



NARROWBODY

WIDEBODY

REGIONAL

FREIGHTER

CLASSIC

THE COMPLETE GUIDE TO

COMMERCIAL AIRCRAFT

Current production jets & classic types · 14 aircraft · Spotter's reference

14

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Categories

2026

Edition

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Welcome to The Aviation Hub Guide

Commercial aviation connects the world. Every day, tens of thousands of flights carry passengers and freight across continents – and behind every flight is a remarkable machine, engineered to extraordinary standards of safety, efficiency, and comfort.

This guide is your companion to the aircraft that make it all possible. Whether you're watching planes from an airport viewing area, curious about the flight you're about to board, or simply fascinated by aviation, this guide will help you understand and identify the aircraft sharing our skies.

We've covered current production aircraft – those being built and delivered to airlines today – as well as classic types that are still flying but gradually being retired. Each entry includes technical specifications, a description of the aircraft's role and history, a spotter's tip to help you identify it, and a fun fact to share with fellow enthusiasts.

How to Read Each Aircraft Entry

Current Production

Aircraft actively being manufactured and delivered to airlines.

Winding Down

Production has ended; existing aircraft still in widespread service.

Retiring

Being phased out of service; increasingly rare to spot.

Spotter Tip

Visual clues to identify the aircraft from the ground or air.

Did You Know?

Fascinating facts and records associated with the aircraft.

Narrowbody Jets

Single-aisle aircraft that form the backbone of short and medium-haul commercial aviation. They typically carry between 100–230 passengers and operate the vast majority of the world's scheduled flights. Their operating economics make them ideal for routes of up to around 6,000 km, and modern variants are pushing that boundary further than ever before.

Boeing 737 MAX

■ Current Production



Manufacturer: Boeing

Key Operators: Southwest, Ryanair, Air Canada, American Airlines, United Airlines

FIRST FLIGHT	2016	PASSENGERS	138–230
RANGE	Up to 7,130 km	WINGSPAN	35.9 m
ENGINES	2× CFM LEAP-1B		

The 737 MAX is Boeing's latest and most advanced evolution of the iconic 737 family – a lineage stretching back to 1968. At its heart are the CFM International LEAP-1B turbofan engines, which deliver around 14% better fuel efficiency than the CFM56-powered 737NG they replaced. The MAX family spans four main variants: the MAX 7 (smaller, for thinner routes), the best-selling MAX 8, the stretched MAX 9, and the longest MAX 10 which rivals the A321neo. After a 20-month global grounding following two fatal accidents in 2018 and 2019 – linked to the automated MCAS stall-prevention system – the aircraft returned to service in late 2020 with significant software, hardware, and training changes mandated by regulators worldwide. Despite a difficult few years, the 737 MAX has accumulated a massive order book and continues to be one of the most-ordered commercial jets on the planet, testament to its operating economy and the enormous installed base of 737-rated pilots at airlines globally.

■ SPOTTER TIP

The split-tip winglet is the single easiest way to identify the MAX on the ground – it splits into two blades, one angling upward and one downward. The engine nacelles also have a distinctive flattened bottom compared to the older 737NG, a result of the larger LEAP engine sitting higher and further forward on the wing. From the front, the engine inlet appears slightly D-shaped rather than circular.

■ DID YOU KNOW?

The 737 family is the best-selling commercial jet in history, with over 10,000 aircraft delivered since 1968. On any given day, a Boeing 737 takes off or lands somewhere in the world every 1.5 seconds.

Airbus A320neo Family

Current Production



Manufacturer: Airbus

Key Operators: British Airways, easyJet, Lufthansa, IndiGo, Air France, Wizz Air

FIRST FLIGHT	2014	PASSENGERS	120–194
RANGE	Up to 6,300 km	WINGSPAN	35.8 m
ENGINES	2× CFM LEAP-1A or P&W; PW1100G		

The A320neo ('new engine option') family is Airbus's blockbuster response to the challenge of improving narrowbody efficiency without designing an entirely new aircraft. Launched in 2010 and entering service in 2016, it offers airlines the choice of two engine types: the CFM LEAP-1A or the Pratt & Whitney PW1100G Geared Turbofan (GTF), the latter using a revolutionary gearbox to allow the fan and turbine to spin at their individual optimum speeds. Both deliver around 15–20% better fuel burn per seat compared to the A320ceo family. The neo family spans three main variants – A319neo, A320neo, and A321neo – with the A321neo being the standout commercial success. The A321XLR (extra long range), due to enter service imminently, pushes the range to over 8,700 km, enabling single-aisle aircraft to operate transatlantic routes for the first time routinely. The family has amassed over 8,000 orders from more than 100 customers, making it one of the best-selling aircraft programmes in aviation history.

SPOTTER TIP

Look for the curved sharklet wingtip devices – they sweep elegantly upward in a smooth arc, quite different from the split-tip winglets of the 737 MAX. The Airbus nose is more rounded and softer in profile than the Boeing equivalent. On approach, listen for the distinctive high-pitched whine of the Pratt & Whitney GTF engines – noticeably quieter than previous generation jets.

DID YOU KNOW?

The A320neo family recorded the fastest-selling launch in aviation history when it was announced in 2010, with over 2,300 orders placed before the aircraft had even flown its first test flight.

Embraer E2 Family

Current Production



Manufacturer: Embraer

Key Operators: Porter Airlines, Azul, KLM Cityhopper, Helvetic Airways, Wideroe

FIRST FLIGHT	2016	PASSENGERS	80–146
RANGE	Up to 4,750 km	WINGSPAN	31.0–34.2 m
ENGINES	2× P&W; PW1700G / PW1900G		

The Embraer E2 family represents a generational leap for Brazilian manufacturer Embraer in the competitive regional jet market. Building on the highly successful first-generation E-Jets, the E2 series – comprising the E175-E2, E190-E2, and E195-E2 – introduces the Pratt & Whitney PW1000G Geared Turbofan engine, a fly-by-wire flight control system, a redesigned wing with new winglets, and a modernised glass cockpit. The result is a dramatic reduction in fuel burn of up to 25% per seat compared to the previous generation, alongside meaningfully lower noise and emissions. The E195-E2 in particular has become a commercial success, offering a capacity close to the smaller A320neo variants but with outstanding per-seat economics on thinner routes. The aircraft is marketed under the 'Profit Hunter' brand, and Embraer has backed this claim with performance guarantees to airline customers – an unusual and confident commercial move.

SPOTTER TIP

The E2 is noticeably smaller and slimmer than an A320 or 737, with a narrow fuselage that accommodates only two seats either side of the aisle. The engines are large relative to the airframe – the Pratt & Whitney GTF nacelles look almost oversized, which is a reliable spotting clue. The winglets are tall and upswept. Look also for the distinctive smooth, uncluttered nose profile.

DID YOU KNOW?

The E195-E2 is so aerodynamically efficient that it holds the world record for the lowest fuel consumption per seat of any commercial jet aircraft – burning less than 2.9 litres per 100 passenger kilometres under optimal conditions.

Widebody Jets

Twin-aisle aircraft designed for long-haul intercontinental routes. Carrying 200–600+ passengers across distances of up to 15,000 km, widebody jets represent the pinnacle of commercial aviation engineering. They enable the non-stop connections that shrink the world – from London to Sydney, Dubai to Los Angeles, and beyond.

Boeing 787 Dreamliner

Current Production



Manufacturer: Boeing

Key Operators: British Airways, Japan Airlines, United, Qatar Airways, Qantas, ANA

FIRST FLIGHT	2009	PASSENGERS	242–330
RANGE	Up to 14,140 km	WINGSPAN	60.1 m
ENGINES	2× GEnx-1B or Rolls-Royce Trent 1000		

The Boeing 787 Dreamliner is one of the most technologically significant commercial aircraft ever built, fundamentally changing what materials and systems appear in a passenger jet. Over 50% of the primary structure – including the fuselage barrel sections and wings – is made from carbon fibre reinforced polymer composite, making it the first commercial airliner to be majority composite by weight. This allows the fuselage to be pressurised to a lower effective altitude (1,800m equivalent vs 2,400m on aluminium aircraft) and maintain higher cabin humidity, significantly reducing passenger fatigue on long flights. The composite fuselage also enabled the uniquely large windows, which use electrochromic dimming technology – passengers can adjust window tint electronically rather than using a physical shade. The 787 family spans three variants: the 787-8 (original), 787-9 (stretched, best-selling), and 787-10 (longest). It has opened up dozens of previously uneconomical long thin routes that bypass traditional hubs, a phenomenon the industry calls point-to-point flying.

SPOTTER TIP

The 787's wings have an exceptionally dramatic upward curve – called a raked wingtip – that curves noticeably more than most other aircraft. Look also for the uniquely large oval cabin windows, which are significantly bigger than those on any other commercial jet. At the nose, the cockpit windows have a distinctive wraparound appearance. On the ground, the main gear doors have a characteristic scalloped edge profile unlike conventional jets.

DID YOU KNOW?

The 787's cabin windows are 65% larger than those on comparable aircraft and use electrochromic glass that darkens electronically – there are no window shades at all. The dimming system uses five settings controlled by both passengers and crew.

Airbus A350

Current Production



Manufacturer: Airbus

Key Operators: Singapore Airlines, Cathay Pacific, Lufthansa, British Airways, Qatar Airways, Air France

FIRST FLIGHT	2013	PASSENGERS	300–440
RANGE	Up to 15,000 km	WINGSPAN	64.75 m
ENGINES	2× Rolls-Royce Trent XWB		

Airbus's A350 XWB (Extra Wide Body) is the European manufacturer's most advanced long-haul aircraft and a direct competitor to the Boeing 787 and 777 families. Like the 787, it makes extensive use of composite materials – 53% of the airframe by weight – but Airbus chose to retain a circular fuselage cross-section for maximum cabin flexibility. The aircraft is powered exclusively by the Rolls-Royce Trent XWB, which was the world's most thermally efficient large turbofan engine at its introduction. The A350 family includes the A350-900 (primary variant) and the A350-1000 (stretched, competing with the 777-9), plus the ultra-long-range A350-900ULR which operates the world's longest commercial flights. A freighter variant, the A350F, is currently in development. Airlines consistently praise the A350 for its reliability – Qatar Airways, one of the largest operators, reported exceptional dispatch reliability figures in early service.

SPOTTER TIP

The A350 has one of the most distinctive noses in commercial aviation – look for the dark grey composite panels framing the cockpit windows in a characteristic 'cat's eye' or curved rectangular surround. This is unique to the A350 and visible from considerable distance. The cockpit windows themselves have a notably curved lower frame. In flight, the very highly swept, slender wings with curved composite winglets give the A350 an elegant, almost predatory silhouette.

DID YOU KNOW?

Singapore Airlines operates the A350-900ULR on the world's longest non-stop commercial flight: Singapore to New York JFK, covering 15,349 km in approximately 18 hours and 45 minutes – with no stops whatsoever.

Boeing 777X

Current Production



Manufacturer: Boeing

Key Operators: Emirates, Lufthansa, Qatar Airways, Etihad (on order)

FIRST FLIGHT	2020	PASSENGERS	384–426
RANGE	Up to 13,500 km	WINGSPAN	71.8 m (folded: 64.8 m)
ENGINES	2× GE9X		

The Boeing 777X is the latest and largest member of Boeing's highly successful 777 family, and the world's largest twin-engine commercial aircraft. Two variants are planned: the 777-8 and the 777-9, the latter being the longest commercial aircraft ever built at 76.7 metres. Its most talked-about innovation is the folding wingtip system – an engineering solution that allows a 71.8-metre wingspan (necessary for aerodynamic efficiency) to fold down to 64.8 metres for compatibility with standard Category E airport gates. The GE9X engines that power it are technological marvels: carbon fibre composite fan blades, a 10:1 bypass ratio, and the highest operating temperatures of any commercial engine. The 777X has faced significant delays in certification, originally planned for 2020 entry into service, with Emirates set to be the launch customer. The programme has been impacted by the COVID-19 pandemic, fuselage stress test anomalies, and engine development issues, though the aircraft continues to progress toward certification.

SPOTTER TIP

The 777X is the only commercial passenger aircraft in the world with folding wingtips – on the ground, the outer 3.5 metres of each wing hinge upward hydraulically to allow the aircraft to fit within standard airport gate widths. In the air the tips lock flat, giving the full 71.8m span. The GE9X engines are the largest turbofan engines ever put on a commercial aircraft – the fan diameter is a staggering 3.4 metres. From the front, they are unmistakably massive.

DID YOU KNOW?

Each GE9X engine on the 777X has a fan diameter of 3.4 metres – large enough for an adult to stand upright inside the inlet. Together, the two engines produce around 200,000 lbs of thrust at maximum takeoff power.

Airbus A380

Winding Down



Manufacturer: Airbus

Key Operators: Emirates, Singapore Airlines, Qantas, British Airways, Lufthansa

FIRST FLIGHT	2005	PASSENGERS	555–853
RANGE	Up to 15,200 km	WINGSPAN	79.75 m
ENGINES	4× Rolls-Royce Trent 970 or Engine Alliance GP7200		

The Airbus A380 is the largest commercial passenger aircraft ever built and the only full-length double-deck airliner in aviation history. Born from Airbus's 'hub and spoke' vision of the future – where mega-aircraft would shuttle masses of passengers between major hub airports – the A380 entered service with Singapore Airlines in 2007. The aircraft is an engineering colossus: its wingspan of nearly 80 metres required airports worldwide to upgrade gates, taxiways, and jetbridges. The passenger experience it offers is exceptional – the sheer size of the cabin means it is remarkably quiet, and airlines have used the space for amenity features impossible on other jets, including Emirates' famous onboard shower spas and cocktail bar in first class. Despite its passenger popularity, the A380's commercial model struggled as the aviation industry moved toward smaller, more economical twins for point-to-point flying. Production ended in 2021 after just 251 aircraft. Emirates, which operates well over 100 A380s, has committed to keeping its fleet flying into the 2030s with refurbishments, ensuring the type will remain a common sight at major hubs for years to come.

SPOTTER TIP

The A380 is simply unmistakable – it is by far the largest passenger aircraft in the sky and the only commercial airliner with a full-length double deck. Both the upper and lower decks run the full length of the aircraft. The fuselage is notably wider and taller than any other jet, and the four engines sit in two pairs under the enormous swept wings. Even at altitude, the A380 appears uniquely bulbous and wide-bodied compared to everything around it.

DID YOU KNOW?

The A380's upper deck is wide enough to seat 10 passengers across in economy configuration. Emirates uses the freed-up space to fit a fully staffed cocktail bar and lounge in business class – the only working bar at 40,000 feet.

Regional Jets

Smaller jets and turboprops typically seating 50–100 passengers, connecting regional cities and feeding traffic into major airline hubs. Despite their modest size, regional aircraft are essential for maintaining air connectivity to communities that larger jets simply cannot serve economically.

ATR 72-600

■ Current Production



Manufacturer: ATR
(Airbus/Leonardo)

Key Operators: Loganair, Air France, IndiGo, FlyOne, Braathens Regional, Wideroe

FIRST FLIGHT	2009	PASSENGERS	70–78
RANGE	Up to 1,528 km	WINGSPAN	27.05 m
ENGINES	2× Pratt & Whitney PW127M (turboprop)		

The ATR 72-600 is the world's best-selling regional turboprop aircraft, produced by the Franco-Italian ATR consortium jointly owned by Airbus and Leonardo. It is the definitive solution for short-haul routes of up to around 400 km where turboprop economics dramatically outperform jets – the propeller-driven engines are simply more efficient at lower altitudes and shorter stage lengths where jets never reach their optimal cruise altitude. The -600 series features a full Armonia cabin interior, a modernised Thales avionics suite with large touchscreen displays, and improved passenger comfort with wider seats than earlier variants. The ATR 72-600 can operate from short, unpaved, and demanding airstrips that would be impossible for jet aircraft, making it indispensable for island hopping, mountainous terrain routes, and remote community connections. Over 1,800 ATR aircraft have been delivered worldwide to more than 200 operators across 100 countries.

■ SPOTTER TIP

The ATR 72 is one of the easiest aircraft to identify – it is a high-wing turboprop, meaning the wings are mounted on top of the fuselage rather than below it. The two large propellers are immediately obvious on approach and are visible spinning even at distance. The aircraft has a distinctive T-tail configuration with the horizontal stabiliser mounted at the top of the vertical tail. The fuselage is tube-like and relatively slender compared to jet aircraft.

■ DID YOU KNOW?

The ATR 72 burns approximately 40% less fuel per trip than a comparable regional jet on short routes under 400 km. On some sectors, its fuel burn per passenger kilometre is lower than the average family car making the same journey.

Bombardier CRJ Series

Winding Down



Manufacturer: Bombardier /
Mitsubishi

Key Operators: American Eagle, Delta Connection, Air Canada Express, Mesa Airlines

FIRST FLIGHT	1991	PASSENGERS	50–100
RANGE	Up to 3,700 km	WINGSPAN	24.0 m
ENGINES	2× GE CF34		

The Canadair Regional Jet family – developed from the Canadair Challenger 600 business jet – became the dominant regional jet in North America for over two decades and one of the most recognisable aircraft in the skies. The family evolved from the original 50-seat CRJ100/200 through to the stretched CRJ700, CRJ900, and finally the 100-seat CRJ1000. The rear-mounted engine configuration was inherited from its business jet origins and proved ideal for regional operations – easier ground clearance, lower cabin noise in the forward fuselage, and a cleaner aerodynamic wing. Bombardier sold the CRJ programme to Mitsubishi Heavy Industries in 2020, which now handles customer support and maintenance. Production of new aircraft ended in 2020, and the fleet is gradually ageing out, being replaced by newer, more fuel-efficient aircraft like the Embraer E2 family. However, given the sheer number of CRJs in service – several hundred aircraft – the type will remain a fixture of North American regional aviation well into the 2030s.

SPOTTER TIP

The CRJ has a very distinctive profile – the two GE CF34 engines are mounted at the rear of the fuselage rather than under the wings, giving it a clean, uncluttered wing planform. The fuselage is exceptionally slim – narrower than almost any other passenger jet – which means two-and-one seating (two seats on one side, one on the other) in the smaller variants. The T-tail is also characteristic, as is the very swept, narrow wing.

DID YOU KNOW?

At the CRJ's commercial peak in the mid-2000s, a CRJ aircraft was taking off or landing somewhere in North America every 10 seconds. The family carried hundreds of millions of passengers over its operational life.

Freighters & Special Types

Cargo aircraft and specialist variants that play a vital but often unseen role in global commerce. Every day, freighters carry everything from fresh flowers and pharmaceuticals to automotive parts and e-commerce packages – keeping global supply chains moving across the world's airways.

Boeing 747-8F

■ Current Production



Manufacturer: Boeing

Key Operators: UPS, FedEx, Cargolux, Atlas Air, Korean Air Cargo, Lufthansa Cargo

FIRST FLIGHT	2010	PASSENGERS	N/A (Freighter)
RANGE	Up to 8,130 km	WINGSPAN	68.4 m
ENGINES	4× GEnx-2B		

While passenger variants of the 747 have largely retired, the 747-8F freighter continues to roll off the Boeing production line in Everett, Washington, and represents the ultimate evolution of the Queen of the Skies. Powered by four GEnx-2B turbofans – a variant of the engine also used on the 787 – the 747-8F offers approximately 16% better fuel efficiency per tonne of cargo than the 747-400F it replaces. Its main deck can be loaded via the iconic nose door that swings upward, as well as a standard side cargo door, enabling simultaneous loading operations that dramatically reduce ground turnaround time. With a maximum payload of around 134 tonnes, it remains one of the highest-capacity freighters in the world. The 747-8F is a critical aircraft for express cargo carriers like UPS and FedEx, for whom its combination of speed, range, and capacity is unmatched. Its four-engine configuration, while less fuel-efficient than twins in cruise, provides redundancy valued for cargo operations over remote and oceanic routes.

■ SPOTTER TIP

The 747-8F shares the iconic upper deck hump of all 747 variants, but has a noticeably longer fuselage than the 747-400. Look for the distinctive raked wingtips – similar in style to the 787 – which identify the -8 series versus older 747 variants that had conventional winglets or straight tips. The nose of the freighter variant can hinge upward to allow direct drive-on loading of cargo from the front, though this is only visible on the ground.

■ DID YOU KNOW?

A fully loaded Boeing 747-8F can carry up to 134 tonnes of cargo – the equivalent weight of approximately 89 average-sized cars, or over two million standard paperback books.

Airbus A330-900neo

■ Current Production



Manufacturer: Airbus

Key Operators: TAP Air Portugal, Delta, Corsair, Condor, Air Mauritius, Sichuan Airlines

FIRST FLIGHT	2017	PASSENGERS	260–440
RANGE	Up to 13,334 km	WINGSPAN	64 m
ENGINES	2× Rolls-Royce Trent 7000		

The A330neo (new engine option) is Airbus's pragmatic and commercially astute re-engining of the highly successful original A330 platform. Rather than designing an entirely new aircraft, Airbus fitted the proven A330 airframe with the latest Rolls-Royce Trent 7000 engines – a derivative of the Trent 7000 series – along with new aerodynamic sharklet wingtips and cabin improvements. The result is a 25% reduction in fuel burn per seat compared to the A330ceo, achieved at a fraction of the cost of developing a new aircraft. Two variants exist: the A330-800neo (smaller, longer-range, fewer orders) and the A330-900neo (stretched, the commercial success of the pair). The A330neo sits in an important market position – larger than the 787-8 but smaller than the A350-900, and priced below both – making it attractive to airlines seeking widebody flexibility without the cost of newer technology aircraft. Its 95% systems commonality with the A350 is a significant operational advantage, reducing training and maintenance complexity for airlines that operate both types.

■ SPOTTER TIP

The A330neo looks almost identical to the original A330ceo from a distance, but close inspection reveals the Airbus sharklet wingtips – the curved composite winglets introduced with the neo series. The Trent 7000 engines are also noticeably larger in diameter than the engines on the ceo. The neo has a slightly refined nose profile. On approach, listen for the characteristic high-pitched tone of the Trent 7000, which has a distinctive acoustic signature.

■ DID YOU KNOW?

The A330neo shares approximately 95% of its cockpit systems and procedures with the A350 XWB. A pilot certified on one type can transition to the other with a relatively short differences course – saving airlines significant training costs.

Classic & Winding Down

Once the giants of the skies, these aircraft defined generations of air travel and shaped the modern aviation world. Though production has long ended, many continue to fly today – and for aviation enthusiasts, spotting these increasingly rare types is a rewarding and time-sensitive pursuit.

Boeing 747-400

Retiring



Manufacturer: Boeing

Key Operators: Lufthansa (final ops), Air India, various cargo carriers

FIRST FLIGHT	1988	PASSENGERS	416–524
RANGE	Up to 13,450 km	WINGSPAN	64.4 m
ENGINES	4× CF6, PW4000, or RR RB211		

The Boeing 747-400 – the Queen of the Skies – is arguably the most iconic commercial aircraft ever built and the variant most people picture when they think of a jumbo jet. It entered service in 1989 as a significant improvement over earlier 747 variants, featuring a glass cockpit that eliminated the need for a flight engineer (reducing the crew from three to two), winglets that improved fuel efficiency, extended-range fuel tanks in the tailplane, and a redesigned interior. At its peak, the 747-400 was the pre-eminent long-haul widebody, operated by virtually every major international carrier. Routes like London Heathrow to New York JFK, Sydney to Los Angeles, and Tokyo to San Francisco were 747-400 staples for decades. The rise of more fuel-efficient twin-engine jets – particularly the 777 and 787 – rendered its four-engine economics increasingly uncompetitive. Most passenger 747-400 fleets have now retired, though cargo operations continue to give many airframes a second life. If you see one still in passenger service, you are witnessing a genuine piece of aviation history in its final chapter.

SPOTTER TIP

The 747-400 is one of the most instantly recognisable aircraft ever built – the iconic upper deck hump behind the cockpit is unmistakable from any angle. The -400 variant specifically features winglets (small angled tips pointing upward from the wingtip), distinguishing it from earlier 747 variants which had straight wingtips. The hump is shorter on the 747-400 than on the 747-8, and the overall fuselage is shorter. Four engines in two pairs under the long, swept wing complete the silhouette.

DID YOU KNOW?

At its 1968 launch, the original 747 was so much larger than any previous airliner that Boeing had to construct an entirely new assembly building in Everett, Washington, to build it – a structure that remains the largest building by volume in the world, at over 13 million cubic metres.

Airbus A340

Retiring



Manufacturer: Airbus

Key Operators: SWISS (phasing out), Iberia (limited), various charter operators

FIRST FLIGHT	1991	PASSENGERS	295–440
RANGE	Up to 16,020 km	WINGSPAN	63.4 m
ENGINES	4× CFM56 or Rolls-Royce Trent 500		

The Airbus A340 was designed in an era when regulatory rules and engine reliability technology limited twin-engine aircraft to routes within 60 minutes of an airport – making four-engine jets essential for transoceanic flying. It entered service in 1993 and gave Airbus a credible competitor to the Boeing 747 on ultra-long-haul routes. The family evolved through four variants: the shorter A340-200, the standard A340-300, and the stretched ultra-long-range A340-500 and A340-600. The -500 held the world's longest non-stop commercial route record for a period. However, the rapid improvement in twin-engine reliability and the introduction of extended ETOPS rules – eventually allowing twins to fly routes up to 370 minutes from a diversion airport – made the A340's four engines an economic liability rather than an operational necessity. Airlines found that 777 and later 787 twins could fly the same routes for dramatically lower fuel costs. Retirement accelerated sharply after 2010, and today the A340 is a rare sight at most major airports. Its remaining operators fly it on niche routes or as a prestige product.

SPOTTER TIP

The A340 can be confused with the A330 at a glance – they share the same fuselage cross-section and general profile. The definitive distinguishing feature is the number of engines: the A340 has four engines in two pairs under the wing, while the A330 has just two. The A340 also has a small additional centreline main gear leg (a third gear bogey under the centre fuselage) to support its higher maximum weight, visible on the ground. The slightly wider spacing of the four engine pylons compared to a 747 is also characteristic.

DID YOU KNOW?

The A340-500HGW (High Gross Weight) variant operated Singapore Airlines' Singapore to Los Angeles non-stop service – at the time the world's longest commercial flight at around 18.5 hours – before being replaced by the more economical A350-900ULR.

Boeing 757

Retiring



Manufacturer: Boeing

Key Operators: Delta, United, FedEx, UPS (freighter ops)

FIRST FLIGHT	1982	PASSENGERS	200–228
RANGE	Up to 7,250 km	WINGSPAN	38.05 m
ENGINES	2× Rolls-Royce RB211 or P&W; PW2000		

The Boeing 757 occupies a unique and now irreplaceable niche in commercial aviation – a narrowbody aircraft with the range and engine power to operate routes that would normally require a widebody jet. Entering service in 1983, it was developed in parallel with the 757's widebody sibling, the 767, and the two aircraft share a common pilot type rating – a revolutionary concept at the time that saved airlines enormous training costs. The 757's Rolls-Royce RB211 or Pratt & Whitney PW2000 engines were extraordinarily powerful for a narrowbody, giving it exceptional performance at hot and high airports (high altitude, high temperature conditions that degrade engine performance) and enabling it to operate transatlantic routes – something almost unheard of for a single-aisle aircraft. Iceland's Icelandair and later many US carriers exploited this capability to offer affordable transatlantic crossings via hub airports. Production ended in 2004, and Boeing has never produced a direct replacement – airlines and pilots frequently lament the '757-sized gap' in the market. The A321XLR comes closest to filling it, but even this cannot fully replicate the 757's hot-and-high capabilities.

SPOTTER TIP

The 757 has one of the most distinctive silhouettes of any commercial jet – disproportionately tall and slim, with a very long, narrow fuselage that seems almost too large for its relatively short wingspan. The nose is notably pointed, quite different from the rounded noses of Airbus aircraft or later Boeing designs. The two powerful engines hang below and forward of the wing on relatively long pylons. From the side, the 757 looks almost impossibly elongated for a narrowbody aircraft.

DID YOU KNOW?

The Boeing 757 is one of the very few narrowbody aircraft capable of regularly operating transatlantic routes. Icelandair has operated 757s between Europe and North America since the 1980s, and the type remains in transatlantic service with several carriers to this day.

Glossary of Aviation Terms

Narrowbody	A commercial aircraft with a single aisle running down the centre of the cabin, typically seating 3+3 passengers per row.
Widebody	A commercial aircraft with two aisles and a wider fuselage, typically seating 2+4+2 or similar per row. Used for long-haul routes.
Turbofan Engine	The most common type of jet engine on commercial aircraft. Air is drawn in by a large fan, with some bypassing the core for efficiency.
Turboprop Engine	A type of engine where a turbine drives a propeller. Common on smaller regional aircraft. More efficient than jets on short routes at lower altitudes.
Winglet / Sharklet	Upturned or angled wingtip devices that reduce aerodynamic drag, improving fuel efficiency by 3-5%.
Range	The maximum distance an aircraft can fly with a full passenger load without refuelling, measured in kilometres or nautical miles.
ETOPS	Extended-range Twin-engine Operational Performance Standards. Rules governing how far twin-engine aircraft can fly from an airport. Modern twins are cleared for up to 370 minutes.
Glass Cockpit	A modern flight deck using digital screen displays rather than traditional analogue instruments, giving pilots better situational awareness.
Neo / Max	Abbreviations used by Airbus (Neo = New Engine Option) and Boeing (Max) for re-engined, more fuel-efficient variants of existing aircraft families.
Composite Materials	Non-metallic materials like carbon fibre used in modern aircraft construction. Lighter and stronger than aluminium, improving fuel efficiency.
Fly-by-Wire	An electronic flight control system replacing traditional mechanical linkages. Computer systems interpret pilot inputs and move control surfaces accordingly.
Hub-and-Spoke	An airline network model where passengers travel via a central hub airport. Widebody jets typically fly the hub routes; regional aircraft feed in from smaller airports.

Spotter's Quick Reference

Use this table to quickly identify aircraft by their key visual characteristics.

Aircraft	Engines	Layout	Key Visual Clue	Status
Boeing 737 MAX	2 (under wing)	Narrowbody	Split-tip winglets, flat-bottomed nacelles	Current
Airbus A320neo	2 (under wing)	Narrowbody	Curved sharklet wingtips, rounded nose	Current
Embraer E2	2 (under wing)	Regional Jet	Smaller than A320, 2+2 seating, slim fuselage	Current
Boeing 787	2 (under wing)	Widebody	Swept raked wingtips, very curved nose, large oval windows	Current
Airbus A350	2 (under wing)	Widebody	Dark composite panels at nose, curved cockpit windows	Current
Boeing 777X	2 (under wing)	Widebody	Massive GE9X engines, folding wingtips (on ground)	Current
Airbus A380	4 (under wing)	Double-deck widebody	Enormous; clearly two passenger decks visible	Winding Down
ATR 72	2 (turboprops)	Regional turboprop	High wing, T-tail, visible propellers	Current
Bombardier CRJ	2 (rear fuselage)	Regional Jet	Engines at the tail, not under wings; slim tube body	Winding Down
Boeing 747-400	4 (under wing)	Widebody + hump	Upper deck hump, winglets, iconic silhouette	Retiring
Airbus A340	4 (under wing)	Widebody	4 engines but narrower fuselage than 747	Retiring
Boeing 757	2 (under wing)	Narrowbody	Very tall and slim; distinctly pointed nose	Retiring

■ Current Production

■ Winding Down

■ Retiring / Rare