

QUALITY REPORT FOR STATISTICAL SURVEY
Monthly Report on Traffic in Airports (PZ/M-21)
for 2024

Organisational unit: Transport Statistics Department, Spatial Statistics Directorate
Prepared by: Snježana Kos and Ninoslava Podnar

September 2025

0. Basic information

- Purpose, goal, and subject of the survey

The purpose of the survey is to collect data on the number of aircraft movements as well as on the traffic of passengers and freight in airports and air landing places of the Republic of Croatia.

- Reference period

Month

- Legal acts and other agreements

Annual Implementation Plan of Statistical Activities of the Republic of Croatia
Official Statistics Act (NN, Nos 25/20 and 155/23)

Regulation (EC) No 437/2003 of the European Parliament and of the Council of 27 February 2003 on statistical returns in respect of the carriage of passengers, freight and mail by air

Regulation (EC) No 1358/2003 of the European Parliament and of the Council of 31 July 2003 implementing Regulation (EC) No 437/2003 of the European Parliament and of the Council on statistical returns in respect of the carriage of passengers, freight and mail by air and amending Annexes I and II thereto

Commission Regulation (EC) No 546/2005 of 8 April 2005 adapting Regulation (EC) No 437/2003 of the European Parliament and of the Council as regards the allocation of reporting country codes and amending Commission Regulation (EC) No 1358/2003 as regards the updating of the list of Community airports

Commission Regulation (EC) No 158/2007 of 16 February 2007, amending Commission Regulation (EC) No 1358/2003 as regards the list of Community airports

- Classification system

International Civil Aviation Organization (ICAO) classification of airports
International Civil Aviation Organization (ICAO) classification of aircraft carriers
International Civil Aviation Organization (ICAO) classification of aircraft types

- Concepts and definitions

Airport – a defined area of land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft and open for commercial air transport operations.

Flight stage – a movement of an aircraft from take-off to its next landing.

Air passengers on board – all passengers on board an aircraft upon landing at the reporting airport or at taking off from the reporting airport. All revenue and non-revenue passengers on board an aircraft during a flight stage are included.

Direct transit passengers – passengers who, after a short stop, continue their journey on the same aircraft on a flight having the same flight number as the flight on which they arrive.

Passengers who change aircraft because of technical problems but continue on a flight with

the same flight number are also counted as direct transit passengers. On some flights with intermediate stops, the flight number changes at a particular airport to designate the change of an inbound flight to an outbound flight. Passengers who continue their journey on the same aircraft in such circumstances should be counted as direct transit passengers.

Freight and mail on board – all freight and mail on board an aircraft upon landing at an airport and at take-off from an airport. Direct transit freight is included and counted at both landing and take-off.

On flight origin and destination – traffic on a commercial air service identified by a unique flight number subdivided by airport pairs in accordance with point of embarkation and point of disembarkation on that flight.

For passengers, freight or mail for which the airport of embarkation is not known, the aircraft origin airport should be identified as the point of embarkation; similarly, if the airport of disembarkation is not known, the aircraft destination airport should be identified as the point of disembarkation.

Air passengers carried – all passengers on a particular flight (with the same flight number) are counted only once instead of being counted on each individual stage of that flight. All revenue and non-revenue passengers whose journey begins or terminates at the reporting airport and transfer passengers joining or leaving the flight at the reporting airport are included. Direct transit passengers are excluded.

Freight and mail loaded or unloaded – includes any freight and mail loaded onto or unloaded from an aircraft. Direct transit freight is excluded.

- Statistical units

Airport operators in the Republic of Croatia open for public transport of passengers and freight.

- Statistical population

Data relate to the airports in Zagreb, Split, Dubrovnik, Pula, Rijeka, Zadar, Osijek, Brač and Mali Lošinj.

1. Relevance

1.1. Data users

National Accounts Department
DG MOVE

State institutions, enterprises, research and scientific community, journalists etc.

1.1.1. User needs

The standard prescribed by Eurostat meets the needs of national and international users.

1.1.2. User satisfaction

The first user satisfaction survey of the Croatian Bureau of Statistics was conducted in 2013, the next one in 2015 and 2022, and the last one at the end of 2024. The results of the survey are available on the website of the Central Bureau of Statistics <https://dzs.gov.hr/highlighted-themes/quality/user-satisfaction-surveys/686>.

1.2. Completeness

In accordance to Regulation (EC) No 437/2003 of the European Parliament and of the Council on statistical returns in respect of the carriage of passengers, freight and mail by air, all required variables are available and transmitted to Eurostat.

In relation to the publication of Eurostat database, the Croatian Bureau of Statistics publishes a wider coverage of airports (all airports open to public transport, regardless of number of pax units), but with more condensed aggregated data at the level of the Republic of Croatia and at airports level (e.g., national data are not published on the airport for the traffic of passengers and goods by routes; data on passengers on board are not published). Comparison with all tables published by Eurostat shows that 60% of indicators are covered in the national dissemination. The Croatian Bureau of Statistics does not publish data on passenger and freight on board.

1.2.1. Data completeness rate

Data completeness rate is 100%.

2. Accuracy and reliability

2.1. Sampling error

Not applicable.

2.1.1. Sampling error indicators

The indicator is not applicable.

2.2. Non-sampling error

Non-sampling error occurs in the form of measurement error and processing error.

2.2.1. Coverage error

Not applicable.

2.2.2. Over-coverage rate

The indicator is not computed.

2.2.3. Measurement errors

During the statistical analysis, data validation is implemented according to the established algorithms for particular types of errors. A matrix containing 30 conditions for conducting material check and control have been set up; 26 conditions relate to non-tolerable errors, while four of them are warnings that are subject to checks and are tolerable. On the basis of data validation results, reporting units are contacted to provide clarifications or corrections that are implemented during data processing. In the case of erroneous classifications or unknown coding, it is the feedback that assures the quality of data processing. During statistical data processing, coherence checks and inter-dataset checks are performed as well as mirror analysis of national traffic. After data processing, feedback on new codes found in the data is sent to the reporting units, who are required to update operational classifications in order to improve data quality.

2.2.4. Non-response errors

Not applicable.

2.2.5. Unit non-response rate

The indicator is not applicable.

2.2.6. Item non-response rate

The indicator is not applicable.

2.2.7. Processing errors

The input data file format is checked before uploading to the data processing system. Visual check of the data set structure is done on the required number of fields. When loading data to the processing system, the length of the input file field is checked. Processing errors can occur when reporting units assign erroneous or unknown codes to a partner airport, air carrier, aircraft and flight or incorrect enter the number of passenger seats with regard to the aircraft configuration and recorded number of passengers. Reduction of processing errors is achieved by contacting the airports, by collecting correct information and by manual corrections in the data processing system. The code entry quality of the partner airport, air carrier and aircraft increases by sending a feedback to all airports on updating classifications.

2.2.8. Imputation rate

The indicator is not applicable.

2.2.9. Model assumption error

Not applicable.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions on the website of the Croatian Bureau of Statistics, on the link [General Revision Policy of the CBS.](#)

2.3.2. Data revision – practice

Provisional figures are not published in this survey and therefore regular revisions are not planned. Unplanned revisions caused by events that could not be predicted and that are impossible to prevent (subsequent changes in data sources or subsequently identified errors in previously submitted data) are generally disseminated as soon as possible.

2.3.3. Data revision – average size

The indicator is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

Deadline for the publication of first monthly results of traffic in airports is 45 days after the end of the month.

3.1.1. Timeliness – first results

The indicator is not applicable.

3.1.2. Timeliness – final results

Timeliness of final results is T + 40.

3.2. Punctuality

There is no time lag between the actual dissemination of the data and the planned date when they were to be disseminated according to the Calendar of Statistical Data Issues.

3.2.1. Punctuality – delivery and publication

Punctuality is: 1.

4. Accessibility and clarity

Data are disseminated in electronic form on the website of the Croatian Bureau of Statistics: monthly First Release, Statistics in Line, annual data in other publications of the Croatian Bureau of Statistics.

4.1. News release

The First Release "Traffic in Airports" – monthly data

Aggregated data at the level of the Republic of Croatia on the total number of aircraft movements, number of passengers and tonnes of freight, passenger traffic at airports and top ten countries by traffic of passengers realised with Croatian airports.

4.2. Online database

Data are not published in online databases of the Croatian Bureau of Statistics.

4.3. Microdata access

The conditions under which certain users can access microdata are regulated by the [Ordinance on Conditions and Terms of Access and Use of Confidential Statistical Data of the Croatian Bureau of Statistics for Scientific Purposes](#) (NN, No. 5/23).

4.4. Documentation on methodology

The First Release "Traffic in Airports"

Statistics in Line

Statistical Information

Glossary for Transport Statistics – fifth edition (translation)

Reference Manual on Air Transport Statistics (Eurostat website)

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Mirror analysis is conducted in order to compare the consistency of traffic between two partner airports. The check is carried out for national traffic on a monthly basis, while the comparison of international declarations can be done when the data on traffic in seaports for EU Member States become available (usually on annual basis).

5.2. Comparability over time

Comparable data on air transport statistics, harmonised with *acquis communautaire*, in particular with the Regulation (EC) No 437/2003, have been available since 2008.

5.2.1. Length of comparable time series is:

Domain	Domain value	January	February	March	April	May	June	July	August	September	October	November	December
Croatia	Movements	193	194	195	196	197	198	199	200	201	202	203	204
Croatia	Passengers	193	194	195	196	197	198	199	200	201	202	203	204
Croatia	Freight	193	194	195	196	197	198	199	200	201	202	203	204

5.2.2. Reasons for break in time series

Historical data on traffic in airports have been available since 1960. Since 2008, a new methodology and a new technology of data collection have been applied. Data have been harmonised with *acquis communautaire* and are not comparable to previous years.

5.3. Coherence – short-term and structural data

The indicator is not applicable.

5.4. Coherence – national accounts

The indicator is not applicable.

5.5. Coherence – administrative sources

The indicator is not applicable.

6. Cost and burden

6.1. Cost

The analysis of costs and benefits has not been implemented.

6.2. Burden

The response burden is put on airport operators who use operational airport system to generate the data required for statistical purposes. The use of these data minimises the burden and, in addition, data are delivered via e-mail. Reporting units are contacted only to clarify the errors which the Croatian Bureau of Statistics cannot solve on its own.