

ASCEND

BY CIRIUM

Understanding the metal:

Aircraft values and
transactions in LATAM

George Dimitroff
Head of Valuations

Cargo Facts LATAM
Panama City
15-17 May 2023

Disclaimer of Liability

The material and information contained on this presentation is for general information purposes only. You should not rely upon the material or information on the presentation as a basis for making any business, legal or any other decisions.

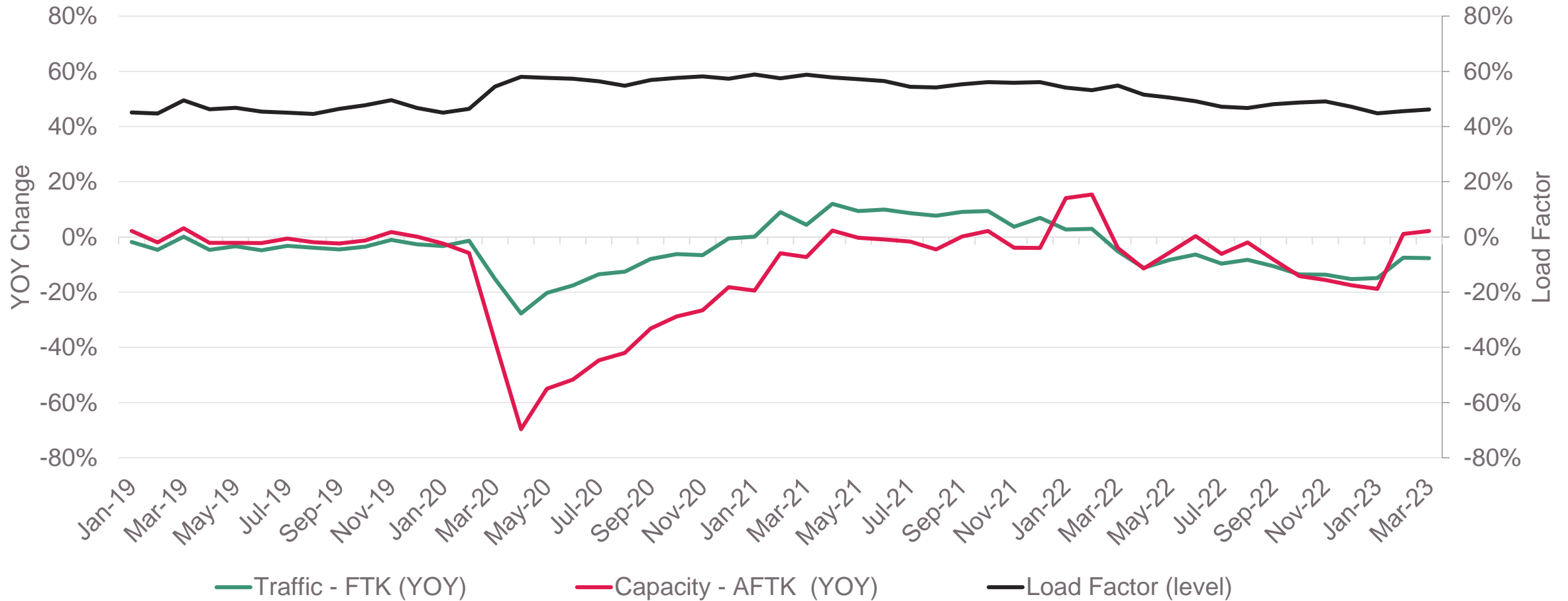
Whilst we have made every attempt to ensure that the information contained in this presentation has been obtained from reliable sources, Cirium is not responsible for any errors or omissions, or for the results obtained from the use of this information.

Whilst we endeavour to keep the information up-to-date or correct, Cirium makes no representation or warranties of any kind, express or implied about the completeness, accuracy, reliability, suitability or availability with respect to the information, products or services or related graphics contained within the presentation for any purpose. Any reliance you place on such material is therefore strictly at your own risk. Cirium disclaims all warranties, express or implied, including but not limited to warranties of performance, merchantability or fitness for a particular purpose. In no event will Cirium, its affiliates or the partners, agents or employees thereof be liable to you, you clients or anyone else for any decision made or action taken in reliance on the information on the presentation or for any consequential, special or similar damages, even if advised of the possibility of such damages.

Contents

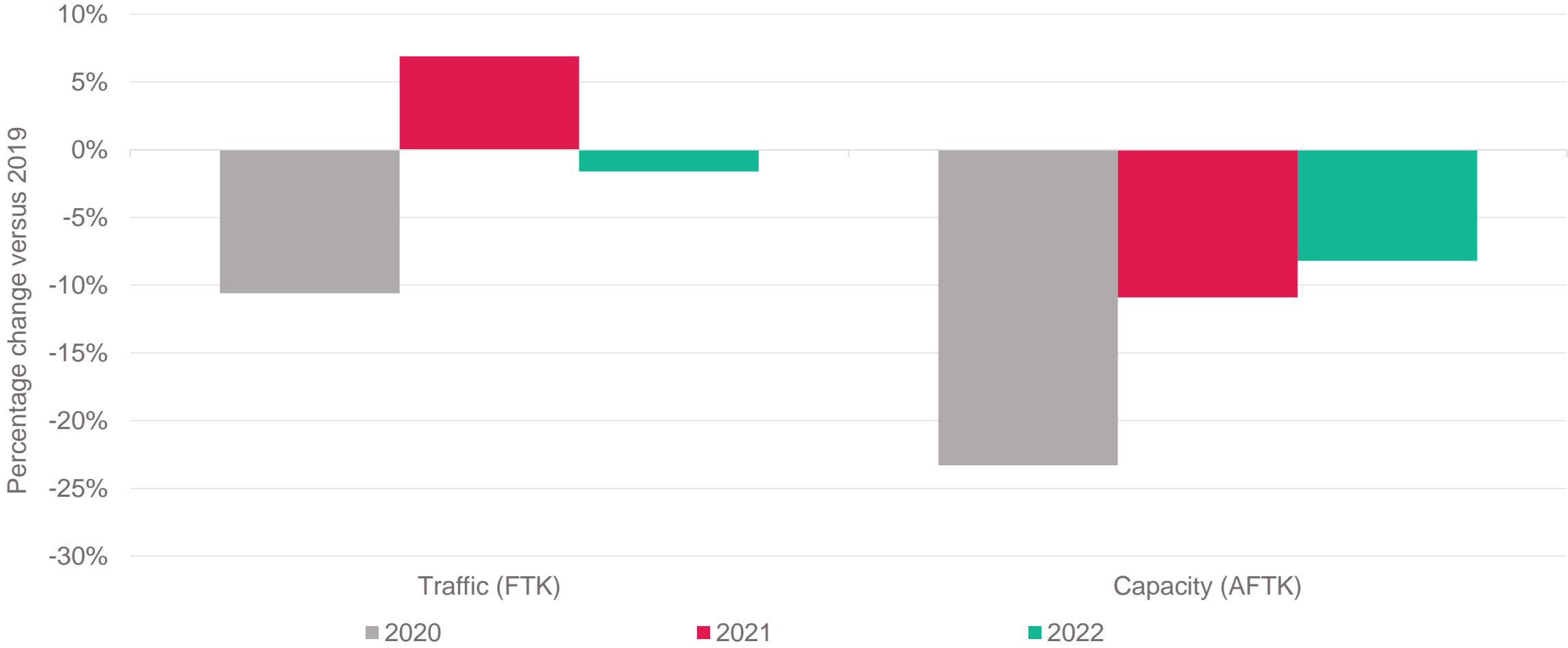
- 🚢 Cargo traffic, capacity
- 🚢 Yields
- 🚢 Freighter fleet tracked
- 🚢 Aircraft utilization
- 🚢 Supply: conversions, orders, deliveries
- 🚢 Freighter retirements
- 🚢 Freighter values & lease rates
- 🚢 Understanding the market for feedstock
- 🚢 Near term outlook & thoughts

Freight Traffic (FTK), capacity (AFTK) and load factors declining



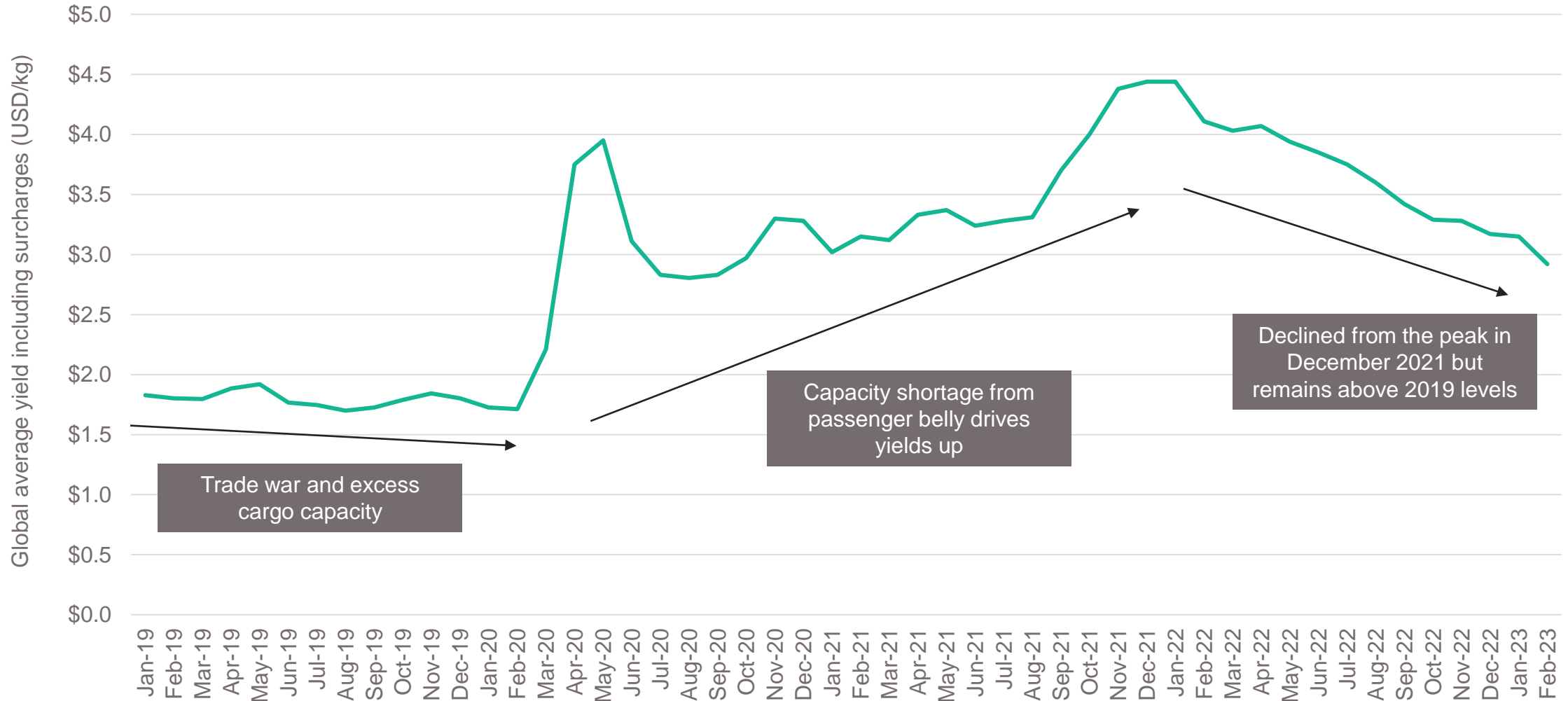
Source: IATA data

Capacity yet to recover to 2019 levels, traffic fell back in 2022 after 2021 gain



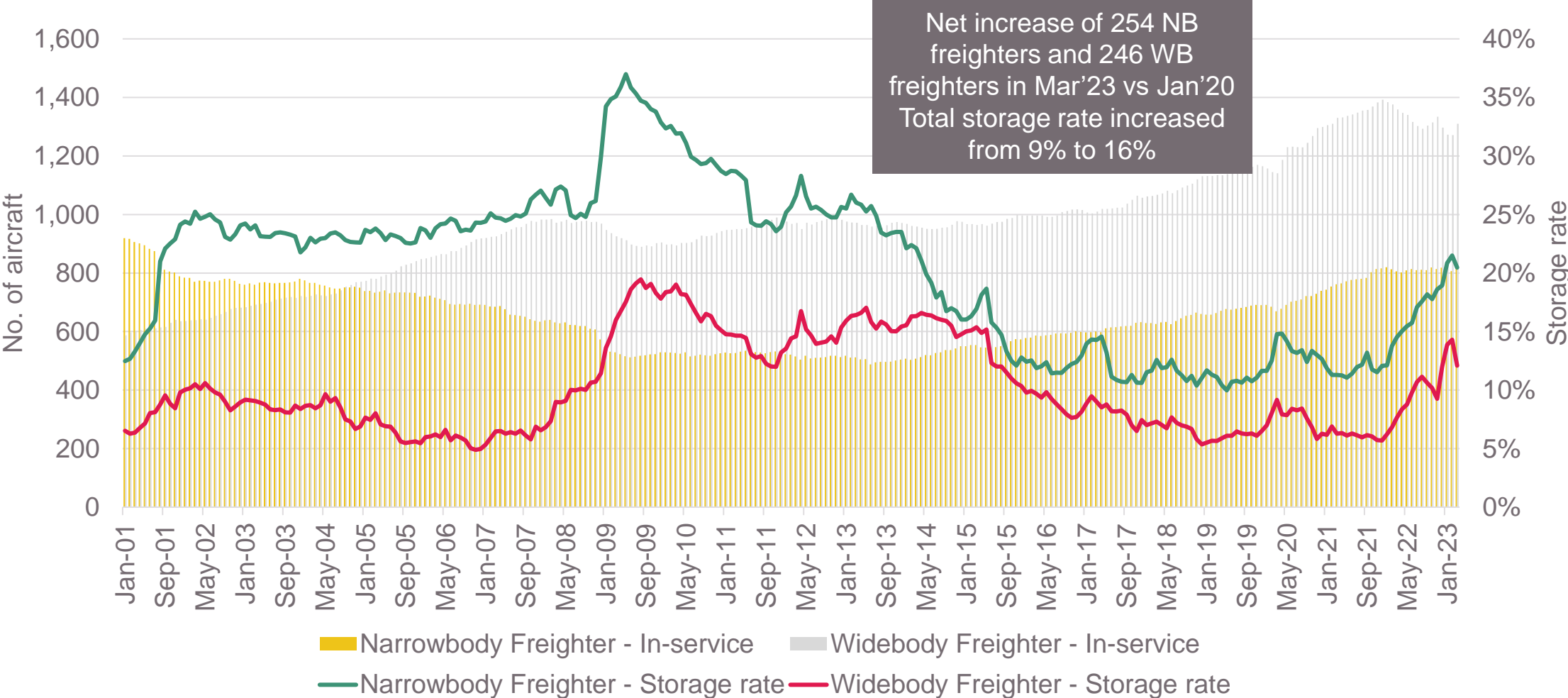
Source: IATA

Air cargo yields peaked in early 2022 and have been declining since due to softening demand and rising capacity



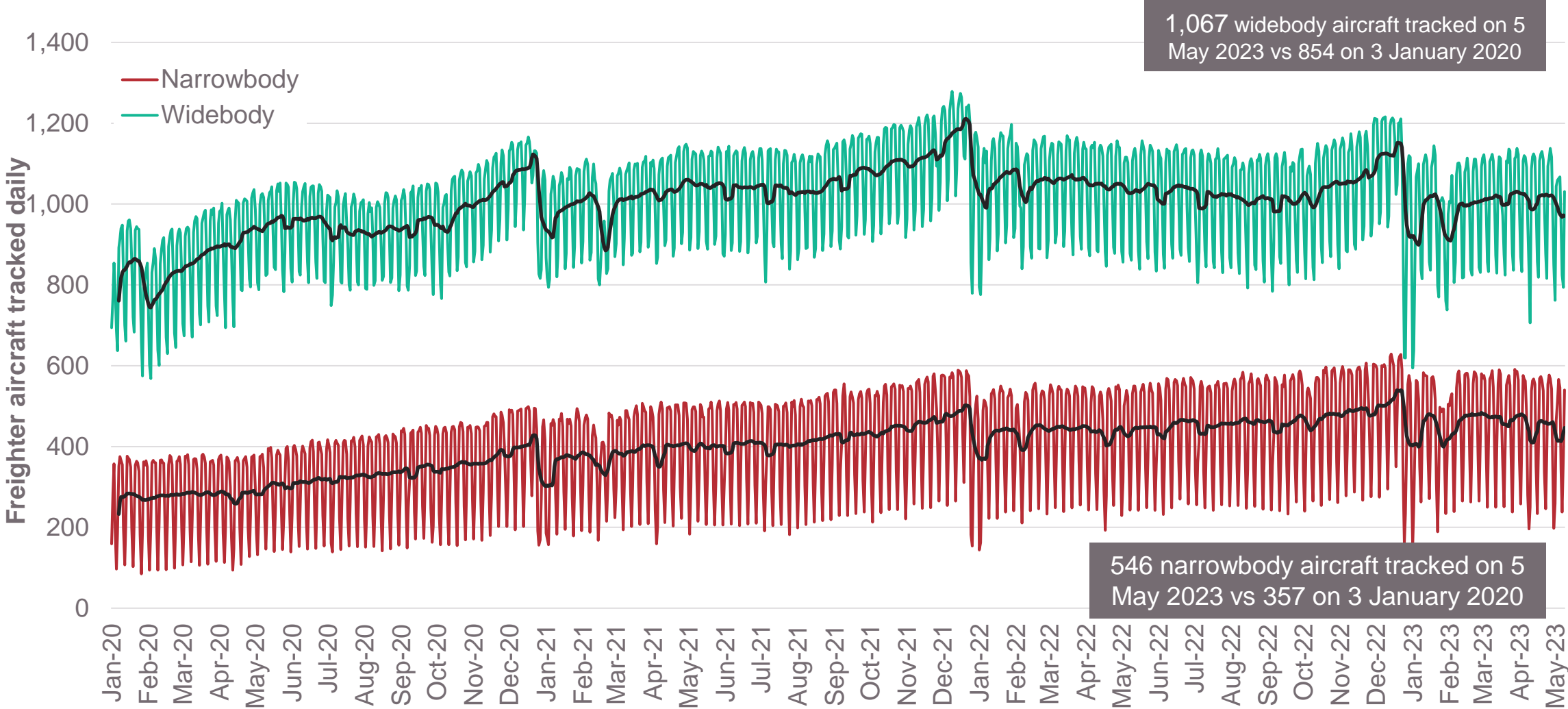
Source: WorldACD

Global freighter fleet increased by 25% vs January 2020, but the storage rate also increased, potentially signalling excess supply in the market



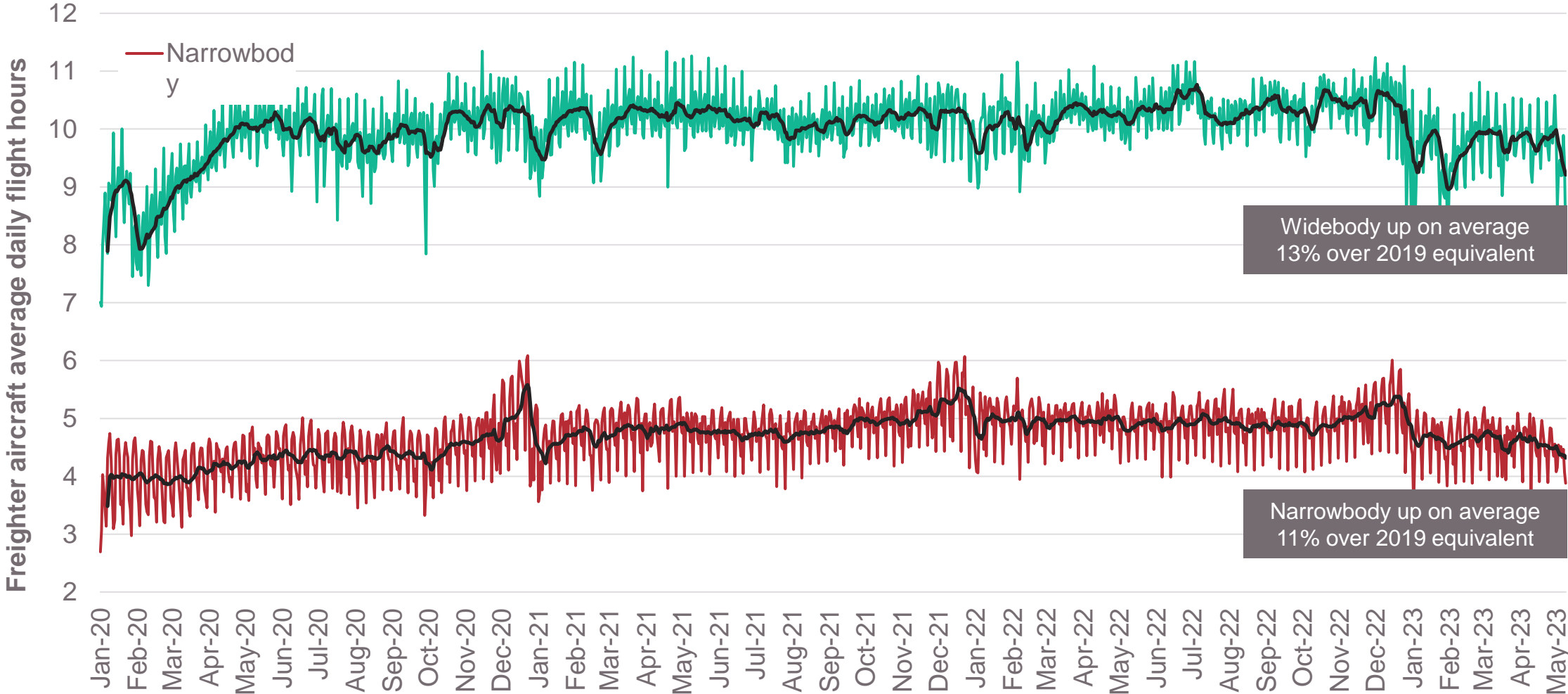
Source: Cirium Fleets Analyzer, freighter jets

Global freighter fleet tracked declined since Dec 2021 but still up over 2019



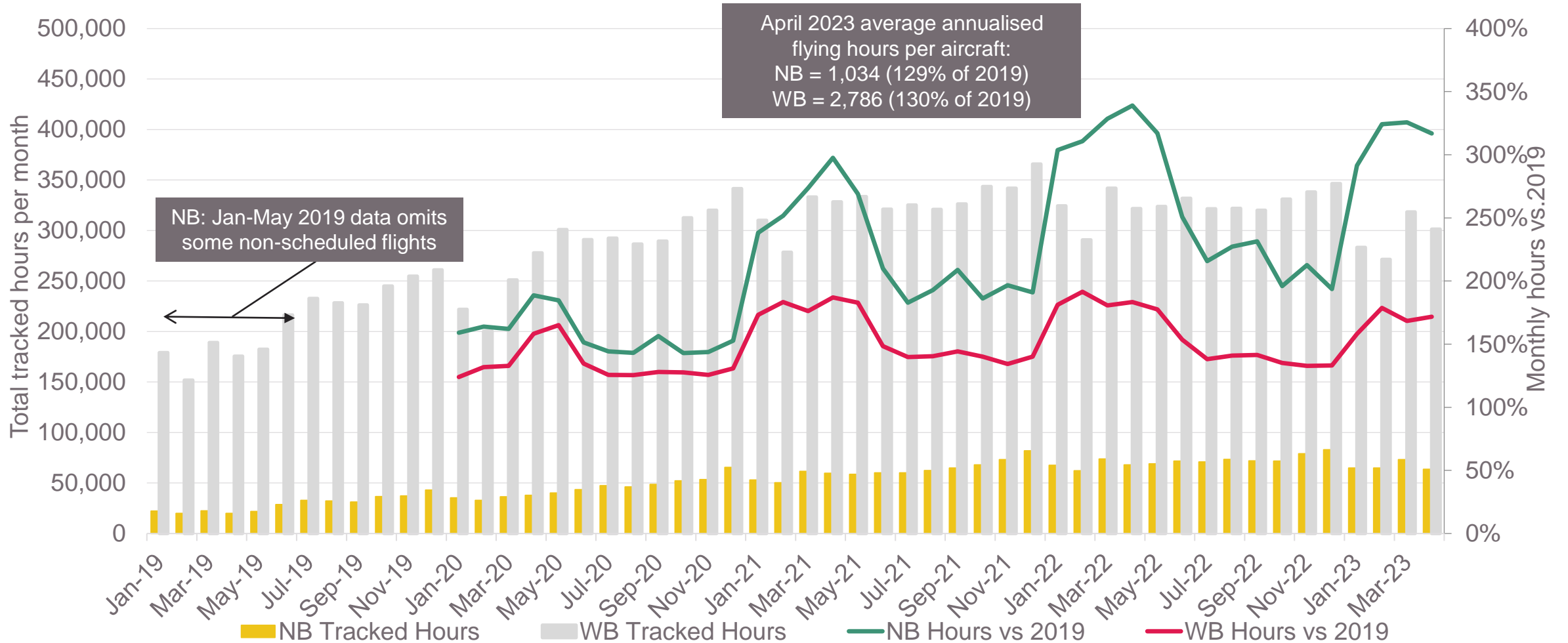
Source: Cirium utilisation data, commercial jets, utilisation data for aircraft tracked on a daily basis only

Freighter utilisation is up over 2019 equivalent, but down from peak; narrowbodies flying around 4.4 hrs daily, widebodies around 9.5 hrs daily



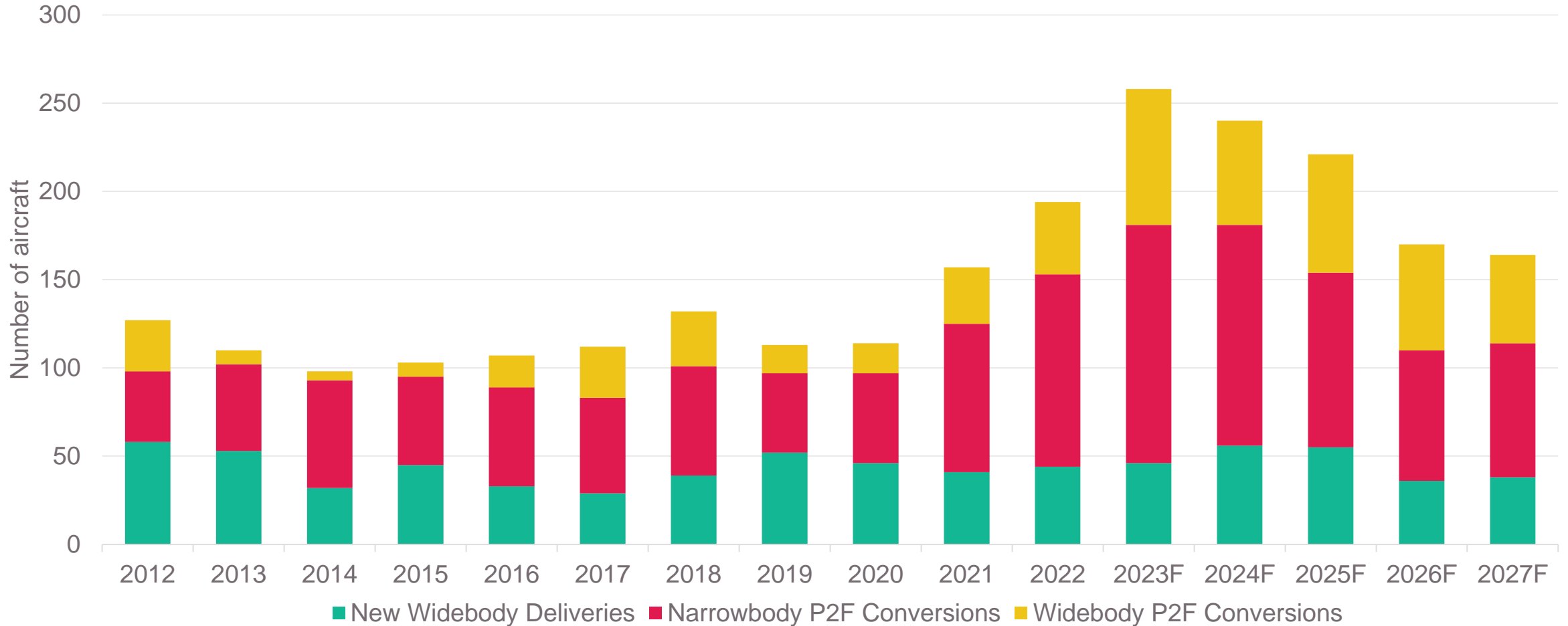
Source: Cirium utilisation data, commercial jets, utilisation data for aircraft tracked on a daily basis only

Freighters show significantly higher total hours and average hours per tracked aircraft than pre-Covid, but widebody hours were down 6% vs April 2022



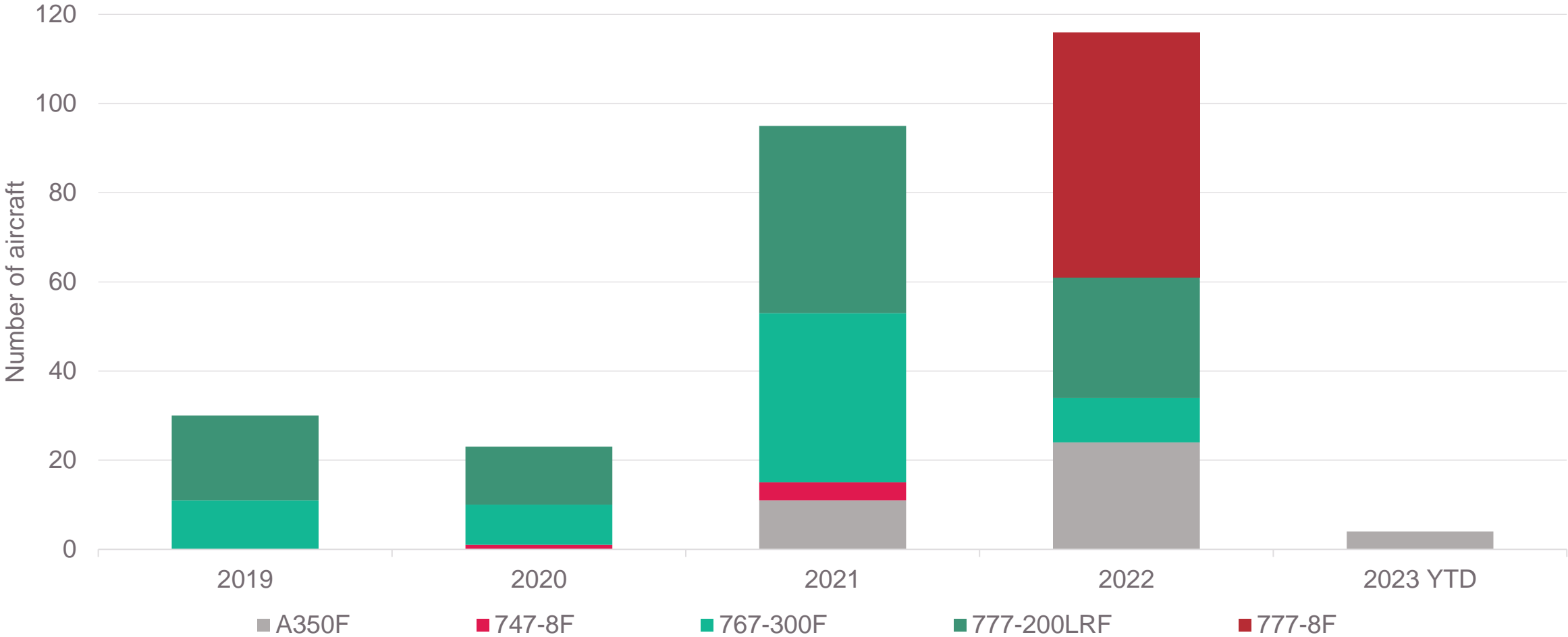
Source: Cirium Fleets Analyzer, Western-built freighter jets in airline operation

Freighter supply growing further in 2023 but cargo demand has slowed



Source: Cirium Fleets Analyzer and 2022 Cirium Fleet Forecast for 2023-27

Factory-built widebody freighter orders – two strong years in 2021 and 2022



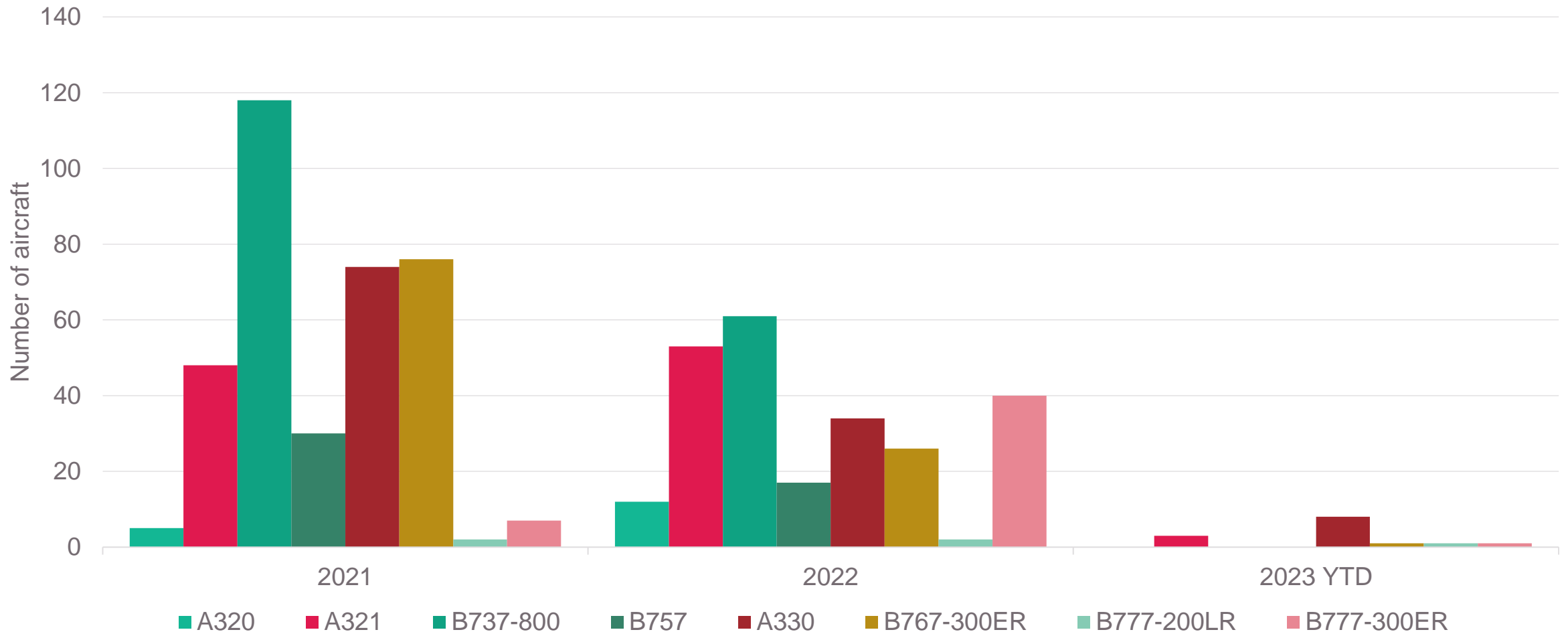
Source: Cirium Fleets Analyzer

Strong start for both A350F and 777-8F programmes, with deliveries due to begin in 2026 and 2027 respectively

A350 Freighter	Orders	777-8 Freighter	Orders (LoI)
Air France Group	8	ANA	2
Air Lease Corp	7	Cargolux	10
CMA CGM	4	Ethiopian	(5)
Etihad	7	Lufthansa Cargo	7
Silk Way West	2	Silk Way West	2
Singapore Airlines	7	Qatar Airways	34
Undisclosed	4		
TOTAL	39		55 (5)

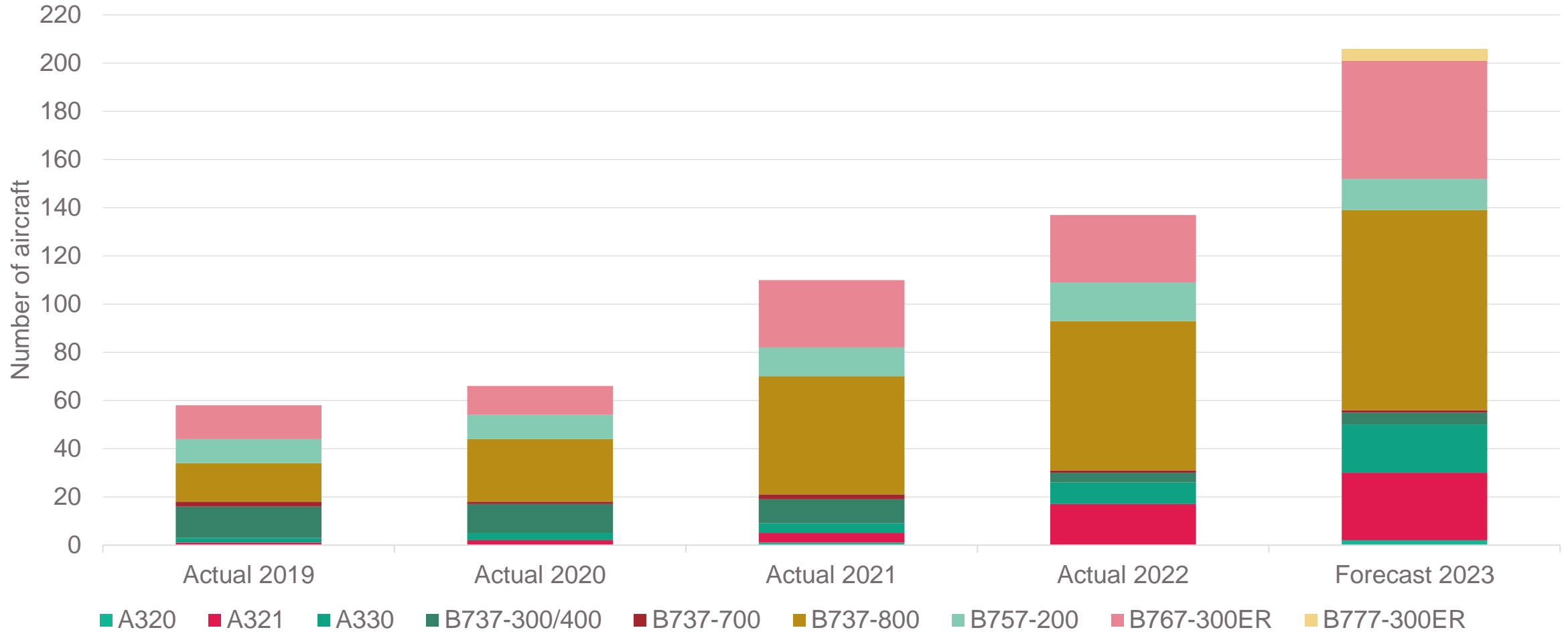
Source: Cirium Fleets Analyzer (April 2023)

Conversion orders focus on A321, A330, 737-800, 767 and 777



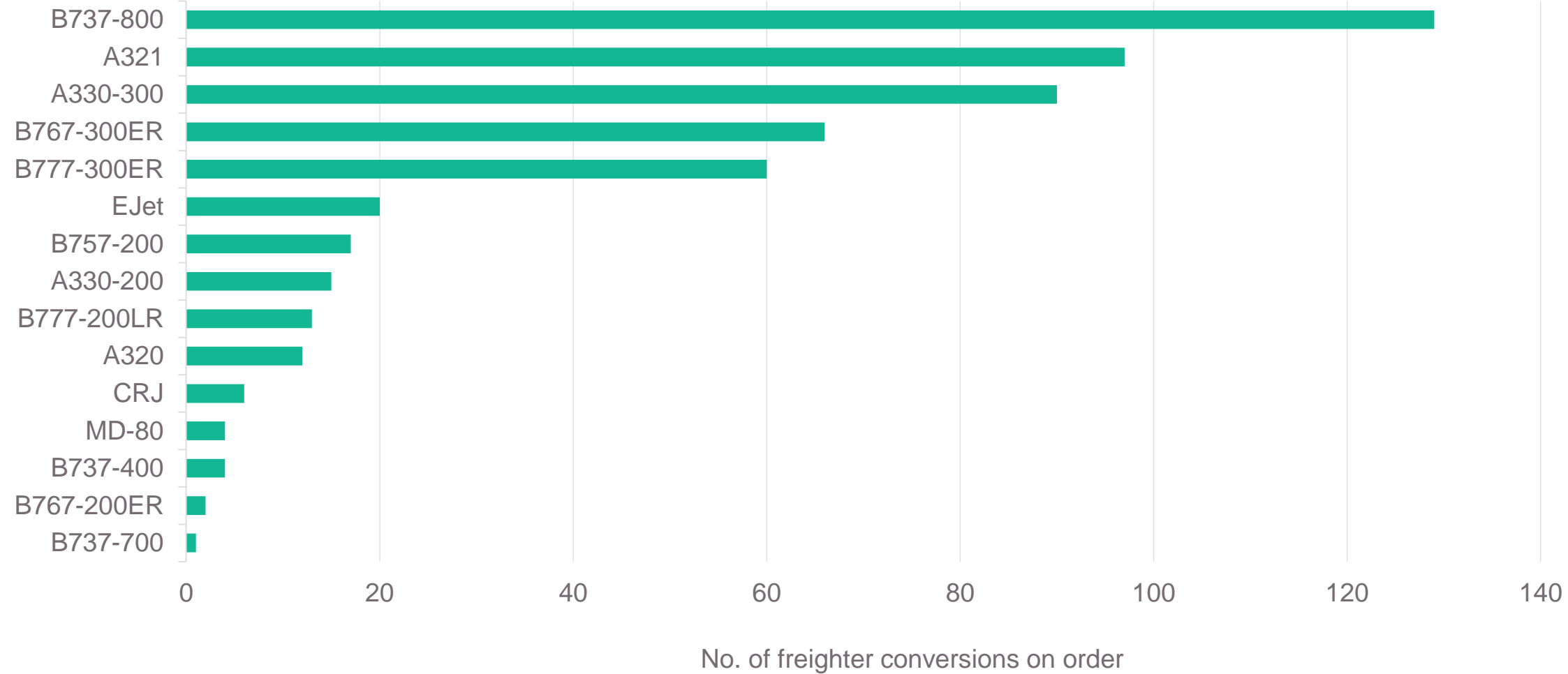
Source: Analysis of news announcements

Passenger-to-freighter conversions on course to set another record in 2023



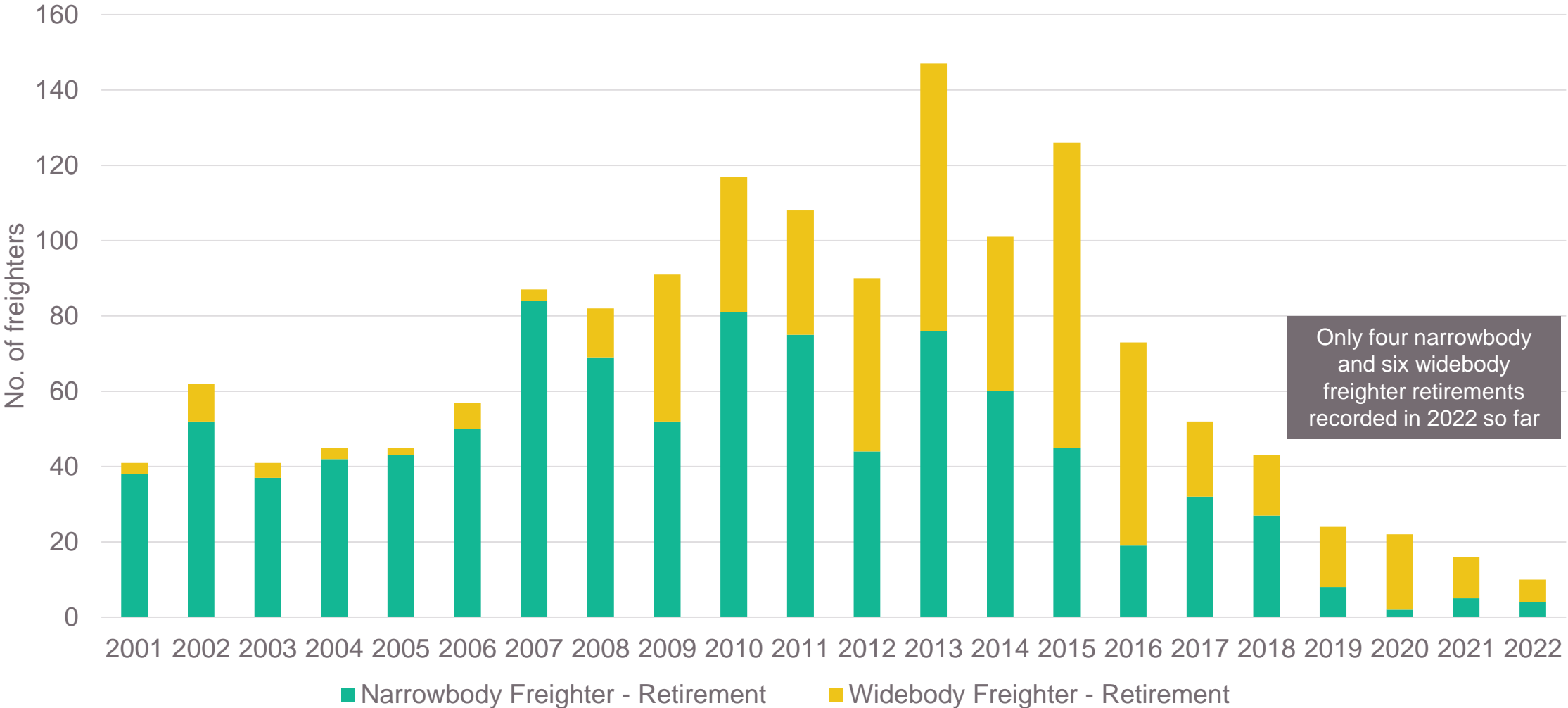
Source: Cirium Fleets Analyzer and forecast

540 freighter conversions on backlog; 737-800 and A321 lead



Source: Cirium Fleets Analyzer and analysis of announced orders

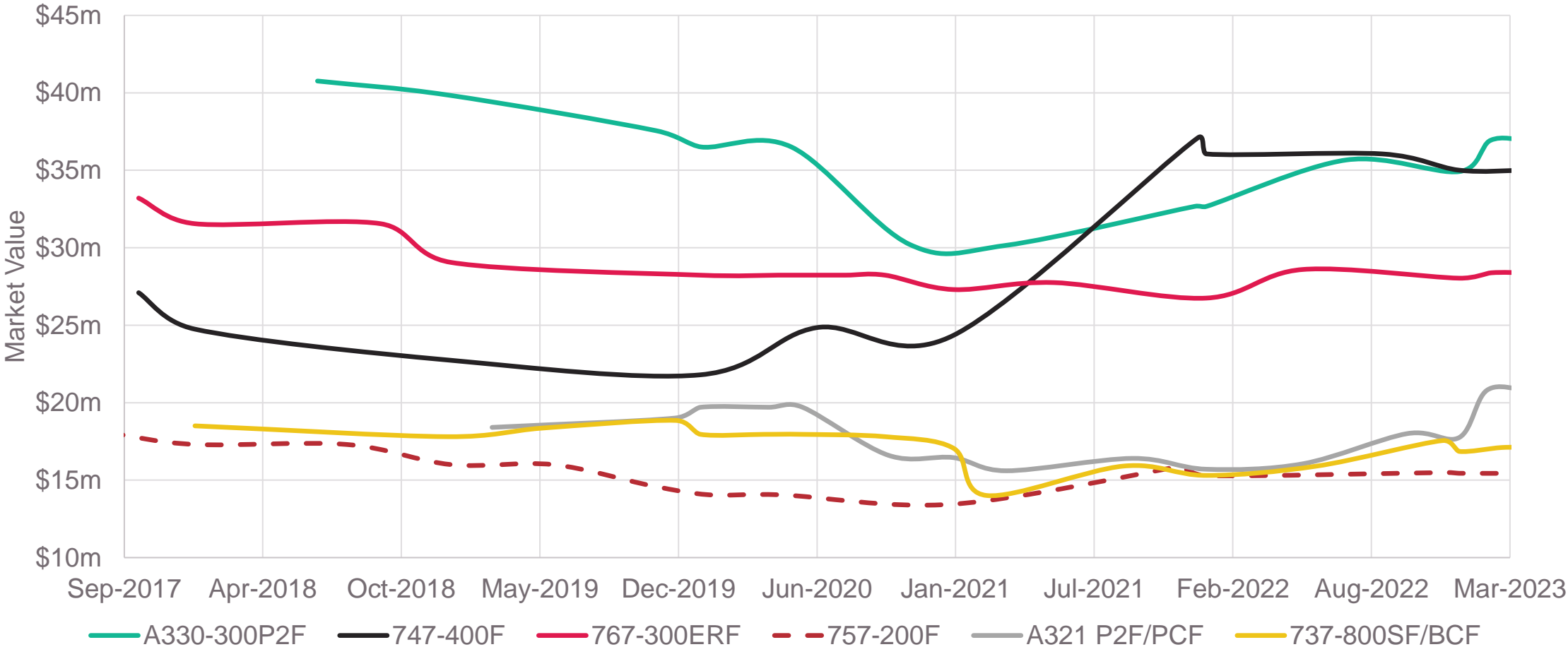
Lowest freighter retirements in 2022, but potentially set to increase in the future with excess capacity in the market



Source: Cirium Fleets Analyzer April 2023, freighter jets; note data is subject to retrospective adjustment as researchers may reclassify aircraft from retired to stored

Popular freighter types have seen little market-value depreciation or even appreciation in the last five years despite ageing - but some values have peaked

All value curves are for a sample 2003 vintage freighter (not constant-age)

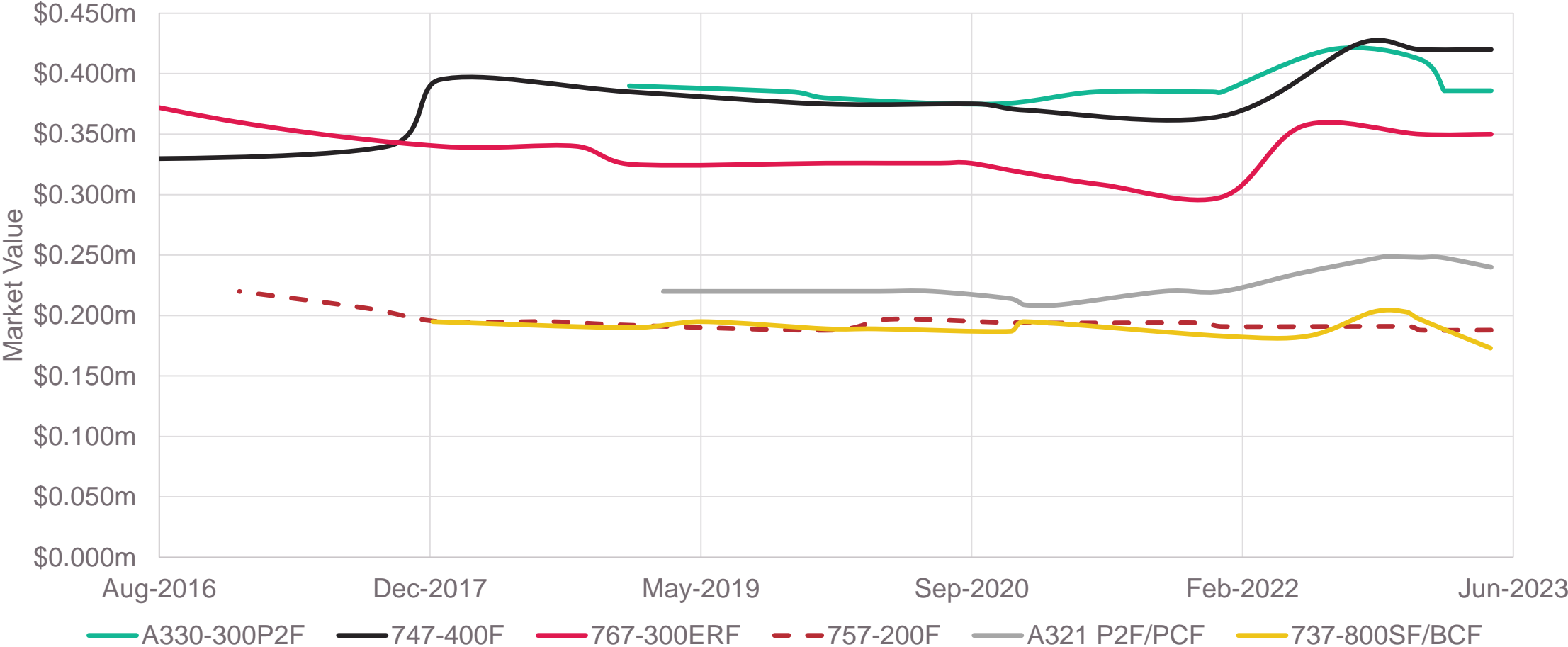


A321, A330 and 737-800 freighter values only dropped during the pandemic because passenger feedstock was getting cheaper, demand was still strong and conversion premiums increased

Source: Cirium Values Analyzer

Lease Rates increased, then plateaued and now some types starting to decline

All lease rate curves are for a sample 2003 vintage freighter (not constant-age)



A321, A330 and 737-800 freighter values only dropped during the pandemic because passenger feedstock was getting cheaper, demand was still strong and conversion premiums increased

Source: Cirium Values Analyzer

Notable deals in Latin America (January 2022 till today)

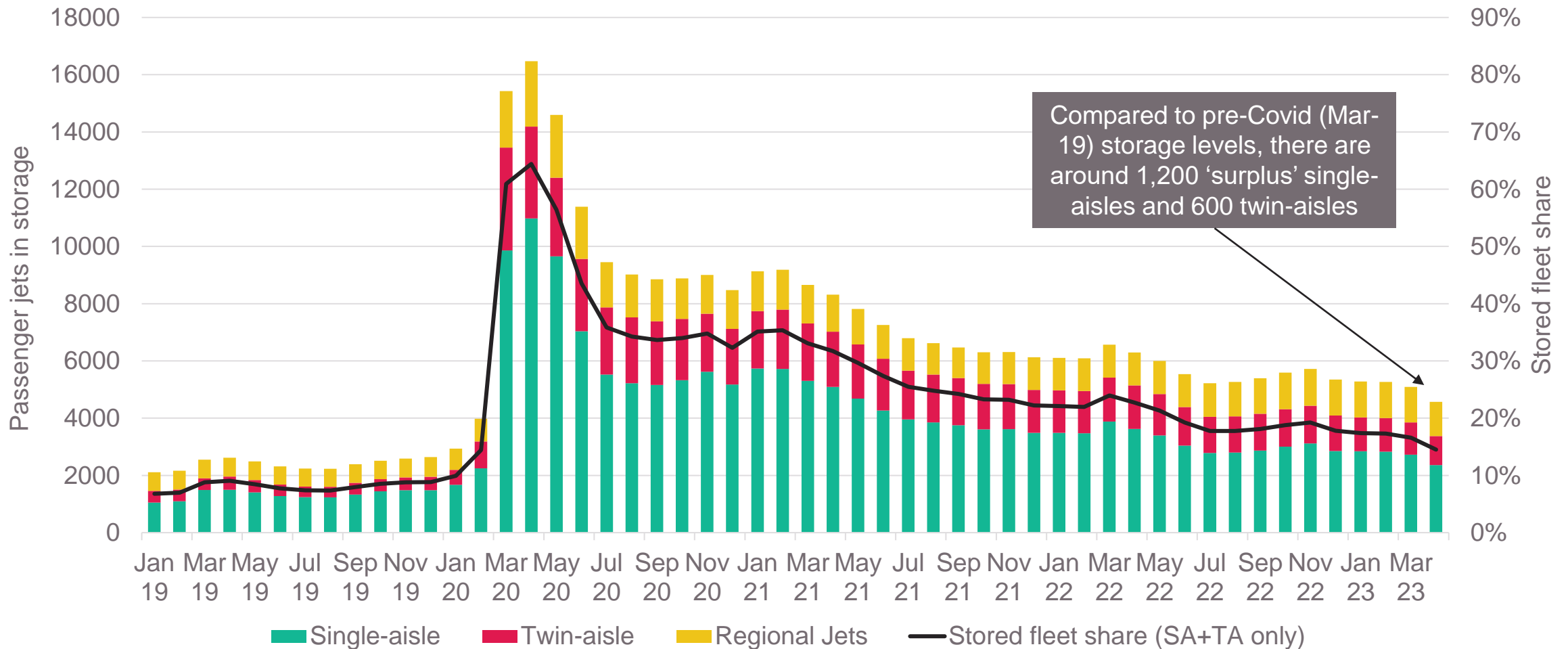
- 🚀 **There were 18 freighters leased into Latin American operators in 2022 and 4 so far in 2023**
- 🚀 **The most leased aircraft type has been a tie between the 737 Classic, A330 and 767** with five of each starting new leases in the region
- 🚀 **Mas Air has been the most active lessee** in the region with 4 x A330 and 1x 767 added
- 🚀 **AerCap was the most active lessor** into Latin America (4 leases) followed by CDB Aviation (3)

- 🚀 **There were 8 freighter sales in 2022 and 1 in 2023 so far** in the region
- 🚀 They include 4 x 727s, 2 x CRJ200 P2F, 1 x 737-200, 1 x 747-300 and 1 x Merlin IV

- 🚀 Older and smaller aircraft are generally cash purchases while younger and larger ones tend to be leased

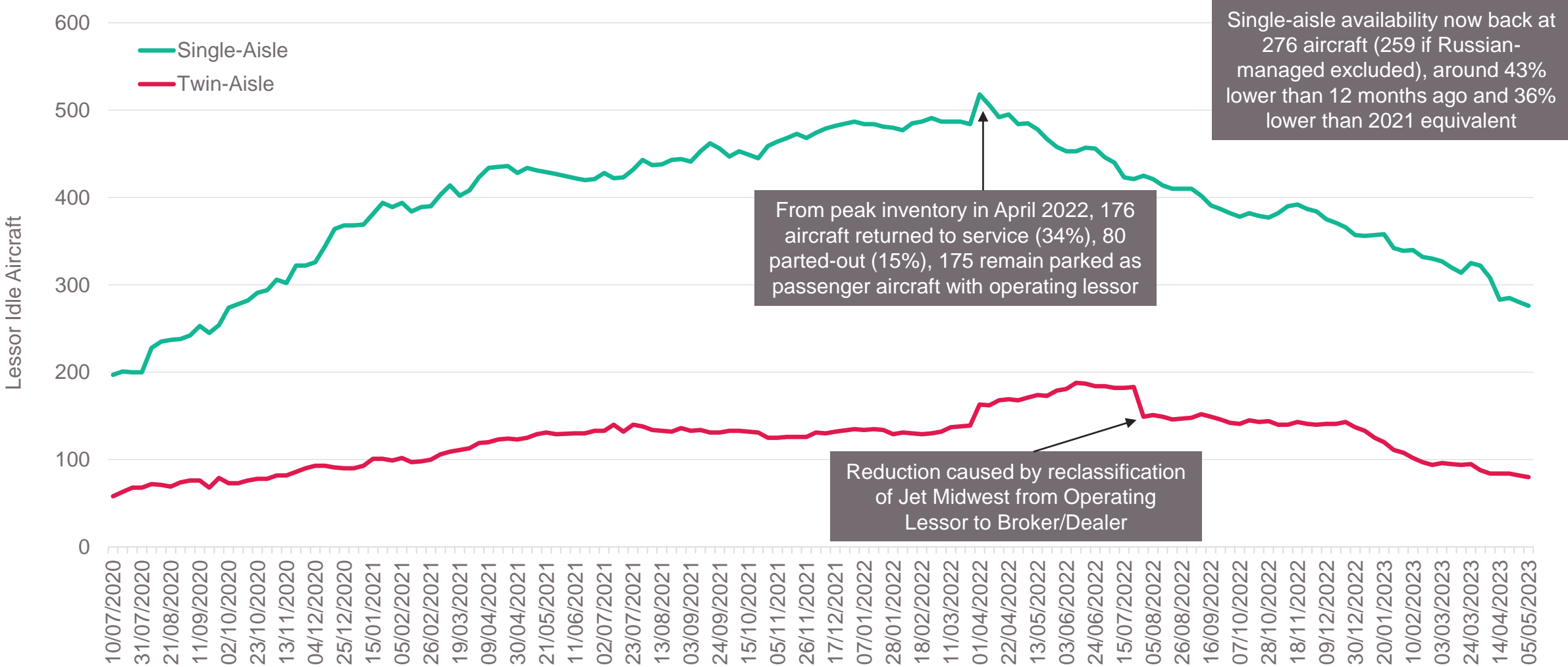
Understanding the market for feedstock: passenger aircraft availability and trends

Stored passenger fleet continues to decline every month - stored fleet share remains 7-8% points above pre-Covid levels



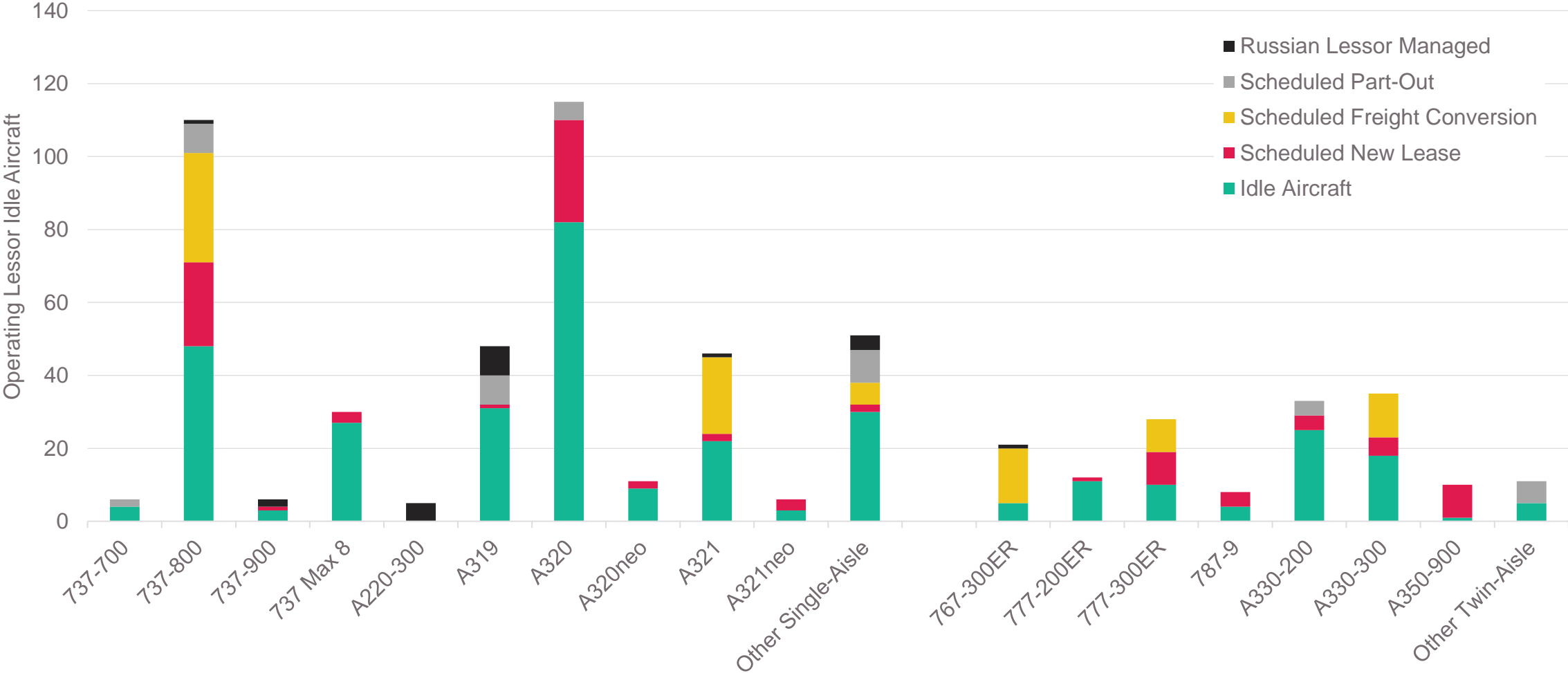
Source: Cirium Fleets Analyzer, Western-built passenger jets only. Latest month subject to revision in-line with Cirium's 30-day rule

Single-aisle lessor availability continues to decline as strong demand sees placement of young and 'ready to go' aircraft, twin-aisle also reduced to 80



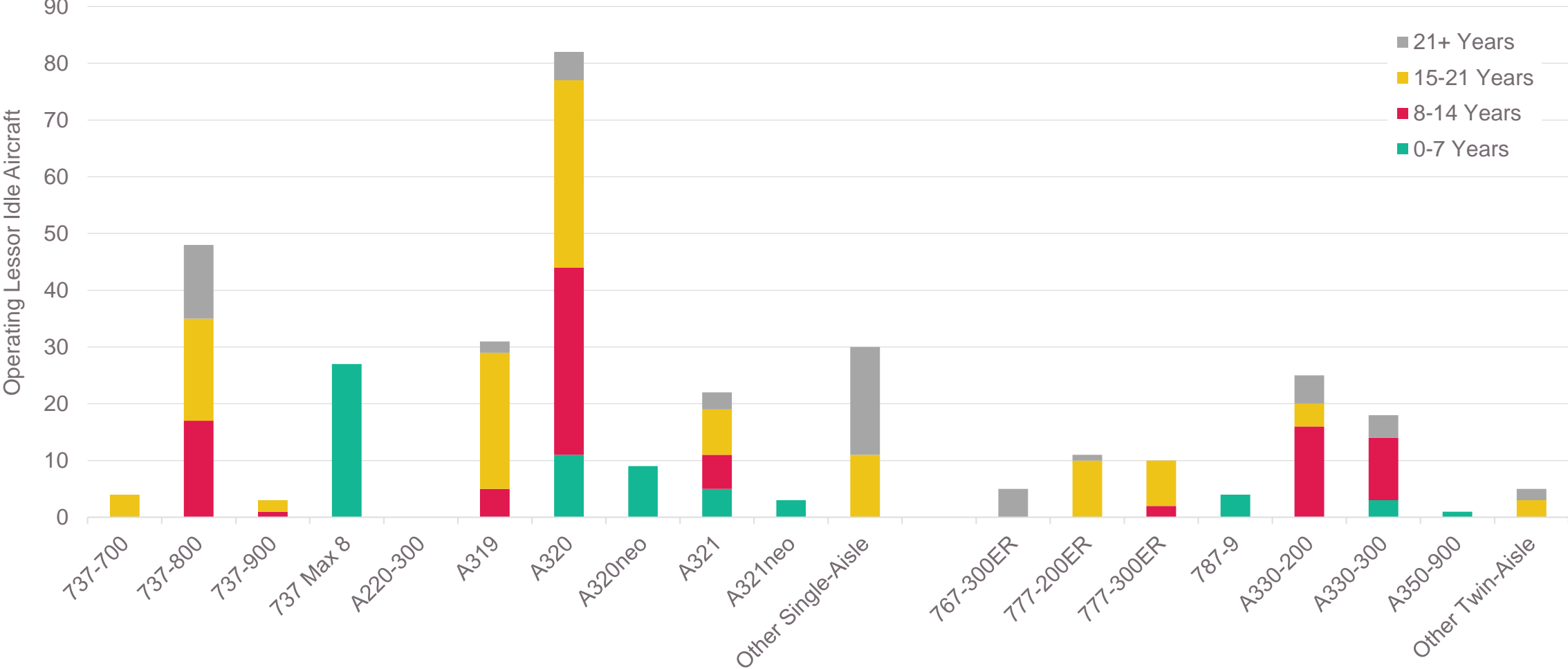
Source: Cirium Fleets Analyzer, passenger jets only, idle aircraft defined as stored with lessor and no future event identified

Available lessor inventory (defined as idle aircraft) currently includes 82 A320s, 22 A321s and 48 737-800s



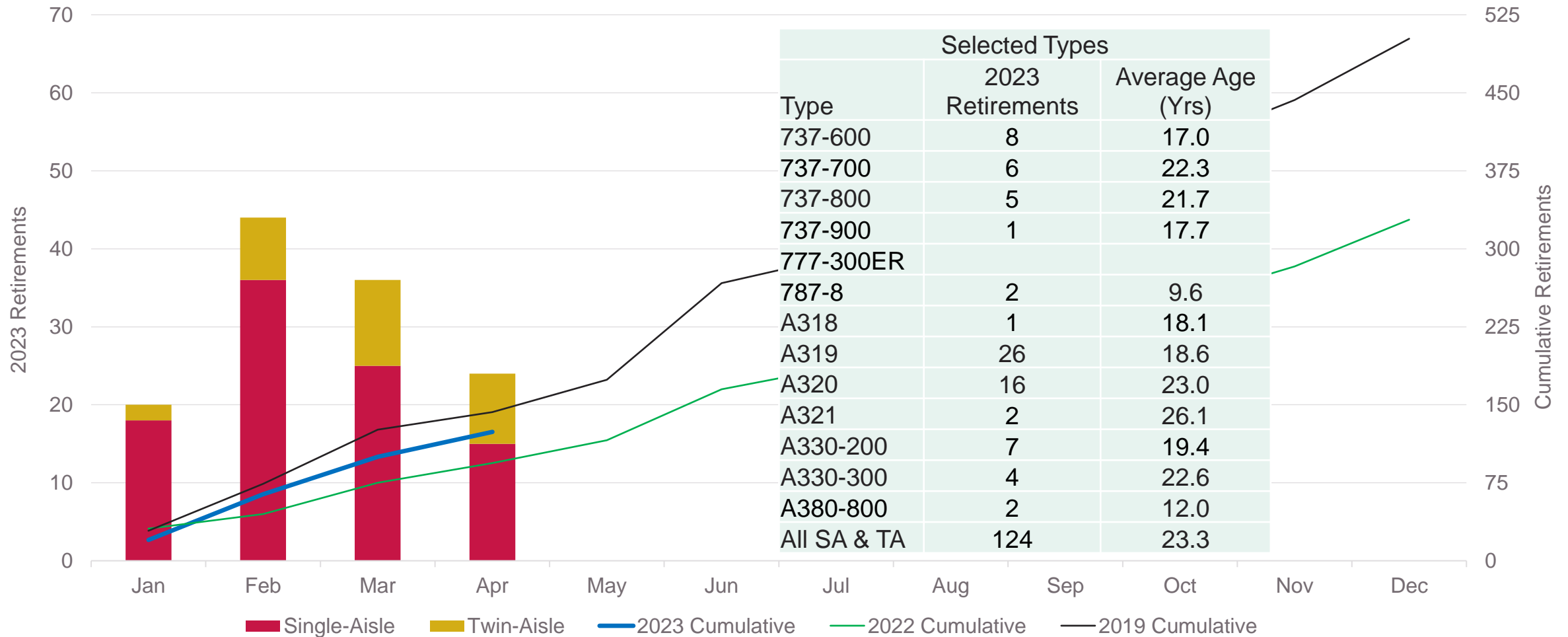
Source: Cirium Fleets Analyzer, passenger jets only, 5 May 2023

Available lessor passenger inventory consists of mostly older aircraft



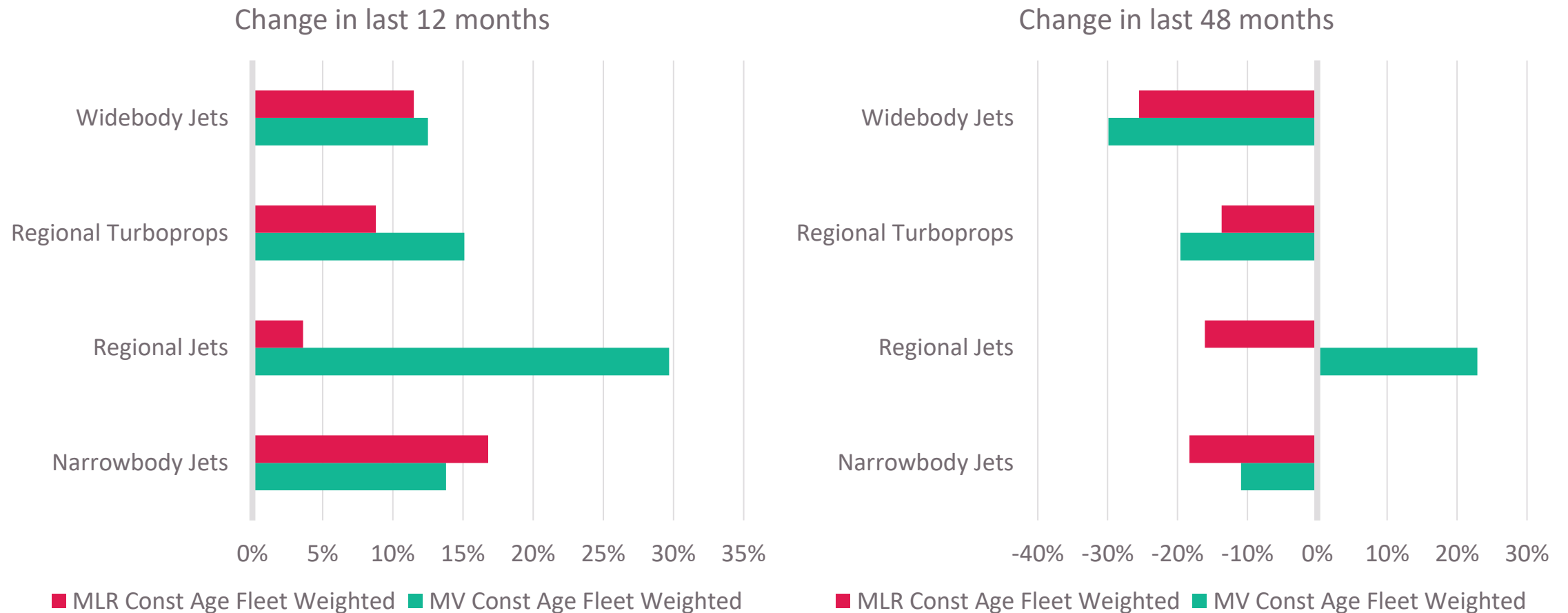
Source: Cirium Fleets Analyzer, passenger jets only, excludes aircraft committed to future lease, conversion or part-out, 5 May 2023

Retirements recorded in 2023 to date indicate total will be higher than in 2022



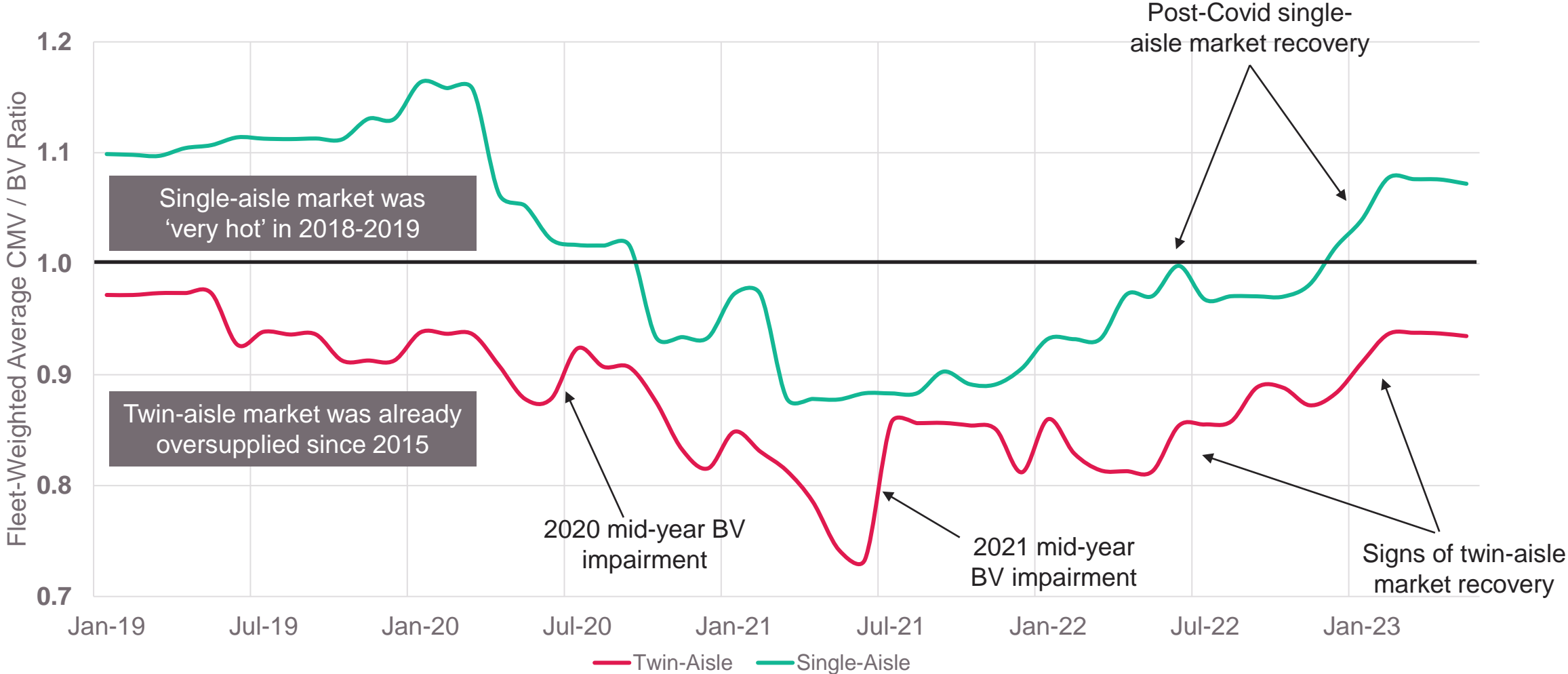
Source: Cirium Fleets Analyzer 9 May 2023, note data is subject to retrospective adjustment as researchers may reclassify aircraft from retired to stored

All classes of aircraft have seen both values and lease rates increase in last 12 months, on a fleet-weighted average basis, but most still below 2019 levels



Source: Cirium Values Analyzer as at 8 May 2023 compared to 12 and 48 months prior, on a fleet weighted and constant age basis. Includes Passenger and Cargo aircraft. Excludes aircraft older than 25 years

Single-aisle MV/BV ratio exceeded 1.0 in November and continues to strengthen sharply, already at 1.07; twin-aisles rose from 0.9 to 0.94 since January thanks to A330



Source: Cirium Values Analyzer, passenger jets only

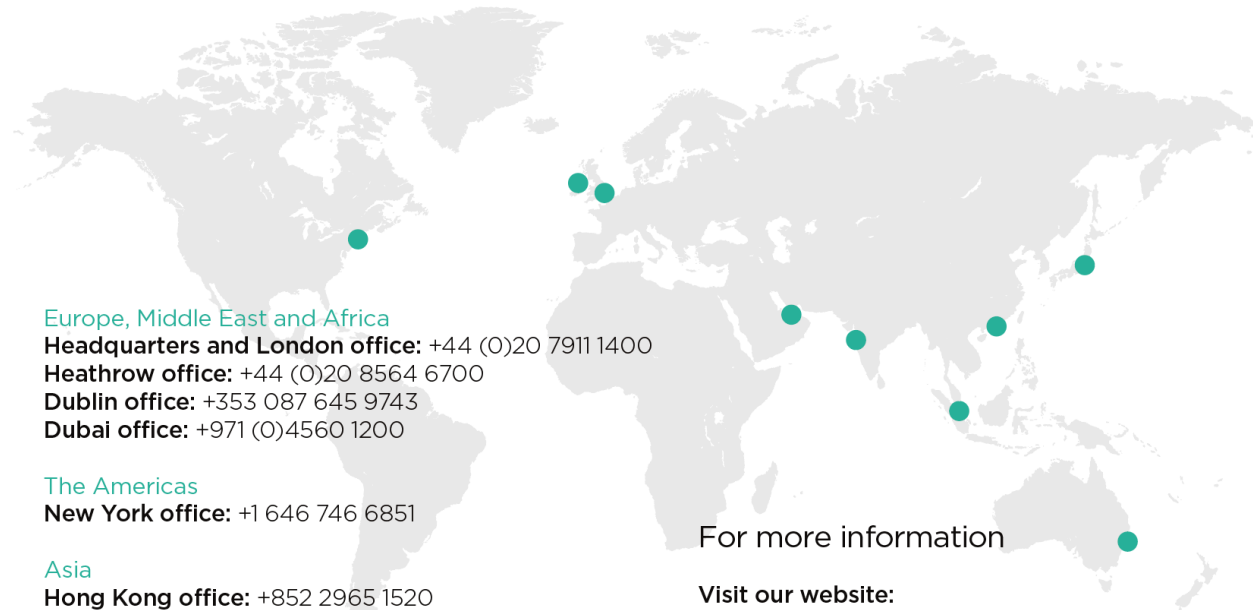
Summary and conclusions

- 🚦 Global air cargo **demand (FTKs) saw 13 consecutive months of decline** and in March FTKs were 8% down on pre pandemic levels (albeit slowed decline compared to Jan & Feb). Multiple economic headwinds continue and decreased sea shipping rates have seen some cargo moving back to ships.
- 🚦 Air cargo **yields declining** due to softening demand and rising capacity
- 🚦 Global **freighter fleet increased by 25% vs Jan 2020**
- 🚦 **Storage rate rising**, potentially signalling excess supply
- 🚦 **Capacity (AFTK) continues to grow as belly capacity returns**, especially from Asia Pacific and China, but is still below 2019 levels.
- 🚦 **Load Factors have fallen back from highs of 60%** for international air cargo during the pandemic to 46%, more in line with the long term trend
- 🚦 **“Freighters” (cargo in cabin) now prohibited** unless they have Class E modifications
- 🚦 **Airlines continue to order new** freighters and A350F and 777-8F launched for 2026/2027

Summary and conclusions

- 🚀 **E-commerce is a key driver** of the air cargo demand – but Amazon and others have put on the brakes on growth for a while. Mercado Libre stands out as an exception – expanding in Brazil and Mexico.
- 🚀 **Lowest freighter retirements in 2022**, but potentially set increase in the future amid excess capacity
- 🚀 **Values for most freighter types are peaking; lease rates for some already in decline:**
 - 🚀 737-800SF/BCF is already showing signs of lease rate weakness which may translate to values easing down in the coming year
 - 🚀 Widebodies remain stable, but 747-400SF and -400F are most exposed given how much their values have increased in last five years
- 🚀 **Securing feedstock becoming increasingly difficult and expensive** – some conversion slots may end up getting cancelled – which would help balance supply and demand longer-term
- 🚀 Near term there will be some very **good opportunities to lease new generation narrowbody freighters at discounted rates** due to coming oversupply.

ASCEND BY CIRIUM



Europe, Middle East and Africa

Headquarters and London office: +44 (0)20 7911 1400

Heathrow office: +44 (0)20 8564 6700

Dublin office: +353 087 645 9743

Dubai office: +971 (0)4560 1200

The Americas

New York office: +1 646 746 6851

Asia

Hong Kong office: +852 2965 1520

Tokyo office: +81 3 5561 5630

Singapore office: +65 6240 4720

Australia office: +61 2 9422 2194

Mumbai office: +91 98206 68719

For more information

Visit our website:

cirium.com

Or get in contact:

info@cirium.com

The information contained in our databases and used in this publication has been assembled from many sources, and while reasonable care has been taken to ensure accuracy, the information is supplied on the understanding that no legal liability whatsoever shall attach to Ascend by Cirium business, LexisNexis® Risk Solutions Group, part of RELX, its offices, or employees in respect of any error or omission that may have occurred. All intellectual property rights in this publication shall remain vested in LexisNexis® Risk Solutions Group. © 2022 LexisNexis Risk Solutions Group