

William Blair

Aviation Services Industry Update

Q1 2023

Demand in 2023 is expected to remain strong but may be stymied by supply chain challenges and recession fears

In This Report

General Aviation Activity Remains Promising

Activity Updates & Analyses



Aviation Services Observations and Key Trends

While 2020 and 2021 provided new highs and lows in activity levels across the sector, 2022 saw a slight reversion as private aviation operations stabilized at greater-than-2019 levels. Activity in early 2023 has been slightly slower than the start of last year but is expected to pickup throughout the year and ultimately finish in line with 2022.

Activity Remains Promising Amid Global Uncertainty

Despite various ongoing difficulties and broader macroeconomic challenges, private aviation activity has remained stable. 2022 saw business jet flight activity increases of 15.5% and 5.1% over 2019 and 2021, respectively. The growth in operations was largely due to the uptick in charter and managed flights; relative to 2021, Part 91 and Part 135 activity saw 10.0% and 4.9% increases in total flight hours, respectively. Additionally, commercial aviation continues to climb back to pre-pandemic levels as Q4 2022 commercial operations were ~97% of those in Q4 2019.

While private aviation operations for full year 2022 outpaced 2021, H2 2022 recorded flight activity 3.8% lower than H2 2021. That said, flight hours for large cabin aircraft saw nearly a 10% increase over 2021, while the bulk of the decreased activity occurred in turbo props and light to mid-sized jets.

Both commercial and private aviation activity remained relatively stable through January 2023. The outlook for the rest of the year will likely depend on the resolution of personnel challenges and supply chain issues, the continued easing of international travel restrictions, and the impact of a potential global recession.

Labor, Inflation, and Supply Chain

The end of 2022 and start of 2023 presented an array of challenges across the sector. Many charter and MRO (Maintenance, Repair and Overhaul) companies have struggled to hire and retain personnel. Pilots and technicians have been particularly at risk of attrition due to their high demand, limited supply, and skilled nature of their work.

Inflationary pressures are affecting nearly every segment of the aviation services sector. Commercial operators and general aviation customers are feeling the impact directly in fuel and charter price increases as well as in CPI-based arrangements, such as hangar leases or aircraft purchase agreements. MROs are primarily affected by increases to labor and input costs, as well as broader part availability that is driven by global supply chain tightness.

Other Notable Trends

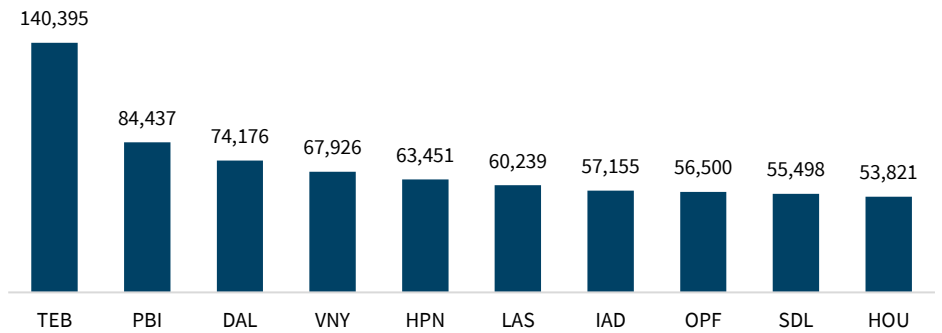


Green Aviation

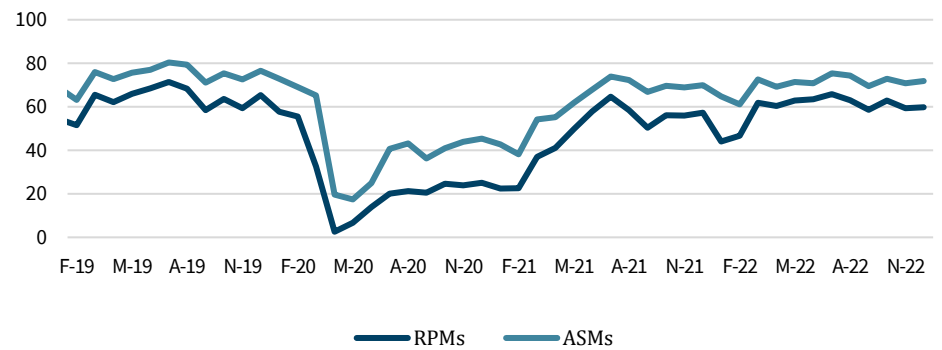
- 2023 is expected to usher in a greater focus on sustainability in the aviation industry
- As private aviation continues to receive criticism for contributing to greenhouse gasses and air pollution, airlines and customers are increasing their efforts to reduce emissions
- Sustainable Aviation Fuel (“SAF”) is expected to be increasingly important; the Department of Energy recently released a roadmap for the supply of SAF to meet 100% of domestic demand by 2050

Business Jet Operations and Commercial Flight Activity

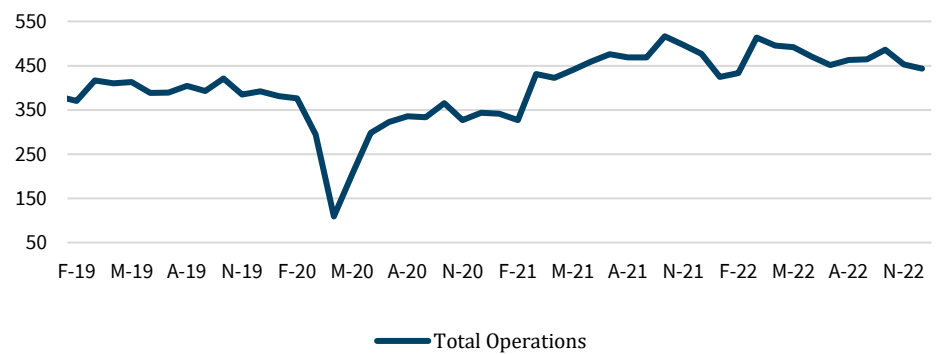
Top Ten Airports for Domestic Business Jet Operations⁽²⁾
 (Full Year 2022 Business Jet Operations)



Air Traffic (RPMs) and Capacity (ASMs)⁽³⁾
 (Millions of Miles)



Business Jet Operations⁽²⁾
 (Thousands of Operations)

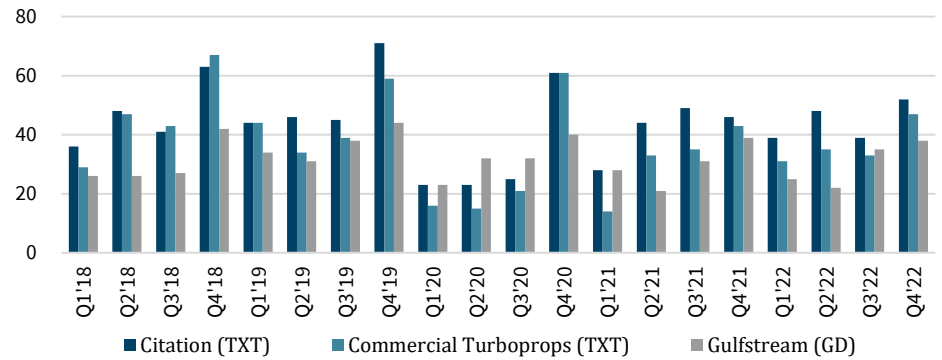


2. Source: FAA.

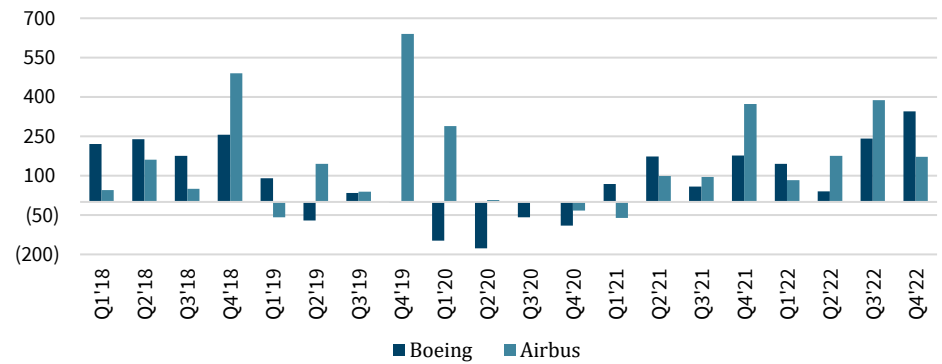
3. Source: U.S. Bureau of Transportation Statistics.

Business Jet and Commercial Aircraft Orders and Deliveries

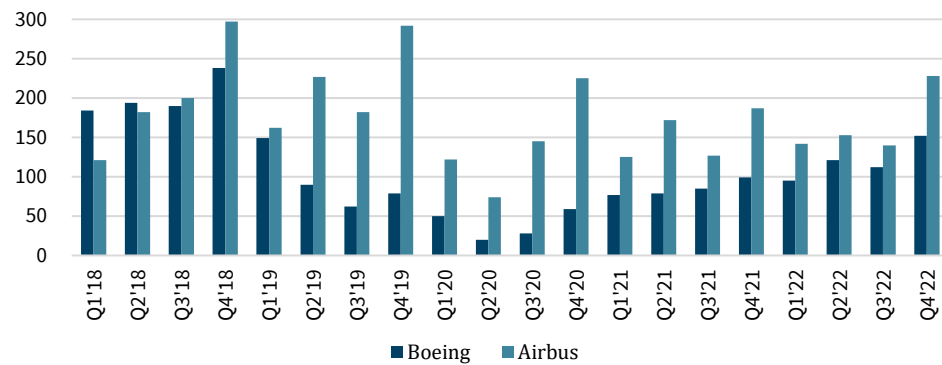
Private Aircraft Deliveries



Net Orders



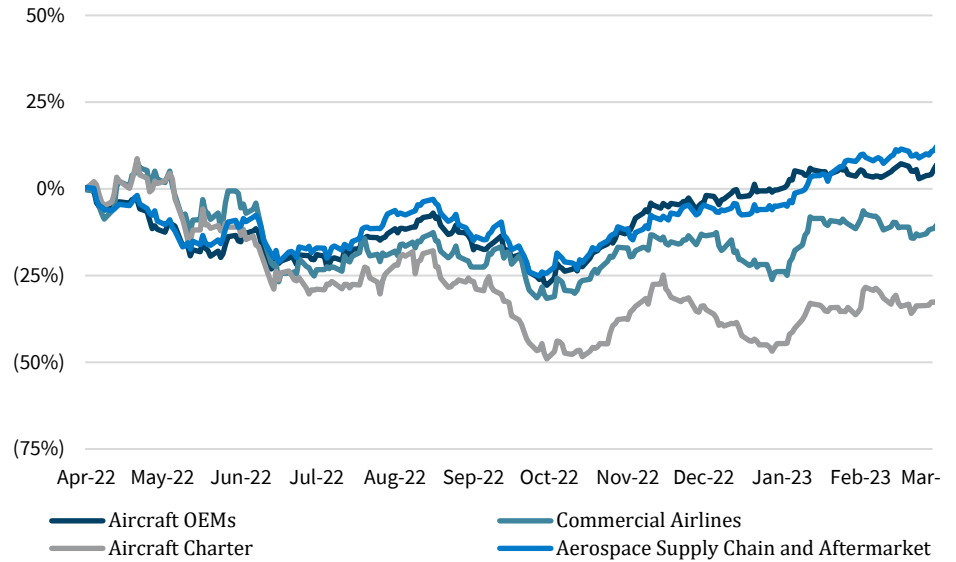
Deliveries



Public Company Performance

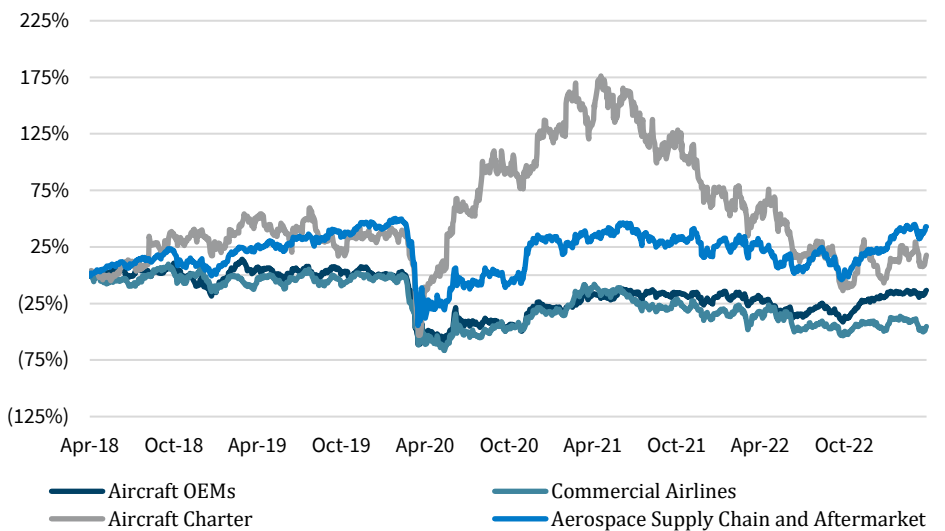
Public Company 1-Year Stock Performance

(Indexed Market Capitalization for the Period March 2022 – March 2023)



Public Company 5-Year Stock Performance

(Indexed Market Capitalization for the Period March 2018 – March 2023)



Aircraft OEMs: ENXTPA:AIR, ENXTPA:AM, NYSE:BA, NYSE:ERJ, NYSE:GD, NYSE:TXT, TSX:BBD.B
Commercial Airlines: NasdaqGS:AAL, NasdaqGS:JBLU, NasdaqGS:UAL, NasdaqGS:ULCC, NYSE:ALK, NYSE:DAL, NYSE:LUV, NYSE:SAVE
Aerospace Supply Chain & Aftermarket: ENXTPA:SAF, NasdaqCM:ASLE, NasdaqGS:ATRO, NasdaqGS:VSEC, NasdaqGS:WWD, NYSE:AIR, NYSE:ARNC, NYSE:B, NYSE:DCO, NYSE:HXL, NYSE:KAMN, NYSE:MOG.A, NYSE:RBC, NYSE:SPR, NYSE:TDG, NYSE:TGI, NYSE:WCC, TSX:CAE, TSX:MAL, XTRA:MTX
Aircraft Charter Services: ASX:AQZ, NasdaqGS:SNCY, NYSE:UP

Public Company Operating and Valuation Metrics

Company	Enterprise Value	Market Capitalization	% of 52 - Week High	Rev Growth		'22 EBITDA Margin	Enterprise Value /			
				'23P	'24P		'22A Revenue	'23P Revenue	'22A EBITDA	'23P EBITDA
Aircraft OEMs										
The Boeing Company	\$168,680	\$127,283	96.0%	6.9%	18.9%	2.5%	2.5x	2.1x	NMF	NMF
Airbus SE	99,571	105,487	97.8%	5.9%	11.9%	12.8%	1.6x	1.4x	12.4x	10.5x
General Dynamics Corporation	73,453	62,581	88.8%	2.4%	4.6%	13.9%	1.9x	1.8x	13.4x	13.5x
Textron Inc.	16,359	14,385	92.8%	3.9%	8.1%	11.7%	1.3x	1.2x	10.9x	9.9x
Bombardier Inc.	10,661	5,176	99.9%	13.6%	11.1%	8.8%	1.5x	1.4x	17.5x	9.3x
Dassault Aviation Société anonyme	6,221	16,426	98.5%	(9.2%)	(19.2%)	10.4%	0.8x	1.0x	7.9x	10.3x
Embraer S.A.	4,273	3,016	98.6%	9.0%	22.6%	1.0%	1.0x	0.8x	NMF	7.5x
Mean	\$54,174	\$47,765	96.1%	4.7%	8.3%	8.7%	1.5x	1.4x	12.4x	10.2x
Median	\$16,359	\$16,426	97.8%	5.9%	11.1%	10.4%	1.5x	1.4x	12.4x	10.1x
Aerospace Supply Chain and Aftermarket Support										
Safran SA	\$63,790	\$62,983	98.7%	20.9%	19.1%	19.0%	3.0x	2.5x	15.9x	13.4x
TransDigm Group Incorporated	56,738	40,242	95.5%	15.3%	12.0%	46.2%	10.1x	9.0x	21.8x	17.7x
MTU Aero Engines AG	14,095	13,420	97.6%	19.6%	19.8%	12.4%	2.5x	2.1x	20.0x	12.0x
WESCO International, Inc.	13,421	7,897	88.3%	17.6%	7.5%	7.8%	0.6x	0.6x	8.1x	7.1x
CAE Inc.	9,511	7,179	86.9%	10.2%	13.0%	15.5%	3.3x	2.9x	21.3x	12.4x
RBC Bearings Incorporated	8,132	6,701	87.8%	92.6%	6.2%	29.0%	5.7x	5.3x	19.6x	17.9x
Spirit AeroSystems Holdings, Inc.	6,935	3,628	69.3%	27.2%	28.5%	0.3%	1.4x	1.1x	NMF	11.8x
Woodward, Inc.	6,577	5,816	77.1%	9.3%	9.7%	13.2%	2.7x	2.4x	20.3x	15.9x
Hexcel Corporation	6,414	5,752	91.0%	19.1%	12.6%	18.4%	4.1x	3.6x	22.1x	17.8x
Moog Inc.	4,086	3,202	98.1%	6.2%	4.7%	11.8%	1.3x	1.3x	11.3x	9.7x
Arconic Corporation	4,060	2,607	84.0%	19.4%	(6.3%)	6.3%	0.5x	0.5x	7.2x	6.1x
Barnes Group Inc.	2,560	2,038	85.1%	0.2%	5.9%	19.2%	2.0x	1.9x	10.6x	9.9x
Triumph Group, Inc.	2,245	753	43.3%	(10.9%)	(1.0%)	10.9%	1.6x	1.7x	15.1x	11.5x
AAR Corp.	2,048	1,863	95.9%	10.0%	5.1%	8.5%	1.1x	1.0x	12.6x	10.1x
Kaman Corporation	1,191	641	49.2%	(3.0%)	7.5%	14.4%	1.7x	1.6x	12.0x	11.9x
VSE Corporation	904	578	75.9%	26.5%	6.4%	8.5%	1.0x	0.9x	11.1x	9.0x
Ducommun Incorporated	903	665	93.9%	10.4%	4.6%	10.9%	1.3x	1.2x	11.6x	9.1x
AerSale Corporation	762	882	79.1%	20.0%	15.3%	16.4%	1.9x	1.6x	11.4x	9.9x
Astronics Corporation	581	417	83.6%	20.2%	19.0%	(1.3%)	1.1x	0.9x	NMF	13.1x
Magellan Aerospace Corporation	338	319	75.0%	3.9%	8.9%	3.4%	0.6x	0.5x	17.8x	11.8x
Mean	\$10,264	\$8,379	82.8%	16.7%	9.9%	13.5%	2.4x	2.1x	15.0x	11.9x
Median	\$4,073	\$2,905	86.0%	16.4%	8.2%	12.1%	1.7x	1.6x	13.8x	11.8x
Charter and Fractional Services										
Sun Country Airlines Holdings, Inc.	\$1,534	\$1,175	68.4%	43.6%	16.0%	13.8%	1.7x	1.5x	12.4x	7.0x
Alliance Aviation Services Limited	528	373	77.2%	26.4%	30.6%	18.2%	1.8x	1.4x	9.7x	5.8x
Wheels Up Experience Inc.	(61)	159	18.6%	32.3%	(0.6%)	(19.7%)	NMF	NMF	0.2x	0.5x
Mean	\$667	\$569	54.7%	34.1%	15.3%	4.1%	1.7x	1.4x	7.5x	4.4x
Median	\$528	\$373	68.4%	32.3%	16.0%	13.8%	1.7x	1.4x	9.7x	5.8x
Commercial Airlines										
Delta Air Lines, Inc.	\$47,460	\$22,284	75.5%	80.6%	2.8%	12.8%	0.9x	0.9x	6.9x	5.7x
American Airlines Group Inc.	44,351	9,629	68.9%	63.9%	8.1%	9.2%	0.9x	0.8x	9.8x	6.1x
United Airlines Holdings, Inc.	35,360	14,474	80.4%	82.5%	17.7%	10.8%	0.8x	0.7x	7.3x	4.8x
Southwest Airlines Co.	16,477	19,338	65.0%	50.8%	14.0%	9.3%	0.7x	0.6x	7.4x	4.6x
Alaska Air Group, Inc.	6,703	5,348	68.2%	56.2%	8.0%	8.0%	0.7x	0.6x	8.7x	3.8x
Spirit Airlines, Inc.	6,612	1,874	61.6%	56.9%	21.6%	1.3%	1.3x	1.1x	NMF	8.0x
JetBlue Airways Corporation	5,373	2,382	47.9%	51.7%	10.1%	3.8%	0.6x	0.5x	15.4x	5.2x
Frontier Group Holdings, Inc.	4,313	2,146	64.5%	61.5%	21.8%	(3.2%)	1.3x	1.1x	NMF	4.6x
Mean	\$20,831	\$9,684	66.5%	63.0%	13.0%	6.5%	0.9x	0.8x	9.2x	5.4x
Median	\$11,590	\$7,489	66.6%	59.2%	12.1%	8.6%	0.8x	0.8x	8.1x	5.0x

Source: CapitalIQ as of March 31, 2023.

Select Aviation Services Transactions

Deal Spotlight



Company Overview

Epps Aviation is a world-class provider of fixed base operator (FBO) services and is recognized as a hallmark of general aviation. The Company was founded in 1965 and is based at Georgia's second busiest airport, Peachtree DeKalb Airport (PDK). Epps Aviation has been family owned and operated for 55+ years and provides full-service FBO, charter, and MRO services.

Transaction Outcome

William Blair acted as the exclusive financial advisor to Epps Aviation in connection with its sale to Aero Centers, a portfolio company of SAR Trilogy and RedBird Capital Partners. Aero Centers are full-service FBOs providing a spectrum of general aviation services, including fueling, hangaring, maintenance, and aircraft management. With the inclusion of PDK, Aero Centers will expand their operations to six locations across the U.S.

Recent M&A Transactions

Date	Target	Acquirer	Sub-Sector	William Blair Transaction
Pending	FlyExclusive	EG Acquisition	Charter	
Apr-23	Epps Aviation (Atlanta, GA)	Aero Centers (SAR-Trilogy and Redbird Capital)	FBO / Charter / MRO	●
Mar-23	Golden Isles Aviation (St. Simons, GA)	Odyssey Aviation	FBO	
Mar-23	Dolphin Aviation (Sarasota, FL)	Hawthorne Global Aviation Services	FBO	
Feb-23	Constant Aviation (Cleveland, OH)	Directional Aviation (AKA FlexJet)	MRO	
Jan-23	Dumont (Charter Division)	Rennia Aviation	Charter	
Nov-22	Northeast Aero Compressor (Bohemia, NY)	Jet Parts Engineering	MRO	
Nov-22	Associated Aircraft Manufacturing & Sales, Inc	First Aviation Services	MRO	
Oct-22	UltraAir (Omaha, NE)	Four Corners Aviation	Charter	
Oct-22	Mystic Jet Center (3 locations)	Modern Aviation	FBO	
Sep-22	Skytech (2 locations)	Pilatus	Charter / MRO	
Sep-22	Mayo Aviation (Centennial, CO)	Priester Aviation	Charter	
Sep-22	Textar Aviation (Dallas, TX)	Atlantic Aviation	FBO	
Sep-22	Elliot Aviation (Des Moines, IA)	Modern Aviation	FBO	
Sep-22	Odyssey Aviation (2 locations)	Granite Creek Capital Partners	FBO	
Aug-22	Four Points Aero Services (Dallas, TX)	Elliot Aviation	MRO	
Aug-22	Blue Heron Aviation (Turks & Caicos)	Atlantic Aviation	FBO	
Jul-22	Skycharter (Halifax, Nova Scotia)	IMP Group	Charter	
Jul-22	Signature Flight Support (3 locations)	Atlantic Aviation	FBO	●
Jul-22	TAC Air (17 locations)	Signature Aviation	FBO	●
May-22	EB Airfoils (Palm City, FL)	StandardAero	MRO	
May-22	Ross Aviation (16 locations)	Atlantic Aviation	FBO	
May-22	Atlantic Aviation (Stuart, FL)	APP Jet Center	FBO	●
May-22	Air Service Hawaii (6 locations)	Ross Aviation	FBO	
Apr-22	Heliblade (Anderson, CA)	First Aviation Services	MRO	
Apr-22	Air Partner (United Kingdom)	Wheels Up	Charter	
Mar-22	Gulf Coast Aviation (Houston, TX)	Volato	Charter	
Mar-22	West Star Aviation (8 locations)	The Sterling Group	MRO	
Mar-22	Jet Edge International	VistaJet (Rhone Group)	Charter	
Mar-22	Hawthorne Global Aviation Servicesv (6 locations)	Nova Infrastructure and Wafra	FBO / Charter / MRO	●
Feb-22	Legend Aviation (Prescott, AZ)	Cutter Aviation	MRO	
Jan-22	Keystone Aviation (Salt Lake City, UT)	Elevate Holdings	Charter	

Premier, Global Boutique

Globally-integrated advisory capabilities, deep sector experience, and unmatched industry intelligence driven by frequent dialogue with the most relevant market participants

Firm Snapshot

24

offices worldwide

~2,000

total employees

~700

investment banking employees

160+

M&A advisory transactions in 2022

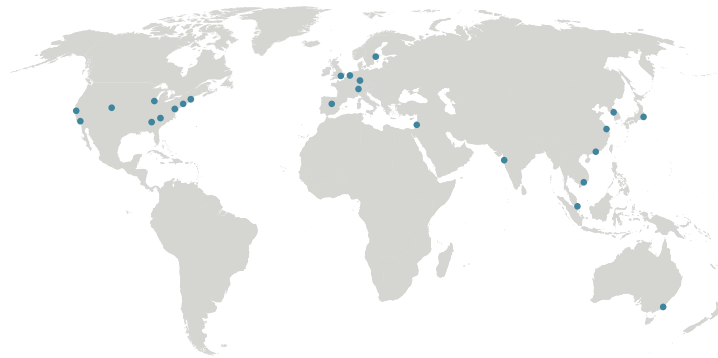
\$730B+

recent M&A and financing activity⁽¹⁾

100%

owned by active partners

Global Footprint⁽²⁾



Selected Aviation Services Transaction Experience

<p>Not Disclosed</p> <p>EPPS Aviation</p> <p>has been acquired by</p> <p>AEROCENTERS</p> <p>a portfolio company of SAR Trilogi Management and Redfin Capital Partners</p> <p>2023</p>	<p>Not Disclosed</p> <p>TAC Air</p> <p>has been acquired by</p> <p>Signature</p> <p>a portfolio company of Blackstone, Global Infrastructure Partners & Cascade Investments</p> <p>2022</p>	<p>Not Disclosed</p> <p>Signature</p> <p>has divested three FBO locations to</p> <p>ATLANTIC</p> <p>a portfolio company of KKR</p> <p>2022</p>	<p>Not Disclosed</p> <p>ATLANTIC</p> <p>has divested its Stuart, FL location to</p> <p>APP</p> <p>a portfolio company of Bridgeway Infrastructure</p> <p>2022</p>
<p>Not Disclosed</p> <p>HAWTHORNE</p> <p>has been acquired by</p> <p>Nova Infrastructure Wafra</p> <p>2022</p>	<p>Not Disclosed</p> <p>AGI ALLIANCE GROUP</p> <p>has been acquired by</p> <p>Audax Group GREENBRIAR</p> <p>2021</p>	<p>\$55,968,395</p> <p>VSE CORPORATION</p> <p>Follow-on Offering</p> <p>2021</p>	<p>Not Disclosed</p> <p>CTS ENGINES</p> <p>has been acquired by</p> <p>J.P. Lehman & Company</p> <p>2020</p>
<p>Not Disclosed</p> <p>LEADING JET CENTER</p> <p>has been acquired by</p> <p>INSTARAGF</p> <p>2019</p>	<p>Not Disclosed</p> <p>RECTRIX</p> <p>has been acquired by</p> <p>ROSS AVIATION</p> <p>2019</p>	<p>\$160,000,000</p> <p>AEVEX AEROSPACE</p> <p>Unitranche Credit Facility</p> <p>2019</p>	<p>\$385,000,000</p> <p>smartecarte</p> <p>has been acquired by</p> <p>3i</p> <p>2017</p>

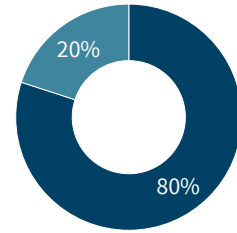
Note: Data is as of December 31, 2022.

1. Represents M&A and financing transactions since January 1, 2018.

2. Map includes strategic partnerships with Allier Capital, BDA Partners, and Poalim Capital Partners.

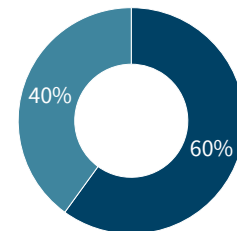
► Represents transactions closed by William Blair employees while at other firms.

M&A Expertise⁽¹⁾



■ Sell-Side Advisory
■ Buy-Side Advisory

Trusted Advisor⁽¹⁾



■ Repeat Clients
■ New Clients

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