



**AFRICAN AVIATION
TRANSFORMED**

CAPACITY BUILDING WORKSHOP ON AVIATION DATA

13 – 16 May – Dakar, Senegal



ICAO STATISTICS FORMS





THE ICAO STATISTICS PROGRAMME AND THE APAD



THE ICAO STATISTICS PROGRAMME - BACKGROUND

- The ICAO Statistics Programme was established immediately after the signing of the Chicago Convention in 1944, reflecting the recognition that accurate and comprehensive aviation data was essential for the safe and orderly development of international civil aviation. This need was formally incorporated into Article 67 of the Convention, which mandates contracting States to submit statistical reports to ICAO, detailing traffic volumes, operational costs, and financial performance of their international airlines.
- In 1946, the Economic and Statistical Committee introduced the first ICAO statistical reporting forms, covering traffic movements, passenger origin-destination data, fleet composition, workforce statistics, and financial metrics. The formal establishment of the ICAO Statistics Programme in 1947 marked the beginning of one of the most enduring and influential global aviation statistical initiatives.
- By 1948, the role of ICAO as a central authority for aviation statistics was solidified, officially designating ICAO as the primary agency responsible for the collection, analysis, publication, standardization, and dissemination of civil aviation data. This recognition reinforced ICAO's commitment to ensuring global consistency and accessibility in aviation reporting, supporting data-driven industry advancements and regulatory oversight.



THE ICAO STATISTICS PROGRAMME - OBJECTIVES

Below are some of the main objectives of the Programme:

- Support a safe, efficient, and sustainable development of civil aviation worldwide.
- Provide a foundation for planning and policy by offering an independent and global statistical foundation
- Enable economic analysis and forecasting: the statistics collected are essential for ICAO's economic analyses, forecasting activities, and for supporting States in cost/benefit analyses and business cases for aviation infrastructure and services.
- Assess the impact of new regulations and negotiate bilateral agreements
- Plan the development of airport and ANS facilities
- Measure performance against ICAO strategic objectives, including safety, efficiency, environmental protection, and the sustainable air transport development (traffic growth, financial situation, etc..)
- Facilitate international cooperation: the programme provides a standardized basis for cooperation among ICAO's Member States, ensuring comparability and reliability of civil aviation data globally.
- Report to ICAO Council through the Appendix tables of the Annual Report of the Council

<https://www.icao.int/sustainability/WorldofAirTransport/Pages/presentation-of-2023-air-transport-statistical-results.aspx>



THE AFRICAN PROGRAMME FOR AVIATION DATA

The African Programme for Aviation Data (APAD) is a collaborative initiative between AFCAC and ICAO aimed at addressing the critical need for comprehensive, timely, and harmonized aviation data across African States.

It was established in 2022, to improve the availability and quality of aviation statistics on the continent, which has historically suffered from poor data availability, impacting safety, operational efficiency, economic analysis, and policy-making.

Key Objectives of APAD

- Develop a Comprehensive Aviation Database for Africa
- Support Implementation of the Single African Air Transport Market
- Enhance Safety, Operational, and Economic Efficiency
- Improved data quality enables better safety oversight, operational planning, and economic regulation across African aviation.
- Facilitate Policy and Decision-Making
- Establish a Knowledge-Based Panel: APAD includes a panel of experts from Member States and industry stakeholders who guide data collection, analysis, and use to meet strategic objectives.



THE APAD – BENEFITS FOR STATES

Main benefits for States to actively participate

- Improved aviation data availability and quality : Participation in APAD helps States overcome the historical challenge of poor availability, timeliness, and harmonization of aviation data in Africa.
- Support for market liberalization and integration: APAD provides the data foundation necessary to support the implementation of the Single African Air Transport Market (SAATM) and the Yamoussoukro Decision (YD).
- Enhanced safety, operational, and economic efficiency: Access to harmonized data enables States to improve safety oversight, optimize operational planning, and conduct robust economic analyses, which are vital for sustainable aviation development.
- Facilitation of policy and regulatory decisions: With comprehensive data, States can better design and implement air service agreements, monitor 5th Freedom traffic rights, and manage air transport liberalization effectively.
- Capacity building : Through APAD, States benefit from ICAO and AFCAC-led workshops, expert panels that build local capabilities in data collection, analysis, and reporting⁵.



WHY THE ICAO STATISTIC FORMS?

Importance and impact of APAD

- APAD addresses the long-standing challenge of poor availability and reliability of aviation data in Africa, which has hindered industry development.
- It supports the SAATM Pilot Implementation Project (SAATM-PIP), focusing on clusters of States accelerating liberalization efforts.
- The programme aims to increase intra-Africa 5th Freedom traffic from about 14.5% to 30% by 2025, promoting connectivity and reducing airfares.
- By harmonizing data collection and reporting, APAD strengthens AFCAC's capacity to supervise and manage a liberalized, efficient, and sustainable African aviation market.

During the last meeting held in April 2023, the APAD panel members agreed to align directly with ICAO's statistical program, using the same forms.

The main reason was to maintain the standardization of the data collected and avoid duplication of tasks resulting from data collection.



How to submit?

- Electronic submission should be to:
Apad@afcac.org
StatisticInboxBackup@icao.int
- The filling instructions and excel templates may be found at the following ICAO website:
<http://www.icao.int/staforms> available at the six official ICAO languages.

***** please avoid to submit the forms in pdf formating and filling by hand.***



OVERVIEW OF THE ICAO STATISTICS FORMS



Form A: Commercial Air Carrier Traffic Statistics (Monthly)

Objective:

Form A collects monthly traffic statistics for each commercial air carrier operating scheduled and non-scheduled services on domestic, international stages. It excludes air taxi and on-demand flights. The data supports monitoring of traffic trends, capacity utilization, and airline performance.

Structure:

- Organized by individual air carrier.
- Data fields include:
 - Type of service (scheduled/non-scheduled)
 - Stages (domestic and international)
 - Please use the recommended template
 - Specify the period reported
 - Data reported for “All-freight services only” must also be included as part of the “Total all services” figures.



Form A-S: Consolidated Annual Traffic Statistics

Objective:

Form A-S provides an annual summary of traffic statistics for all commercial air carriers operating within a State, consolidating data from individual Form A submissions. It offers a comprehensive national-level overview.

Structure:

- Aggregated data by service type and traffic units (passengers, freight, mail).
- Includes total capacity offered and total number of flights.
- Same data as Form A



Form B: Traffic Flow by Origin and Destination (Quarterly)

Objective:

Form B captures quarterly data on international scheduled and non-scheduled passenger, freight, and mail traffic by city-pair origin and destination. This form helps analyze traffic flows between specific city pairs and monitor route-level market dynamics. Based on the flight coupon, where it cares to know where the passenger, freight or mail embarks and disembarks.

Structure:

- Organized by city-pair (origin and destination airports).
- Data fields include number of passengers, freight (in tonnes), and mail (in tonnes).
- Please provide the reported traffic with the breakdown by quarter and service. Avoid to reported 1Q and 2Q together.
- Uses IATA airport codes for origin and destination (please avoid to write the full name of the reported cities)



Form C: Traffic by Flight Stage (Annual)

Objective:

Form C collects detailed annual data on international scheduled services traffic by flight stage (individual flight segments), including seat capacity and payload. It supports detailed operational and economic analyses of air services.

Structure:

- Organized by airline and flight stage (city-pair).
- Data fields include:
 - Number of flights performed
 - Available seat capacity
 - Payload capacity
 - Traffic performed: passengers, freight and mail
 - Aircraft type codes– please specify the aircraft type use with model and series, such as: B777-200
- Uses ICAO/IATA codes for stations and aircraft.



Form D: Fleet and Personnel - Commercial Air Carriers

Objective:

Form D collects annual data on the composition and utilization of the commercial air carrier fleet, as well as personnel statistics. This information supports States in monitoring fleet trends, aircraft utilization, and human resource deployment in the commercial aviation sector.

Structure:

- Organized by individual air carrier.
- Covers aircraft fleet details by type and version (passenger, freighter, combination, or other).
- Includes:
 - Number of aircraft by type and version
 - Number of installed passenger seats per aircraft type
 - Average payload capacity (tonnes) per aircraft type
 - Number of departures (scheduled and non-scheduled revenue flights, plus total including non-revenue flights)
 - Aircraft hours flown (scheduled, non-scheduled, total)
 - Aircraft kilometers flown (scheduled, non-scheduled, total)
 - Personnel data by category (e.g., flight crew, cabin crew, maintenance, ground staff) including numbers and payroll expenses.



Form EF: Financial Data - Commercial Air Carriers

Objective:

Form EF gathers annual financial data from commercial air carriers, including revenues, expenses, assets, liabilities, and related traffic and capacity statistics. This data supports economic analyses, financial health assessments, and regulatory oversight.

Structure:

- Organized by individual air carrier.
- Includes financial statement elements such as:
 - Operating revenues (passenger, freight, mail, other)
 - Operating expenses (fuel, maintenance, personnel, airport charges, etc.)
 - Assets and liabilities
 - Traffic and capacity statistics to relate financial data to operational performance.



Cost and revenue Questionnaires

Objective:

Member States are requested to provide data pertaining to air carrier traffic, revenues and operating costs

Structure:

- Cost:
- Section I: operating cost : reported by aircraft type
 - Flight operations expenses, excluding fuel and oil costs
 - Maintenance and overhaul expenses
 - Depreciation and amortization costs
 - Block hours with the breakdown by route-group

Section II– Operating expenses by geographical area or route group

- Aircraft fuel and oil
- Landing and associated airport charges
- Air navigation charges
- Station expenses

Section III. Other operating expenses

- Passenger services (including cabin crew salaries and expenses)
- Commission payments
- Other ticketing, sales and promotion
- General and administrative
- Miscellaneous operating expenses



Form I: Airport Traffic Statistics (Monthly)

Objective:

Form I collects monthly data on traffic movements at principal international airports. It helps monitor airport activity levels, including aircraft movements, passenger throughput, freight, and mail handled, supporting infrastructure planning and operational efficiency improvements.

Structure:

- Organized by individual airport.
- Data fields include:
 - Aircraft movements (arrivals and departures)
 - Passenger numbers (arrivals, departures, and transit)
 - Freight and mail volumes handled (in tonnes)
- Traffic is reported by city-pair or route segments served by the airport.



Form I-S: Airport Traffic Statistics (Annualy)

Objective:

Form I-S provides an annual consolidated summary of airport traffic statistics for all airports in a State, aggregating monthly Form I data. This gives a comprehensive national overview of airport activity.

Structure:

- Aggregated data across all airports in the State.
- Includes total aircraft movements, passengers, freight, and mail volumes. Aircraft movements (arrivals and departures)
- Traffic is reported by city-pair or route segments served by the airport.



Form J: Airport Financial Data

Objective:

Form J collects annual financial data from airports, including revenues, expenses, and capital investments. This supports economic analysis, benchmarking, and regulatory oversight of airport operations.

Structure:

- Organized by individual airport or airport authority.
- Financial categories include:
 - Operating revenues (aeronautical and non-aeronautical)
 - Operating expenses
 - Capital expenditures and investments
- May also include traffic statistics to relate financial performance to operational activity.



Form K: Air Navigation Services Financial Data

Objective:

Form K collects annual financial data related to air navigation services (ANS), including revenues, expenses, and investments. This data supports economic regulation and planning of air navigation infrastructure and services.

Structure:

- Organized by ANS provider or national authority.
- Financial categories include:
 - Revenues from ANS charges and other sources
 - Operating expenses (staff, maintenance, equipment)
 - Capital expenditures
- May include traffic statistics such as service units or flight hours.



Form L: En-route Air Navigation Services Traffic Statistics

Objective:

Form L gathers annual data on flights moving through Flight Information Regions (FIRs) or Upper Information Regions (UIRs), supporting airspace capacity planning and performance monitoring of en-route air navigation services.

Structure:

- Organized by FIR/UIR.
- Data fields include:
 - Number of flights handled
 - Flight hours within the FIR/UIR
 - Types of flights (IFR, VFR, commercial, general aviation)
- May include data on delays or air traffic flow management.



Form H: Civil Aircraft Register

Objective:

Form H collects annual data on the number and types of civil aircraft registered in a State as of December 31. This form provides an overview of the national aircraft fleet, supporting global fleet monitoring, safety oversight, and capacity planning..

Structure:

- Organized by aircraft type and category.
- Data fields include:
 - Aircraft type/model
 - Number of aircraft registered
 - Aircraft category (e.g., aeroplanes, helicopters, gliders, balloons)
- May include additional details such as aircraft usage or ownership type.



Form M: Fuel Consumption

Objective:

Form M collects annual data on fuel consumption by commercial air carriers operating within a State. This information supports environmental monitoring, fuel efficiency analysis, and efforts to reduce aviation's carbon footprint.

Structure:

- Organized by individual air carrier or aggregated by State.
- Data fields include:
 - Total aviation fuel consumed (in litres or tonnes)
 - Fuel consumption broken down by aircraft type or operation type (if available)
- May include distinctions between domestic and international operations.



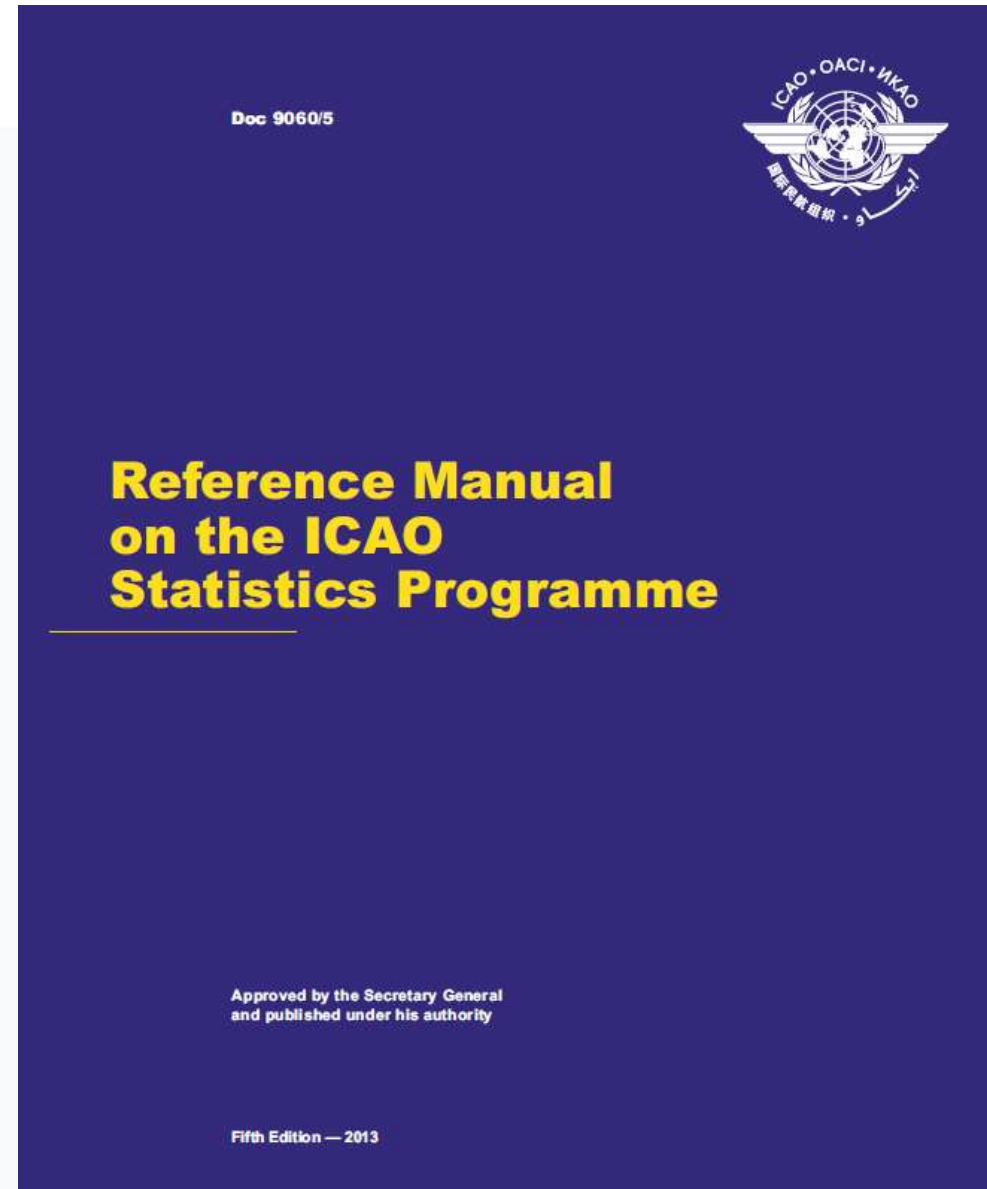
Official guidance filling the forms

Objective:

To provide all the guidance in filling each of the ATRs.

Latest deadline for official reporting data 2024:

June 15th 2025.





How to submit?

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StatisticInboxBackup@icao.int
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WRAP UP



KEY TAKE AWAY

In conclusion, the ICAO statistical forms represent a vital framework for the systematic collection, analysis, and dissemination of comprehensive civil aviation data worldwide. Understanding the objectives, structure, and proper filling procedures of these forms is essential for Member States to fulfill their legal obligations under the Chicago Convention and to contribute meaningfully to the global aviation community.

To ensure accuracy when filling ICAO forms, the essential steps include:

Understand the Purpose and Requirements of Each Form

- Use Standardized Codes and Formats
- Collect Data from Reliable Sources
- Implement Quality Control Procedures
- Maintain Clear Documentation and Records
- Train Personnel and Build Capacity
- Adhere to Reporting Deadlines

These steps collectively ensure that ICAO forms are filled with accurate, complete, and consistent data, supporting ICAO's global civil aviation monitoring and planning activities.

THANK YOU!
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Project website: <https://easa-afcac.com>