

CIRIUM ON-TIME PERFORMANCE REVIEW 2024

AIRLINES & AIRPORTS

January 2025

cirium.com



REVIEW 2024

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RESILIENCE, **ADAPTABILITÝ** AND PRIORITIZING **OPERATIONAL EXCELLENCE** WERE THE HALLMARKS FOR THE AVIATION INDUSTRY IN 2024

n 2024, the aviation industry demonstrated incredible resilience and adaptability. overcoming challenges ranging from cybersecurity disruptions, such as the CrowdStrike outage, to weather anomalies that tested global travel operations. Despite these hurdles, airlines and airports continued to prioritize operational excellence, achieving impressive levels of reliability and passenger satisfaction.

Jeremy Bowen CEO, Cirium

Celebrating Industry Leaders

The 2024 Cirium On-Time Review honors topperforming airlines and airports that achieved exceptional on-time performance rates. These leaders exemplify service reliability, setting new benchmarks in a dynamic and evolving environment.

This year's Review showcases these achievements while introducing several exciting updates, reinforcing Cirium's role as the industry's trusted source for actionable insights and innovation.

Welcoming New Board Members

Firstly, Cirium is proud to announce the addition of three highly respected individuals as advisory board members to our On-Time program who bring unparalleled expertise to our mission. Eamonn Brennan, Scott McCartney, and **Alex De Gunten** join us with decades of industry experience and leadership. Their contributions will enhance Cirium's ability to deliver unbiased, insightful data and analytics to support the aviation sector. Full biographies of these distinguished professionals can be found in Section 94 of this report.

Expanded Recognition: Platinum Awards for Airports

In an exciting evolution of the Platinum Award, this prestigious category has now been extended to recognize an outstanding airport performance alongside an exceptional airline. This award reflects a comprehensive evaluation of operational comprehensive evaluation of operational complexity and reliability, setting a new standard for excellence. To qualify for Platinum status, an airport must first meet the rigorous criteria of the Global Award category. For more details on this new recognition, please refer to page 112.

Advancing Sustainability with EmeraldSkv

Sustainability remains at the forefront of aviation, and this year's review features a dedicated section on aircraft emissions. Using EmeraldSky, Cirium's leading emissions analytics solution, we provide some detailed insights into emission trends, efficiency improvements, and the industry's strides toward a greener future. This is a must-read for those seeking to understand aviation's progress on aviation's environmental challenges.

Introducing the On-Time AI Assistant

We're also excited to introduce the On-Time AI Assistant, a new complimentary tool designed to enhance your exploration of the Annual Review. This intuitive assistant streamlines data discovery, helping you uncover insights and answer operational questions with ease. Subscribers to Cirium On-Time can sign up for immediate access and experience the full potential of this powerful tool.

Looking ahead, a premium version of the On-Time AI Assistant will be launched in 2025, offering enhanced features and expanded access to Cirium's comprehensive on-time performance data, tailored to support strategic decision-making. As a subscriber to Cirium On-Time, you can access this tool by signing up at Cirium.com/Journey.

With over 16 years of expertise in on-time performance analysis, Cirium continues to set the gold standard for aviation analytics. Powered by verified data streams from more than 2,000 sources-including airlines, airports, and civil aviation authorities—Cirium provides the insights that airlines and airports need to drive efficiency, optimize profitability, and adapt to evolving demands.

As we reflect on the past year and look toward the future.

the 2024 Cirium **On-Time Review** reaffirms our commitment to operational excellence, sustainability, and innovation.

With reliable data, cutting-edge tools, and deep industry expertise, Cirium empowers the aviation sector two overcome challenges and seize opportunities. We hope this year's review offers valuable insights and inspires strategies for success in the dynamic world of aviation.

MARKING TIME for







DELTA DOES IT AGAIN! 2024 PLATINUM WINNER

or the fourth year in a row, Delta Air Lines has clinched Cirium's prestigious

DELTA

Platinum Award for Operational Excellence, underscoring the airline's commitment to delivering superior on-time performance amidst the complexities of a global airline operation. This backto-back recognition highlights Delta's resilience, operational expertise, and dedication to ensuring a consistent, high-quality travel experience for passengers. Its full year on-time performance was 83.46% across 1,712,529 flights.

In 2024, Delta faced its share of industrywide disruptions, including a significant technological setback caused by a worldwide software issue in July, affecting key operational systems. Despite this challenge and the criticism, Delta rebounded, showcasing their effective crisis management and the depth of

their operational infrastructure. You must give credit where its due! The airline had rebounded with an on-time performance rate of **90.53%** by October. In the affected month, July, they dropped from the top spot in the North American category to third place and then recovered the following month to regain the top spot. Through close collaboration with key hub airports and leveraging a highly talented team, Delta has once again demonstrated their industry leadership in both reliability and passenger satisfaction.

Continued Strategic Expansion

Delta's approach to excellence isn't just about numbers; it's about a structured dedication to to building an operation that passengers can

trust. The airline's fleet grew this year with the introduction of Airbus A330-900neo aircraft and placed an order for an additional 20 Airbus A350-1000 aircraft for delivery in 2026. This year alone, Delta launched an ambitious Latin American and Caribbean winter schedule, adding 35,000 seats across multiple routes- notable growth that bolstered its service footprint without compromising operational efficiency.

Outstanding Recovery Amidst a Challenging Summer

In July 2024, Delta's operations were significantly impacted by a global disruption of Microsoft Windows software, caused by an update error by CrowdStrike, one of the world's leading cybersecurity providers. The incident led to flight cancellations worldwide, and Delta, as a major user of the affected systems, bore the brunt of the issue with nearly 7,000 flights disrupted over five days. However, the airline demonstrated operational resilience and agility, recovering rapidly in August and maintaining leading on-time performance through September.

August and September: Delta's Swift **Return to the Top**

The rapid recovery from July's challenges was significant. By August, Delta was back on top in North America, achieving an impressive 80.9% ontime arrival rate, followed by an industry-leading 87.81% on-time performance in September. Even in the face of a difficult July, Delta managed to maintain a completion factor of 94.72%.

People Drive Delta's Success

It's no secret a big part of Delta's strong on-time performance is a direct result of the dedication,

THE PLATINUM AWARD FOR **OPERATIONAL EXCELLENCE**



With its continued investments in people, processes, and technology, Delta Air Lines is once again setting the benchmark for what operational excellence can look like in the airline industry, inspiring others with its enduring commitment to delivering a world-class travel experience."

OPERATIONAL EXCELLENCE WINNER | AIRLINE

expertise, and teamwork of its employees. The airline's accomplishments reflect a workforce unified by a shared commitment to operational excellence, guided by the mantra: "safe, clean, and on time with bags." Every Delta team member contributes to maintaining the airline's reputation as a leader in reliability and customer satisfaction.

This performance is driven by Delta's ongoing investment in its people. Comprehensive training programs, performance-aligned incentives, and a culture that prioritizes safety and punctuality equip employees to consistently deliver highquality service. By fostering collaboration and a shared sense of purpose, Delta ensures its workforce is prepared and motivated to uphold the airline's high standards, even in challenging circumstances.

Moreover, Delta's close partnership with its hub airports, like Atlanta, Minneapolis-St. Paul, and Salt Lake City, has been integral to its success. Cirium's monthly airport performance data underscores how these hubs contribute to Delta's ability to run an efficient, customer-centric operation.

Looking Ahead: What's Next for Delta's **Operational Excellence?**

Reflecting on Delta's achievements, Ed Bastian, Delta's CEO, and Dan Janki, CFO, have attributed this year's success to the airline's disciplined focus on innovation and its team's relentless pursuit of excellence. The airline's commitment to learning from disruptions, strengthening operational protocols, and investing in cuttingedge technology positions it to maintain its role as a leader in airline reliability.

Congratulations to the entire Delta team for their exceptional performance in 2024.

Mike Malik Chief Marketing Officer, Cirium

2024 WINNERS

2024 WINNER THE PLATINUM AWARD FOR OPERATIONAL EXCELLENCE



We present the Airport Platinum Award to the world's best airport, which has demonstrated operational excellence for the year.

El Dorado Bogota International Airport wins this inaugural award this year. This accolade recognizes the airport's exceptional performance beyond on-time performance. We recognize the airport's performance through a broader lens, including its ability to limit passenger impact during flight disruptions, operational excellence, and growth.

Airports play a crucial role in the aviation industry, serving as primary hubs for both airlines and passengers. Their attractiveness can significantly influence the success of airlines and the satisfaction of travelers. Several factors contribute to making an airport appealing to both these groups.

Operational Efficiency

For airlines, operational efficiency is a top priority. Airlines favor airports that offer quick turnaround times, minimal delays, and streamlined processes for baggage handling and refueling. Efficient airports help airlines maintain their schedules and reduce operational costs. Additionally, modern infrastructure, including well-maintained runways, ample gates, and advanced air traffic control systems, is essential. Airports that invest in these areas can handle more flights and larger aircraft, making them more attractive to airlines.

Cost-Effectiveness

Cost-effectiveness is another critical factor. Despite of the less than 4% in average represent the airport charges in the airlines cost basis, they can significantly impact

Luis Felipe de Oliveira Executive Director and CEO, Exactly Consulting and Services SARL

Airports that excel in these areas are well-positioned to thrive in the competitive aviation industry, generating better revenues and improve the social and economic activity in the places served."

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an airline's bottom line. Airports that offer competitive pricing for landing fees, parking, and other services are more likely to attract airlines. Additionally, incentives and discounts for new routes or increased traffic can be a strong draw.

Connectivity and Network

Connectivity and network capabilities also play a significant role. Airports that serve as major hubs with extensive connectivity to other destinations are highly attractive. Airlines prefer airports that can facilitate easy transfers for passengers and cargo, enhancing their network efficiency.

For passengers, accessibility and location are crucial. Airports situated close to city centers or well-connected by public transportation are more convenient and thus more attractive to travelers. Passengers also appreciate airports that offer a wide range of amenities, such as comfortable lounges, diverse dining options, shopping, and free Wi-Fi. These services enhance the overall travel experience, making the airport more appealing.

OPERATIONAL EXCELLENCE WINNER | AIRPORT

Safety and Security

Safety and security are paramount for passengers. Airports that implement stringent security measures and maintain a clean, safe environment are more likely to be favored by travelers. Additionally, friendly and efficient customer service can significantly enhance a passenger's experience. Airports that prioritize customer satisfaction through helpful staff, clear signage, and efficient processes tend to attract more passengers.

Given the aging population and the need to make airports more inclusive, enhancing accessibility for people with disabilities is essential to better meet the needs of all passengers.

In conclusion, the attractiveness of an airport to both airlines and passengers rests on a combination of operational efficiency, infrastructure, costeffectiveness, connectivity, accessibility, amenities, safety, and customer service.

> THE PLATINUM AWARD FOR **OPERATIONAL EXCELLENCE**

REVIEW 2024

CIRIUM **ON-TIME**

2024 Winners AIRLINES & AIRPORTS

NORTH AMERICA Delta **Air Lines**

GLOBAL AIRLINE Aeromexico

LATIN AMERICA Copa Airlines

MIDDLE EAST & AFRICA **FlySafair**

EUROPE

& LCC

Iberia

Express

LARGE AIRPORT **Riyadh King Khalid International Airport**

GLOBAL AIRPORT Riyadh King Khalid International Airport

MEDIUM AIRPORT **Panama City Tocumen International Airport**

SMALL AIRPORT **Guayaquil Jose Joaquin de Olmedo International Airport**



OUR ON-TIME PERFORMANCE IS BACKED BY AN INDEPENDENT BOARD UH **ADVISORS**



The Cirium On-Time Performance (OTP) Advisory Board is a structured and collaborative team of external advisors that supports Cirium's OTP program.

Cirium is the first and only company that has an OTP Advisory Board, which includes:

Jeremy Bowen

Board Chairperson Chief Executive Officer. Cirium

William Boulter Advisory Board Member

Consultant and former Airline Executive

Luis Felipe de Oliveira

Advisory Board Member

Chief Executive Officer. Exactly Consulting and Services Sarl

Scott McCartney

Advisory Board Member Aviation Consultant and Adjunct Professor, Duke University

Mike Malik

Advisory Board Member & Committee Chairperson Chief Marketing Officer, Cirium

Alex de Gunten

Advisory Board Member

Officer, HEICO Aerospace

Business Development

Henry H. Harteveldt

Advisory Board Member

President, Travel Industry Analyst, Atmosphere Group

Eamonn Brennan

Advisory Board Member Former Director General, Eurocontrol

Lvdia Webb

Board Secretary Marketing Director, Cirium

The industry relies on Cirium's On-Time Performance results to gauge their performance, and this independent oversight provides confidence and trust.

The purpose of this Board is to advise, assist and support on the OTP results both on a monthly and an annual basis.

The members of the board augment the knowledge of our internal team and bring fresh thinking to the company. Their expert knowledge and experience of airline and airport flight operations ensures an accurate and balanced view of the Cirium OTP results.

The Advisory Board acts as a sounding board for the OTP operations team, reviewing the results before they are published and provides ideas for improving our methodology.

Indeed, the Board also helps the organization gain new insights and advice to solve business problems and explore new opportunities by stimulating robust, high-quality conversations.

INDEPENDENT BOARD OF ADVISORS

However, Cirium cannot describe the impact of a board better than William "Willy" Boulter, career aviation executive and a prominent advisory board member, who said: '...as members of the Advisory Board, we ensure that the data is presented accurately and properly across the world's regions, highlighting the top performers monthly and recognizing the annual winners appropriately."

On-Time Performance is core to the running of a successful airline, and the good ones take it very seriously indeed not only does On-**Time Performance** impact customer perception, but also cost management, environmental impact, network design and even soft issues like crew morale, which will again influence customer experience." - William Boulter

THE INDUSTRY STANDARD FOR ON-TIME PERFORMANCE

Airlines

Our aim is to provide airline industry stakeholders with a neutral, third-party perspective on on-time performance data. We ensure that our analyses consistently adhere to defined metrics. based on the widest and deepest pool of data collected and curated from more than 600 sources of real-time flight information.

Our On-Time Performance criteria remain the same and identifies the airlines and airports who met their published scheduled arrival times.

Flights evaluated every month To qualify for the Cirium On-Time Performance Review, there is an 80% actual gate arrival time data coverage requirement for all airline categories. These categories include Global, Major (by region) and low-cost carriers.

For the **Global airlines category**, we consider the Top 10% of all passenger airlines by capacity and volume criteria – by Available Seat Kilometres (ASKs), flights and seats-the airline must also serve at least three regions.

For Major Airlines by Region, the threshold for ASKs, flights and seats, varies by region to accurately reflect the size of operations in that region.

Region	Flights, Seats, ASK, Threshold
ASIA PACIFIC	Top 30%
EUROPE	Top 30%
LATIN AMERICA	Top 30%
MIDDLE EAST & AFRICA	Top 30%
NORTH AMERICA	Top 15%

The thresholds are:

The low-cost carrier (LCC) category reviews airlines that are industry recognized and/or selfidentified lowcost carriers. For this category, we consider the Top 50% of LCC airlines. LCC airlines must fall in the Top 50% for flights, seats, and destinations to be considered.

Cirium is releasing the 2024 Annual On-Time Performance report which analyses and recognizes the world's airlines and airports who have demonstrated remarkable resilience, navigating through challenges, and adapting to changing market dynamics.

Airports

There is an 80% actual gate departure data requirement for all airport categories.

Each month Cirium reviews the total number of flights in a given month (approximately 3 million) for every airport globally in an ordered list, then looks at where the percentile demarcations fall. For the annual OTP review. we take the total number of flights in a given year for every airport.

The Global airports category is based on the following:

Seats 25-40m

Actual gate departure coverage 80% or better

Must serve at least three (3) regions (inclusive of its own)

For further details on the other airport categories, please see the report calculations in the appendix.

Tied Results: If there is a tie within an airline/airport category, we will declare the airlines/airports are tied. A tie is determined when the OTP percentage falls within a margin of error of 0.07% during our data collection and processing.

THE INDUSTRY STANDARD

About the **On-Time** Performance **Review**

The definition of an **On-Time Arrival** is when a passenger flight/aircraft arrives at the gate within 15 minutes of the scheduled arrival time: an **On-Time** Departure is when a passenger flight/aircraft departs the gate within 15 minutes of the scheduled departure time. On-time arrivals are used to rank airlines, and on-time departures are used to rank airports.

The MOST ON-TIME AIRLINES

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GLOBAL AIRLINES REPORT WINNERS

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
Aeromexico (AM)	1	86.70%	99.74%	99.32%	196,911
Saudia (SV)	2	86.35%	98.16%	99.82%	192,560
Delta Air Lines (DL)	3	83.46%	99.98%	98.95%	1,712,529
LATAM Airlines (LA)	4	82.89%	99.33%	98.52%	551,885
Qatar Airways (QR)	5	82.83%	99.30%	99.72%	200,230
Azul (AD)	6	82.42%	98.69%	96.70%	321,996
Avianca (AV)	7	81.80%	99.77%	98.14%	263,022
Iberia (IB)	8	81.58%	99.35%	98.83%	183,268
SAS (SK)	9	81.40%	99.90%	99.09%	217,998
United Airlines (UA)	10	80.93%	99.97%	98.35%	1,615,085

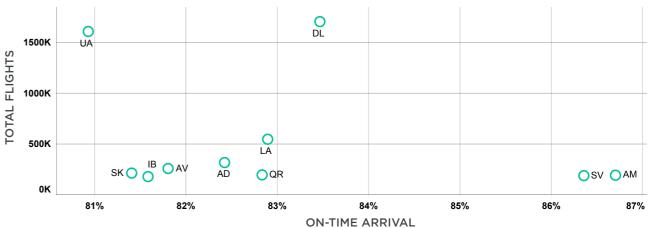
REVIEW 2024

SUMMARY OF TOP PERFORMERS 83.04% **99.42%** 5,455,484 Total Total Total Flights **On-Time** Tracked

Arrivals

Flights

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
Aeromexico (AM)	99.32%	75.82%	86.70%	87.73%
Saudia (SV)	99.82%	68.34%	86.35%	88.82%
Delta Air Lines (DL)	98.95%	77.34%	83.46%	83.74%
LATAM Airlines (LA)	98.52%	71.04%	82.89%	83.23%
Qatar Airways (QR)	99.72%	73.76%	82.83%	82.56%

RIGHT ON TIME! AEROMÉXICO WINS THE CIRIUM'S GLOBAL **ON-TIME AWARD** IN 2024

EXPERT COMMENTARY

Mike Malik Chief Marketing Officer, Cirium

Aeromexico has reached two significant milestones in 2024, securing Cirium's prestigious Global On-Time **Performance (OTP) Award** with an impressive ontime rate of 86.70%, and celebrating a milestone 90th anniversary on September 14, 2024, marking nearly a century of contributions to Mexico's aviation industry.

With its vibrant cultural heritage and economic significance, Mexico stands as a nation rich in history and tradition. Renowned for its diverse landscapes, from ancient ruins to bustling urban centers, it is the second-largest economy in Latin America. Mexico's robust macroeconomic framework and industrial diversity position it as a critical player in regional and global commerce, fostering strong ties through trade and tourism alike.

The airline industry plays a central role in advancing Mexico's economic integration and connectivity. Aeromexico, a leading airline with deep roots in the nation, commands a significant 39% share of the domestic market and 47% of the international market. The broader aviation market is projected to grow at a compound annual growth rate (CAGR) of 4.6% through 2032, reflecting heightened demand for both domestic and international air travel. This sustained growth strengthens Mexico's position as a key aviation hub, driving trade, tourism, and investment while solidifying the industry's indispensable role in the country's economic framework.

Consistent Excellence in On-Time Performance

Throughout 2024, Aeromexico has consistently demonstrated superior ontime performance, earning it recognition as one of the most reliable airlines worldwide.

In September, the airline achieved an OTP of 91.13%, a nearly 5% improvement from August's 86.54%. These results reflect Aeromexico's effective operational strategies, meticulous scheduling, and proactive approach to minimizing delays across its network.

The airline's success is based on its robust infrastructure, built on a foundation of cutting-edge technology and efficient processes. By streamlining maintenance operations and adopting real-time data analytics to monitor performance, Aeromexico ensures passengers can depend on timely departures and arrivals—a cornerstone of its operational philosophy.

Continued Fleet Expansion

Aeromexico's ability to achieve an 86.70% OTP in 2024 can be attributed to its strategic investments in fleet modernization and technological advancements. Over the past year, the airline has expanded its fleet to 113 aircraft, with 16 more on order—one of the youngest and most fuel-efficient in the industry—with an average age of just 7.1 years. Key acquisitions, including the Boeing 737 MAX 8 and 9 and 787 Dreamliner's, have bolstered operational capacity while maintaining high standards for performance and environmental sustainability.

Additionally, Aeromexico's adoption of advanced scheduling systems and Alpowered tools, has further enhanced its operational agility. These technologies have enabled proactive management of potential disruptions, including weather-related challenges, ensuring the airline remains its edge in on-time performance and reliability.

Collaborative Efforts and Industry Leadership

The achievement of this On-Time milestone is proof of the dedication and expertise of Aeromexico's team, whose collaborative efforts have been instrumental in driving success. From front-line staff to operational planners, every member of the Aeromexico family has contributed to creating a reliable and efficient network. Under the operational leadership of COO Santiago Diago, the airline has implemented effective strategies that have significantly enhanced on-time performance and overall performance. Meanwhile, CEO Andrés Conesa's strategic vision has ensured that Aeromexico remains focused on growth,

EXPERT COMMENTARY | GLOBAL

innovation, and delivering a world-class passenger experience. Together, their leadership has been pivotal in fostering the culture of excellence that continues to set Aeromexico apart.

Additionally, strong partnerships with key airports, including its hub at Mexico City Benito Juarez International Airport, have further bolstered its operational capabilities. This recognition reflects not only the airline's innovative approach but also its resilience and unwavering commitment to excellence in the face of industry challenges.

Congratulations to the entire Aeromexico team for a brilliant performance!



ASIA PACIFIC AIRLINES REPORT WINNERS

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
JAL (JL)	1	80.90%	99.98	98.37%	314,774
ANA (NH)	2	80.62%	99.99%	98.61%	303,464
Singapore Airlines (SQ)	3	78.67%	99.82%	99.92%	117,944
Air New Zealand (NZ)	4	77.58%	97.90%	96.89%	177,091
Thai AirAsia (FD)	5	77.46%	98.99%	99.97%	125,338
Vietnam Airlines (VN)	6	76.70%	89.01%	99.50%	142,932
Philippine Airlines (PR)	7	76.06%	99.85%	98.56%	112,031
Garuda Indonesia (GA)	8	75.30%	98.67%	98.96%	76,816
Cathay Pacific (CX)	9	75.19%	99.56%	99.55%	98,495
Qantas (QF)	10	73.93%	98.86%	98.36%	277,525

SUMMARY OF TOP PERFORMERS 98.26% 1,746,410 0 Total Total Flights Tracked

77	7.24%
Tot	al
On	Time
Arr	ivals

Flights

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
JAL (JL)	98.37%	64.95%	80.90%	82.83%
ANA (NH)	98.61%	62.63%	80.62%	81.96%
Singapore Airlines (SQ)	99.92%	68.45%	78.67%	80.13%
Air New Zealand (NZ)	96.89%	75.03%	77.58%	74.73%
Thai AirAsia (FD)	99.97%	67.89%	77.46%	77.44%

JAPAN AIRLINES: A SYMBOL OF TIMELINESS, QUALITY, AND WORLD-CLAS SERVICE

EXPERT COMMENTARY



Isaac Pato Senior Data Analyst Cirium

e are honored to announce Japan Airlines (JAL) as the top airline in the Asia-Pacific (APAC) region for the Cirium On-Time Performance Review in 2024, achieving an exceptional 80.90% of flights arriving punctually on 314.774 flight operations. overcoming notable flight disruptions and delays as the result of Typhoon Ampil and Typhoon Shanshan in August 2024 which caused significant flight delays and cancellations throughout the country. This distinction highlights not only JAL's operational excellence but also underscores its deep-rooted commitment to delivering reliable, world-class service to passengers.

JAL's success in OTP reflects a cultural dedication to precision and quality that has been integral to the airline since its founding in 1951. With a legacy spanning more than seven decades, JAL has consistently prioritized efficiency. safety, and customer satisfaction. These guiding principles have helped the airline earn a reputation as a global aviation leader and a standard-bearer for operational integrity.

Beyond punctuality numbers, JAL's influence in global aviation is significant. Strategically positioned in Tokyo, Japan's bustling capital and one of the world's busiest hubs, JAL forms a critical link between APAC and the rest of the world. Its extensive network facilitates not only passenger movement but also trade and economic collaboration, solidifying its role as a key player in connecting global markets. Furthermore, JAL's comprehensive corporate vision extends to sustainability and innovation, areas where it continues to set benchmarks for the broader aviation industry.

Japan's cultural framework plays an undeniable role in JAL's achievements. The nation is globally renowned for its emphasis on timeliness, meticulous planning, and technological innovation-qualities that seamlessly translate into JAL's day-to-day operations. Japan's transportation sector, including its celebrated rail networks and aviation systems, exemplifies an unparalleled commitment to reliability. This cultural mindset has significantly shaped JAL's approach, fostering a strong focus on continuous improvement and precision.

Additionally, geographic factors bolster JAL's emergence as a leader. Positioned within a major transit region, Japan serves as a vital gateway to Asia, enabling JAL to operate with unmatched connectivity and efficiency. Its headquarters in Tokyo further benefits from Japan's robust technological infrastructure, helping the airline adopt cutting-edge solutions to enhance OTP and passenger experience.

With this recognition, Japan Airlines not only strengthens its leadership in the APAC region but also stands as a symbol of Japanese dedication to quality and reliability.

For travelers and stakeholders alike, **JAL exemplifies what** can be achieved through a harmonious blend of tradition, innovation, and an unwavering focus on excellence in every aspect of aviation.

EXPERT COMMENTARY | ASIA PACIFIC

80.90% **On-Time** Performance Across 314,774 Flights

NORTH AMERICA AIRLINES REPORT WINNERS

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
Delta Air Lines (DL)	1	83.46%	99.98%	98.95%	1,712,529
United Airlines (UA)	2	80.93%	99.97%	98.35%	1,615,085
Alaska Airlines (AS)	3	79.25%	99.95%	98.56%	432,871
American Airlines (AA)	4	77.78%	99.97%	98.68%	2,176,210
Southwest Airlines (WN)	5	77.77%	99.69%	99.38%	1,451,019
Spirit Airlines (NK)	6	76.05%	96.08%	99.32%	290,956
JetBlue (B6)	7	74.53%	99.83%	98.67%	324,124
Frontier Airlines (F9)	8	71.57%	99.10%	98.34%	221,171
Air Canada (AC)	9	71.36%	99.48%	97.20%	385,703
(WS) WestJet	10	70.99%	99.90%	96.81%	192,084

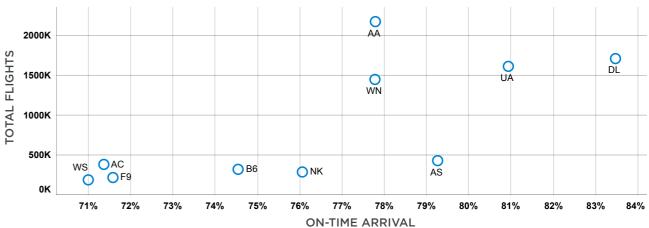
REVIEW 2024

SUMMARY OF TOP PERFORMERS **99.39%** 8,801,752 76.37% Total Total Total Flights **On-Time** Tracked

Arrivals

Fliahts

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
Delta Air Lines (DL)	98.95%	77.34%	83.46%	83.74%
United Airlines (UA)	98.35%	74.95%	80.93%	81.98%
Alaska Airlines (AS)	98.56%	63.15%	79.25%	81.70%
American Airlines (AA)	98.68%	72.05%	77.78%	79.13%
Southwest Airlines (WN)	99.38%	76.55%	77.77%	76.65%

NORTH AMERICA AIRLINES IN 2024: FACTORS BEYOND CONTROL

n 12 of the first 25 days of November, United Airlines said hundreds of flights at Newark Liberty International Airport had to be canceled or delayed simply because of a shortage of air-traffic controllers.

It was nothing new. All year, the Federal Aviation Administration, short about 3,000 controllers nationwide, required cuts to flight schedules in the busiest aviation corridor in North America. During the summer, a 10% schedule reduction was ordered for the three main New York airports and more cuts in Washington, D.C. Then even more flights had to be grounded in August.

Despite that challenge and others, **North American** airlines posted a higher on-time arrival rate in 2024 at 76.37% compared to 74.45% last year.

There were more than 4% total flights. One key factor for airlines has been moving to powerful artificial-intelligence computing that can quickly re-arrange operations. That has always been a

most-difficult puzzle. When airplanes and crews are out of place, gates are full and passengers are stranded, how an airline recovers greatly impacts overall performance.

Southwest Airlines, for example, suffered a major disruption at the end of 2022 not because of a bad winter storm but rather the airline's inability to restart its 800 airplanes. Southwest invested in new recovery system that improves crew communications and in minutes develops an efficient plan, so a three- or four-day disruption is limited to a single day. In 2024, on-time performance increased almost two percentage points to 77.77%.

Delta Air Lines once again was #1 in OTP, a particularly remarkable achievement considering Delta not only operates two hubs in New York but also fell victim to a week-long disruption from the July CrowdStrike cyber security failure. Delta's recovery was much slower than other carriers. Yet despite that setback, Delta's performance the other 51 weeks of the year exceeded rivals by significant margins.

United is close on Delta's heels, posting an on-time arrival average of 80,93%. just behind Delta's 83.46%. For the year, Delta's OTP was about one point below 2023 while United's was about one point higher.

Considering the two are now the two largest airlines in the world in passenger traffic, as well as the leaders in OTP in their region, the reliability is a remarkable achievement. Despite increased growth, complexity, congestion and external headwinds like controller shortages, U.S. airlines continue to improve dependability, better-serving customers and their own bottom lines.

EXPERT COMMENTARY



Scott McCartney Aviation Consultant and Adjunct Professor **Duke University**

EXPERT COMMENTARY | NORTH AMERICA

Despite increased growth, complexity, congestion and external headwinds like controller shortages. **U.S.** airlines continue to improve dependability, better-serving customers and their own bottom lines.

EUROPE **AIRLINES REPORT WINNERS**

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
lberia Express (I2)	1	84.69%	99.57%	99.49%	44,140
Iberia (IB)	2	81.58%	99.35%	98.83%	183,268
SAS (SK)	3	81.40%	99.90%	99.09%	217,998
Vueling (VY)	4	81.20%	99.84%	99.09%	223,567
Norwegian (DY)	5	79.23%	92.16%	99.18%	84,585
Air Europa (UX)	6	78.99%	99.41%	99.87%	67,776
Austrian (OS)	7	78.72%	99.94%	98.44%	120,459
Brussels Airlines (SN)	8	77.77%	98.06%	98.67%	64,207
LOT Polish Airlines (LO)	9	77.72%	88.67%	99.31%	101,408
Norwegian Air Sweden (D8)	10	76.04%	92.77%	99.51%	65,318

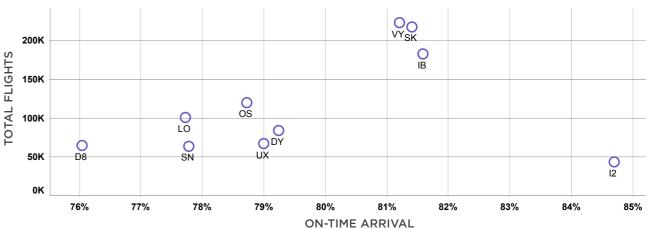
REVIEW 2024

SUMMARY OF TOP PERFORMERS 1,172,726 96.97% Total Total Flights Tracked

79.73%
Total
On-Time
Arrivals

Fliahts

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
lberia Express (I2)	99.49%	72.03%	84.69%	86.72%
Iberia (IB)	98.83%	74.16%	81.58%	79.77%
SAS (SK)	99.09%	62.86%	81.40%	82.72%
Vueling (VY)	99.09%	76.33%	81.20%	79.43%
Norwegian (DY)	99.18%	68.71%	79.23%	79.58%

ANOTHER STELLAR YEAR FOR SPAIN'S **IBERIA EXPRESS**

EXPERT COMMENTARY



Jay Morgan **Director, Professional Data Services** Cirium

Iberia Express (12) has once again proven itself as one of Europe's most reliable airlines, securing the top spot for On-Time Performance (OTP) in 2024. For the second year running, the airline achieved impressive operational efficiency, with 84.69% of its 44,140 flights arriving on time.

Building on its strong performance in 2023, Iberia Express has excelled in 2024 with notable expansions. While the Canary and Balearic Islands remain key markets, its seasonal routes saw significant growth, including flights to Marrakech (+460%), Menorca (+52%), Edinburgh (+250%), and Cairo (+885%).

This achievement highlights Iberia Express's dedication to punctuality and reflects its broader commitment to operational excellence and forwardthinking culture.

A Culture of Excellence

Headquartered in Madrid, Iberia Express focuses on precision, efficiency, and customer service. As part of the Iberia Group which itself is part of the International Airlines Group (IAG), the airline benefits from a legacy of operational rigor and innovation.

Its success is no accident. Iberia Express uses advanced analytics and technology to optimize processes like fleet maintenance and scheduling. This data-driven approach helps manage complex variables affecting OTP, ensuring passengers enjoy seamless journeys. A workforce committed to professionalism and collaboration also drives its consistent performance.

Madrid: A Hub of Success

Madrid, the city that headquarters Iberia Express, plays an essential role in shaping the airline's success. The Spanish capital is not just a major European transportation hub: it is also a symbol of cultural pride and efficiency. Spain's deep historical emphasis on innovation and discipline is reflected in its aviation sector, with Madrid-Barajas Adolfo Suárez Airport serving as a crucial node for international and regional flights alike.

The city's geographic position reinforces Iberia Express's strategic importance within European aviation. Situated at the crossroads of Europe, Africa, and Latin America, Madrid enables the airline to seamlessly connect diverse global markets while maintaining stringent operational standards. This unique positioning helps Iberia Express stand at the forefront of European connectivity, making its achievements in OTP all the more remarkable.

A Symbol of Spanish Excellence

Spain's focus on precision and innovation is reflected in Iberia Express's success. From its high-speed rail to world-class infrastructure, the country's values of efficiency and reliability influence the airline's operations. These cultural attributes strongly influence the airline, making it a symbol of Spanish reliability and quality.

Topping Europe's OTP rankings, Iberia Express demonstrates more than punctuality—it embodies a spirit of **excellence.** As a leader in European aviation, the airline bridges high expectations with exceptional service, setting a benchmark for others to follow.

84.69% **On-Time Performance**

LATIN AMERICA **AIRLINES REPORT WINNERS**

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
Copa Airlines (CM)	1	88.22%	99.64%	98.73%	125,445
Aeromexico (AM)	2	86.70%	99.74%	99.32%	196,911
Caribbean Airlines (BW)	3	85.47%	99.88%	99.06%	29,770
Gol (G3)	4	84.09%	99.68%	98.78%	211,944
Aerolineas Argentinas (AR)	5	83.06%	98.94%	97.54%	111,069
LATAM Airlines (LA)	6	82.89%	99.33%	98.52%	551,885
Azul (AD)	7	82.42%	98.69%	96.70%	321,996
Avianca (AV)	8	81.80%	99.77%	98.14%	263,022
Sky Airline (H2)	9	76.67%	98.29%	99.28%	57,630
JetSmart Chile (JA)	10	73.23%	82.65%	99.64%	65,493

36

SUMMARY OF TOP PERFORMERS 97.66% 1,935,165 Total Flights Total Tracked

82.45%
Total On-Time Arrivals

Fliahts

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
Copa Airlines (CM)	98.73%	68.58%	88.22%	91.77%
Aeromexico (AM)	99.32%	75.82%	86.70%	87.73%
Caribbean Airlines (BW)	99.06%	42.67%	85.47%	87.82%
Gol (G3)	98.78%	69.88%	84.09%	83.90%
Aerolineas Argentinas (AR)	97.54%	63.40%	83.06%	84.62%

A DECADE OF ON-TIME PERFORMANCE LEADERSHIP IN LATIN AMERICA

EXPERT COMMENTARY

Lvdia Webb

Marketing Director - Americas & Strategic Programs, Cirium



In a year of high operational performance in the Latin American region, Copa Airlines has once again soared to the top with an impressive on-time performance rate of 88.22% for 2024. Copa Airlines can now boast of a decade of continuous leadership and excellence in On-Time Performance in the region.

Home to seven indigenous communities, the Panama Canal and some of the tallest skyscrapers in Latin America, Panama is also home to Copa Airlines. With its rich cultural heritage, vibrant natural epicenter and wildlife. Panama also boasts as the most studied tropical forest on the planet and home to UNESCO Creative City in Gastronomy. Through its vast Regional Financial Center, with the Canal playing a fundamental role, Panama's contribution to the Latin American economy is vital. Despite some challenges this year, Panama's GDP is projected to outpace five of the six largest economies in Latin America in 2025 at 3.5%.

Through the airline industry, Panama connects Central and South America. and the entire world to its vibrant tourism industry and finance sector. Copa Airlines, the flagship carrier of Panama operates almost 90% of its network to international destinations in 32 countries in North. Central and South America and the Caribbean from its Panama City hub.

A Decade of Excellence in **On-Time Performance**

2024 can be marked as the year of operational excellence for Latin American airlines and airports. The region's airlines and airports were among the top-ranking performers in the global airlines and airports categories throughout the year. Copa Airlines consistently maintained high ontime performance scores and secured the position as regional leader, half of the year. In February, Copa had one of the top three OTP scores globally - a remarkable score of 91.66%. With an OTP of 90.24% in May, Copa once again had one of the top five scores globally.

In a year of high operational performance in the Latin American region, Copa Airlines has once again soared to the top with 88.22% of its 125,445 flights arriving on time and a 98.73% completion rate.

This year also marks a milestone for Copa Airlines. The Airline is recognized for the tenth year in 2024 as Cirium's **On-Time Performance regional leader** in Latin America. Copa has been recognized by Cirium as the regional leader since 2013, except 2020 and 2022 - Cirium paused the Annual Review publication during Covid and Azul Airlines in Brazil was bestowed this title in 2022.

Culture of Teamwork, **Collaboration and Continuous** Improvement

Copa Airlines has created a culture based on teamwork and focused on continuous improvement. Employees have individual objectives that are aligned with the corporate goals of the company. These objectives serve

as a basis for measuring employee performance. The goal-oriented culture and incentive programs have contributed to a motivated workforce within Copa. Employees are focused on satisfying customers, achieving efficiencies, and driving profitability.

The airline's success can be attributed to one key factor, its "Hub of the Americas" location. Under the leadership of Pedro Heilbron, one of the longest serving CEOs in the industry, Copa has established the most successful and strategically located hub in Latin America. With its partnership and collaboration with Tocumen International Airport (PTY), Copa provides convenient connections to principal markets in North, Central and South America and the Caribbean, enabling consolidation of traffic to serve destinations that do not generate enough demand to justify point-topoint service. Flights from Panama operate with few service disruptions due to weather, contributing to high completion factors and on-time performance.

This recognition is a testament to the airline's decade long commitment to reliability, operational excellence and customer service. Congratulations **Copa Airlines!**

MIDDLE EAST & AFRICA AIRLINES REPORT WINNERS

TOP 10 WINNERS

	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
FlySafair (FA)	1	93.82%	97.14%	99.86%	57,272
Oman Air (WY)	2	90.27%	94.13%	99.64%	39,277
Royal Jordanian (RJ)	3	87.02%	99.29%	99.31%	32,833
Saudia (SV)	4	86.35%	98.16%	99.82%	192,560
Kuwait Airways (KU)	5	84.63%	97.75%	99.40%	31,450
Gulf Air (GF)	6	84.11%	80.98%	98.82%	52,473
Qatar Airways (QR)	7	82.83%	99.30%	99.72%	200,230
Etihad Airways (EY)	8	76.91%	99.56%	99.76%	86,071
Emirates (EK)	9	74.42%	99.86%	99.51%	172,171
Flydubai (FZ)	10	70.44%	95.77%	98.98%	120,156

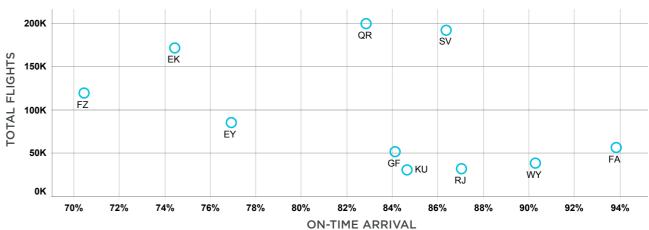
REVIEW 2024

SUMMARY OF TOP PERFORMERS 83.08% 96.19% 984,493

Total **On-Time Arrivals**

Total Tracked Flights

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
FlySafair (FA)	99.86%	81.64%	93.82%	93.69%
Oman Air (WY)	99.64%	74.33%	90.27%	93.89%
Royal Jordanian (RJ)	99.31%	74.94%	87.02%	87.34%
Saudia (SV)	99.82%	68.34%	86.35%	88.82%
Kuwait Airways (KU)	99.40%	67.45%	84.63%	87.10%

Total Flights

FLYSAFAIR LEADS MIDDLE EAST & AFRICA REGION IN 2024

e are proud to recognize FlySafair as the leading ontime airline in the Middle East and Africa region in The Cirium On-Time Performance Annual Review for 2024. Achieving an impressive 93.82% of flights arriving on schedule, this milestone highlights FlySafair's operational excellence and reliability, solidifying its status as a standout carrier in a competitive industry.

This achievement is particularly significant for South African aviation, positioning the country as a leader in dependable air travel within the continent. South Africa's advanced infrastructure and strategic location have long made it a key aviation hub, connecting intra-African routes and international markets. Beyond aviation, South Africa plays a vital role in the region culturally, economically, and geographically.

As a melting pot of diverse cultures and traditions, the country serves as a symbol of unity and richness in African heritage. Economically, South Africa is one of the continent's largest economies, driving trade, innovation, and development across borders. Geographically, its position at the southern tip of the continent makes it a natural gateway between Africa and the rest of the world. FlySafair's success not only enhances its own reputation but also reinforces South Africa's role as a trailblazer in raising standards and fostering growth in the region on multiple fronts.

FlySafair's commitment to punctuality is no accident with FlySafair ranking as the most on- time regional carrier 11 out of 12-months in 2024 by Cirium. Through investments in data-driven practices, advanced scheduling, and fleet management, the airline has minimized delays and reduced travel disruptions for passengers. Close collaboration with ground handling teams and air traffic management has further ensured seamless operations. Despite challenges such as rising operational costs, volatile jet fuel prices, and currency pressures, FlySafair has maintained its resilience through strategic initiatives. Refining its route network, optimizing fleet efficiency, and prioritizing operational excellence have been key factors in its success.

FlySafair's leadership in on-time performance serves as a benchmark for the MEA region, where airlines face diverse challenges, including infrastructure gaps, regulatory complexities, and geopolitical instability.

By proving that precision and reliability are achievable even in demanding conditions, **FlySafair inspires higher** regional standards, benefiting passengers with more dependable travel experiences.

Being ranked number one in the MEA category is not just a recognition of FlySafair's efforts—it's a testament to its role in advancing aviation standards across the region. This success underscores the critical link between punctuality, customer trust, and innovation, inspiring progress throughout the industry while reinforcing FlySafair's position as a leader in reliable air travel.

EXPERT COMMENTARY



Jim Hetzel Product Marketing Director Cirium

EXPERT COMMENTARY | MIDDLE EAST & AFRICA

93.82% On-Time Performance Across 57,272 Flights

LOW-COST **CARRIERS AIRLINES REPORT** WINNERS

TOP 10 WINNERS

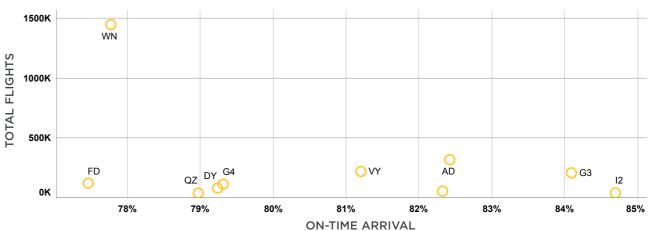
	On-Time Ranking	On-Time Arrival	Tracked Flights	Completion Factor	Total Flights
Iberia Express (I2)	1	84.69%	99.57%	99.49%	44,140
Gol (G3)	2	84.09%	99.68%	98.78%	211,944
Azul (AD)	3	82.42%	98.69%	96.70%	321,996
Peach Aviation (MM)	4	82.32%	98.57%	99.45%	57,967
Vueling (VY)	5	81.20%	99.84%	99.09%	223,567
Allegiant Air (G4)	6	79.31%	95.34%	98.56%	117,059
Norwegian (DY)	7	79.23%	92.16%	99.18%	84,585
Indonesia AirAsia (QZ)	8	78.97%	99.37%	99.36%	42,426
Southwest Airlines (WN)	9	77.77%	99.69%	99.38%	1,451,019
Thai AirAsia (FD)	10	77.46%	98.99%	99.97%	125,338

SUMMARY OF TOP PERFORMERS

80.75% Total **On-Time Arrivals**

98.19% Total Tracked Flights

RELATIVE PERFORMANCE



OPERATIONAL HIGHLIGHTS

	Completion Factor	Within Block Time	On-Time Arrivals	On-Time Departures
Iberia Express (I2)	99.49%	72.03%	84.69%	86.72%
Gol (G3)	98.78%	69.88%	84.09%	83.90%
Azul (AD)	96.70%	66.55%	82.42%	83.35%
Peach Aviation (MM)	99.45%	67.85%	82.32%	82.57%
Vueling (VY)	99.09%	76.33%	81.20%	79.43%



OPERATIONAL EXCELLENCE: THE BEST LOW-COST CARRIERS SETTING NEW STANDARD

EXPERT COMMENTARY



Isaac Pato Senior Data Analyst Cirium

n the fast-paced world of air travel, efficiency and reliability remain key to customer satisfaction. In 2024, several Low-Cost Carriers (LCCs) have set remarkable benchmarks for operational excellence, combining exceptional on-time performance with affordability. Leading the charge is Spain's Iberia Express (12), delivering an impressive OTP of 84.69% across 44,140 flights. Close behind is Brazil's Gol (G3) with an OTP of 84.09% with 211,944 fights and Azul (AD), achieving a noteworthy OTP of 82.42% across a staggering 321,996 flight operations. These carriers exemplify how dedication to reliability and efficiency can redefine the standards for low-cost air travel.

Iberia Express (Spain): Leading Low-Cost Excellence in Europe

Spain's Iberia Express has firmly established itself as a leader in Europe's competitive low-cost market. With an OTP of 84.69% across 44,140 annual flights, Iberia Express continues to prove that affordability can coexist with punctuality. This Iberia subsidiary not only delivers consistent reliability for intra-European routes but also reinforces Spain's reputation for cutting-edge aviation services. Whether traveling for business or leisure, passengers can count on Iberia Express

for seamless, on-time travel, making it a trusted name across the continent.

Gol (Brazil): A Master of **Operational Efficiency in South** America

Brazil's Gol Linhas Aéreas has once again showcased its commitment to operational reliability, achieving an OTP of 84.09% on 211,944 flights. Operating in South America's dynamic aviation market, Gol has successfully managed high flight volumes while maintaining exceptional punctuality. Its ability to consistently deliver reliable services builds trust among customers and highlights the growth of Brazil's aviation sector. Gol's performance underscores its role as a key connector for both domestic and international travel, setting a high standard for efficiency across the region.

Azul (Brazil): Excelling in High-**Volume Operations**

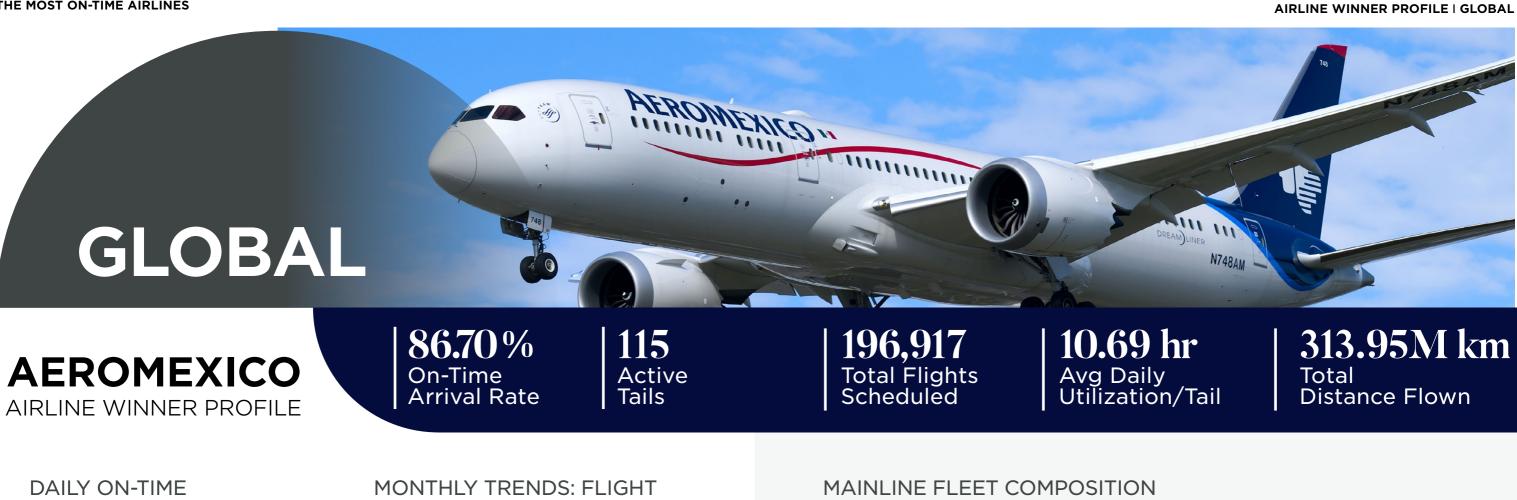
Azul Linhas Aéreas has demonstrated remarkable efficiency, achieving an OTP of **82.42%** across an extraordinary 321.996 flight operations. As one of Brazil's most prominent carriers, Azul has mastered the art of balancing high operational demand with reliability. Its commitment to punctuality cements its position as a cornerstone of Brazil's aviation industry, ensuring passengers enjoy smooth, on-time journeys despite the challenges of managing such a vast network. Azul's achievements reflect the growing sophistication of South America's aviation infrastructure.

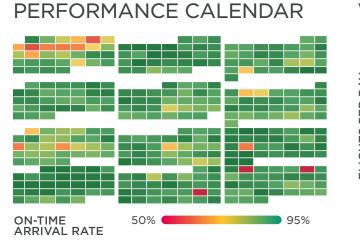
These carriers—Spain's Iberia Express and Brazil's Gol and Azul-have redefined the expectations for lowcost travel by prioritizing operational excellence. Their commitment to efficiency proves that affordability doesn't have to come at the

EXPERT COMMENTARY | LOW-COST CARRIERS

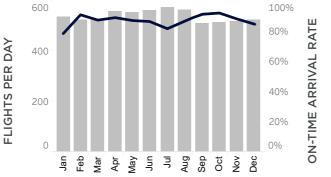
expense of reliability, enhancing customer confidence in LCC services. Congratulations to these airlines for setting new standards in the aviation industry and for continuing to deliver outstanding performance!

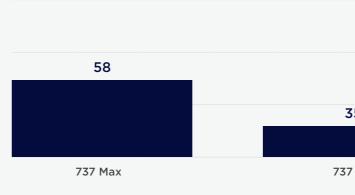
80.75% Average Total **On-Time** Performance Across 2,680,041 **Total Flights**











OPERATOR COUNTRY: MEXICO



This information was collated from **The Cirium Core**, a comprehensive data platform for the Aviation & Travel industry.

AIRPORT HUB GROUPING



35	
	22
7 NG	787

	Flights	Seats	On-Time Arrival %
CUN - MEX	5,344	921K	86.65%
MEX - CUN	5,343	920K	82.12%
MEX - MTY	5,251	948K	85.82%
MTY - MEX	4,971	873K	89.33%
MEX - GDL	4,813	811K	87.86%

CIRIUM ON-TIME PERFORMANCE

7

THE MOST ON-TIME AIRLINES

ASIA PACIFIC

JAL **AIRLINE WINNER PROFILE**

DAILY ON-TIME PERFORMANCE CALENDAR



MONTHLY TRENDS: FLIGHT VOLUME PERFORMANCE 100%

80.90%

Arrival Rate

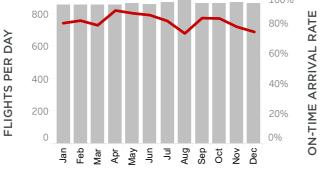
On-Time

JAPAN AIRLINES

148

Tails

Active

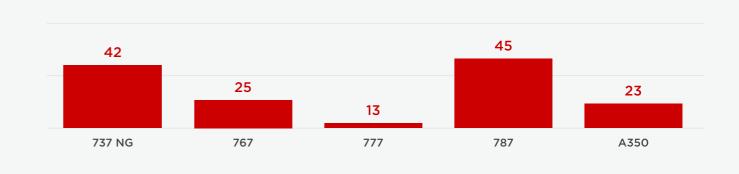


MAINLINE FLEET COMPOSITION

314,774

Scheduled

Total Flights



51

OPERATOR COUNTRY: JAPAN



This information was collated from **The Cirium Core**, a comprehensive data platform for the Aviation & Travel industry.

AIRPORT HUB GROUPING







	Flights	Seats	On-Time Arrival %
FUK - HND	6,237	2,056K	70.61%
HND - FUK	6,236	2,057K	72.22%
CTS - HND	6,145	1,994K	68.85%
HND - CTS	6,142	1,994K	67.05%
HND - ITM	5,492	1,487K	79.90%

CIRIUM ON-TIME PERFORMANCE

NORTH AMERICA

DELTA AIR LINES **AIRLINE WINNER PROFILE**

83.46% **On-Time Arrival Rate**

984 Active Tails

DEI

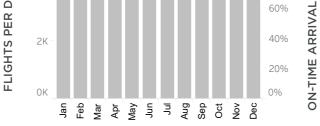
1,712,579 Total Flights Scheduled

10.07 hr Avg Daily Utilization/Tail

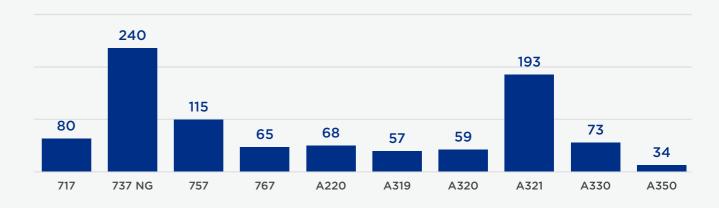




MONTHLY TRENDS: FLIGHT VOLUME PERFORMANCE 100% RATE DAY 60%



MAINLINE FLEET COMPOSITION

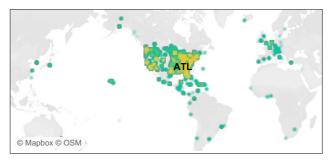


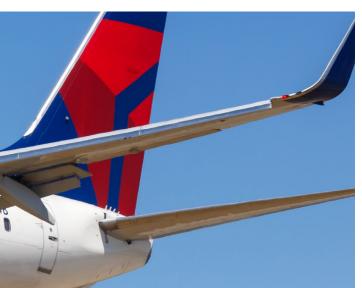
OPERATOR COUNTRY: UNITED STATES



This information was collated from The Cirium Core, a comprehensive data platform for the Aviation & Travel industry.

AIRPORT HUB GROUPING





AIRLINE WINNER PROFILE | NORTH AMERICA

2,603.09M km Total **Distance** Flown

	Flights	Seats	On-Time Arrival %
MCO - ATL	5,459	1,118K	76.66%
ATL - MCO	5,458	1,118K	72.44%
ATL - LGA	4,636	868K	82.96%
LGA - ATL	4,634	868K	85.28%
BOS - LGA	4,347	354K	88.40%

THE MOST ON-TIME AIRLINES

EUROPE & LOW-COST CARRIERS

IBERIA EXPRESS **AIRLINE WINNER PROFILE**

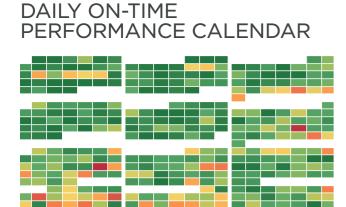
84.69% **On-Time Arrival Rate**

28 Active Tails

0%

44,140 **Total Flights** Scheduled

10.12 hr Avg Daily Utilization/Tail

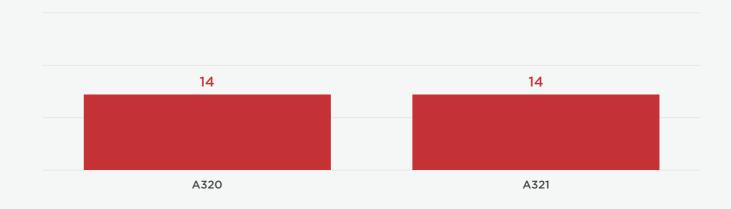


MONTHLY TRENDS: FLIGHT VOLUME PERFORMANCE 100% 100 DAY 60% FLIGHTS PER 50

Jan May Jun Jun Oct Nov Nov

RATE ARRIVAL 40% ON-TIME 20%

MAINLINE FLEET COMPOSITION



OPERATOR COUNTRY: SPAIN

ON-TIME ARRIVAL RATE



This information was collated from **The Cirium Core**, a comprehensive data platform for the Aviation & Travel industry.

AIRPORT HUB GROUPING



AIRLINE WINNER PROFILE | EUROPE & LOW-COST CARRIERS



58.33M km Total **Distance Flown**

	Flights	Seats	On-Time Arrival %
LPA - MAD	3,090	633K	84.97%
MAD - LPA	3,089	633K	84.42%
TFN - MAD	2,633	550K	83.47%
MAD - TFN	2,632	550K	88.28%
PMI - MAD	2,554	505K	84.72%

THE MOST ON-TIME AIRLINES



© Mapbox © OSM

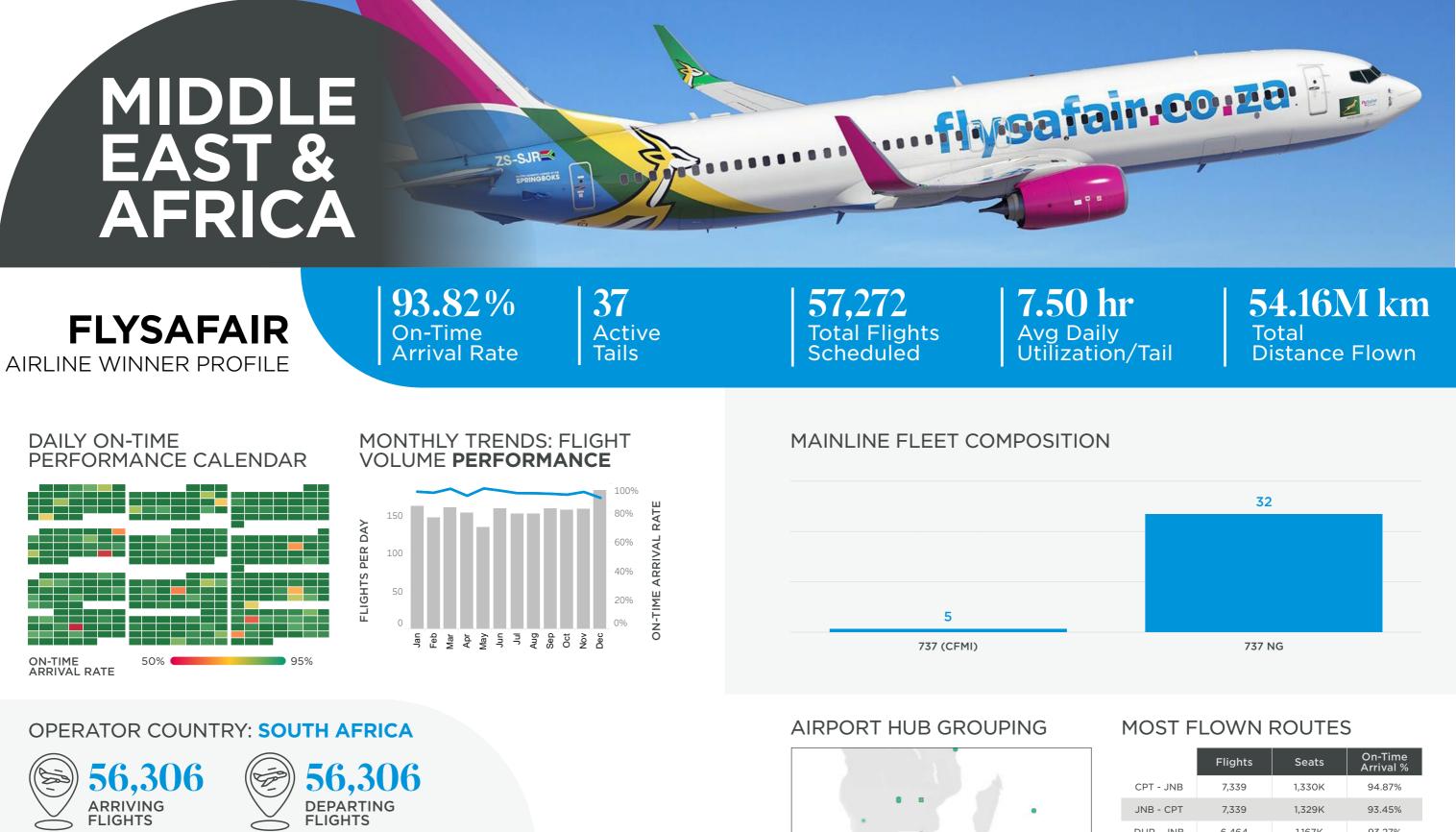
This information was collated from **The Cirium Core**, a comprehensive data platform for the Aviation & Travel industry.

56

AIRLINE WINNER PROFILE | LATIN AMERICA

	Flights	Seats	On-Time Arrival %
PTY - SJO	2,979	479K	87.30%
SJO - PTY	2,979	479K	90.27%
PTY - BOG	2,864	437K	88.77%
BOG - PTY	2,863	437K	92.68%
MIA - PTY	2,646	433K	91.42%

THE MOST ON-TIME AIRLINES



This information was collated from The Cirium Core, a comprehensive data platform for the Aviation & Travel industry.

INR

© Mapbox © OSM 📒 📑

AIRLINE WINNER PROFILE | MIDDLE EAST & AFRICA

	Flights	Seats	On-Time Arrival %
CPT - JNB	7,339	1,330K	94.87%
JNB - CPT	7,339	1,329K	93.45%
DUR - JNB	6,464	1,167K	93.27%
JNB - DUR	6,464	1,167K	91.61%
CPT - DUR	2,553	466K	96.34%
DUR - CPT	2,553	466K	92.79%

The MOST ON-TIME AIRPORTS



GLOBAL AIRPORTS REPORT **WINNERS**

SUMMARY OF TOP PERFORMERS

78.44% Total **On-Time Departures**

6.141M Total Flights

96.50% Total Tracked

Flights

1,064.47M

2,714 Total Routes

OPERATIONAL HIGHLIGHTS

Total

Seats

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Riyadh King Khalid International Airport (RUH)	86.65%	81.79%	115	60
Lima Jorge Chavez International Airport (LIM)	84.57%	78.65%	71	27
Mexico City Benito Juarez International Airport (MEX)	84.04%	84.82%	102	22
Salt Lake City International Airport (SLC)	83.80%	84.78%	104	14
Santiago Arturo Merino Benitez International Airport (SCL)	82.84%	78.51%	68	21

TOP 20 WINNERS

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served
Riyadh King Khalid International Airport (RUH)	1	86.65%	83.00%	240,990	50	115
Lima Jorge Chavez International Airport (LIM)	2	84.57%	89.04%	174,738	56	71
Mexico City Benito Juarez International Airport (MEX)	3	84.04%	98.68%	302,506	57	102
Salt Lake City International Airport (SLC)	4	83.80%	99.94%	236,412	68	104
Santiago Arturo Merino Benitez International Airport (SCL)	5	82.84%	99.36%	155,454	49	68
Minneapolis-Saint Paul International Airport (MSP)	6	82.27%	99.22%	308,270	68	168
Washington Dulles International Airport (IAD)	7	82.23%	95.84%	231,788	72	150
Detroit Metropolitan Wayne County Airport (DTW)	8	82.06%	99.87%	289,259	72	129
Oslo Gardermoen Airport (OSL)	9	81.91%	99.04%	201,768	41	148
Doha Hamad International Airport (DOH)	10	81.38%	98.91%	249,439	48	194
Copenhagen Airport (CPH)	11	81.37%	98.53%	219,684	44	185
Los Angeles International Airport (LAX)	12	81.06%	98.38%	514,031	65	201
Philadelphia International Airport (PHL)	13	80.75%	99.27%	275,111	77	130
Seattle-Tacoma International Airport (SEA)	14	80.51%	99.75%	413,505	52	135
Abu Dhabi Zayed International Airport (AUH)	15	80.32%	94.88%	151,794	52	133
Atlanta Hartsfield-Jackson International Airport (ATL)	16	80.15%	99.72%	766,787	62	241
Bogota El Dorado International Airport (BOG)	17	80.11%	91.56%	338,286	54	105
Tokyo Haneda International Airport (HND)	18	79.97%	98.05%	473,737	34	104
Phoenix Sky Harbor International Airport (PHX)	19	79.97%	97.61%	424,815	61	152
Kansai International Airport (KIX)	20	79.85%	89.33%	172,763	48	79

GLOBAL AIRPORTS REPORT

SAUDI ARABIA RISING: RIYADH KING KHALID INTERNATIONAL AIRPORT L GLOBAL AND LAR AIRPORTS

EXPERT COMMENTARY



Willy Boulter **Consultant and Former** Airline Executive

here have been many groundbreaking announcements coming out of Saudi Arabia in the past two to three years about new investments and initiatives: to these we can add the amazing performance of Riyadh King Khalid International Airport in winning both the "Large" and "Global" Airport categories in **Cirium's 2024 On Time Performance** awards.

Whilst it is easy to announce grand plans and new investments, Rivadh Airport is delivering excellence already, achieving an on-time departure record of 86.65% in 2024, across 240.990 tracked flights, serving 115 routes. Every day, 24 hours a day, the airport has enabled the airlines and travelling public to benefit from a world-class performance, which handily beat the second-place finisher (Lima) by almost two percentage points and was ahead of its closest regional competitor, Doha, by over five percentage points. With a relentless focus on operational excellence and business continuity at the airside, allied to slot optimization and utilization in planning, combined with continuous improvements to the passenger experience, Rivadh Airport is leading the industry globally.

Riyadh is serving a fast-growing market - the major Riyadh-Jeddah city pair was the fastest growing domestic route in the world in 2024 and the dynamic local carriers, led by Saudia (SV), added capacity aggressively to address the nation's growing demand for both business and leisure travel. With GDP growth of 4.4% predicted for 2024 and slightly more for 2025, aviation growth will easily top 10% a year, given the huge range of new investment in tourism development. SV's seat growth in 2024 has been 9.8% and the airline added six aircraft to their 137 strong fleet.

The Saudi low-cost airlines, flynas and flyadeal (a subsidiary of SV) have also added capacity and have ambitious growth plans: flynas has 280 aircraft on order, including 30 A330s, meanwhile flyadeal announced an order for 51 A320 family aircraft in May.

To win the "Airports" categories so decisively is truly a feather in the cap of all involved with Riyadh Airport and bodes well for the further expansion of aviation in the Kingdom. The national aim is to achieve 330m passengers travelling into, out of and around the Kingdom by 2030. At some point in 2025, Riyadh Airport will host inaugural flights of the new Saudi flag carrier Rivadh Air, which is based in the city and will provide another carrier to serve the burgeoning Saudi market internationally, as well as sharing in the transit traffic moving over other hubs.

Rivadh King Khalid International Airport

has in 2024 delivered a truly superlative performance, a great example to other industry players, both old and new, in Saudi Arabia and elsewhere.

All of us at Cirium salute the Riyadh team's achievement and will be watching keenly as they address the huge growth challenges ahead.

EXPERT COMMENTARY | GLOBAL & LARGE AIRPORT

86.65% **On-Time** Performance Across 240,990 Flights

CIRIUM.COM

LARGE AIRPORTS REPORT **WINNERS**

SUMMARY OF TOP PERFORMERS

79.14% Total **On-Time**

Departures

96.72% Total Tracked

Flights

2,386

Total

Routes

5.108M Total Flights

834.48M Total

OPERATIONAL HIGHLIGHTS

Seats

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Riyadh King Khalid International Airport (RUH)	86.65%	81.79%	115	60
Honolulu International Airport (HNL)	85.45%	83.67%	57	20
Lima Jorge Chavez International Airport (LIM)	84.57%	78.65%	71	27
Mexico City Benito Juarez International Airport (MEX)	84.04%	84.82%	102	22
Salt Lake City International Airport (SLC)	83.80%	84.78%	104	14

TOP 20 WINNERS

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served
Riyadh King Khalid International Airport (RUH)	1	86.65%	83.00%	240,990	50	115
Honolulu International Airport (HNL)	2	85.45%	86.71%	160,975	53	57
Lima Jorge Chavez International Airport (LIM)	3	84.57%	89.04%	174,738	56	71
Mexico City Benito Juarez International Airport (MEX)	4	84.04%	98.68%	302,506	57	102
Salt Lake City International Airport (SLC)	5	83.80%	99.94%	236,412	68	104
Santiago Arturo Merino Benitez Intl Airport (SCL)	6	82.84%	99.36%	155,454	49	68
New York LaGuardia Airport (LGA)	7	82.39%	99.84%	351,793	74	92
Minneapolis-Saint Paul International Airport (MSP)	8	82.27%	99.22%	308,270	68	168
Washington Dulles International Airport (IAD)	9	82.23%	95.84%	231,788	72	150
Detroit Metropolitan Wayne County Airport (DTW)	10	82.06%	99.87%	289,259	72	129
Oslo Gardermoen Airport (OSL)	11	81.91%	99.04%	201,768	41	148
Doha Hamad International Airport (DOH)	12	81.38%	98.91%	249,439	48	194
Copenhagen Airport (CPH)	13	81.37%	98.53%	219,684	44	185
Ronald Reagan Washington National Airport (DCA)	14	81.11%	99.96%	294,946	74	109
New Chitose Airport (CTS)	15	81.06%	95.89%	149,810	40	46
Los Angeles International Airport (LAX)	16	81.06%	98.38%	514,031	65	201
Philadelphia International Airport (PHL)	17	80.75%	99.27%	275,111	77	130
Seattle-Tacoma International Airport (SEA)	18	80.51%	99.75%	413,505	52	135
Fukuoka Airport (FUK)	19	80.48%	98.32%	186,657	36	49
Abu Dhabi Zayed International Airport (AUH)	20	80.32%	94.88%	151,794	52	133

MEDIUM AIRPORTS REPORT **WINNERS**

SUMMARY OF TOP PERFORMERS

77.80% Total **On-Time** Departures

2.279M Total Flights

95.60% Total Tracked Flights

361.59M

1,270 Total Routes

OPERATIONAL HIGHLIGHTS

Total

Seats

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Panama City Tocumen International Airport (PTY)	90.34%	88.61%	93	16
Brasilia International Airport (BSB)	88.19%	86.18%	47	9
Osaka Itami International Airport (ITM)	88.18%	84.48%	34	4
Rio de Janeiro Santos Dumont Airport (SDU)	88.17%	85.63%	12	4
Portland International Airport (PDX)	84.86%	80.65%	81	19

TOP 20 WINNERS

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served
Panama City Tocumen International Airport (PTY)	1	90.34%	99.23%	136,830	57	93
Brasilia International Airport (BSB)	2	88.19%	99.46%	106,745	42	47
Osaka Itami International Airport (ITM)	3	88.18%	99.49%	136,147	31	34
Rio de Janeiro Santos Dumont Airport (SDU)	4	88.17%	98.82%	58,316	44	12
Portland International Airport (PDX)	5	84.86%	99.93%	153,814	61	81
San Jose Mineta International Airport (SJC)	6	84.74%	99.95%	106,655	57	45
Buenos Aires Jorge Newbery Airfield (AEP)	7	83.30%	90.61%	114,089	59	54
Viracopos-Campinas International Airport (VCP)	8	83.26%	98.91%	111,950	42	77
Sacramento International Airport (SMF)	9	82.77%	99.81%	116,207	61	49
Kuwait International Airport (KWI)	10	81.59%	81.49%	114,560	53	101
San Francisco Bay Oakland International Airport (OAK)	11	81.14%	98.03%	89,386	50	50
Miguel Hidalgo y Costilla Guadalajara Intl Airport (GDL)	12	80.35%	94.61%	114,261	57	63
Raleigh-Durham International Airport (RDU)	13	80.34%	98.46%	135,198	77	72
Tijuana International Airport (TIJ)	14	80.01%	94.39%	75,276	62	44
St Louis Lambert International Airport (STL)	15	79.26%	96.41%	145,753	62	75
Louis Armstrong New Orleans International Airport (MSY)	16	78.24%	99.61%	105,404	71	58
Monterrey International Airport (MTY)	17	77.92%	90.34%	96,507	63	67
Kolkata Netaji Subhas Chandra Bose International Airport (CCU)	18	77.82%	89.28%	142,901	56	68
Houston Hobby Airport (HOU)	19	76.14%	99.64%	121,584	57	81
Sharjah International Airport (SHJ)	20	75.92%	83.55%	97,650	55	99

MEDIUM AIRPORTS REPORT

TOCUMEN **AIRPORT LEADS** IN OPERATIONAL EXCELLENCE AND RELIARII

EXPERT COMMENTARY



Jim Hetzel Product Marketing Director Cirium

e are delighted to recognize Panama City Tocumen International Airport's (PTY) pivotal role in regional aviation with its ranking as the number one on-time medium-sized airport. With an impressive 90.34% of flights departing as scheduled. PTY has set a new benchmark for operational efficiency in Latin America, underscoring its identity as a strategic hub and a leader in enhancing air travel reliability.

Situated at a critical juncture linking North, Central, and South America, PTY stands as the premier gateway to the Americas. Panama is not just a hub for connectivity; it serves a country rich in vibrant culture, breathtaking natural beauty, which also plays a pivotal role in global trade. Its diverse heritage blends indigenous, African, and Spanish influences, reflected in its music, dance, and festivals. Nature enthusiasts will find paradise in Panama's lush rainforests, pristine beaches, and incredible biodiversity. The iconic Panama Canal serves as a cornerstone of international commerce, connecting the Atlantic and Pacific Oceans and solidifying Panama's position as a leader in global trade. As a thriving financial and logistics hub, Panama plays a critical role in Latin America's economy, driving growth and innovation across the region.

The airport's ability to manage high traffic volumes while maintaining outstanding punctuality reflects a seamless blend of operational efficiency, substantial infrastructure investments, and strong collaborations with regional airlines.

Tocumen International Airport's strategic location amplifies the importance of its performance metrics. The airport's ability to manage high traffic volumes while maintaining outstanding punctuality reflects a seamless blend of operational efficiency, substantial infrastructure investments, and strong collaborations with regional airlines. Its partnership with Panama's flagship carrier, Copa Airlines—renowned for leading the region in on-time performance for over a decade-further enhances this success. Together, they exemplify operational excellence, cementing PTY's reputation as a reliable connecting hub for travelers across the Americas and beyond.

The broader significance of PTY's ranking transcends its immediate impact on departure times. For Panamanian aviation, this accolade symbolizes both national pride and the success of the country's efforts to position itself as a leader in aviation excellence. Panama's robust commitment to efficiency. customer satisfaction, and cuttingedge technology in airport operations has proven instrumental in maintaining Tocumen International Airport's status as a leading player on the global stage.

Regionally, PTY's achievement in punctuality sets a precedent for other airports in Latin America to follow.

Reliable on-time performance is not merely a statistic; it strengthens passenger confidence, enhances airline schedules, and fosters economic growth by facilitating smoother logistics and connectivity. Tocumen's role as a model airport encourages higher expectations for service guality across the region, thus driving competition that ultimately benefits all travelers.

Panama City Tocumen International Airport's recognition as the most punctual medium-sized airport for 2024 is a noteworthy accomplishment, but it is also a testament to its enduring influence in global aviation. By continuing to prioritize punctuality and operational precision, PTY is not only upholding its role as the gateway to the Americas but also advancing the standards for air travel reliability in Latin America, setting a course for sustained progress in the years to come.

90.34% **On-Time Performance**

SMALL AIRPORTS REPORT **WINNERS**

SUMMARY OF TOP PERFORMERS

81.04% Total **On-Time** Departures

1.192M Total Flights

95.74% Total

Tracked Flights

174.43M

Total Routes

781

OPERATIONAL HIGHLIGHTS

Total

Seats

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Guayaquil Jose Joaquin de Olmedo Intl Airport (GYE)	91.38%	87.83%	20	12
Quito Mariscal Sucre International Airport (UIO)	90.05%	85.46%	27	17
Cape Town International Airport (CPT)	89.39%	88.90%	42	28
El Salvador International Airport (SAL)	89.33%	82.07%	34	18
Ellison Onizuka Kona Intl Airport at Keahole (KOA)	88.61%	84.81%	22	10

TOP 20 WINNERS

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served
Guayaquil Jose Joaquin de Olmedo Intl Airport (GYE)	1	91.38%	98.78%	33,697	81	20
Quito Mariscal Sucre International Airport (UIO)	2	90.05%	90.54%	41,729	73	27
Cape Town International Airport (CPT)	3	89.39%	83.77%	80,091	51	42
El Salvador International Airport (SAL)	4	89.33%	86.91%	45,020	65	34
Ellison Onizuka Kona Intl Airport at Keahole (KOA)	5	88.61%	94.49%	35,034	67	22
Stavanger Airport (SVG)	6	86.73%	99.58%	39,841	45	31
Boise Air Terminal (BOI)	7	86.21%	99.42%	54,457	64	26
Nagoya Chubu Centrair International Airport (NGO)	8	85.98%	98.26%	84,917	46	53
Fortaleza Pinto Martins International Airport (FOR)	9	85.32%	96.47%	38,244	45	34
Salvador International Airport (SSA)	10	85.21%	96.53%	53,010	45	41
Curitiba President Alfonso Pena International Airport (CWB)	11	84.73%	99.70%	50,721	46	32
Recife International Airport (REC)	12	84.44%	96.83%	80,761	45	53
Trondheim Airport (TRD)	13	84.42%	96.31%	46,916	43	30
Will Rogers World Airport (OKC)	14	84.31%	99.91%	49,149	76	29
Ontario International Airport (ONT)	15	84.16%	98.50%	55,582	67	28
Indianapolis International Airport (IND)	16	83.93%	99.78%	97,673	70	51
Louisville Muhammad Ali International Airport (SDF)	17	83.90%	99.88%	54,196	79	40
John Glenn Columbus International Airport (CMH)	18	83.79%	99.80%	90,179	71	53
Pittsburgh International Airport (PIT)	19	83.49%	93.99%	100,919	73	62
Buenos Aires Ministro Pistarini International Airport (EZE)	20	83.46%	85.32%	60,275	74	73

SMALL AIRPORTS REPORT

GUAYAQUIL AIRPORT: PURSUIT OF EXCELLENCE

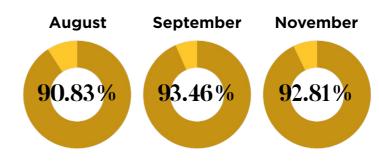
American carriers and airports. Small Airports globally, saw a positive improvement trend with an average on-time performance of 81.71% compared to 79.08% in 2023. This meant fierce competition among airports with small margins between top performers. Guayaquil Jose Joaquin De **Olmedo International Airport (GYE)** stands out as the leader in the Small Airports category with an outstanding **On-Time Performance score of 91.38%.**

024 witnessed outstanding on-time performance by Latin

Guayaguil is the largest city in Ecuador and the capital of the Guayas Province. Situated on the west bank of the Guayas River, it is nation's main economic hub and capital port. Gyuaguil is not just a commerce city; it also holds historical significance, and is the gateway to pacific beaches and the Galapagos Islands. The service sector accounts for about fifty percent of Ecuador's GDP, with transporation and tourism making up the bulk of the industry. Tourism is an economic pillar for Ecuador and the aviation industry is a driving force behind it.

Guayaquil José Joaquín de Olmedo International Airport (GYE) is the

second busiest airport in Ecuador with 3.7M passengers served last year. The aiport serves as a domestic hub for Avianca Ecuador and LATAM Airlines Ecuador and several international carriers including American Airlines, KLM, Iberia and KLM. Guayaquil Airport has been a consistent Cirium On-Time top performer throughout 2024, with distinguished OTP scores. In September, the airport had the highest OTP score among all airport categories, including Global, achieving an impressive rate of 93.46%. It is also worth mentioning that Guayaguil Airport led the Small Airport category three times in 2024; August (90.83%), September (93.46%) and November (92.81%).



Last year, Jose Joaquin ranked third in the Small Airport category, but made a near 3-point improvement to take the leader position in this category in 2024. Guayaquil success can be attributed to the operational hand of concessionaire TAGSA. Farlier this year, TAGSA and the airport celebrated celebrated two decades of exceptional service, commitment to quality, safety and excellence. Guayaguil Airport was also recently awarded the ACI-Airport Service Quality (ASQ) for "Best Airport in the category of 2 to 5 million passengers per year, Airport with the Most Dedicated Staff, Easiest Airport Journey, Most Enjoyable Airport and Cleanest Airport" in the Latin America and Caribbean region.

Guavaguil Jose Joaguin International Airport's recognition as the most ontime small-sized airport for 2024 is also a demonstration of its unwavering pursuit to excellence. The airport's investment in its people, customer service and operations has rendered the excellent results they sought after.

EXPERT COMMENTARY



Lydia Webb Marketing Director - Americas and Strategic Programs Cirium

EXPERT COMMENTARY | SMALL AIRPORT

The airport's investment in its people, customer service and operations has rendered the excellent results they sought after.

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Better Performance. Better Emissions.

We are here to help us all fly sustainably.

Cirium EmeraldSky is empowering the aviation industry to accurately measure and monitor CO₂ emissions.



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IMPROVING AIRLINE ON-TIME PERFORMANCE **CAN HELP REDUCE** EMISSIONS

Andrew Doyle

Senior Director - Market Development, Cirium



or aviation enthusiasts, there's nothing quite like the excitement of a well-orchestrated flight schedule. But what if being on time in air travel could also make a real difference in the fight against climate change?

For the first time, Cirium's groundbreaking **EmeraldSky emissions** methodology has revealed a significant link between airline on-time performance (OTP) and reduced flight emissions.

This innovative analysis is a gamechanger in showing how schedule reliability can directly contribute to more sustainable skies.

EmeraldSky isn't your run-of-the-mill emissions calculator. It's a sophisticated tool that takes into account a wide array of variables when estimating CO_2 emissions for each flight. From the type of aircraft and engine series to winglet

design, passenger and cargo payloads, and even the age of the airframe-it's all factored in. Crucially, EmeraldSky also includes real-time data like gate and runway times, allowing for an accurate record of how long planes spend taxiing and flying. This level of precision sets it apart from traditional, distance-based emissions tools.

Why does this matter? Because time spent in the air or on the ground directly impacts fuel burn-and therefore CO₂ emissions. By tracking the relationship between OTP and emissions trends, Cirium's analysis reveals that

efficiency at every stage of the flight isn't just about convenience for passengers; it's also about reducing aviation's environmental footprint.

Cirium analyzed airport pairs that operate high volumes of short-haul mainline flights (less than 1,500km), comparing data from July 2019 to July 2024. Cirium identified eight routes where improved OTP coincided with significant reductions in average flight times and emissions. On the other side, nine routes showed longer sector times, increased emissions intensity, and declining OTP. The correlation was clear: better on-time performance generally resulted in lower carbon intensity. In simpler terms, when flights run on time, emissions go down.

emerald ⇒sky

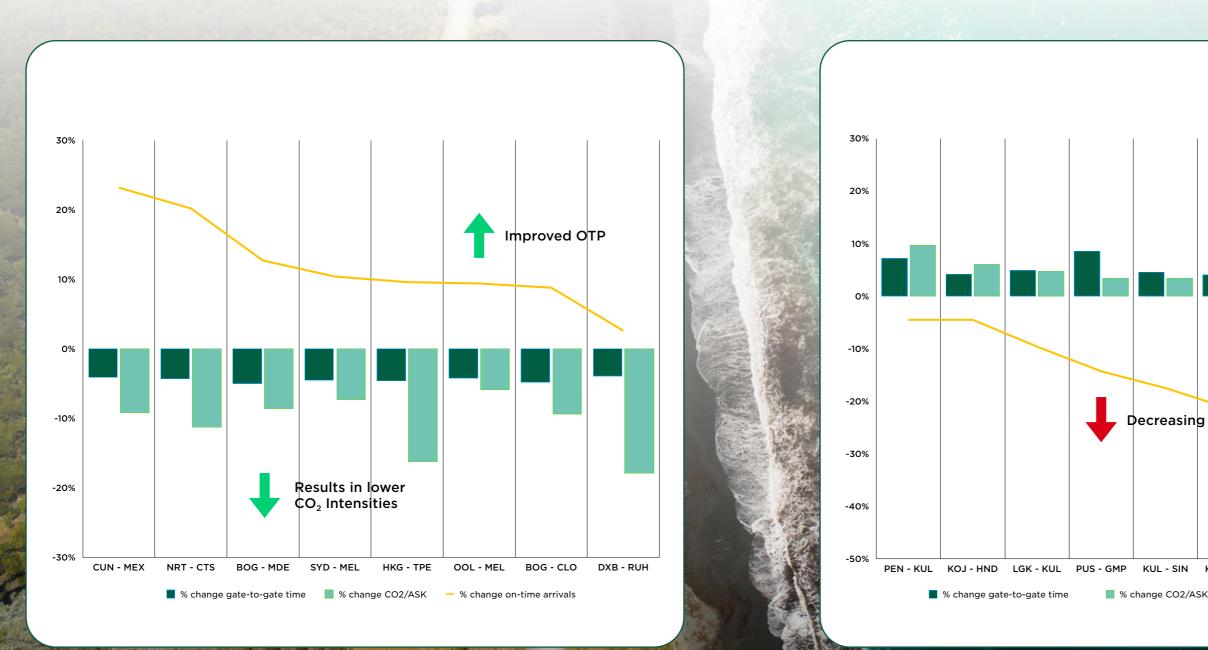
The findings highlight the importance of addressing inefficiencies in air traffic management (ATM). For instance, the slow progress in integrating nationally controlled airspace over mainland Europe is a well-known bottleneck. These inefficiencies not only driveup fuel burn and emissions, but also limit airlines' ability to improve OTP. Solving such challenges could unlock benefits for both the environment and operational performance.

For aviation stakeholders and industry leaders alike, this provides compelling evidence of how operational excellence can align with sustainability goals. Improving OTP isn't just about keeping passengers happy—it's about making air travel smarter, greener, and better for the future of our planet. Cirium's EmeraldSky methodology has paved the way for a deeper understanding of this critical relationship, proving that every minute matters in the journey toward more sustainable skies.

Learn more about how Cirium's EmeraldSky can enable you to make aviation greener and cleaner, please see **EmeraldSky Aircraft & Flight Emissions** and schedule a meeting with our experts.

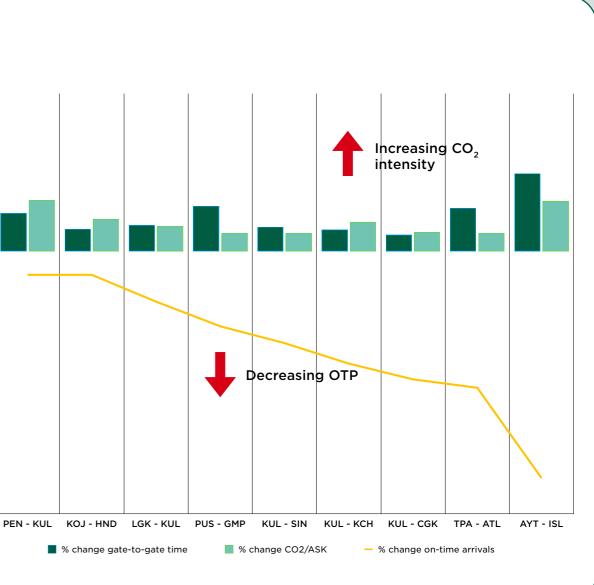
IMPROVING OTP RESULTS IN LOWER CO₂ INTENSITY

(KG OF CO₂ PER ASK) JULY 2024 VS JULY 2019 (SELECT ROUTES)



Increased OTP results in a lower CO₂ density.

80



Decreased OTP correlates with increased CO₂ density.

Augment your on-time performance analysis and dig deeper into Cirium's Annual Report with the new...

Cirium OTP Awards Al

Ask questions about **THE 2024 ON-TIME** PERFORMANCE results with generative AI

ANALYZE Top airline and airport performers in more detail

> REVIEW OTP, tracked flights

ARE YOU AN AIRLINE OR AIRPORT?

Register with your work email and the Assistant will compare your own metrics to the top performers

CIRIUM journey

GENERATE

Quick insight and produce easy-to-digest **OTP** information

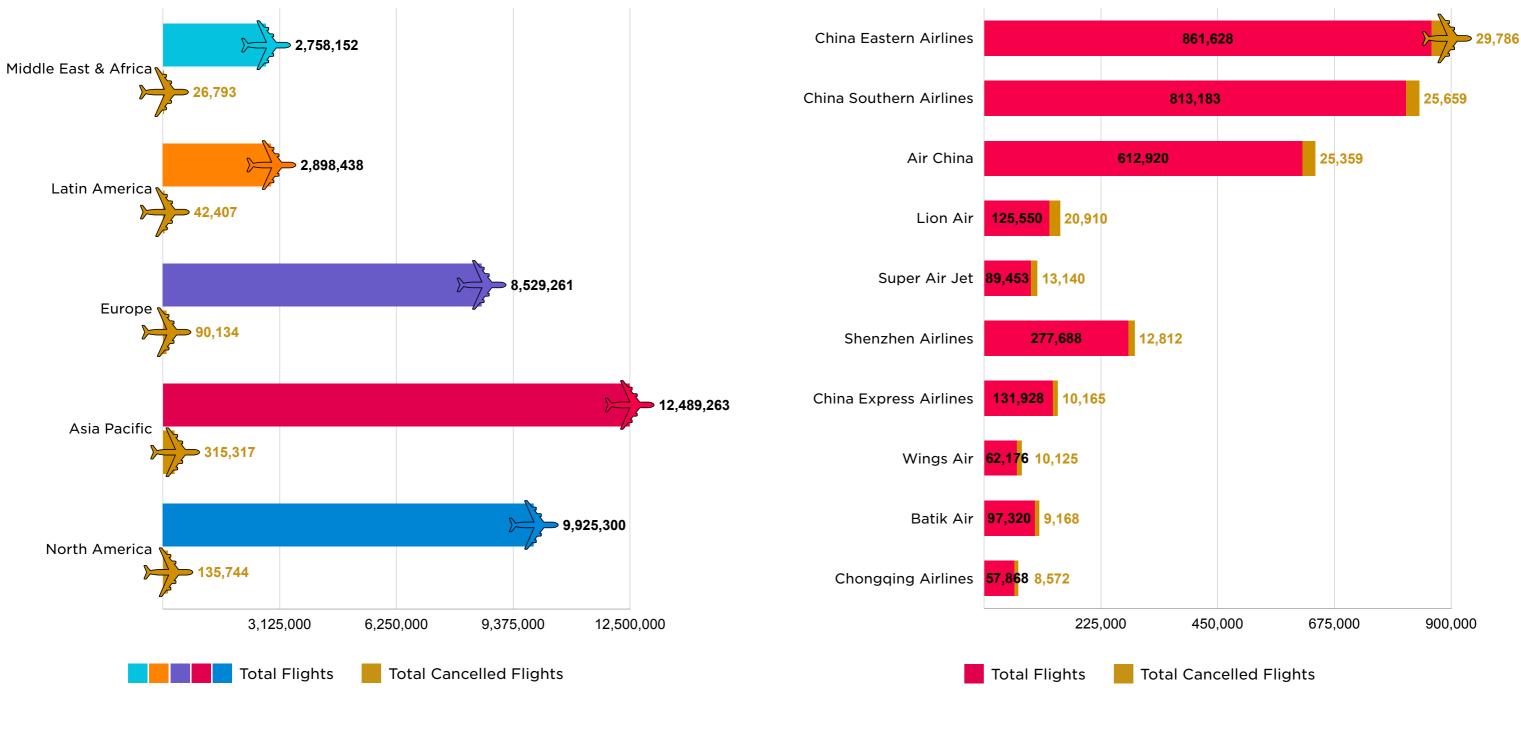
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Cancellation Reports -Airlines



ASIA PACIFIC CANCELLED FLIGHTS



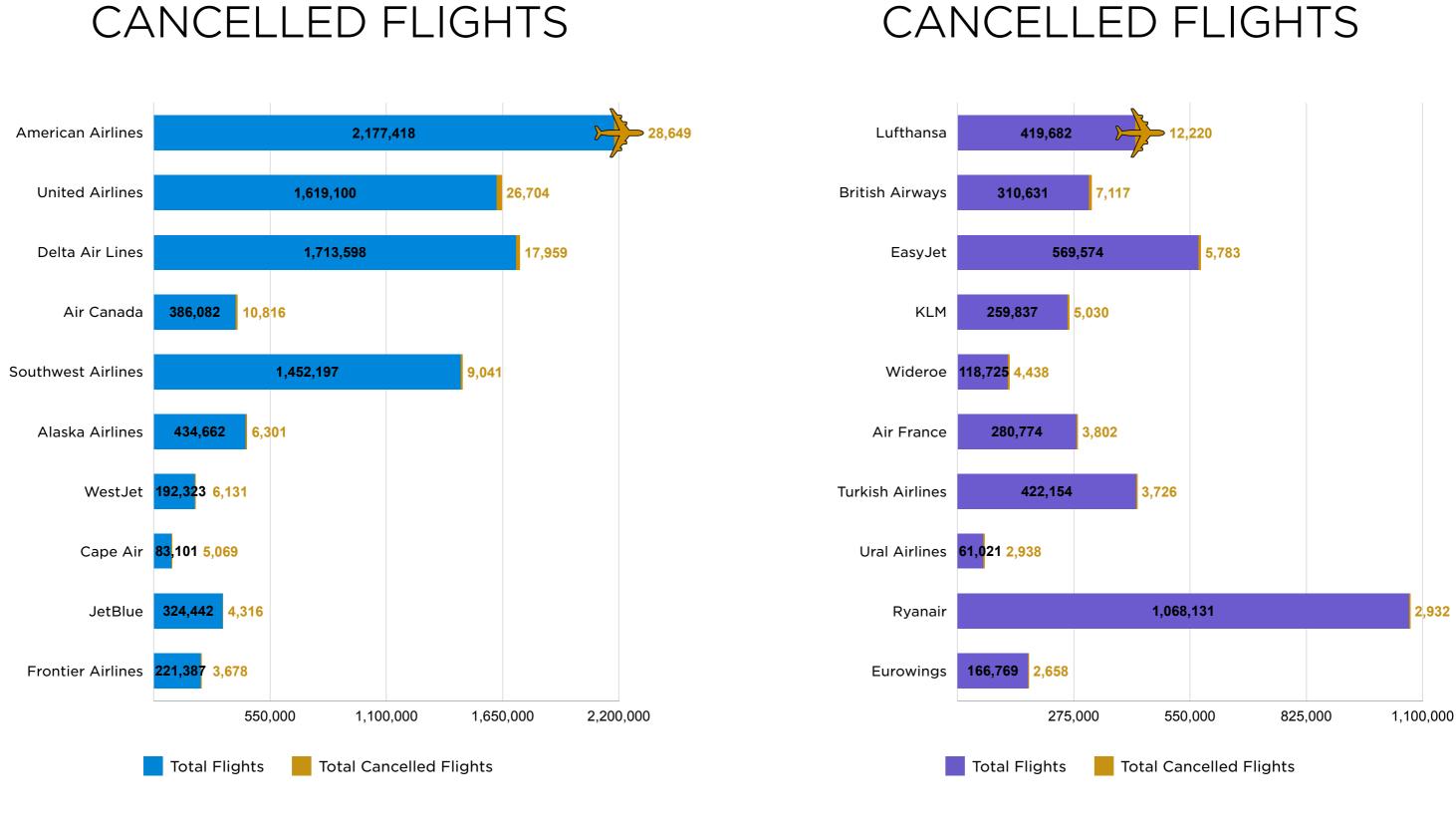
JANUARY - DECEMBER 2024

JANUARY - DECEMBER 2024

87

NORTH AMERICA CANCELLED FLIGHTS



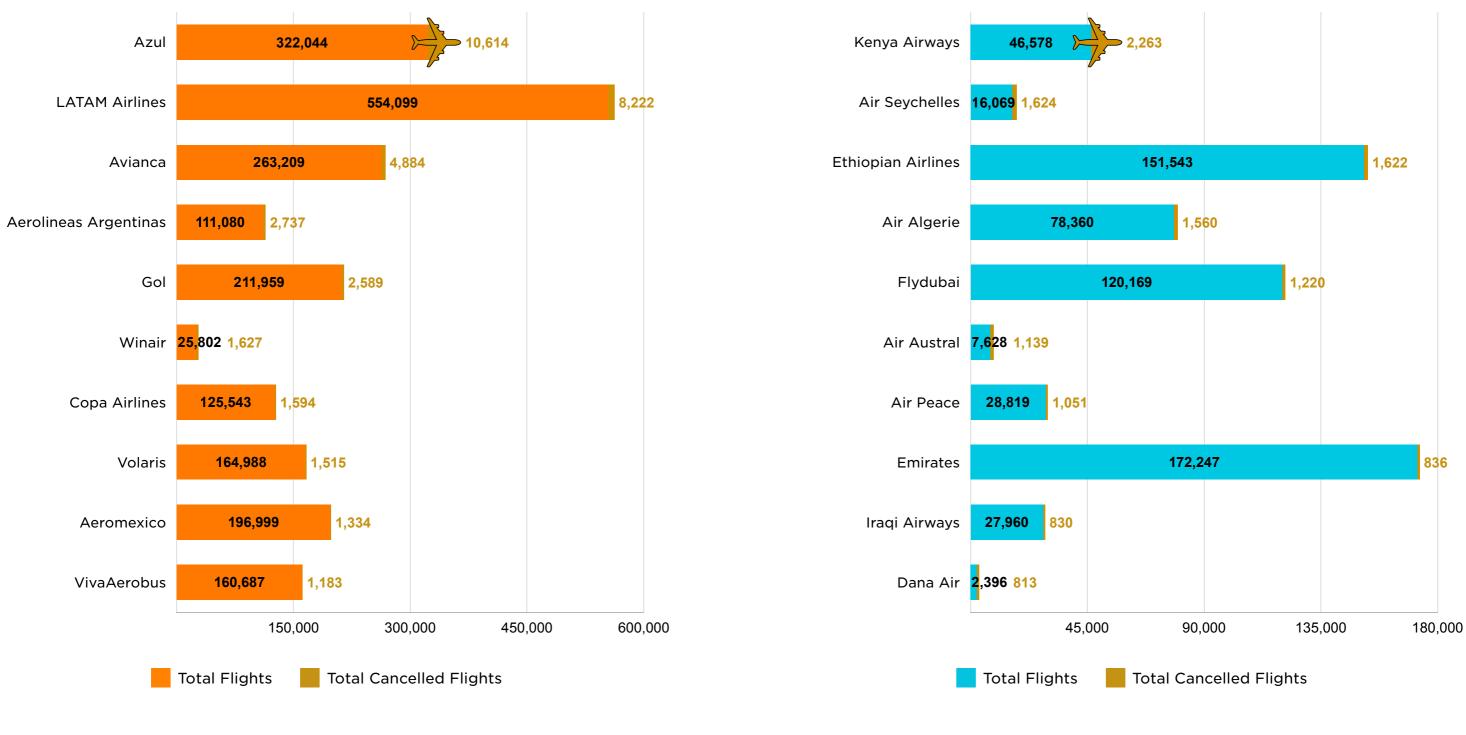


JANUARY - DECEMBER 2024

JANUARY - DECEMBER 2024

LATIN AMERICA **CANCELLED FLIGHTS**





JANUARY - DECEMBER 2024

JANUARY - DECEMBER 2024

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Appendix



WHY THE WORLD TRUSTS **OUR RANKINGS**

CONTENT

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irium applies the **highest level** of quality assurance to the data that supports the On-Time Performance Review. We ensure the highest level of accuracy, timeliness, and coverage of the data, which is why the data and analyses are trusted by airlines and airports globally.

The experienced and dedicated Cirium data team collect, verify, and clean the data and then apply logic, algorithms and security to it.

This comprehensive structure is in place to achieve the 'quality balance' of the data that we use to rank airlines and airports.

Sophisticated tools and statistics validate the information and remove outliers and multisource verification fills in the gaps in single data sources. In cases of conflict, advanced algorithms identify the most reasonable data points, crosscheck the information, and determine consistency of information. Our expert team apply their in-depth knowledge in data and aviation to add extra validity to the data.

Cirium has a strict definition for what we consider as flight coverage for an airline or airport. For an airline to qualify for Cirium's On-Time Performance rankings, a carrier must meet the coverage standards, and we must have data fields which include estimated departures, actual departures, departure dates and arrival gates.

Cirium's approach to on-time performance data and the process involved means we immediately notice when changes or deviations occur.

WHY THE WORLD TRUSTS OUR RANKINGS





USAGE AND **ATTRIBUTION**

e ask you to cite Cirium if you extract and use the data and information in this report in your own content and marketing. Where possible please also link to www.cirium.com.

The data presented in this report derives from The Cirium Core, which holds information from over 2,000 sources. Cirium verifies and quality checks all the data as we process it. Cirium is solely responsible for all insights and analyses provided in this report.

As a neutral partner in the industry, we rank airlines and airports from an independent position. It is our mission to accelerate the industry's digital transformation.

"According to data provided by Cirium, an aviation analytics company, 89.66% of Delta Air Lines' flights arrived on-time for the month of December."

For questions about citing Cirium's on-time performance analysis, please contact at media@cirium.com

EXAMPLES OF HOW TO CITE US:

Cirium, a company that provides data for the aviation industry, revealed that 82.87% of All Nippon Airways' flights across the country arrived on-time in December."

Cirium's study of Vueling's ontime performance in December shows that 85.70% of its flights arrived on-time."

USAGE AND ATTRIBUTION

Big Ben clock, London

Cirium's airline on-time performance analysis shows 89.02% of Oman Air's flights nationwide arrived on-time in December."

JEREMY BOWEN **CHAIRPERSON OF ADVISORY BOARD** CHIEF EXECUTIVE **OFFICER, CIRIUM**

Jeremy Bowen is the CEO of Cirium, the aviation analytics company that is helping to shape an intelligent future for air travel.

Cirium is part of the global informationbased analytics company RELX. Jeremy originally joined its FlightGlobal brand, the aviation arm of RELX, in 2018. He became CEO in 2019 during the same period as the company rebranded to Cirium, after significantly growing its data portfolio with the acquisitions of Diio, FlightStats, Ascend and Innovata. At the same time, Jeremy led the divestment of its legacy publishing business, FlightGlobal.

During this leadership position, Jeremy has additionally set a new vision and strategy for Cirium, aligned company operations, driven a new collaborative culture and completed the two acquisitions of Snowflake Software and Migacore, to further expand Cirium's data portfolio and technology offering.

Jeremy has been in the data and analytics world all his career, previously with RELX's Accuity business for eight years-a company focused on the financial services sector. Before this role, spending 15 years with data insights company Dun & Bradstreet in leadership positions in the UK, Australia and New Zealand.



He successfully led the Latin American and Caribbean Air Transport Association (ALTA) between October 2017 and May 2020, promoting positive change in the organization. Prior to joining ALTA, Luis served as World Fuel Services' Vice President Supply Development for Latin America and Caribbean where he was responsible for improving World Fuel's aviation fuel business in the region.

For 10 years, Luis served IATA, leading fuel and airport campaigns with governments, oil companies, fuel service providers and airports for the Americas, Africa and the Middle East regions, based in Switzerland. He also served 12 years at Shell with a focus on Latin America and the Caribbean and Africa and Europe, based in the Netherlands.

He is currently the executive director and operating officer of Exactly Consulting and Services SARL.

Π S m Х И И И И И И И И

Luis Felipe de Oliveira served ACI World as Director General from June 2020 to October 2024, guiding the organization through the global pandemic while improving the finances, structure and outreach for the group.

WILLY BOULTER **ADVISORY BOARD** MEMBER CONSULTANT AND FORMER AIRLINE **EXECUTIVE**

Willy Boulter has over 40 years of experience in the airline industry, most recently as Chief Commercial Officer of IndiGo, India's largest airline with a fleet of over 250 aircraft.



For the first 20 years of his career, he worked at Cathay Pacific in several positions, including heading the Japan market, Revenue Management and IT.

He was Commercial Director of Virgin Atlantic from 2002 to 2008, and then the CEO of Russia's first LCC, Sky Express. He has also worked for airlines in the Middle East, specifically Gulf Air and Etihad, and was CCO in the Emirates-sponsored team that turned around TAAG Angola Airlines in 2015-18.

He is a graduate of Oxford University and served in the British Army in the UK, Canada and Hong Kong. He is a Fellow of the Royal Aeronautical Society and currently splits his time between England and Yokohama.



Henry H. Harteveldt is one of the travel industry's most respected analysts.

EMBER Σ Δ 2 ш С О

He started the Atmosphere Research Group - a San Francisco-based independent, objective travel industry market research and strategic advisory firm - in 2011, following a nearly-11year career as Forrester Research's global head of travel research. Before becoming an analyst, Henry spent more than 15 years in marketing, product, planning, PR, and distribution roles at a variety of leading travel firms, including Continental Airlines, Fairmont Hotel Management Company and GetThere.

Most recently, Henry has taken on a role with Airlines Confidential, a podcast he co-hosts with several former CEOs and senior executives about the industry.

SCOTT **MCCARTNEY**

ADVISORY BOARD MEMBER AVIATION CONSULTANT AND ADJUNCT PROFESSOR, DUKE UNIVERSITY

Scott McCartney, a renowned aviation journalist and business consultant, brings decades of expertise in analyzing and reporting on industry trends.



For over 20 years, he penned The Middle Seat, The Wall Street Journal's celebrated travel column, where he launched its highly regarded airline performance rankings.

McCartney was part of the Pulitzer Prizewinning team of journalists for its coverage of 9/11 and the author of four acclaimed books. His numerous accolades include the George Polk Award and SABEW's "Best in Business" honors. Currently, he serves as an adjunct professor at Duke University and hosts Airlines Confidential, a globally recognized aviation podcast. The podcast consistently ranks in the top 1% of all podcasts and is one of the most downloaded business podcasts each week.

He also leads Middle Seat LLC, a consultancy specializing in media training and aviation research. Recognized for his transportation coverage, Scott was named "Best in Business" by the Society for American Business Editors and Writers (SABEW) in both 2018 and 2022. His work has also earned a George Polk Award, a Deadline Club Award, and an Online News Association Best Online Column Award. He was part of The Wall Street Journal team that won the Pulitzer Prize for their coverage of the September 11th attacks.

Scott is also the author of four books, including The Wall Street Journal Guide to Power Travel: How to Arrive with Your Dignity, Sanity, and Wallet Intact. A native of Boston, Scott spent 11 years with the Associated Press before joining the Journal in 1993. He is an instrument-rated, multi-engine private pilot and currently resides in Dallas. Additionally, he is actively involved in nonprofit work, chairing the boards of a \$51 million endowment and a 501(c)(3) newspaper publisher.



Currently serving as a Non-Executive Director at Ryanair, Brennan was the Director General of EUROCONTROL from 2018 to 2022, steering the organization through pivotal challenges such as the record-setting summer of 2019 and the COVID-19 pandemic. During his tenure. he ensured the resilience of the European Air Traffic Network, overseeing 11 million annual flights.

Previously, Brennan served as Chief Executive of the Irish Aviation Authority (2002-2017), achieving significant advancements in safety, cost efficiency, and airspace management. A pioneer in privatization efforts, he led the Airline Group's successful bid for the UK's first partial privatization of an Air Navigation Service Provider.

Brennan has also held key leadership roles, including Chairman of CANSO Global and the COOPANS Alliance. Currently, Eamonn is a Non-Executive Director at Ryanair, and also serves as Chairman of the Fovnes Flving Boat Museum and advises various aviation companies and governments.

DIRECTOR TROL ADVISORY MEMBER БR 0000 ш ERA 2 Ŷ Μ

Eamonn Brennan has a distinguished record of leadership in aviation safety, performance, and airspace management.

ALEX DE **GUNTEN ADVISORY BOARD MEMBER BUSINESS** DEVELOPMENT OFFICER, **HEICO AEROSPACE**

A seasoned aviation executive with a global perspective, Alex de Gunten joins the board with over 20 years of strategic leadership experience.



As Business Development Officer at HEICO Aerospace, he has played a pivotal role in advancing aerospace innovation.

Previously, de Gunten served as Executive Director of the Latin American and Caribbean Air Transport Association (ALTA), fostering collaboration among regional airlines to address industry challenges. He also drove international expansion efforts as Vice President at LAN Chile and Canadian Airlines International, A multilingual leader fluent in English, Spanish, and French. de Gunten is a sought-after speaker and advisor to organizations such as ALTA and TravelX.

Alex's contributions to aviation have earned him prestigious accolades, including the Air Transport World's Decade of Excellence Award and ALTA's Federico Bloch Award.



Mike has been in the airline industry throughout his career and has held several executive level positions. Mike was Chief Commercial Officer for UBM Aviation, President of Aloha Air Cargo & Aloha Tech Ops. and Chief Information Officer for Aloha Airlines. He was also one of the founding team members of Maxjet Airways, where he was Chief Marketing and Information Officer. Prior to this. he was President and CEO of Shepherd Systems, an airline analytics company. He spent nine years at American Airlines and Sabre having roles in London and Hong Kong where he was Vice President, Asia Pacific. While in Hong Kong, he was also a consultant to the executive management team of Cathay Pacific Airways.

During his career Mike has also been a consultant to several airlines, assisting them in deploying new technology into their operations. This included Lufthansa for day-of-operations control, Swissair for pricing and Cathay Pacific Airways for revenue management, crew management and maintenance operations.

Mike is currently an advisory board member to Aerobrand, an airline branding and design company that is responsible for rebranding Lufthansa Airlines in 2018.



Mike Malik is the Chief Marketing Officer at Cirium and joined the company in 2018. He rebranded the company, bringing together six brands the firm had acquired over the previous decade under one single brand.

LYDIA **WEBB BOARD SECRETARY** MARKETING **DIRECTOR - AMERICAS & STRATEGIC PROGRAMS, CIRIUM**

Lydia Webb is the **Marketing Director** for the Americas region and the Program Manager for the Cirium On-**Time Performance** program.



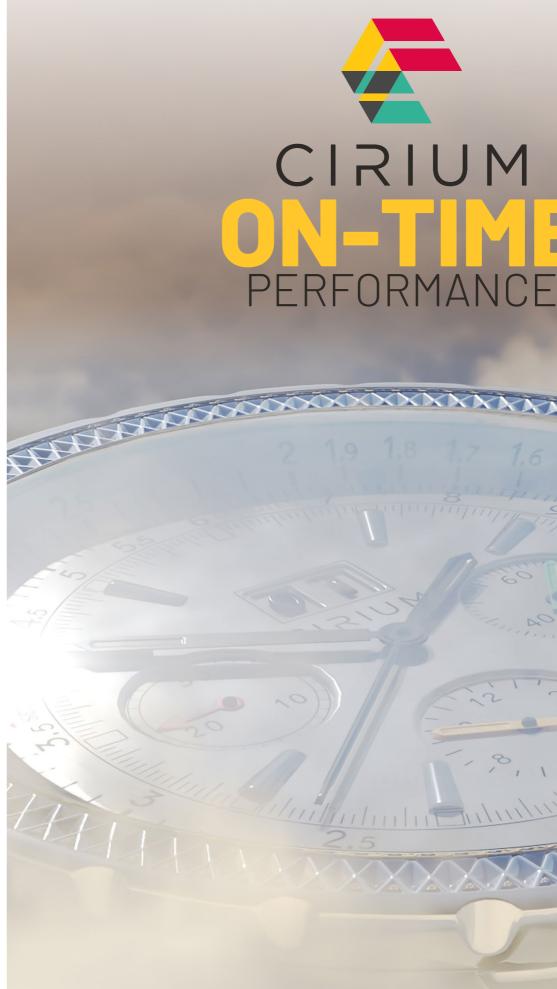
She is an aviation marketing professional with extensive background and experience, spanning airport, airlines, aerospace and travel technology.

She has proven diverse experience in B2B marketing, content development, brand management, market research and sales acceleration.

Lydia was instrumental in the American Airlines rebranding project. In her role, she was responsible for bringing the new American branding to life, providing complete brand oversight for the legacy US Airways - American Airlines global rebranding/Next Gen project spanning airport stations, hangar buildings, maintenance facilities, reservation offices and ticket service centers for American Airlines.

During her time at Sabre, she worked closely with Sales and Product Management leaders to define and develop content and messaging for specified customer segments. She also led strategic customer communications.

She also worked at the Dallas/Fort Worth International Airport in the Air Service Development department. She supported the growth of the airport's international and domestic air service strategies including, Qantas, Emirates, Aeromexico, KLM, JetBlue Airways and Spirit Airlines.



GLOSSARY OF TERMS



Α \cdot D \cdot E \cdot E \cdot G \cdot H \cdot I \cdot J \cdot K \cdot L \cdot M \cdot N \cdot . р · B · C 0 .

AIRLINE CODE

The IATA code for the airline. This is the code of the Marketing Airline.

AVAILABLE SEAT **KILOMETERS (ASKs)**

The number of seats available multiplied by the number of kilometers between origin and destination.

BLOCK TIME

Referred to as BO. The percentage of flights that were completed within their scheduled time.

COMPLETION FACTOR

Completion factor which is the percentage of tracked flights that were completed (e.g., not canceled)

COVERAGE

The percentage of published flights for which we have an actual arrival gate time for airlines and an actual departure time for airports against which we can measure a flight's performance versus its schedule.

ON-TIME ARRIVAL

The percentage of completed flights that arrived at the gate on time. On time is defined as arriving within 15 minutes of the scheduled arrival time. The on-time arrival ranking is used to determine the top performing airlines.

ON-TIME DEPARTURE

The percentage of completed flights that departed at the gate on time. On time is defined as departing within 15 minutes of the scheduled departing time. The on-time departure ranking is used to determine the top performing airports.

ON-TIME RANKING

For each list of airlines and airports, on-time performance is ranked where a rank of 1 equates to the best performance.

GLOSSARY OF TERMS

$Q \cdot R \cdot S \cdot T \cdot U \cdot V \cdot W \cdot X \cdot Y \cdot 7$



SEATS (MILLIONS)

The estimated seat capacity of all scheduled flights.

TOTAL FLIGHTS

The total number of scheduled single segment flights (consisting of one origin and one destination).

TRACKED FLIGHTS

The percentage of published flights for which Cirium tracked an actual gate arrival time, cancellation or diversion.

AIRPORT PLATINUM AWARD

112

This year, we've introduced the Airport Platinum Award, an exciting addition to our awards portfolio. Much like the Airline Platinum Award, this accolade recognizes exceptional performance. However, it goes beyond on-time performance in a specific category and evaluates airports through a broader lens, considering both passenger impact, operational excellence, and growth.

WHAT THE AWARD **MEASURES**

Performance Metrics

Here's how it works:

Passenger Impact: The award assesses performance based on the number of passengers affected by delays. This approach distinguishes between airports with shorter delays and those where delays affect a larger group of travelers.

On-Time Performance: Airports are rewarded for effective on-time performance, factoring in how those achievements impact the flow of air traffic overall.

To complement these, the award also considers capacity and growth to provide a comprehensive view of an airport's performance.

Growth and Connectivity

Growth is a key indicator of success, and this award recognizes airports that drive and manage expansion effectively. The metrics we evaluate include:

Flight Volume: The total number of flights arriving and departing, offering a measure of how much traffic an airport handles.

Year-over-Year Flight Growth: This reflects how quickly an airport is expanding its flight operations. A higher growth rate indicates an ability to attract more traffic a surrogate for the airport's attractiveness.

Passenger Volume: The total number of seats arriving and departing is used as a proxy for foot traffic.

Year-over-Year Seat Growth: This measures growth in passenger volume rather than flight volume, offering an additional perspective on an airport's capacity to serve travelers.

Number of Destinations Served: This highlights an airport's point-topoint connectivity, reflecting how well it connects travelers to various destinations.

A TAILORED EVALUATION

Not all metrics are treated equally—each is assigned a specific weighting based on its importance to overall airport performance. This ensures a balanced evaluation. Similar to the Airline Platinum Award, the Airport Platinum Award is governed by a proprietary formula we've developed internally. This formula allows us to account for the complexity of airport operations while prioritizing passenger experience.

By combining performance metrics with growth indicators, this award celebrates an airport that goes the extra mile to deliver reliability, efficiency, service, and connectivity for their passengers.

AIRLINE **CALCULATIONS**

We examine our flight status and arrival data curated from over 600 global sources, including published schedules, government agencies, civil aviation authorities, airlines, airports, and major airline reservation systems.

Our data processing team has logic, processes, and protections in place to corroborate the information we gather for flights worldwide. Our categories for this report are grouped into three areas: Global. Major (by region), and lowcost carriers. There is an 80% Actual Gate Arrival Time coverage requirement for all categories.

KEY EVALUATION CRITERIA

Available Seat Kilometres (ASKs) – the number of seats available multiplied by the number of kilometres flown captures an airline's total production in terms of their total passenger carrying capacity and distance flown.

Flights

The total number of flights flown – captures the airline's total volume of passenger flights flown.

Seats

The total number of seats flown captures the airline's total volume of seats flown.

Regions Served

The total number of regions served by an airline – captures the airline's global prominence across report regions. An airline is considered to serve a region if it operates one (1) or more flights per day to or within that region. An airline's home region counts as one of its regions served.

Global sources

Actual Gate Arrival Time (AGA) Coverage

The percentage of flights in Cirium's database for which the AGA field is present – ensures a minimum data guality standard required to evaluate the airline's performance. Airlines can boost their coverage by becoming a Cirium Data Supplier. Find out more at www.cirium.com/about/data-supply.

Completion Factor

The percentage of flights not cancelled – captures the airline's ability to complete their flights as scheduled.

Actual gate arrival

REGIONAL **THRESHOLDS**

We report OTP figures inclusive of all flights operated under a carrier's brand (mainline, wetlease, subsidiaries. To qualify for the Cirium OTP Report, there is an 80% actual gate arrival time data coverage requirement for all airline categories. These categories include Global, Major (by region) and low-cost carriers.

For the Global Airlines category, we consider the Top 10% of all passenger airlines by capacity and volume criteria - by Available Seat Kilometres (ASKs), flights and seats—the airline must also serve at least three regions.

For Major Airlines by Region, the threshold for ASKs, flights and seats, varies by region to accurately reflect the size of operations in that region.

The thresholds for each region are listed in the table below.

Region	Flights, Seats, ASK, Threshold
ASIA PACIFIC	Top 30%
EUROPE	Top 30%
LATIN AMERICA	Top 30%
MIDDLE EAST & AFRICA	Top 30%
NORTH AMERICA	Top 15%

The low-cost carrier (LCC) category reviews airlines that are industry recognized and/or self- identified lowcost carriers. For this category, we consider the Top 60% of LCC airlines. LCC airlines must fall in the Top 60% for flights, seats, and destinations to be considered.

AIRPORT CALCULATIONS

Each month Cirium reviews the total number of flights in a given month (approximately 3 million) for every airport globally in an ordered list, then looks at where the percentile demarcations fall. For the annual OTP review, we take the total number of flights in a given year for every airport.

Airports are selected based on a combination of factors, including:

GLOBAL AIRPORT

Seats 25-40m

Actual gate departure coverage 80% or better

Must serve at least three (3) regions (inclusive of its own)

LARGE AIRPORT

Seats 25-40m

Actual gate departure coverage 80% or better

Note: this category can include airports in the global airport category

MEDIUM AIRPORT

Seats 25-40m

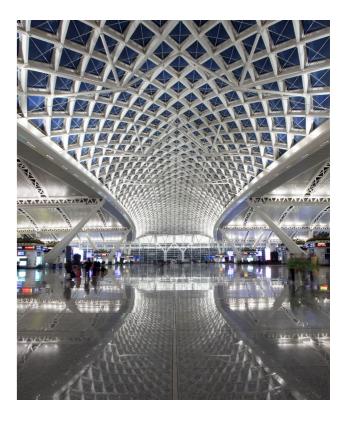
Actual gate departure coverage 80% or better

SMALL AIRPORT

Seats 25-40m

Actual gate departure coverage 80% or better **AIRPORT CALCULATIONS**

Actual gate departure



CIRIUM HISTORY



2004

2023

Cirium brings together powerful data and analytics to keep the world moving. Delivering insight, built from decades of experience in the sector, enabling travel companies, aircraft manufacturers, airports, airlines and financial institutions, among others, to make logical and informed decisions which shape the future of travel, grow revenues and enhance customer experiences. Cirium is part of RELX PLC, a global provider of information-based analytics and decision tools for professional and business customers.

1909

Launched the world's first weekly aerospace magazine.

Launched airlinespecific insights to airline C-suite with the title Airline Business.

1985

1997

Created online news and data service for aerospace and airports (formerly known as ATI).

Expanded in aerospace with the most comprehensive technical fleet database (known previously as ACAS).

2016 The pioneer in

global, real-time flight status data, FlightStats, brought into the group.

Expanded the group's offering with Diio's fares, traffic and schedules analysis tools.

2019 New aviation analytics brand Cirium launched showcasing the industry's largest data store and an

advanced solutions

portfolio.

2020

Added live flight and navigational data to the Cirium portfolio, bringing in initiatives for System Wide Information Management (SWIM), with Snowflake Software.

Introduced new aviatio analytics tools to accel digital transformation a support the industry's sustainability goals und five product brands

Extended partnership Aireon to offer satellite based aircraft position analytics.

CIRIUM HISTORY

2011

Grew portfolio with the addition of aircraft finance services with historical fleet and valuations data with acquisition of Ascend.

2014

Added historical airline schedules data to business with acquiring Innovata.

2024

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on Ierate and der	Launched EmeraldSky with a unique and unparalleled methodology, data and analytics to provide the world's most accurate measure of aircraft and flight emissions.
with e- Ial	Introduced the On-Time AI Assistant, designed to enhance exploration of on time performance data, streamline data discovery, uncover insights, and answer operational questions.

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