AIRFINANCE JOURNAL

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special supplement

Air Investor 2022

Narrowbodies **continue to lead**

Not surprisingly, narrowbodies remain the most popular types when it comes to remarketing potential, operational success, value for money and residual value – the four criteria in *Airfinance Journal*'s investor poll.

Since the start of the Covid pandemic, narrowbodies have increased their lead over the widebody aircraft, in the *Airfinance Journal*'s investor poll.

In 2021, the Boeing Max models benefitted from the gradual lift in bans from certain jurisdictions. The Boeing Max 8 was the star performer last year and recorded a 0.39-point improvement over the previous year to make the top five. The Max 10 was not far behind with a 0.30-point improvement.

Airbus's competitive products, the A321neo and the A320neo models, also recorded some improvements in 2021.

Once again, the A321neo was the clear winner in the single-aisle category and, for the first time, it led the way in all four criteria.

One pollster noted that the type has recorded four times more orders than the 737-10, adding: "The market has voted."

Second was the A320neo model with improved marks in all four categories.

The 737-800 came third, like in 2020, scoring better in three criteria than in the previous year. The model has benefitted from the Max crisis. Despite the ongoing replacement with the Max family, the 737-800 remains a key asset on the passenger side, while cargo conversion appetite continues to rise.

The lift in bans of the Max family gave investors confidence in the remarketing potential and residual values categories

Single-aisles

Aircraft type	Residual value	Value for money	Operational success	Remarketing potential	Overall score	Last year's score	Difference
A321neo	4.79	4.42	4.68	4.89	**4.70**	**4.54**	0.16
A320neo	4.60	4.30	4.55	4.68	**4.53**	**4.39**	0.14
737-800	4.05	4.32	4.79	4.17	**4.33**	**4.19**	0.14
A321	3.87	4.11	4.53	4.06	**4.14**	**4.05**	0.09
737 Max 8	4.24	4.00	3.74	4.33	**4.08**	**3.69**	0.39
A220-300	4.11	3.97	4.05	4.06	**4.04**	**3.88**	0.16
A320	3.43	3.95	4.63	3.74	**3.93**	**3.88**	0.05
737 Max 10	3.33	3.56	3.29	3.15	**3.33**	**3.03**	0.30
737 Max 9	3.11	2.95	2.78	3.19	**3.01**	**2.96**	0.05
737-900ER	2.79	3.47	3.11	2.61	**2.99**	**3.11**	-0.12
737-700	2.39	3.06	3.53	2.25	**2.81**	**2.74**	0.07
A319	1.90	3.10	3.65	2.00	**2.66**	**2.64**	0.02
A319neo	2.32	2.61	2.77	2.17	**2.47**	**2.29**	0.18
737 Max 7	2.50	2.56	2.50	2.29	**2.46**	**2.17**	0.29
C919	1.27	1.60	1.38	1.18	**1.36**	**1.38**	-0.02
ARJ21	1.19	1.25	1.25	1.08	**1.19**	**1.19**	0.00

The A321neo was the clear winner in the single-aisle category

last year and this is set to continue in 2022. However, Airbus continues to extend its lead with airlines by converting some 737 operators into A321neo customers. In December, it clinched the KLM Group (which also includes Transavia France) and Qantas Group (although this was announced as a memorandum of understanding) as new narrowbody Airbus customers.

As *Airfinance Journal* passed to press, Allegiant Air opted for the Max family to renew its Airbus fleet, but, Airbus could also clinch another Boeing operator in Europe: LOT Polish Airlines.

The proposed A220-500, a higher-capacity variant of the A220 family, could be a crucial part of negotiations between the European manufacturer and the Polish flag carrier.

The A220-300 enjoyed a successful year on the commercial side. The type has also benefitted from more diverse sources of financing from the investor community, as well as more leasing appetite. The A220-300 continues to attract many bids for sale and leaseback transactions at decent lease rate factors, when compared with other products. This was reflected in the investor poll with all four criteria.

Could it become the new darling of the industry?

"This aircraft type has proven to be successful so far and current operators seem to be satisfied with the aircraft. While Airbus has managed to attract interest for the type in North America and Europe among different carriers operating under various business models, it has yet to attract interest from Asian carriers," observes one financier.

The A220-100 market has yet to develop and it will be interesting if Airbus launches the larger A220-500 model.

Airbus current-technology narrowbody productions are almost completed. The A321 model continues to see strong marking in the four criteria, as some markets continue to upgauge. But there is an increasing distinction between younger and mid-life aircraft versus older assets. The type is being gradually replaced by the A321neo, which offers improved economics and better operational performance. The passenger-to-freighter conversion programme suggests that aircraft values will stabilise over time.

Widebody changes

The Covid pandemic has highlighted an acceleration to new-technology aircraft, and this was no more apparent than in the widebody market.

With capacity seriously hampered in international markets over the past two years, operators have used new-

The 737 Max 8 was the most improved aircraft in 2021

Twin-aisles

Aircraft type	Residual value	Value for money	Operational success	Remarketing potential	Overall score	Last year's score	Difference
A350-900	4.17	4.14	4.56	3.76	**4.16**	**3.81**	0.35
787-9	4.00	4.00	4.29	3.94	**4.06**	**3.95**	0.11
787-10	3.47	3.38	3.80	3.38	**3.51**	**3.4**	0.11
767-300ER	3.06	3.44	4.12	3.34	**3.49**	**3.5**	-0.01
777-300ER	2.72	3.67	4.22	2.65	**3.31**	**2.99**	0.32
A350-1000	3.29	3.24	3.53	2.94	**3.25**	**3.26**	-0.01
787-8	3.00	3.12	3.65	2.88	**3.16**	**3.08**	0.08
A330-300	2.39	3.61	3.89	2.41	**3.08**	**2.82**	0.26
A330-900neo	2.89	3.03	2.89	2.76	**2.89**	**2.99**	-0.10
777-9	2.93	3.08	2.78	2.69	**2.87**	**2.83**	0.04
A330-200	2.18	3.18	3.44	2.00	**2.70**	**2.4**	0.30
777-200ER	1.78	3.06	3.22	1.71	**2.44**	**2.14**	0.30
777-8	2.57	2.54	2.22	2.00	**2.33**	**2.26**	0.07
777-200LR	1.94	2.65	2.53	1.81	**2.23**	**1.86**	0.37
A330-800neo	2.15	2.41	2.11	2.13	**2.20**	**2.27**	-0.07
747-8 pax	1.88	2.38	2.50	1.63	**2.10**	**1.89**	0.21
A380	1.22	2.17	2.33	1.00	**1.68**	**1.44**	0.24

technology aircraft to resume or maintain services. A return to a more normal capacity will include more new-technology aircraft.

The A330 models and the 777-300ER entered the Covid-19 period against a landscape of oversupply and declining values and lease rates. But current-technology aircraft placements have happened since the onset of the pandemic and this was reflected in the A330/777-300ER performances in 2021, which showed year-on-year improvement.

One pollster believes that when international travel returns to normality, the 777-300ER will be the "best bang for the buck".

While the passenger life for those models may be limited as the years pass, the cargo conversion market could take some of the capacity next.

The 767-300ER has benefitted from a second life in the cargo conversion market over the past few years and, although Boeing continues to sell the 767F model, the market is moving to the 777 conversions.

The A350-900 and 787-9 continue to be the reference models in the widebody market. In fact, both have extended their lead over the past year, the investor poll shows.

In 2021, the A350-900 topped the charts after reporting a 0.35-point improvement over the previous year – the 787-9 improved by 0.11.

While the A350-900 enjoys large success from customers, it may also have benefitted from the technical issues around the 787-9 model, along with the ongoing restructurings of some 787 operators. Still, the A350-900 is not immune because it was impacted in the LATAM restructuring.

Beyond both successful models, the gap was further widened last year. Third came the 787-10 with a similar scoring than in 2019, and a slightly improved overall performance on 2020.

The 787-10 benefits from strong interest from full-service carriers – such as the A350-1000 – but as one pollster observes, its overall success could be impacted as the widebody market shifts to smaller widebody aircraft.

"We see the Boeing 787-10 aircraft as an asset with limited secondary market opportunities as operators tend to favour the smaller variant -9," says the financier.

The A350-1000 and the 787-8 remained fifth and sixth with no noticeable improvements over 2020.

The A330neo products have yet to convince pollsters. While interest for the A330-800 is limited, current backlog figures for the A330-900 suggest that operators are willing to shift from previous aircraft series to new aircraft programmes such as the A350 or the 787, notes one pollster.

Airbus sold the A330-900 model to Condor and ITA Airways in 2020, but the type has attracted non-tier one operators with the exception of Delta Air Lines, and this seems to penalise it.

Air Lease, Avolon and BOC Aviation are the main lessors on the programme (via direct orders) and total about 65 units, or about 20% of the orderbook.

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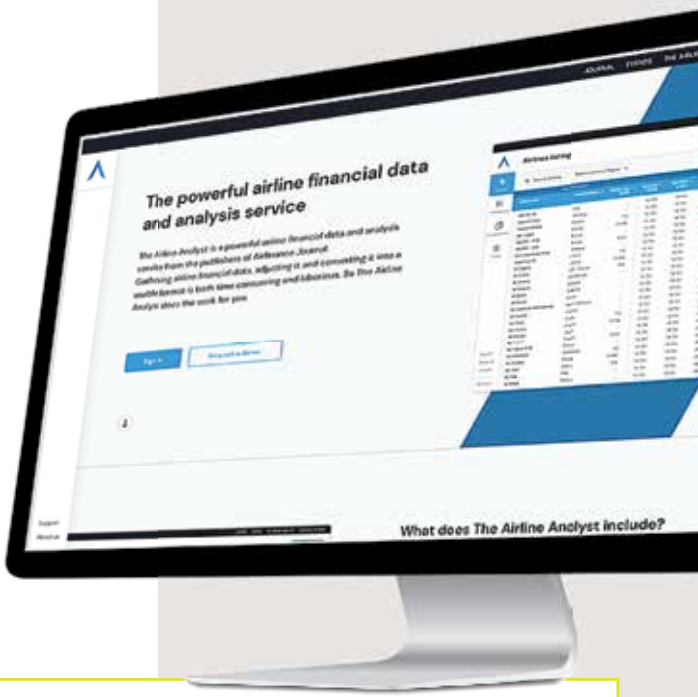

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The numbers

The following pages include key data for current production commercial aircraft. Aircraft that have not yet entered service are not included, because the information available has not been confirmed by in-service experience.

Technical characteristics
The maximum take-off weight (MTOW) shows the maximum option available for the type in question. There may be lower-weight versions available. The operating empty weight (OEW) is based on the manufacturers' figures. Airline weights are likely to be higher than those quoted.

Fuels and times
The figures shown for fuels and times are *Airfinance Journal*'s estimates based on a variety of sources. They are intended to reflect 60% passenger load factors, international standard atmosphere (ISA) conditions en-route, zero winds and optimum flight levels.

Indicative maintenance costs
The maintenance figures are intended as a guide to the order of magnitude of reserves associated with the various aircraft types. The figures are intended to reflect mature costs with no account taken of warranty effects and other reductions associated with new aircraft.

The C-check and heavy-check reserves are based on typical check costs and intervals. No allowance is made for cabin refurbishment. The cost quoted for component overhaul excludes inventory support.

Unless stated, the engine costs refer to the most common engine type for the aircraft model in question.

The information used to estimate the indicative maintenance reserves has been collected from a wide variety of sources. While *Airfinance Journal* has made every effort to normalise the data, direct comparisons between aircraft types may be misleading.

It should also be noted that maintenance costs of a particular type are highly dependent on the route structure, operating environment and maintenance philosophy of the airline with which the aircraft is in service. As such our estimates are difficult to reconcile with the numbers provided by manufacturers.

Seating/range
The numbers quoted for seating capacity are based on the manufacturers' selling standards. Large variations are possible, particularly for widebody aircraft. The operational ranges shown are for still-air conditions, optimum flight levels and are based on the typical seating figure and the operating empty weight quoted by the manufacturer. Ranges in airline operation are likely to be significantly less than the figures quoted.

Fleet data
The data is based on *Airfinance Journal*'s Fleet Tracker as of 1 December, 2021. The fleet information reflects the situation arising from the Covid-19 situation, in particular the high number of parked/stored aircraft. In acknowledgement of this situation, operator numbers and average age are based on the combined in-service and parked fleets.

Aircraft data index

Aircraft **data**

Airbus A220-100

SEATING/RANGE	
Max seating	133
Typical seating	100-120
Maximum range	3,500nm (6,350km)
TECHNICAL CHARACTERISTICS	
MTOW	63.1 tonnes (option 60.8)
OEW	35.2 tonnes
MZFW	52.2 tonnes
Fuel capacity	21,510 litres
Engines	PW1521G/1524G/1525G
Thrust	21,000lbs to 23,3000lbs
FUELS AND TIMES	
Block fuel 200nm	1,330kg
Block fuel 500nm	2,450kg
Block fuel 1,000nm	4,380kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2016
In service	50
Operators (current and planned)	10
In storage	5
On order	54
Build peak year (2019)	25
Estimated production 2022	15
Average age (years)	2.7
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$55-60 per flight hour
Higher checks reserve	$50-55 per flight hour
Engine overhaul	$95-100 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per propeller hour
Component overhaul	$210-220 per flight hour

Maintenance reserves are estimates based on similar aircraft types pending in-service confirmation of manufacturer claims.

Airbus A220-300

SEATING/RANGE	
Max seating	160
Typical seating	120-150
Maximum range	3,400nm (6,300km)
TECHNICAL CHARACTERISTICS	
MTOW	69.9 tonnes
OEW	37.1 tonnes
MZFW	57.6 tonnes
Fuel capacity	21,510 litres
Engines	PW1521G/1524G/1525G
Thrust	21,000lbs to 23,3000lbs
FUELS AND TIMES	
Block fuel 200nm	1,370kg
Block fuel 500nm	2,510kg
Block fuel 1,000nm	4,490kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2016
In service	128
Operators (current and planned)	28
In storage	7
On order	412
Build peak year (2018)	30
Estimated production 2022	60
Average age (years)	2.2
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$55-60 per flight hour
Higher checks reserve	$50-55 per flight hour
Engine overhaul	$105-110 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per propeller hour
Component overhaul	$210-220 per flight hour

Maintenance reserves are estimates based on similar aircraft types pending in-service confirmation of manufacturer claims.

Airbus A319neo

SEATING/RANGE	
Max seating	156
Typical seating	120-150
Typical range	3,400nm (6,300km)
TECHNICAL CHARACTERISTICS	
MTOW	75.5 tonnes
OEW	43 tonnes
MZFW	60.3 tonnes
Fuel capacity	26,730 litres
Engines	LEAP-1A/PW1100G
Thrust	24,100lbs (107kN)
FUELS AND TIMES	
Block fuel 200nm	1,450kg
Block fuel 500nm	2,670kg
Block fuel 1,000nm	4,780kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET (INCLUDING CORPORATE JET VERSIONS)	
Entry into service (nominal)	2020
In service	none
Operators (current and planned)	5
In storage	none
On order	64
Built peak year	Not applicable
Estimated production 2022	Unknown
Average age (years)	Not applicable
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$60-65 per flight hour
Higher checks reserve	$55-60 per flight hour
Engine overhaul	$100-105 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per APU hour
Component overhaul	$210-220 per flight hour

Maintenance reserves are based on A319 current engine model pending confirmation of manufacturer's claimed reductions for new engine model.

Airbus A320

SEATING/RANGE	
Max seating	180
Typical seating	150
Typical range (with sharklets)	3,500nm (6,500km)
TECHNICAL CHARACTERISTICS	
MTOW	73.5 tonnes/78 tonnes
OEW	42 tonnes
MZFW	61 tonnes/62.5 tonnes
Fuel capacity	24,210 litres/27,200 litres
Engines	CFM56-5B/V2500
Thrust	25,000lbs (120kN)
FUELS AND TIMES	
Block fuel 200nm	1,850kg
Block fuel 500nm	3,390kg
Block fuel 1,000nm	6,080kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET (INCLUDING CORPORATE JET VERSIONS)	
Entry into service	1988
In service	3,438
Operators (current and planned)	413
In storage	781
On order	45
Built peak year (2013)	352
Estimated production 2022	Unknown
Average age (years)	11.2
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$60-65 per flight hour
Higher checks reserve	$55-60 per flight hour
Engine overhaul	$105-110 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per APU hour
Component overhaul	$210-220 per flight hour

Airbus A320neo

SEATING/RANGE	
Max seating	194
Typical seating	150-180
Typical range	3,400nm (6,300km)
TECHNICAL CHARACTERISTICS	
MTOW	79 tonnes
OEW	44.5 tonnes
MZFW	64.3 tonnes
Fuel capacity	26,730 litres
Engines	LEAP-1A/PW1100G
Thrust	27,000lbs (120kN)
FUELS AND TIMES	
Block fuel 200nm	1,570kg
Block fuel 500nm	2,880kg
Block fuel 1,000nm	5,170kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2016
In service	1,296
Operators (current and planned)	121
In storage	57
On order	2,454
Built peak year (2019)	295
Estimated production 2022	250
Average age (years)	2.6
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$60-65 per flight hour
Higher checks reserve	$55-60 per flight hour
Engine overhaul	$105-110 per engine flight hour
Engine LLP	$120-125 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per APU hour
Component overhaul	$210-220 per flight hour

Airbus A321

SEATING/RANGE	
Max seating	220
Typical seating	185
Maximum range	3,200nm (5,950km)
TECHNICAL CHARACTERISTICS	
MTOW	93.5 tonnes
OEW	48 tonnes
MZFW	73.8 tonnes
Fuel capacity	30,030 litres
Engines	CFM56-5B/V2500-A5
Thrust	27,000-33,000lbs (120-148kN)
FUELS AND TIMES	
Block fuel 200nm	2,310kg
Block fuel 500nm	4,230kg
Block fuel 1,000nm	7,590kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET (INCLUDING -100s)	
Entry into service	1996
In service	1,462
Operators (current and planned)	132
In storage	200
On order	10
Built peak year (2013)	215
Estimated production 2022	Unknown
Average age (years)	9.2
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$65-70 per flight hour
Higher checks reserve	$60-65 per flight hour
Engine overhaul	$120-125 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per APU hour
Component overhaul	$210-220 per flight hour

Airbus A321neo

SEATING/RANGE	
Max seating	244
Typical seating	180-220
Maximum range	3,995nm (7,400km)
TECHNICAL CHARACTERISTICS	
MTOW	97 tonnes
OEW	50.1 tonnes
MZFW	75.6 tonnes
Fuel capacity	30,030 litres
Engines	LEAP-1A/PW1100G
Thrust	32,000lbs (143kN)
FUELS AND TIMES	
Block fuel 200nm	1,960kg
Block fuel 500nm	3,600kg
Block fuel 1,000nm	6,450kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2017
In service	603
Operators (current and planned)	108
In storage	24
On order	2,998
Build peak year (2019)	127
Estimated production 2022	250
Average age (years)	1.9
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$60-65 per flight hour
Higher checks reserve	$55-60 per flight hour
Engine overhaul	$120-125 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$120-130 per cycle
APU	$75-80 per APU hour
Component overhaul	$210-220 per flight hour

Airbus A330-800neo

SEATING/RANGE	
Max seating	406
Typical seating	220-260
Typical range	8,150nm (15,090km)
TECHNICAL CHARACTERISTICS	
MTOW	251 tonnes
OEW	110 tonnes
MZFW	176 tonnes
Fuel capacity	139,090 litres
Engines	Trent 7000
Thrust	68,000lbs (303kN)
FUELS AND TIMES	
Block fuel 1,000nm	10,940kg
Block fuel 2,000nm	20,390kg
Block fuel 4,000nm	39,290kg
Bock time 1,000nm	184 minutes
Block time 2,000nm	299 minutes
Block time 4,000nm	529 minutes
FLEET	
Entry into service	2020
In service	4
Operators (current and planned)	4
In storage	none
On order	11
Built peak year	Not applicable
Estimated production 2022	1
Average age	Not applicable
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$105-110 per flight hour
Higher checks reserve	$95-100/flight hour
Engine overhaul	$265-270/engine flight hour
Engine LLP	$245-250/engine cycle
Landing gear refurbishment	$150-155/cycle
Wheels, brakes and tyres	$375-380/cycle
APU	$105-110/APU hour
Component overhaul	$420-425/flight hour

Maintenance reserves are based on A330-300 model pending confirmation of manufacturer's claimed reductions for new engine model.

Airbus A330-900neo

SEATING/RANGE	
Max seating	440
Typical seating	260-300
Maximum range	7,200nm (13,330km)
TECHNICAL CHARACTERISTICS	
MTOW	251 tonnes
OEW	115 tonnes
MZFW	181 tonnes
Fuel capacity	139,090 litres
Engines	Trent 7000
Thrust	68,000lbs (303kN)
FUELS AND TIMES	
Block fuel 1,000nm	11,280 kg
Block fuel 2,000nm	21,040 kg
Block fuel 4,000nm	40,520 kg
Bock time 1,000nm	184 minutes
Block time 2,000nm	299 minutes
Block time 4,000nm	529 minutes
FLEET	
Entry into service	2018
In service	54
Operators (current and planned)	26
In storage	7
On order	264
Build peak year (2019)	32
Estimated production 2022	24
Average age (years)	2.1
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$105-110 per flight hour
Higher checks reserve	$95-100 per flight hour
Engine overhaul	$265-270 per engine flight hour
Engine LLP	$245-250 per engine cycle
Landing gear refurbishment	$150-155 per cycle
Wheels brakes and tyres	$375-380 per cycle
APU	$105-110 per APU hour
Component overhaul	$420-425 per flight hour

Maintenance reserves are based on A330-300 model pending confirmation of manufacturer's claimed reductions for new engine model.

Airbus A350-900

SEATING/RANGE	
Max seating	440
Typical seating	300-350
Maximum range	8,100nm (15,000km)
TECHNICAL CHARACTERISTICS	
MTOW	280 tonnes
OEW	140 tonnes
MZFW	195 tonnes
Fuel capacity	141,000 litres
Engines	Trent XWB
Thrust	84,000lbs (374kN)
FUELS AND TIMES	
Block fuel 1,000nm	11,810kg
Block fuel 2,000nm	22,010kg
Block fuel 4,000nm	42,410kg
Bock time 1,000nm	179 minutes
Block time 2,000nm	291 minutes
Block time 4,000nm	512 minutes
FLEET	
Entry into service	2014
In service	337
Operators (current and planned)	51
In storage	55
On order	366
Build peak year (2019)	80
Estimated production 2022	36
Average age (years)	3.4
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$105-110 per flight hour
Higher checks reserve	$95-100 per flight hour
Engine overhaul	$295-300 per engine flight hour
Engine LLP	$270-275 per engine cycle
Landing gear refurbishment	$150-155 per cycle
Wheels brakes and tyres	$375-380 per cycle
APU	$105-110 per APU hour
Component overhaul	$420-425 per flight hour

Airbus A350-1000

SEATING/RANGE	
Max seating	440
Typical seating	350-410
Maximum range	8,700nm (16,100km)
TECHNICAL CHARACTERISTICS	
MTOW	316 tonnes
OEW	150 tonnes
MZFW	223 tonnes
Fuel capacity	159,000 litres
Engines	Trent XWB
Thrust	97,000lbs (432kN)
FUELS AND TIMES	
Block fuel 1,000nm	13,860kg
Block fuel 2,000nm	25,840kg
Block fuel 4,000nm	49,770kg
Bock time 1,000nm	179 minutes
Block time 2,000nm	291 minutes
Block time 4,000nm	512 minutes
FLEET	
Entry into service	2018
In service	51
Operators (current and planned)	14
In storage	6
On order	111
Build peak year (2019)	23
Estimated production 2022	24
Average age (years)	2.6
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$105-110 per flight hour
Higher checks reserve	$95-100 per flight hour
Engine overhaul	$315-320 per engine flight hour
Engine LLP	$290-295 per engine cycle
Landing gear refurbishment	$150-155 per cycle
Wheels brakes and tyres	$375-380 per cycle
APU	$105-110 per APU hour
Component overhaul	$420-425 per flight hour

Airbus A380

SEATING/RANGE	
Max seating	853
Typical seating	544 (four-class)
Maximum range	8,700nm (15,200km)
TECHNICAL CHARACTERISTICS	
MTOW	575 tonnes
OEW	277 tonnes
MZFW	369 tonnes
Fuel capacity	320,000 litres
Engines	GP7200/Trent 900
Thrust	70,000lbs (311kN)
FUELS AND TIMES	
Block fuel 1,000nm	26,590kg
Block fuel 2,000nm	50,580kg
Block fuel 4,000nm	104,290kg
Bock time 1,000nm	146 minutes
Block time 2,000nm	265 minutes
Block time 4,000nm	501 minutes
FLEET	
Entry into service	2007
In service	89
Operators (current and planned)	16
In storage	152
On order	2
Build peak year (2012)	30
Estimated production 2022	8
Average age (years)	7.1
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$160-165 per flight hour
Higher checks reserve	$145-150 per flight hour
Engine overhaul	$195-200 per engine flight hour
Engine LLP	$200-205 per engine cycle
Landing gear refurbishment	$200-205 per cycle
Wheels brakes and tyres	$565-570 per cycle
APU	$155-160 per APU hour
Component overhaul	$575-580 per flight hour

Maintenance reserves are based on A350-900 model pending confirmation of manufacturer's claimed reductions for new engine model.

ATR42-600

SEATING/RANGE	
Max seating	50
Typical seating	48
Maximum range	720nm (1,330km)
TECHNICAL CHARACTERISTICS	
MTOW	18.6 tonnes
OEW	11.7 tonnes
MZFW	17 tonnes
Fuel capacity	5,700 litres
Engines	PW127M
Thrust	2,160 shp
FUELS AND TIMES	
Block fuel 100nm	340kg
Block fuel 200nm	560kg
Block fuel 500nm	1,210kg
Bock time 100nm	33 minutes
Block time 200nm	55 minutes
Block time 500nm	122 minutes
FLEET	
Entry into service	2012
In service	52
Operators (current and planned)	23
In storage	6
On order	15
Build peak year (2019)	10
Estimated production 2022	6
Average age (years)	5.2
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$35-40 per flight hour
Higher checks reserve	$25-30 per flight hour
Engine overhaul	$100-105 per engine flight hour
Engine LLP	$30-35 per engine cycle
Landing gear refurbishment	$20-25 per cycle
Wheels brakes and tyres	$35-40 per cycle
Component overhaul	$115-120 per flight hour

ATR72-600

SEATING/RANGE	
Max seating	78
Typical seating	72
Maximum range	825nm (1,526km)
TECHNICAL CHARACTERISTICS	
MTOW	23 tonnes
OEW	14 tonnes
MZFW	21 tonnes
Fuel capacity	6,370 litres
Engines	PW127M
Thrust	2,475 shp
FUELS AND TIMES	
Block fuel 100nm	370kg
Block fuel 200nm	610kg
Block fuel 500nm	1,310kg
Bock time 100nm	36 minutes
Block time 200nm	58 minutes
Block time 500nm	125 minutes
FLEET	
Entry into service	2011
In service	461
Operators (current and planned)	105
In storage	103
On order	162
Build peak year (2015)	79
Estimated production 2022	24
Average age (years)	5.7
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$35-40 per flight hour
Higher checks reserve	$25-30 per flight hour
Engine overhaul	$100-105 per engine flight hour
Engine LLP	$30-35 per engine cycle
Landing gear refurbishment	$20-25 per cycle
Wheels brakes and tyres	$35-40 per cycle
Component overhaul	$125-130 per flight hour

Boeing 737-800

SEATING/RANGE	
Max seating	189
Typical seating	162
Maximum range (with winglets)	3,115nm (5,767km)
TECHNICAL CHARACTERISTICS	
MTOW	79 tonnes
OEW	41.1 tonnes
MZFW	61.7 tonnes
Fuel capacity	26,020 litres/40,580 litres
Engines	CFM56-7B
Thrust	27,300lbs (121kN)
FUELS AND TIMES	
Block fuel 200nm	2,000kg
Block fuel 500nm	3,530kg
Block fuel 1,000nm	6,190kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	1998
In service	4,414
Operators (current and planned)	268
In storage	409
On order (nominal)	33
Build peak year (2016)	408
Estimated production 2022	None
Average age (years)	8.6
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$65-70 per flight hour
Higher checks reserve	$50-55 per flight hour
Engine overhaul	$120-125 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$45-50 per cycle
Wheels brakes and tyres	$70-75 per cycle
APU	$80-85 per APU hour
Component overhaul	$210-220 per flight hour

Boeing 737 Max 8

SEATING/RANGE	
Max seating	200
Typical seating	162-172
Maximum range	3,515nm (6,510km)
TECHNICAL CHARACTERISTICS	
MTOW	82.2 tonnes
OEW	45.1 tonnes
MZFW	65.9 tonnes
Fuel capacity	25,810 litres
Engines	LEAP-1B
Thrust	26,780lbs (119kN)
FUELS AND TIMES	
Block fuel 200nm	1,720kg
Block fuel 500nm	3,040kg
Block fuel 1,000nm	5,320kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2017
In service	334
Operators (current and planned)	104
In storage	38
On order	3,007
Build peak year (2018)	194
Estimated production 2022	240
Average age (years)	3.5
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$65-70 per flight hour
Higher checks reserve	$50-55 per flight hour
Engine overhaul	$120-125 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$45-50 per cycle
Wheels brakes and tyres	$70-75 per cycle
APU	$80-85 per APU hour
Component overhaul	$210-220 per flight hour

Maintenance reserves are estimates based on 737-800 model pending in-service feedback and confirmation of claimed savings.

Boeing 737 Max 9

SEATING/RANGE	
Max seating	220
Typical seating	178-193
Maximum range	3,215nm (5,960km)
TECHNICAL CHARACTERISTICS	
MTOW	88.3 tonnes
OEW	45.1 tonnes
MZFW	71 tonnes
Fuel capacity	25,810 litres
Engines	LEAP-1B
Thrust	27,300 (121kN)
FUELS AND TIMES	
Block fuel 200nm	1,790kg
Block fuel 500nm	3,150kg
Block fuel 1,000nm	5,520kg
Bock time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
FLEET	
Entry into service	2018
In service	68
Operators (current and planned)	14
In storage	3
On order	224
Build peak year (2018)	20
Estimated production 2022	60
Average age (years)	3.0
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$70-75 per flight hour
Higher checks reserve	$50-55 per flight hour
Engine overhaul	$120-125 per engine flight hour
Engine LLP	$125-130 per engine cycle
Landing gear refurbishment	$45-50 per cycle
Wheels brakes and tyres	$70-75 per cycle
APU	$80-85 per APU hour
Component overhaul	$210-220 per flight hour

Maintenance reserves are estimates based on 737-900 model pending in-service feedback and confirmation of claimed savings.

Boeing 767F

SEATING/RANGE	
Max Payload	52 tonnes
Maximum range	3,250nm (6,020km)
TECHNICAL CHARACTERISTICS	
MTOW	187 tonnes
OEW	81 tonnes
MZFW	133 tonnes
Fuel capacity	91,380 litres
Engines	CF6-80C
Thrust	63,300lbs (276kN)
FUELS AND TIMES	
Block fuel 1,000Nm	10,560kg
Block fuel 2,000nm	19,760kg
Block fuel 4,000 Nm	37,910kg
Bock time 1,000Nm	184 minutes
Block time 2,000Nm	301 minutes
Block time 4,000Nm	536 minutes
FLEET	
Entry into service	1995
In Service	210
Operators (current and planed)	19
In Storage	None
On order	45
Built peak year (2019)	18
Estimated production 2022	12
Average age	8.8 years
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$100-105 per flight hour
Higher checks reserve	$75-80 per flight hour
Engine overhaul	$165-170 per engine flight hour
Engine LLP	$255-260 per engine cycle
Landing gear refurbishment	$65-70 per cycle
Wheels brakes and tyres	$70-75 per cycle
APU	$105-110 per APU hour
Component overhaul	$250-260 per flight hour

Boeing 777F

SEATING/RANGE	
Max Payload	102 tonnes
Maximum range	4,970 nm (9,200km)
TECHNICAL CHARACTERISTICS	
MTOW	348 tonnes
OEW	144 tonnes
MZFW	248 tonnes
Fuel capacity	181,280 litres
Engines	GE90-110/115
Thrust	110,000lbs (489 kN)
FUELS AND TIMES	
Block fuel 1,000Nm	14,140 kg
Block fuel 2,000nm	26,350 kg
Block fuel 4,000 Nm	50,780 kg
Bock time 1,000Nm	152 minutes
Block time 2,000Nm	277 minutes
Block time 4,000Nm	525 minutes
FLEET	
Entry into service	2009
In Service	214
Operators (current and planed)	29
In Storage	none
On order	66
Built peak year	25
Estimated production 2022	18
Average age (years)	6.5
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$125-130 per flight hour
Higher checks reserve	$90-95 per flight hour
Engine overhaul	$290-295 per engine flight hour
Engine LLP	$450-455 per engine cycle
Landing gear refurbishment	$160-165 per cycle
Wheels brakes and tyres	$480-485 per cycle
APU	$105-110 per APU hour
Component overhaul	$400-410 per flight hour

Boeing 777-300ER

SEATING/RANGE	
Max seating	550
Typical seating	365 (three-class)
Maximum range	7,370nm (13,650km)
TECHNICAL CHARACTERISTICS	
MTOW	351.5 tonnes
OEW	168 tonnes
MZFW	238 tonnes
Fuel capacity	181,280 litres
Engines	GE90-115BL
Thrust	115,300lbs (504kN)
FUELS AND TIMES	
Block fuel 1,000nm	15,610kg
Block fuel 2,000nm	29,840kg
Block fuel 4,000nm	60,900kg
Bock time 1,000nm	152 minutes
Block time 2,000nm	277 minutes
Block time 4,000nm	525 minutes
FLEET	
Entry into service	2003
In service	752
Operators (current and planned)	54
In storage	80
On order	9
Build peak year (2016)	89
Estimated production 2022	12
Average age (years)	9.0
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$125-130 per flight hour
Higher checks reserve	$90-95 per flight hour
Engine overhaul	$295-300 per engine flight hour
Engine LLP	$450-455 per engine cycle
Landing gear refurbishment	$160-165 per cycle
Wheels brakes and tyres	$480-485 per cycle
APU	$105-110 per APU hour
Component overhaul	$410-415 per flight hour

Boeing 787-8

SEATING/RANGE	
Max seating	359
Typical seating	248
Maximum range	7,300nm (13,530km)
TECHNICAL CHARACTERISTICS	
MTOW	227.9 tonnes
OEW	120 tonnes
MZFW	172 tonnes
Fuel capacity	126,920 litres
Engines	GEnx/Trent 1000
Thrust	64,000lbs (280kN)
FUELS AND TIMES	
Block fuel 1,000nm	10,170kg
Block fuel 2,000nm	18,970kg
Block fuel 4,000nm	36,540kg
Bock time 1,000nm	178 minutes
Block time 2,000nm	265 minutes
Block time 4,000nm	510 minutes
FLEET	
Entry into service	2011
In service	333
Operators (current and planned)	52
In storage	44
On order	43
Build peak year (2014)	104
Estimated production 2022	12
Average age (years)	6.1
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$110-115 per flight hour
Higher checks reserve	$80-85 per flight hour
Engine overhaul	$300-310 per engine flight hour
Engine LLP	$305-310 per engine cycle
Landing gear refurbishment	$75-80 per cycle
Wheels brakes and tyres	$100-105 per cycle
APU	$105-110 per APU hour
Component overhaul	$315-320 per flight hour

Boeing 787-9

SEATING/RANGE	
Max seating	406
Typical seating	296 (two-class)
Maximum range	7,530nm (13,950km)
TECHNICAL CHARACTERISTICS	
MTOW	252.7 tonnes
OEW	120 tonnes
MZFW	181 tonnes
Fuel capacity	138,700 litres
Engines	GEnx1B/Trent 1000
Thrust	71,000lbs (320kN)
FUELS AND TIMES	
Block fuel 1,000nm	10,480kg
Block fuel 2,000nm	19,500kg
Block fuel 4,000nm	37,630kg
Bock time 1,000nm	178 minutes
Block time 2,000nm	265 minutes
Block time 4,000nm	510 minutes
FLEET	
Entry into service	2014
In service	525
Operators (current and planned)	74
In storage	43
On order	322
Build peak year (2018)	120
Estimated production 2022	12
Average age (years)	4.6
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$110-115 per flight hour
Higher checks reserve	$85-90 per flight hour
Engine overhaul	$310-315 per engine flight hour
Engine LLP	$320-325 per engine cycle
Landing gear refurbishment	$75-80 per cycle
Wheels brakes and tyres	$100-105 per cycle
APU	$125-130 per APU hour
Component overhaul	$320-325 per flight hour

Boeing 787-10

SEATING/RANGE	
Max seating	440
Typical seating	336
Maximum range	6,345nm (11,750km)
TECHNICAL CHARACTERISTICS	
MTOW	254 tonnes
OEW	135 tonnes
MZFW	192.7 tonnes
Fuel capacity	126,370 litres
Engines	GEnx-1B/Trent 1000
Thrust	76,000 (340kN)
FUELS AND TIMES	
Block fuel 1,000nm	11,310kg
Block fuel 2,000nm	21,080kg
Block fuel 4,000nm	40,620kg
Bock time 1,000nm	146 minutes
Block time 2,000nm	265 minutes
Block time 4,000nm	501 minutes
FLEET	
Entry into service	2018
In service	60
Operators (current and planned)	14
In storage	1
On order	124
Build peak year (2019)	29
Estimated production 2022	6
Average age (years)	2.1
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$120-125 per flight hour
Higher checks reserve	$90-95per flight hour
Engine overhaul	$315-320 per engine flight hour
Engine LLP	$320-325 per engine cycle
Landing gear refurbishment	$75-80 per cycle
Wheels brakes and tyres	$105-110 per cycle
APU	$125-130 per APU hour
Component overhaul	$330-335 per flight hour

De Havilland of Canada Dash 8 400

SEATING/RANGE	
Max seating	90
Typical seating	74
Maximum range	1,100nm (2,040km)
TECHNICAL CHARACTERISTICS	
MTOW	30.5 tonnes
OEW	17.8 tonnes
MZFW	29 tonnes
Fuel capacity	6,700 litres
Engines	PW150A
Thrust	5,070shp
FUELS AND TIMES (LR cruise)	
Block fuel 100nm	480kg
Block fuel 200nm	740kg
Block fuel 500nm	1,550kg
Bock time 100nm	44 minutes
Block time 200nm	65 minutes
Block time 500nm	126 minutes
FLEET	
Entry into service	1999
In service	416
Operators (current and planned)	80
In storage	149
On order	29
Build peak year (2010)	54
Estimated production 2022	TBD
Average age (years)	10.9
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$45-50 per flight hour
Higher checks reserve	$30-35 per flight hour
Engine overhaul	$150-155 per engine flight hour
Engine LLP	$45-50 per engine cycle
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$45-50 per cycle
APU	$55-60 per APU hour
Propeller	$15-20 per flight hour
Component overhaul	$145-150 per propeller hour

Embraer E175

SEATING/RANGE	
Max seating	88
Typical seating	78
Maximum range	2,200nm (4,070km)
TECHNICAL CHARACTERISTICS	
MTOW	40.4 tonnes
OEW	22 tonnes
MZFW	32 tonnes
Fuel capacity	11,630 litres
Engines	CF34-8E
Thrust	13,800lbs (60kN)
FUELS AND TIMES	
Block fuel 200nm	1,180kg
Block fuel 500nm	2,390kg
Block time 200nm	51 minutes
Bock time 500nm	89 minutes
FLEET	
Entry into service	2005
In service	659
Operators (current and planned)	29
In storage	28
On order	171
Build peak year (2016)	88
Estimated production 2022	30
Average age (years)	6.8
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$45-50 per flight hour
Higher checks reserve	$35-40 per flight hour
Engine overhaul	$75-80 per engine flight hour
Engine LLP	$105-110 per engine cycle
Landing gear refurbishment	$30-35 per cycle
Wheels brakes and tyres	$50-55 per cycle
APU	$55-60 per APU hour
Component overhaul	$150-160 per flight hour

Embraer E190-E2

SEATING/RANGE	
Max seating	114
Typical seating	106
Maximum range	2,850nm (5,280km)
TECHNICAL CHARACTERISTICS	
MTOW	56.4 tonnes
OEW	33 tonnes
MZFW	46.7 tonnes
Fuel capacity	17,110 litres
Engines	PW1919
Thrust	19,000lbs (85kN)
FUELS AND TIMES	
Block fuel 200nm	1,140kg
Block fuel 500nm	2,300kg
Block time 200nm	51 minutes
Bock time 500nm	89 minutes
FLEET	
Entry into service	2018
In service	17
Operators (current and planned)	7
In storage	5
On order	13
Build peak year (2019)	7
Estimated production 2022	6
Average age (years)	2.5
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$45-50 per flight hour
Higher checks reserve	$35-40 per flight hour
Engine overhaul	No data
Engine LLP	No data
Landing gear refurbishment	$35-40 per cycle
Wheels brakes and tyres	$55-60 per cycle
APU	$70-75 per APU hour
Component overhaul	$18-185 per flight hour

Maintenance reserves are estimates based on E190 model pending in-service feedback and confirmation of claimed savings.

Embraer E195-E2

SEATING/RANGE	
Max seating	146
Typical seating	132
Typical range	2,600nm (4,800km)
TECHNICAL CHARACTERISTICS	
MTOW	61.5 tonnes
OEW	35.7 tonnes
MZFW	51.8 tonnes
Estimated fuel capacity	17,110 litres
Engines	Pratt & Whitney PW1919
Thrust	19,000lbs (85kN)
FUELS AND TIMES	
Block fuel 200nm	1,260kg
Block fuel 500nm	2,440kg
Bock time 200nm	51 minutes
Block time 500nm	89 minutes
FLEET	
Entry into service	2019
In service	29
Operators (current and planned)	13
In storage	4
On order	142
Built peak year (2021)	18
Estimated production 2022	30
Average age (years)	1.8
INDICATIVE MAINTENANCE RESERVES	
C-check reserve	$45-50 per flight hour
Higher checks reserve	$35-40/flight hour
Engine overhaul	No data
Engine LLP	No data
Landing gear refurbishment	$35-40/cycle
Wheels, brakes and tyres	$55-60/cycle
APU	$70-75/APU hour
Component overhaul	$180-185/flight hour

Maintenance reserves are estimates based on E195 model pending in-service feedback and confirmation of claimed savings.

Sukhoi SSJ100

SEATING/RANGE	
Max seating	108
Typical seating	98
Maximum range (basic version)	1,645nm (3,048km)
Maximum range (LR version)	2,470nm (4,578km)
TECHNICAL CHARACTERISTICS	
MTOW (basic version)	45.8 tonnes
MTOW (LR version)	48.5 tonnes
OEW (basic version)	24.3 tonnes
OEW (LR version)	25.1 tonnes
MZFW (basic version)	36.6 tonnes
MZFW (LR version)	37.4 tonnes
Fuel capacity	13,135 litres
Engines	PowerJet SaM146-1S17/8
Thrust	17,800lbs with automatic power reserve
FUELS AND TIMES	
Block fuel 200nm	1,150kg
Block fuel 500nm	2,340kg
Block time 200nm	46 minutes
Bock time 500nm	83 minutes
FLEET	
Entry into service	2011
In service	130
Operators (current and planned)	36
In storage	59
On order	212
Build peak year (2018)	28
Estimated production 2022	12
Average age (years)	5.7
INDICATIVE MAINTENANCE RESERVES	
Insufficient data available	

New aircraft market values ($ million)

Model	Avitas view	CV view	IBA view	ICF view	MBA view	Oriel view	Average
Airbus							
A220-100	30.3	33.66	32.8	31.0	34.1	33.4	**32.6**
A220-300	35.2	38.26	37.4	36.5	38.5	38.2	**37.4**
A319neo	37.2	-	39.0	-	35.8	-	**37.4**
A320*	42.4	42.04	38.2	42.5	39.4	38.8	**40.6**
A320neo	50.0	50.63	49.6	51.2	50.3	50.9	**50.4**
A321*	47.8	46.4	48.7	48.5	48.3	46.3	**47.7**
A321neo	59.0	59.3	57.4	58.1	57.7	60.4	**58.6**
A330-800	89.3	-	91.6	-	92.1	77.0	**87.5**
A330 900 (neo)	99.8	105.27	101.6	105.6	107.4	95.0	**102.4**
A350-900	149.0	147	146.0	154.6	146.1	135.0	**146.3**
A350-1000	156.8	160.9	160.6	160.0	168.6	147.0	**159.0**
A380	171.0	110.6	176.3	-	105.0	-	**140.7**
ATR							
ATR42-600	15.7	14.56	15.6	16.2	15.5	14.5	**15.3**
ATR72-600	18.8	19.11	21.2	19.2	19.9	15.6	**19.0**
Boeing							
737-800*	37.1	32.6	33.3	43.5	38.7	17.6	**33.8**
737 Max 8	46.4	48.06	48.1	47.5	47.9	49.1	**47.8**
737 Max 9	48.3	48.6	49.6	48.9	48.7	52.2	**49.4**
767F	80.6	88.45	69.0	80.0	82.2	80.0	**80.0**
777-300ER	141.6	130.5	124.9	143.0	134.3	120.0	**132.4**
777F	165.6	166.3	141.9	165.0	166.4	163.0	**161.4**
787-8	114.2	104.8	94.7	115.6	117.5	98.0	**107.5**
787-9	139.2	129.9	138.9	145.3	141.0	134.0	**138.0**
787-10	146.3	144.3	153.8	148.0	154.4	142.0	**148.1**
De Haviland							
DHC 8-400*	19.5	21	20.2	20.3	20.0	16.8	**19.6**
Embraer							
E175	27.1	25.6	25.9	-	30.4	23.1	**26.4**
E190-E2	32.3	29.25	31.1	-	32.0	30.6	**31.1**
E195-E2	34.2	32	34.9	-	36.1	32.3	**33.9**
Sukhoi							
SSJ100	-	18.8	21.2	-	-	-	**20.0**

** values for last year of build*

New aircraft lease rates ($'000s per month)

Model	Avitas view	CV view	IBA view	ICF view	MBA view	Oriel view	Range
Airbus							
A220-100	210-245	235	215	210-230	221	230	**210-245**
A220-300	235-270	270	230	240-260	249	270	**230-270**
A319neo	240-290	-	264	-	227	-	**227-290**
A320*	265-310	260	210	275-300	250	275	**210-310**
A320neo	285-335	300	297	315-380	319	315	**285-380**
A321*	285-330	300	269	320-360	306	285	**269-360**
A321neo	325-380	350	338	350-430	366	400	**325-430**
A330-800	620-700	-	686	-	562	660	**562-700**
A330 900	655 - 740	700	716	660-750	655	740	**655-750**
A350-900	880 - 995	850	876	940-1,100	890	895	**850-1,100**
A350-1000	900 - 1,100	1025	1,074	1,050-1,250	1,028	975	**900-1,250**
A380	765 - 830	675	1,234	-	640	-	**640-1,234**
ATR							
ATR42-600	115-135	105	131	110-135	122	120	**105-135**
ATR72-600	115-140	135	160	130-165	157	145	**115-165**
Boeing							
737-800*	210 - 245	250	237	285-325	252	125	**125-325**
737 Max 8	265 - 310	300	288	275-340	303	295	**265-340**
737 Max 9	265 - 310	305	297	285-340	309	315	**265-340**
767F	450 - 555	700	280	400-430	633	635	**400-700**
777-300ER	920 - 1,015	850	935	790-970	819	855	**850-1,015**
777F	1,135 - 1,260	1250	1,092	950-1,200	1,000	1,085	**950-1,260**
787-8	630 - 710	700	634	700-875	716	705	**630-875**
787-9	805 - 910	850	832	900-1,100	860	810	**805-1,100**
787-10	835 - 945	900	952	950-1,150	941	910	**835-1,150**
De Haviland							
DHC 8-400*	125-150	150	141	165-180	150	150	**125-180**
Embraer							
E175	170 - 195	223	164	-	241	175	**170-241**
E190-E2	190 - 225	210	198	-	203	210	**190-225**
E195-E2	220 - 260	225	216	-	229	220	**216-260**
Sukhoi							
SSJ100	-	140	198	-	-	-	**140-198**

** values for last year of build*

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