



Agenda Item 9: Air Transport Matters
9.4 Statistics Activities

SCOPE OF THE ICAO STATISTICS ACTIVITIES

(Presented by the Secretariat)

SUMMARY	
The purpose of this paper is to provide a description of ICAO statistical activities carried out by the Economic Analyses and Databases (EAD) Section as well as a summary of the recommendations provided by the Tenth Statistics Division (STA/10) meeting held in Montreal in November 2009.	
References:	
• Doc 7300, <i>Convention on International Civil Aviation</i> • Doc 9915, <i>Asia/Pacific Area Traffic Forecasts, 2008-2025</i> • Report of the Fourteenth Meeting of the Statistics Division • Air Transport Reporting Forms • Report of the Tenth Statistics Division meeting	
Strategic Objectives	This working paper is related to Strategic Objectives A, C and D.

1. BACKGROUND

1.1 The need for complete, comprehensive and reliable aviation statistics was recognized at the Chicago Convention in 1944 and Article 67¹ defines the ICAO mandate to collect data from each Contracting State. In parallel, Article 54 is asking the Council to request, collect examine and publish information relating to the operation of international air services, while Article 55 is stipulating that the Council may conduct research into all aspects of air transport which are of international importance and communicate the results of its research to the Contracting States.

1.2 In addition to the frame settled by the Chicago Convention, the ICAO Statistics Programme is addressed in Appendix B of Assembly Resolution A36-15, *Consolidated statement of*

¹ Each Contracting State undertakes that its international airlines shall, in accordance with requirements laid down by the Council, file with the Council traffic reports, cost statistics and financial statements showing among other things all receipts and the sources thereof.

continuing ICAO policies in the air transport field. More specifically, the Council is requested to, *inter alia*, examine on a regular basis the statistical data (referring to “statistics on airline operations”) collected by ICAO in order to meet more effectively the needs of the Organization and its Contracting States and to establish the necessary metrics to monitor the performance of the Organization in meeting its Strategic Objectives, notably Efficiency and Environment.

2. COLLECTION AND DISSEMINATION OF STATISTICS

2.1 Administration and management of the programme

2.1.1 The regular Statistics Programme of ICAO is established and administered by the Council whose authority is required for any modification in the structure and content of the programme. Normally, modifications to the programme whether additions, deletions or other adjustments, are considered by the Council on the recommendation of its subsidiary body, the Air Transport Committee (ATC). The Committee makes its recommendations by taking into account the proposals of its two advisory bodies on statistical matters, the Statistics Panel and the Statistics Division.

2.1.2 All Contracting States are invited to participate in the Statistics Division which is convened to review and make recommendations on the entire Statistics Programme. The Tenth Session of the Statistics Division (STA/10), held at ICAO Headquarters in Montréal from 23 to 27 November 2009, carried out a comprehensive review of the current Statistics Programme in order to provide recommendations to the Council, by taking into account the conclusions of the Fourteenth Meeting of the Statistics Panel (STAP/14) convened in March 2009.

2.2 Contents of the current Statistics Programme

2.2.1 The Air Transport Bureau (ATB) is responsible for the management of the Statistics Programme, as well as for studying the needs of users and capabilities of providers to assist the Council in adjusting this programme as required by changing circumstances. This function involves the timely collection, processing, analysis, estimation, and dissemination of civil aviation data relating to commercial air carriers, airports and air navigation services and civil aircraft on register.

2.2.2 Statistics of **commercial air carriers** (i.e., scheduled airlines and non-scheduled operators) are collected in a number of subject areas, the scope and frequency varying according to the size of the operator (in terms of traffic or fleet) and the types of services provided. The following data collected for commercial air carriers are available on-line:

Traffic: These statistics are collected in Form A on a monthly or annual basis, according to the size of the carrier, and they provide measures of aircraft activity, passenger, freight and mail traffic, for both scheduled and non-scheduled services of the airline.

Form A-S, similar in content to Form A, collects the total commercial air carrier traffic and capacity data produced by the air carriers of a State. The main purpose of Form A-S is to capture additional operational information for each State, in particular, those related to aircraft kilometres, departures and hours flown. Such data are important when assessing the needs for airspace, airport and air navigation systems and the rate of aircraft accidents.

Fleet and Personnel: Annual data collected in Form D cover the number, capacity and utilization for each type of aircraft in the airline's fleet and expenditures for personnel, by category.

Financial Data: The revenues and expenses of airlines and their assets and liabilities are reported annually in Form EF.

Traffic flow: Two series of traffic flow statistics are collected in respect of the international scheduled services of airlines, i.e., on-flight origin and destination (OFOD in Form B) on a quarterly basis and traffic by flight stage (TFS in Form C) on an annual basis.

2.2.3 For **international airports**, selected by States in accordance with an established formula, monthly traffic statistics are collected in quarterly reports (Form I). Data collected through Form I are restricted to the main international airports of a State, and hence do not cover the over-all airport system of a State. Therefore, a summary traffic data for all the airports in a State are collected in Form I-S. In parallel, airport financial data (revenues, expenses and net capital investments) are reported in Form J.

2.2.4 The financial data relating to **air navigation services** (revenues, expenses and net capital investments) are collected annually in Form K. Corresponding traffic statistics (number of flights moving through a FIR/UIR) are collected in Form L.

2.2.5 Contracting States have been reporting the number of **civil aircraft on the national register** as of 31 December each year since 1961 in Form H.

2.2.6 It is noteworthy that since September 2002, ICAO implemented the Integrated Statistical Database (ISDB) system to collect, process and disseminate all the aviation statistics submitted by Contracting States through the ICAO Statistics Programme. As the new database is web-enabled, ICAO Contracting States and regional organizations are able to access the data therein via the Internet, through a standard browser.

3. THE MAIN STA/10 RECOMMENDATIONS

3.1 Having noted the level of implementation of STA/9 recommendations, the division reviewed the Statistics Programme and acknowledged events both within the Organization and in the world at large, necessitating the review of the Organization's data requirements. The adjustments recommended by STA/10 include improvements in the existing collections, analysis and dissemination of data through active participation of Contracting States, cooperation and coordination with other organizations, the adoption of new ICAO classifications and definitions, as well as new data collections.

3.2 Recommended amendments in the current Air Transport Reporting Forms

Regarding the forms related to the air carrier statistics programme, the following main amendments were proposed by the division:

- a) Form A: *Traffic – commercial air carriers* (commercial air carrier traffic by carrier).
The division considered that States should be reminded that under the current definitions, international traffic includes data for cabotage services and that these data should be reported whenever data for international traffic is requested for the relevant Air Transport Reporting Forms, in particular in Forms A B and C. In parallel, the division recommended implementing a process of a Quick Monitoring System (QMS), by amending the filing schedule for Form A under the reporting instructions;
- b) Form B: *On-Flight Origin and Destination (OFOD)*. The division recommended the withdrawal of the restriction² from the reporting instructions of Form B, and it was also agreed that the publication restriction³ be decreased from one year to six months.
The division also recommended extending the data collection to non-scheduled commercial OFOD data as the data are recognized as highly valuable and the collection did not represent any additional burden to States;
- c) Form EF: *Financial data – commercial air carriers*. The division was of the view that fuel surcharges represent a component of the price paid by passengers and shippers and that they should be considered a part of airline revenues and reflected in airline operating yields. Accordingly, the division recommended unanimously to amend the reporting instructions to include fuel and similar surcharges in Form EF. The division also recommended implementing a QMS process by requesting a preliminary Form EF (Part 1 only) to be submitted within four months of the end of the reporting period, as well as a quarterly form of basic financial parameters for use in surveying major air carriers.

In reviewing the forms related to airports and air navigation service providers (ANSPs), the division recommended the following amendments:

- a) Form I: *Airport traffic* and Form IS: *Airport traffic* (total traffic of all the airports in the territory of a State). The division recommended extending the collection of airport data to domestic traffic, modifying the definition of *non-scheduled operations* by explicitly identifying air taxis, and including pleasure flying under the definition of *other aircraft movements*. The division also recommended the collection of origin/destination (O/D)⁴ data from airports for scheduled and non-scheduled traffic;
- b) Form J: *Airport financial data*. The division recommended that the number of items under non-aeronautical revenues be expanded, and that some of the

² that no statistics for a city-pair may be published unless reports for at least two airlines from two different States have been received for that city-pair.

³ that no data may be published until one year after the end of the quarterly reporting period concerned

⁴ For example, a flight London-Paris-Roma is reported by UK in the departure direction as a London-Paris and in the arrival direction as a Paris-London flight.

ancillary financial information requested be simplified, while the number of airport employees be added;

- c) Form K: *Air navigation services financial data*. The division recommended that the number of employees of ANSPs be added.

With respect to the other forms, the division recommended the following:

Form H: *Civil aircraft on register*. The division recommended that to encourage States to report information on civil aircraft on register through Air Transport Reporting Form H - Civil Aircraft on Register, ICAO should simplify the reporting form as well as the related instructions by eliminating the current split into commercial and other operators and by limiting the statistics to be reported to those civil aircraft on the national register holding a valid certificate of airworthiness as at 31 December of the year being reported on. The division recommended that the Council should consider discontinuing Form H once the Secretariat has established that all the coverage for Form H can be achieved through the new data collection⁵ which would cover information of individual civil aircraft on register by their nationality and registration marks, as directed by the Council in 2006.

The division recommended also the creation of a focal contact point in the national civil aviation authority of each Contracting State for matters relating to the Statistics Programme. The list of focal points will be made available through the ICAO secure website. States will be invited to nominate one focal point for all matters relating to civil aviation statistics or, depending on their administrative structure, to have one focal point for air carrier statistics and another focal point for all non-air carrier statistics.

Regarding the coordination of the Statistics Programme with those of other organizations, the division recommended to improve the current co-ordination mechanism between ICAO and the various organizations concerned, through the establishment of a secure, dedicated webpage as a networking mechanism for focal points of international organizations for civil aviation statistics.

3.3 New data collection recommendations

The division recommended introducing the following definitions and new data collections in accordance with proposals presented by the Secretariat:

Definitions and processes:

- a) Definition and identification of low-cost carriers (LCCs);
- b) Definition of an ICAO classification and definitions used for civil aviation activities; and
- c) Reference and use of the Integrated Statistical Database (ISDB) for safety data analyses.

⁵ Based on the IRCA database available at <http://www.aviation-register.com/english>, which is published jointly by Bureau Veritas (France), the Civil Aviation Authority - CAA (United Kingdom) and the Ente Nazionale per l'Aviazione Civile – ENAC (Italy).

New data collections:

- a) **Civilian licensed personnel data:** As air traffic is growing, the demand is increasing for licensed personnel (pilots, maintenance personnel and air traffic controllers). It is essential to estimate current and future requirements for licensed personnel on active duty and corresponding training capacity in Contracting States in order to lay the groundwork for human resources development and planning. A new form for data collection on licensed personnel and training capacity on an annual basis was recommended.
- b) **Fuel consumption by commercial air carriers:** In view of the growing importance of aviation environmental protection issues, it appears that ICAO, Contracting States and other civil aviation stakeholders need time-series data on aviation fuel consumption in order to support the broad range of analyses requested. As ICAO plays a leading role in the aviation environmental protection, it is therefore imperative that the Organization maintains a reliable database on fuel consumption. In accordance with the programme of action recommended by the Group on International Aviation and Climate Change (GIACC), the division recommended that ICAO should introduce a new collection process on fuel consumption by commercial air carriers.
- c) **Aircraft accidents and serious incidents:** The division reviewed the current practice adopted by the Organization in the collection of accidents and serious incidents data and the benefits that will flow from introducing a new Air Transport Reporting Form GS to collect data and recommended the collection of such data on an annual basis.
- d) **ICAO database on aircraft movements:** an implementation of a global database on aircraft movements across Flight Information Regions (FIRs) and Upper Flight Information Regions (UIRs) was proposed with the intention to start with 2010 data in 2011. It was defined that the Secretariat will seek collaboration from ICAO's Committee on Aviation Environmental Protection (CAEP) for an update of their Common Operational Database (COD) with a view to avoiding duplication, exploring synergies and pooling of resources. The next step recommended was to identify and define a protocol for the protection and electronic transmission of FIRs/UIRs data, in close collaboration with ANSPs, and discontinue reporting Form L.

4. ASSISTANCE TO CONTRACTING STATES

4.1 Several Statistics Divisions considered that benefits might be derived from short visits to States by experts in aviation statistics, who would study the local circumstances, determine necessary statistical functions and provide initial guidance to airlines, airports and government personnel in carrying out these functions. It was notably recognized that many States need manpower training and short-term expert assistance for the organization and development of their aviation statistics.

4.2 Statistical workshops are conducted by ICAO in different regions of the world and they constitute a continuous, systematic effort to improve the quality of aviation statistics. These informal workshops, normally scheduled at a rate of one a year, provide those responsible in administrations, airlines and airports for the preparation of statistics for ICAO, an opportunity to work out solutions to practical problems through pooling of experience and ideas.

4.3 In the most recent development, EAD implemented a short-term familiarization and training programme called on-the-job statistical training provided at ICAO Headquarters. Delegates from Brazil, Dominican Republic, Romania and a large number of African States have already used this opportunity which is open to all ICAO Contracting States.

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