

From Airfield to **AirportCity**

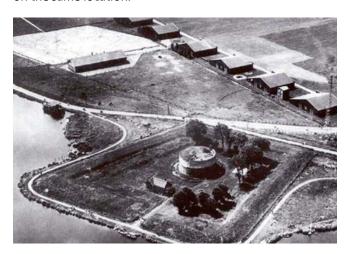
Amsterdam Airport Schiphol is more than just an airport. It's actually a modern city with runways designed around a vibrant city centre. The airport is an international hub offering multi-modal forms of transport to both people and goods, with numerous facilities. This is what makes Amsterdam Airport Schihpol an AirportCity. A city where everyone is welcome but where no-one lives. It's also a city that never sleeps.

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Schiphol



In more ways than one Amsterdam Airport Schiphol is a remarkable airport. Schiphol Airport exists more than 100 years. Remarkable is also that it lies more than four metres below sea level on reclaimed land on the bottom of a former lake. Moreover, the airport is still situated on exactly the same site as where the first aircraft landed in 1916. Despite having expanded extensively, the airport has never moved from its original location. Amsterdam Airport Schiphol is therefore the oldest international airport still on the same location.



The Very Beginning ...

On 19 September 1916 farmers in the Haarlemmermeerpolder, close to the old Fort Schiphol, hear a strange humming noise overhead. They look up in surprise. A few minutes later they see a wobbly little aircraft, a two-seater Farman belonging to the Aviation Division

AirportCity

Amsterdam Airport Schiphol has the atmosphere of a metropolis and is a shining example of an AirportCity: a leading, efficient airport that provides the full range of services required by visitors and companies located there 24 hours a day, seven days a week.

Royal Schiphol Group is an airport company and Amsterdam Airport Schiphol is its principal airport. We aim to create sustainable value for our stakeholders, with due regard for their various interests. All our actions reflect our key values: reliability, efficiency, hospitality, inspiration and sustainability. **Royal Schiphol Group's mission** is Connecting the Netherlands: facilitating optimal links with the rest of the world in order to contribute to prosperity and well-being in this country and elsewhere.

of the Dutch army, the precursor of today's Dutch Air Force, landing on the grassy field. At that time they could not have suspected that they were witnessing the beginning of Amsterdam Airport Schiphol. Midway during World War I, the Army's Aviation Division used Amsterdam Airport Schiphol as a military airfield. This area had been singled out because it was strategically located within the Hollandsche Waterlinie, a vast strip of land that could be flooded as a defensive line, and moreover, it also lay inside yet another defensive zone known as the 'Stelling van Amsterdam', consisting of a circle of forts. The military airfield was not much more than grassland with a few sheds serving as hangars for the first aircraft. They were planes made of pipes and wooden frames spanned with linen.

The first airport staff had a tough life. They had to wash themselves with water from the Ringvaart canal surrounding the polder and their homes consisted of a few humble barracks, where they had to live both summer and winter. The barracks were lit by horsestable lanterns. Moreover, the farming community did not want to have anything to do with modern aviation. Many a soldier had a cabbage or potato thrown at his face.

The First Passengers

In 1918 World War I was drawing to a close, resulting in an abundance of spare military aircraft. The enterprising Dutch came upon the idea of using the aircraft to transport civilians. To prickle the general public's interest in the idea of such transport, two air force officers, Plesman and Hofstee, organised an aviation exhibition, which was held in Amsterdam North in 1919. Over four thousand visitors experienced their first journey by air during the historic event, which was called the First Amsterdam Air Traffic Exhibition. In the same year KLM Royal Dutch Airlines was founded, with Albert Plesman appointed Managing Director. Six months later, KLM started

its first scheduled service from Amsterdam Airport Schiphol, a flight from London to Amsterdam.

On 17 May 1920 the first scheduled KLM aircraft, a De Havilland 16, touched down at Amsterdam Airport Schiphol. There were two passengers on board, journalists from the British newspaper The Times. Not only did the plane take these passengers to Amsterdam Airport Schiphol, it also transported the first bags of mail. Incidentally, the aircraft was not a KLM plane but an aircraft that had been hired from the British airline Aircraft Transport and Travel.

In the early 1920s Amsterdam Airport Schiphol was forced to manage as best it could. Heavy rain often transformed huge sections of the airfield into a quagmire. KLM had to hire sturdy men to carry passengers to the aircraft on their backs.

The pilots of French airline Societé Générale de Transport Aerien in their Farman Goliath aircraft were regularly bogged down in the mud. They soon nicknamed Schiphol, 'Schiphol-les-Bains' (Schiphol Bathing Resort). The situation was far from satisfactory.

With a view to the Olympic Games due to be held in Amsterdam in 1928, the City of Amsterdam took over the section of the airport that was used for civil aviation on 1 January 1926. The remainder of the airport continued to be available for military aviation. From that date on, Schiphol belonged to the Department of Municipal Trade Organisations.

Major Airport

Shortly after the take-over, the City of Amsterdam developed plans to improve the airport's facilities. Every effort was undertaken to turn Amsterdam Airport Schiphol into a world airport as quickly as possible. To start with, a new terminal was built precisely on time to officially welcome and bid farewell to guests involved in the Olympiad.

Between 1920 and 1939 the surface area of the hangars was increased from 500 m² to over 21,000 m². The airport also gained night-time landing equipment and a direction-finding radio station, which enabled the position of aircraft in the air to be determined.

In 1937 air traffic control at Schiphol was given responsibility for overall air traffic safety above the Netherlands. Because aircraft were becoming larger, and thus heavier, a tarmac runway system had to be built. This was completed in 1938. In addition to Bromma Airport near Stockholm in Sweden, Amsterdam Airport Schiphol was the only airport in Europe that had such a runway system available. A record number of passengers were transported



in 1938 – over 100,000 as opposed to 440 in 1920, the first year of civil aviation at Amsterdam Airport Schiphol. By 1938, the airport had developed into a small aviation village where some 1,600 people worked for around 25 different companies and organisations. The airport



had meanwhile grown in size from 79 to 210 hectares. Schiphol was starting to transform into a major airport.

Destruction

Dark clouds loomed above Europe at the end of the thirties. The threat of war was becoming ever closer in the Netherlands. On 10 May 1940 the Netherlands was attacked. The Nazis assumed control of Amsterdam Airport Schiphol in virtually undamaged condition and employed it as a military base. It was a key operations base for German air attacks on England during the Battle of Britain. Amsterdam Airport Schiphol suffered heavily in the ensuing years. Because of its excellent facilities and its position close to England, Amsterdam Airport Schiphol posed a serious threat to the allies. The airport was therefore bombed on numerous occasions by the English and the Americans. The final blow was delivered on 13 December 1943. Within

thirty minutes 208 U.S. Marauder bombers dropped 400,000 kilos of bombs on Amsterdam Airport Schiphol, thus rendering it useless to the Germans. Over the next year, the Germans blew up virtually everything that had remained standing. Schiphol was wiped off the map.

Reconstruction

Under the inspiring leadership of Amsterdam Airport Schiphol's first station master and airport operations manager Jan Dellaert, reconstruction began immediately after the war. On 28 July 1945 the first post-war aircraft, a DC-3 belonging to the Swedish airline ABA, landed at Amsterdam Airport Schiphol after one of the runways had been temporarily repaired. After World War II, the airport consisted of a motley collection of improvised accommodations. Air traffic control was first accommodated in a kind of removal van while a wooden makeshift building served as a temporary air traffic control tower. Nonetheless, a new terminal was opened in 1949. In the early 1950s Amsterdam Airport Schiphol again had the allure of a truely international airport. Despite the poor economic situation in the Netherlands shortly after World War II, the number of passengers increased rapidly. In 1950 over 350,000 passengers used Amsterdam Airport Schiphol, as opposed to some 100,000 in the pre-war record year of 1938.



Independent Airport

During World War II Jan Dellaert developed plans for a completely new airport that was to be built some two-and-a-half kilometres west of the existing airport. According to Dellaert's calculations, if the old airport were to be rebuilt and extended, it would never be in a position to handle future passenger numbers. In 1946 the Netherlands government designated Amsterdam Airport Schiphol as the national airport of the Netherlands. This implied that plans could be



further developed. The City of Amsterdam, however, indicted that it would not be able to pay all the costs of building a new airport. Amsterdam therefore requested the Dutch government for financial support. The state agreed to provide support but in return demanded participation in a new form of management and a say in Amsterdam Airport Schiphol's future development. The municipal department that had managed the airport from 1926 was transformed into a public limited company, N.V. Luchthaven Schiphol in 1958. The Netherlands state acquired a 75.8% share, the Municipality of Amsterdam a 21.8% share and the Municipality of Rotterdam a 2.4% share. It was from this point that Dellaert's plans for the new airport, which had been approved by the City of Amsterdam and the Netherlands government in 1949, were implemented. Dellaert's plans for Amsterdam Airport Schiphol were groundbreaking in a number of respects. A central terminal building situated in a circular zone for handling passengers and cargo formed the starting point. Four runways bordered the zone as tangents. The tangential runway system enabled aircraft to take-off and land with winds prevailing from any direction and with the aircraft never having to taxi too far. Dellaert's plans also included a motorway and a rail link in the zone to provide good access to the airport.

The new airport, officially called Schiphol Centre, was opened on 28 April 1967 by HM Queen Juliana. There was a new terminal consisting of an arrival hall on the ground floor and a departure hall above it with three piers, located within a four-runway system surrounding a central zone. The airport area then consisted of 1,700 hectares. Jan Dellaert, also known as the father of Schiphol, did not live to see the opening. He had made an immense contribution to the development of the airport for forty years.

Under his inspiring leadership Amsterdam Airport Schiphol developed into one of Europe's most modern airports.

Dellaert retired in 1960 and died in the same year.

From Propeller Aircraft to Jet Aircraft

Air traffic was dominated by propeller planes such as the Dakota, the DC-6 and DC-7, Constellation, Convairliner and Viscount until the early sixties. This all changed in 1958 when the first long-distance jet aircraft, a Russian Tupolev 104a, landed at Amsterdam Airport Schiphol. Approximately a year after the Tupolev had landed, the first large American jet aircraft arrived at Schiphol. It was a Boeing 707, with an unprecedented take-off weight for that period of around 140 tonnes. The first aircraft powered by jet engines were around one and a half times as fast as propeller aircraft, and were also able to transport one and a half times as many passengers. These aircraft also had a considerably larger hold space for baggage and cargo. The arrival of the Boeing 747 'Jumbo' jet in 1970 again upscaled civil aviation. It was the first widebody aircraft. The new Boeing aircraft was able to carry 500 passengers and a cargo version around 100 tonnes of cargo. The arrival of jet aircraft marked the beginning of a new era in civil aviation. It was possible to transport more passengers at greater speed over longer distances and at lower fares than previously possible. Planes had become accessible to the public. But they did pose a new problem to people living close to airports - noise disturbance. The new jet aircraft caused much more noise disturbance than their predecessors, propeller airplanes.

Steady Growth

Because air travel had become accessible to the general public, the airport saw unparalleled growth in the early sixties. More and more airlines began operating flight services to and from Amsterdam Airport Schiphol. In this period Charter transport, offering holidaymakers a flight plus hotel accommodation or an apartment, rapidly became popular. The arrival of jet-powered civil aviation aircraft, coupled with the fast growth of passenger and cargo



transport, suddenly brought about immense urgency to build a new Schiphol. The airport's construction began in 1963 with Schiphol Centre opening in 1967. The terminal with its three piers was able to process around six million passengers annually. That capacity, however, once again quickly proved to be insufficient. The number of passengers had grown to over five million in 1970, from under 1.4 million in 1960. The arrival hall was therefore extended in 1971 and in 1975 a second, even larger, extension of the terminal building was completed. The terminal's capacity had more than doubled. A fourth pier was also added. A key project in the following years was the demolition and reconstruction of one of the piers. A 240-metre long and 65-metre wide basement housing BASS, Schiphol's baggage-handling system, was built under the pier. The system was a fully automated baggage-sorting system that enabled baggage to be sorted within eight minutes, depending on its final destination. It was taken into service at the end of the eighties. Recently Schiphol has invested in the expansion of the baggagesystem, in order to be able to handle the growing number of bags. In 2010 Schiphol opened the new baggage hall South, with six robots to do the heavy work.

Schiphol South

To accommodate the increase in air cargo transport, the cargo apron at Schiphol Centre was extended and in the eighties the airport built a completely new cargo zone, called Schiphol South with a large apron for cargo aircraft. Expansion projects resulted in an increase in handling capacity of around 16 million passengers and over one million tonnes of cargo annually. That capacity proved to be sufficient for the time because the growth of air traffic following the second oil crisis had stagnated for a number of years. Growth, however, resumed from 1985 onward. In 1990 Amsterdam Airport Schiphol exceeded the 16-million-passenger mark and further expansion thus became essential.





Expansion

In the late eighties, planners assumed that some 28 million passengers would use Amsterdam Airport Schiphol in the year 2000. Incidentally, that number was nearer 40 million. Based on the 28-million-passenger figure, the Master Plan 2003 was drawn up in 1988, looking ahead 15 years and encompassing around one hundred different projects to enable the airport to accommodate the anticipated growth of air traffic and air transport. Prior to



executing these projects, a new air traffic control tower had to be built. The air traffic controllers working for Air Traffic Control the Netherlands (Luchtverkeersleiding Nederland), were at all times required to have an unobstructed view of the aprons, the taxiways and runways. Construction of the new control tower began in Autumn of 1988 and it began operating in May 1991. At that time, it was the world's tallest air traffic control tower, with a height of 101 metres. Expansion projects were not all completed at once. The terminal was extended in a westerly direction in phases. A modern baggage handling facility was also built underneath the terminal. The system of piers was also expanded in phases. The first phase of

the terminal's expansion, the west wing (Departure hall 3) of the terminal, was completed in 1993. A year earlier, the Pier G, Amsterdam Airport Schiphol's fifth pier, had been completed. In the next years the terminal was expanded with Departure hall 4, Lounge 4 and Pier H/M. In 2003 a new runway was taken into use, the Polder runway.

In the summer of 2015, Schiphol introduced central security throughout the terminal, after building four new central security filters for passengers travelling to non-Schengen destinations, as well as an additional level on Piers E, F and G. Gate security checkpoints were eliminated at this time. In 2016 Schiphol launched the Capital Programme, a series of major new construction projects. A new pier and terminal are currently under construction.

Limits to growth

The arrival of jet aircraft was accompanied by more noise. To enable air traffic to grow while reducing noise impact on the local community, the government introduced the 'twofold objective' in the nineties.

Air traffic growth had to be sustained in a socially responsible manner and in accordance with the environmental and safety standards laid down by legislation. The new Polder Runway was one of the key investments of Schiphol to be able to realise growth within the legislative limits.

The investment represents an increase in the airport's theoretical capacity so that more aircraft can take-off and land and it has also brought about reduced noise impact in the area neighbouring Schiphol that was most heavily affected by noise. In 2018 Schiphol reached the limit of 500,000 air transport movements till 1 November 2020. Future further development is currently being decided.

AirportCity concept

Amsterdam Airport Schiphol's development in recent years is based on a clear vision, based on the AirportCity concept. To Royal Schiphol Group, the parent company that operates the airport, airports are more than just places enabling passengers to depart by aircraft or transfer planes. An airport is a modern city, offering a brief but enjoyable stay. Amsterdam Airport Schiphol has banks, shops, restaurants, conference centres, children's playing facilities, hotels and a library, as well as a museum housing an exceptional collection of Dutch masters. All of the above makes Schiphol to be an AirportCity, where you can find innovative and surprising facilities, all breathing Dutch design. Schiphol is a Mainport, a major hub for air, rail and road connections. For the Netherlands it is a window to the rest of the world



while for the international community it is the gateway to the Netherlands and Europe. For the Randstad region and the Netherlands Schiphol is an important economic engine.

The AirportCity concept is recognised within and outside the Netherlands as a textbook example of airport building, interior design and management.

The concept has also been applied to other international airports where Schiphol Group is active, such as John F. Kennedy Airport in New York and Brisbane in Australia.

Europe's Preferred Airport

Royal Schiphol Group is an airport business, with Amsterdam Airport Schiphol as its main asset.

It is Schiphol Group's ambition to develop Amsterdam Airport Schiphol into Europe's Preferred Airport for travellers, airlines and logistics service providers alike. We wish to serve airlines, handlers, passengers and business people as efficiently as possible, with a well-equipped airport and modern facilities. The way we do this is what makes Schiphol a successful hub, with 327 direct destinations and over 71.7 million passengers per year.

Economic Engine

In its capacity as a Mainport, Schiphol is a crucial factor in both the national and regional economy. Schiphol is a key gateway for international trade and an engine for other forms of economic activity. Businesses from the broader area around the airport make use of the services offered by Schiphol.

Schiphol also helps create a large number of jobs in the Netherlands. Approximately 67,000 people are employed at a total of 500 companies located at Schiphol.



In all, Schiphol contributes approximately €30 billion and 300,000 jobs to the Dutch economy.

Schiphol Group invests hundreds of millions of euros in projects for capacity and quality at Amsterdam Airport Schiphol each year, which makes the airport one of the largest investors in the Netherlands. Investments will continue to be made.

Schiphol: a place in history

1916 Opening of Schiphol airport

The first (military) aircraft - a Dutch air force plane – lands on Schiphol's 76-hectare grass plot on 19 September.

1919 Establishment of KLM

1920 Civilian airport

The first KLM aircraft arrives at Schiphol from London on 17 May. Schiphol has six wooden barracks. KLM uses one of these buildings as a hangar, cargo warehouse, and departure and arrival hall. The building also houses the office of Schiphol's first station manager, the 'father' of modern Schiphol Jan Dellaert. In its first year, Schiphol processes a total of 440 passengers and 22 tonnes of cargo.

1926 Municipality of Amsterdam

In preparation for the upcoming Olympic Games, the Ministry of War delegates responsibility for the civilian airport to the municipality of Amsterdam. In 1926, Schiphol processes a total of 10,793 passengers and 340,000 kilos of cargo, including post.

1927 Official opening of first station building (terminal)

The building is further expanded in 1931 and 1936 in order to facilitate growing passenger volumes.

1938 Asphalted runway system

Schiphol becomes the second airport in Europe to feature an asphalted runway system. The airport grounds now span an area of 210 hectares.

1940 The Luftwaffe bombs Schiphol on 10 May

The Germans subsequently use the airport as a base for air raids on England.

1943 Schiphol is destroyed by allied bombers

400 tonnes of US bombs raise Schiphol to the ground on 13 December.

1944 German Sprengkommandos

German Sprengkommandos blow up the last remaining features.

1945 First post-war aircraft

The first civilian aircraft - a DC-3 operated by Swiss airline ABA - lands at a partially restored Schiphol on 28 July. In 1945, the airport processes a total of 10,347 passengers. A wooden barrack serves as terminal building.

1945 Central airport

On 8 October, the Cabinet decides to officially designate Schiphol "the Netherlands' central airport".



1949 Completion of new terminal

1956 Plan for construction of new airport

Jan Dellaert's plan for a new airport, developed during the war, is approved by the Amsterdam municipal council.

1956 First jet aircraft

On 26 September, the first jet aircraft lands at Schiphol, a Tupolev 104a.

1957 tax-free shopping centre

Schiphol becomes the first airport on the European continent to open a tax-free shopping centre.

1958 N.V. Luchthaven Schiphol

Establishment of N.V. Luchthaven Schiphol, in order to facilitate financing of the new airport. Share-holders: the government (75.8%), the Municipality of Amsterdam (21.8%) and the Municipality of Rotterdam (2.4%).

1963 Start of construction work on Schiphol-Centre

1967 Official opening of Schiphol-Centre

On 28 April, Queen Juliana officially opens the new Schiphol, which comprises a new station building, three piers and four runways configured around a central area. The airport has a capacity of 6 million passengers. The airport grounds span an area of 1,700 hectares. That year the airport welcomes a total of 3,263,342 passengers and almost 1 million kilos of cargo, with 76,573 takeoffs and landings.

1975 Completion of terminal expansion

The new terminal built in 1967 is expanded by 120%, to a total capacity of 16 million passengers. A fourth pier is commissioned.

1978 Opening of Schiphol railway line

20 December marks the official opening of a train connection between Schiphol and Amsterdam South. The final section, the connection with Amsterdam Central Station, is completed in 1986.

1987 Official opening of new Pier C/subsequent Pier E

1988 Launch of Mainport strategy

Schiphol aims to retain its position in the European top 5 and become a Mainport, a key driving force for the economy. The Masterplan for 2003 is presented, outlining expansion plans such as Schiphol Plaza and Terminal West. The same year sees the official opening of the new Schiphol-South cargo area.

1990 Southern extension of Pier D opens:

13 new gates

1991 New air traffic control tower

Completion of new air traffic control tower and Pier G. Queen Beatrix officially opens the 101.17 metre tower - then the highest in the world - on 4 June.

1993 Terminal West opens

New section of the terminal commissioned on 10 May. Terminal capacity expanded to a total of 32 million passengers a year.

1995 Official opening of Schiphol Plaza

Further reinforcement of the one-terminal concept. Train station and landside shopping centre now under same roof as the Arrival and Departure Halls.

1996 Thalys

High-speed train commences Amsterdam-Schiphol-Brussels-Paris service.

1996 Pier D on north side completed

Option for separating Schengen from Non-Schengen. 11 new gates.

2000 Renovation of Lounge 2 completed

New retail concept with restaurants on the second floor and a communication centre. Pier E extension and new Pier B commissioned.

2003 Opening of Runway 18R-36L

2004 Expansion of Departure Hall 3 and new Arrival Hall 4 completed.

2005 Renovation and expansion of Lounge 1

completed and commissioning of Pier H, Schiphol's seventh pier.

2008 Official opening of new VIP Centre by H.M. Queen Beatrix.

Strategic alliance with Groupe ADP, with Schiphol Group and ADP each taking an 8% share in the other.

2008 Alders agreement

Package agreement, including: Schiphol may expand to 500,000 air transport movements in 2020. Lelystad Airport will be developed as leisure airport.

2010 Renovation of Holland Boulevard

HRH Princess Laurentien officially opens the world's very first Airport Library.

Opening Baggage Hall South

Featuring the world's most advanced baggage system with six robots.

2011 Lounge 3 renovated

2011 Opening of Airport Park in Departure Lounge 1

2011 Opening of the new General Aviation terminal

2011 One billionth passenger

On October 19, 2011, Schiphol welcomes her one billionth passenger.

2012 Lounge 4 renovated

2014 Start of Departure Lounge 2 renovation

Creating 20% more retail and food service space.

2014 New security filter put into use

Departure Hall 1 has the first in a series of innovative and user-friendly central security checkpoints.

2015 Four new central security filters

In the non-Schengen area of the terminal.

2015 Opening of the new Hilton hotel

with 433 rooms and extensive conference facilities.

2016 Opening of the renewed Departure Lounge 2

2017 Opening of a new temporary Departure Hall, **Departures 1A**

2017 Opening of the renovated Holland Boulevard

Featuring a renewed annex of the Rijksmuseum Amsterdam.

2017 Start of groundbreaking work for the new pier and terminal

Key figures Schiphol 2018

71.1 million passengers **1,716,497** tonnes of cargo

499,444 air transport movements, of which **15,942** with fullfreighters (3.2%)

> **327** direct scheduled destinations in **98** countries, with

108 airlines

159 destinations for cargo of which

destinations with only full freighters, in

83 countries

500 companies within the airport grounds, with approximately

67,000 employees

2nd in Europe in terms of total air transport movements, 3rd in Europe in terms of passenger volumes, 3rd in Europe in terms of cargo volumes