CIRIUM

THE ON-TIME PERFORMANCE MONTHLY REPORT

AIRPORTS

NOVEMBER 2023

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DATA IN.
INTELLIGENCE OUT.

Empowering the aviation industry with insights on past, present, and future airline supply, demand, traffic and fares.

Research markets faster
Track schedules and research existing or target markets from a simple and intuitive online interface.

Plan with confidence
Calculate passenger volume and revenue by route and identify risks and opportunities for growth.

Analyze demand
Global demand-based traffic data provides a more complete picture of both supply and demand.

Cirium Diio is the leading airline analytics platform for the aviation industry.
The Cirium Diio suite helps stakeholders forecast air travel trends with reliable data on supply, demand, traffic and fares. Cirium serves airlines, airports, travel providers, tourism and other aviation sectors.

CIRIUM
aviation analytics

THE MOST ON-TIME AIRPORTS

The most on-time
Global Airports

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served	Summary of Top Performers
Salt Lake City International Airport (SLC)	1	91.37%	100.00%	18,332	59	92	
Detroit Metropolitan Wayne County Airport (DTW)	2	89.82%	99.98%	22,674	60	104	**Total On-Time Departures**
Minneapolis-St. Paul International Airport (MSP)	3	89.48%	98.99%	23,322	53	138	**85.29%**
Hartsfield-Jackson Atlanta Internationational Airport (ATL)	4	88.70%	99.79%	60,851	48	204	
Washington Dulles International Airport (IAD)	5	88.59%	95.37%	16,687	60	121	
Philadelphia International Airport (PHL)	6	88.10%	99.18%	19,844	64	107	**Total Tracked Flights**
Newark Liberty International Airport (EWR)	7	87.85%	98.39%	31,320	57	155	**98.86%**
San Diego International Airport (SAN)	8	86.09%	99.69%	16,025	58	68	
Charlotte Douglas International Airport (CLT)	9	86.03%	98.73%	41,672	58	172	
Phoenix Sky Harbor International Airport (PHX)	10	85.68%	98.23%	34,553	54	135	**Total Flights**
George Bush Intercontinental Airport (IAH)	11	85.52%	99.84%	32,547	56	162	**614,749**
Tampa International Airport (TPA)	12	85.52%	98.96%	15,282	59	89	
Logan International Airport (BOS)	13	85.42%	98.63%	28,326	59	124	
O'Hare International Airport (ORD)	14	85.31%	97.98%	53,444	60	208	**Total Seats**
Nashville International Airport (BNA)	15	85.28%	97.94%	17,125	53	93	**92.80M**
Hamad International Airport (DOH)	16	85.19%	99.46%	19,843	43	170	
Seattle-Tacoma International Airport (SEA)	17	84.95%	99.82%	32,055	56	121	
Los Angeles International Airport (LAX)	18	84.79%	98.42%	41,079	53	158	**Total Routes**
Dallas/Fort Worth International Airport (DFW)	19	84.59%	99.06%	54,753	56	246	**2,835**
John F. Kennedy International Airport (JFK)	20	83.94%	98.79%	35,015	58	168	

Operational Highlights

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Salt Lake City International Airport (SLC)	91.37%	91.32%	92	8
Detroit Metropolitan Wayne County Airport (DTW)	89.82%	89.10%	104	15
Minneapolis-St. Paul International Airport (MSP)	89.48%	89.23%	138	15
Hartsfield-Jackson Atlanta Internationational Airport (ATL)	88.70%	89.59%	204	22
Washington Dulles International Airport (IAD)	88.59%	86.77%	121	37

The most on-time
Large Airports

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served	Summary of Top Performers
Salt Lake City International Airport (SLC)	1	91.37%	100.00%	18,332	59	92	**Total On-Time Departures** 85.86%
Detroit Metropolitan Wayne County Airport (DTW)	2	89.82%	99.98%	22,674	60	104	
Minneapolis-St. Paul International Airport (MSP)	3	89.48%	98.99%	23,322	53	138	
LaGuardia Airport (LGA)	4	88.76%	99.98%	29,235	55	82	
Hartsfield-Jackson Atlanta Internationational Airport (ATL)	5	88.70%	99.79%	60,851	48	204	**Total Tracked Flights** 98.97%
Washington Dulles International Airport (IAD)	6	88.59%	95.37%	16,687	60	121	
Philadelphia International Airport (PHL)	7	88.10%	99.18%	19,844	64	107	
Newark Liberty International Airport (EWR)	8	87.85%	98.39%	31,320	57	155	
Ronald Reagan National Airport (DCA)	9	87.75%	100.00%	23,909	58	98	**Total Flights** 578,125
San Diego International Airport (SAN)	10	86.09%	99.69%	16,025	58	68	
Charlotte Douglas International Airport (CLT)	11	86.03%	98.73%	41,672	58	172	
Phoenix Sky Harbor International Airport (PHX)	12	85.68%	98.23%	34,553	54	135	
George Bush Intercontinental Airport (IAH)	13	85.52%	99.84%	32,547	56	162	**Total Seats** 84.95M
Tampa International Airport (TPA)	14	85.52%	98.96%	15,282	59	89	
Logan International Airport (BOS)	15	85.42%	98.63%	28,326	59	124	
O'Hare International Airport (ORD)	16	85.31%	97.98%	53,444	60	208	
Nashville International Airport (BNA)	17	85.28%	97.94%	17,125	53	93	**Total Routes** 2,601
Hamad International Airport (DOH)	18	85.19%	99.46%	19,843	43	170	
Seattle-Tacoma International Airport (SEA)	19	84.95%	99.82%	32,055	56	121	
Los Angeles International Airport (LAX)	20	84.79%	98.42%	41,079	53	158	

Operational Highlights

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Salt Lake City International Airport (SLC)	91.37%	91.32%	92	8
Detroit Metropolitan Wayne County Airport (DTW)	89.82%	89.10%	104	15
Minneapolis-St. Paul International Airport (MSP)	89.48%	89.23%	138	15
LaGuardia Airport (LGA)	88.76%	89.38%	82	8
Hartsfield-Jackson Atlanta Internationational Airport (ATL)	88.70%	89.59%	204	22

The most on-time
Medium Airports

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served	Summary of Top Performers
Portland International Airport (PDX)	1	90.15%	99.90%	11,865	59	63	
Norman Y. Mineta San Jose Internationational Airport (SJC)	2	88.68%	99.82%	8,720	53	39	Total On-Time Departures 80.71%
New Chitose Airport (CTS)	3	87.84%	100.00%	11,762	36	35	
Jorge Chavez International Airport (LIM)	4	87.32%	85.99%	13,304	50	58	
Osaka International Airport (ITM)	5	87.09%	99.51%	11,102	27	26	
Tocumen International Airport (PTY)	6	86.95%	99.29%	10,678	46	88	Total Tracked Flights 96.08%
Daniel K. Inouye International Airport (HNL)	7	86.91%	87.20%	13,380	44	56	
Sacramento International Airport (SMF)	8	86.56%	99.96%	9,205	53	39	
Louis Armstrong New Orleans International Airport (MSY)	9	85.39%	99.89%	8,962	57	51	
Lambert-St. Louis International Airport (STL)	10	85.28%	96.46%	11,586	57	66	Total Flights 216,299
William P. Hobby Airport (HOU)	11	84.70%	99.96%	10,360	34	74	
Brasilia International Airport (BSB)	12	83.61%	99.33%	8,545	42	44	
Kuwait International Airport (KWI)	13	83.07%	80.75%	9,300	41	80	
Naha Airport (OKA)	14	82.69%	97.03%	10,626	29	36	Total Seats 35.78M
Addis Ababa Bole International Airport (ADD)	15	82.57%	97.17%	10,698	39	111	
Netaji Subhas Chandra Bose Airport (CCU)	16	81.71%	83.25%	11,839	76	59	
Dallas Love Field (DAL)	17	81.18%	99.59%	12,647	39	68	
Geneve Airport (GVA)	18	80.87%	97.86%	8,807	40	99	Total Routes 1,226
Arturo Merino Benitez Airport (SCL)	19	80.07%	99.08%	12,096	51	57	
Calgary International Airport (YYC)	20	79.97%	99.53%	10,817	42	77	

Operational Highlights

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Portland International Airport (PDX)	90.15%	86.38%	63	15
Norman Y. Mineta San Jose Internationational Airport (SJC)	88.68%	87.94%	39	9
New Chitose Airport (CTS)	87.84%	85.88%	35	28
Jorge Chavez International Airport (LIM)	87.32%	80.84%	58	25
Osaka International Airport (ITM)	87.09%	83.87%	26	4

The most on-time
Small Airports

	On-Time Ranking	On-Time Departure	Tracked Flights	Total Flights	Avg Dep Delay	Routes Served	Summary of Top Performers
Reno/Tahoe International Airport (RNO)	1	90.55%	99.35%	3,372	65	20	**Total On-Time Departures** 86.16%
Boise Air Terminal (Gowen Field) (BOI)	2	90.54%	99.50%	4,358	68	23	
Ibiza Airport (IBZ)	3	90.34%	99.80%	2,031	55	30	
Indianapolis International Airport (IND)	4	90.01%	99.89%	7,537	56	40	
Kona International Airport at Keahole (KOA)	5	89.99%	88.52%	3,224	38	18	**Total Tracked Flights** 97.18%
Cincinnati/Northern Kentucky Airport (CVG)	6	89.79%	99.92%	7,110	65	48	
Bergen Airport (BGO)	7	89.28%	84.85%	6,105	43	39	
Pittsburgh International Airport (PIT)	8	89.26%	93.95%	7,944	60	54	
Norfolk International Airport (ORF)	9	88.79%	99.95%	3,890	82	31	**Total Flights** 102,370
Chubu Centrair International Airport (NGO)	10	88.68%	91.64%	6,172	35	34	
John Glenn Columbus International Airport (CMH)	11	88.62%	99.92%	7,187	55	38	
Eppley Airfield (OMA)	12	88.47%	99.95%	3,991	65	27	
Buffalo Niagara International Airport (BUF)	13	88.06%	99.74%	3,804	60	26	**Total Seats** 13.84M
Richmond International Airport (Byrd Field) (RIC)	14	88.05%	99.90%	4,112	58	31	
General Mitchell International Airport (MKE)	15	87.99%	99.79%	4,875	76	28	
Kansas City International Airport (MCI)	16	87.68%	99.86%	8,372	52	46	
Charleston International Airport (CHS)	17	87.67%	99.66%	4,657	61	45	**Total Routes** 658
San Antonio International Airport (SAT)	18	87.58%	99.92%	7,580	57	39	
Mariscal Sucre International Airport (UIO)	19	87.58%	89.11%	3,365	66	26	
Jose Joaquin de Olmedo Airport (GYE)	20	87.52%	98.35%	2,684	72	15	

Operational Highlights

	On-Time Departure	On-Time Arrival	Total Routes Served	Total Airlines Served
Reno/Tahoe International Airport (RNO)	90.55%	88.18%	20	11
Boise Air Terminal (Gowen Field) (BOI)	90.54%	88.62%	23	8
Ibiza Airport (IBZ)	90.34%	92.16%	30	12
Indianapolis International Airport (IND)	90.01%	88.25%	40	10
Kona International Airport at Keahole (KOA)	89.99%	85.73%	18	9

Trend Report

Airport	Nov 23	Oct 23	Sep 23
GLOBAL AIRPORT RANKING			
1 (SLC) Salt Lake City International Airport	91.37%	89.36%	87.04%
2 (DTW) Detroit Metropolitan Wayne County Airport	89.82%	88.57%	85.10%
3 (MSP) Minneapolis-St. Paul International Airport	89.48%	87.54%	85.89%
4 (ATL) Hartsfield-Jackson Atlanta International Airport	88.70%	86.94%	83.97%
5 (IAD) Washington Dulles International Airport	88.59%	87.22%	78.85%
LARGE AIRPORT RANKING			
1 (SLC) Salt Lake City International Airport	91.37%	89.36%	87.04%
2 (DTW) Detroit Metropolitan Wayne County Airport	89.82%	88.57%	85.10%
3 (MSP) Minneapolis-St. Paul International Airport	89.48%	87.54%	85.89%
4 (LGA) LaGuardia Airport	88.76%	88.13%	78.72%
5 (ATL) Hartsfield-Jackson Atlanta International Airport	88.70%	86.94%	83.97%
MEDIUM AIRPORT RANKING			
1 (PDX) Portland International Airport	90.15%	88.93%	87.57%
2 (SJC) Norman Y. Mineta San Jose International Airport	88.68%	84.28%	83.68%
3 (CTS) New Chitose Airport	87.84%	87.07%	82.10%
4 (LIM) Jorge Chavez International Airport	87.32%	89.18%	89.65%
5 (ITM) Osaka International Airport	87.09%	91.20%	92.49%
SMALL AIRPORT RANKING			
1 (RNO) Reno/Tahoe International Airport	90.55%	86.80%	82.72%
2 (BOI) Boise Air Terminal (Gowen Field)	90.54%	88.45%	89.83%
3 (IBZ) Ibiza Airport	90.34%	72.60%	61.64%
4 (IND) Indianapolis International Airport	90.01%	87.94%	85.86%
5 (KOA) Kona International Airport at Keahole	89.99%	86.54%	92.36%

Cancellations Report

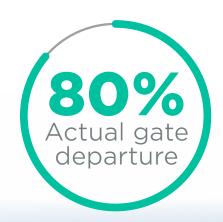| Region	November 2023	October 2023
Middle East & Africa	2,434	3,110
Asia Pacific	36,316	31,664
Latin America	3,084	4,212
North America	2,644	4,656
Europe	7,626	9,587

■ November 2023 ■ October 2023

APPENDIX

Report Calculation
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:

80%
Actual gate departure

Global Airport

- 25-40m seats
- Actual gate departure coverage 80% or better
- Must serve at least three (3) regions (inclusive of its own)

Large Airport

- 25-40m seats
- Actual gate departure coverage 80% or better
- Note: this category can include airports in the global airport category

Medium Airport

- 15-25m seats
- Actual gate departure coverage 80% or better

Small Airport

- 5-15m seats
- Actual gate departure coverage 80% or better

Airport size categories are calculated during the last complete calendar year.

Usage and attribution

We 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.

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

Examples of how to cite us:

"Cirium's airport on-time performance **analysis shows 85.52%** of Tampa International Airport's flights departed on-time in November."

"Based on Cirium's most current data, Salt Lake International Airport handled 18,332 flights in November, **resulting in an 91.37% on-time departure rate**."

"In November, **88.76% of flights** from LaGuardia Airport **departed on time**, according to the aviation analytics firm Cirium®."

"**86.95% of flights** from Tocumen International Airport left on time in November, according to Cirium's on-time performance data."

Glossary of terms

AVAILABLE SEAT KILOMETERS (ASK)	The number of seats available multiplied by the number of kilometers between origin and destination.
BLOCK TIME	Referred to as B0. 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 airlines.
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.
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.

Cirium history

Cirium brings together powerful data and analytics to keep the world moving. Cirium delivers insight built from decades of experience in the sector. We empower travel companies, aircraft manufacturers, airports, airlines, and financial institutions, among others, to make logical and informed decisions to 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.

1985
Launched airline specific insights to airline C-suite with the title **Airline Business**.

1997
Created online news and data service for aerospace and airports (formerly known as **ATI**).

2004
Expanded in aerospace with the most comprehensive technical fleet database (known previously as **ACAS**).

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**.

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**.

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