



**NAVEO**  
CONSULTANCY

# EXECUTIVE LEADERSHIP ROUNDTABLE

15 July 2019

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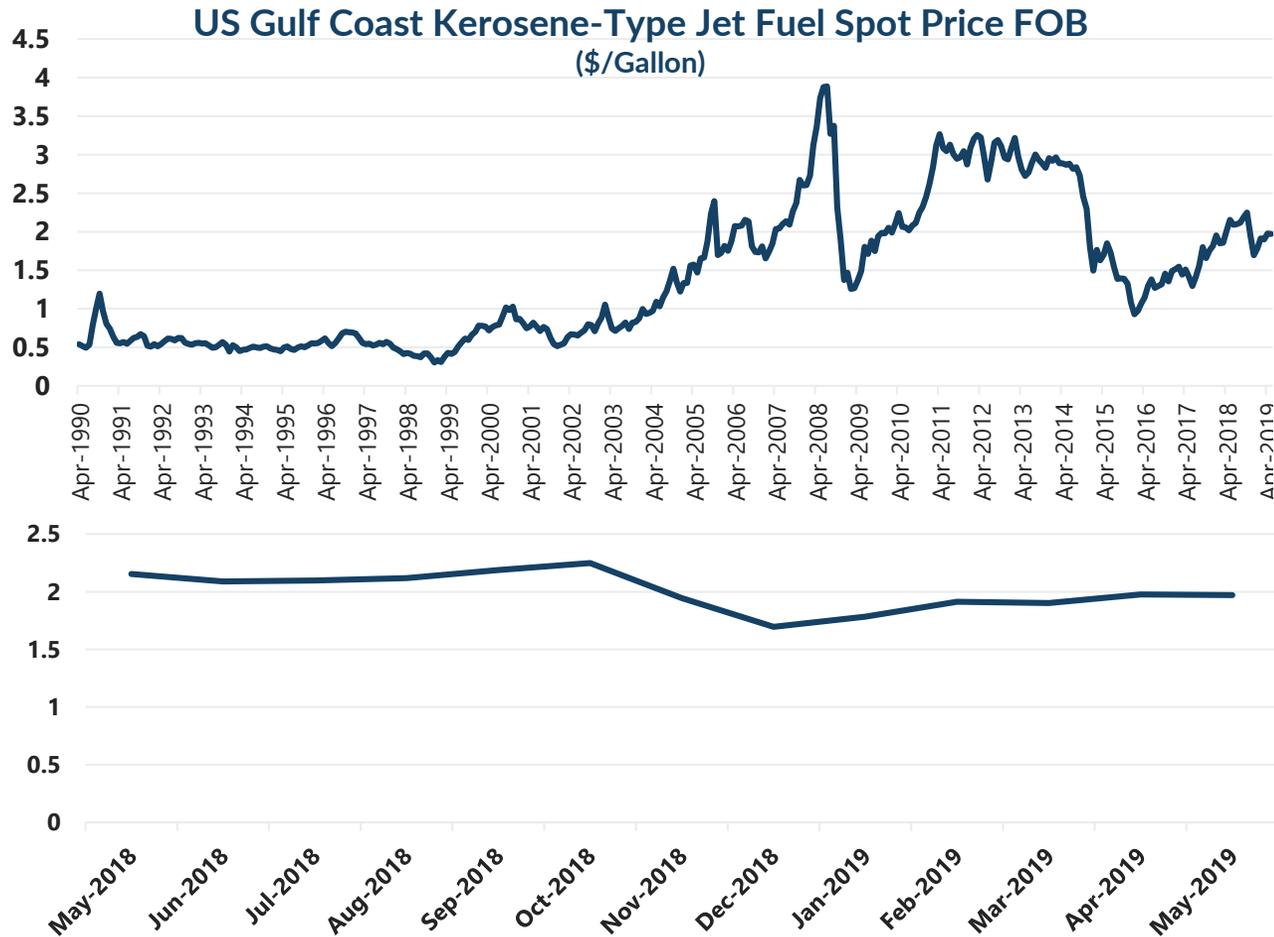


**AFRA**  
14-16 JULY 2019

# Agenda

- **Financial Context**
- Fleet & MRO Forecast
- Industry Trends

# Jet fuel prices have been lower than 2018 but have edged up recently



- ▲ Biggest impact on current price of oil is weakening demand rather than tightening supply and expectation is for lower prices (even with political uncertainty)
- ▲ USA now produces more crude oil than any other country (~14.5%) and is outside OPEC
- ▲ 2019 jet fuel price expected to average ~\$80/barrel
- ▲ Fuel costs account for ~25% of airline operating costs

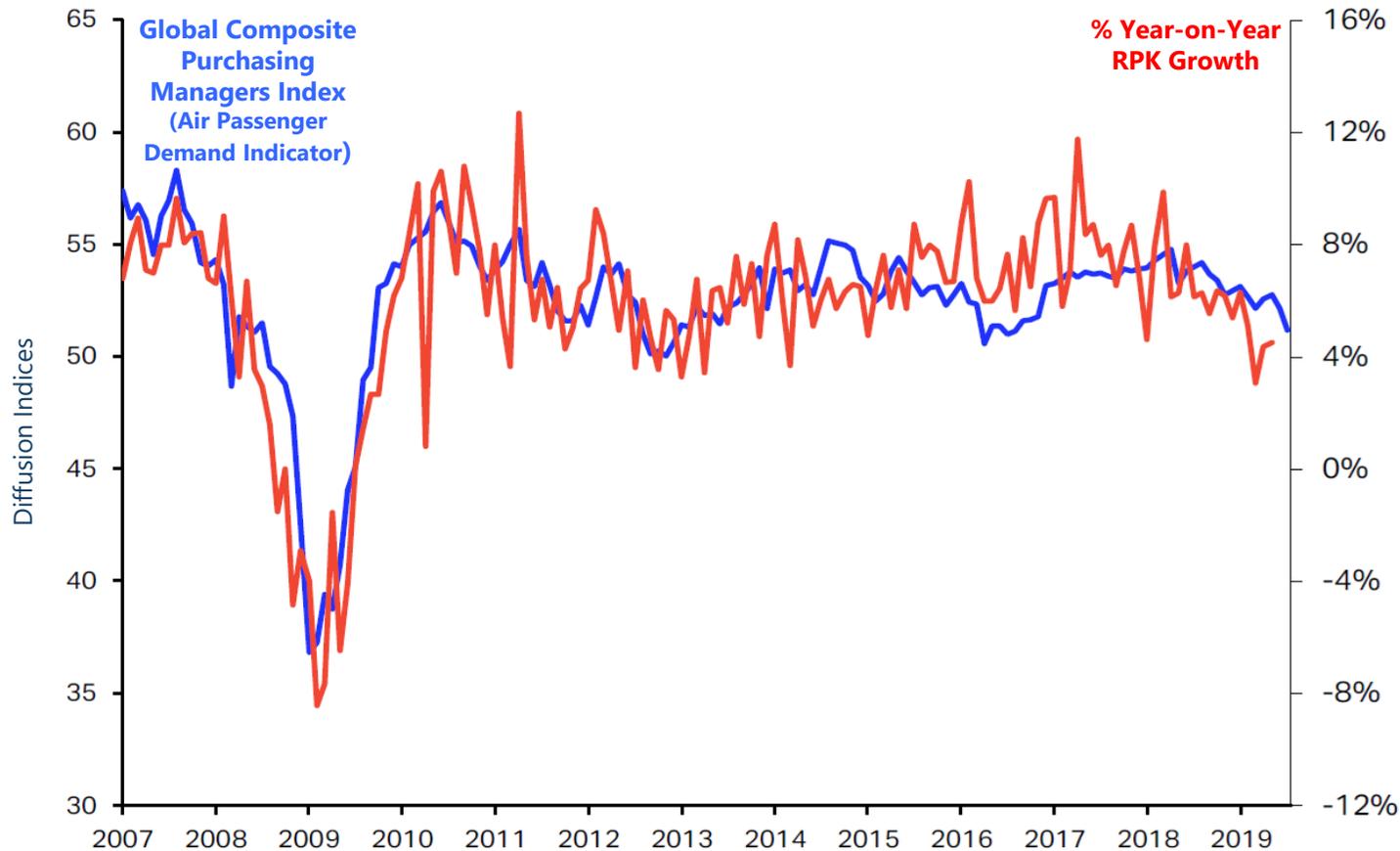
Source: EIA

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# Air travel demand remains strong but the growth rate is slowing

## Revenue Passenger Kilometer (RPK) Growth and Business Confidence



- ▲ RPKs in May 2019 were +4.5% Year-on-Year
- ▲ However, this is lower than 20yr average of +5.5%
- ▲ Global PMI Index continues to slow and reached a level not seen since 2016
- ▲ Trends align with economic slowdown

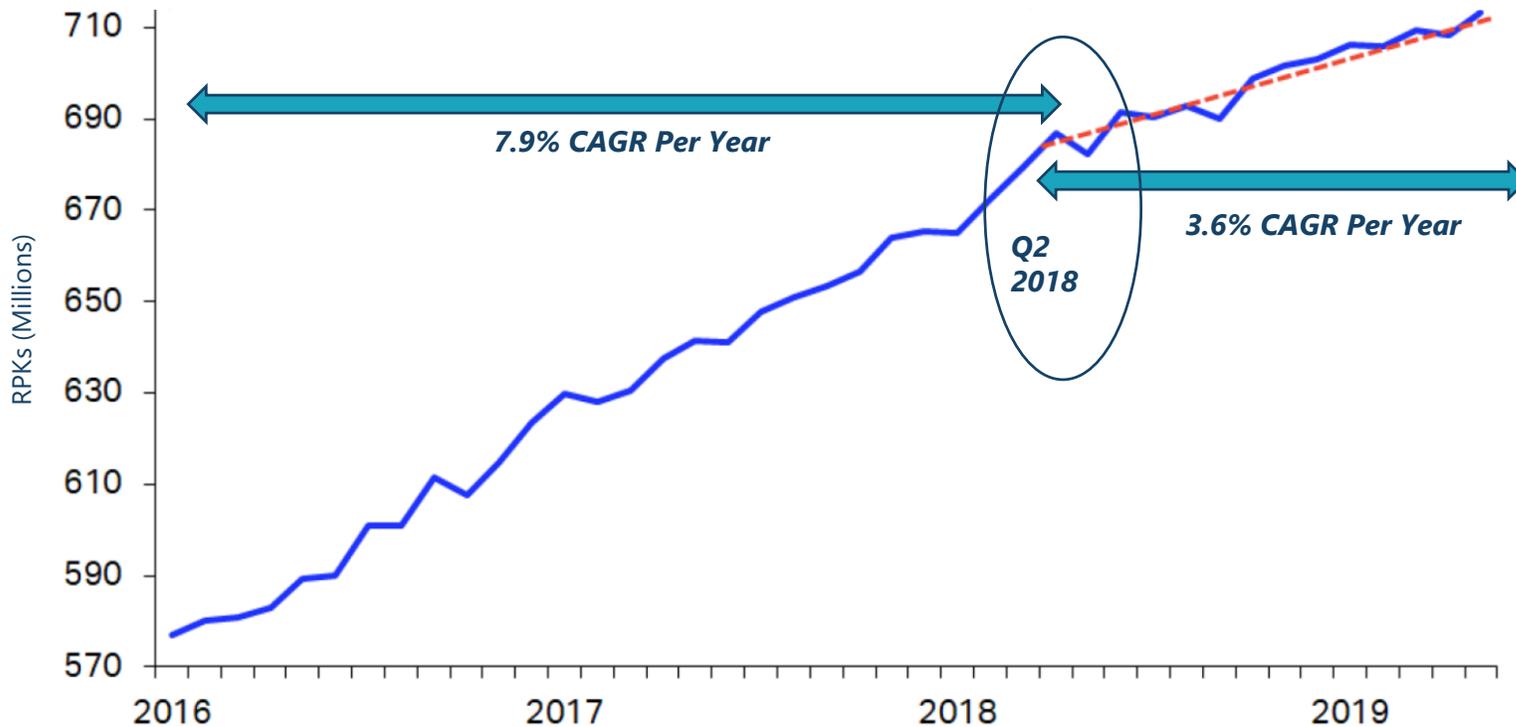


Source: IATA Economics, IATA Monthly Statistics, Markit

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# The start of the traffic growth slowdown can be traced back to Q2 2018

Seasonally Adjusted Monthly Global Revenue Passenger Kilometers



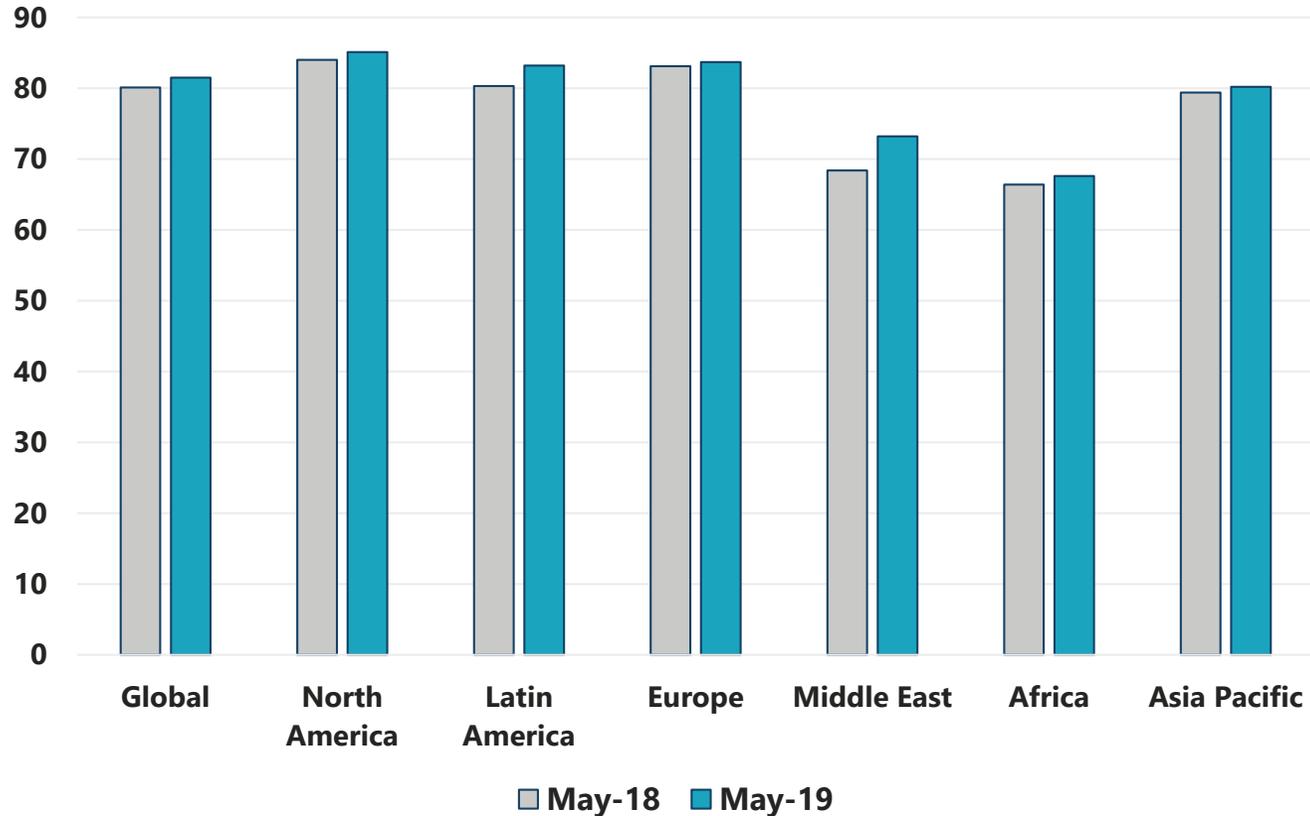
Source: IATA Statistics

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- ▲ Air travel growth slowdown started in Q2 2018
- ▲ Since 2016, RPKs had grown 7.9% per year but have slowed to 3.6% since last year
- ▲ The slowdown was driven not by US, Latin America or Europe, but instead by weaker travel demand growth from Asia Pacific International, India, Middle East International and domestic China passengers
- ▲ Data indicates that trade war tariffs has hit Asia demand (US tariffs began in January 2018)

# Airlines are managing demand and supply as Passenger Load Factors recently reached record levels

Passenger Load Factor % by IATA Operator Region (May 2018 vs May 2019)

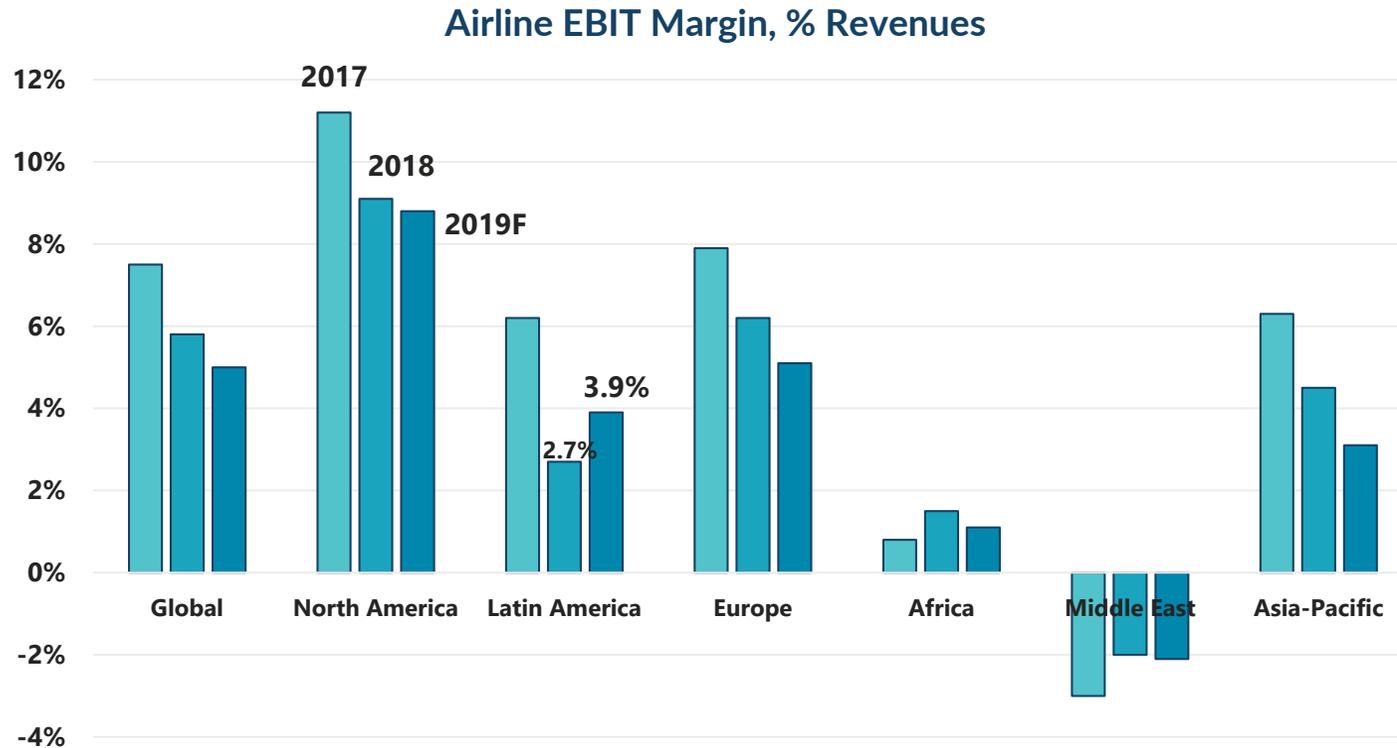


- ▲ Capacity discipline continues leading to record load factors in May 2019 (up 1.4% on May 2018)
- ▲ Available Seat Kilometers grew 2.7%, less than RPK growth of 4.5% thereby boosting load factors
- ▲ Flights are fuller across the globe as airlines have focused more on profits over market share, cut under-performing routes and right-sized aircraft

Source: IATA Economics, IATA Statistics



# However, Airline EBIT margins continue their downward trend...



- ▲ Airline margins are under pressure as costs increase faster than revenues and freight remains weak
- ▲ Risks include trade war escalations and Brexit
- ▲ Latin America is the only region showing a forecasted increase in EBIT margin for 2019 encouraged by strong passenger demand particularly on international routes

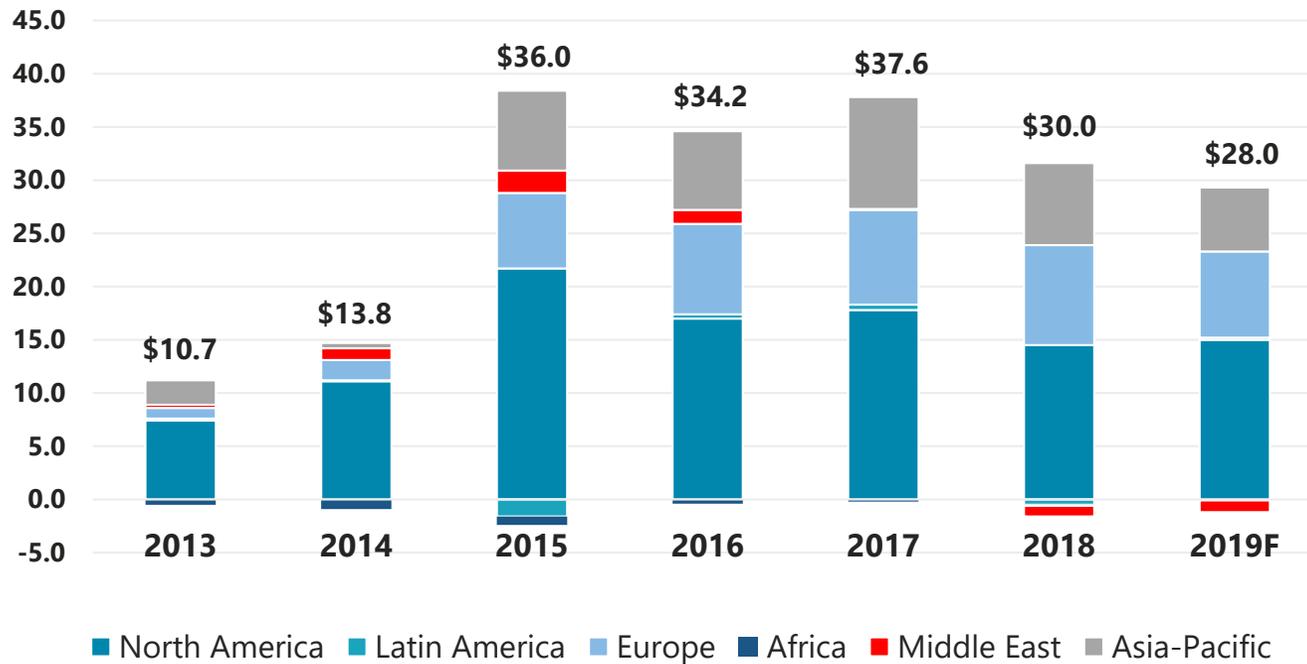
Source: IATA, June 2019

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# Leading to a reduced industry profit forecast for 2019 of \$28B

Airline Net Profit Forecast (\$B)



- ▲ 2019 will be the 10<sup>th</sup> year of consistent global airline profits (2009 was last year of cumulative losses)
- ▲ However, airlines face pressure due to forecasted cost increases (+7.4%) outpacing revenue (+6.5%)
- ▲ Labor, fuel, infrastructure and intense competition limit yield increases – combined with political instability, protectionism and trade conflicts all taper growth and increase uncertainty
- ▲ North America airlines have benefitted from consolidation and ancillary revenues: Profit per passenger is \$14.77 compared to just \$0.50 in Latin America

Source: IATA, June 2019

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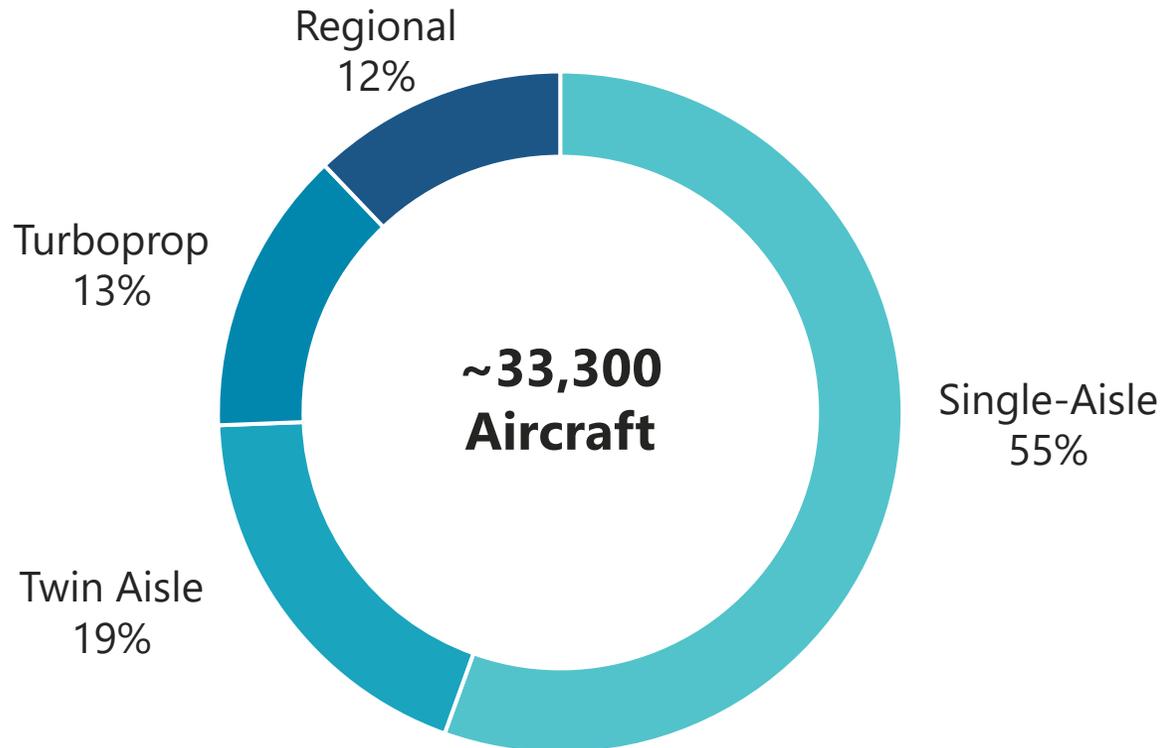


# Agenda

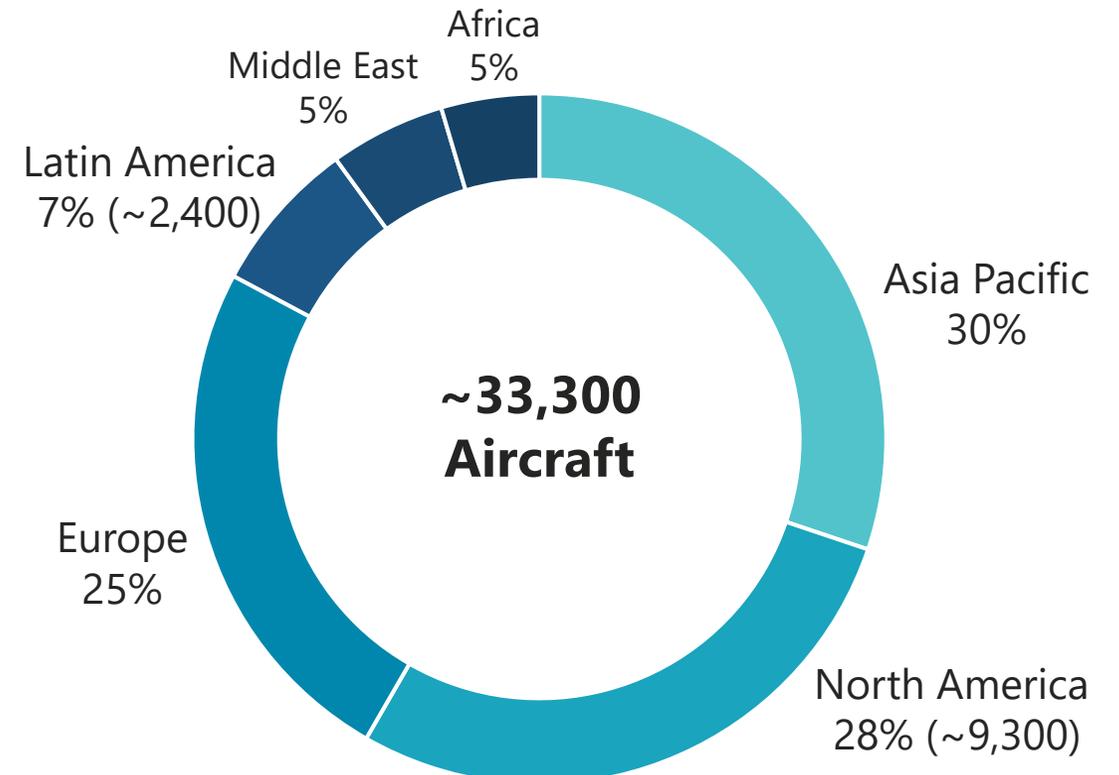
- Financial Context
- **Fleet & MRO Forecast**
- Industry Trends

# The 2019 air transport fleet is ~33,300 aircraft; North America comprises 28%

By Aircraft Size



By Operator Region

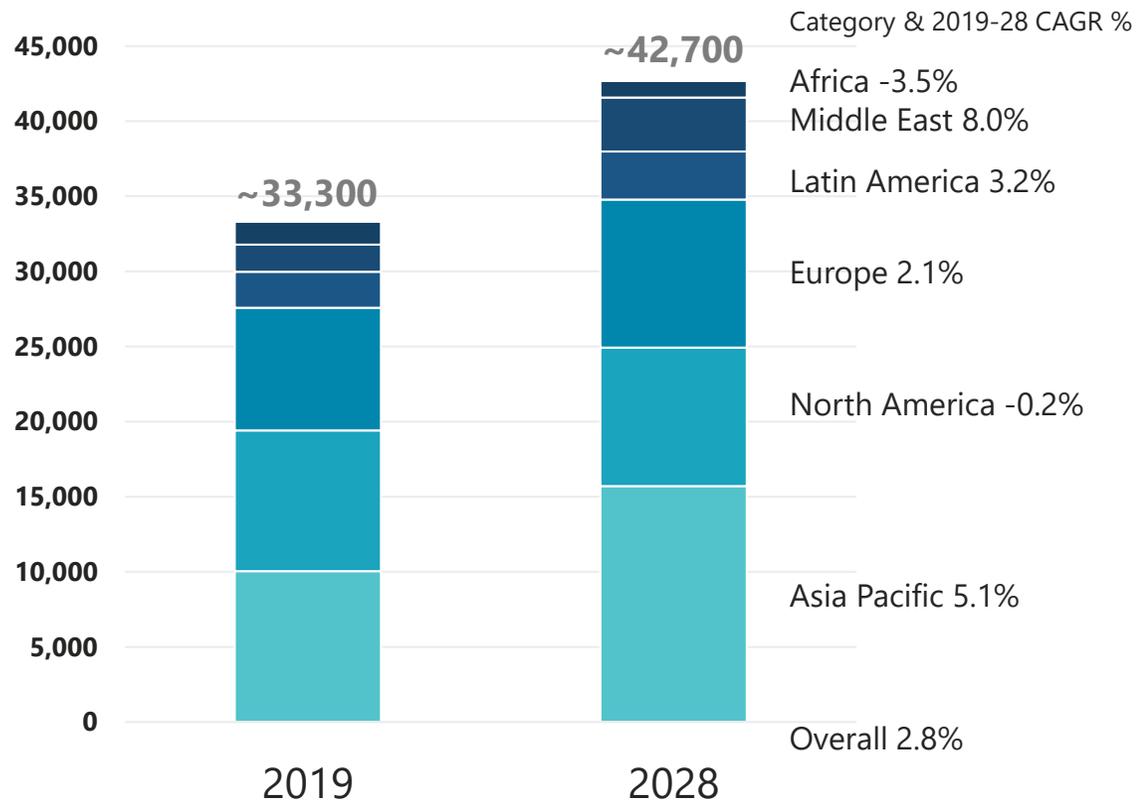


Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis

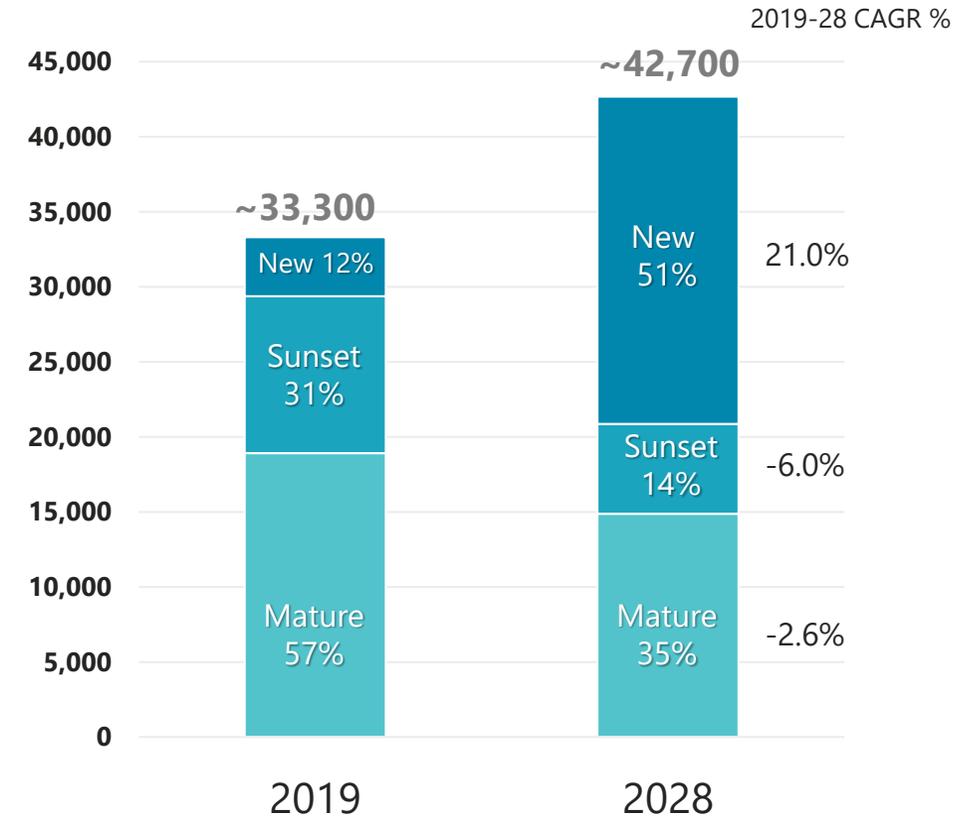


# The fleet grows to ~42,700 by 2028 – a growth rate of 2.8%

## In-Service Fleet Forecast By Operator Region



## By Technological Maturity

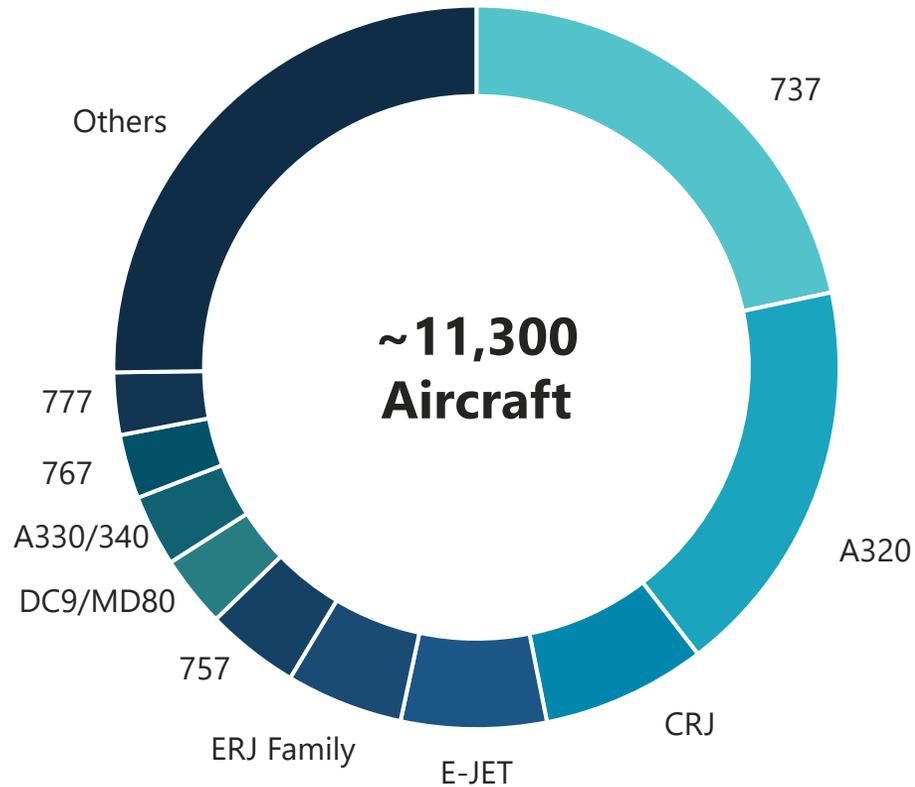


Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis



# ~11,300 aircraft are forecasted to retire by 2028

Aircraft Retirement Forecast 2019-2028

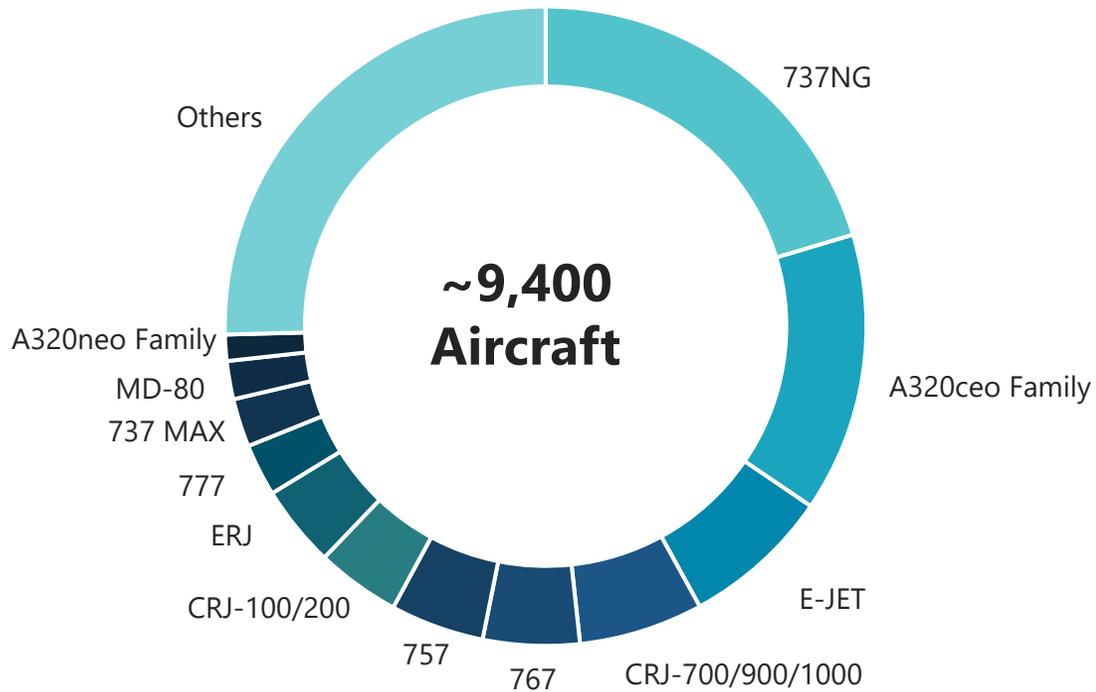


- ▲ Over the next few years we'll see increasing retirements of 1990s/2000s vintage aircraft including 777-300ERs (powered by GE90-115Bs)
- ▲ Airlines are increasingly incorporating USM into their purchasing strategies
- ▲ Self-cannibalization will increase as airlines retire aircraft and USM/green time engines to reduce MRO costs
- ▲ Demand for USM for key aircraft/engines remains strong but current supply is tight and competition for assets fierce

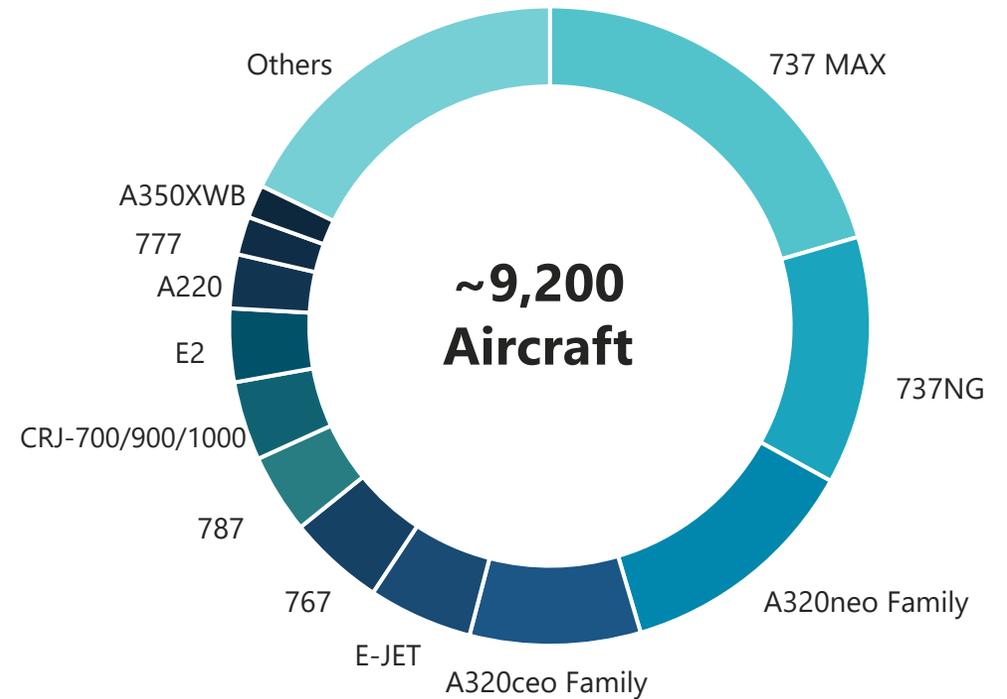
Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis

# The North America in-service fleet remains a similar size in 2028

2019 North America Fleet



2028 North America Fleet



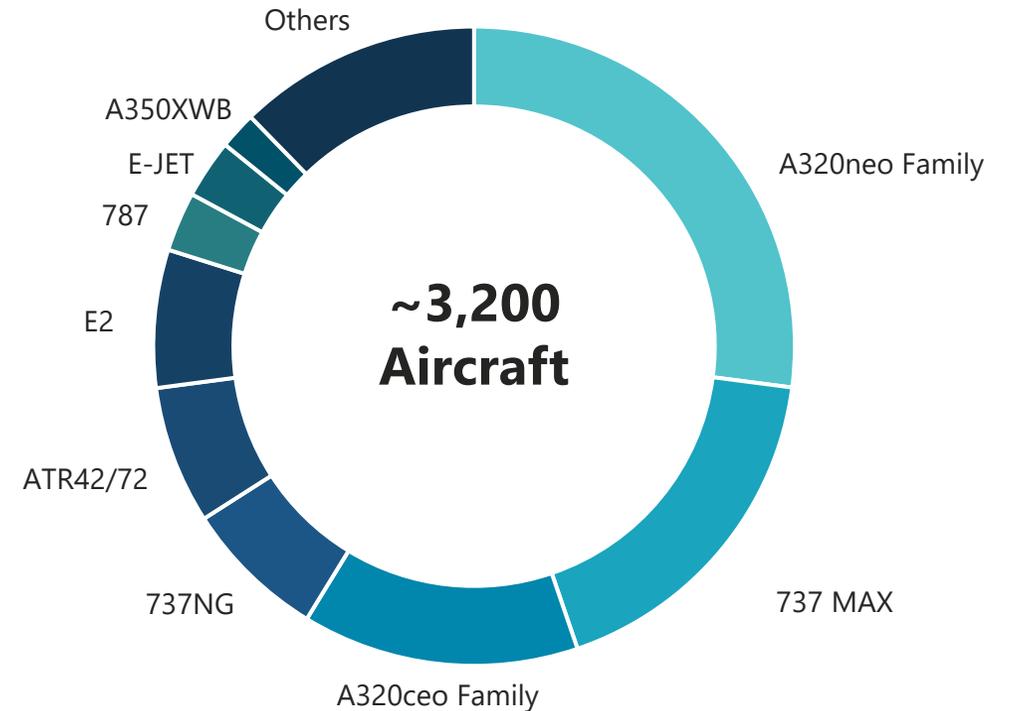
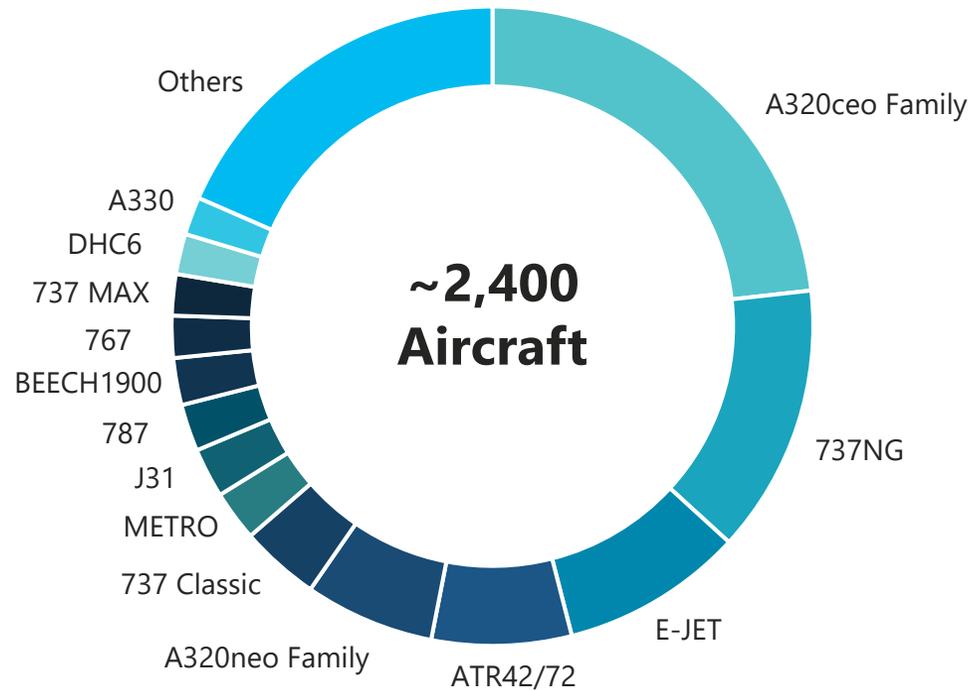
Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis



# The Latin America in-service fleet grows to ~3,200 aircraft by 2028

2019 Latin America Fleet

2028 Latin America Fleet

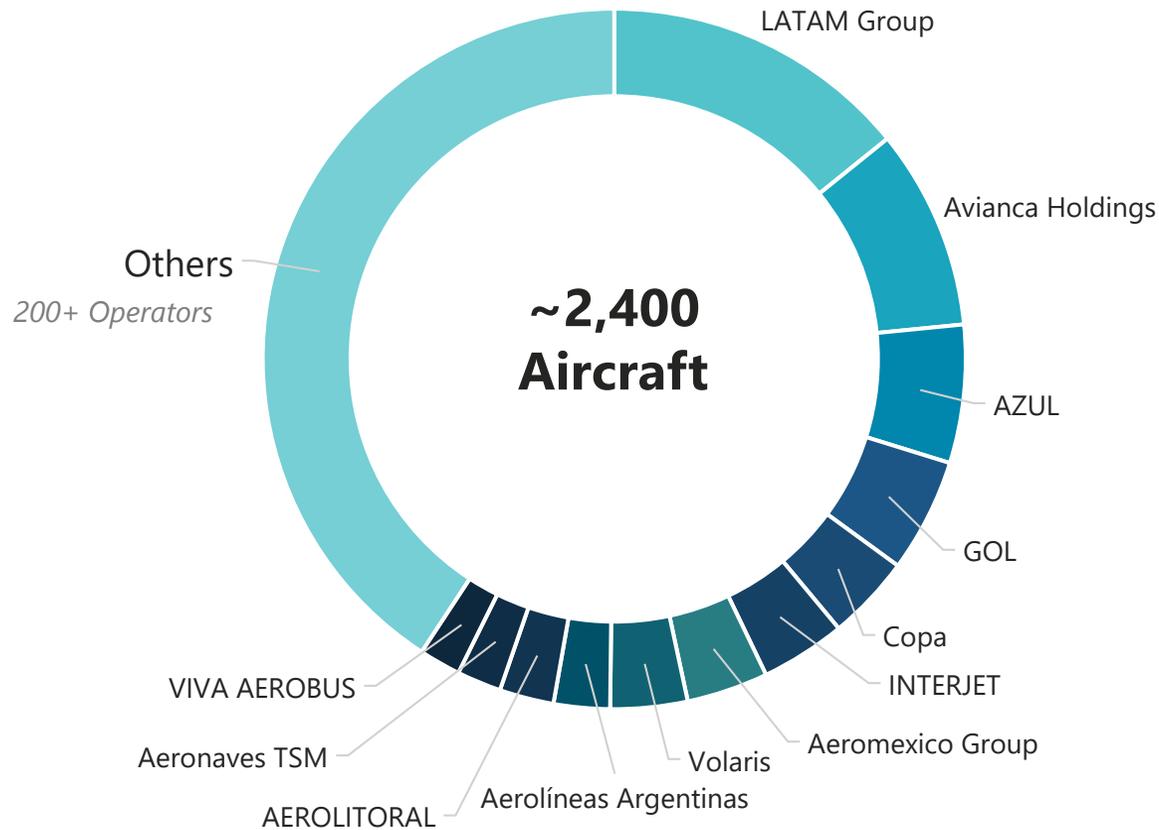


Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis

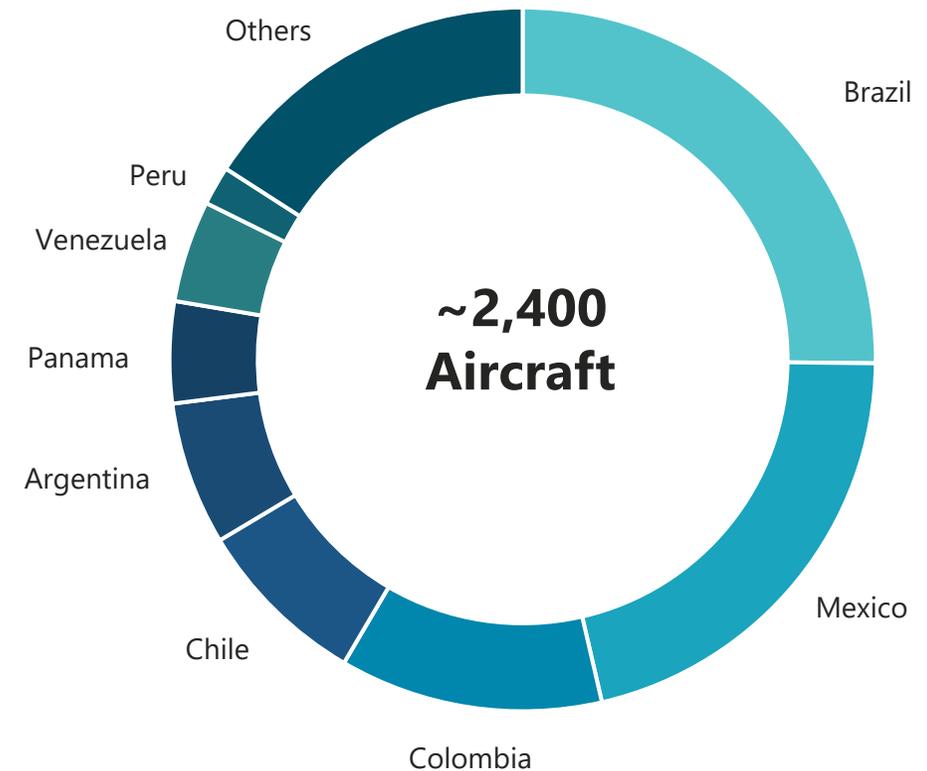


# Eight large airline groups represent over 50% of the Latin America fleet

2019 Latin America Fleet by Operator Group



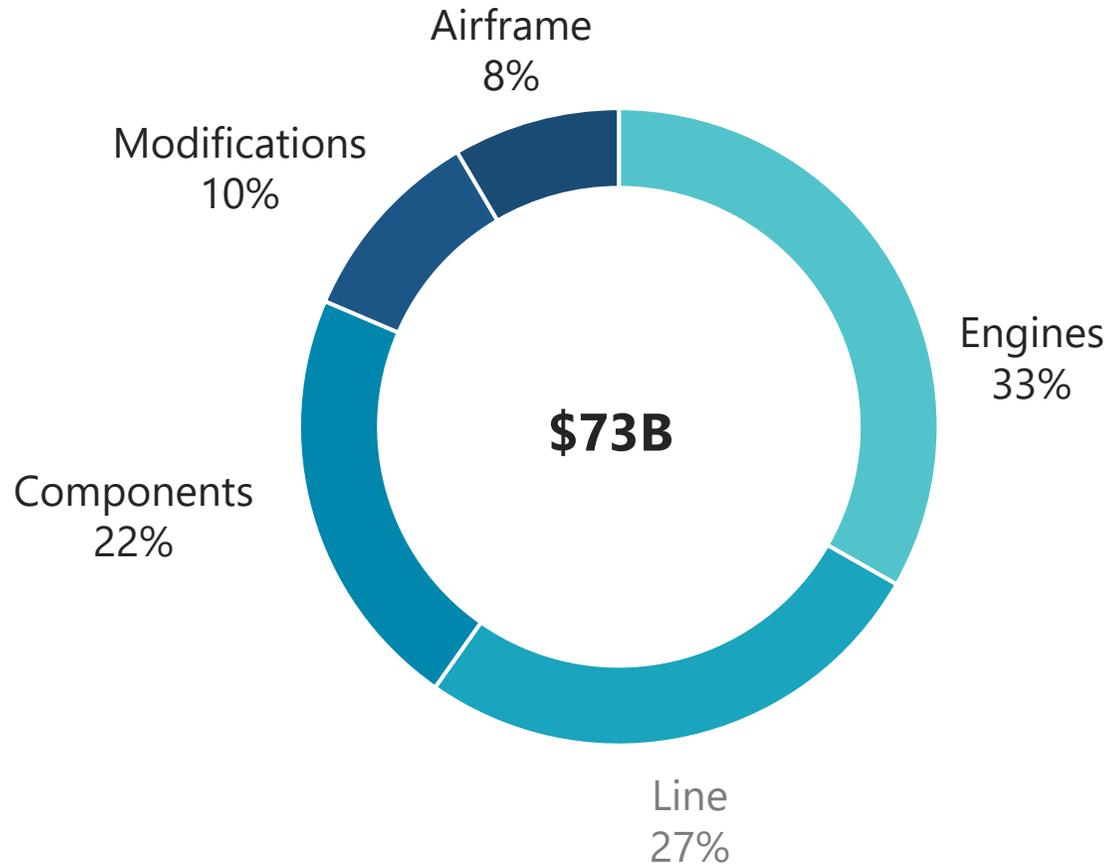
2019 Latin America Fleet by Operator Country



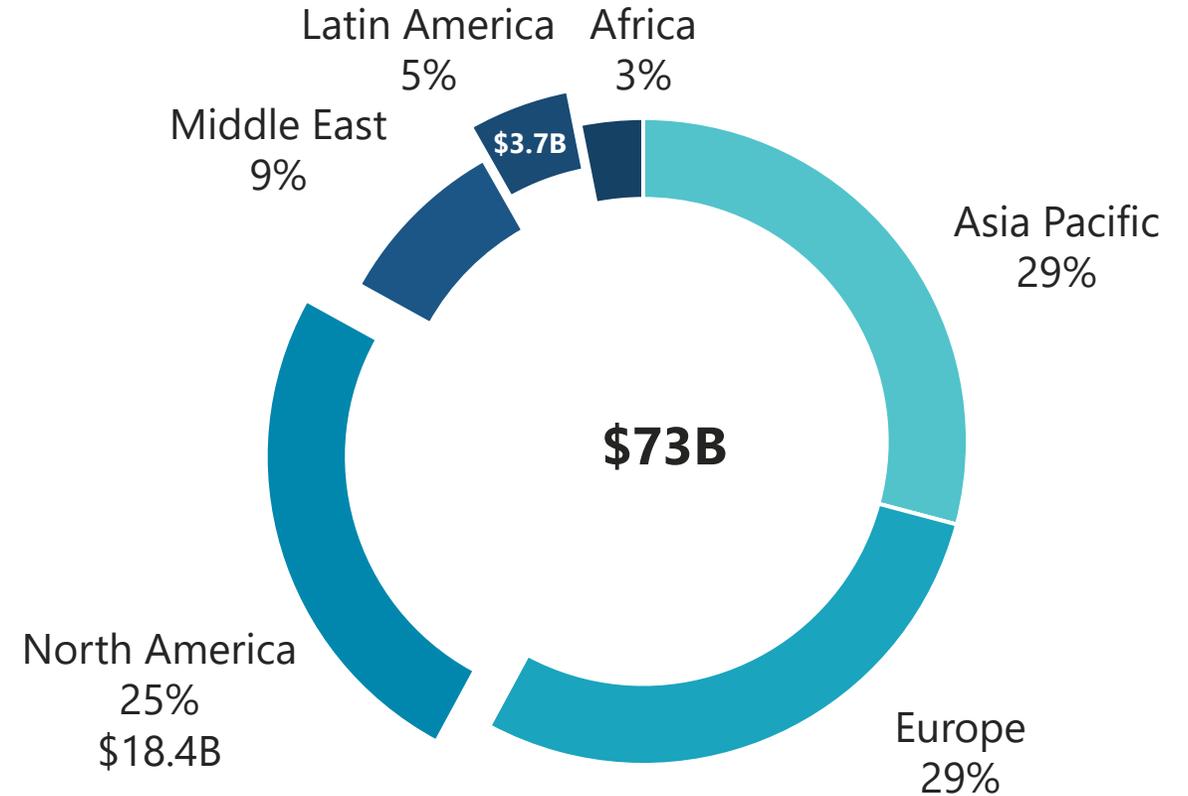
Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis

# The MRO Market demand is ~\$73B; North America represents ~25%

By MRO Category



By Operator Region

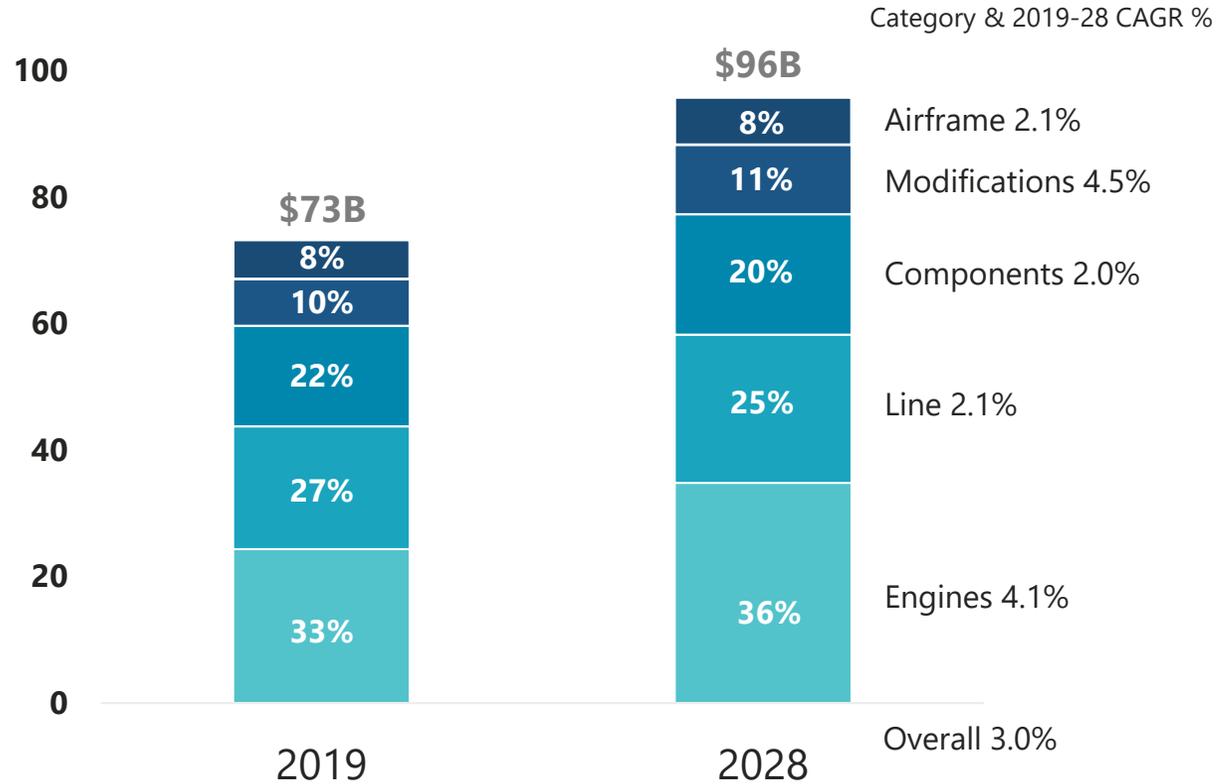


Source: AviationWeek Fleet&MRO Forecast 2019

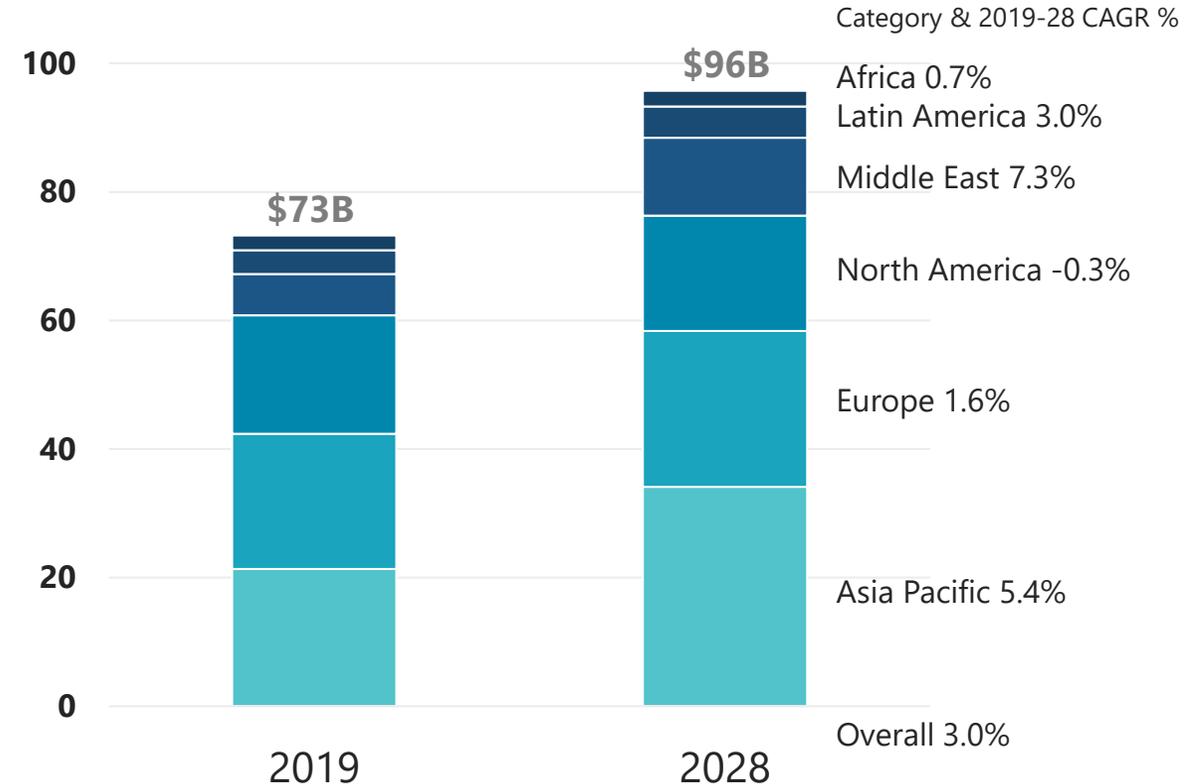


# The MRO Market demand is ~\$73B growing to \$96B by 2028

By MRO Category



By Operator Region

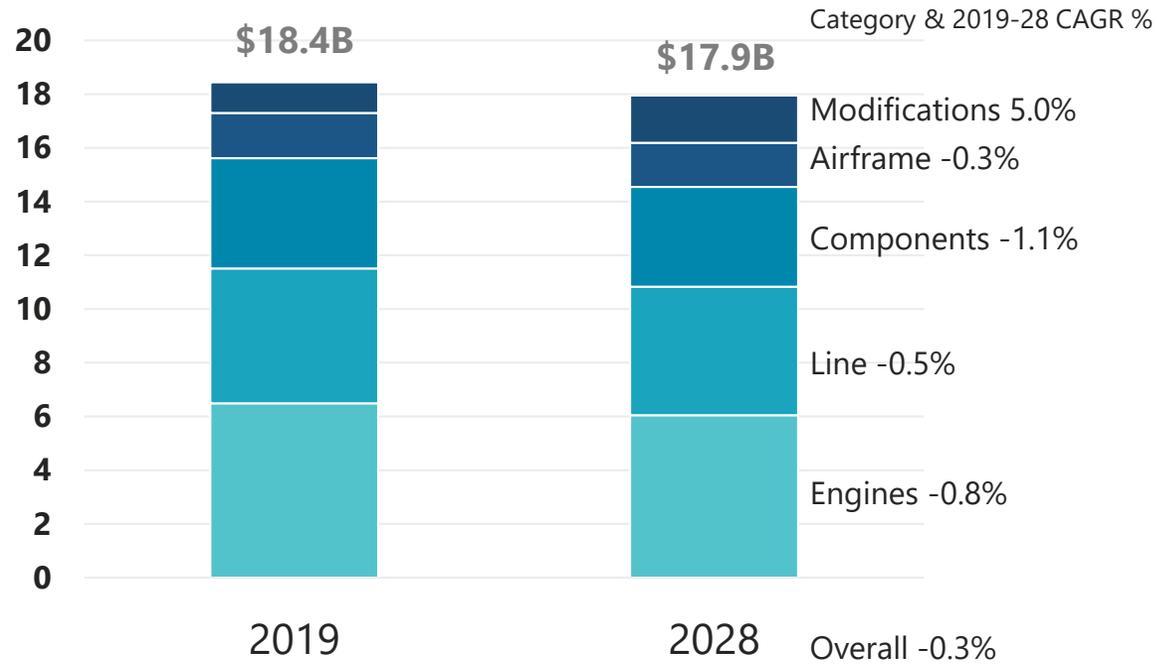


Source: AviationWeek Fleet&MRO Forecast 2019 Constant \$

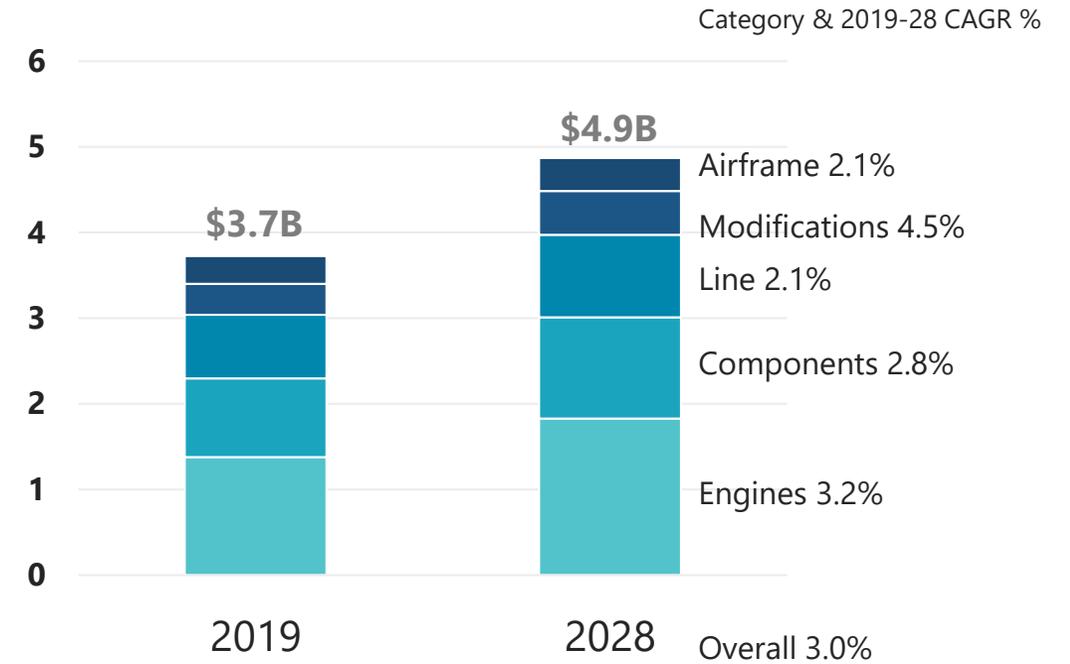


# North American MRO demand is virtually flat; Latin America grows at 3%

## North America Operator MRO Demand



## Latin America Operator MRO Demand

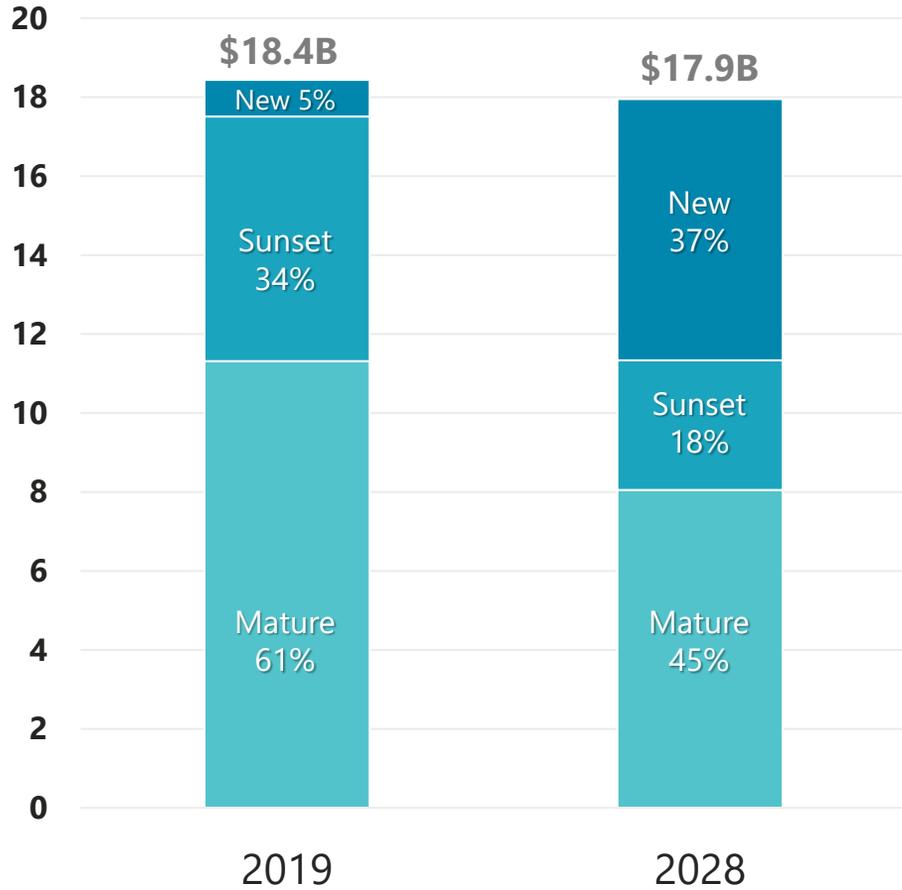


Source: AviationWeek Fleet&MRO Forecast 2019 Constant \$

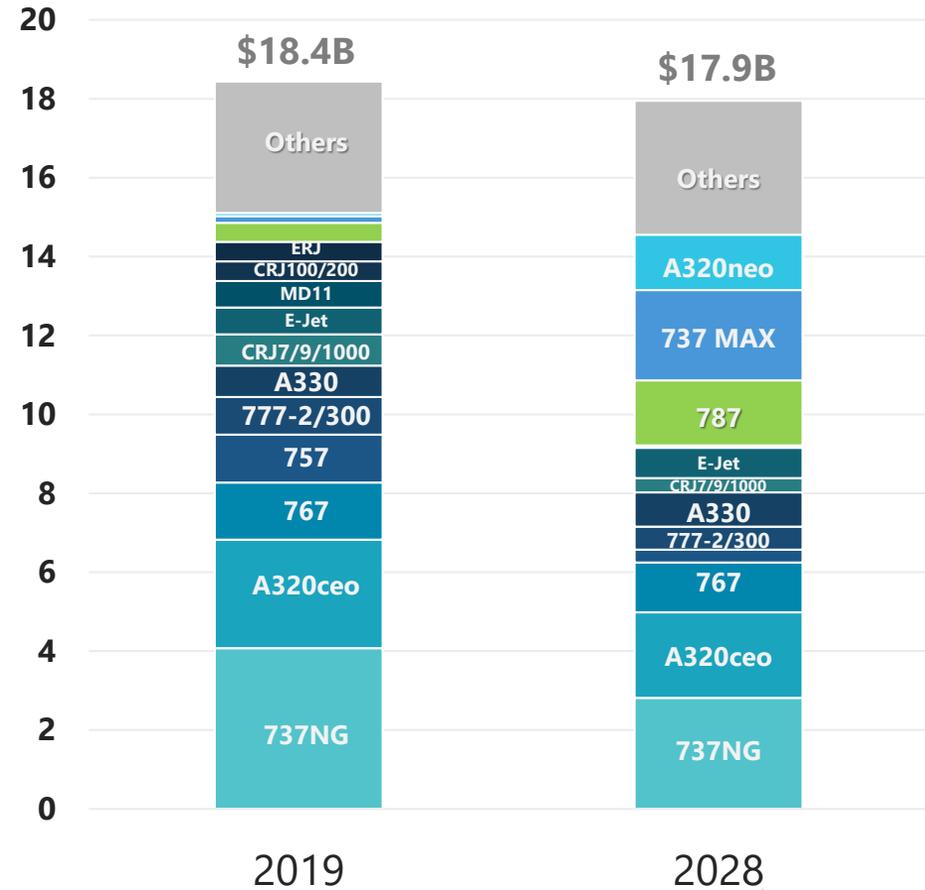


# North America MRO demand mix by aircraft changes older aircraft retire

North America Operator MRO Demand by Aircraft Maturity



North America Operator MRO Demand by Aircraft Model



Source: AviationWeek Fleet&MRO Forecast 2019, NAVEO Analysis, Constant \$



# Agenda

- Financial Context
- Fleet & MRO Forecast
- **Industry Trends**

# There are at least four key high-level trends impacting Aviation

## Technological Innovation

- New advanced materials
- Digitalization / Big Data
- UAVs
- Electric Propulsion
- Artificial Intelligence
- Cybersecurity
- Automation

## Geopolitics

- Economic power shift West to East
- Protectionism & Nationalism
- Regional trading blocks
- Investment requirements



## Climate Change

- Impact on aviation growth
- Visibility of Aviation
- Protestors and motivated activists
- Mitigation costs

## Social Change

- Urbanization
- Connectiveness
- Ageing workforce skill requirements
- Attitudes to air travel
- Technology acceptance

# Merger & acquisitions continue to restructure the aerospace supply chain

## Examples of Aerospace M&A Activity in 2018 & 2019



**Rockwell Collins**  
UTC Aerospace Systems  
**Collins Aerospace**

Airbus & Bombardier CSeries



Airbus acquires majority 50.01% stake



**Esterline**  
**TRANS DIGM**  
GROUP INC.



**United Technologies | Raytheon**  
MERGING TO CREATE RAYTHEON TECHNOLOGIES  
(closing 2020)



**StandardAero**  
THE CARLYLE GROUP



**MITSUBISHI HEAVY INDUSTRIES**  
Bombardier CRJ  
(closing 2020)



**BOEING**  
KLX & EMBRAER



**L3HARRIS**  
L3HARRIS™

Who's next? 



Melrose Buy Improve Sell  
**GKN**



**JET PARTS ENGINEERING, LLC**  
Vance Street | Capital LLC



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# Finally, there are several MRO trends to watch



Big Data: Aircraft Health Monitoring & Predictive Maintenance



OE supply chain constraints & part shortages



How to differentiate MRO service offerings



OEM continued focus on the aftermarket



MRO Capacity Crunch



Retirement wave and USM / engine green time availability



In-Service aircraft & engine issues



MRO Expansion & Insourcing



Labor shortages



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# Thank you!

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