

Statistical Bulletin of Civil Aviation Industry Development in 2024

In 2024, under the strong leadership of the CPC Central Committee with Comrade Xi Jinping at its core and following the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the entire industry fully implemented the guiding principles of the 20th National Congress of the CPC and its Third Plenary Session, and the Central Economic Work Conference, resolutely implemented the deployment of the Party Central Committee and the State Council. CAAC upheld the principle of pursuing progress while ensuring stability, firmly embraced the concept of safe development, and coordinated the advancement of all tasks. The civil aviation industry has taken new and solid steps toward high-quality development.

routes, up 41.8% year-on-year. International routes witnessed a transport turnover of 50.952 billion ton-km, up by 58.7% year-on-year.



Figure 1 Total transport turnover of civil aviation industry 2020–2024

A passenger turnover of 1 291.472 billion passenger-km was registered in the whole industry, up by 25.3% year-on-year. The passenger turnover on domestic routes reached 1 020.082 billion passenger-km, up by 12.4% year-on-year, of which 13.898 billion

I. Transport Aviation

1. Transport Turnover

In 2024, the whole industry recorded a total transport turnover of 148.517 billion ton-km, up by 25.0% year-on-year. Domestic routes registered a total transport turnover of 97.565 billion ton-km, up by 12.5% year-on-year, including 1.418 billion ton-km on Hong Kong, Macao and Taiwan

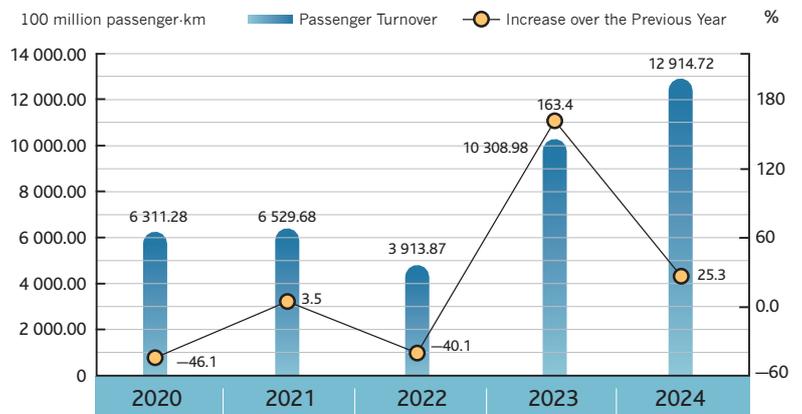


Figure 2 Passenger turnover of civil aviation industry 2020–2024

passenger-km was achieved on Hong Kong, Macao and Taiwan routes, up by 48.6% year-on-year. The passenger turnover on international routes hit 271.390 billion passenger-km, up by 120.7% year-on-year.

The whole industry registered a cargo and mail turnover of 35.389 billion ton-km, up by 24.8% year-on-year. Domestic routes recorded 8.241 billion ton-km, up by 17.0% year-on-year, including 203 million ton-km on Hong Kong, Macao and Taiwan routes, a 10.6% increase year-on-year, while international routes saw 27.147 billion ton-km, a 27.4% growth year-on-year.

2. Passenger Traffic

In 2024, the whole industry witnessed passenger traffic of 730.213 3 million, up by 17.9% year-on-year, of which 664.657 8 million were achieved on domestic routes, up by 12.6% year-on-year, including 9.580 8 million on Hong Kong, Macao and Taiwan routes, up by 43.3% year-on-year. International routes saw a passenger traffic of 65.555 5 million, up by 125.6% year-on-year.

3. Cargo and Mail Traffic

In 2024, the whole industry transported 8.9816 million tons of cargo and mail, up by 22.1% year-on-year. 5.375 6 million tons of cargo and mail were transported on domestic routes, up by 17.8% year-on-year, including 163.9 thousand tons on Hong Kong, Macao and Taiwan routes, up by 8.4% year-on-year. International routes saw a cargo and mail traffic of 3.606 0 million tons, up by 29.3% year-on-year.

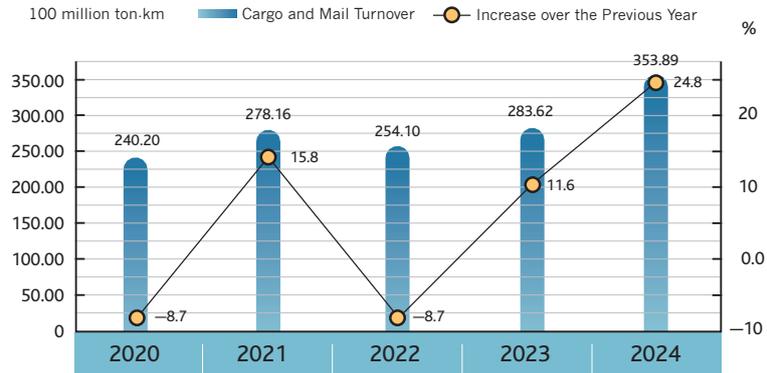


Figure 3 Cargo and mail turnover of civil aviation industry 2020-2024

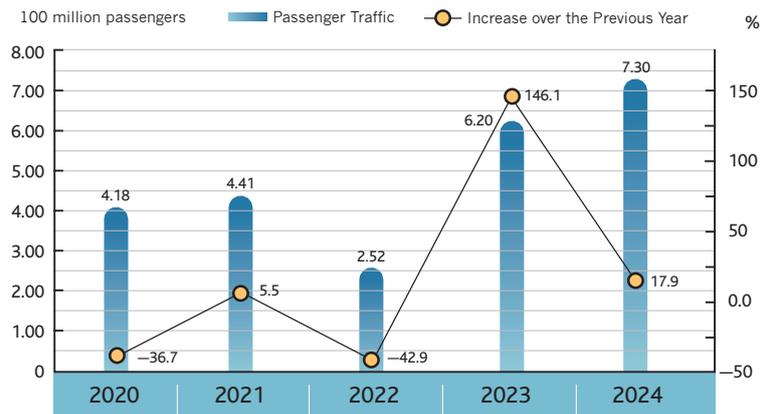


Figure 4 Passenger traffic of civil aviation industry 2020-2024

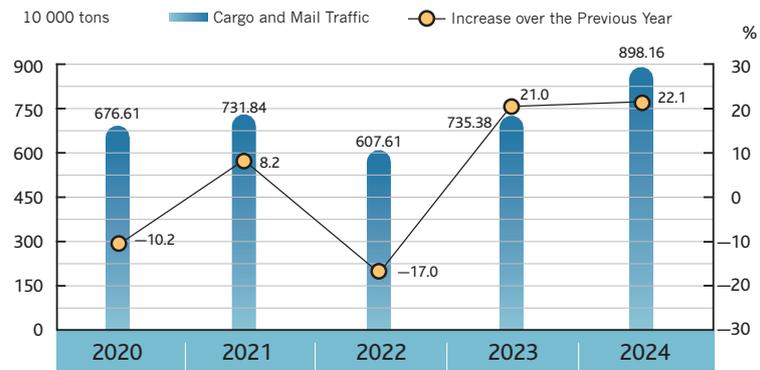


Figure 5 Cargo and mail transported by civil aviation industry 2020-2024

4. Flight Hours and Take-offs

In 2024, transport airlines in the whole industry posted 13.821 7 million flight hours, up by 13.2% year-on-year. 11.507 9 million flight hours were achieved on domestic routes, up by 5.3% year-

on-year, including 172.2 thousand flight hours on Hong Kong, Macao and Taiwan routes, up by 42.6% year-on-year. International routes saw 2.313 8 million flight hours, up by 80.6% year-on-year.

In 2024, transport airlines in the whole industry performed a total of 5.379 5 million take-offs, up by 9.3% year-on-year. 4.914 8 million movements were accomplished on domestic routes, up by 5.1% year-on-year, including 70.5 thousand on Hong Kong, Macao and Taiwan routes, up by 36.1% year-on-year. International routes saw 464.7 thousand movements, up by 89.5% year-on-year.

In 2024, transport airlines in the whole industry registered 37.6 thousand flight hours for non-production purpose, including 11.6 thousand flight hours for training; and they performed 51.6 thousand movements for non-production purpose.

5. Number of Transport Airlines

In 2024, there were a total of 66 transport airlines in China, the same as the previous year, including 39 state-owned airlines and 27 private or private holding airlines. Among all transport airlines, there were 13 all-cargo airlines, 8 joint venture airlines and 8 publicly listed airlines.

6. Transport Aircraft Fleet

In 2024, the civil aviation industry had 4 394 registered transport aircraft, an increase of 124 over the end of 2023.

Table 1 Number of transport aircraft in 2024

Aircraft Categories	Number of Aircraft	Increase from 2023	Percentage of Transport Fleet (%)
Total	4 394	124	100.0
Passenger Aircraft	4 126	113	93.9
Including:			
Wide-body Aircraft	464	-9	10.6
Narrow-body Aircraft	3 380	104	76.9
Regional Aircraft	282	18	6.4
Freighters	268	11	6.1
Large Freighters	102	8	2.3
Small and Medium Freighters	166	3	3.8

7. Route Network

In 2024, there were 5 334 scheduled routes in China, which included 4 513 domestic routes (with 73 routes connecting the mainland with Hong Kong, Macao and Taiwan) and 821 international routes. The total route mileage (including the overlapped distance) was 13.076 4 million km, or 9.586 0 million km (excluding the overlapped distance).

Table 2 Number of scheduled routes and mileage in China in 2024

Indicator	Value
Number of Routes	5 334
Domestic Routes	4 513
Including: Hong Kong, Macao and Taiwan Routes	73
International Routes	821
Route Mileage Including Overlapped Distance (10 000 km)	1 307.64
Domestic Routes	907.74
Including: Hong Kong, Macao and Taiwan Routes	12.15
International Routes	399.90
Route Mileage Excluding Overlapped Distance (10 000 km)	958.60
Domestic Routes	594.48
Including: Hong Kong, Macao and Taiwan Routes	12.07
International Routes	364.12

In 2024, 258 domestic cities were served by scheduled flights (excluding Hong Kong, Macao and Taiwan). Domestic airlines operated scheduled international flights connecting 141 cities in

62 countries, while scheduled flights were operated by airlines of China's mainland from 30 mainland cities to Hong Kong, 12 mainland cities to Macao and 14 mainland cities to Taiwan.

8. Operations of Transport Airlines (Groups)

In 2024, China National Aviation Holding Corporation Limited recorded 2.955 0 million flight hours, up by 13.5% year-on-year. It registered a total transport turnover of 33.017 billion ton-km, up by 29.4% year-on-year, completing passenger traffic of 152.111 8 million, a year-on-year increase of 20.3%, and 1.859 2 million tons of cargo and mail, a 26.8% growth year-on-year.

China Eastern Airlines Corporation Limited recorded 2.678 9 million flight hours, up by 14.1% year-on-year. It registered a total transport turnover of 29.476 billion ton-km, up by 29.0% year-on-year, completing passenger traffic of 140.562 4 million and 1.556 1 million tons of cargo and mail, a year-on-year increase of 21.6% and 7.7% respectively.

China Southern Air Holding Company recorded 3.147 4 million flight hours, up by 10.8% year-on-year. It registered a total transport turnover of 36.212 billion ton-km, up by 21.5% year-on-year, completing passenger traffic of 164.750 5 million and 1.834 3 million tons of cargo and mail, a respective year-on-year increase of

15.9% and 15.7%.

In 2024, other airlines except the above three groups recorded a total of 5.040 3 million flight hours, up by 14.2% year-on-year, registering a total transport turnover of 49.812 billion ton-km, up by 22.4% year-on-year, with passenger traffic of 272.788 6 million, up by 15.9% year-on-year, and 3.732 0 million tons of cargo and mail, up by 30.6% year-on-year.

9. Major Air Transportation Tasks

In 2024, by demands of relevant entities and ministries, CAAC carried out such major transportation tasks as emergency rescue and repatriation of overseas Chinese, and organized 160 flights, which transported 17.8 thousand persons and 587 tons of materials.

10. Transport Airports

In 2024, there were 263 transport airports in China (excluding the ones in Hong Kong, Macao and Taiwan), a net increase of 4 from the end of 2023. Newly built airports in 2024 included Xingtai Dalian Airport (Hebei), Qitai Jiangbulake Airport (Xinjiang), Hejing Bayinbuluke Airport (Xinjiang), Suifenhe Dongning Airport (Heilongjiang).

Classified by airfield category among all certified airports, 15 were 4F, 39 were 4E, 37 were 4D, 167 were 4C, 4 were 3C and 1 was below 3C.

11. Traffic Handled by Airports

In 2024, the civil transport airports across China handled a total

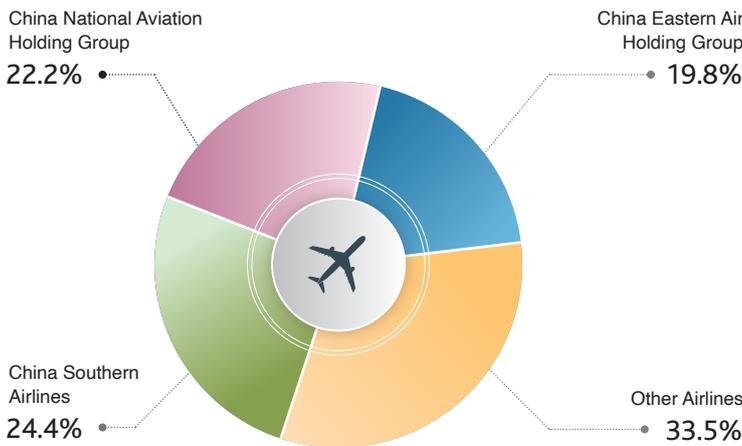


Figure 6 Share of total transport turnover by airlines (groups) in 2024

Table 3 Number of certified transport airports by region in 2024

Region	Number of Certified Transport Airports	Percentage of the Total (%)
Nationwide	263	100.0
Including: East Region	57	21.7
Central Region	44	16.7
West Region	134	51.0
Northeast Region	28	10.6

passenger traffic of 1.460 billion, up by 15.9% year-on-year.

Specifically, 757 million passengers were handled by airports in the east region, 161 million in the central region, 449 million in the west region, and 93 million in the northeast region, representing a year-on-year increase of 18.6%, 12.8%, 12.6% and 15.8% respectively.

In 2024, civil transport airports across China handled a total of 20.061 9 million tons of cargo and mail, up by 19.2% year-on-year.

Specifically, 13.766 8 million tons of cargo and mail were handled by airports in the east region, up by 14.1%; 2.401 9 million tons in the central region, up by 58.5%; 3.252 7 million tons in the west region, up by 21.9%; and 640.5 thousand tons in the northeast region, up by 10.0%.

In 2024, civil transport airports across China saw a total of 2.400 5 million movements, up by 5.9% year-on-year, including 10.594 0 million movements for commercial flights, a year-on-year increase of 8.0%.

In 2024, there were 40 transport airports with annual passenger throughput of 10 million or above in China. The passenger throughput of airports in Beijing, Shanghai and Guangzhou contributed 21.8% of the total passenger traffic among all airports in China, an increase of 1.7 percentage points from 2023. Specifically, the passenger throughput on international

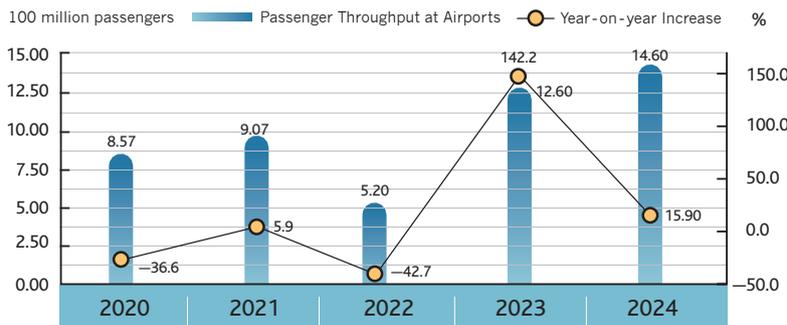


Figure 7 Passenger throughput at civil transport airports 2020–2024

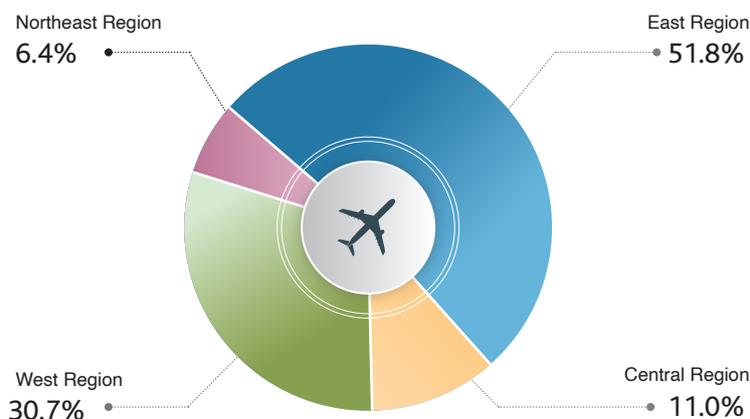


Figure 8 Passenger throughput of civil transport airports by region in 2024



Figure 9 Cargo and mail throughput of civil transport airports 2020–2024

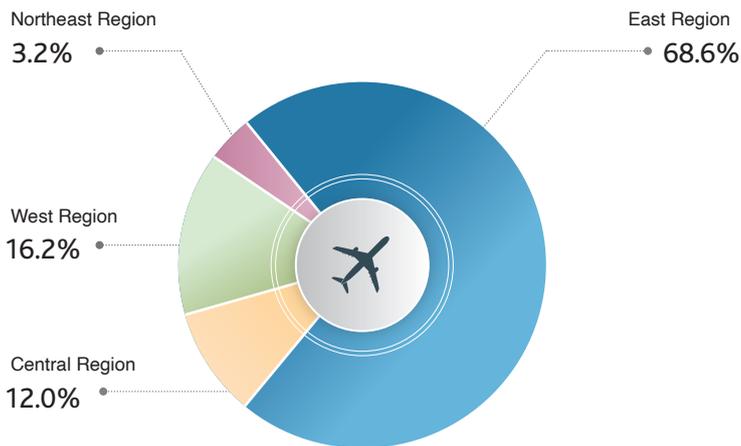


Figure 10 Cargo and mail throughput of civil transport airports by region in 2024



Figure 11 Aircraft movements at civil transport airports 2020–2024

routes of airports in Beijing, Shanghai, and Guangzhou made up for 59.4% of the total among all airports in China, a decrease of 1.4 percentage points from the previous year.

In 2024, China had 67 transport airports with annual cargo and mail throughput of 10 thousand tons or above. The cargo and mail traffic handled by airports in Beijing, Shanghai and Guangzhou accounted for 41.7% of the total among all airports in China, a decrease of 1.1 percentage points from 2023.

II. General Aviation

1. Number of General Aviation Enterprises

In 2024, there were 760 traditional certified general aviation enterprises, a net increase of 70 from the end of 2023, including 140 located in north China, 48 in northeast China, 222 in east China, 161 in central south China, 125 in southwest China, 37 in northwest China, and 27 in Xinjiang.

2. General Aviation Aircraft Fleet

In 2024, there were a total of 3 232 registered general aviation aircraft, including 1 252 aircraft for training.

3. General Aviation Airports

In 2024, there were a total of 475 general aviation airports, a net increase of 26 from the end of last year, with 172 Category A general aviation airports.

Table 4 Number of airports by passenger throughput in 2024

Annual Passenger Traffic	Number of Airports	Increase from 2023	Percentage of Total (%)
10 Million or Above	40	2	83.4
2-10 Million	37	1	10.4
Under 2 Million	186	1	6.2

Table 5 Number of airports by cargo and mail throughput in 2024

Annual Cargo and Mail Traffic	Number of Airports	Increase from 2023	Percentage of Total (%)
100 000 Tons or Above	34	3	93.0
10 000-100 000 Tons	33	1	6.0
Under 10 000 Tons	196	0	1.1

4. General Aviation Flight Hours

In 2024, across the country, the general aviation industry posted 1.341 million flight hours, down by 2.2% from a year earlier, including 24 thousand hours of passenger transport, down by 12.5% from 2023; 178 thousand hours of manned transport, a year-on-year increase of 22.6%; and 641 thousand hours of other general aviation activities, down by 8.0% year-on-year; and 498 thousand hours of non-profit operations, a year-on-year decrease of 0.6%.

5. Unmanned Aerial Vehicle

As of the end of 2024, there were 19 979 companies holding UAV operation certificates. Among them, 3 000 were in North China, 2 399 in Northeast China, 5 397 in East China, 4 218 in Central-South China, 2 983 in Southwest China, 1 561 in Northwest China, and 421 in Xinjiang.

By the end of 2024, the number of registered UAV owners in the industry reached 1.619 million, an increase of 804 000 from the previous year. This included 1.521 million individual users

and 98 000 institutional users (enterprises, public institutions, government agencies, etc.)

As of the end of 2024, the total number of registered UAVs in the industry was 2.177 million, a year-on-year increase of 98.5%.

By the end of 2024, a total of 273 300 UAV pilot licenses had been issued, of which 247 300 were valid.

In 2024, the cumulative flight hours of UAVs reached 26.667 million, a year-on-year increase of 15.4%.

III. Transport Efficiency and Financial Performance

1. Transport Efficiency

In 2024, the industry-wide average daily utilization of registered transport aircraft stood at 8.89 hours, up by 0.77 hours from 2023. Specifically, the average daily utilization of medium and large aircraft as well as small ones was 9.08 hours and 5.64 hours, up by 0.75 hours and 1.18 hours from a year earlier respectively.

In 2024, the passenger load factor of scheduled flights averaged 83.3%, up by 5.4 percentage points from 2023.

In 2024, the cargo load factor of scheduled flights averaged 72.0%, a 4.3 percentage points increase year-on-year.

2. Financial Performance

According to preliminary statistics,

Table 6 Passenger load factor and cargo load factor of scheduled flights in 2024

Indicator	Value (%)	Increase from 2023 (Percentage Points)
Passenger Load Factor of Scheduled Flights	83.3	5.4
Domestic Routes	84.5	5.7
Including: Hong Kong, Macao and Taiwan Air Routes	76.6	5.2
International Routes	79.1	7.3
Cargo Load Factor of Scheduled Flights	72.0	4.3
Domestic Routes	73.3	5.8
Including: Hong Kong, Macao and Taiwan Air Routes	62.9	7.0
International Routes	69.5	1.2

in 2024, the whole civil aviation industry witnessed the business revenue of 1 134.15 billion yuan, up by 10.8% from 2023 and the profit of 120 billion yuan, up by 20.61 billion yuan from a year earlier. Specifically, airlines made 765.64 billion yuan in business revenue, up by 13.6% from a year earlier, and 4.47 billion yuan in profit, up by 10.2 billion yuan from 2023; airports made 113.67 billion yuan in business revenue, up by 8.5% from 2023, and 13.06 billion yuan in loss, down by 6.61 billion yuan from 2023; and supporting enterprises made 254.83 billion yuan in business revenue, up by 4.3%, and 8.72 billion yuan in profit, up by 3.82 billion yuan from a year earlier.

According to preliminary statistics, in 2024, across the whole industry, the revenue was 4.72 yuan per ton-km, down by 9.9% from the previous year. Passenger revenue per ton-km was 5.49 yuan, down by 11.5% from 2023; and cargo and mail revenue stood at 2.29 yuan per ton-km, up by 3.2% from 2023.

According to preliminary statistics, in 2024, tax payment paid by the whole industry was 41.18 billion yuan, up by 1.38 billion yuan from a year earlier.

IV. Aviation Safety and Service Quality

1. Aviation Safety

In 2024, the civil aviation industry achieved safe operation which remained stable and controllable, with the 10-year rolling value of the major transport accident rate per million movements standing at 0.024, and the value of accidents per 10 000 movements in general aviation standing at 0.026.

2024 saw 618 transport aviation incidents, including 4 severe incidents and 8 incidents attributable to human factors. In 2024, a total of 5 transport airlines experienced human factors induced incidents.

In 2024, the rate of severe incidents per 10 000 flight hours was 0.002 9 in transport aviation, down by 11.67% year-on-year. All safety-related indicators fell within the target ranges set for the year.

2. Aviation Security

In 2024, there were 78 596 security screeners and guardians across the whole civil aviation industry, up by 3 961 from 2023.

In 2024, the security entities across the country handled 714 million security

checks for passengers, 347 million checked baggage, 694 million air cargoes (excluding mail and express deliveries), and 230 million mail and express deliveries. In addition, these entities dealt with 51 cases involving the spread of false information endangering aviation security and operation order, and addressed 14 887 security incidents, effectively ensuring sustained aviation security. By the end of 2024, 271 consecutive months of aviation security had been achieved.

3. Flight Regularity

In 2024, passenger airlines in China operated 5.003 1 million flights in total, among which 4.357 7 million flights were operated punctually, with an average flight regularity rate of 87.1%.

In 2024, major airlines operated 3.736 1 million flights in total, among which 3.249 1 million flights were operated punctually, with an average flight regularity rate of 86.96%.

4. Service Quality

In 2024, 257 airports had implemented paperless travel services, with the domestic baggage full-process tracking rate reaching 89.8%.

In 2024, the entire industry provided first-time traveler services to 63 million passengers. 28 major airports with annual passenger throughput exceeding 10 million reduced their publicly announced check-in cutoff times by more than 5 minutes. The

Table 7 Flight irregularity by causes in 2024

Item	% of the Total	Increase from 2023 (%)
Causes of Flight Irregularity for All Airlines	100.00	
Including: Weather	58.31	-2.11
Airlines	16.52	1.84
ATC(Including Air Traffic Flow)	0.02	-0.02
Others	25.15	0.29
Causes of Flight Irregularity for Major Airlines	100.00	
Including: Weather	59.19	-0.78
Airlines	16.83	1.21
ATC (Including Air Traffic Flow)	0.02	-0.03
Others	23.96	-0.40

industry managed nearly 3 million oversized, overweight, or improperly packed baggage items throughout the year, and 252 aircraft were equipped with air-to-ground internet communication capabilities.

In 2024, the Through Flight Service Management Platform had incorporated 41 airlines and 212 airports, with 53 300 through flights registered and 4 854 new city pairs added. The platform enabled 1.26 million passengers to enjoy "one-time payment, one-time check-in, one-time security screening, baggage through-check, and a worry-free journey". Meanwhile, the Civil Aviation Transfer Passenger Service Platform provided digital transfer services to 70.30 million passengers, with approximately 30% benefiting from "one-time check-in and baggage through-check" services.

In 2024, all major airports with annual passenger throughput exceeding 10 million launched the Easy Security Check service. The service gained 5.073 million new registered users



and processed 21.686 million appointment requests. Passengers using Easy Security Check experienced a 44.7% reduction in screening time compared to standard procedures.

In 2024, the Consumer Affairs Center of the CAAC handled 750 000 passenger service requests, including 420 000 complaints. Regulatory violation complaints accounted for approximately 4% of total requests. The complaint response rate of domestic airlines reached 100%.

V. Education and Technological Innovation

1. Education

In 2024, the universities and colleges affiliated to CAAC enrolled a total of 23 751 students, including 1 811 postgraduates, 21 779 undergraduates and junior college students, and 161 adult students. In addition, 2 206 flight students were enrolled.

In 2024, there were 80 208 registered students at universities and colleges affiliated to CAAC, including 5 338 postgraduates, 74 227 undergraduates and junior college students, and 643 adult students.

In 2024, a total of 21 254 students graduated from universities and colleges affiliated to CAAC, including 1 401 postgraduates, 19 395 undergraduates and junior college students, and 458 adult students.

2. Scientific and Technological Innovation

In 2024, 1 project under the National Key R&D Program and 18 key projects supported by the Civil Aviation Joint Research Fund of the National Natural Science Foundation of China were approved in the civil aviation sector.

In 2024, a total of 65 scientific and technological achievements in civil aviation underwent evaluation, with 33 projects receiving the CATA Science and Technology Award.

3. New Navigation Technologies

In 2024, 18 airlines in the industry had implemented HUD operations, 1 404 transport aircraft were equipped with HUD capability, 120 airports supported HUD Special Category I standards, 17 airports supported HUD Special Category II standards, and 20 airports supported HUD RVR 150-meter takeoff standards.

258 transport airports in the industry were equipped with PBN flight procedures, 35 airports with complex terrain had implemented RNP AR procedures, 4 350 transport aircraft were equipped with ADS-B (OUT) capability, and 64 airlines were utilizing EFB.

VI. Professionals

1. Number of Pilots

By the end of 2024, there were 65 452 pilots and 91 774 flight attendants in China's transport airlines, 3 972 and 5 254 more

Table 8 Statistics of civil aviation pilot licenses of China by type in 2024

Type of License	Number	Year-on-year Increase
Sport Pilot License (SPL)	3 139	625
Private Pilot License (PPL)	5 215	-102
Commercial Pilot License (CPL)	50 754	2 174
Multi-crew Pilot License (MPL)	127	-31
Airline Transport Pilot License (ATPL)	29 995	473
Total	89 230	3 139

than that of 2023 respectively.

By the end of 2024, there were a total of 89 230 valid pilot licenses in China's civil aviation industry, a net increase of 3 139 from the end of 2023, including 3 139 Sports Pilot Licenses (SPLs), 5 215 Private Pilot Licenses (PPLs), 50 754 Commercial Pilot Licenses (CPLs), 127 Multi-crew Pilot Licenses (MPLs) and 29 995 Airline Transport Pilot Licenses (ATPLs). There were 77 valid flight engineer licenses in China's civil aviation industry.

2. Other Professionals

By the end of 2024, a total of 84 788 aircraft maintenance personnel licenses had been issued, an increase of 7 767 from the previous year; there were 12 049 licensed dispatchers, an increase of 296 from the previous year.

By the end of 2024, there were 36 775 professionals across four categories in the air traffic management sector, an increase of 1 382 from the previous year. Among these, there were 18 809 air traffic controllers, representing an increase of 730 from the previous year.

VII. Foreign Relations

In 2024, China conducted bilateral air service talks or written consultations with 23 countries or regions. By the end of 2024, China had signed 132 bilateral air service agreements with other countries or regions, an increase of 2 from the end of 2023 (with Timor-Leste and

Vanuatu respectively), including 45 in Asia (including ASEAN), 27 in Africa, 38 in Europe (including European Union), 14 in the Americas and 8 in Oceania.

By the end of 2024, 32 countries or regions had established bilateral airworthiness relations with China, with a total of 195 valid bilateral airworthiness documents currently.

VIII. Airworthiness Certification

In 2024, the entire industry saw 469 new aircraft completing the nationality registration, including 223 newly registered commercial aircraft and 246 general aircraft.

In 2024, the airworthiness certification departments in civil aviation issued a total of 209 design approvals, 36 production approvals and 57 approvals for aviation fuel and chemical products.

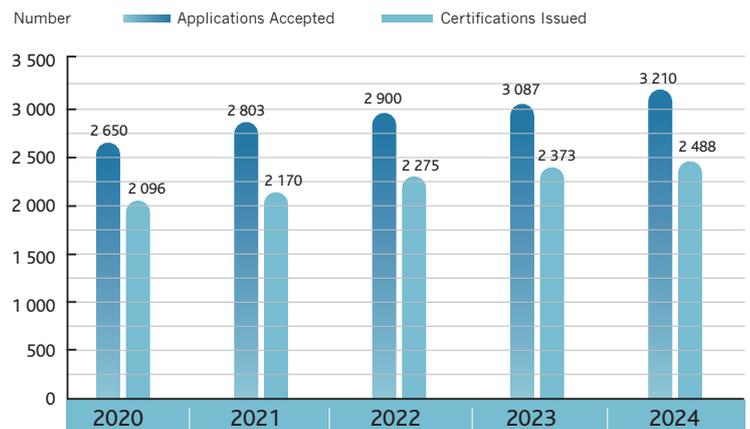


Figure 12 Number of type certification and validation of type certification 2020—2024

In 2024, two mandatory national standards in the field of civil aviation were successfully approved for development, and a total of 19 industry standards (excluding engineering construction standards) were issued throughout the year. As of the end of 2024, there are 40 currently effective national standards for civil aviation (including 2 mandatory and 38 recommended standards), along with 232 industry standards (excluding engineering construction standards).

IX. Investment in Fixed Assets

In 2024, the total investment in fixed assets in civil aviation reached 204.03 billion yuan, of which 140.43 billion yuan was allocated to civil aviation infrastructure development and technological upgrading, representing a year-on-year increase of 13.1%.



Figure 13 Investment in civil aviation infrastructure development and technological upgrading 2020–2024

X. Green Development

In 2024, the fuel consumed per ton-km in China's civil aviation industry was 0.271 kg, down by 20.5% from 2005 (the baseline year for energy conservation and emissions reduction in the industry). The energy consumption and the carbon dioxide emission per passenger for airports experienced a decrease of 42.5% and 64.8% respectively compared with the baseline (the average of three years from 2013 to 2015).

In 2024, 2.434 million flights used temporary routes, cutting the flight distance by 60.959 million km, saving 311 thousand tons of fuel and reducing carbon dioxide emissions by 980 thousand tons.

In 2024, the airports had electric vehicles that be used only inside the airports accounting for 28.9% of the total vehicles, and the utilization rate of aircraft APU replacement facilities

remained stable at over 95%. Since the inception of the Blue Sky Protection Campaign in 2018, the industry completed 167 projects with a total investment of 3.886 billion yuan, saved approximately 2.76 million tons of aviation fuel, equivalent to a reduction of 8.694 million tons of CO₂ emissions.

In 2024, airports maintained a high level of clean energy adoption, with electricity, natural gas and purchased heat accounting for 90.8% of total energy use, while solar and geothermal energy contributed approximately 1%.

XI. Development of Regulations

In 2024, partial amendments were completed and issued for 2 administrative regulations (the Rules on Flight Management of Foreign Civil Aircraft and the Interim Provisions on the Administration of Non-scheduled Flights in Civil Air Transport), while 9 rules were formulated or revised and promulgated (1 newly formulated and 8 revised).

XII. The Trade Union

In 2024, 3 entities were awarded the national May 1st Labor Certificate, 7 individuals the national May 1st Labor Medal and 12 groups the honorary title of the Pioneer of National Workers. ■