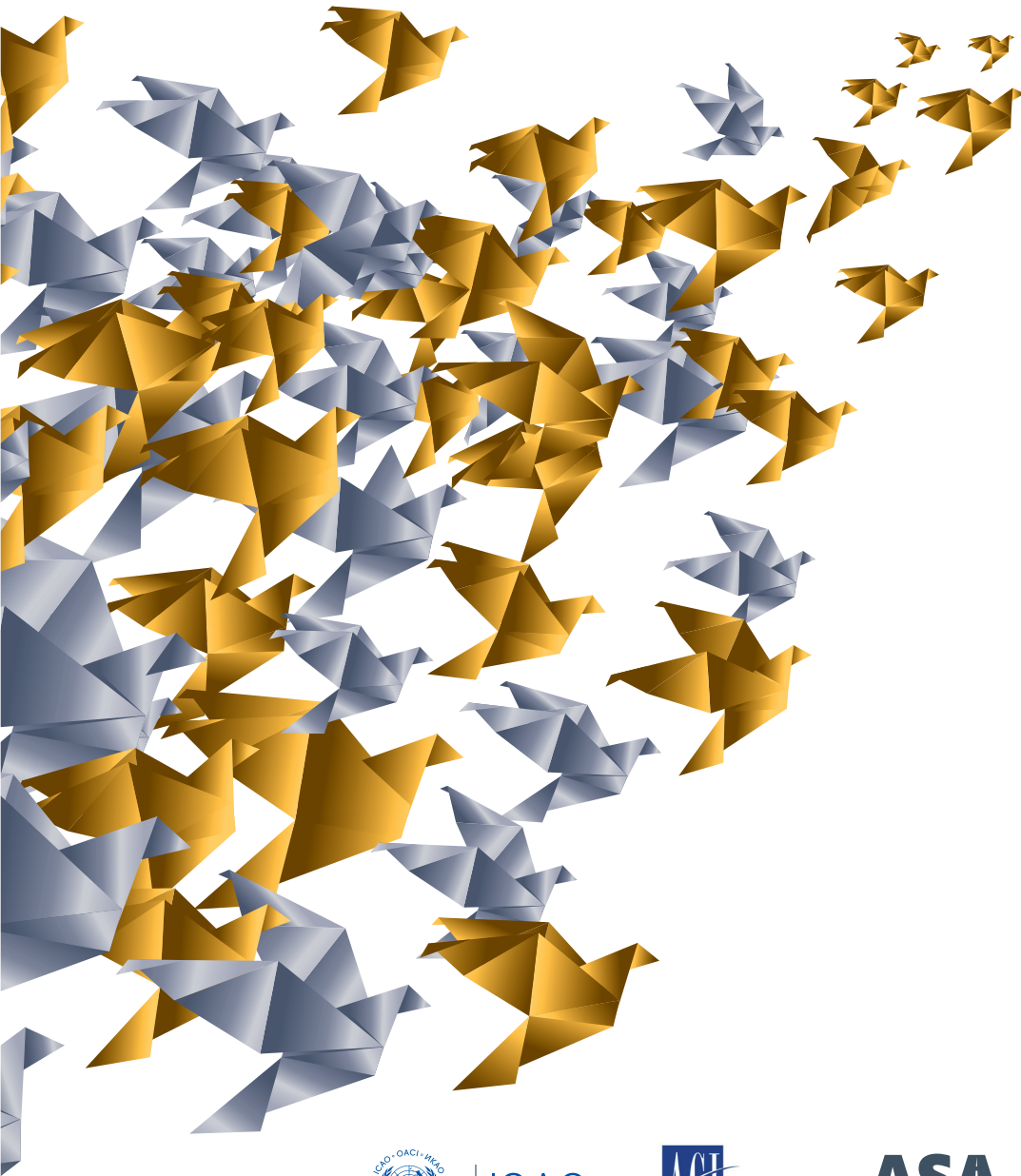


# Air Transport Milestones

KOSTAS IATROU



PUBLISHED BY:



IN PARTNERSHIP WITH:



ICAO





Dedicated to my wife Evgenia and my sons George and Yianni



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First Edition: **December 2024**

Published by: **Hermes – Air Transport Organisation**

Graphic Design – Layout: **Sophia Darviris**

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# Air Transport Milestones

## preface



The dream of flying has always been as old as humanity. Humans have dreamed of flying since the dawn of history. In Greek mythology the first to accomplish this dream were Daedalus and Icarus. The path from dreams to success was a long and arduous one and the very first flight took place only in 1903 when the Wright brothers managed to accomplish the unthinkable and change our way of life forever. Man-made flight is the very symbol of freedom and independence, of human ingenuity and progress, of the human desire to move beyond limits, to discover the world.

Aviation industry exists thanks to the innovation, determination and leadership of visionary pioneers audacious enough to experiment, to take up challenges, to do the unimaginable and in this way they marked the beginning of something of profound impact on modern society: aviation, a critical and important component of modern societies, a staple of the modern way of life.

Aviation brings people closer together, transports goods even to the remotest communities (including vaccines and health products), generates economic growth, provides jobs, and improves living standards thus promoting peace and harmony through connectivity and social interaction.

A key role of the Hermes Air Transport Organisation is to contribute to the development, progress and promotion of air transport at a global level. This is not possible without knowing the history and evolution of the industry. Once a luxury service, affordable to only a few, aviation has evolved to be within the reach of most people of billions of people. But how has this evolution occurred?

Hermes, on the occasion of the 80th ICAO anniversary, publishes an updated version and more comprehensive book of the milestones and breakthroughs that have led to the multimillion dollar aircraft industry of modern era including the key aviation events and development of the years 2020-23.

This book comes to complete the trilogy of the books "100 Years of Commercial Aviation" and "The History of Air Transport". I would like to thank Hermes partners for their contribution and their forewords and all Hermes members.

Finally, and most importantly, this book would not have been possible without the support of my family – my wife, Evgenia, and our sons, George and Yiannis.

**Dr Kostas Iatrou**  
Director General  
Hermes – Air Transport Organisation





## Foreword



Events of the last 10 years of aviation have accelerated the pace of change in this ever-dynamic industry and further highlighted the value of the International Civil Aviation Organisation (ICAO) as we celebrate the 80th anniversary of its creation.

Commercial aviation is an ecosystem, with some aspects highly visible to its consumers and communities, such as airports and airlines. Other aspects are less visible but no less central to the safe, secure, efficient and sustainable delivery of high quality customer service to its passengers and shippers. Air traffic control, ground handlers, aircraft, engine

and equipment manufacturers, government regulators all contribute. What happens to any one of the players may affect the capability of the industry to do its job. And the job matters.

Some 25% of the global population flies each year generating over 4 billion passenger journeys through a network of over 22,000 unique city pairs. The commercial aviation industry supports global tourism and trade, generating over 3.5% of global GDP economy.

The last ten years were characterized by two particular phenomena that spawned significant change for, and by, the aviation industry. One, the growing effect of climate change, along with the growing efforts of commercial aviation to reduce and mitigate its own impacts. ICAO and the industry, greatly aided by its professional associations, ATAG, ACI, IATA among others, have all assigned top priority to sustainability.

Secondly, the COVID pandemic both severely disrupted commercial aviation as well as generated effects that have persisted to this day, most notably the rise of e-commerce and the accelerated implementation of technological change. Virtually every industry sector took measures to reduce human contact and reduce costs in the wake of COVID's impact on employee and customer health and passenger demand. The pressure to find quick solutions made technology ever more attractive to operators and acceptable to consumers.

These trends continue, stoked now by the availability and spread of artificial intelligence (AI). It is easily predictable that AI will be a major enabler in the next ten years, as well as being a major risk factor. Given the growing reliance on technology throughout the industry, cyber security will form an ever-higher level of attention by all actors in the ecosystem.

The twin objectives of sustainability and technological advancement have merged to produce Advanced Air Mobility (AAM) still in the chrysalis stage but sure to emerge strongly in the near future. Multiple companies in multiple countries have developed electric vertical take-off and landing aircraft (eVTol's) for ultimate commercial use. At this juncture, eVTol's are the most developed of the alternate fuel vehicle systems but by no means the only, with hydrogen and solar aircraft systems in varying stages of development.

It is arguable that the next ten years will feature as much change in the commercial aviation industry as experienced in the last 50 years. The leadership of ICAO, as the global policy-maker, working with national and regional regulators and the industry, will be needed more than ever. We remain indebted to the visionaries from 80 years ago that gave the world this institution.

**Angela Gittens**

President

Hermes – Air Transport Organisation

## Foreword



ICAO



In 2024, we mark the 80th anniversary of the signature of the Chicago Convention which created the International Civil Aviation Organization. I welcome the efforts undertaken by Hermes to update its chronicle of commercial aviation's remarkable journey.

The vision of our predecessors who gathered in Chicago in 1944 to establish ICAO remains as relevant today as it was eight decades ago - to foster the safe, secure and sustainable development of civil aviation as a crucial, unique, and irreplaceable connector of people, cultures and economies worldwide.

Through the dedication of our Member States and the aviation community, what began as a framework for post-war aviation has evolved into a comprehensive ecosystem connecting billions of people annually, transporting over one-third of world trade by value, and generating trillions in global economic activity while supporting millions of jobs worldwide.

It is thanks in no small part to ICAO's strategic plans, standards and recommended practices, and capacity-building that aviation today is the safest form of transport and is continually advancing its efficiency and environmental performance.

As we look to the future, ICAO remains committed to encouraging and enabling aviation's transformation through innovation - whether in sustainable aviation fuels, new types of aircraft and operations, or enhanced safety and security systems. We will continue working to ensure that aviation's benefits are accessible to all nations while meeting our ambitious and vitally important environmental goals.

This volume captures both the pioneering spirit that launched commercial aviation and the framework of international cooperation that has allowed it to thrive. It stands as a testament to what we can achieve when we work together toward common objectives for global civil aviation.

I invite you to reflect on the achievements compiled in this publication, and allow them to inspire thoughts of how air transport will continue to evolve to meet the needs of humanity over the years and decades to come.

**Salvatore Sciacchitano**  
President of the ICAO Council



## Foreword



The evolution of air transport over the last 110 years has played a critical role in the social and economic development of the world. It is hard to imagine how we, as a global society, could have progressed to where we are today without air transport. Yet, despite this remarkable evolution, we find ourselves at a point where we need to make even greater and faster progress to address the challenges of the next 25 years.

In the last decade, since the previous edition of this prominent publication, the aviation industry has experienced both extraordinary highs and unprecedented lows. A surge in travel and innovation was followed by a massive decline and the greatest challenge to aviation posed by the COVID-19 pandemic. We now find ourselves transitioning from a period of recovery to one of substantial growth. The industry now faces the task of enabling and accommodating this growth, while simultaneously improving the passenger experience.

In close collaboration with its regional groups, ACI World is championing the effort to help airports transform to meet this expected growth and continue connecting the world, by promoting safety, security, operational excellence, sustainable growth, and exceptional travel experiences. We are helping airports and the industry:

- Use existing capacity more efficiently and more sustainably.
- Develop additional infrastructure that will provide safer and more sustainable capacity.
- Ensure financial viability and find innovative ways to fund new capacity and operational improvements.
- Improve safety and security of operations - and the overall passenger experience.

While ACI World and its regional groups are helping airports and the industry transform, much more can be achieved to meet the anticipated growth and enhance the passenger experience if key aviation stakeholders collaborate toward shared ambitions. It is our hope that, as an industry, we can work together more effectively than ever before to overcome the challenges this growth will bring.

**Justin Erbacci**  
Director General  
ACI World

### 80 YEARS ANNIVERSARY OF THE SIGNING OF THE CHICAGO CONVENTION

The Aviation Services Association (ASA) is a fairly new actor in the field of air transport. It was created at the turn of the 21st century to represent a category of stakeholders that had started to grow in volume immediately following the first wave of airlines liberalization, in the 1970s and 1980s, i.e. the independent ground handling providers. The Association remained for a number of years in the shadow so to say, struggling to make ends meet as its membership was a fraction of what it is today and scattered around the globe. Most of ground handling operations were then conducted by airlines themselves (self-handling), until they realized outsourcing this part of the job to specialised companies would allow them to focus on their main task and would bring in competition, and thus better, cheaper and safer services to the community. ASA was born on these premises in 2011.

ASA's mantra is that *there can't be any flight without us*. Admittedly, this is actually true for all the components of air transport that are partners of this book from Hermes, that is to say Airports (ACI), Cargo (TIACA), ANSPs (CANSO), and naturally the air transport authorities (ICAO). But as obvious as it may sound today, this wasn't always the case and for a long time ground handling wasn't even perceived as a sector of its own.

Things have immensely changed in the course of a decade or so. Today, with its 70+ members, ASA represents more than 350,000 employees worldwide, covering close to 65% of all turnarounds every day and in charge of the safe handling of hundreds of tons of luggage and of cargo freight. But that is not all. Ground handling also includes many other services, such as cleaning, onboard catering, fueling, de-icing, and passenger check-ins to name but a few of the most prominent services our members provide to the industry.

This prompted many authorities around the world to not only acknowledge the central role ground handlers play in the safe conduct of air transport, but also to envisage adopting specific laws to help ensure a nationally standard way of providing ground handling services. After a few pioneering States adopted their first piece of legislation in the early 2000s, ICAO released its first "Manual on Ground Handling" (Doc. 10121) in 2019, thus establishing a formal link between the safe operations in the air and on the ground. Immediately thereafter, the European Aviation Safety Agency (EASA) presented the result of its Rule-Making Task initiative on ground handling to the EU Members States in early 2024, thereby paving the way to an ambitious regulation that will leave its mark. To top it all, ASA was also granted the status of international organisation by the ICAO Council in June 2024.

In order to keep aviation as the safest means of transport in the world and at the same time cope with an ever increasing number of air passengers – the symbolic threshold of 10bn pax/year isn't that far away – innovative ways to accommodate this traffic will be necessary. Ground handling will do its share, investing in new enhanced and more sustainable sets of ground equipment and recruiting the next generation of employees and training them by using the latest and most innovative methods. That will occur all the more quickly and seamlessly as ground handling, as a sector per se, is fully recognized by the other sectors of air transport and integrated as such.



**Fabio Gamba**  
Director General  
Airport Services Association



## Foreword



### 100 YEARS OF SAFETY – FIRST INNOVATION

**A**ir navigation service providers (ANSPs) have been ensuring safety in the skies for more than a century. In that time, the progress made has been astounding. Aircraft may have developed from the Wright Brothers to today's ultra-efficient jets, but air traffic control (ATC) has gone from a painted sign on a rooftop to satellite surveillance!

That transition often goes unnoticed. And what makes it even more remarkable is that it has happened even as ANSPs put risk mitigation and safety first – often seen as a brake on speedy progress. But, in fact, it is the drive for safety that has spearheaded constant innovation.

The first step was moving beyond writing locations or drawing directional arrows large enough to be seen from the air. Ground-to-air communication was a vital step forward and ATC was quick to adopt new technologies being developed that allowed them to radio critical information to pilots. As technology advanced, so did ANSPs and soon enough navigation services became an essential element of ATC. Ultimately, it became possible to not only tell aircraft which way to go but also to keep an eye on them during their journey.

These services haven't changed in essence but the means of providing them has constantly been upgraded. Voice communication is supported or supplanted by data exchange and our binoculars no longer look up from the ground but peer down from space. Navigation now includes such procedures as air traffic flow management, continuous descent and free route airspace – to name but a few. Even weather prediction is far more accurate.

The upshot is that the skies have never been as safe or as efficiently managed as they are today. Given that the demand for air travel has never been greater, that is a significant accomplishment. So, how does ATC go about maintaining this unparalleled success when even bigger challenges confront us? We are on the cusp of new vehicles entering civil airspace in their millions, for example, from automated drones to piloted air taxis to commercial space flights. This will lead to incredibly dense, complex airspace. And the new entrants won't wait – the demand for their services is too great. So, ANSPs will have to marshal every skill and resource they have to ensure safe skies, accessible to all.

And then there is sustainability. Climate change is an existential problem, but the ATC community has never been shy of approaching challenges head on. Sustainability concerns will intensify in the years ahead, and all aviation stakeholders are agreed on net zero carbon emissions by 2050. ANSPs are playing their part and every improved procedure, every small efficiency gain, means fewer emissions from aircraft.

In all matters, CANSO is leading the way in preparing our industry for the future. Our Complete Air Traffic System (CATS) is a vision for the skies of 2045. There are two decades of hard work ahead of us, but we are clear on the milestones, and we are focused on action.

We cannot do it alone. Aviation is an ecosystem of interdependencies and collaboration is the quality by which we will succeed or fail. ICAO is the mechanism that enables the most important collaborations to bear fruit and spread globally. I congratulate them on their 80th anniversary and trust you will enjoy this publication.

**Simon Hocquard**  
Director General

Civil Air Navigation Services Organisation

## Foreword



**F**or over 100 years commercial aviation has grown from very humble beginnings as an uncharted area of innovation providing a home for pioneers to push boundaries, challenge nature, harness science, and push themselves to what is today a fundamental aspect of global society and a key enabler of the global economy.

There is no doubt that what we take for granted today rests on the back of those who came before and this historical compendium of the great milestones and historical events is a fitting tribute to the past aviation pioneers. Commercial aviation in 2024 is safer than ever, more affordable than ever, and is kinder to the environment than we have been previously.

But we must do more. Aviation needs to continue that spirit of the earlier aviators to tackle the important issues of emissions, noise, congestion in a manner that enhances the value and benefits of aviation and increases its accessibility to truly make aviation for all.

The importance of a global commercial network of over 1,000 airlines connecting thousands of city pairs is most evident during times of need. Whether responding to natural disasters or human induced conflict, commercial aviation is the first line of any response program. At a time when a matter of hours could mean the difference between life and death, the speed, innovation, and dedication to doing the right thing ensures that the air cargo industry is mobilized to help those in need. But commercial aviation, and particularly the air cargo sub industry, does not just respond during times of crisis. Every day, life saving medicines are moved across the globe in specialized containers ensuring the medicine is transported in the optimal conditions.

Additionally, millions of lives each year are protected by mass vaccination programs, particularly in Latin America and Africa where children are particularly vulnerable. These vaccination programs can only be supported by air cargo due to the time and temperature sensitive product being flown.

Air cargo is also there to support our endangered animal species as global breeding programs try to protect those animals most at risk. These breeding programs bring together numerous countries, animal welfare organizations and endangered species protection groups in a united effort to ensure these animals are there for generations to come. Air cargo is the most reliable, safe and secure way to move these various animals in the most comfortable of surroundings.

It is through the combined work of the industry that enables these collective good deeds to continue. So, air cargo plays a vital role in protecting humanity and our cousins across the animal kingdom. On the commercial side, air cargo transports about 34% of international trade by value, amounting to more than USD 8 trillion of goods. This enables the global economy to thrive, enhancing global prosperity.

With that, I am very pleased to say that this book, 100 Years of Commercial Aviation, celebrates the rich history of aviation and seeks to inspire the next generation to once again look up at the stars and wonder at the limitless opportunities that lie ahead.

**Glyn Hughes**  
Director General  
The International Air Cargo Association





## Foreword



**T**he modern world is remarkable, in particular our ability to be constantly in touch with each other, no matter where we are. Aviation is a fundamental part of this, bringing together people, moving goods, providing jobs and allowing families and friends to remain in touch across countries and continents.

In the 80 years since 52 States signed the Convention on International Civil Aviation, massive strides have been made on the technical level that have allowed aviation to become such an enabler for economic, cultural and social change.

Underpinning the ability to take advantage of those technical changes is a global ecosystem of cooperation and coordination with ICAO at its heart, driving the safe and orderly development of international civil aviation. Much of the work that goes into this global network is invisible to the passenger, who can travel with confidence that the aircraft is built and maintained to extremely high standards, that the crew are qualified, that the airport operates safely and has emergency services on hand – and that the systems both onboard and on the ground will detect and avoid dangerous situations, such as a loss of separation.

Europe is a good example of this – we can have over 37,000 flights in a single day and yet the safety record has progressively improved over the decades. This is despite aircraft and crews from around the globe sharing our crowded skies.

As we look to the future, the aviation community is facing unprecedented challenges. There are nearly four times as many flights in the EUROCONTROL Network as there were fifty years ago and that number is set to go up by another 50% over the next quarter of a century. Handling that many aircraft safely will require a step change in how we manage air traffic.

And as in the past, technology is driving change. We are seeing new types of aviation, such as aircraft climbing to extremely high altitudes. Increasingly, we have unmanned aircraft sharing the skies with manned ones. And we need to prepare for new aircraft types, for example electrically powered ones, with very different performance profiles, such as cruise speed.

Digitalisation is allowing us to share more data even more quickly than ever before. Artificial intelligence and machine learning are already delivering operational benefits even while we address the potential risks they bring. The sustainability challenge is reinforcing the need to improve performance across the board while accelerating the need for change.

All these challenges are global and so will continue to require a global response. The success of aviation will continue to be built on effective cooperation and coordination between all the different actors and across countries and continents. The role of ICAO in enabling that interaction today and for the future is more important than ever.

**Raúl Medina**  
Director General  
EUROCONTROL

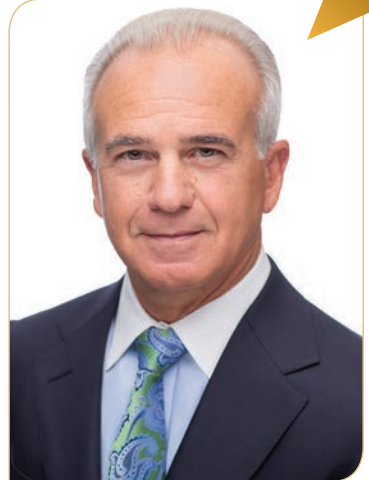


## Foreword



**Airlines for America®**

*We Connect the World*



It's truly remarkable to think that we can travel across the United States in time for dinner or wake up an ocean away after an overnight flight. Many take for granted being able to eat fresh fish, order new electronics, get lifesaving medications or send fresh flowers to a loved one—all of which is made possible by the miracle of aviation.

When I was growing up in the 1950s in Cleveland, Ohio, nobody in my neighborhood flew—nobody. Air travel simply was not affordable. Today, millions of people fly and millions of packages are delivered each day around the world. ICAO's work has been instrumental in making this possible.

Over the past 80 years, since ICAO's creation, aviation has made countless strides. Open Skies agreements have transformed the international landscape, connecting the world in tangible ways every day. Today, U.S. airlines alone operate 26,000 flights, safely carrying over 2.6 million passengers to and from nearly 80 countries around the world. U.S. carriers also ship 61,000 tons of cargo to and from 220 countries every single day. This intricate system we now know as the commercial aviation industry drives five percent of the U.S. gross domestic product (GDP)—the equivalent of \$1.37 trillion in 2023—and is an economic powerhouse that supports more than 10 million American jobs.

The important work of ICAO to develop technical and operational standards, as well recommended policies across issues as critical and varied as sustainability to safety to economics, has helped the industry as a whole flourish into what it is today.

As we look to the future of aviation, ICAO's work will remain critical. The collaborative spirit evident in tackling new and emerging global issues demonstrates that governments and industry are ready to work together within ICAO's framework to confront critical challenges. Together, we can ensure that the next century of commercial aviation is as transformative and inspiring as the last.

**Nick Calio**  
President & CEO  
Airlines for America



## Foreword



The world celebrates this year the laying of the cornerstone for the civil aviation as one of the pillars for global peace and prosperity. Civil Aviation, before that corner stone, was growing as an innovative activity which presented an alternative way of traveling for the adventurous few who could afford it. The Chicago Convention, formally known as the Convention on International Civil Aviation, laid the foundation for transforming this nascent activity into, what is today, one of the most active economic activities that connects people and goods, safely, securely, and economically.

This landmark document, which established the International Civil Aviation Organization (ICAO), created the legal and regulatory framework for global aviation as we know it. The visionary leadership and commitment to cooperation shown by 52 nations during World War II laid the groundwork for the unprecedented growth of air travel and global connectivity.

The Chicago Convention provided a background for the safe, secure, and orderly development of international aviation. It established principles for airspace sovereignty, navigation, and the rights of nations to regulate flights over their territories. It also emphasized the importance of collaboration and the exchange of technical knowledge to ensure aviation's growth in a manner that promotes peace and prosperity worldwide.

Today, ICAO continues to uphold the spirit of the Convention, serving 193 Member States and facilitating global standards that have enabled the aviation industry to grow into a cornerstone of economic development. However, the industry now faces unprecedented challenges. The COVID-19 pandemic severely impacted air travel, resulting in a dramatic downturn in passenger numbers and cargo traffic. Moreover, as we move forward, the threat of climate change looms large. The need to develop sustainable practices in aviation, including reducing carbon emissions, is critical to securing the future of this vital sector. New technologies, such as the integration of drones and the rise of autonomous aircraft, also present opportunities and challenges for regulators, and entrepreneurs.

The 80th anniversary of the Chicago Convention offers a moment to reflect on the progress made and the challenges that lie ahead. It is a testament to the resilience and adaptability of the global aviation community. Commemorating this milestone is not only an act of honoring the past but also a call to action for the future. By recognizing the importance of international cooperation and shared responsibility, we ensure that aviation remains a vital engine of human connection and economic opportunity.

As we look to the next 80 years, ICAO's role will be more important than ever. Through continued collaboration, innovative thinking, and a steadfast commitment to safety, security, and sustainability, we can ensure that the future of aviation, and its invaluable added value to the peoples of the world, continues to soar. The challenges are great, but so too is the legacy of the Chicago Convention—a legacy that calls upon us to rise to the occasion with the same spirit of unity that brought us here today.

Let this celebration serve as a reminder of our shared responsibility to shape the skies for generations to come.

**Abdul Wahab Teffaha**  
Secretary General  
Arab Air Carriers' Organization

## Foreword



**O**n December 7, 2024, we will celebrate the 80th anniversary of the Chicago Convention, which is a good opportunity to recognize the ICAO's crucial achievements since its creation.

Nowadays, aviation's contribution to the global economy is only possible with the tremendous work done by the ICAO to set standards for regulators and operators.

This 2024 celebration coincides with the year of recovery from the COVID-19 pandemic, during which the ICAO also established guidance materials to overcome its negative impact on aviation.

The African aviation industry is committed to complying with the ICAO standards for safe, secure, and efficient air transport. For the African continent, in the coming years, the ICAO guidance will continue to be essential in supporting the future growth of air traffic.

**Happy birthday celebration to ICAO.**



**Abderahmane Berthe**  
Secretary General  
AFRAA



## Foreword



Aviation is synonymous with development, innovation, boldness, and vision. Every page of *Air Transport Milestones*, edited by Kostas Iatrou and published by Hermes Air Transport Organisation, confirms that these values are the same components that drive humanity forward. The book, with its moving photographs, allows us to journey through aviation history, from the first takeoff to the commercial flight of a rocket plane into space. Each detail reflects an exquisite level of care and a profound synthesis of aviation's fascinating history. I am honored to hold it in my hands and congratulate those who made it possible.

When we understand aviation's impact, we see that it's much more than just a transportation system. Aviation not only facilitates tourism and commerce but also promotes social inclusion, knowledge exchange, and cultural collaboration among the world's nations. It's an engine of innovation, productivity, and competitiveness; key elements for any modern economy. And the impact extends even further. During critical moments, such as the COVID-19 pandemic, aviation proved essential in ensuring access to vital goods. Throughout the global health crisis, airlines played a crucial role in transporting vaccines, medicines, and emergency supplies, facilitating their distribution in territories with limited infrastructure and enabling countries to face the logistical challenges and great uncertainty of the moment. This capacity of aviation to save lives and ensure population well-being demonstrates its fundamental role as an indispensable resource in times of emergency.

Aviation is, moreover, a key pillar for the development of Latin America and the Caribbean, one of the world's most vast and geographically complex regions. With distances often measured in thousands of miles and territory marked by imposing mountains, deserts, dense jungles, and vast oceans, physical connectivity between communities has historically been a challenge. In many parts of the region, road infrastructure is insufficient to meet these communication and transportation needs. It's here that aviation has established itself as a fundamental pillar, a true engine of integration, development, and progress.

Over the past 20 years, aviation in Latin America and the Caribbean has experienced extraordinary growth. In 2004, the region carried 100 million passengers; today, we exceed 360 million. This increase reflects both a growing demand for connectivity and the profound impact the industry has had on our economy. It's estimated that by the end of 2024, the number of passengers could reach 480 million, consolidating an upward growth trend. This phenomenon has been accompanied by the creation of hundreds of thousands of direct and indirect jobs, encompassing all links in the sector's value chain, from airlines to maintenance service providers, tourism, technology, and many other sectors that depend on air connectivity. However, for this potential to fully materialize, it's crucial that governments continue creating public policies that favor the operational and regulatory competitiveness of the aviation sector. Only an appropriate environment will allow the region to continue advancing, with greater economic and social integration.

The future of aviation in Latin America and the Caribbean is promising, but it requires a continuous commitment to innovation, sustainability, and efficiency. Only through collaboration between the private sector and governments can we ensure that the benefits of air connectivity continue to multiply, strengthening our economies, creating more jobs, and improving people's quality of life. The formula for success is clear: innovation, efficiency, and collaboration.

When we think about the next 20 years, it's exciting to envision the innovations and transformations that will chart the industry's course. The impact of these transformations not only promises technological advances but also a greater degree of integration and prosperity for all countries in Latin America and the Caribbean. Without doubt, we're facing a stage full of possibilities and challenges, and it fills us with optimism to think about the fundamental role that aviation will continue to play in building a more connected, efficient, and sustainable society.

**José Ricardo Botelho**  
CEO  
ALTA

## Foreword



As we look back on the journey of regional aviation in Europe, it is remarkable to see how far we have come. Once considered a luxury, air travel has evolved into an essential service, with regional aviation now playing a crucial role in connecting communities, fostering economic development and ensuring access to essential services. ERA has proudly stood at the forefront of this transformation for more than 40 years, advocating for the sector's growth while meeting the challenges of an ever-evolving landscape and industry demands.

ERA's 50+ member airlines provide vital connectivity to Europe's regions, promoting social and territorial equality. These airlines not only keep communities connected, but also support tourism, attract investment and create jobs. Carrying over 52 million passengers annually and operating 850,000 flights on more than 1,500 routes, ERA's airline members are making a tangible difference across Europe. Without this network, many areas would face economic stagnation or isolation.

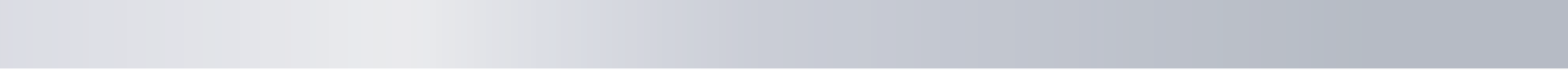
The importance of regional aviation has only grown in recent years, particularly as we navigate a post-pandemic recovery. During the COVID-19 pandemic, many regional airlines were lifelines, continuing to provide essential services when larger carriers had to ground their fleets. As the industry rebounds, regional aviation is revitalising tourism, fostering the growth of small and medium-sized enterprises and contributing to new job opportunities. The flexibility and resilience of the sector are key strengths that have enabled it to adapt to changing market conditions and will continue to support the European economy.

As we continue to evolve, we face new challenges – chief among them, the need to operate more sustainably. Climate change is a critical challenge and the aviation industry is committed to reducing its environmental footprint. Regional aviation, with its ability to innovate and adapt, is perfectly positioned to lead in this area. ERA's airline members are already making strides, investing in next-generation aircraft, sustainable aviation fuels (SAFs) and operational improvements to reduce emissions. We trust regional airlines will play a pivotal role in Europe's climate goals, especially with technologies like electric and hybrid aircraft, given they are ideally suited for short-haul regional routes.

At ERA, we believe that a collaborative approach is key to achieving these goals. We work closely with policymakers, regulators and industry stakeholders to ensure that the voice of regional aviation is heard and that the sector can continue to thrive in a way that balances economic growth with environmental sustainability. We are committed to championing regional aviation's role in driving economic growth, ensuring social equality and supporting environmental sustainability.

Our membership's ongoing commitment has ensured that regional aviation remains a cornerstone of European connectivity and prosperity, and we are confident that regional aviation will continue to be a key driver of progress, connecting people and places, now and in the future.

**Montserrat Barriga**  
Director General  
European Regions Airline Association







1903-2023



# Air Transport Milestones



## 1903 ▶ 17 December

Wright brothers fly first airplane. ↓



## 1908 ▶ 14 May

First airplane passenger: Charles W. Furnas, with pilot Wilbur Wright.

## 1908 ▶ 17 May

First use of the modern aircraft flight control system: Blériot VIII first took to the air using a joystick for elevator/aileron control, and a pivoted foot-bar for rudder control.

## 1909 ▶ 7 January

First official pilot's licence issued: Issued by the Aéro Club de France, licence number 1 is issued to Louis Blériot.

## 1909 ▶ August

College Park Airport (KCGS), in the city of College Park, Maryland, USA is established when Wilbur Wright arrived at the field to train two military officers in the US Army.

## 1909 ▶ 16 October

The world's first commercial airline, DELAG is established.

## 1910 ▶ 7 May

First aircraft flight simulator: The aircraft manufacturer, Antoinette, completed the construction of a simulator to teach pupils to fly their monoplanes.



## 1910 > 27 August

First air-to-ground and ground-to-air radio communications: Frederick Walker Baldwin and Douglas McCurdy sent a Morse radio message "Another chapter in aerial achievement is recorded in the sending of this wireless message from an aeroplane in flight" from a Curtiss biplane while in flight, which was received by a nearby ground station.

## 1910 > 7 November

The first commercial transport flight with an airplane take place when Phil O. Parmalee carried two bolts of silk on his Wright Model B from Dayton to Columbus, Ohio.

## 1912 > March

Heinrich Kubis begins his career as a flight attendant for DELAG.

## 1913 > 13 May

The world's first four engine, the Le Grand, makes its first flight in the hands of Igor Sikorsky.

## 1913 > 30 August

Elmer A. Sperry develops the gyroscopic compass and gyroscopic stabilizer.

## 1914 > 1 January

In the morning, the first scheduled commercial airline flight took to the air. Taking off from St Petersburg, Florida, and flying to Tampa, the Benoist flying boat was piloted by Tony Jannus, with former mayor of St Petersburg, Abram C Pheil, as his passenger. ↓



Source: State Archives of Florida

## 1916 > 15 July

William Boeing incorporates Pacific Aero Products Co.

## 1918 > 1 April

Austria establishes the world's first regular international air connection when it opens its route between Vienna and Kiev. Initially, this serves only to transport airmail.

## 1919 > 5 February

The world's first regular passenger airline service commences between Berlin and Weimar, operated by Deutsche Luft-Reederei (DLR).

## 1919 > 6 March

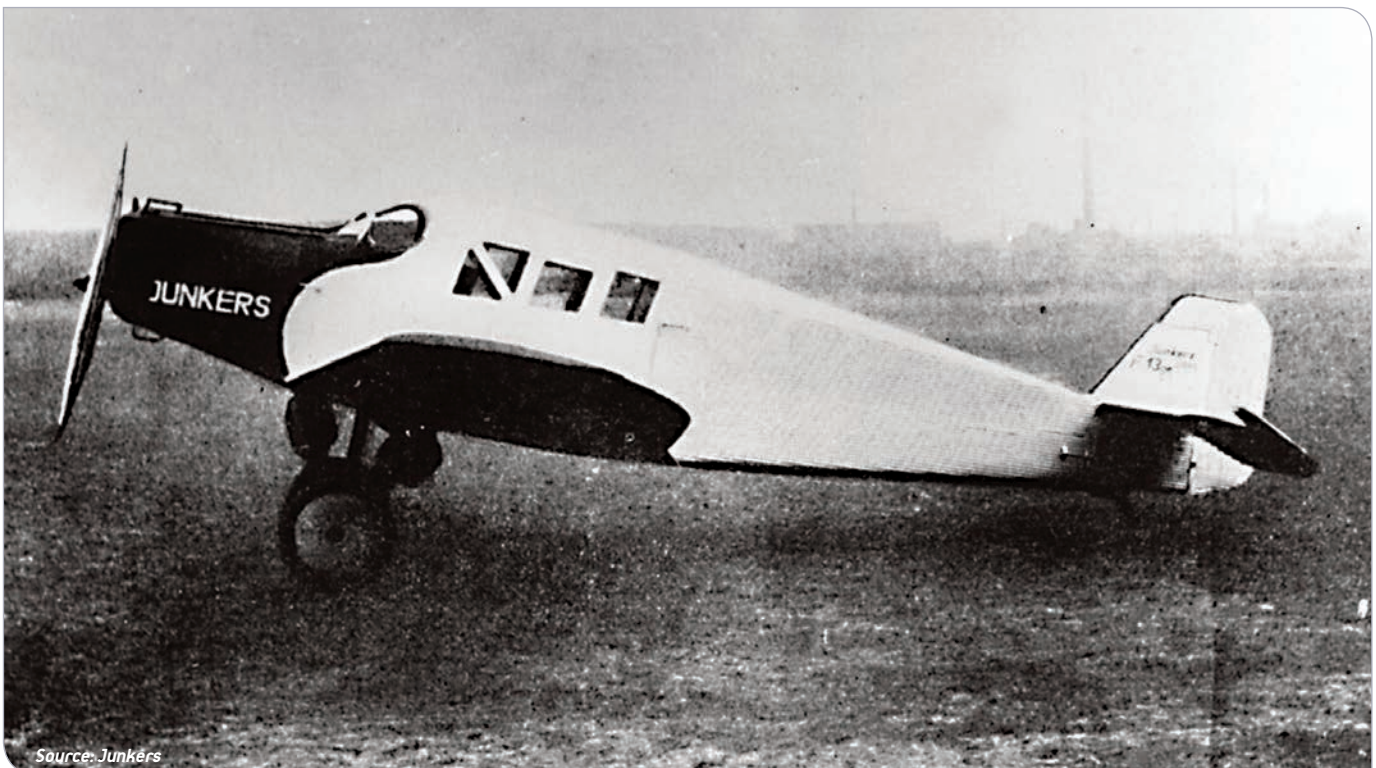
A special Aeronautical Commission of the Peace Conference is formed under the auspices of the Peace Conference. At the first meeting, the Commission agrees to produce a set of basic principles in preparing the Convention and its Annexes.

## 1919 > 14 to 15 June

First non-stop transatlantic flight: John Alcock and Arthur Brown flew a Vickers Vimy from St. John's, Newfoundland, to Clifden, Ireland.

## 1919 > 25 June

Junkers F13, the world's first all-metal transport aircraft and the world's first self-supporting cabin low-wing transport, first flight. ↓







### 1919 ▶ 25 August

Aircraft Transport and Travel Limited (AT&T), a forerunner company of today's British Airways, launches the world's first daily international scheduled air service, between London and Paris.

### 1919 ▶ 25 to 28 August

Representatives of five air transport companies from Denmark, Germany, Great Britain, Norway and Sweden meet at The Hague and sign an agreement to form the International Air Traffic Association (IATA).



### 1919 ▶ 7 October

Dutch Royal Airlines for the Netherlands and its Colonies (Koninklijke Luchtvaart Maatschappij voor Nederland en Koloniën | KLM) is founded.

### 1919 ▶ 11 October

The first airline meals are served by Handley Page Transport.

### 1919 ▶ 13 October

The International Air Convention (Paris Convention) is signed by 27 states and lays down the principles and rules for air traffic, which would serve as the basis for uniform international regulations and the creation of an International Commission for Air Navigation (ICAN).

### 1919 ▶ 2 December

Handley Page Type W first flight and becomes the first civil airliner with a lavatory to be used on a regular passenger service.

### 1919 ▶ 10 December

The first flight from the UK to Australia is completed when Ross and Keith Smith land their Vickers Vimy at Darwin.

### 1919 ▶ 27 December

The Boeing Airplane Co. B-1 mail plane, the first Boeing-designed commercial aircraft, makes its first flight.

## 1920 > 25 February

Croydon Airport is the first airport in the world to introduce air traffic control.

## 1920 > September

Geoffrey de Havilland creates the de Havilland Aircraft Company.

## 1920 > 16 November

Papers formally establishing Queensland and Northern Territory Aerial Services Ltd (Qantas) are signed.

## 1921 > April

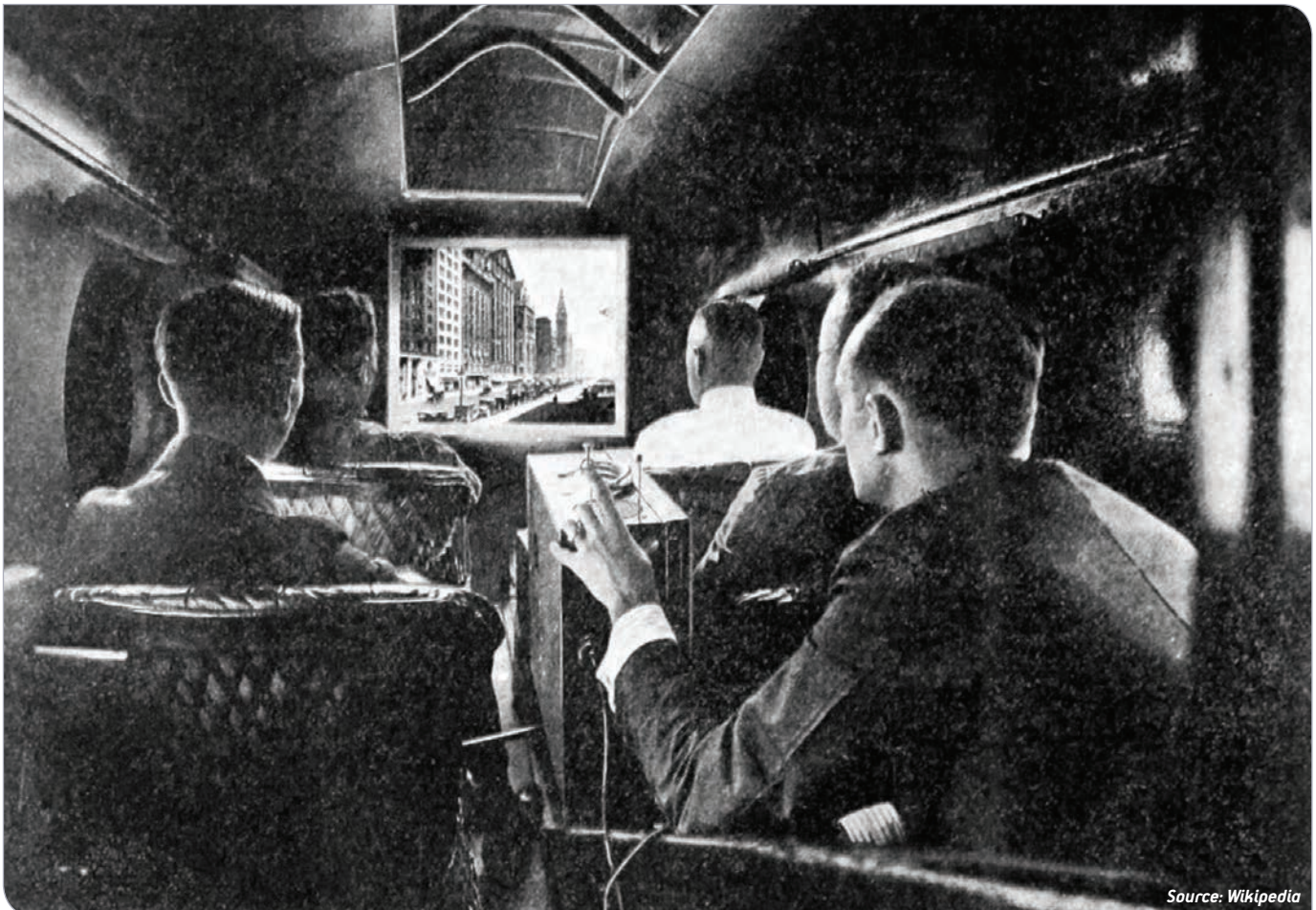
Fokker F.III first flight.

## 1921 > 22 July

Donald W. Douglas incorporates The Douglas Co.

## 1921 > August

First in-flight movie. Aeromarine shows a movie promoting Chicago (HOWDY CHICAGO).



Source: Wikipedia



## 1922 > 1 January

Instone introduces uniforms for pilots and staff, believed to be the first airline service uniforms.

## 1922 > 11 July

International Air Convention and ICAN enter into force. →

## 1922 > 22 October

Experimental Design Bureau Tupolev is established headed by Andrey N. Tupolev.

## 1923 > 17 March

Open joint stock "DOBROLET" (The Russian Society for Voluntary Air Fleet) is established.



## 1924 > 31 March

Imperial Airways is created as the government's "chosen instrument of air travel" by the amalgamation of The Instone Air Line Ltd., Handley Page Air Transport Ltd., The Daimler Airway and British Marine Air Navigation Co. Ltd.

## 1924 > 11 April

Fokker F-VII first flight.

## 1925 > 2 March

Delta's history begins with Huff Daland Dusters, the world's first aerial crop-dusting company, incorporated on March 2, 1925.

## 1925 > July

Western Air Express, predecessor to TWA, is founded in Los Angeles.

## 1926 > 11 June

The Ford Trimotor makes its first flight.

## 1926 > 20 May

U.S. President signs into law the Air Commerce Act. This landmark legislation charged the Secretary of Commerce with fostering air commerce, issuing and enforcing air traffic rules, licensing pilots, certifying aircraft, establishing airways, and operating and maintaining aids to air navigation.

## 1927 > 18-19 February

The 17th AGM of the International Air Traffic Association (IATA) adopts the first standard format of an international air ticket and consignment note (air waybill).

## 1927 > 14 March

Pan American World Airways is founded.



## 1927 ▶ 20-21 May

Charles A. Lindbergh makes the first nonstop solo flight across the Atlantic in an airplane, a Ryan monoplane dubbed the Spirit of St. Louis. He flew from Roosevelt Field, Long Island, N.Y., to Le Bourget Field, Paris, France, in 33 hours 29 minutes.

## 1927 ▶ 30 June

Boeing Air Transport (BAT), predecessor to United Airlines, is founded.

## 1928 ▶ 19 February

Marga von Etzdorf becomes the first female co-pilot at Luft Hansa.

## 1928 ▶ 31 May to 9 June

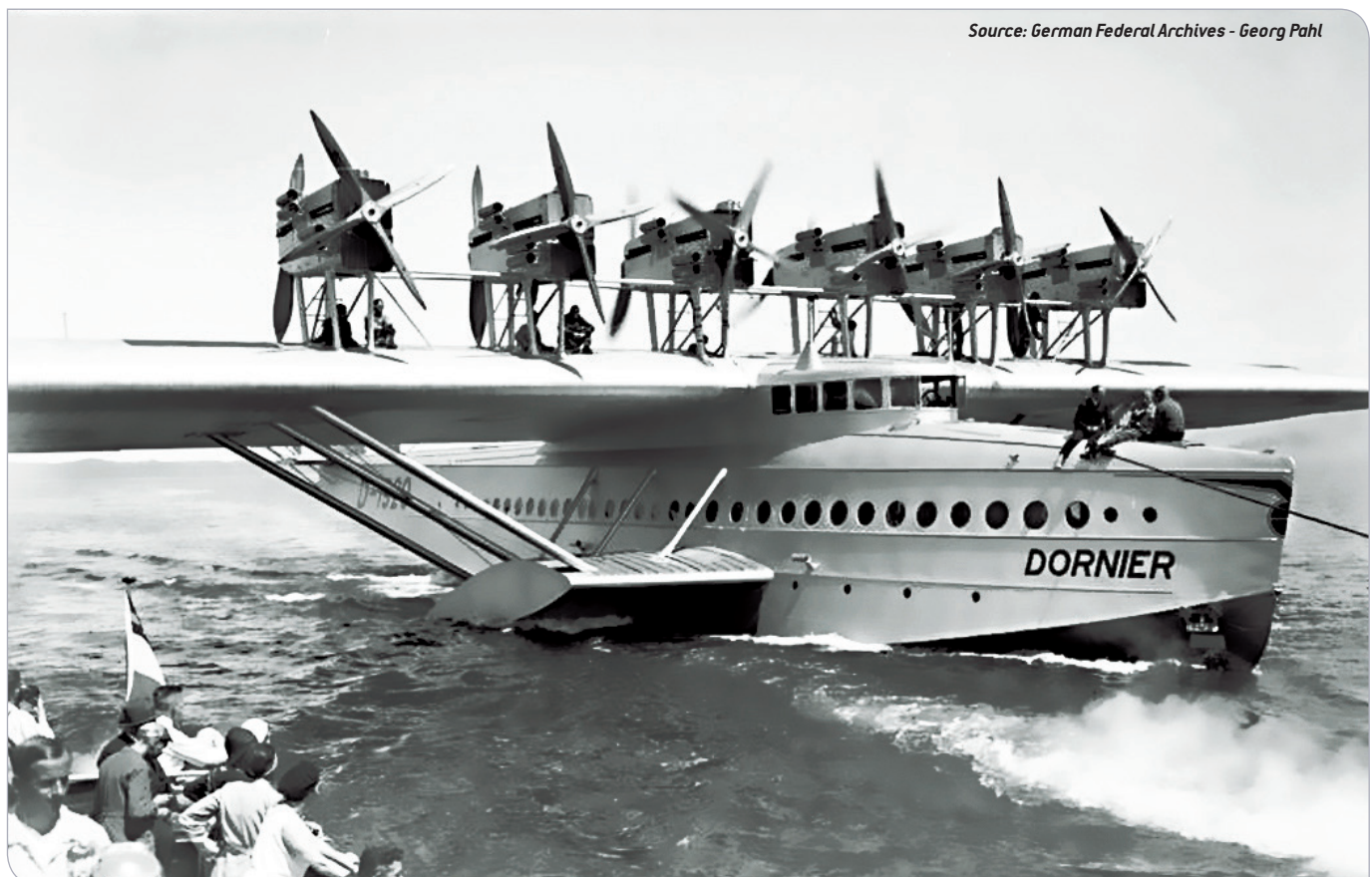
Australian pilots Charles E. Kingsford-Smith and Charles T. P. Ulm, make the first transpacific crossing by air. They fly from Oakland, Calif., to Brisbane, Australia, with stopovers at Hawaii and the Fiji Islands, in a modified Fokker F.VII.

## 1928 ▶ 28 September

First flight of Consolidated Commodore.

## 1929 ▶ 12 July

Chief Pilot Richard Wagner takes off for the first flight with the Dornier Do X. ↓







### 1929 > 24 September

At Mitchel Field, N.Y., Army Lt. James H. Doolittle becomes the first pilot to use only instrument guidance to take-off, fly a set course, and land. →

### 1929 > 12 October

Warsaw Convention, formally entitled Convention for the Unification of Certain Rules Relating to International Carriage by Air, is signed by 23 States. This convention establishes the international liability for air carriers and the monetary limits for damage, delay and loss.

### 1929 > 21 October

A record flight with 169 people on board is made with a Dornier Do X (it took 20 years to break this record).

### 1929 > 18 December

The first IATA International Scheduling Conference to coordinate airline schedules and to standardize scheduling information is held in Berlin.

## 1930

- The first airplane kitchen is invented (patented) by Werner Sell (Georg Robert Werner Sell) of Germany.
- TWA is the first airline to require that its pilots have a flight plan, flight log, flight clearance and cockpit check lists.
- The world's first radio-equipped Air Traffic Control Tower regulating arrivals, departures and surface movement of aircraft at a specific airport, opens in Cleveland. Also the first runway lighting appears at Cleveland Municipal Airport.

### 1930 > 15 May

Ellen Church, a registered nurse, joins the crew of the Boeing Model 80A headed to San Francisco. She is the first world's female flight attendant. →

### 1930 > 13 October

Junkers Ju 52/1m first flight.



*Instrument panel of rear cockpit of Jimmy Doolittle's Consolidated NY-2 Husky, NX7918 at Mitchel Field.*

*Source: National Air and Space Museum Archives, Smithsonian Institution*



*Source: Boeing*

## 1930 ▶ 31 December

Airworthiness regulations for aircraft components and accessories become effective in U.S.

## 1931 ▶ Early

First flight of Lockheed Model 9 Orion, the first airliner to have retractable landing gear.

## 1931

- ▶ Airport codes are introduced.
- ▶ Although there is only one passenger fare on a given route, a round trip discount is introduced.

## 1931 ▶ 12 February

An amendment to existing regulations in the U.S. covering interstate airline operations requires a co-pilot on all aircraft flying a schedule of five or more hours with eight or more passengers.

## 1931 ▶ 27 July

David Behncke meets with 24 "key men" in Chicago to officially form ALPA.

## 1931 ▶ 1 October

The U.S. Department of Commerce promulgates a regulation prescribing a cockpit crew complement of two, a pilot and co-pilot, on all scheduled air transports capable of carrying fifteen or more passengers or having a gross takeoff weight of 15,000 pounds or more.

## 1932 ▶ 7 March

Junkers Ju 52/3m first flight. →

## 1932 ▶ 24 November

de Havilland Dragon DH.84 first flight.

## 1933

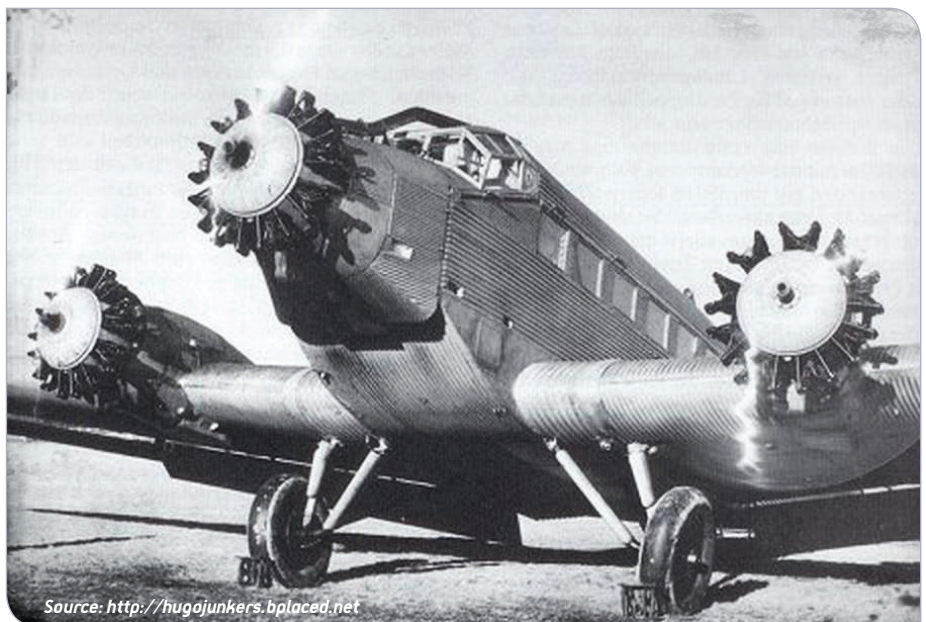
- ▶ A code for seat reservations comes into general use.

## 1933 ▶ 8 February

First flight of Boeing Model 247.

## 1933 ▶ 12 April

The first International Sanitary Convention for Aerial Navigation is signed at The Hague to protect communities against diseases liable to be imported by aircraft and to protect flying personnel against diseases due to flying.





## 1933 > 7 October

Air France is officially inaugurated at Paris-Le Bourget Airport.

## 1934 > 23 February

Lockheed Electra L-10 first flight, the first airliner to be pressurized. ↓



## 1934 > 11 May

The Douglas DC-2 makes its first flight.

## 1935 > 13 April

Imperial Airways and Qantas Empire Airways open the London to Brisbane (Kangaroo route) route for passengers. The frequency of service is weekly and the journey time, 12 1/2 days.

## 1935 > 22 November

The Martin M-130, dubbed the China Clipper by customer Pan American, makes the first ever scheduled transpacific flight between San Francisco and Manila (arrived 29 November).

## 1935 > 17 December

The Douglas Sleeper Transport (DST) makes its first flight. This aircraft is the immediate forerunner of the famous DC-3.

## 1936 > 3 January

Air Transport Association of America, Inc. (ATA) is founded.

## 1936 > December

United opens the industry's first flight kitchen at Oakland, Calif.

## 1937

➤ ATC equipment upgrades radio locators, paper flight strips, teletypes etc.

### 1937 ➤ 16 June

Imperial Airways and Pan American open joint Bermuda to New York services. Imperial Airways flies from Bermuda to New York and Pan Am flies New York to Bermuda. This is the first scheduled airplane service over a segment of the North Atlantic.

### 1937 ➤ 23 August

At the Army's Wright Field, Dayton, the first wholly automatic landing is made. The landing is made without intervention from the human pilot or from the ground.

### 1937 ➤ 1 October

The wearing of seatbelts is made compulsory aboard all British commercial airlines.

### 1937 ➤ 1 November

A U.S. Department of Commerce rule comes into effect that requires scheduled air carriers to employ a co-pilot on multi-engine aircraft with retractable landing gear or wing flaps, and on single-engine aircraft incorporating both retractable landing gear and wing flaps.

### 1938 ➤ 10 August

Deutsche Luft Hansa's Focke-Wulf Fw 200 aircraft Condor makes the first nonstop flight from Berlin to New York. It covers the distance in 24 h 56 min, one of the longest times aloft for an airliner.

### 1938 ➤ 22 August

Creation of the U.S. Civil Aeronautics Authority.

### 1938 ➤ 31 December

Boeing Model 307 Stratoliner, the first pressurized commercial transport, first flight.

## 1939

➤ The official term of "Air Traffic Control" is adopted by the British Air Ministry.

### 1939 ➤ 10 June

American Airlines begins trading on the New York Stock Exchange.

### 1939 ➤ 28 June

Pan American Boeing Clipper (Model 314) makes the first scheduled trans-Atlantic flight (New York to the Azores, Lisbon, and Marseilles) becoming the first airline with scheduled transatlantic mail and passenger services.





## 1939 > 6 July

James S. McDonnell incorporates the McDonnell Aircraft Corp. in St. Louis, Mo.

## 1939 > 27 August

The first air-breathing jet flight of an aircraft, accomplished by a Heinkel He 178 with a jet engine.

## 1939 > 1 September

World War II begins in Europe.

## 1939 > 2 December

The first airport lounge, the Admirals Club, opens at LaGuardia airport. ↓



Source: American Airlines

## 1940 > 2 May

U.S. President Roosevelt give final approval for development of a version of the instrument landing system (ILS) favored by CAA. ILS did not become available for civil airliners until after the war.

## 1941 > 1 January

United establishes the industry's first employee pension program.

## 1942 > 14 February

Douglas DC-4 first flight.

## 1943 > 9 January

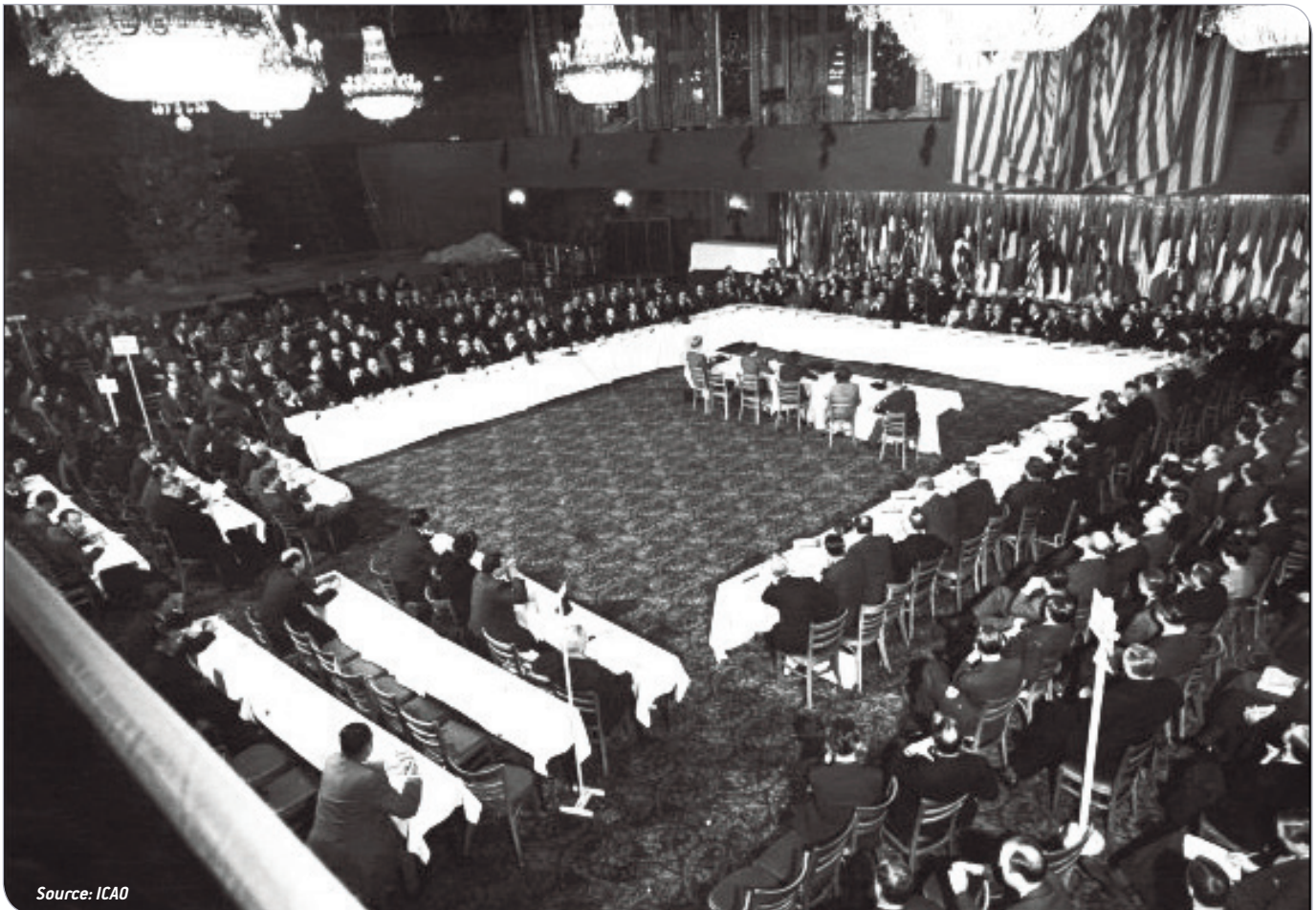
Lockheed L-049 Constellation first flight.

## 1944 > 11 July

CAB issues a report concluding that an experiment in providing short-haul and local scheduled air service should be conducted. The experiment involves the establishment of a new airline category, known as "feeder" or "local service" carriers.

## 1944 > 1 November to 7 December

In response to the invitation of the United States Government, representatives of 54 nations meet in Chicago to "make arrangements for the immediate establishment of provisional world air routes and services" and "to set up an interim council to collect, record and study data concerning international aviation and to make recommendations for its improvement." The Conference is also invited to "discuss the principles and methods to be followed in the adoption of a new aviation convention." ↓







## 1944 > 7 December

The Convention on International Civil Aviation (also known as Chicago Convention), is signed by 52 States. ↓



Source: ICAO

## 1945 > 19 April

IATA is founded in Havana, Cuba with 57 members from 31 nations.

## 1945 > 8 May

U.S. President Truman proclaim the end of the war in Europe.

## 1945 > 1 June

Ending a monopoly by Pan American Airways, CAB grants three U.S. airlines the authority to serve North Atlantic routes to Europe: Pan American, Transcontinental & Western Air (TWA), and American Export Airlines.

## 1945 > 20 September

First turboprop powered aircraft to fly: A modified Gloster Meteor F.I powered by two Rolls-Royce Trent turbine engines driving propellers, become the first turboprop powered aircraft to fly.

## 1945 > 25 September

de Havilland DH.104 Dove first flight.



## 1945 ▶ 24 October

A Douglas DC-4 operated by American Export Airlines lands at Hurn Airfield, England, after a flight from New York, inaugurating the first scheduled landplane commercial service between North America and Europe.

## 1946 ▶ January

Wartime restrictions on flying end.

## 1946 ▶ 11 February

The United States and Great Britain sign the Bermuda Agreement.

## 1946 ▶ 15 February

The military prototype of the Douglas DC-6, the YC-122, makes its first flight.

## 1946 ▶ 27 March

The U.S. and France sign a bilateral Five Freedoms Agreement, giving reciprocal rights for the operation of each country's commercial airlines over the territory of the other.

## 1947

- ▶ The first Traffic Conference reaches agreement on: fare construction rules for multiple sector trips; baggage allowances; ticket and air waybill forms and agency appointment procedures.
- ▶ Pan-Am's 'Clipper' becomes the world's first in-flight magazine.
- ▶ TWA is the first airline to develop and use the quick-frozen precooked method for in-flight meal service and the first airline to place into operation a system of instantaneous reservations.

## 1947 ▶ 6 January

IATA Clearing House is established in London.

## 1947 ▶ 7 January

PICAO Air Navigation Committee and the first Procedures for International Notices to Airmen Services are approved by the PICAO Council.

## 1947 ▶ 14 March

Lockheed L-749 Constellation first flight.

## 1947 ▶ 16 March

Convair CV-240 family first flight.



## 1947 > 18 March

Irish Government passed the Customs Free Airport Act by which transit and embarking passengers, goods and aircraft were exempt from normal customs procedures. Two months later the world's first duty free store is opened at Shannon Airport by Brendan O'Regan. ↓



Source: <https://brendanoregan.ie/>

## 1947 > 4 April

ICAO comes into being taking over from PICA0, and ICAN is dissolved.

## 1947 > 13 May

The Agreement between the United Nations and ICAO comes into force.

## 1947 > 17 June

Pan Am inaugurates round-the-world scheduled passenger service as a Constellation takes off from New York and flies eastward on a route that leads, eventually, to San Francisco.

## 1948

> U.S. airlines introduce scheduled coach service.

## 1948 > April

Birth of IFALPA. →



## 1948 > 1 April

IATA Member airlines introduce the first Multilateral Interline Passenger Traffic Agreement, adopted by the IATA Composite Traffic Conferences in 1947.

## 1948 > 14 April

Adoption by the ICAO Council of the first set of licensing SARPS contained in Annex 1.

## 1948 > 15 April

Standards and Recommended Practices for the Rules of the Air are adopted by the ICAO Council (Annex 2).

## 1948 > 16 April

ICAO Council adopts: Annex 3, Annex 4 and Annex 5.

## 1948 > 19 June

The Convention on the International Recognition of Rights in Aircraft is adopted in the 2nd Session of the ICAO Assembly. The Geneva Convention provides for the recognition by Contracting States of the Rights of property in aircraft; the Rights to acquire aircraft by purchase coupled with possession; the Rights to possession of aircraft under leases of six months or more. This Convention was the first product of ICAO's work in air law.

## 1948 > 16 July

Vickers Viscount first flight.

## 1948 > 10 December

The Standards and Recommended Practices for Annex 6: Operation of Aircraft - Scheduled International Air Services were first adopted by the ICAO Council.

## 1949 > 1 February

The ICAO Council adopts the resolutions on the establishment of the Air Navigation Commission.



## 1949 > 7 February

The original Annex H-Aircraft Registration and Identification Marks, becomes Annex 7 - Aircraft Nationality and Registration Marks.

## 1949 > 23 February

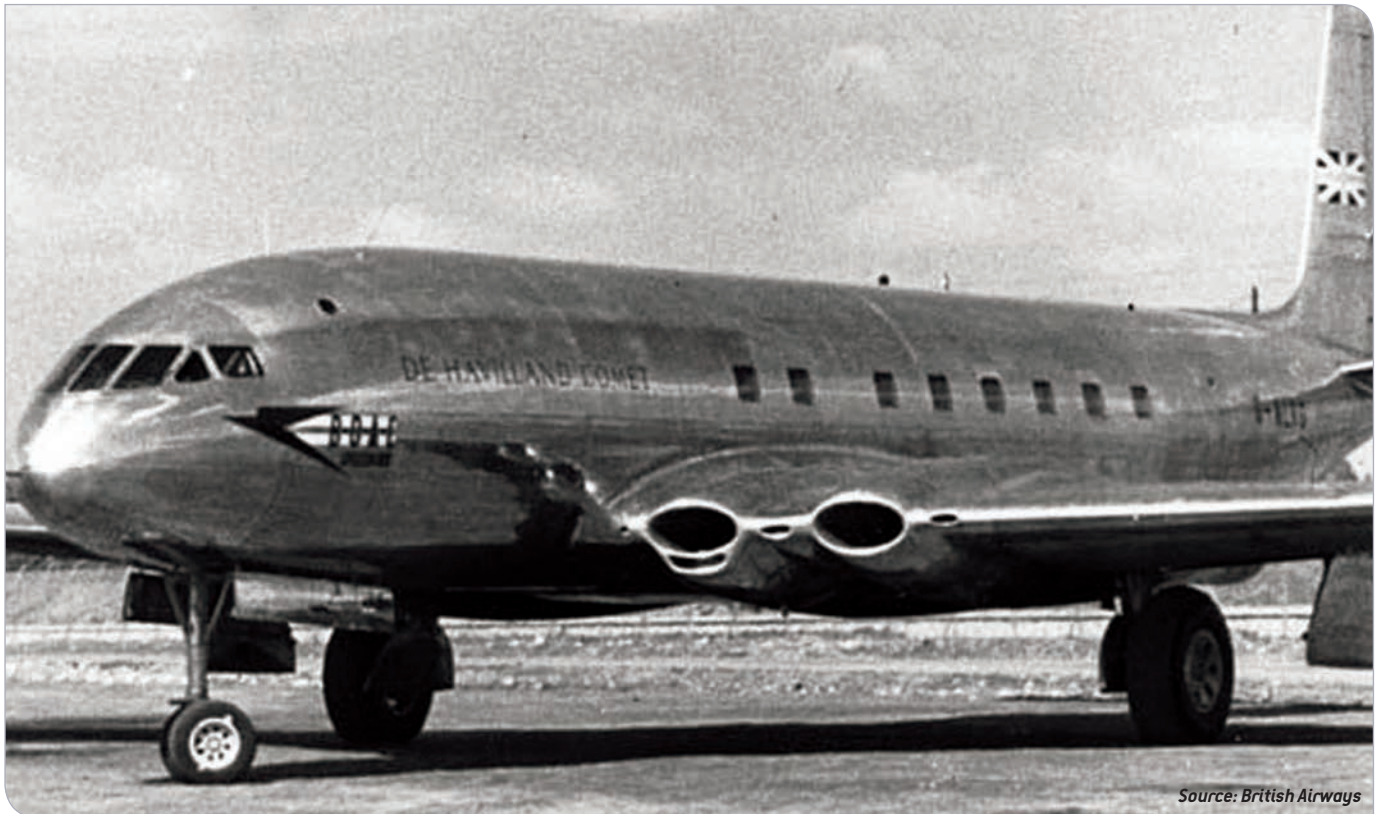
SITA is founded by eleven airlines.

## 1949 > 25 March

ICAO Council adopts Annex 9 – Standards and Recommended Practices for the Facilitation of International Air Transport.

## 1949 > 27 July

The first flight of the prototype De Havilland Comet, the first commercial jet aircraft. ↓



Source: British Airways

## 1950 > 18 May

Annex 11 – Air Traffic Services is first adopted by ICAO Council.

## 1950 > 25 May

Annex 12 Search and Rescue is first adopted by the ICAO Council.

## 1951 > 11 April

Annex 13, named Aircraft Accident Inquiry, is first adopted by the ICAO Council.



## 1951 > 29 May

The Standards and Recommended Practices for Aerodromes are first adopted by the ICAO Council (Annex 14).

## 1951 > 14 July

Lockheed L-1049 Super Constellation first flight.

## 1951 > 5 December

Eleven airlines reach an agreement to introduce tourist (economy) class seats to transatlantic services, thus paving the way for a dramatic increase in passenger numbers.

## 1952

- > The Approach Control is officially established in ATC.
- > American introduces the first electronic reservations system, Magnetronic Reservisor, to keep track of available seats on flights.

## 1952 > 22 January

The de Havilland Comet 1 becomes the first turbojet-powered airliner to receive a certificate of airworthiness.

## 1952 > 11 April

The Pan American World Airways Douglas DC-4 Clipper Endeavor, operating as Flight 526A, suffers the failure of two engines and ditches in rough seas in the Atlantic Ocean. After the accident, it is recommended that in the future passengers be briefed about location and usage of flotation equipment and emergency exits before over-water flights.

## 1952 > 1 May

The first tourist class air service over the North Atlantic begins, in accordance with an agreement between eleven IATA member airlines. Fares are generally about 20 to 25% below the standard first-class fares (London-New York one way tourist fare USD 270).

## 1952 > 2 May

BOAC flies the world's first pure jet service. The Comet G-ALYP operates from London Airport to Johannesburg via Rome, Beirut, Khartoum, Entebbe and Livingstone.

→

## 1952 > 17 June

The Council of ICAO adopts a recommendation that, pending development of a more suitable form of speech, English should be used as a universal language in aeronautical radiotelephony and should be available for communications involving international air services.





## 1953

- U.S. FAA § 121.161 imposes the 60-minute rule on two- and three-engine airplanes.
- Dr David Warren of Aeronautical Research Laboratory (ARL) in Fisherman's Bend invent the world's first black box flight recorder.

### 1953 > 1 April

Based on unanimous agreement reached under the auspices of the IATA Traffic Conferences, the concept of tourist-class service is introduced within Europe and between Europe and the Near East. The tourist-class concept is extended to India, Pakistan and Ceylon, as well as between Europe and South Africa, on 1 October 1953, and across the Pacific and to South America on 1 April 1954.

### 1953 > 15 May

The Air Navigation Commission and the first set of Standards and Recommended Practices is adopted by the ICAO Council as Annex 15 - Aeronautical Information Services to the Convention for the promulgation of information essential to the safety, regularity and efficiency of air navigation.

### 1953 > 18 May

The Douglas DC-7 airliner makes its first flight.

### 1954 > 4 May

The patent for the inflatable escape chute assembly is submitted by Boyle.

### 1954 > 15 July

Pilot Tex Johnston and co-pilot R.L. "Dix" Loesch take the Boeing Model 367-80 (Dash 80) on its first flight. ↓



## 1955

► Delta pioneers extensive development of the hub-and-spoke system.

### 1955 ► 1 April

First flight of Lufthansa (Hamburg to Munich).

### 1955 ► 27 May

The Sud-Aviation SE 210 Caravelle makes its first flight, the first short-haul jet plane to go into general use.

### 1955 ► 17 June

The prototype of Russia's first modern aircraft, the twin-engine jetliner TU-104, designed by Andrei N. Tupolev, makes its initial flight.

### 1955 ► 24 November

Fokker F27 Friendship first flight.

### 1955 ► 29 November to 16 December

ECAC holds its inaugural session in Strasbourg.

### 1956 ► 1 January

IATA launches the First Edition of the IATA Restricted Articles Regulations (RAR) (renamed Dangerous Goods Regulations—DGR in 1983).

### 1956 ► 18 February

Moscow route is opened making Finnair the first Western airline to begin a service to the Soviet capital after the Second World War.

### 1956 ► 1 March

The final version of ICAO alphabet (printed in Annex 10) is implemented by ICAO.

### 1957 ► 4 July

Ilyushin IL-18 passenger aircraft first flight.

### 1957 ► 5 August

The Civil Aeronautics Board adopts a rule requiring an approved Flight Data Recorder (FDR) aboard air carriers and commercial airplanes of more than 12,500 pounds maximum certificated take-off weight, with compliance by 15 July 1958.



## 1957 > 20 December

The first Boeing 707 takes to the Seattle skies. →

## 1958

> This is the first year that the total number of transatlantic passengers traveling by air exceeded the number traveling by sea.



## 1958 > early

The 'Black Box' flight recorder is developed by David Warren of the Aeronautical Research Laboratories in Melbourne.

## 1958 > 28 March

The first passenger boarding bridge is introduced at Chicago O'Hare to speed up boarding times.

## 1958 > 1 April

IATA Member airlines agree to launch a new type of service, called economy class, at fares some 20 percent lower than for tourist class.

## 1958 > 30 May

The Douglas DC-8 makes its first flight.

## 1958 > 9 June

The 'new' Gatwick officially opens. It is the world's first single facility airport accessible by all modes of transport – air, rail and road.

## 1958 > 23 August

The U.S. President signs the Federal Aviation Act, which transfers the Civil Aeronautics Authority's functions to a new independent Federal Aviation Agency (FAA).

## 1958 > 4 October

BOAC operates the first jet service across the North Atlantic to New York using the Comet 4.

## 1958 > 26 October

Commercial history is made when Pan American World Airways inaugurates trans-Atlantic 707 jet service between New York and Paris.

## 1960 > 21 February

Finnair takes delivery of its first Caravelle A and becomes the first airline in the world to operate a jet passenger aircraft with a flight deck crew of two, instead of the normal three.



## 1961 > 1 April

All aircraft of IATA member airlines have to fly on IFR.

## 1961 > 19 July

TWA is the first to provide in-flight movies. The first film ever shown in-flight is "By Love Possessed," with Lana Turner.

## 1961 > 19 to 20 October

The International Federation of Air Traffic Controllers' Association (IFATCA) is constituted in Amsterdam.

## 1962 > 1 October

TWA is the first to fly the Atlantic in scheduled service using the Doppler radar system, a fully automated system of navigation.

## 1963 > 3 January

First flight of Ilyushin IL-62.

## 1963 > 23 January

ReserVec, the world's first computerized reservation system, changes the ticketing game.

## 1963 > 9 February

Boeing 727-100 makes its first flight. ↓



Source: Boeing



## 1963 > 1 March

The International Convention relating to Cooperation for the Safety of Air Navigation enters into force and EUROCONTROL Agency is created.

## 1963 > 29 July

Tupolev Tu-134 first flight.

## 1963 > 20 August

BAC One-Eleven first flight.

## 1964 > 6 August

An FAA rule effective this date requires the closing and locking of crew compartment doors of scheduled air carriers and other large commercial aircraft in flight.

## 1964 > 2 October

Taking another step toward the goal of all-weather landing, FAA announces qualifying criteria for Category II landing operations.

## 1965 > 25 February

The Douglas DC-9 twinjet airliner makes its first flight. →

## 1965 > 10 June

BEA's Trident 1 G-ARPR arrives at Heathrow from Paris Le Bourget making the world's first fully automatic landing of a commercial airliner carrying fare-paying passengers.



## 1965 > 25 August

Arab Air Carriers' Organisation (AACO) is established.

## 1966 > 4 November

The United States and the Soviet Union sign an agreement authorizing commercial airline services between New York and Moscow.

## 1967 > 15 March

Southwest Airlines Co., American airline founded by Herbert Kelleher and Rollin King in 1966 and incorporated as Air Southwest Company in 1967.



### 1967 > 9 April

The Model 737 makes its first flight. ↑

### 1967 > 28 April

McDonnell and Douglas companies merge to form the new McDonnell Douglas Corp.

### 1967 > 9 May

Fokker F28 Fellowship first flight.

### 1967 > 20 September

FAA publishes new safety rules designed to improve crashworthiness and passenger evacuation standards in transport airplanes. The new rules require air carriers, other commercial operators, and aircraft manufacturers to demonstrate that airplanes with more than 44 seats are capable of permitting the evacuation of a full load of passengers through only half the aircraft's exits in 90 seconds. FAA's regulation of carry-on bags begins with a requirement that passengers can take to their seats only items that can be securely stowed under a seat.

### 1967 > 3 November

Pan American World Airways becomes the first airline to receive FAA approval for full Category II operations.



## 1968

- ICAO's work on machine readable travel documents begins with the establishment, by the Air Transport Committee of the Council, of a Panel on Passport Cards.

### 1968 > 1 April

AFRAA is founded.

### 1968 > 4 October

Tupolev Tu-154 first flight.

### 1968 > 28 December

The first aircraft to be certified to CAT III standards is the Sud Aviation Caravelle.

### 1968 > 31 December

Tupolev Tu-144 first flight.

### 1969 > 17 January

The African Civil Aviation Commission (AFCAC) is conceived.

### 1969 > 9 February

The Boeing 747-100 makes its first flight. ↓



Source: Boeing



## 1969 ▶ 2 March

The first flight of Concorde 001 (F- WTSS) from Toulouse, France takes place (British Airways). ↓



## 1969 ▶ 1 July

Effective this date, CAB selects "commuter air carrier" as its name for certain scheduled air taxi operators.

## 1969 ▶ 19 August

Embraer is founded.

## 1969 ▶ November

BEA becomes the world's first airline to publish an entirely computer-produced timetable.

## 1969 ▶ December

Eastern Air Lines puts into operations at its terminal at Kennedy International Airport the first computerized system for issuing seat assignments and boarding passes to airline passengers as they check in at the airport.

## 1970 ▶ 21 January

The Boeing 747 makes its first commercial flight from New York to London for Pan American.

## 1970 ▶ 1 July

TWA is the first airline to offer non-smoking sections aboard every aircraft in its fleet.

## 1970 ▶ 29 August

The Douglas DC-10, the first "jumbo jet" from Douglas, makes its first flight. →





## 1970 > 11 September

U.S. President Nixon announced a comprehensive anti-hijacking program.

## 1970 > 16 November

Lockheed L-1011 TriStar first flight.

## 1970 > 18 December

Creation of Airbus Industrie.

## 1971 > 2 April

The resulting complex study of the effects of aircraft noise leads ICAO to the adoption of Annex 16: Environmental Protection.

## 1971 > 18 June

Southwest Airlines inaugural flight.

## 1971 > November

Air France officially becomes Airbus's first customer, placing an order for six A300B2s with six options.

## 1972 > 22 January

FAA commissions the first operational Category IIIa instrument landing system at Dulles International Airport.

## 1972 > 2 February

FAA institutes mandatory screening of all airline passengers as anti-hijacking measure.

## 1972 > 15 June

Effective this date, FAA lowers the number of flight attendants required on airliners with certain seating capacities. One flight attendant is now required for planes with 10-50 passenger seats, while on larger aircraft, the ratio will be one attendant for every 50 passenger seats or additional fraction of 50 seats.

## 1972 > 28 October

The A300, the first Airbus aircraft and first widebody twin engine jetliner, takes off. → [1], page 46

## 1973 > 29 January

Emily Howell Warner becomes the first woman employed as a pilot for a scheduled commercial airline.

## 1973 > 10 May

CAB publishes the first rule regulating smoking on aircraft for reasons of consumer comfort and protection. The Board requires airlines to provide separate sections for smokers and nonsmokers.



### 1973 ► 14 December

The civil aviation organization of Latin American States (LACAC) is founded.

### 1974 ► 22 March

ICAO Council adopt SARPS in Annex 17 on Security: Safeguarding International Civil Aviation against Acts of Unlawful Interference.

### 1975 ► September

RAA is founded.

### 1975 ► 26 December

The Soviet Union inaugurates the world's first regular supersonic airline service, with the departure of a Tupolev-144 from Moscow for Alma-Ata in the Kazakh Republic. The plane carries only mail and cargo over the 2,500-mile route.





## 1976 > 21 January

The Concorde aircraft of both Air France and BOAC launch scheduled supersonic passenger services. Air France's Concorde flies from Paris to Rio de Janeiro in 7 hours and 25 minutes, including a one-hour refuelling stop in Dakar, Senegal. BOAC's Concorde makes the flight from London to Bahrain in 3 hours and 37 minutes.

## 1976 > 22 December

First flight of IL-86, USSR's first wide-body and the world's second four-engine wide-body. ↓



## 1977 > 10 January

FAA publishes a rule raising the maximum number of transport aircraft passenger seats per main (Type A) emergency exit from 100 to 110, effective 10 February 1977. The change clears the way for certification of Boeing 747s seating over 500.

## 1977 > 1 February

The A300 becomes the first aircraft to be equipped with the Cat IIIa autoland system.

## 1977 > 23 July

The United States and the United Kingdom sign the "Bermuda II" agreement.

## 1977 > 26 September

Laker Airways' low-cost "Skytrain" transatlantic service makes its first flight from New York to London.

## 1977 > 17 October

The U.S. Supreme Court lifts the ban by New York's JFK Airport on the Concorde SST, clearing the way for immediate trial flights.



## 1977 ▶ 22 November

Concorde passenger service from New York to London and Paris begins.

## 1978 ▶ 10 March

The United States and the Netherlands sign a new international aviation agreement, based on the principle of free competition.

## 1978 ▶ October

British Airways introduces "Club Class," a separate premium cabin with numerous amenities. ↓



## 1978 ▶ 24 October

U.S. President Carter signs the Airline Deregulation Act of 1978 allowing immediate fare reductions of up to 70% without CAB approval and the automatic entry of new airlines into routes not protected by other air carriers. CAB's authority over fares, routes, and mergers is to be phased out entirely before 1983, and, unless Congress acts, CAB itself will shut down by 1 January 1985. It also authorizes the use of larger aircraft by commuter airlines. →





## 1978 > 28 October

Pan American is one of first airlines to introduce a new class of service for business and full-fare economy passengers, called Pan Am's "Clipper Class".

## 1979

> Qantas introduces Business Class air travel becoming the first airline in the world to do so.

## 1979 > August

Delta is the first airline in the world to board one million passengers in one city in one month (Atlanta in month of August).

## 1979 > 18 October

The Douglas DC-9 Super 80 twin-engine jetliner makes its first flight. ↓



## 1980

- > The specifications and guidance material developed by ICAO's Panel on Passport Cards is published as the first edition of Doc 9303, titled A Passport with Machine Readable Capability.
- > ERA is founded in Switzerland with 5 airline members.
- > Delta Air Lines becomes the first airline to make a major move from film to video in-flight entertainment, equipping its entire transatlantic L-1011 fleet.

## 1980 > 28 March

British Aerospace Jetstream first flight.

## 1980 > 8 April

ALTA (Latin American and Caribbean Air Transport Association) is founded in Bogota, Colombia.

## 1980 > 1 June

Airbus introduces the use of composite materials on secondary structures in a trial using an A300.

## 1980 ▶ 7 June

The first transpolar flight of a commercial airline. It is accomplished by an Aerolineas Argentinas 747. Departing from Buenos Aires, it makes a stop in Rio Gallegos, goes over the South Pole and reaches Auckland.

## 1981 ▶ 28 March

Dornier Do 228-100 first flight.

## 1981 ▶ 1 May

American introduces the AADVANTAGE travel awards program.

## 1981 ▶ 23 June

Administrator Helms announces FAA's decision to adopt the Threat Alert and Collision Avoidance System, soon renamed the Traffic Alert and Collision Avoidance System (TCAS).

## 1981 ▶ 26 June

ICAO adopts Annex 18 on The Safe Transport of Dangerous Goods by Air.

## 1981 ▶ 3 August

Approximately 12,300 members of the 15,000-member PATCO go on strike. U.S. President Reagan issues the strikers a firm ultimatum – return to work within 48 hours or face permanent dismissal. After expiration of the grace period, FAA fires approximately 11,400 controllers. PATCO disbands and the controllers remain without a union.

## 1981 ▶ 3 September

British Aerospace 146 first flight.

## 1981 ▶ 26 September

The Boeing 767-200 makes its first flight.

## 1981 ▶ 4 November

Aerospatiale and Aeritalia merge their two separate regional aircraft designs into a single effort. The Cooperation Agreement launching the ATR program is signed in Paris.

## 1982 ▶ 19 February

The Boeing 757-200 makes its first flight.

## 1982 ▶ 3 April

Airbus A310-200 first flight. →







## 1982 > 12 May

Braniff Airlines becomes the first scheduled airline to file for protection under Chapter 11 of the bankruptcy code in the history of American civil aviation.

## 1982 > 3 September

Beechcraft 1900 first flight.

## 1982 > 24 December

Antonov An-124 Ruslan first flight. ↓



## 1983

> First Common Use Terminal Equipment (CUTE) check-in desks are installed in LAX for the 1984 Summer Olympic Games.

## 1983 > 25 January

First prototype of the Saab-Fairchild SF-340 makes its maiden flight.

## 1983 > 23 May

The first aircraft (Rockwell International Saberliner) to navigate across the Atlantic entirely by use of the Global Positioning System (GPS) lands at Paris.



## 1983 ▶ 2 June

Air Canada Flight 797, a McDonnell Douglas DC-9-32, experiences an in-flight fire and makes an emergency landing at Cincinnati/Northern Kentucky International Airport. The accident prompts the installation of smoke detectors and emergency lighting leading to exits aboard airliners, as well as increased firefighting training and equipment for airline crews.

## 1983 ▶ 20 June

Bombardier Dash 8 first flight.

## 1983 ▶ 29 July

Embraer EMB 120 Brasilia turboprop makes its maiden flight.

## 1984 ▶ February

The decision to use side-stick controllers on the A320 is revealed.

## 1984 ▶ 24 February

First flight of Boeing 737-300.

## 1984 ▶ 10 May

The 25th Session (Extraordinary) of the ICAO Assembly approves unanimously Resolution A25-1 incorporating an explicit recognition that the use of weapons against civil aircraft is prohibited.

## 1984 ▶ 16 August

The ATR 42 makes its first flight.

## 1984 ▶ 14 October

The first telephone system, allowing passengers to call during a flight, begins operations by six companies. →

## 1984 ▶ 28 November

Ryanair is founded by the Ryan family.

## 1985 ▶ 6 June

U.S. FAA issues AC 120-42. This AC provides guidance on one means of obtaining deviation authority from § 121.161 to allow two-engine airplanes to operate on routes up to 120 minutes from an adequate airport after demonstration of specific levels of in-service experience and systems reliability. TWA is the first US airline to offer to fly the Atlantic using twin-engine aircraft (Boeing 767s), thus introducing ETOPS, or extended-range twin-engine operations, to the industry.



Source: Delta Flight Museum



## 1985 > 25 October

Emirates operate its flights from Dubai to Karachi and Mumbai, using a Boeing 737 and an Airbus 300 B4 wet-leased from Pakistan International Airlines. ↓



## 1985 > 28 December

Fokker 50 first flight.

## 1986

- The U.S.S.R. formally opens its airspace to international airlines and, as a result, most services between Europe and the Far East now operate nonstop via Siberia, which reduces travel time by about 6-7 hours.

## 1986 > April

The European Court of Justice rules that air transport agreements are subject to the competition rules of the Treaty of Rome. As a consequence, the European Commission agrees to develop a general framework to liberalize air transport regulations within the European Community.

## 1986 > 30 November

Fokker 100 first flight.

## 1987 ▶ 22 February

A320 roll-out and first flight. The A320 becomes the first airliner to fly with full digital, computer-driven fly-by-wire controls and side-stick controller. ↓



## 1987 ▶ 18 March

The first revenue flight of an airplane equipped with an operational TCAS II version of the Traffic Alert and Collision Avoidance System occurs.

## 1987 ▶ 14 December

The EU first "package" of measures is adopted to relax the established rules. For intra-EU traffic, it limits the right of governments to object to the introduction of new fares. It also gives some flexibility to airlines concerning seat capacity sharing.

## 1988 ▶ 19 February

First flight of Boeing 737-400.

## 1988 ▶ 23 April

A ban on smoking on U.S. airline flights of less than two hours comes into effect. Northwest bans smoking on all North American flights, the first major U.S. airline to do so.





## 1988 > 29 April

First flight of Boeing 747-400. →

## 1988 > 27 October

First flight of the ATR 72.

## 1988 > 21 December

Antonov An-225 Mriya first flight.



## 1989 > 10 January

FAA publishes a rule requiring the Traffic Alert and Collision Avoidance System (TCAS II) on all airliners with more than 30 passenger seats operating in U.S. airspace.

## 1989 > May

Virgin Atlantic becomes the first airline to offer business class passengers individual TVs with the introduction of Sony Video walkmans and a library of films.

## 1989 > 14 September

U.S. Congress passes smoking legislation for domestic passenger flights.

## 1990

- > Air Transport Action Group (ATAG) is formed.
- > The International Air Cargo Association (IATA) is founded.

## 1990 > 10 January

The McDonnell Douglas MD-11 makes its first flight.

## 1990 > 24 July

The second EU “package” opens up the market further, allowing greater flexibility over the setting of fares and capacity-sharing. It also gives all EU carriers the right to carry an unlimited number of passengers or cargo between their home country and another EU country.

## 1990 > October

Air Canada become the first scheduled airline in the world to offer exclusively smoke-free flights between North America and Europe.

## 1991 > January

Establishment of the Airports Council International (ACI).



## 1991 ▶ 27 March

American airlines celebrates its 1 billionth customer.

## 1991 ▶ 10 May

Bombardier CRJ100 first flight.

## 1991 ▶ June

Virgin Atlantic becomes the first airline operating widebodied aircraft to offer individual TV screens and a choice of channels to passengers in all classes.

## 1991 ▶ 25 October

A highly successful first flight for the Airbus A340. →

## 1991 ▶ 4 December

Pan Am ceases operations.

## 1991 ▶ 6 December

Dornier 328 first flight.



## 1992

- ▶ EVA Air and Virgin Atlantic Mid Class (May) introduce two of the very first premium economy services.
- ▶ Delta introduces new in-flight technologies, including seat-back telephones, live radio news broadcasts; first U.S. airline with moving maps in the cabin showing aircraft's position and route.

## 1992 ▶ 4 September

DOT announces that the United States and the Netherlands have signed the first aviation agreement under the liberalized "open skies" initiative.

## 1992 ▶ 29 September to 8 October

The 29th Session of the ICAO Assembly endorses a blueprint for a global satellite-based Communications, Navigation and Surveillance/ Air Traffic Management (CNS/ATM) systems' concept to replace existing line-of-sight systems.

## 1992 ▶ 2 November

Airbus A330-300, the world's largest twin-engine widebody, flies for the first time. → [2], page 57

## 1993 ▶ 1 January

The EU "third package" of measures for the liberalization of the Community's air transport market enters into force. This package introduces the freedom to provide services within the EU.



[2], Source: Airbus

### 1993 > 11 January

U.S. Department of Transportation approves Northwest/KLM commercial co-operation and integration agreement under a grant of antitrust immunity. KLM and Northwest now are free to join together in creating a unified global airline system, the first of its kind in the world.

### 1993 > 11 March

Airbus A321 flies for the first time from Hamburg, Germany. → [3], page 58

### 1993 > 8 June

Joel R. Goheen invents electronic ticketing in the airline industry.

### 1993 > 21 October

Airbus A330-300 becomes the first airliner to achieve simultaneous European and American certification.

### 1994 > April

Canadian Airlines has the distinction of being the first airline in the world to have a website on the Internet ([www.cdnaair.ca](http://www.cdnaair.ca)). It is given recognition for not only being the first airline website in the world but also the first with transactional capabilities, such as flight arrival/departure and fare information.





[3], Source: Airbus

1994 ▶ 12 June

Boeing 777 first flight. ↓



Source: Boeing



## 1994 > 15 August

FAA issues a regulation which, for the first time, sets length of duty and rest requirements for airline flight attendants. Under the rule, attendants can remain on duty for as many as 14 hours within a 24-hour period but will require a rest period of at least 9 hours after that duty period.

## 1994 > 4 September

Kansai International Airport is inaugurated. It is the world's first airport located 4 km (2.5 sm) offshore on a man-made island, covering some 500 hectares in Osaka Bay.

## 1995

> British Midland becomes the first airline to offer a booking service with payment over the internet, CyberSeat.

## 1995 > March

easyJet is founded.

## 1995 > 26 March

The Schengen Agreement comes into force.

## 1995 > 30 May

The Boeing 777 becomes the first airplane in aviation history to earn U.S. FAA approval to fly extended-range twin-engine operations (ETOPS) at service entry.

## 1995 > 11 August

Maiden Flight of Embraer ERJ 145.

## 1995 > 25 August

The A319 successfully completes its maiden flight.

## 1996

> CANSO –the Civil Air Navigation Services Organisation– is founded.

## 1996 > 7 February

The Arab Civil Aviation Commission (ACAC) is established.

## 1997

> Delta is the first airline to board more than 100 million passengers in a year.

> Relaunch of Qatar Airways.

## 1997 > 9 February

The first Next-Generation Boeing 737, a 737-700, makes its first flight. → [4], page 60





1997 ▶ April

Introduction in the EU of the freedom to provide “cabotage”: the right for an airline of one Member State to operate a route within another Member State.

1997 ▶ 14 May

Air Canada, Lufthansa, SAS, Thai Airways International and United Airlines launch the Star Alliance network. ↓





### 1997 > 31 July

Boeing 737-800 makes its first flight, with Boeing Capt. Mike Hewett and Jim McRoberts at the airplane's controls.

### 1997 > 1 August

The Boeing Company, along with its North American component, merges with McDonnell Douglas Corp.

### 1997 > 13 August

Airbus A330-200 first flight.

### 1997 > 16 October

Boeing 777-300 first flight.

### 1998 > 31 January

First flight Bombardier Dash 8 Q400.

### 1998 > 22 September

United is the first airline to offer electronic ticketing on around-the-world flights.

### 1999 > 1 February

American Airlines, British Airways, Canadian Airlines, Cathay Pacific Airways and Qantas Airways implement oneworld global alliance.

### 1999 > 27 May

Bombardier CRJ700 series first flight. ↓



Source: Bombardier



## 1999 ▶ 28 May

The new Montreal Convention, formally entitled Convention for the Unification of Certain Rules for International Carriage by Air, is signed. This new convention is intended to replace the above described Warsaw System.

## 1999 ▶ December

KLM is the world's first airline to attain ISO 14001 certification for its Environmental Management System.

## 2000 ▶ January

British Airways announces the introduction of a new cabin, World Traveller Plus. Services between London and New York JFK are to include both the Club World 'Lounge in the Sky', the world's first fully flat bed in business class.

## 2000 ▶ 14 June

Air Canada and United Airlines introduced the world's first interline electronic ticket.

## 2000 ▶ 22 June

The CEOs of Aeromexico, Air France, Delta Air Lines and Korean Air meet in New York to announce the formation of SkyTeam.

## 2000 ▶ 3 August

First flight of the Next-Generation Boeing 737-900.

## 2000 ▶ 1 December

Northwest becomes the first major network carrier to offer an Internet check-in program through its web site, nwa.com. (Service is available for all customers flying domestically).

## 2001 ▶ 10 January

American announces that it has agreed to purchase substantially all the assets of Trans World Airlines, Inc.

## 2001 ▶ 23 April

Airbus A340-600 first flight.

## 2001 ▶ 11 September

Nineteen radical Islamic extremists with the group al Qaeda penetrate security at three major airports, seizing four U.S. domestic airliners, and turning three of the aircraft into missiles that destroy the World Trade Center in New York City and damage the Pentagon in Arlington, Virginia. Passengers on the fourth plane fought the hijackers, causing the plane to crash in a Pennsylvania field.

## 2001 ▶ October

Singapore Airlines, first to offer audio and video on demand (AVOD) capabilities on KrisWorld in all classes.



## 2002 ▶ 19 February

Embraer 170 first flight. →

## 2002 ▶ 1 April

Normal operations using aircraft that meet ICAO "Chapter 2" noise standards cease in Europe.



## 2002 ▶ 24 June

Northwest announces an industry first—a new online self-service product that allows customers to make reservation changes and complete E-ticket exchanges online at the airline's website.

## 2002 ▶ 12 July

EASA is established.

## 2003 ▶ May

ICAO adopts a global, harmonized blueprint for integrating biometric identification information into passports and other MRTDs.

## 2003 ▶ 1 to 3 June

The 59th IATA Annual General Meeting (AGM) and World Air Transport Summit (WATS), agree to launch a global IATA Operational Safety Audit (IOSA) program from 1 July 2003.

## 2003 ▶ 14 June

First flight of the Embraer 175 prototype.

## 2003 ▶ 24 October

British Airways withdraws Concorde, signalling the closure of the world's only supersonic passenger services.

## 2003 ▶ 28 October

Launch of Air Arabia.

## 2003 ▶ 12 December

The Vision 100—Century of Aviation Re-authorization Act, is signed into law endorsing the concept of a Next Generation Air Transportation System (NextGen).

## 2004

▶ .aero launches. SITA sponsors the .aero Top-Level Domain name on behalf of the aviation community. .aero is reserved exclusively for aviation.



## 2004 > 12 March

Embraer 190 Maiden Flight.

## 2004 > 19 May

Wizz Air first flight takes off from Katowice.

## 2004 > 6 to 8 June

The 60th IATA Annual General Meeting (AGM) and World Air Transport Summit (WATS) adopts a Resolution on Business Simplification. The five main priority areas identified for action are:

- 1) electronic ticketing (ET);
- 2) the aggressive implementation of common use self-service (CUSS) kiosks at airports;
- 3) bar coding technology for boarding documents;
- 4) radio frequency technology for baggage management by developing standards and an industry implementation program; and
- 5) automated interlining of passenger and cargo traffic by restructuring essential back-office components, including automated fare quotation, posted prices, trusted prorate and machine-readable fare construction.

## 2004 > 28 June

Singapore Airlines inaugurates the world's longest commercial daily non – stop flight between Singapore and Newark (serving New York) –an 18– hour, 9,539 sm (15,348 km) journey over the North Pole with its first Airbus A340 – 500.

## 2004 > 7 December

The Embraer 195 commercial airliner makes its first flight at Embraer's Sao Jose dos Campos site. →



## 2005 > 27 April

Airbus A380, the 21st century flagship, successfully completes its first flight. → [5], page 65

## 2007 > 27 February

SESAR Joint Undertaking (SJU) is established under Council Regulation (EC) 219/2007.

## 2007 > 30 April

U.S.-EU Air Transport Agreement is signed.

## 2007 > 3 to 5 June

The 63rd IATA Annual General Meeting (AGM) and World Air Transport Summit (WATS), held in Vancouver, issues five main challenges to drive the air transport industry towards its vision of zero emissions.



## 2008 ▶ 1 February

An Airbus A380 aircraft successfully completes the world's first ever flight by a commercial aircraft using a liquid fuel processed from gas (Gas to Liquids-GTL).

## 2008 ▶ 24 February

Boeing, Virgin Atlantic and GE Aviation conduct the first commercial aviation flight using a sustainable biomass-to-liquid fuel mixed with traditional kerosene-based jet fuel.

## 2008 ▶ 20 March

Emirates is the first airline in the world to commercially launch an in-flight mobile telephone service.

## 2008 ▶ 22 April

At the global Aviation and Environment Summit, commercial aviation industry leaders sign a declaration on climate change to lead towards carbon neutral growth and a totally sustainable industry.

## 2008 ▶ 1 to 3 June

The 64th IATA AGM and WATS held in Istanbul. IATA announces the end of the paper ticket era with the adoption of 100% electronic ticketing worldwide. → [6], page 66

## 2008 ▶ 14 June

U.S. FAA issues regulation AC No 120- 42B that allows beyond 240-minute ETOPS on a case-by-case basis.

## 2009 ▶ 20 May

ASEAN agrees on Multilateral Agreement on Air Services.



[6], Source: IATA

## 2009 ▶ 5 June

TAP becomes the first airline in the world to launch the IATA carbon offset programme.

## 2009 ▶ 15 June

ACI Europe launches Airport Carbon Accreditation, allowing for the assessment and recognition of participating airports' efforts to manage and reduce their CO<sub>2</sub> emissions. This same year Frankfurt Airport becomes the first airport to receive its accreditation status.

## 2009 ▶ 12 November

Airbus A330 is first airliner to be certified for ETOPS "beyond 180 minutes".

## 2009 ▶ 15 December

The 787 Dreamliner makes its first flight from Paine Field in Everett, Wash. under the control of Capt. Mike Carriker and Capt. Randy Neville. Takeoff occurs at 10:27 a.m. Pacific time. → [7], page 67

## 2010 ▶ 8 February

Boeing 747-8 Freighter completes first flight.





[7], Source: Boeing

### 2010 > 15 to 22 April

Eyjafjallajökull volcano erupts in Iceland causing widespread disruptions in European airspace.

### 2011 > 12 December

Boeing announces today that it has received type-design approval from the U.S. Federal Aviation Administration (FAA) for up to 330-minute extended operations (ETOPS) for its 777 fleet.

### 2013 > 25 February

ICAO adopts Annex 19 on Safety Management.

### 2013 > 16 March

Hermes – Air Transport Organisation is founded.

### 2013 > 14 June

First Airbus A350 XWB successfully completes flight. ↓



Source: Kostas Iatrou



## 2013 ▶ 16 September

Bombardier's first flight for C-Series Aircraft.

## 2013 ▶ 17 September

Boeing flies First 787-9 Dreamliner.

## 2013 ▶ 4 October

ICAO concludes a landmark 38th Assembly today receiving endorsements from its Member States on sector-wide strategic planning and exceeding many expectations by agreeing to develop a global market-based measure (MBM) for international aviation.

## 2013 ▶ 31 October

The U.S. Department of Transportation's Federal Aviation Administration (FAA) announces that the FAA has determined that airlines can safely expand passenger use of Portable Electronic Devices (PEDs) during all phases of flights, and immediately provides airlines with implementation guidance.

## 2014 ▶ 25 September

First Airbus A320neo successfully completes first flight. ↓



## 2014 ▶ 26 September

EASA allows electronic devices to remain on and connected throughout a flight.



### 2015 > 3 February

Member States of the International Civil Aviation Organization (ICAO) recommend the adoption of a new 15-minute aircraft tracking standard during discussions amongst the over 850 participants to the UN aviation body's 2015 High Level Safety Conference. They also confirm their support today for the Organization's comprehensive conflict zone risk mitigation work programme, including a proposal to develop a prototype online resource for global conflict zone risk assessments.

### 2015 > 27 February

Bombardier CS300 aircraft successfully completes maiden flight. →

### 2015 > 27 December

ATL becomes first airport ever to serve 100 million passengers in a single year.

### 2016 > 7 January

Ryanair becomes the first airline to carry over 100m international customers in one year.

### 2016 > 20 January

Airlines for Europe (A4E), Europe's new airline association, is officially launched.

### 2016 > 29 January

First flight Boeing 737 MAX 8.

### 2016 > 9 February

Airbus A321neo takes to the sky for the first time.

### 2016 > 23 May

First Embraer E190-E2 Jet completes maiden flight.

### 2016 > 26 July

Solar Impulse 2 completes a round-the-world tour by landing back in Abu Dhabi after a total of 23 days of flight and 43,041 km travelled in a 17-leg journey. →

### 2016 > 6 October

Government, industry and civil society representatives agree on a new global market-based measure (GMBM) to control CO2 emissions from international aviation.





## 2016 > 14 October

Airbus celebrates the delivery of its 10,000th aircraft.

## 2016 > 24 November

1st flight of Airbus A350-1000.

## 2017 > 6 March

The 36-State ICAO Council adopts a new aircraft CO<sub>2</sub> emissions standard which will reduce the impact of aviation greenhouse gas emissions on the global climate.

## 2017 > 29 March

Embraer flies the E195-E2.

## 2017 > 31 March

The Boeing 787-10 Dreamliner take to the skies for the first time.

## 2017 > 14 April

The Boeing 737 MAX 9 completes its first flight.

## 2017 > 16 October

Airbus and Bombardier Announce C Series Partnership.

## 2017 > 19 October

First Airbus A330neo successfully completes maiden flight. ↓



Source: Airbus



## 2018 > 28 January

The Single African Air Transport Market is formally established and launched at the African Union Summit in Addis Ababa, Ethiopia.

## 2018 > 24 March

Qantas's first Perth to London flight takes off, marking the start of the only direct air link between Australia and Europe.

## 2018 > 27 June

The ICAO Council makes important headway on key international standards supporting the UN aviation agency's Carbon Offsetting and Reduction Scheme for International Aviation, or 'CORSIA'.

## 2018 > 18 December

Airbus has successfully performed the first fully automatic vision-based take-off using an Airbus Family test aircraft at Toulouse-Blagnac airport.

## 2019 > 13 March

The FAA orders the temporary grounding of the Boeing 737 MAX.

## 2019 > 26 June

Europe's airport industry commits to net zero CO2 emissions by 2050.

## 2019 > 15 November

Qantas centenary celebrations take off as direct London-Sydney research flight lands. Project Sunrise research flight, direct from London to Sydney, lands after 19 hours and 19 minutes.

## 2020 > 25 January

New Boeing 777X completes successful first flight. ↓





## 2020 > 13 February

Airbus and the Government of Québec become sole owners of the A220 Programme as Bombardier completes its strategic exit from Commercial Aviation.

## 2020 > 11 March

COVID19 confirmed as pandemic by World Health Organization. Most airlines around the world during March temporarily suspend all their flights.

## 2020 > 13 March

The ICAO Council approved the eligible emissions units for the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) today, reaching another important milestone toward CORSIA global implementation supporting worldwide efforts against climate change.

## 2020 > 10 June

EASA certifies electric aircraft, first type certification for fully electric plane world-wide.

## 2020 > 21 September

Airbus has revealed three concepts for the world's first zero-emission commercial aircraft which could enter service by 2035.

## 2021 > 27 January

EASA declares Boeing 737 MAX safe to return to service in Europe.

## 2021 > 11 February

Europe's aviation sector today unveiled its flagship sustainability initiative, Destination 2050 – A Route to Net Zero European Aviation.

## 2021 > 30 April

London City Airport has become the first major international airport in the world to be fully controlled by a remote digital air traffic control tower.

## 2021 > 18 June

Boeing completes successful 737-10 first flight.

## 2021 > 4 October

IATA's 77th Annual General Meeting approved a resolution for the global air transport industry to achieve net-zero carbon emissions by 2050.

## 2021 > 1 December

United become first in aviation history to fly aircraft full of passengers using 100% Sustainable Fuel.



## 2021 ▶ 16 December

Emirates completes A380 fleet with 123rd delivery of iconic aircraft. ↓



Source: Emirates

## 2022 ▶ 30 June

EASA publishes world's first rules for operation of air taxis in cities.

## 2022 ▶ 14 July

World premiere at Frankfurt Airport: satellite-based precision landings possible even in bad weather. DFS started the use of the GBAS precision landing system for poor weather conditions at Frankfurt Airport.

## 2022 ▶ 4 October

FAA issued a final rule requiring that flight attendants receive longer periods of rest between shifts. The new rule increases the rest period to 10 consecutive hours.

## 2022 ▶ 7 October

Governments meeting at ICAO Assembly in Montreal have adopted a goal of net-zero carbon emissions for international flights by 2050, one of the only global sector-specific climate goals. The goal aligns international aviation with the Paris Agreement.

**2022 > 17 October**

EU and ASEAN sign landmark region-to-region agreement connecting 1.1 billion people. →

**2022 > 28 November**

Rolls-Royce and easyJet today confirmed they have set a new aviation milestone with the world's first run of a modern aero engine on hydrogen.

**2022 > 8 December**

Aviation leaders sign a declaration that lay the way to establish the International Aviation Forum. ↓





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International aviation is a critical component of a modern global economy and community, connecting people and things to people and places. It supports millions of jobs and transports over 35% of international trade by value.

In order for commercial aviation to be efficient and effective a collaborative environment between governments, regulators and industry is imperative to establish smart regulations, supportive economic regimes and robust facilitation processes.

We are committed to work together to establish the International Aviation Forum, an international collaborative forum, that will represent all industry sectors and will speak with a unified voice on matters of common interest.

Ekali, 8 December 2022

Fabio Gamba



Simon Hocquard



Dr Kostas Iatrou



Mehmet Nane



Glyn Hughes







## 2023 > 30 January

Emirates operates milestone demonstration flight powered with 100% Sustainable Aviation Fuel.

## 2023 > 31 January

Boeing, Atlas Air celebrate delivery of final 747.

## 2023 > 12 May

Emirates goes digital, phases out paper boarding passes for flights departing Dubai.

## 2023 > 19 June

India's IndiGo places record order for 500 A320 Family aircraft.

## 2023 > 29 June

Virgin Galactic completes inaugural commercial Spaceflight. ↓



## 2023 > 24 November

ICAO Conference delivers strong global framework to implement a clean energy transition for international aviation.

## 2023 > 28 November

Virgin Atlantic flies world's first 100% Sustainable Aviation Fuel flight from London Heathrow to New York JFK.

2023 > 8 December

Aviation leaders commit to work together in order to promote the value and benefits of aviation. ↓



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