights	vs 5Y ago: Flights
France	60,885	-1.6%	1.6%
United Kingdom	52,158	0.3%	9.3%
Italy	45,310	0.9%	22.0%
Germany	42,859	-2.5%	-4.2%
Spain	36,083	3.2%	22.6%
Switzerland	26,584	-2.1%	7.5%
Turkey	19,490	0.6%	46.2%
Greece	13,274	5.7%	25.9%
Austria	10,811	-1.0%	-4.7%
Sweden	9,884	-4.7%	67.8%
Netherlands	7,850	-5.4%	15.4%
Belgium	6,937	-2.0%	15.7%
Portugal	6,469	-4.0%	34.5%
Poland	5,845	0.8%	33.8%
Czech Republic	5,108	1.2%	19.2%
Grand Total	398,866	-0.8%	7.1%

-13% in W38

>30%+ YOY

A/C Segment	Flights	vs 1Y ago (flights)	vs 5Y ago (flights)
Light Jet	91,396	0.2%	9.5%
Super Light Jet	66,056	0.5%	33.4%
Heavy Jet	61,448	-5.3%	-13.2%
Ultra Long Range Jet	59,594	2.8%	12.8%
Super Midsize Jet	59,286	5.8%	40.7%
Very Light Jet	25,311	-9.4%	0.1%
Midsize Jet	17,024	-4.5%	-24.8%
Entry Level Jet	12,291	-11.6%	-15.2%
Airliner/Bizliner(Jet)	6,460	-2.6%	-42.4%
Grand Total	519,546	-0.7%	7.9%

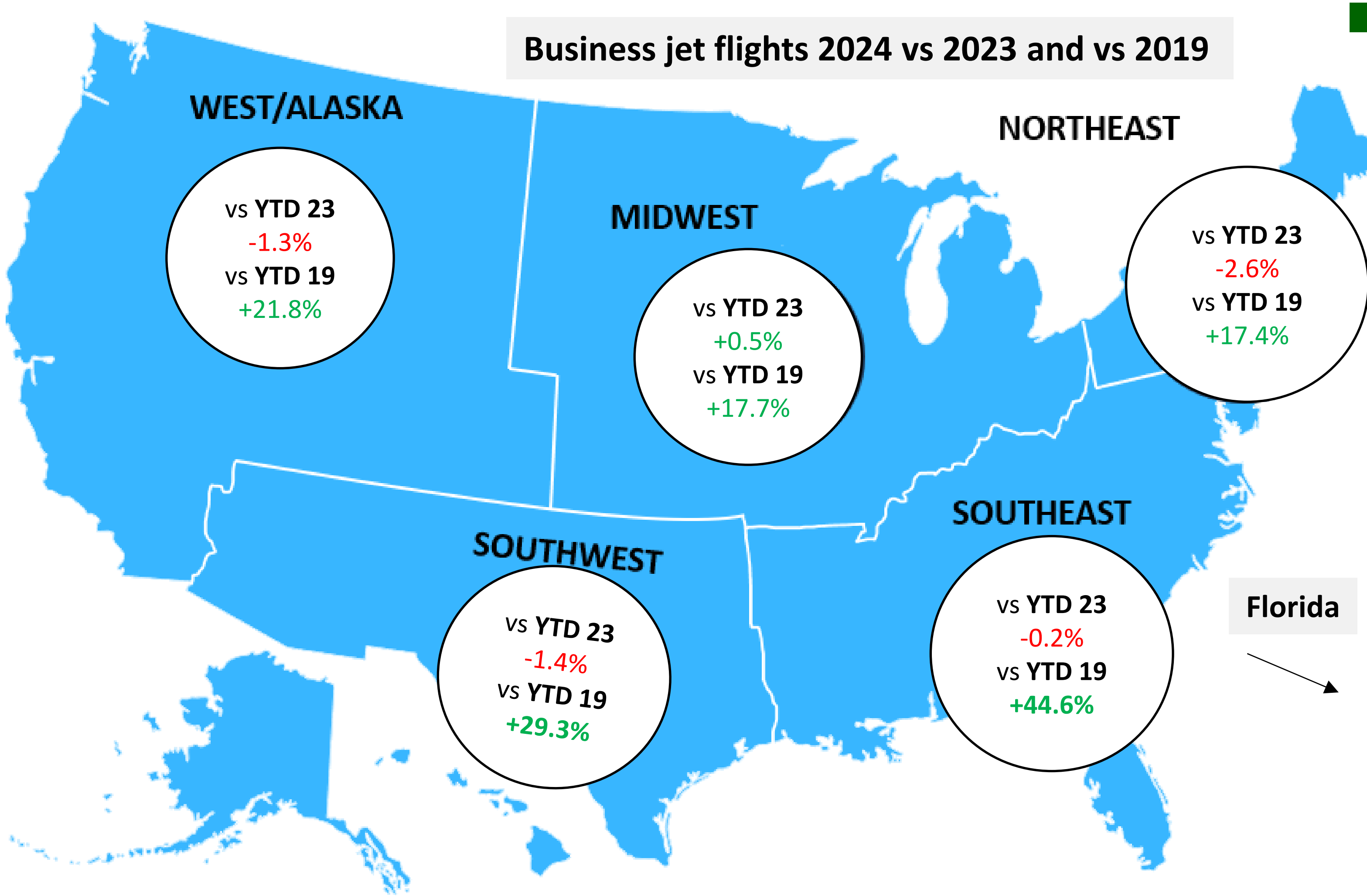
Operator Type	Flights	vs 1Y ago: Flights	vs 5Y ago: Flights
Aircraft Management	140,396	-2.3%	1.5%
Branded Charter	105,095	-6.8%	1.7%
Fractional Ownership	56,641	8.2%	54.5%
Corporate Flight Department	27,200	-14.7%	-27.6%
Private Flight Department	20,853	-2.7%	5.1%

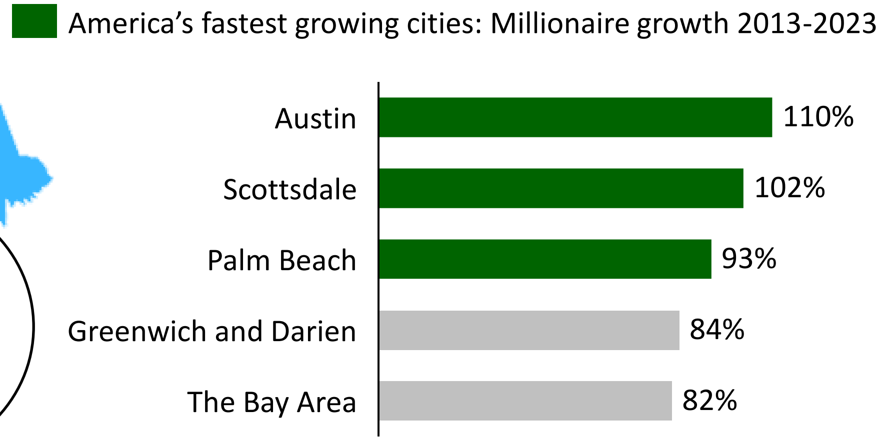
*Bizjets only: **Turboprops excluded**, data through Aug-24*

Source: WINGX; Global ATC and ADSB records

Back to the US: geographical variance in trend

Follow the money: HNW and corporate migration from California to Florida and Texas





Source: Henley & Partners 2023 Wealth Report

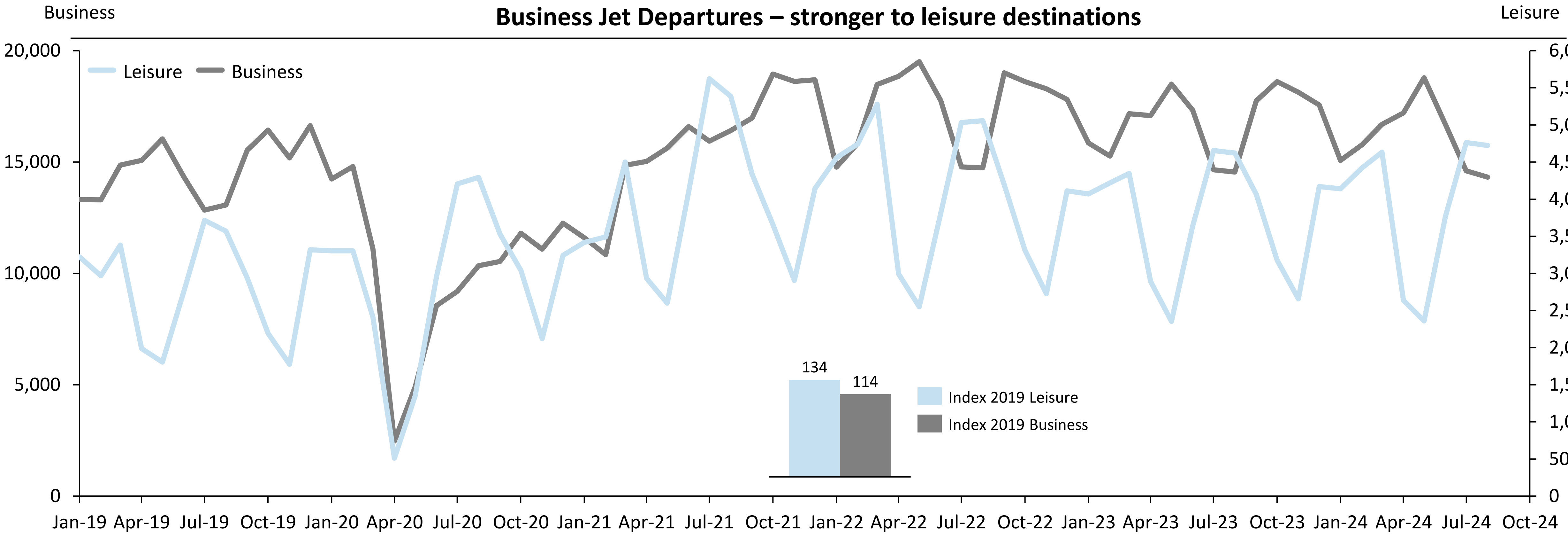
Departure City	Flights	vs 5Y ago: Flights
Miami (US-FL)	33,397	68.5%
West Palm Beach	27,776	60.0%
Fort Lauderdale	22,809	57.1%
Orlando	20,096	36.4%
Naples (US-FL)	17,817	61.9%
Tampa	17,668	63.5%
Jacksonville (US-FL)	10,091	45.3%
Boca Raton	8,941	25.9%

*Bizjets only: **Turboprops excluded**, data through Aug-24*

Source: WINGX; Global ATC and ADSB records

US - Leisure vs Business Trends (indicative)

Sample-set leisure destinations seasonal patterns but strong growth trends, compared to typical business hubs



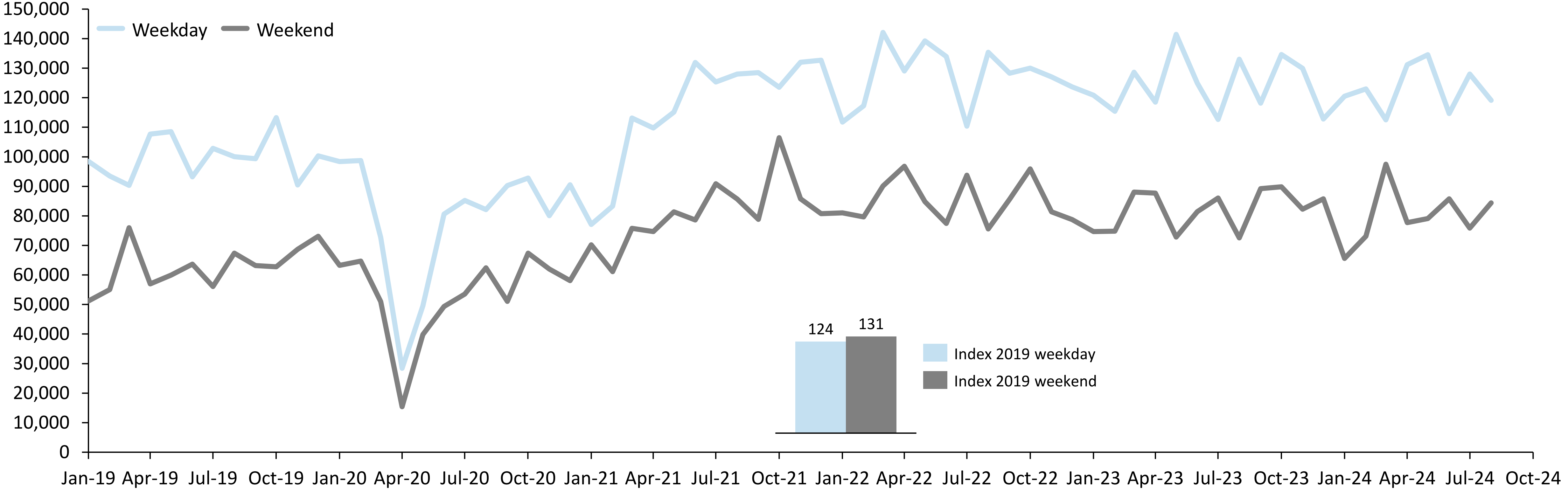
	US Departures						Indexed to 2019						CAGR		YoY	Share			
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23	2019	2023	L12M	Δ
Leisure	33,628	34,267	47,100	48,369	44,873	31,446	100	102	140	144	133	134	*7.5%*	*(7.2%)*	*2.1%*	*1.7%*	*1.8%*	*1.8%*	*0.1%*
Business	176,641	121,291	190,154	208,473	202,474	129,149	100	69	108	118	115	114	*3.5%*	*(2.9%)*	*(1.0%)*	*9.0%*	*8.2%*	*8.2%*	*(0.9%)*
Total	**210,269**	**155,558**	**237,254**	**256,842**	**247,347**	**160,595**	**100**	**74**	**113**	**122**	**118**	**118**	***4.1%***	***(3.7%)***	***(0.4%)***	***10.8%***	***10.0%***	***10.0%***	***(0.8%)***

Note: market share calculated only between the 10 airports examined
Leisure Airports Examined: KCRQ, KASE, KCHA, KEGE, KSAF
Business Airports Examined: KTEB, KVNY, KDAL, KHPN, KIAD
*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

US – Weekday vs Weekend Trends

Weekend flying in the US growing at faster rate vs 2019 than weekday flying

Business Jet Departures – stronger for weekend travel



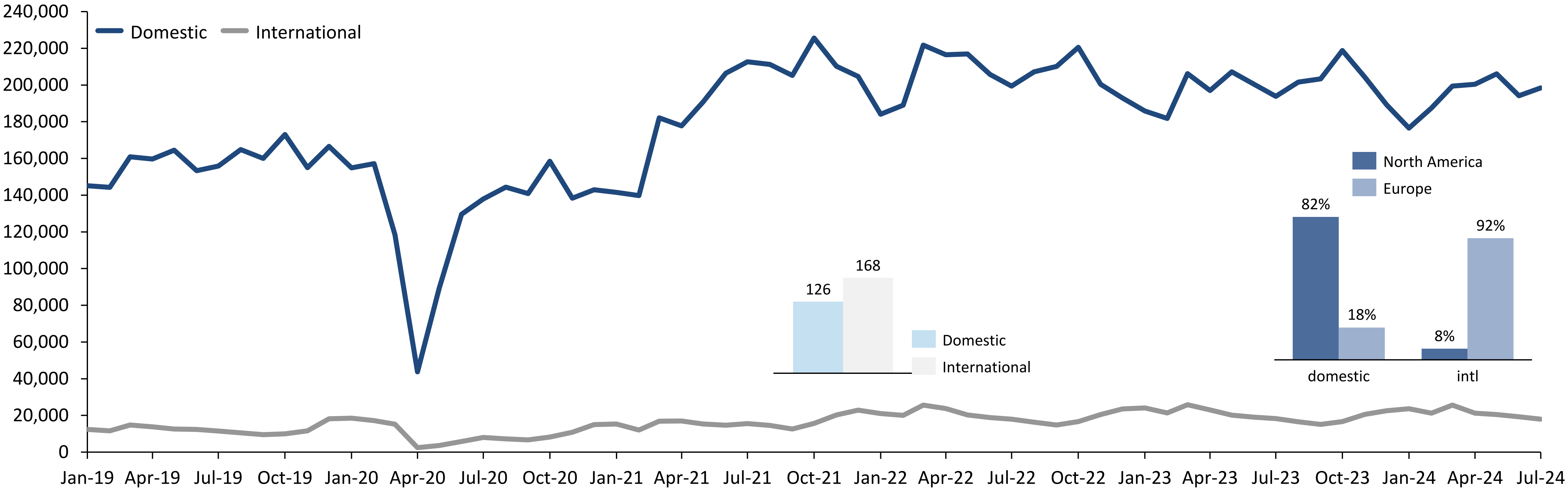
	US Departures						Indexed to 2019						CAGR		YoY	Share			
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23	2019	2023	L12M	Δ
Weekday	1,198,014	949,230	1,400,426	1,528,022	1,490,971	983,574	100	79	117	128	124	124	*5.6%*	*(2.4%)*	*(1.2%)*	*61.4%*	*60.2%*	*60.0%*	*(1.4%)*
Weekend	754,049	637,858	970,260	1,020,845	985,220	638,988	100	85	129	135	131	131	*6.9%*	*(3.5%)*	*0.1%*	*38.6%*	*39.8%*	*40.0%*	*1.4%*
Total	**1,952,063**	**1,587,088**	**2,370,686**	**2,548,867**	**2,476,191**	**1,622,562**	**100**	**81**	**121**	**131**	**127**	**127**	***6.1%***	***(2.9%)***	***(0.7%)***	***100.0%***	***100.0%***	***100.0%***	***-***

Weekday: Monday, Tuesday, Wednesday, Thursday
Weekend: Friday, Saturday, Sunday
*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

North America – International vs Domestic Activity

Primarily domestic travel within North America, international travel has seen an increase in market share since 2019

Business Jet Departures – bigger rebound towards international

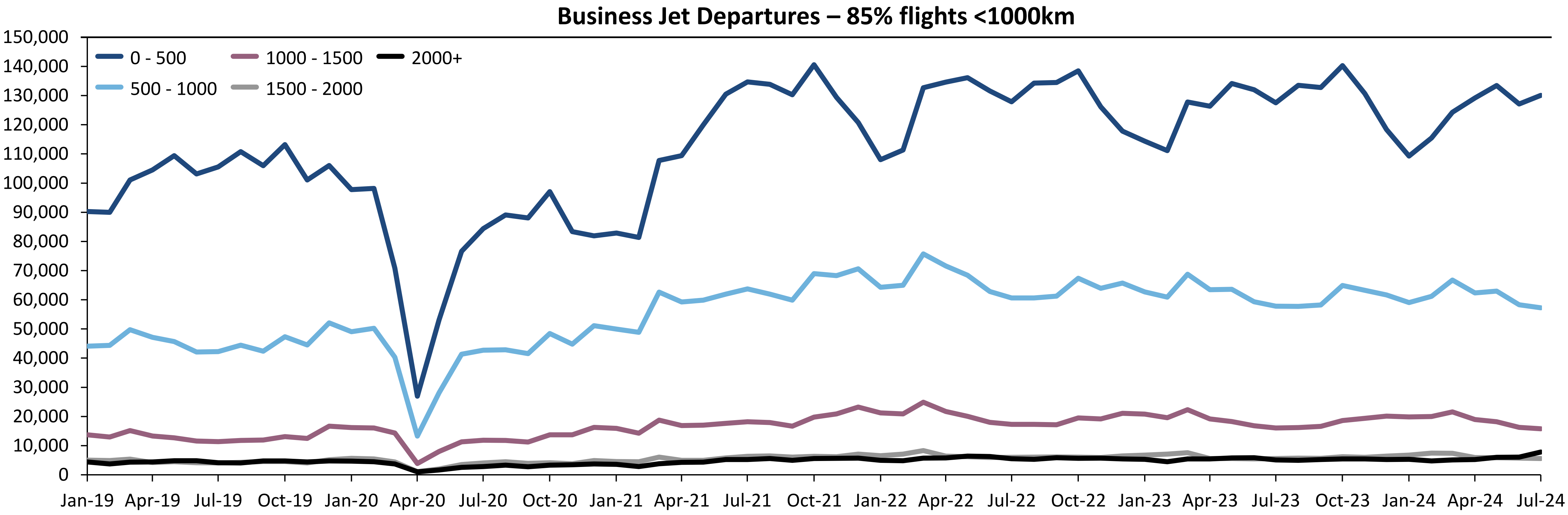


	North America Departures						Indexed to 2019						CAGR		YoY	Share			
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23	2019	2023	L12M	Δ
Domestic	1,903,258	1,555,956	2,308,075	2,464,823	2,389,548	1,362,619	100	82	121	130	126	126	5.9%	(3.1%)	(0.7%)	92.8%	90.8%	90.8%	(1.9%)
International	148,676	118,496	192,560	239,037	243,067	149,425	100	80	130	161	163	168	13.1%	1.7%	(1.5%)	7.2%	9.2%	9.2%	1.9%
Total	**2,051,934**	**1,674,452**	**2,500,635**	**2,703,860**	**2,632,615**	**1,512,044**	**100**	**82**	**122**	**132**	**128**	**129**	**6.4%**	**(2.6%)**	**(0.8%)**	**100.0%**	**100.0%**	**100.0%**	**-**

*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

North America - Departures by Sector Length (NM)

Growth this year in longest sectors. Biggest increase since 2019 is in 1000-1500 N.



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0 - 500	1,241,078	947,418	1,421,502	1,533,658	1,529,000	868,873	100	76	115	124	123	123	*5.4%*	*(0.3%)*	*(0.5%)*	*60.5%*	*58.1%*	*58.2%*	*(2.3%)*
500 - 1000	546,111	493,765	735,922	787,427	742,330	427,841	100	90	135	144	136	136	*8.0%*	*(5.7%)*	*(2.0%)*	*26.6%*	*28.2%*	*28.0%*	*1.4%*
1000 - 1500	156,708	148,238	217,114	238,175	223,886	130,511	100	95	139	152	143	144	*9.3%*	*(6.0%)*	*(1.9%)*	*7.6%*	*8.5%*	*8.4%*	*0.8%*
1500 - 2000	54,761	47,490	69,311	77,157	73,575	44,532	100	87	127	141	134	139	*7.7%*	*(4.6%)*	*2.2%*	*2.7%*	*2.8%*	*2.8%*	*0.2%*
2000+	53,276	37,541	56,786	67,443	63,824	40,287	100	70	107	127	120	132	*4.6%*	*(5.4%)*	*7.6%*	*2.6%*	*2.4%*	*2.5%*	*(0.1%)*
Total	**2,051,934**	**1,674,452**	**2,500,635**	**2,703,860**	**2,632,615**	**1,512,044**	**100**	**82**	**122**	**132**	**128**	**129**	***6.4%***	***(2.6%)***	***(0.8%)***	***100.0%***	***100.0%***	***100.0%***	-

*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

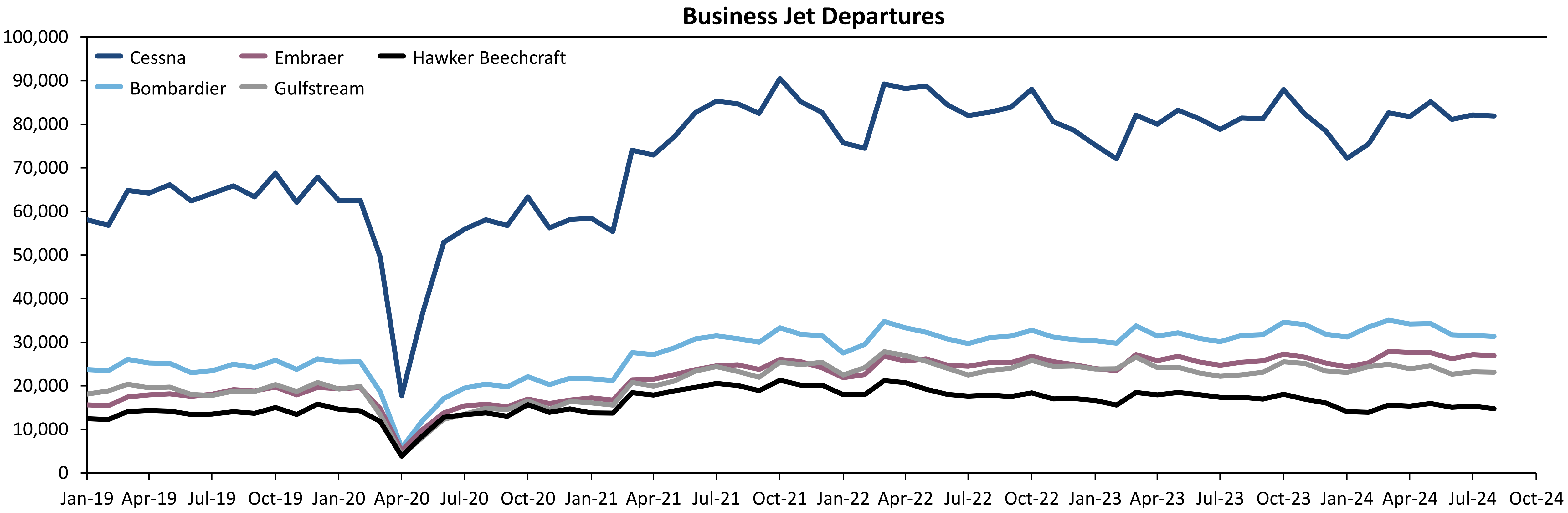
Contents

Business Aviation = non-scheduled flights on business jet and turboprop aircraft types

Source: WINGX; Global ATC and ADSB records

North America – Top Bizjet Manufacturers

Top 5 OEMs accounting for 83% activity. Bombardier and Embraer fleets still seeing strongest growth in activity.



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Cessna	764,599	630,130	931,548	996,862	964,137	642,406	100	82	122	130	126	128	*6.0%*	*(3.3%)*	*1.3%*	*37.3%*	*36.6%*	*37.1%*	*(0.1%)*
Bombardier	294,916	228,146	345,923	374,773	382,136	262,735	100	77	117	127	130	135	*6.7%*	*2.0%*	*5.1%*	*14.4%*	*14.5%*	*15.1%*	*0.7%*
Embraer	215,353	178,457	271,764	299,990	307,406	212,924	100	83	126	139	143	153	*9.3%*	*2.5%*	*5.1%*	*10.5%*	*11.7%*	*12.1%*	*1.6%*
Gulfstream	229,479	167,309	262,162	295,720	287,390	189,897	100	73	114	129	125	126	*5.8%*	*(2.8%)*	*(0.2%)*	*11.2%*	*10.9%*	*11.0%*	*(0.2%)*
Hawker Beechcraft	166,257	150,190	223,330	220,617	207,652	119,967	100	90	134	133	125	111	*5.7%*	*(5.9%)*	*(14.1%)*	*8.1%*	*7.9%*	*7.2%*	*(0.9%)*
Total	**1,670,604**	**1,354,232**	**2,034,727**	**2,187,962**	**2,148,721**	**1,427,929**	**100**	**81**	**122**	**131**	**129**	**130**	***6.5%***	***(1.8%)***	***0.8%***	***81.4%***	***81.6%***	***82.5%***	***1.1%***

*Bizjets only: **Turboprops excluded**, data through Aug-24*

Source: WINGX; Global ATC and ADSB records

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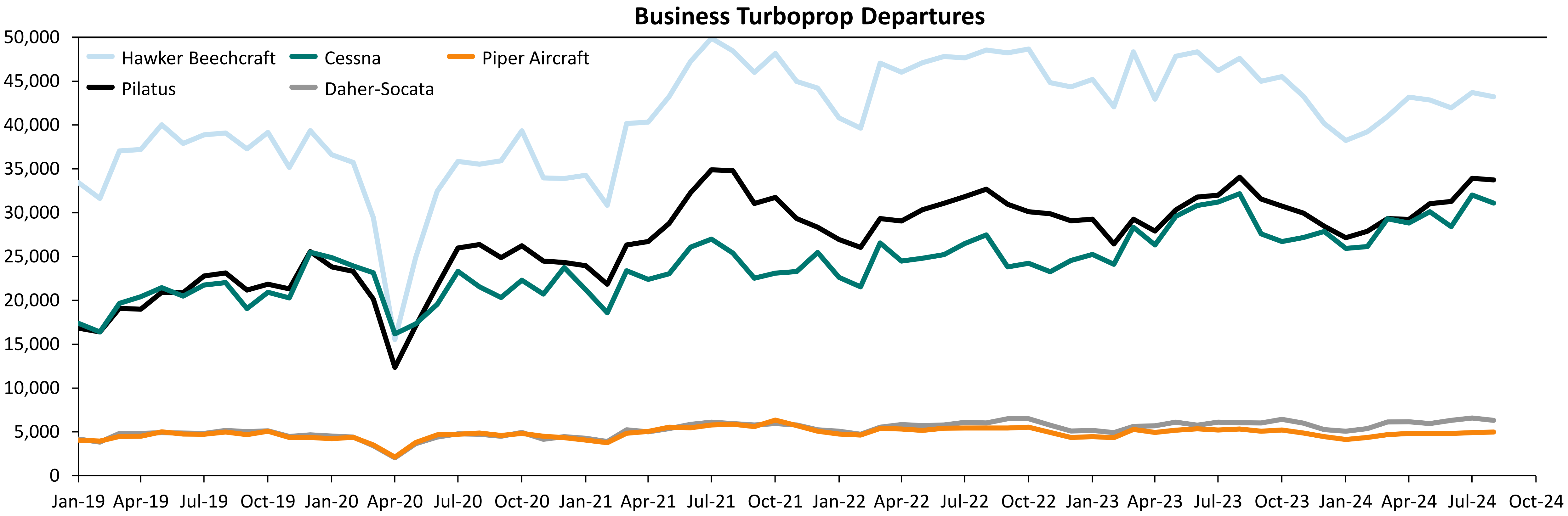
North America – Top Turboprop Manufacturers

Pilatus furthest ahead of pre-COVID levels, whereas Daher-Socata leading vs 2023 YTD, +5.4%



	North America Departures						Indexed to 2019						CAGR		YoY	Share			
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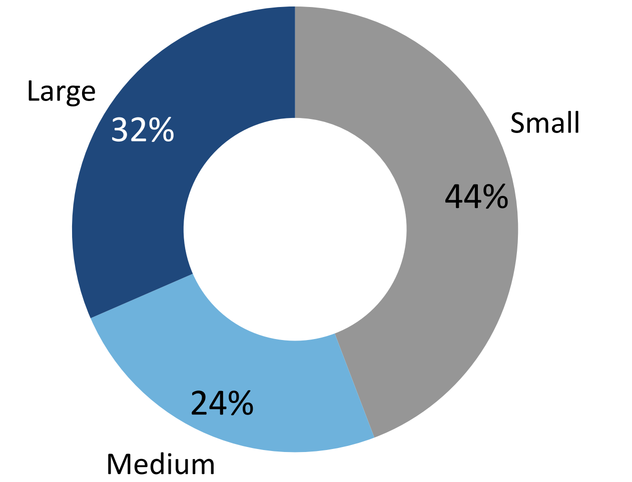
Hawker Beechcraft	446,153	389,156	517,802	550,751	542,559	333,347	100	87	116	123	122	113	5.0%	(1.5%)	(9.6%)	42.0%	39.3%	37.6%	(4.4%)
Pilatus	248,943	270,619	350,024	357,286	361,740	243,555	100	109	141	144	145	153	9.8%	1.2%	1.1%	23.4%	26.2%	27.0%	3.5%
Cessna	245,332	256,945	281,466	295,007	337,169	231,832	100	105	115	120	137	145	8.3%	14.3%	1.8%	23.1%	24.4%	25.3%	2.2%
Daher-Socata	56,704	50,035	64,437	68,604	69,177	47,903	100	88	114	121	122	128	5.1%	0.8%	5.4%	5.3%	5.0%	5.3%	(0.0%)
Piper Aircraft	54,980	50,555	63,154	61,905	59,700	37,516	100	92	115	113	109	103	2.1%	(3.6%)	(6.4%)	5.2%	4.3%	4.2%	(0.9%)
Total	**1,052,112**	**1,017,310**	**1,276,883**	**1,333,553**	**1,370,345**	**894,153**	**100**	**97**	**121**	**127**	**130**	**130**	**6.8%**	**2.8%**	**(3.1%)**	**99.1%**	**99.2%**	**99.4%**	**0.3%**

*Turboprops only: **Bizjets excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

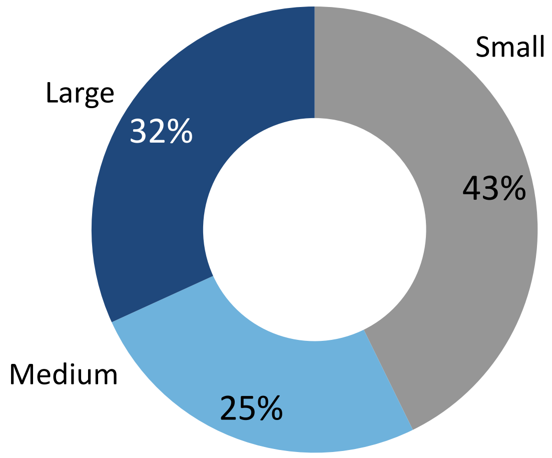
Global – Active Aircraft Distribution by Cabin Class

Large jets standing out in Europe, while Small jets are key cabin class in North America (but changing)
Ref to deliveries 2010-2024 30/35/35 S-M-L

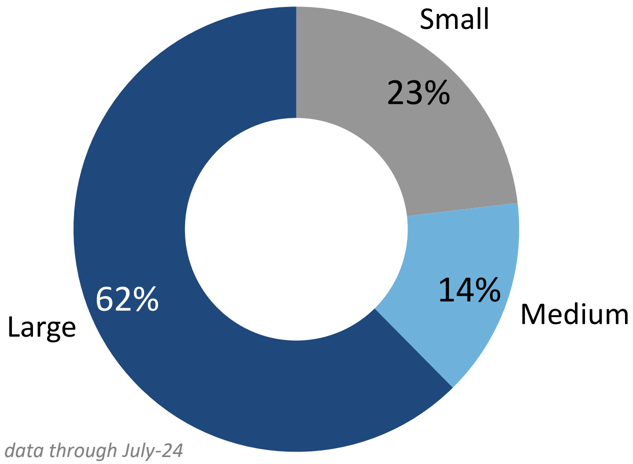
Global



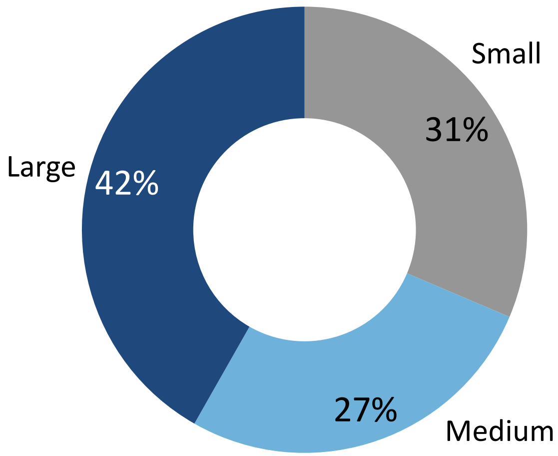
North America



Europe



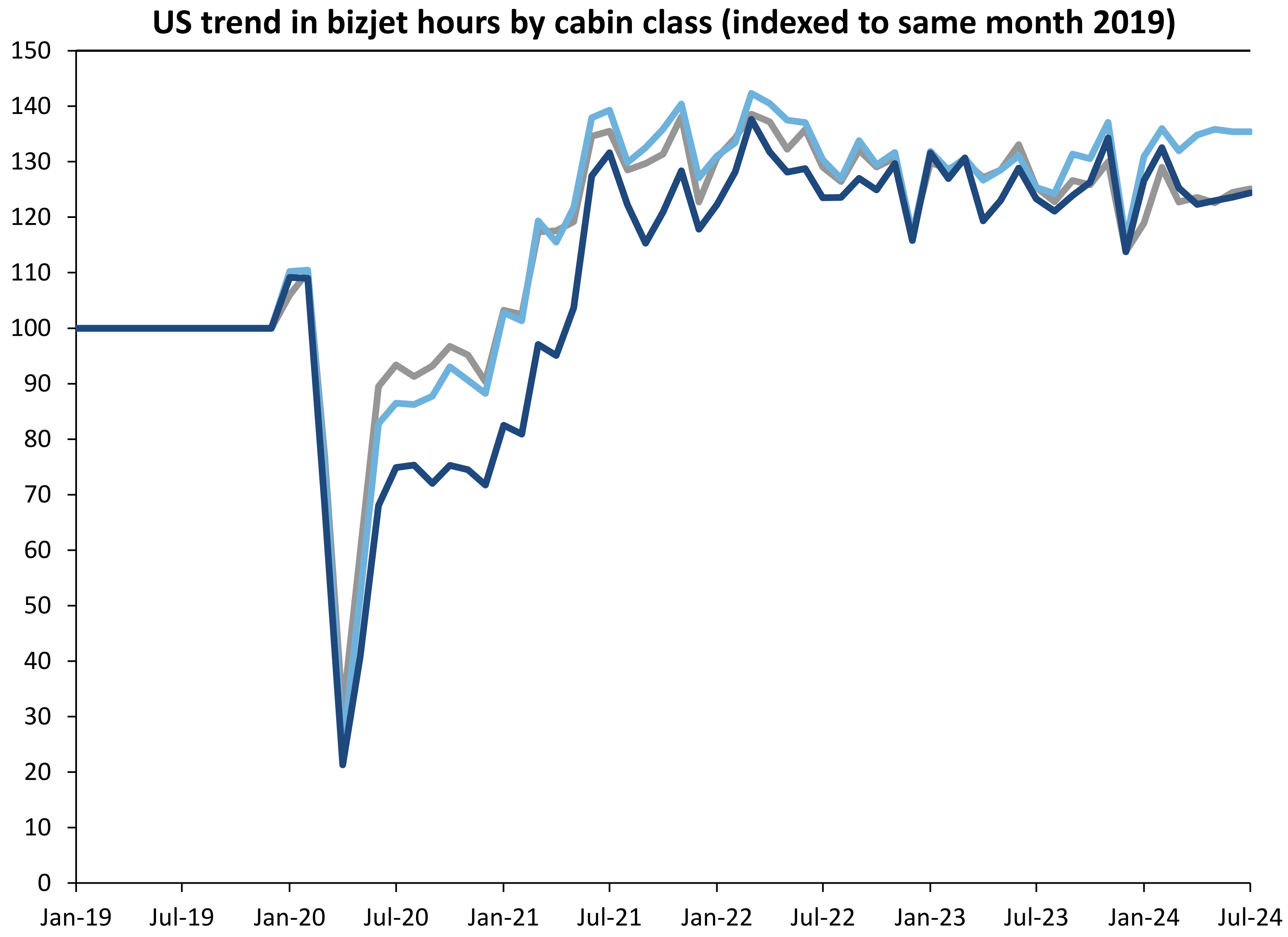
Rest of World

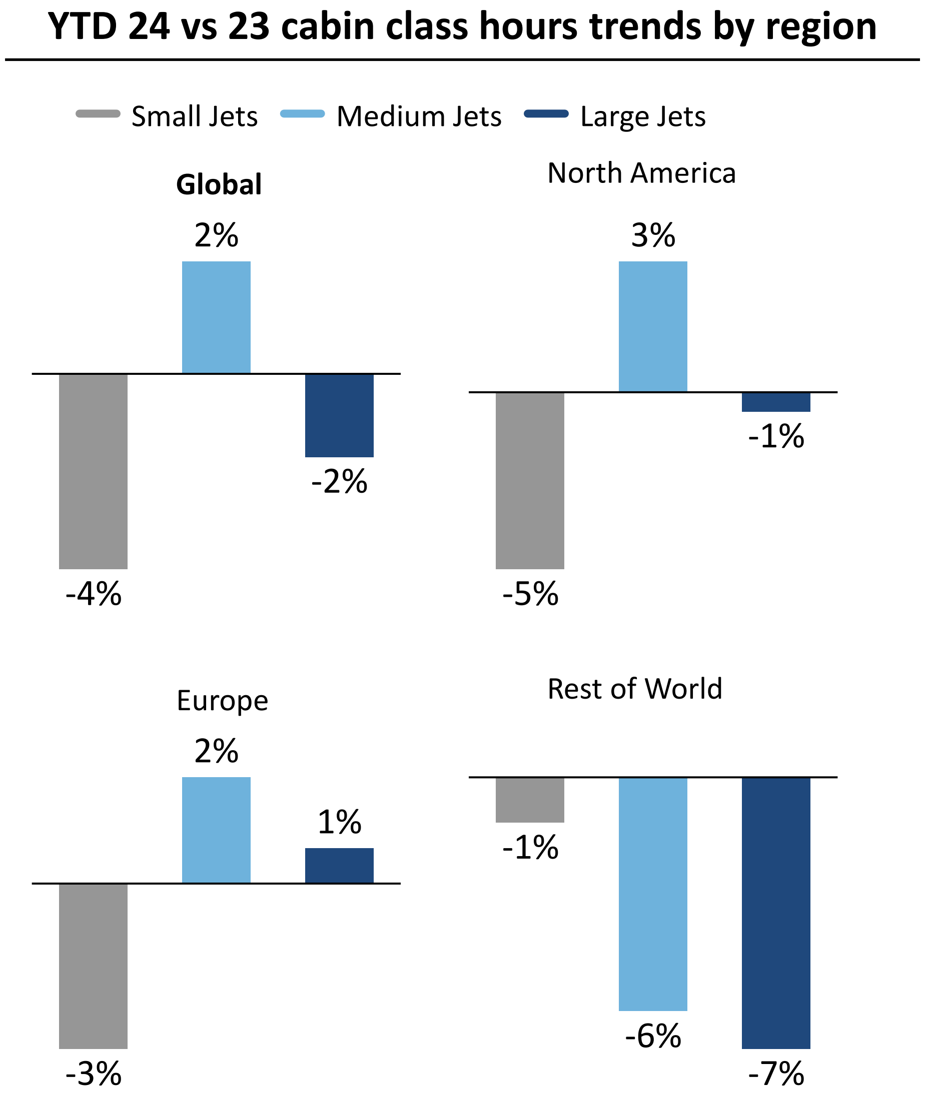


*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

Global - Business Jet activity by Cabin Class by region

Medium Jet activity up this year, Small Jet activity dropping off, particularly ROW





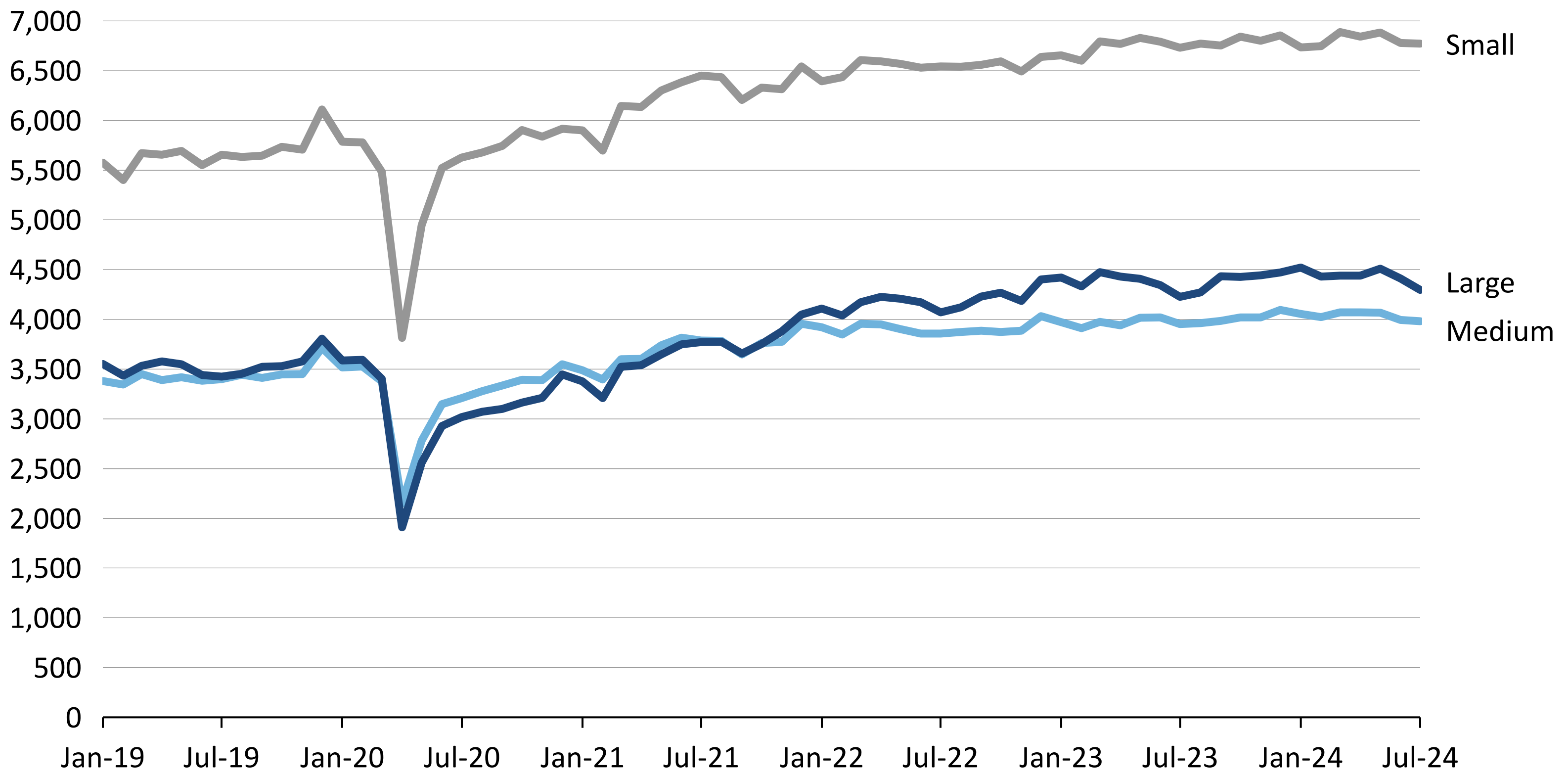
*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

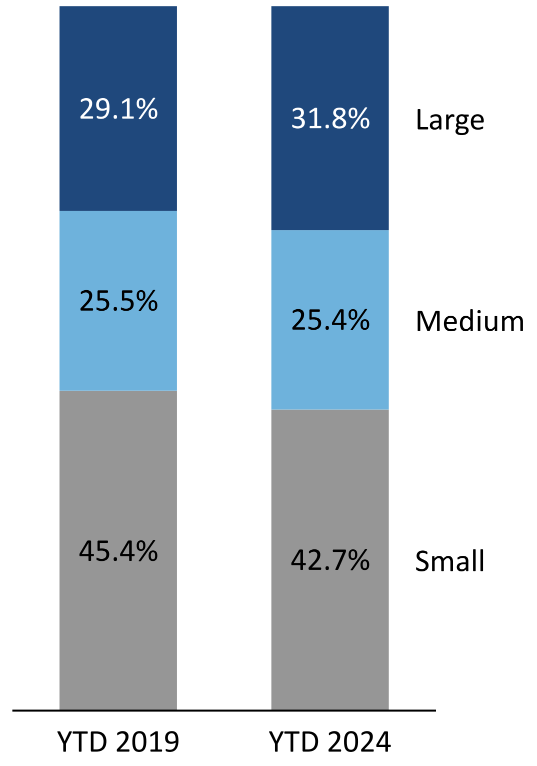
North America – Trends in Size of Active Fleet by Cabin

42% in North America are Small, but Large (CAGR 8%) & Medium (+7% in 24 YOY) have the growth momentum

North America – Business Jet Active Aircraft



Split by Cabin Class



	North America Active Tails						Indexed to 2019						CAGR		YoY
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23
Small	9,256	8,938	9,774	9,854	10,236	9,400	100	97	106	106	111	118	*2.5%*	*3.9%*	*1.9%*
Medium	5,112	5,015	5,332	5,466	5,874	5,596	100	98	104	107	115	125	*3.5%*	*7.5%*	*7.5%*
Large	5,912	5,626	6,057	7,406	7,999	6,997	100	95	102	125	135	137	*7.9%*	*8.0%*	*2.9%*
Total	**20,280**	**19,579**	**21,163**	**22,726**	**24,109**	**21,993**	**100**	**97**	**104**	**112**	**119**	**125**	***4.4%***	***6.1%***	***3.6%***

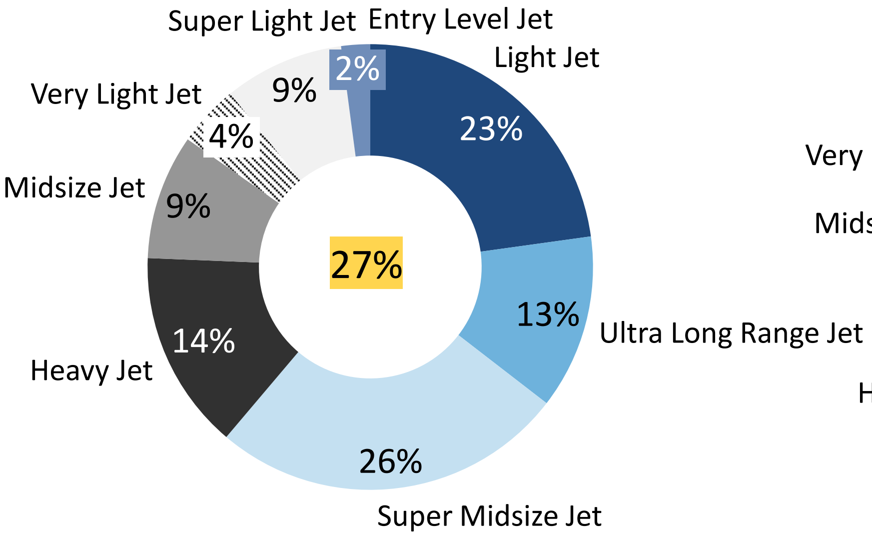
*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

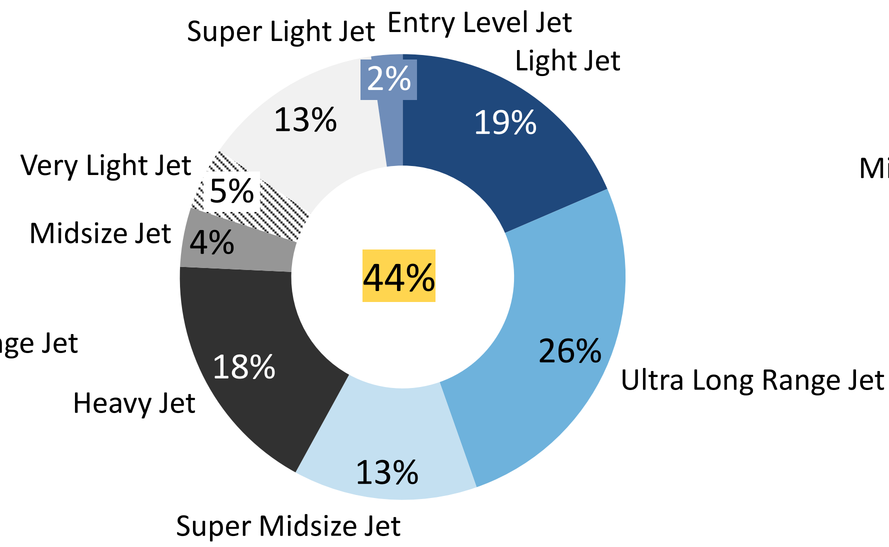
Share of activity (FH) by aircraft segment

ULR big share in Europe and ROW (>25%). North America 26% SMJ, X2 ROW. Since 2007, Small Jet from 54% to 44%.

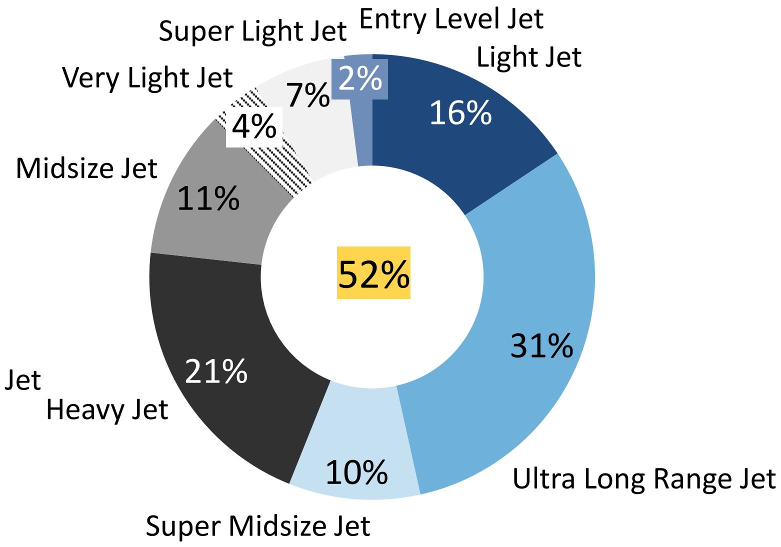
North America



Europe

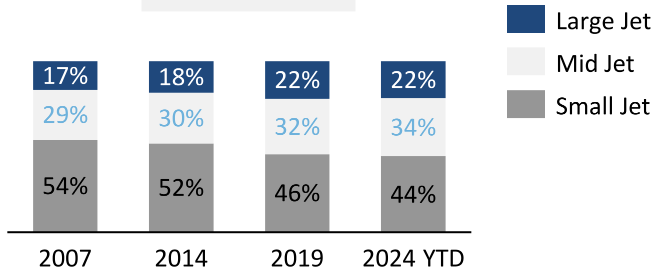


Rest of World



XX% = H, ULR

Share Deps

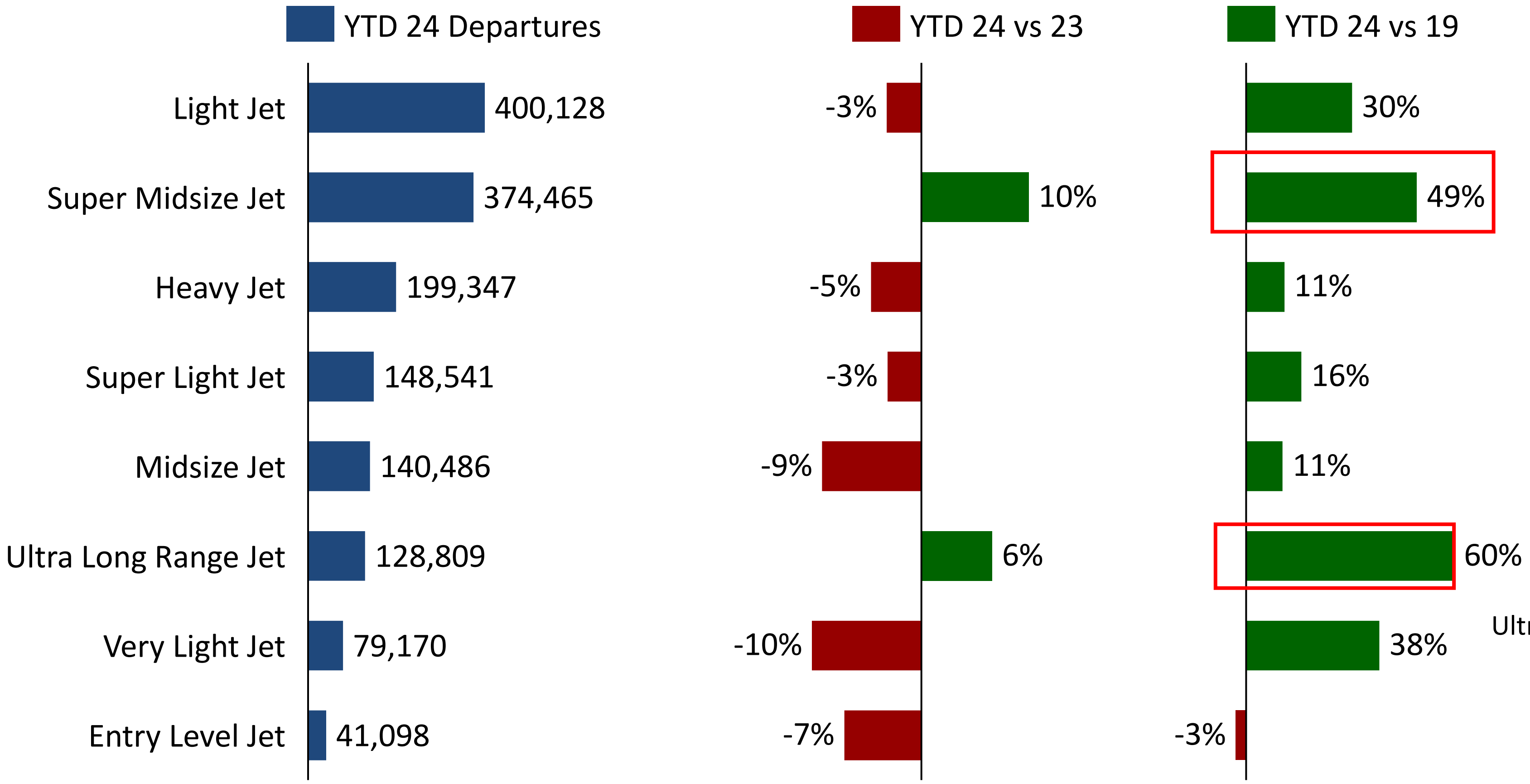


*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

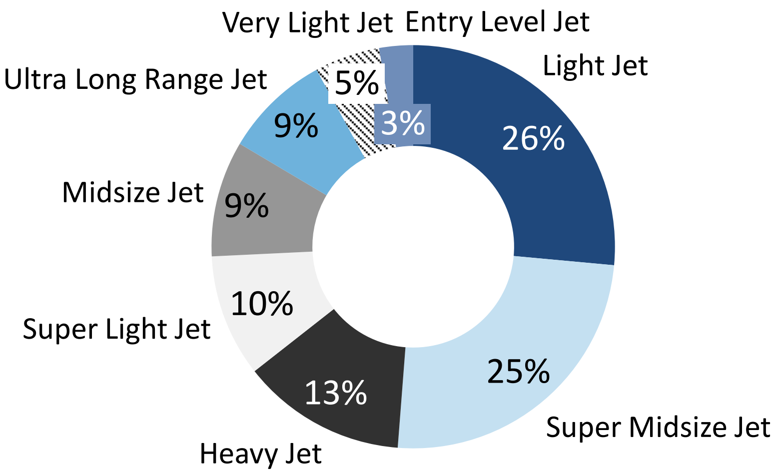
North America - Business Jet Activity by Aircraft Segment

SMJ and ULR stand out for growth 24/23 as well as strong trends since 2019

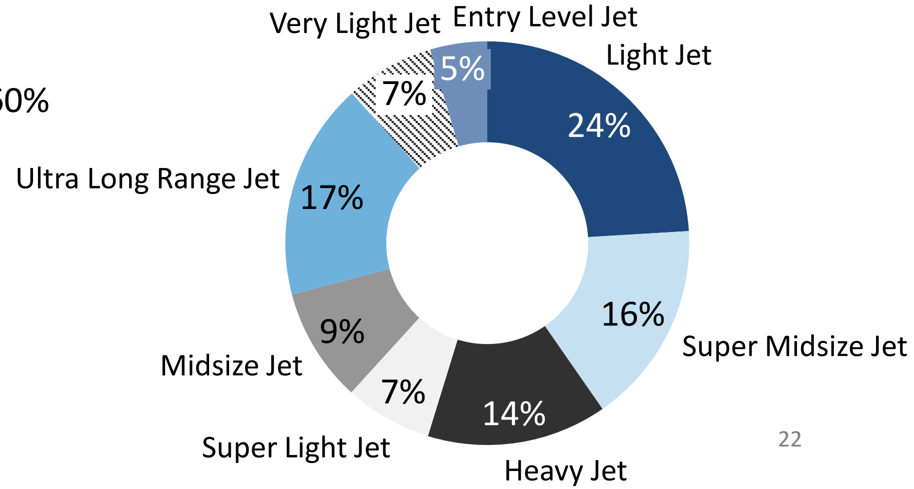
Trend in bizjet activity by aircraft segment



Share of activity (departures)



Share of activity (active tails)

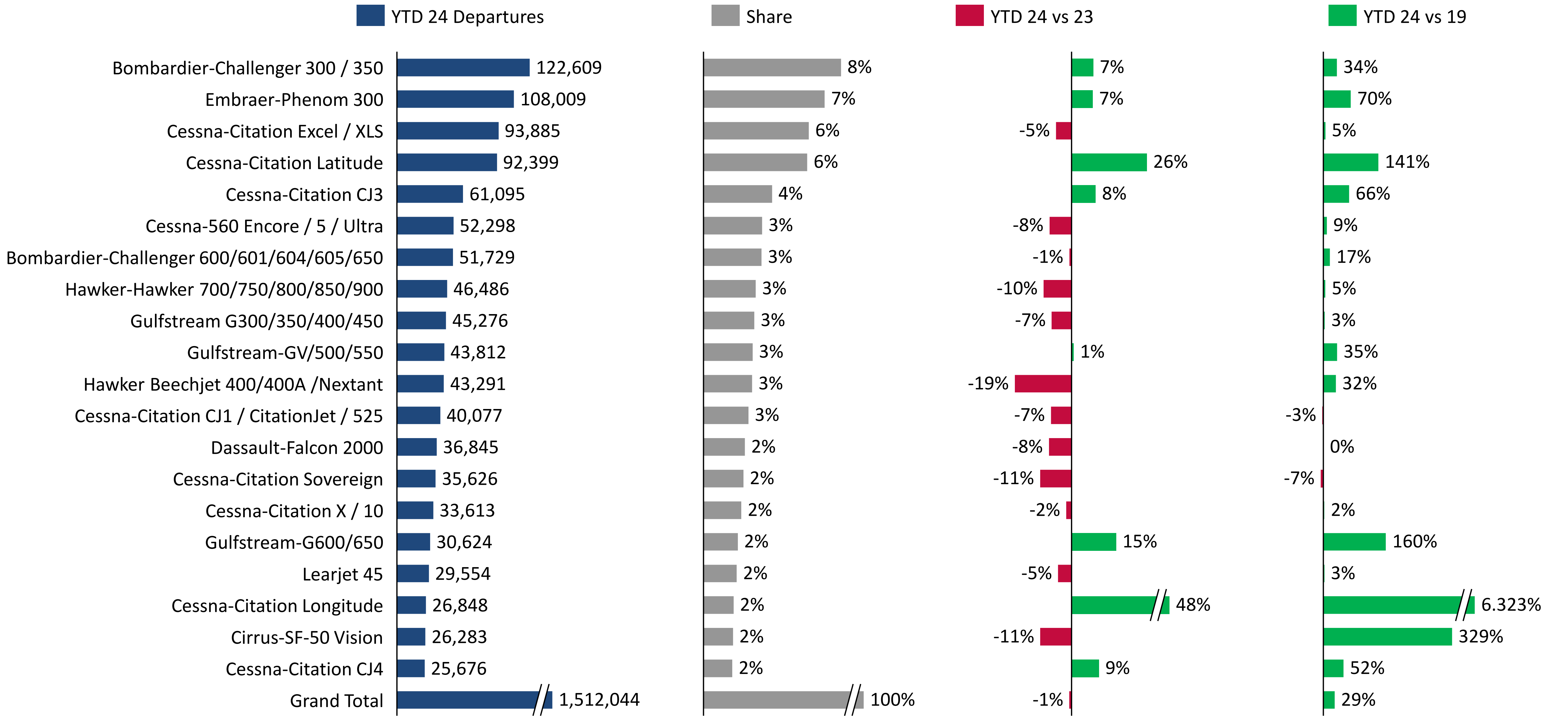


*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

North America - Business Jet Activity by Top 20 Aircraft Types

Challenger 300 and Phenom 300 top North American aircraft types, both up 7% vs 2023 YTD (combined 15% of all flts)

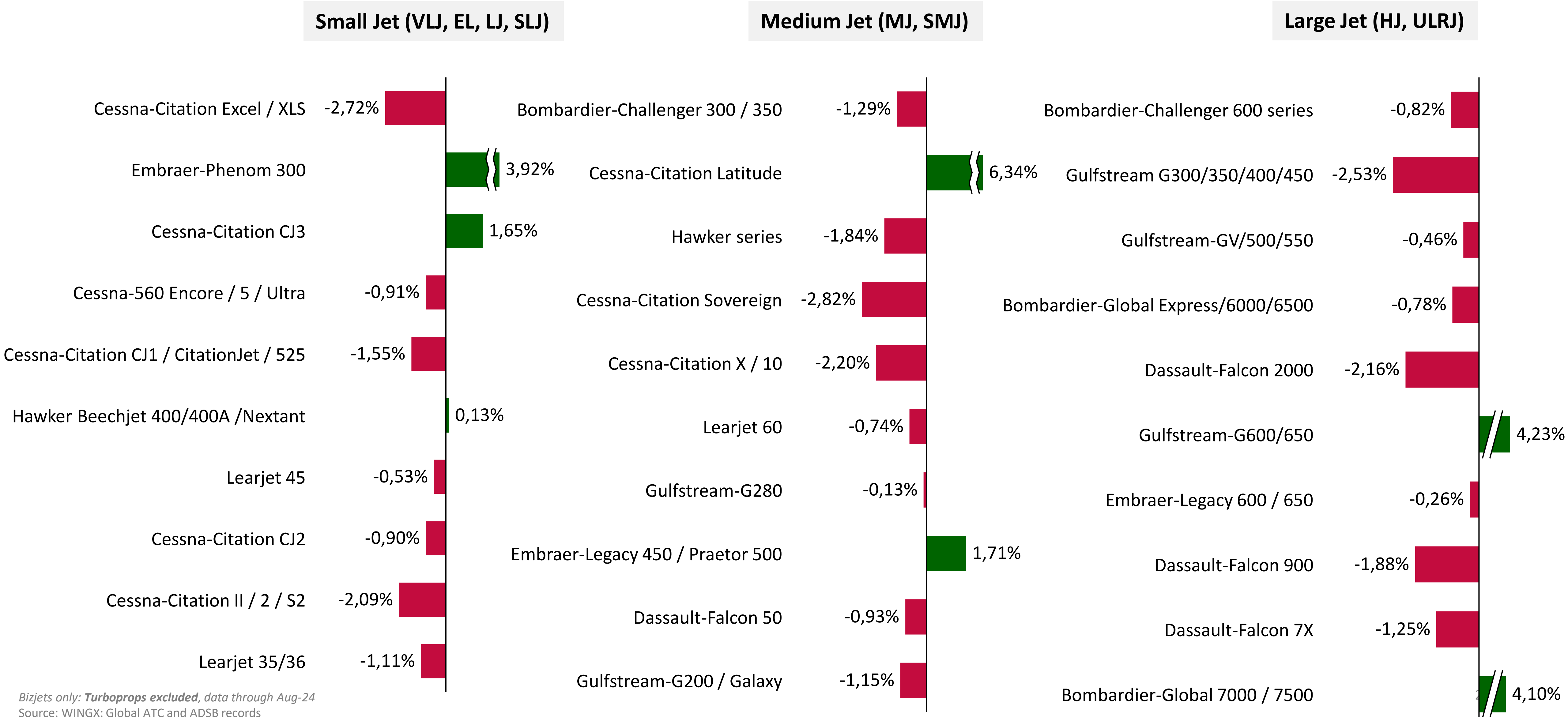


*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

WINGX a JETNET company

Global - Business jet share of flight hours by Cabin Class (change 2019-2024)

Biggest winners = Phenom 300, Citation Latitude, Gulfstream 650 and Global 7500



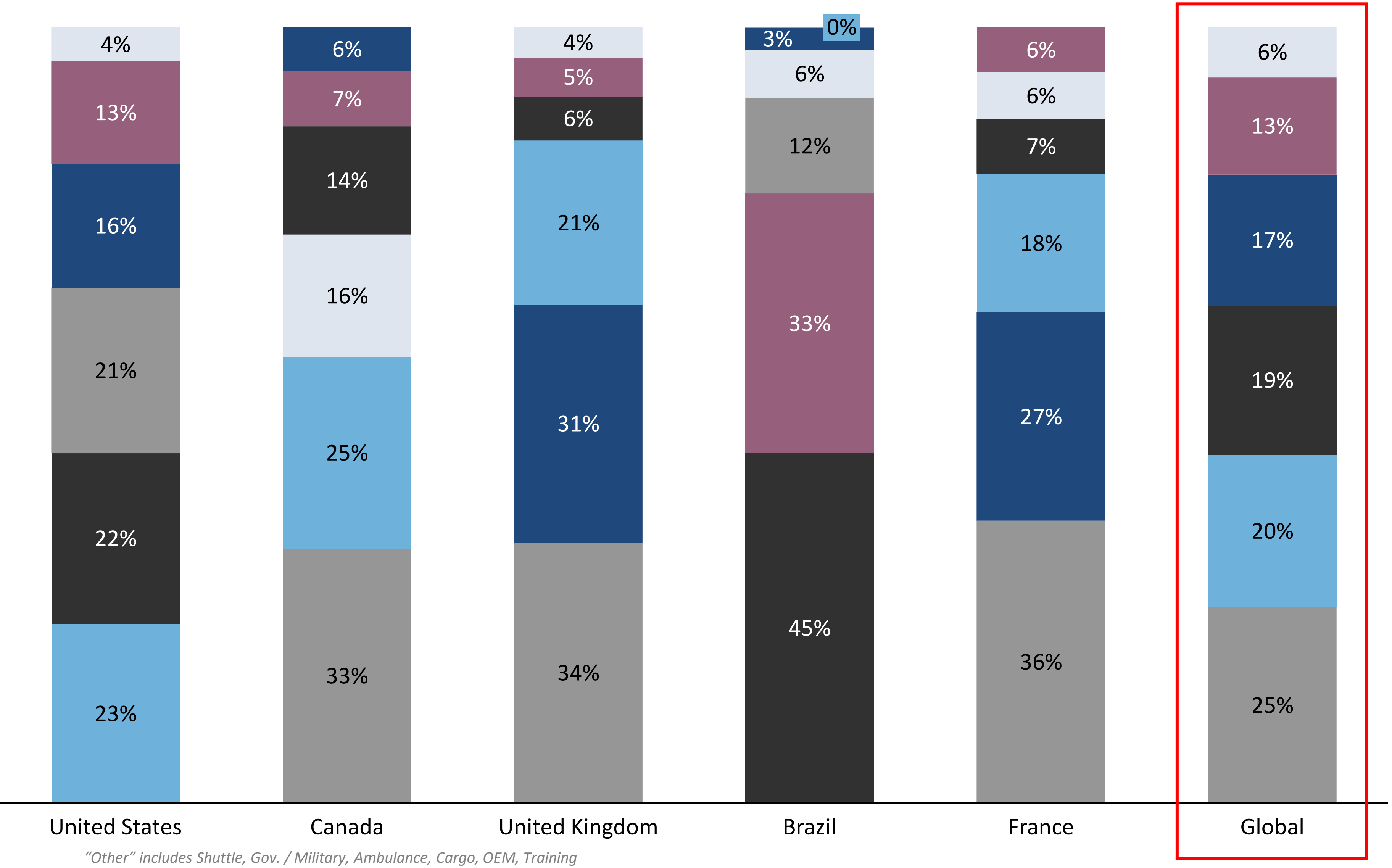
*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

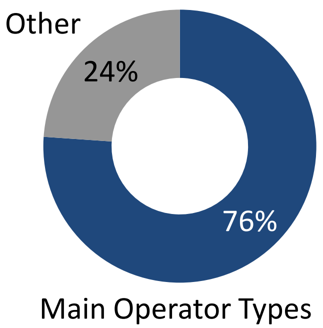
Contents

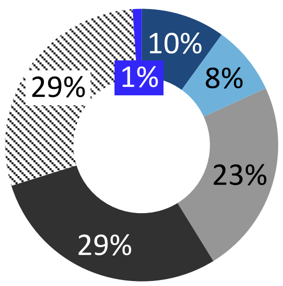
Business Aviation = non-scheduled flights on business jet and turboprop aircraft types
Source: WINGX; Global ATC and ADSB records

Operator Types Flown By Departure Country

CFD important in Brazil; Fractional large share in Canada; Charter important in France and the UK







"Other" includes Shuttle, Gov. / Military, Ambulance, Cargo, OEM, Training

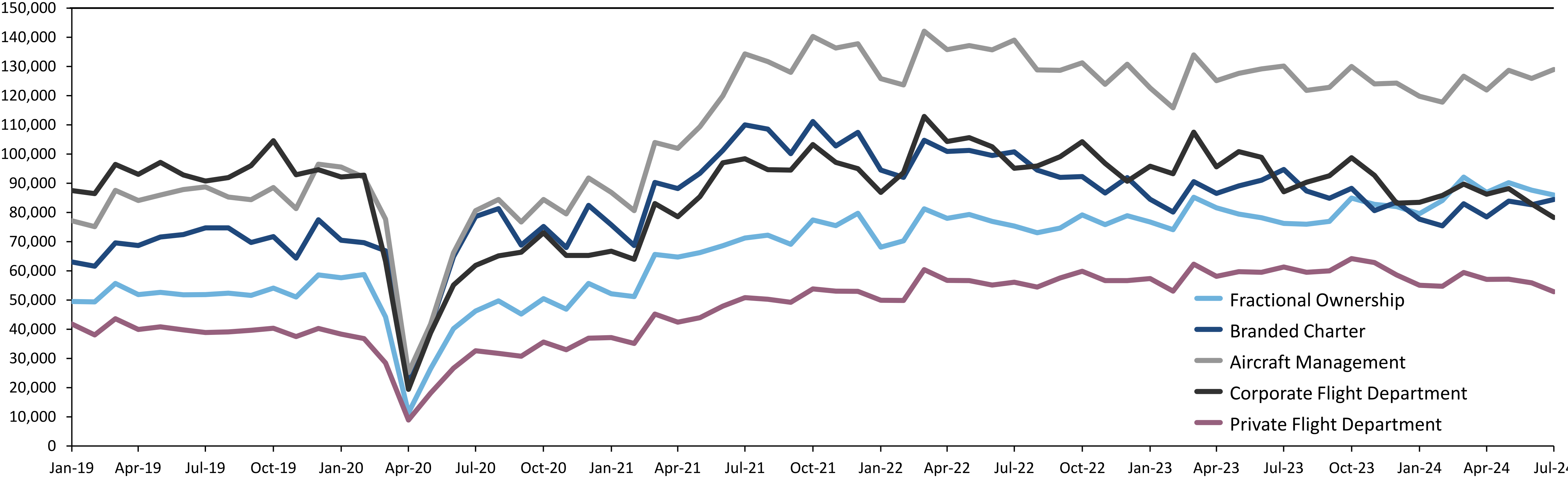
*Bizjets only: **Turboprops excluded**, Sep 23 through Aug-24*

Source: WINGX; Global ATC and ADSB records

Global - Activity by Operator Type

Fractional Ownership and Aircraft Management hours have increased by most since Covid

Business Jet Hours by Month



	Global Hours						Indexed to 2019						CAGR		YoY	Share			
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23	2019	2023	L12M	Δ
Fractional Ownership	630,376	532,690	813,629	910,847	954,113	606,548	100	85	129	144	151	167	10.9%	4.8%	10.0%	14.3%	16.1%	17.1%	2.8%
Branded Charter	839,678	790,677	1,157,659	1,151,133	1,041,285	565,490	100	94	138	137	124	117	5.5%	(9.5%)	(8.3%)	19.0%	17.5%	16.8%	(2.2%)
Aircraft Management	1,022,643	895,910	1,411,188	1,582,675	1,507,796	869,801	100	88	138	155	147	148	10.2%	(4.7%)	(1.7%)	23.2%	25.4%	25.3%	2.2%
Corporate Flight Department	1,124,560	758,400	1,057,773	1,187,820	1,136,642	594,699	100	67	94	106	101	92	0.3%	(4.3%)	(12.4%)	25.5%	19.1%	17.9%	(7.6%)
Private Flight Department	479,807	357,764	561,910	669,973	716,371	392,314	100	75	117	140	149	139	10.5%	6.9%	(4.6%)	10.9%	12.1%	11.8%	1.0%
Total	**4,097,064**	**3,335,442**	**5,002,158**	**5,502,449**	**5,356,207**	**3,028,852**	**100**	**81**	**122**	**134**	**131**	**128**	**6.9%**	**(2.7%)**	**(3.6%)**	**92.8%**	**90.2%**	**89.0%**	**(3.9%)**

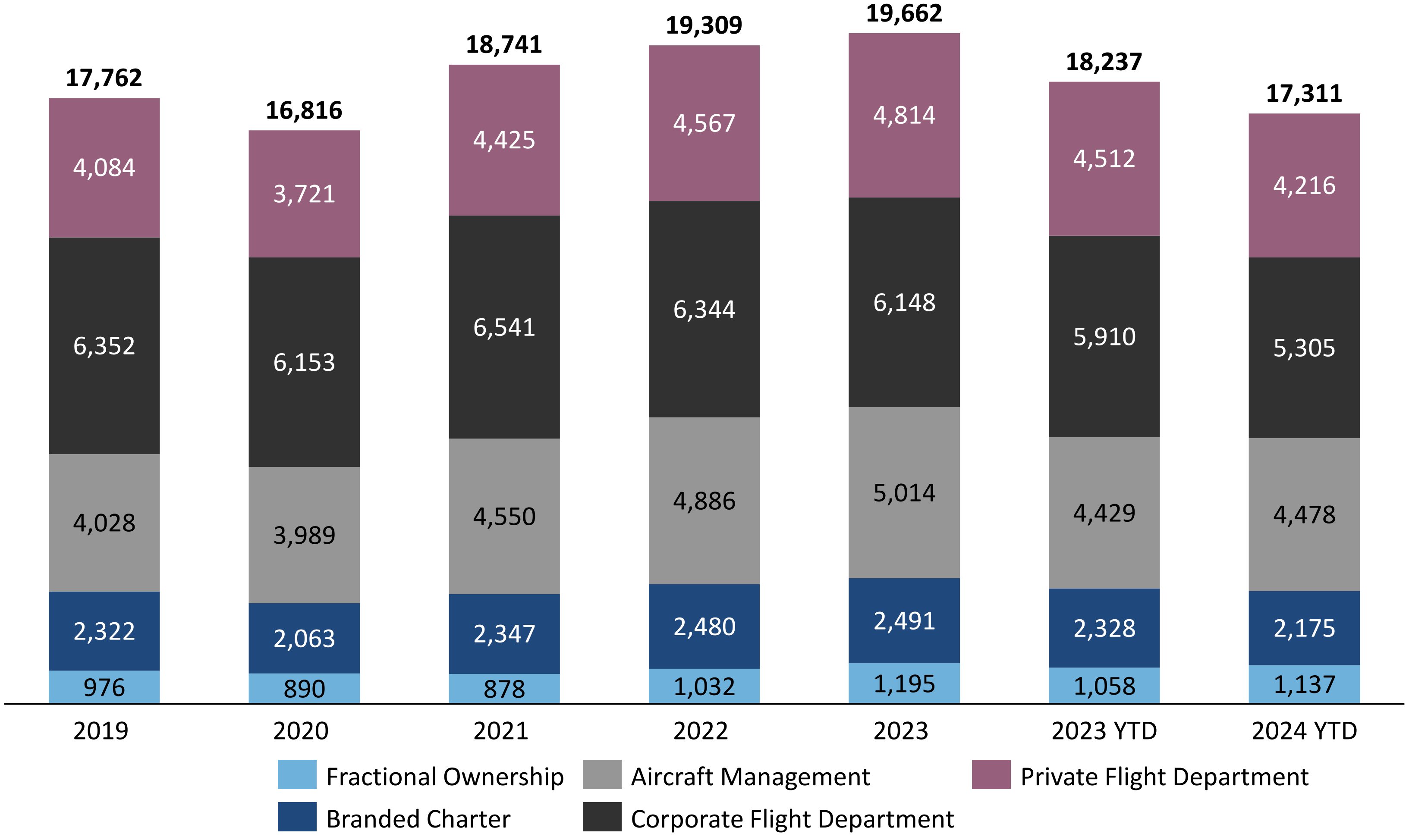
*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

North America – Active Business Jet Fleet Size by Operator Type

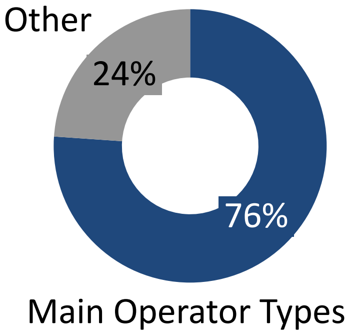
Fractional fleet size has continued to grow substantially in 2024 vs material drop in active tails in CFD

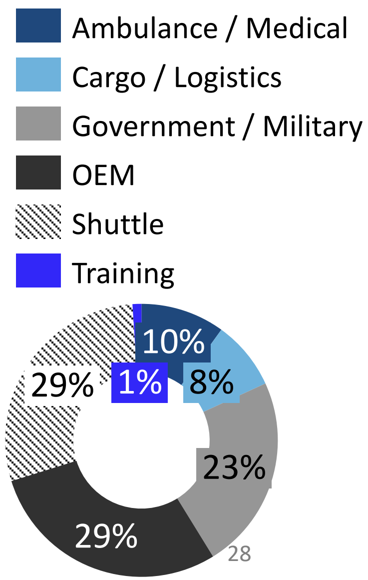
Business Jet Active Fleet



Growth

	CAGR '19-'23	YTD '24 vs '23
Fractional	+5.2%	+7.5%
Charter	+1.8%	(6.6%)
Management	+5.6%	+1.1%
Private	+4.2%	(6.6%)
Corporate	(0.8%)	(10.2%)

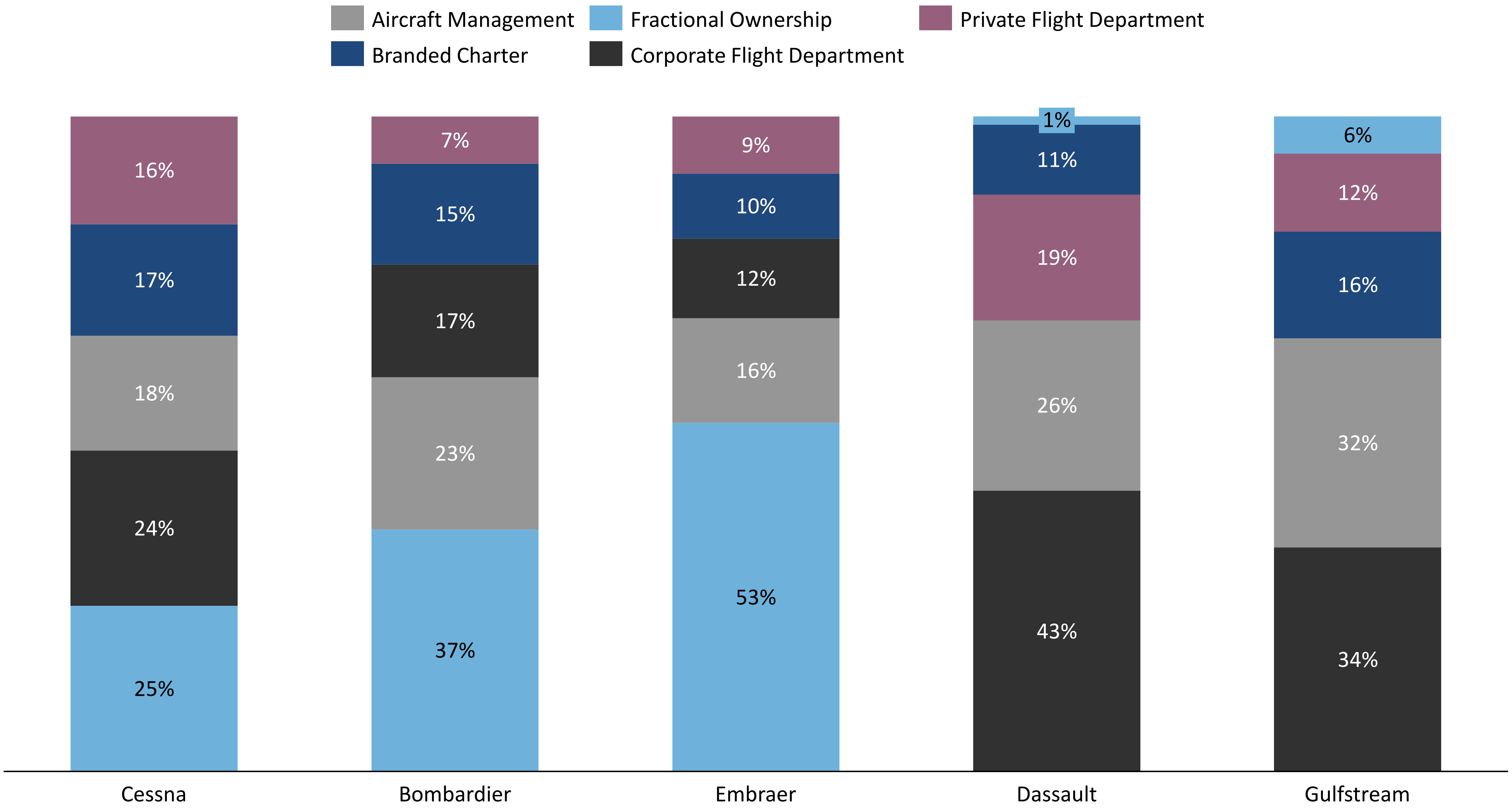




*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

North America – OEMs Flown by Operator Types (L12M departures)

Embraer has 53% of activity in Fractional, Gulfstream only 6%, with 34% in Corporate

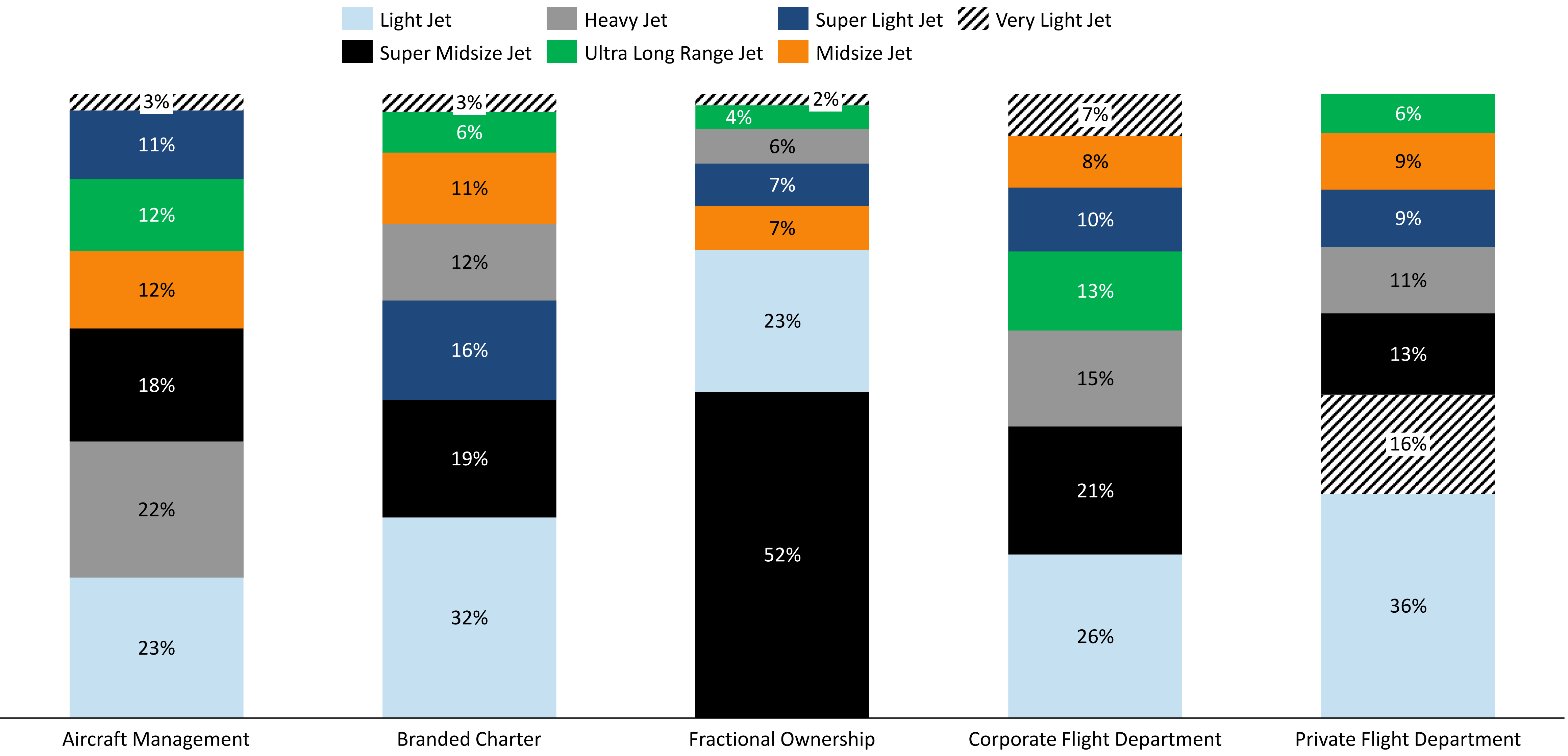


*Bizjets only: **Turboprops excluded**, data Sep-23 through Aug-24*

Source: WINGX; Global ATC and ADSB records

North America - Aircraft Segments Flown By Operator Type (L12M departures)

Note the large share of SMJ in Fractional, LJ in management, charter, corporate, and private



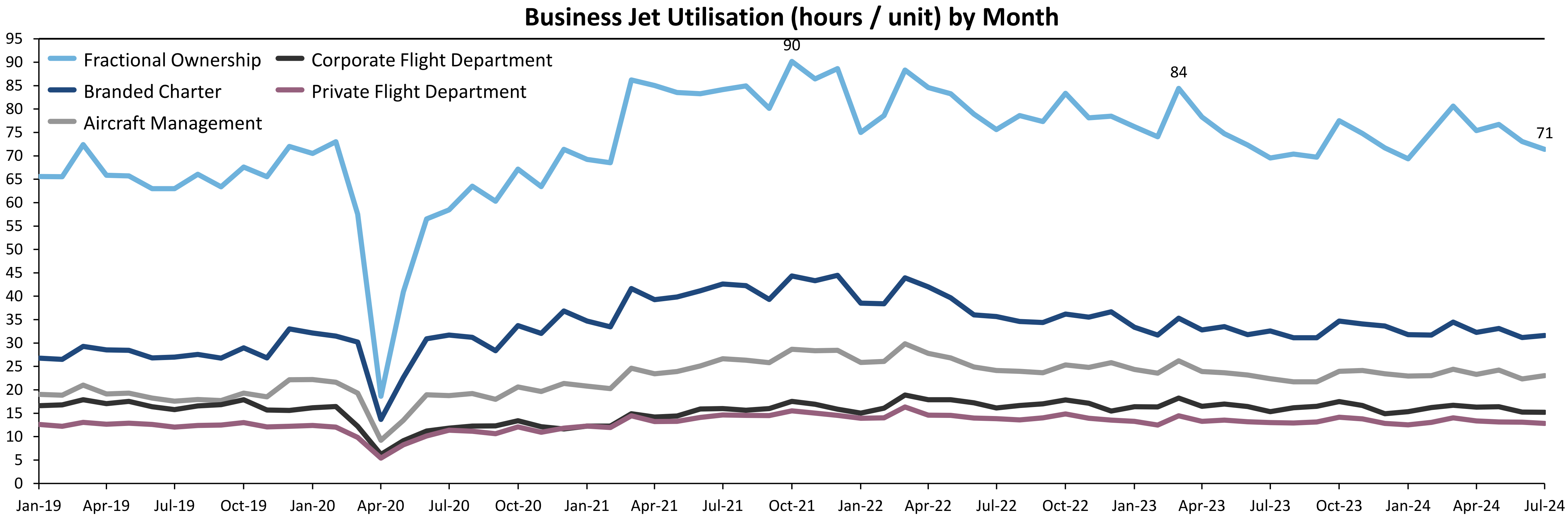
*Bizjets only: **Turboprops excluded**, data Sep-23 through Aug-24*

Source: WINGX; Global ATC and ADSB records

North America – Aircraft Utilisation by Operator Type

North America operator type utilization trends similar to global trends

WINGX a JETNET company



	Average Aircraft Utilisation						Indexed to 2019						CAGR		YoY
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23
Fractional Ownership	66	58	83	80	74	75	100	88	124	121	112	113	*2.9%*	*(6.9%)*	*(1.5%)*
Branded Charter	28	30	41	38	33	32	100	105	145	134	118	117	*4.1%*	*(12.4%)*	*(2.1%)*
Aircraft Management	19	19	25	26	24	23	100	97	132	135	123	123	*5.4%*	*(8.7%)*	*(2.3%)*
Corporate Flight Department	17	12	15	17	16	16	100	72	91	101	99	94	*(0.4%)*	*(2.7%)*	*(4.1%)*
Private Flight Department	13	11	14	14	13	13	100	84	112	114	106	105	*1.6%*	*(6.5%)*	*(1.1%)*
Total Average	**29**	**26**	**35**	**35**	**32**	**32**	**100**	**91**	**124**	**122**	**113**	**112**	***3.0%***	***(7.9%)***	***(2.0%)***

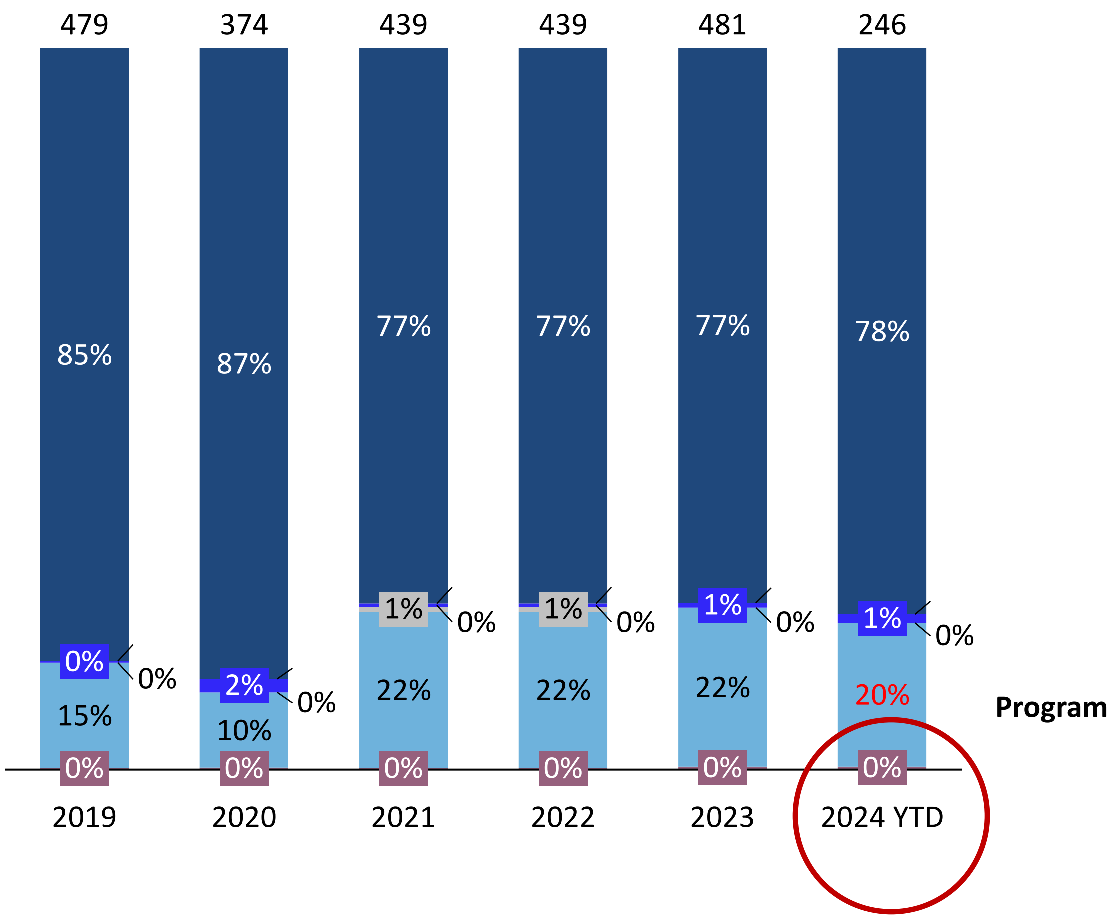
Bizjets only: ***Turboprops excluded****, data through July-24*

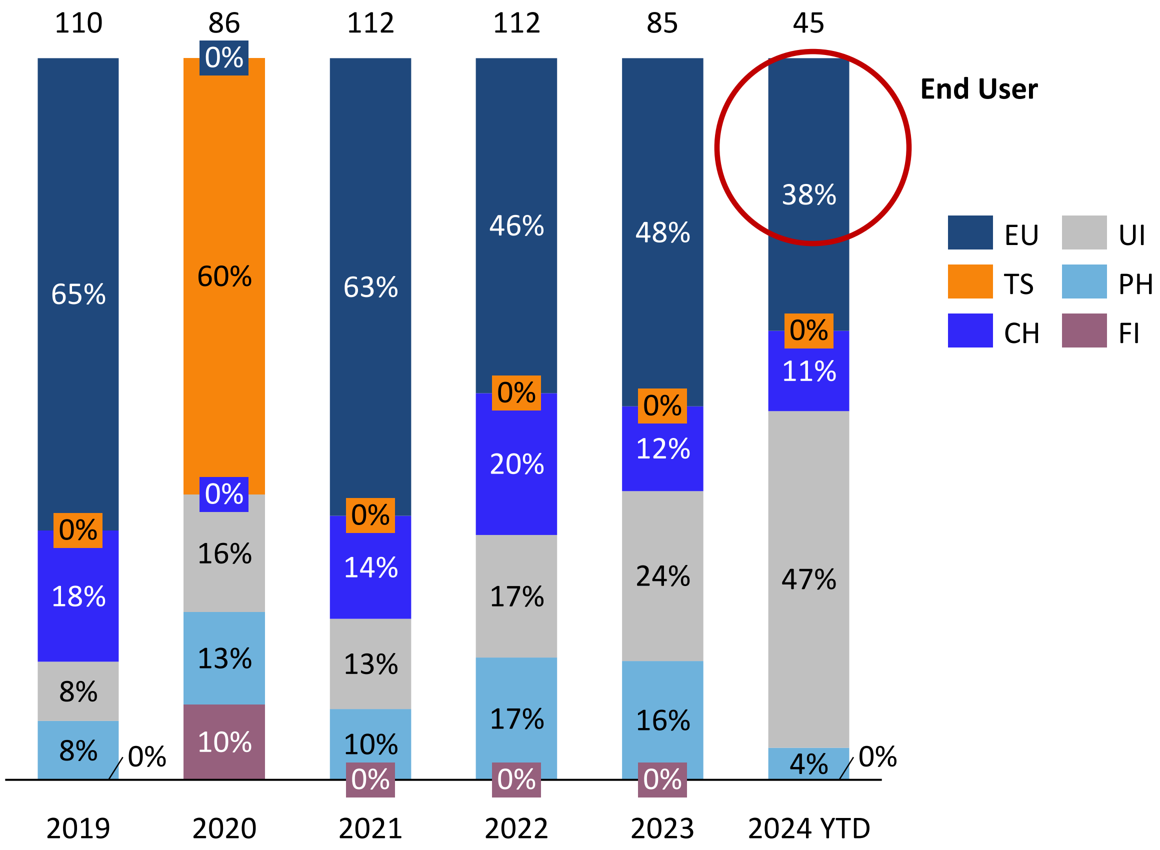
Source: WINGX; Global ATC and ADSB records

Deliveries by Recipient type

Program Holders taking increasing share – in the US.

EU = End User
TS = Technical School
CH = Charter Company
UI = Unidentified
PH = Program Holder
FI = Financial Institution





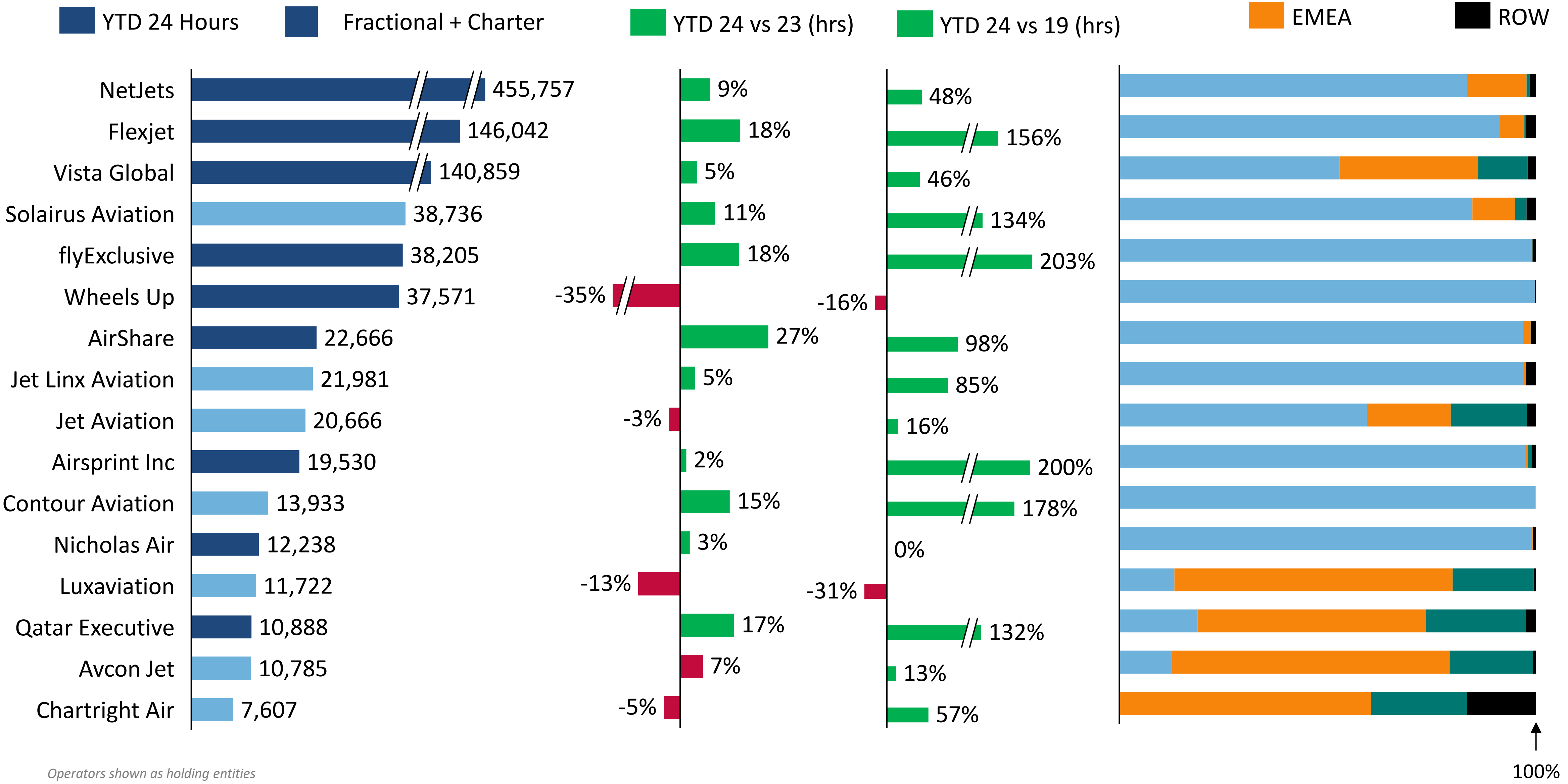
Bizjets only: ***Turboprops excluded****, data through July-24*
Source: JETNET

Contents

Business Aviation = non-scheduled flights on business jet and turboprop aircraft types
Source: WINGX; Global ATC and ADSB records

Global – Top Operators (all operator types) – activity growth

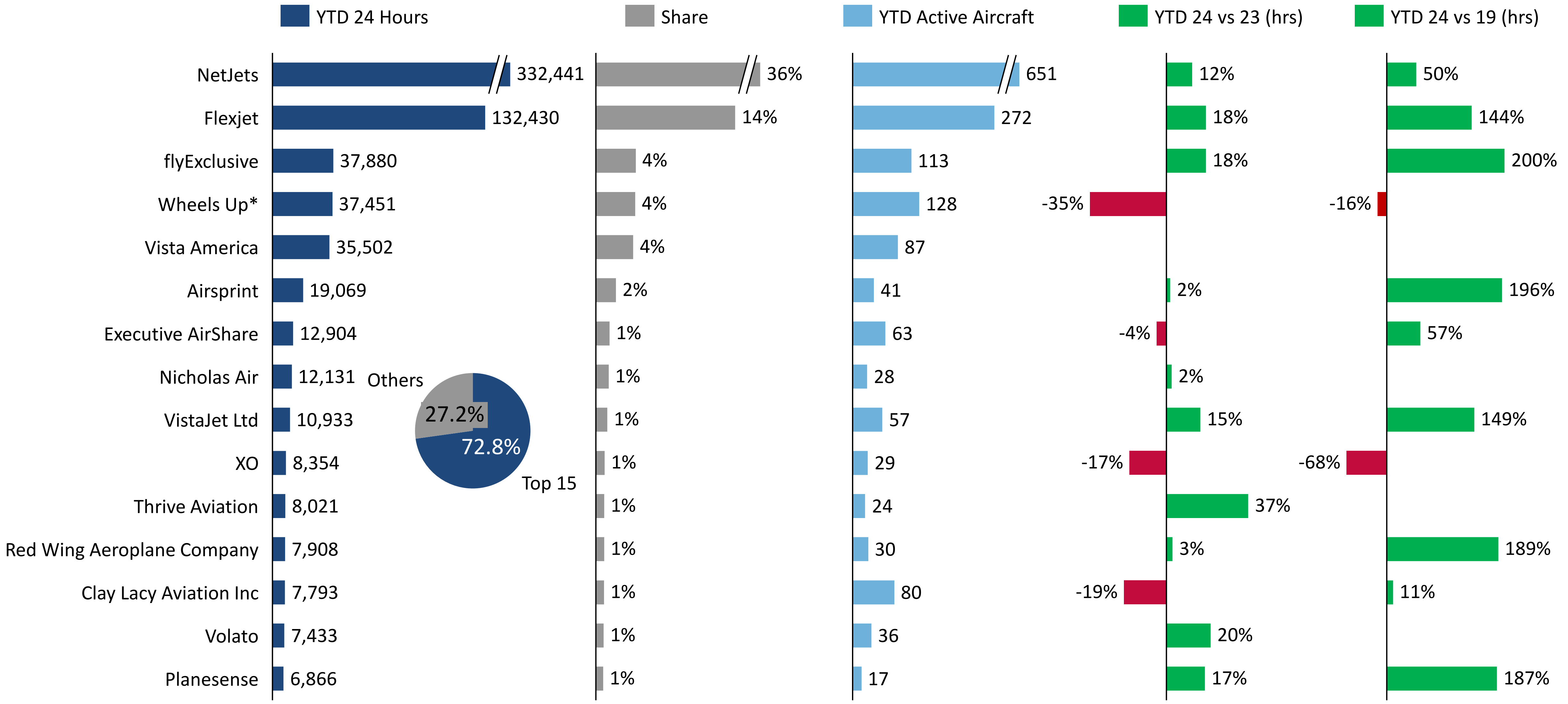
Eight out of the top 10 operators growing activity >market trend in 2024 (taking share)



Operators shown as holding entities
*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

North America YTD 2024 – Top Charter + Fractional Operators

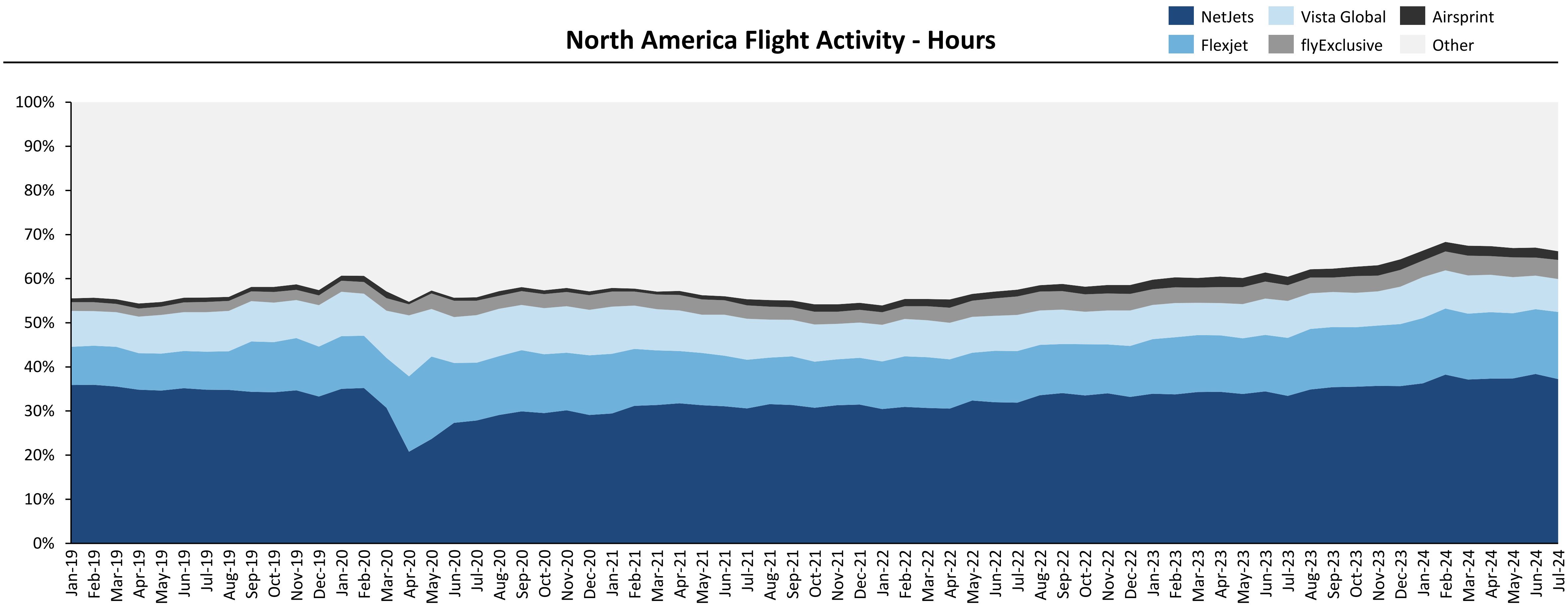
Top 10 operators in North America account for 73% of all Charter and Fractional hours.



**Only Wheels Up being shown as entire operator holding entity*
*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

North America – Top 5 Fractional + Charter Operator Shares

Note Other Charter and Fractional Operators' market share steady decline since 2019

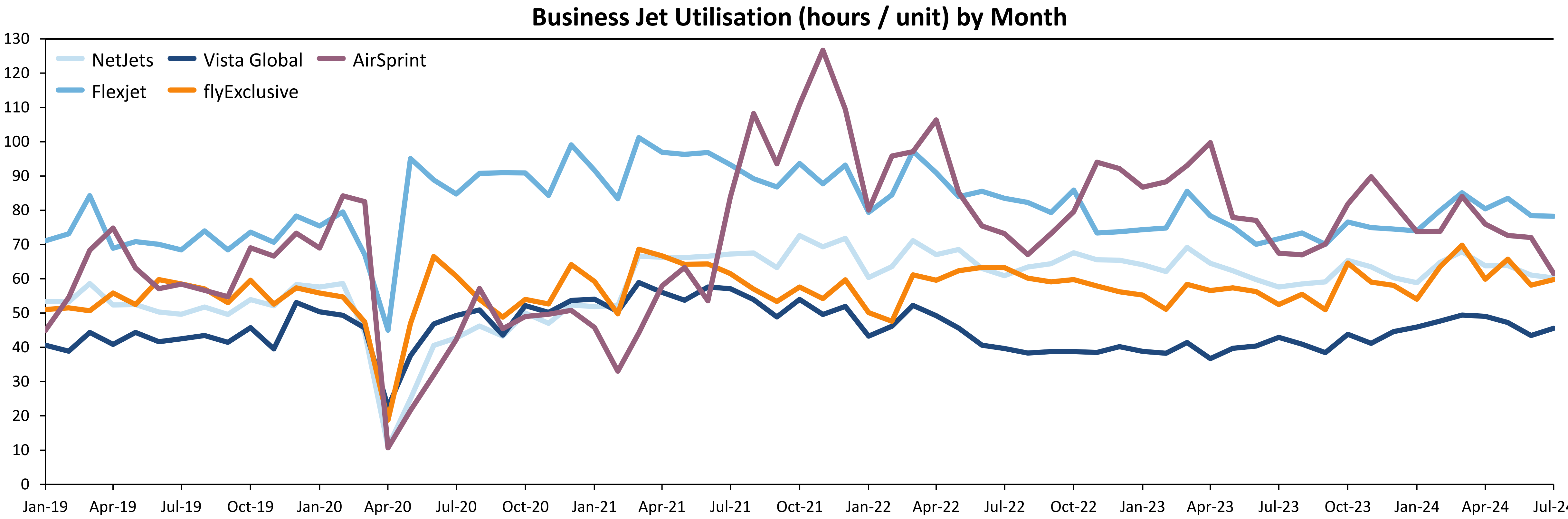


Hours Share	2019	2020	2021	2022	2023	YTD 2024	Δ
NetJets	34.8%	29.9%	31.1%	32.2%	34.6%	37.4%	2.6%
Flexjet	9.6%	13.3%	11.4%	11.3%	13.2%	14.9%	5.3%
Vista Global	8.7%	10.5%	8.9%	8.0%	7.9%	8.3%	-0.3%
flyExclusive	2.1%	3.1%	3.1%	3.7%	3.6%	4.2%	2.1%
AirSprint	1.1%	1.0%	1.2%	1.7%	2.2%	2.2%	1.1%
Other	43.7%	42.3%	44.2%	43.1%	38.6%	32.9%	-10.8%

*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

North America – Aircraft Utilisation by Top Operators

Vista Global seeing greatest growth in utilization vs 2023 YTD, but AirSprint biggest growth vs 2019 YTD

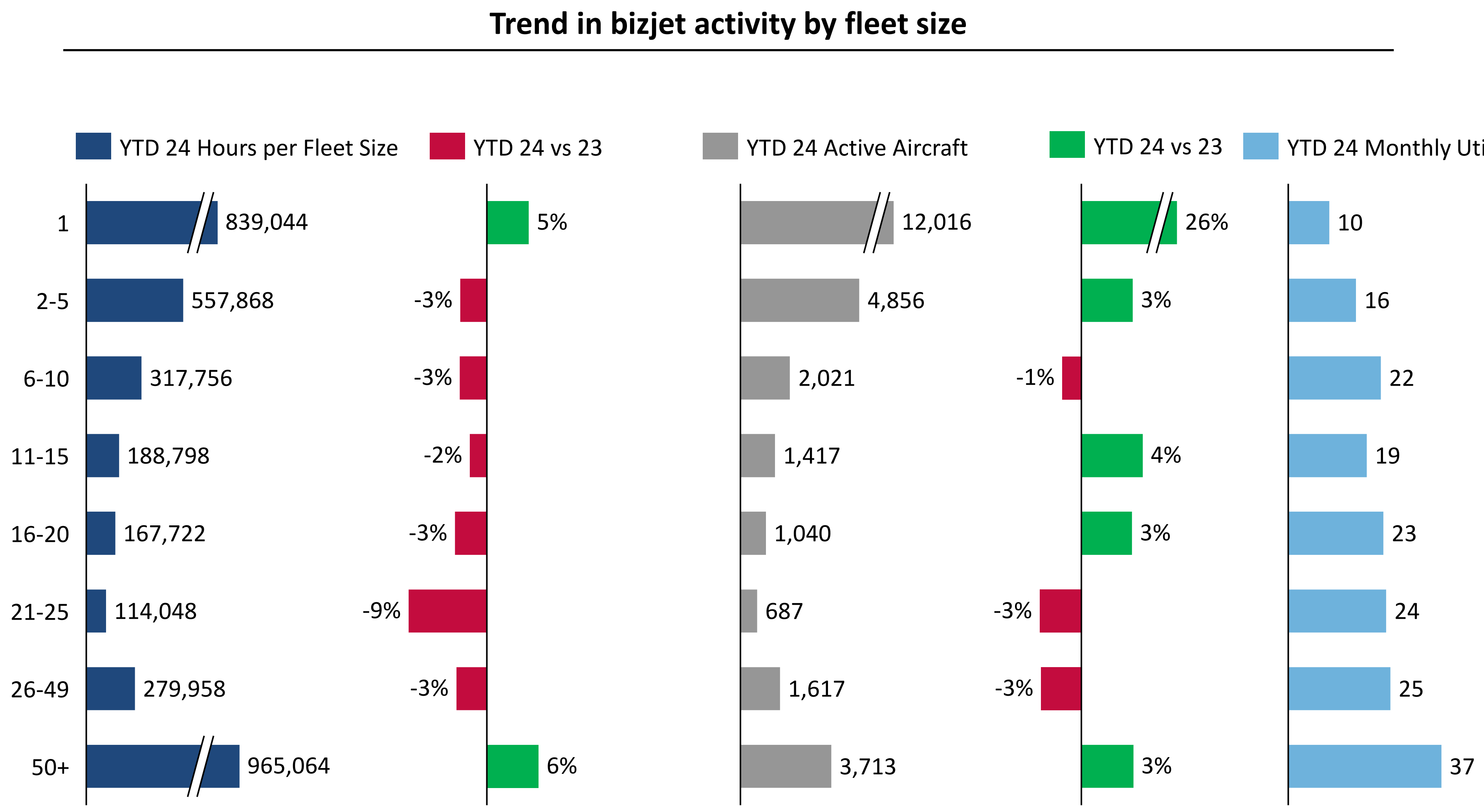


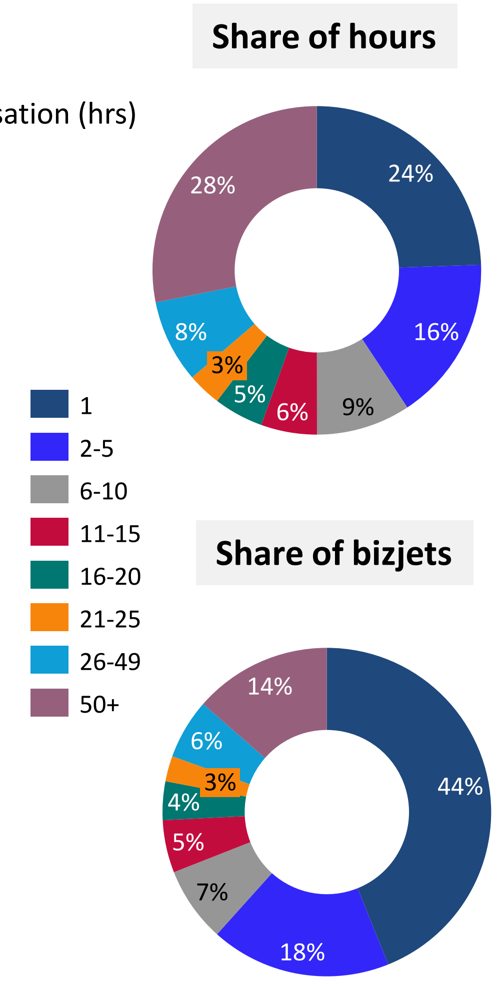
	Average Aircraft Utilisation						Indexed to 2019						CAGR		YoY
	2019	2020	2021	2022	2023	YTD 2024	2019	2020	2021	2022	2023	YTD 2024	'19-'23	'22-'23	YTD '24 vs YTD '23
NetJets	53	43	65	65	62	63	100	82	123	123	117	119	*4.1%*	*(4.4%)*	*0.2%*
Flexjet	73	83	93	83	75	80	100	114	127	115	103	110	*0.8%*	*(10.0%)*	*5.6%*
Vista Global	43	46	54	43	41	47	100	107	125	99	94	112	*(1.4%)*	*(4.7%)*	*18.0%*
flyExclusive	55	52	60	58	56	62	100	95	109	106	102	113	*0.6%*	*(3.6%)*	*11.2%*
AirSprint	62	50	78	85	82	73	100	80	125	137	132	122	*7.2%*	*(3.8%)*	*(12.9%)*
Total Average	**57**	**55**	**70**	**67**	**63**	**65**	**100**	**96**	**122**	**117**	**111**	**115**	***2.6%***	***(5.5%)***	***2.1%***

Bizjets only: ***Turboprops excluded****, data through July-24*
Source: WINGX; Global ATC and ADSB records

Global - Big fleets (mainly program providers) have strongest growth trends

Largest operators = 28% activity



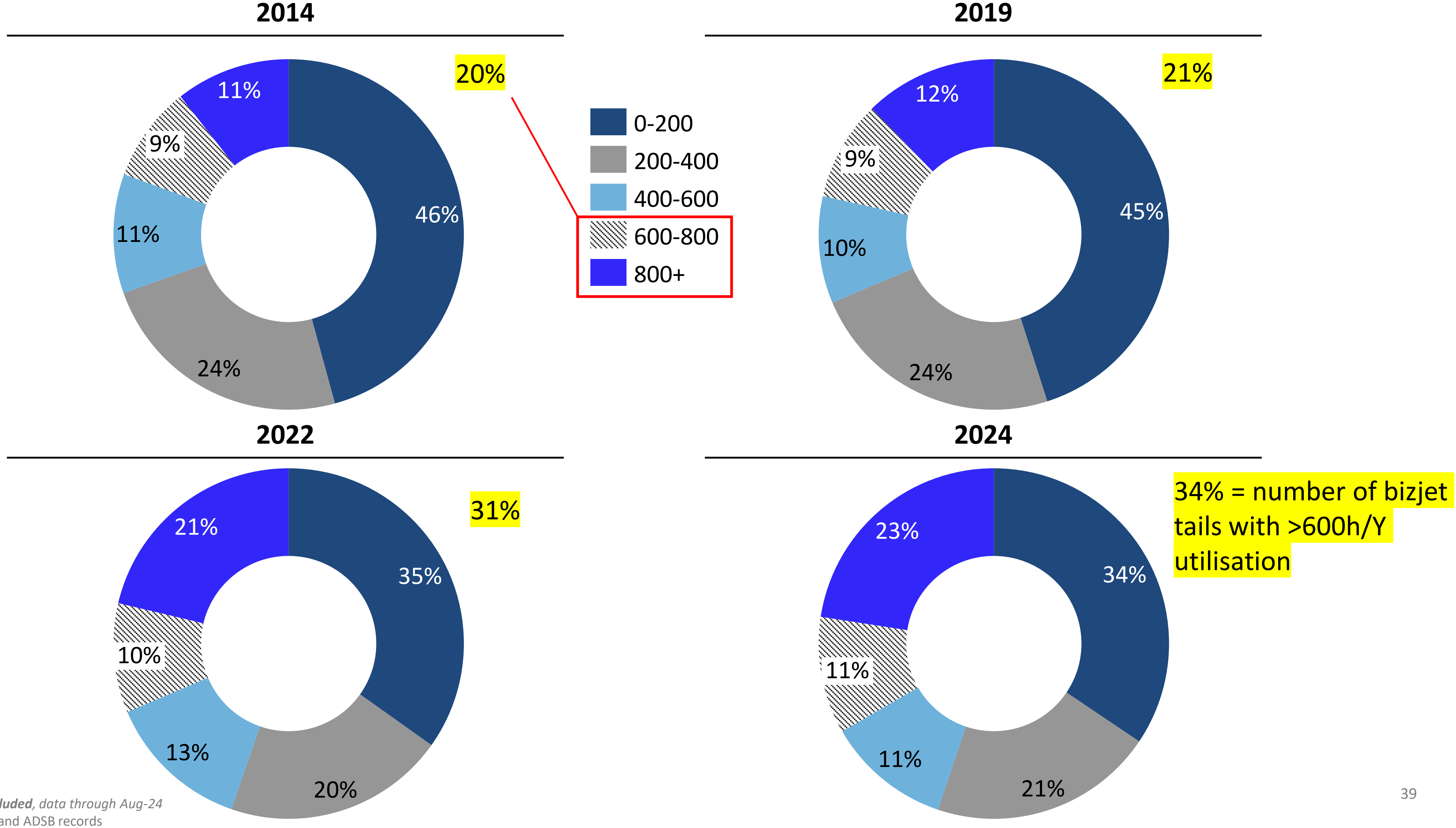


*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

Shift to high utilisation fleets in North America (Charter and Fractional)

Growing number of tails flying >600 hours, showing growth amongst high utilisation operators

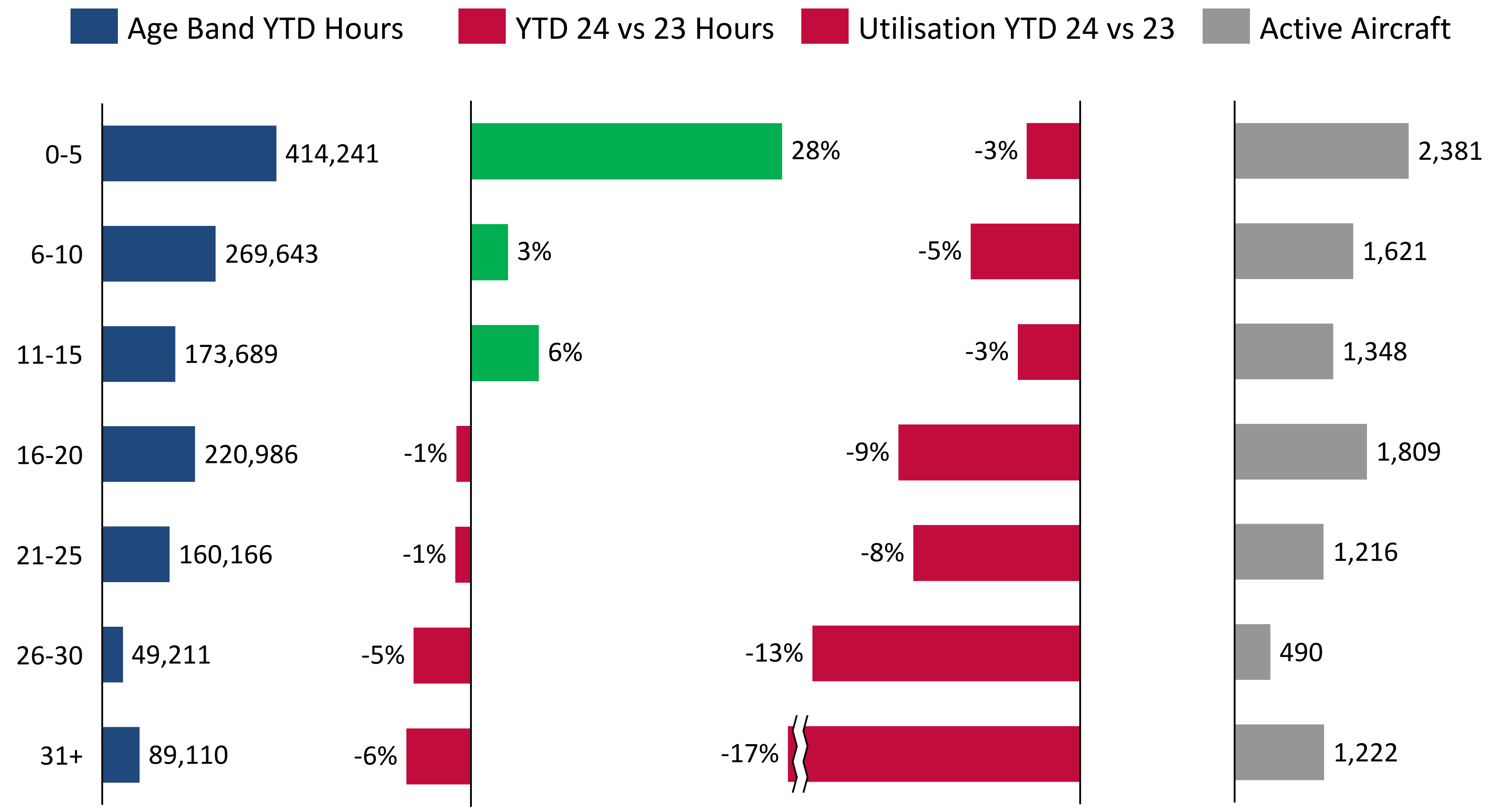


*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

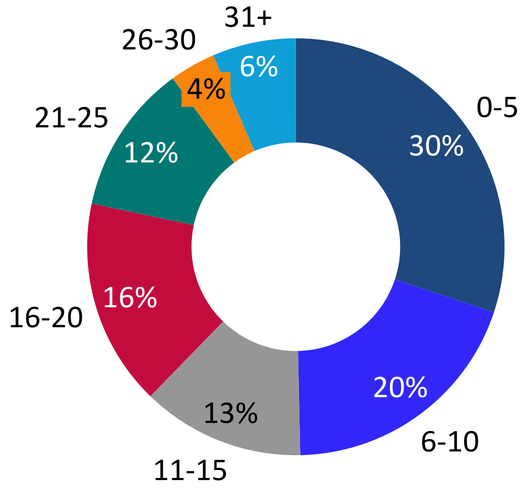
North America - Business Jet Activity by Aircraft Age

Newest aircraft adding by far the most flight hours (30% share) – although utilisation is down vs 2023

Trend in bizjet activity by aircraft age



Share of Flight Hours by Age Band



Note: Analysis taken from cohort of tails with known aircraft age. Not all active North American tails included in analysis
*Bizjets only: **Turboprops excluded**, data through July-24*
Source: WINGX; Global ATC and ADSB records

Contents

Business Aviation = non-scheduled flights on business jet and turboprop aircraft types
Source: WINGX; Global ATC and ADSB records

WINGX
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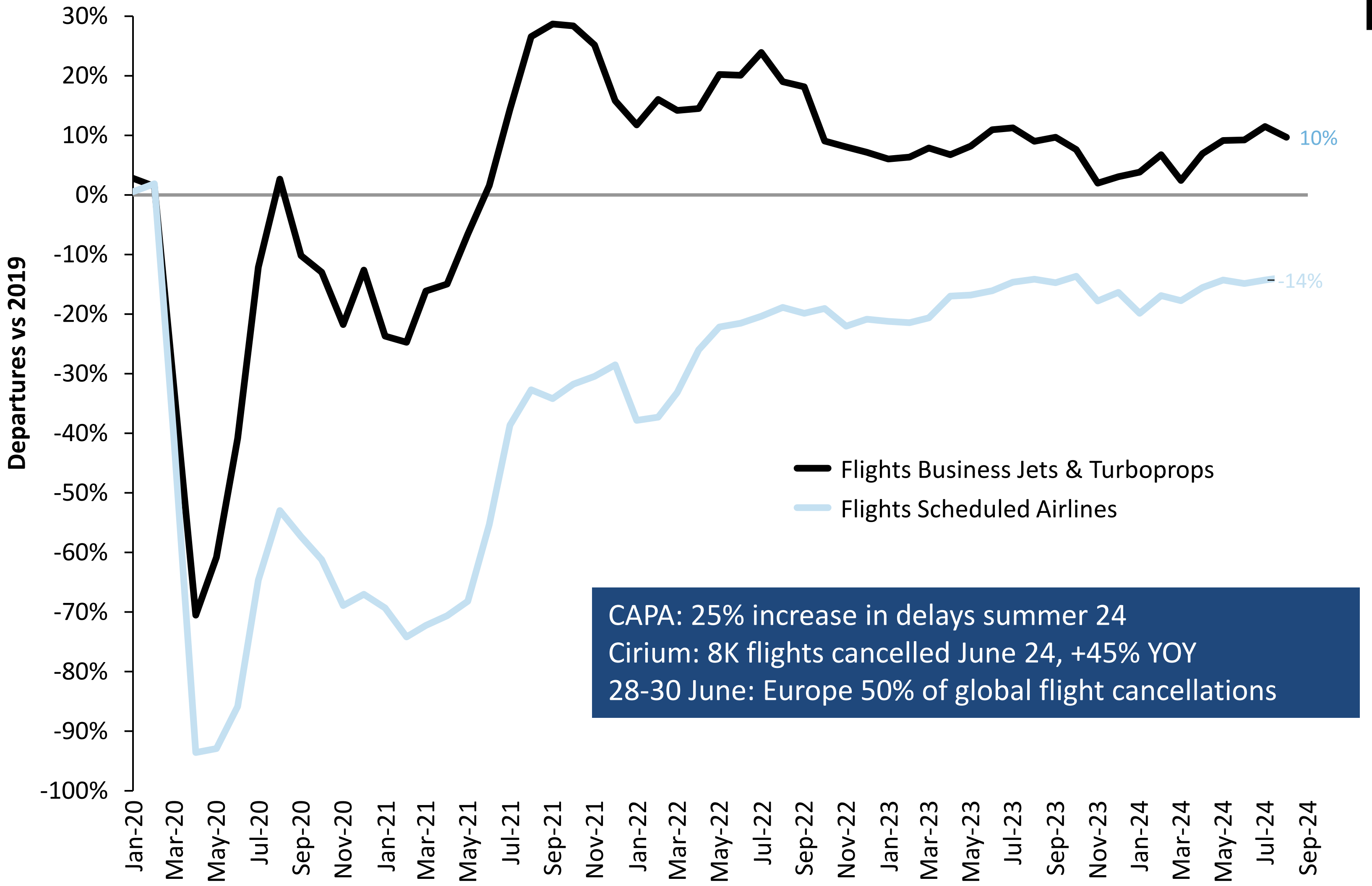
Macro risk is not yet undermining a supply-constrained market...

Key Factors	Evidence & Insights	Next 12M outlook	Significance	Direction
Behavioural factors	Pandemic experience impact on health, security concerns. >50% of buyers in 21-22 1st timers	Diminished, but still a factor; new user conversion has proved sticky, especially HNWI segment.	◕	↗
Geo and Macro Instability	Global lockdowns, Ukraine war, M-E conflict elevated risk, uncertainty and macro instability	Geopolitical risks escalating, could reflate economy and subdue business investment.	◕	→
Airline services	Covid airline shutdown and hesitant recovery clearly encouraged shift to bizav.	Less potent as schedules recover but poor airline connectivity is keeping bizav conversion sticky.	◑	↗
Ultra Wealth Creation	QE surge during Covid boosted ultra wealth, liquidity transfer to bizav assets and services	UHNWI growth still strong but direct challenge from wealth tax and broader populist risks.	◑	↗
Bizav Optics	Pandemic-era utility beneficial to bizav-as-utility optics, but ebbed as climate concerns elevated	Climate concerns resetting toxic bizav reputation - clearest impact on corporate demand	◑	→
Supply chains	Geopolitical shocks since 2020 distorted industry supply chains & suppressed HR resource	Supply chain pressures easing but still under-served demand (OE), long-term issues in HR	◔	→

Source: WINGX; Global ATC and ADSB records

Convenience of bizjets vs lagging airline service levels, Europe

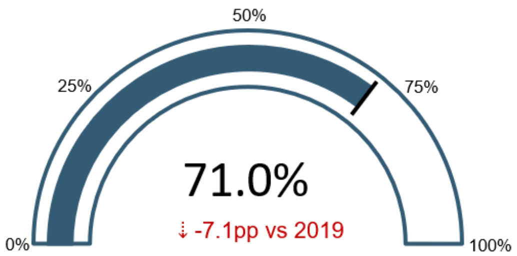
Still a factor in bolstering bizav activity



CAPA: 25% increase in delays summer 24
Cirium: 8K flights cancelled June 24, +45% YOY
28-30 June: Europe 50% of global flight cancellations

AIRLINE SERVICE PUNCTUALITY IN EUROPE 2023

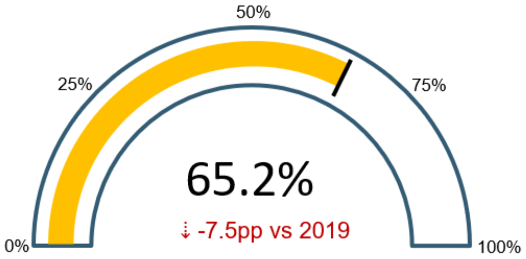
Arrival punctuality (01/01 to 30/12)



August W4 2024 61.4%

78.1%____________ in 2019
71.3%____________ in 2022

Departure punctuality (01/01 to 30/12)



August W4 2024 60.5%

72.6%____________ in 2019
65.9%____________ in 2022

Source: Eurocontrol, Feb 2024

Bizjets & Turboprops , data through Aug-24
Source: WINGX; Global ATC and ADSB records

Comparing connectivity...case study UK

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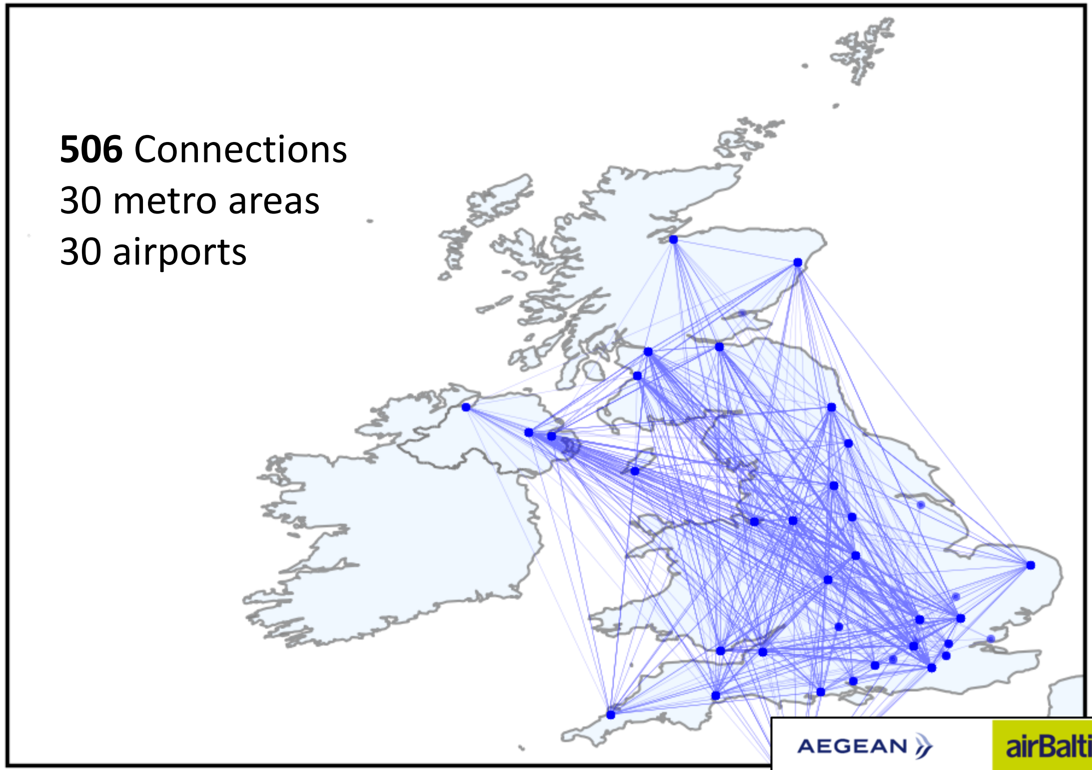
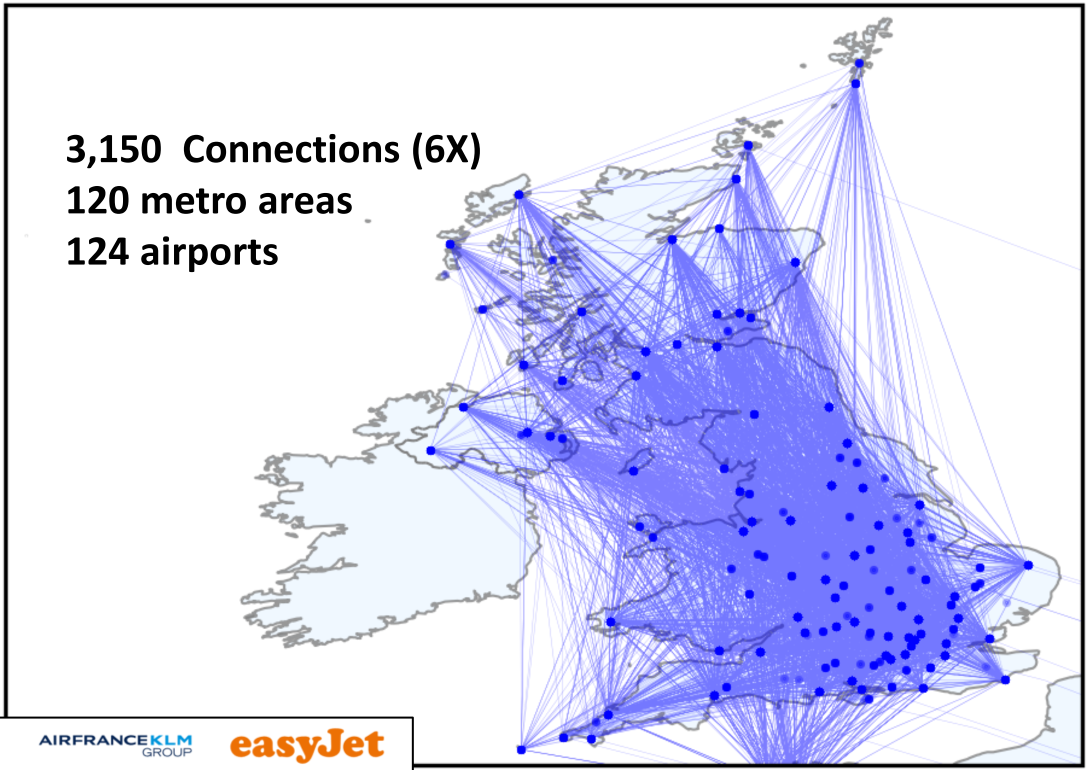
A4E + Wizz Air



Business Aviation

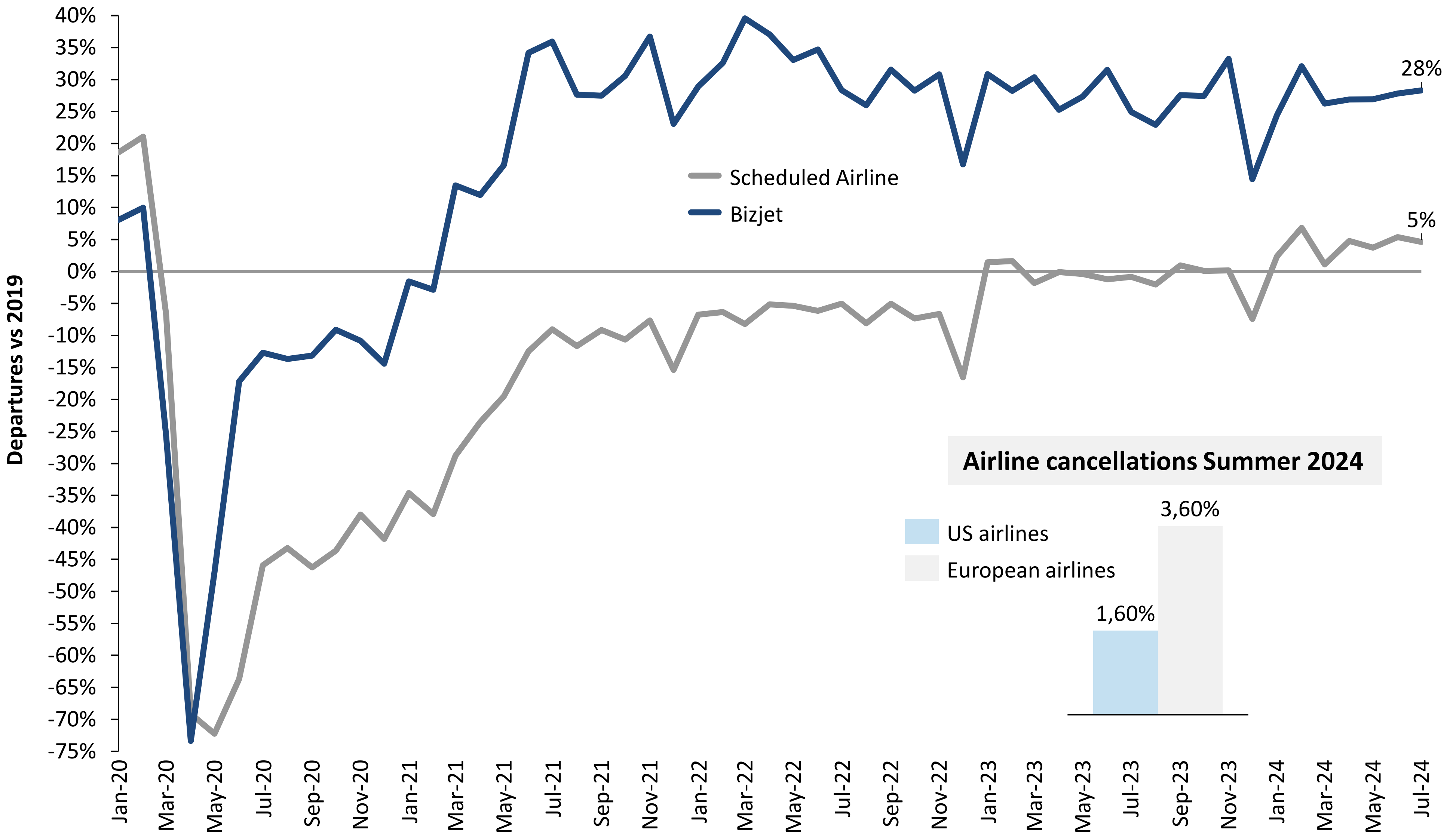


Group of the top 16 Airline (A4E + Wizz) holdings in Europe. Representing 70% of European airline traffic

AEGEAN, airBaltic, AIRFRANCEKLM GROUP, easyJet, FINNAIR, IAG INTERNATIONAL AIRLINES GROUP, ICELANDAIR, Jet2.com Friendly low fares, LUFTHANSA GROUP, norwegian, RYANAIR, smartwings, TAP AIR PORTUGAL, TUI, VOLOTEA, Wizz

Source: WINGX, ATC, ADSB
Business jets only

US - Bizav demand still also benefits from slow airline recovery



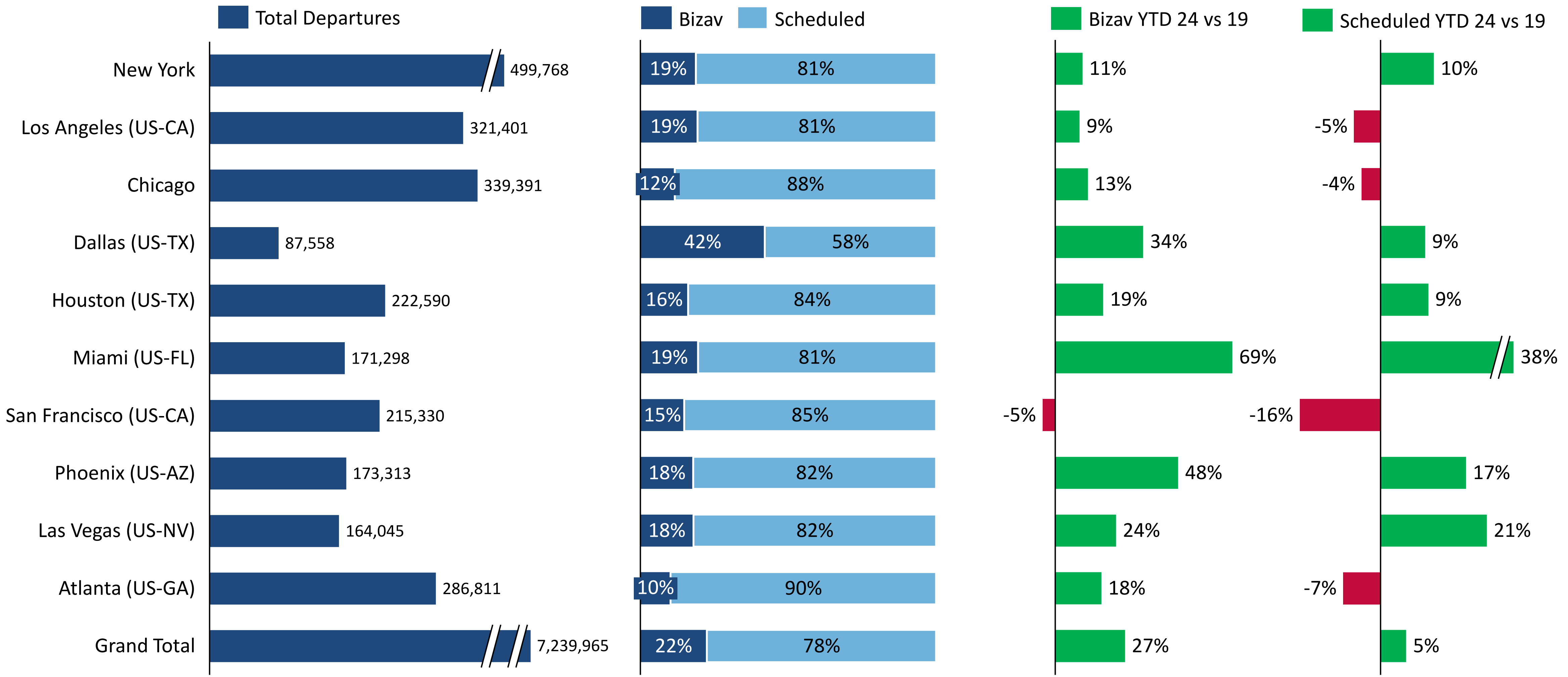
Source: Cirium

*Bizjets only: **Turboprops excluded**, data through July-24*

Source: WINGX; Global ATC and ADSB records

US – top Bizjet departure cities vs scheduled operations

US bizjet departures up 27% vs overall US scheduled departures at 5%. Overall, bizjet represent 22% of departures.

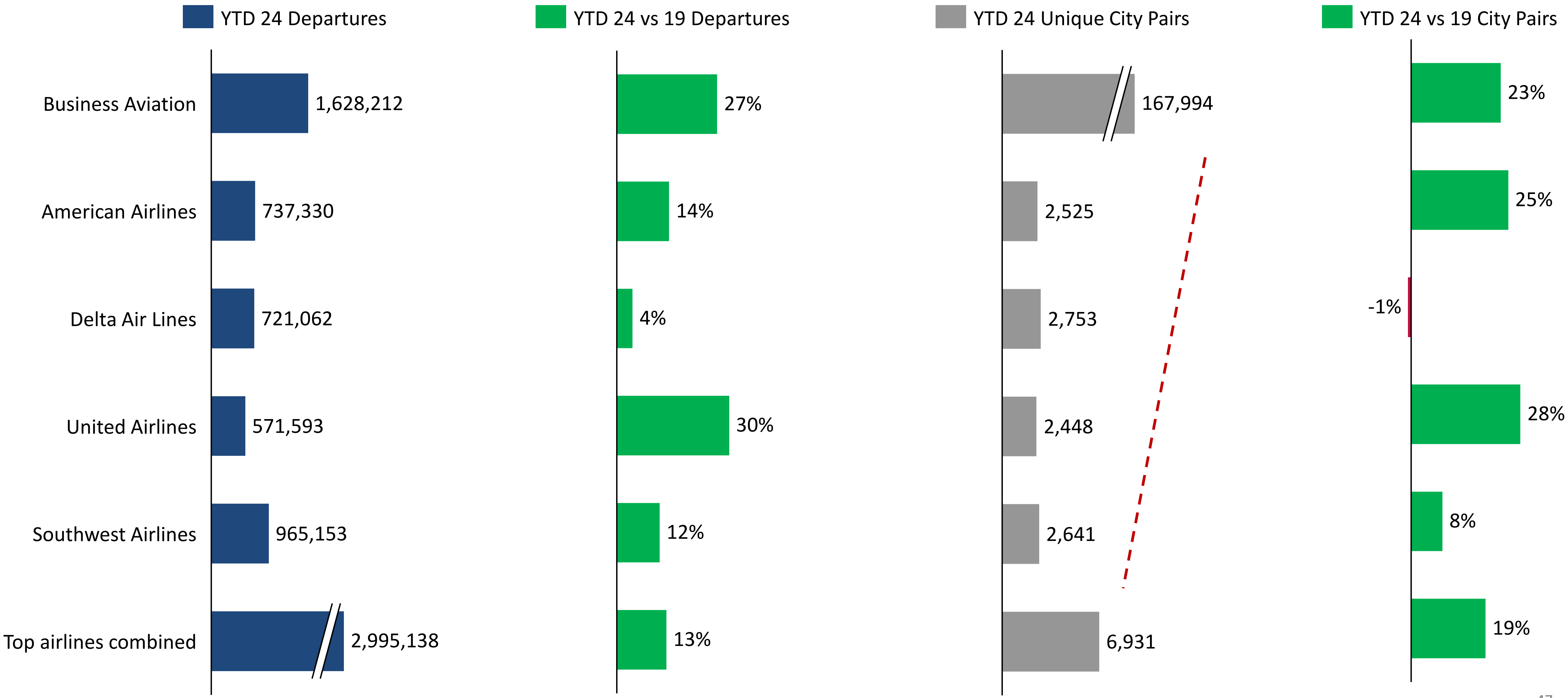


Bizjets only: ***Turboprops excluded****, data through Aug-24*

Source: WINGX; Global ATC and ADSB records

US – unique connections served by bizjet vs major air carriers

US business jet departures provide 24x more unique city pairs than the major US air carriers

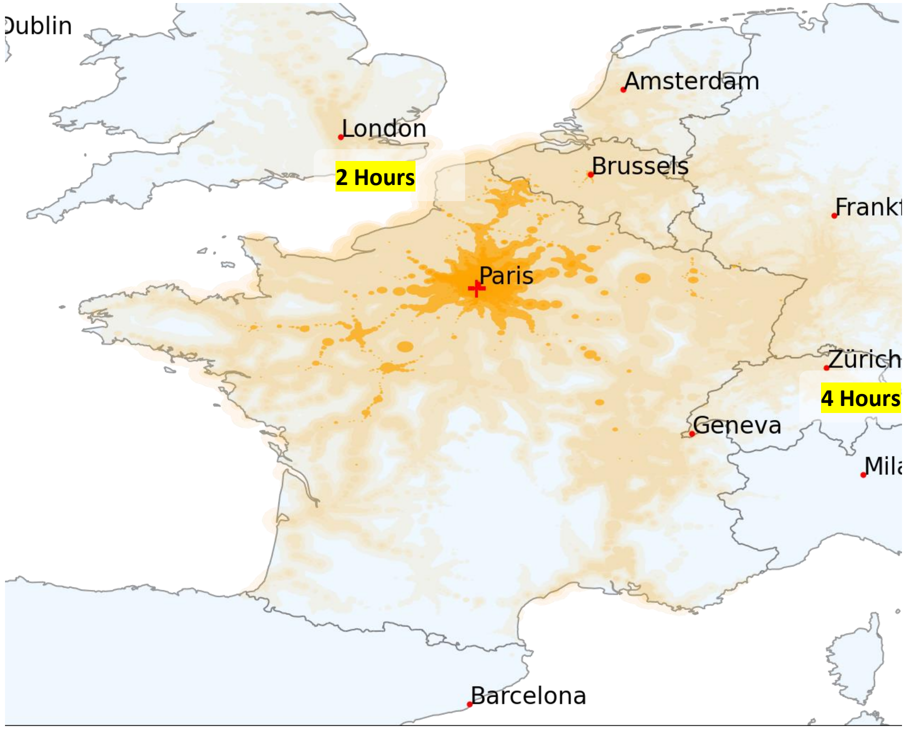


*Bizjets only: **Turboprops excluded**, data through Aug-24*
Source: WINGX; Global ATC and ADSB records

Must we take the train instead? Experiment in France

France domestic airline ban June 2023: Orly – Bordeaux, Lyon, Nantes = 4% of France domestic, reduces transport CO2 in France by 0.12%, but only if replaced by zero-emission alternatives

Paris



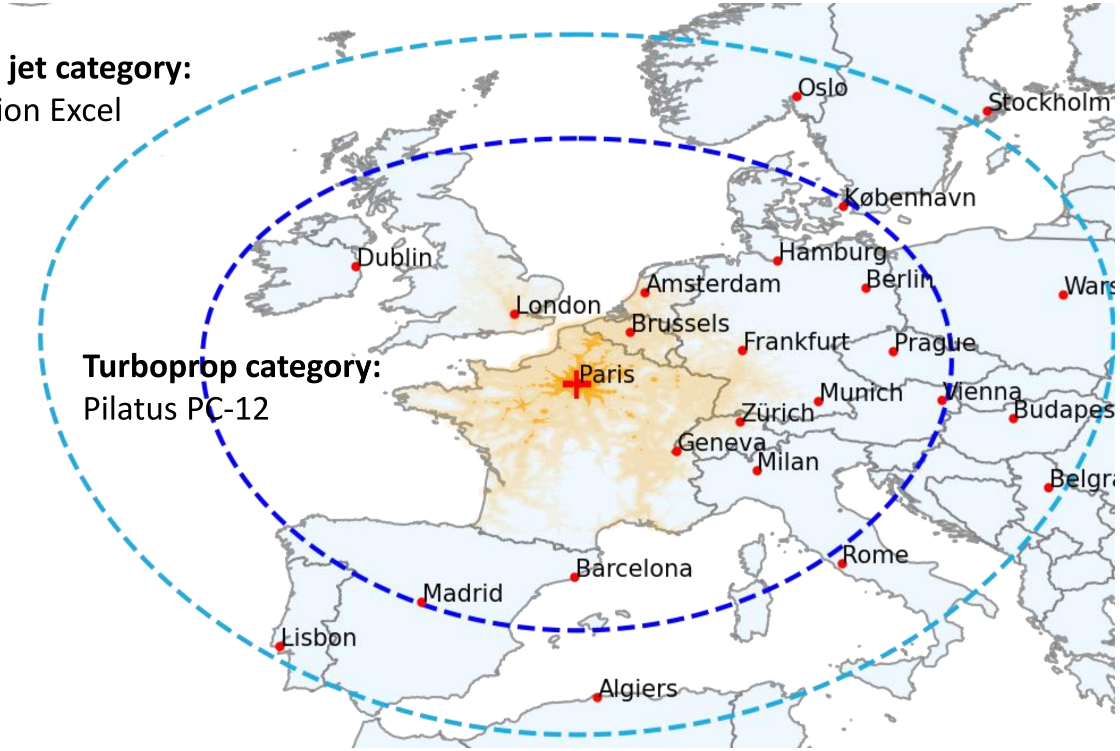
- **2** Cities within **2 hours**
- **80** Cities within **6 hours**

Examples:
- **Paris - London : 2 hours**
- **Paris - Zurich: 4.3 hours**

Paris

Light jet category:
Citation Excel

Turboprop category:
Pilatus PC-12

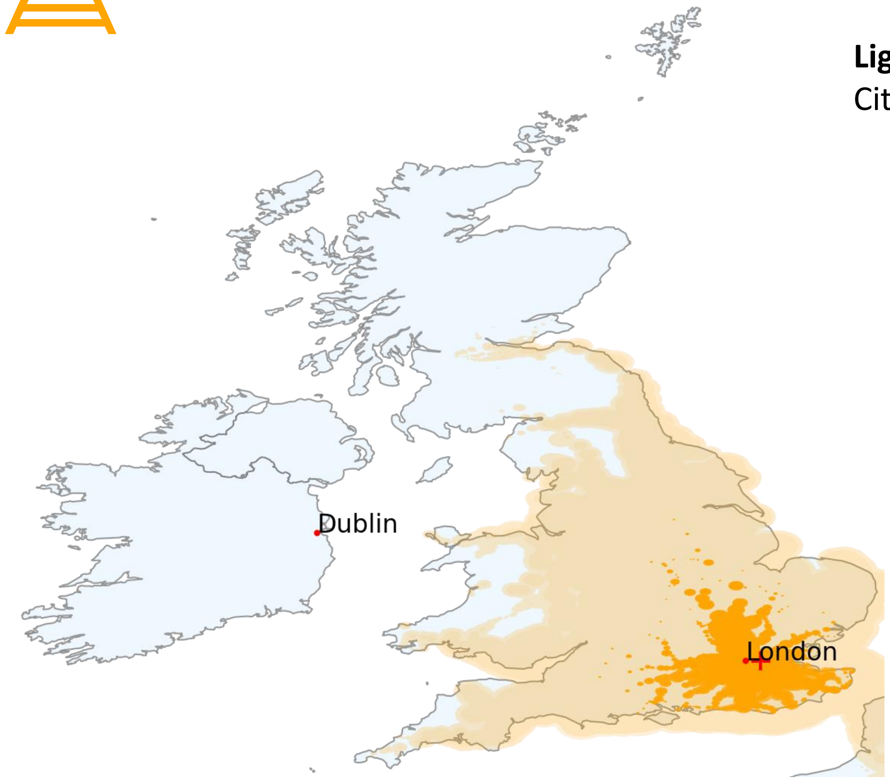


- **~ 220** Cities in **2 hours**
- **~ 320** Cities in **2 hours**

Source: WINGX; Global ATC and ADSB records

Environmental push back – Flygskam could become policy in Europe

London



- 10 Cities within 2 hours
- 74 Cities within 6 hours

City = metro area w >100,000 :

Examples:
- London - Manchester : 2.15 hours
- London – Paris: 2.20
- London - Aberdeen: >6 hours

London

Light jet category:
Citation Excel

Turboprop category:
Pilatus PC-12

- ~ 170 Cities in 2 hours
- ~ 230 Cities in 2 hours

Source: WINGX; Global ATC and ADSB records

Conclusions

- Business aviation activity has largely been sustained since **step-change in demand** following pandemic.
- The uptick compared to 2019 is clear in the **dominant US** market, not so much in Europe.
- Within the US, business jet demand has favoured **Texas and Florida**, less so North-East and California.
- Small jet fleet size and **activity has tapered**, with demand shifting to medium and large jets.
- In particular there is a clear **preference for Super Mid** and Ultra Long Range jets.
- **Fractional operations have flourished**, and appear to have migrated customers from other Operator Types.
- Notably, **Corporate Flight Departments are flying less**, and the smaller Charter operators are losing share.
- The **largest program-operating fleets are taking share**, with youngest aircraft much higher utilisation.
- Business jet travel patterns are relatively short-haul and **stronger to leisure than business** destinations.
- Comparative analysis suggests that business jet travel is **substituting for relatively poor airline** options.

Source: WINGX; Global ATC and ADSB records

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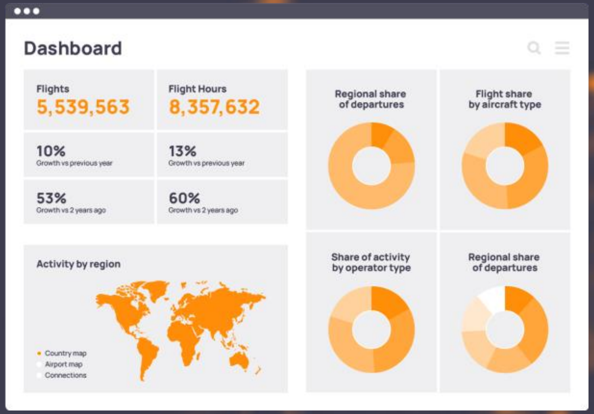

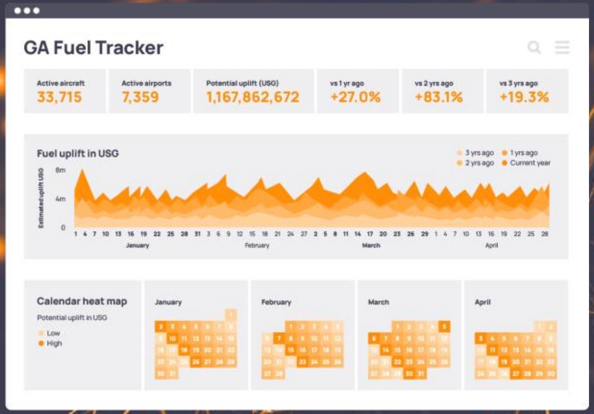

Request a demo of WINGX dashboards.