



## Notes & Definitions: Aviation

This section provides notes and definitions for the aviation tables included in Transport Statistics Great Britain 2012.

### Notes and Definitions Include:

- Information on sources.
- Information on accuracy.
- Definitions.
- General information the tables including links to background information.

### Data sources

All the statistics in this chapter are collected by organisations external to the Department for Transport and are outside the scope of National Statistics.

The majority of the tables published here are based on data collected by the Civil Aviation Authority (CAA). Tables AVI0101 to 0103 and AVI0105 are based on returns submitted to the CAA by airports; AVI0201 to 0203 are based on returns submitted to the CAA by airlines; AVI0106 to 0108 are based on the data from the CAA Passenger Survey and AVI0401 is compiled from data supplied by the CAA's Safety Data Unit. More information and statistics published by the CAA can be found at: <http://www.caa.co.uk/>

AVI0301 to AVI0302 are based on data supplied by the International Civil Aviation Organisation (ICAO) together with data published by the Airports Council International, the International Air Transport Association and individual airports websites.

AVI0402 is compiled from data supplied by the UK Airprox Board.

### Coverage

The terms 'UK airports' and 'UK airlines' cover the airports and airlines which submit returns to the CAA. In 2011, over 50 airports and over 30 airlines submitted data, including all the major commercial airports and airlines.

Air taxi operations are excluded from all tables on activity at UK airports and by UK airlines except for the early time series (1950 to 1991) in AVI0101.

The Channel Islands are excluded from tables AVI0101 and AVI0102. The Isle of Man is excluded from AVI0102 and from AVI0101 for 1991 onwards. Up to 2007, the Isle of Man was included in the UK total in the *United Kingdom Airport Statistics* published by the Civil Aviation Authority (CAA); it was excluded from 2008 onwards and the time series in these tables have been revised back to

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1991 to be consistent with the CAA statistics.

Some of the figures in AVI0101 are higher than the time series shown in CAA's *United Kingdom Airport Statistics* (annual) due to CAA tables excluding data for airports that have ceased to handle traffic or closed, such as, Sheffield City airport.

## Activity at United Kingdom airports

### Traffic at UK airports: AVI0102

AVI0102a to c are derived from the CAA publication *United Kingdom Airport Statistics* (annual):

<u>TSGB table</u>	<u>CAA Airport Statistics table</u>
AVI0102a	5
AVI0102b	10.1 and 10.2
AVI0102c	14

The table shows air transport movements (landings and take-offs of aircraft engaged in commercial air transport), terminal passengers (arrivals and departures) and freight handled (set down and picked up).

Domestic traffic (movements, passengers and freight) shown is half that published in the CAA *Airport Statistics*, to remove double counting at the airport of arrival and departure. The figures for individual airports have not, however, been adjusted to eliminate double counting of domestic traffic.

Terms used in AVI0102 are defined as follows:

*Air transport movements:* All scheduled movements (whether loaded or empty) and loaded charter movements. Empty positioning flights by scheduled aircraft and empty charter movements are excluded.

*International services:* These services are flown between the United Kingdom, airports and points in other countries.

*Scheduled services:* Those performed according to a published timetable, including those supplementary thereto, available for use by members of the public.

*Non-scheduled services:* Air transport movements other than scheduled services.

*Terminal passengers:* All revenue and non-revenue passengers joining or leaving an aircraft at a United Kingdom airport (a passenger who changes from one aircraft to another, carrying the same flight number, is counted as a terminal passenger both on arrival and departure). Transit passengers who arrive and depart on the same aircraft are not included.

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*Freight:* Excludes mail and passengers' and crews' permitted baggage, but all other property carried on an aircraft is included. Thus excess baggage is included, as are diplomatic bags. Freight in transit through an airport on the same aircraft is excluded.

### **Punctuality at selected UK Airports: AVI0103**

AVI0103 is derived from the CAA *Punctuality Statistics* (see [www.caa.co.uk/punctuality](http://www.caa.co.uk/punctuality))

The CAA compiles punctuality data for five London airports (Heathrow, Gatwick, Stansted, Luton and London City) and five regional airports (Manchester, Birmingham, Glasgow, Edinburgh and Newcastle).

The planned time of operation is obtained from the airport scheduling committees and merged in with the actual time of operation on the air transport movement records collected in UK Airport Statistics.

A general review of taxi times was undertaken during 2008 and, as a result, many taxi assumptions were revised with effect from January 2009, creating a discontinuity in the time series. For comparison purposes 2008 data were re-calculated. AVI0103 therefore shows data from 2008 onwards only.

### **Forecasts of terminal passengers at UK airports: AVI0104**

The forecasts show the expected number of UK and foreign passengers passing through UK airports up to 2050, after accounting for airport capacity constraints. The underlying unconstrained forecasts are based on econometric equations which specify a relationship between passenger traffic and a number of explanatory variables which determine it. The key variables determining air traffic were found to be domestic and foreign economic growth (principally GDP); air fares; trade; and exchange rates. The relationships derived from past years' data are applied to projections of future year values of the explanatory variables to calculate forecasts of air traffic. A range of forecasts is given to reflect the uncertainties inherent in long term forecasting. The range of unconstrained forecasts are processed in the DfT National Air Passenger Allocation Model which forecasts how passenger demand will split between UK airports taking account of likely future constraints on air transport movements (and thus passengers) at UK airports. The future constraints assume that the maximum use is made of existing runway capacity.

### **International passenger movements at UK airports: AVI0105**

AVI0105 is derived from the CAA publication *United Kingdom Airport Statistics* (annual):

<u>TSGB table</u>	<u>CAA Airport Statistics table</u>
AVI0105	12.1

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The Channel Islands and Isle of Man airports are included in this table, unlike other tables in this chapter. The following are excluded: a number of small airports, which do not submit full returns to the CAA (Barrow, Carlisle, Isles of Scilly (St Mary's) Metro London Heliport, Penzance, Plymouth, Shoreham and Tresco); charter aircraft with less than 25 seats; airlines that have not given consent to the CAA to publish their data; passengers carried on aircraft chartered by Government Departments. This coverage is consistent with CAA's airport statistics Table 12.1.

The figures in the table are based on the origin and destination of passengers as reported to UK airport authorities by UK and foreign airlines. Operators are required to report in respect of each service operated, the point of uplift and discharge of each passenger. The figures may not reflect a passenger's entire air journey: the point at which a passenger disembarks from a particular service may not represent his ultimate destination.

Although operators are asked to report all passenger journeys, in some cases the actual point of uplift or discharge is not recorded. In such cases all passengers are allocated to the end point of the service, ie the aircraft's origin or ultimate destination. In the case of the USA, all traffic is recorded to or from gateway points specified in the Bermuda II Agreement and subsequent amendments until March 2008, when this agreement ceased to be in force..

“Former USSR” includes Albania, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic Of Moldova, Russia, Turkmenistan, Ukraine, and Uzbekistan.

“Former Yugoslavia” includes Bosnia-Herzegovina, Croatia, Serbia, Montenegro, and Macedonia.

“Rest of Europe” includes Faroe Islands, and Iceland.

### **Proportion of transfer passengers at selected UK airports: AVI0106**

Table AVI0106 is based on data from the CAA Passenger Survey. This is a survey of departing passengers carried out at selected airports. Further details on the methodology are available at [www.caa.co.uk/surveys](http://www.caa.co.uk/surveys).

Results are given for the five UK airports which have been included in the survey every year since 2000: Heathrow, Gatwick, Stansted, Luton and Manchester. In most years, a small number of additional airports are also surveyed and data for these airports is available on request from [aviation.stats@dft.gsi.gov.uk](mailto:aviation.stats@dft.gsi.gov.uk).

Terms used in Table AVI0106 are defined as follows:

*Transfer passengers:* passengers who change aircraft at the airport and have no other reason for visiting the airport.

*Terminating passengers:* passengers who arrive at or depart from an airport by surface modes of transport.

### **Mode of travel to and Purpose of travel at selected UK airports: AVI0107 ad AVI0108**

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Tables AVI0107 and AVI0108 are based on data from the CAA Passenger Survey (see note on AVI0106 above).

## Activity of United Kingdom airlines

### Main outputs for UK airlines by type of service: AVI0201

AVI0201 is derived from the CAA publication *United Kingdom Airline Statistics* (annual) and earlier volumes:

<u>TSGB table</u>	<u>CAA Airline Statistics table</u>
AVI0201	1.7.1/2/3/4 and 1.8.1/2/3/4

AVI0201 shows the carriage of revenue passengers, cargo (freight and mail) on services flown by United Kingdom airlines, scheduled and non-scheduled (but excluding air-taxi operations and sub-charter operations performed on behalf of United Kingdom airlines). Passenger kilometres are calculated by multiplying the number of revenue passengers carried on each flight stage by the stage distance. Passenger seat occupancy is calculated as passenger kilometres as a percentage of seat kilometres available.

Cargo (freight and mail) uplifted are calculated by counting each tonne of revenue cargo or mail on a particular journey once only and not repeatedly on each individual stage of the flight. Cargo tonne kilometres are calculated by multiplying the number of tonnes of revenue load on each stage flight by the stage distance.

Terms used in AVI0201 are defined as follows:

*Passengers:* Travellers are counted as revenue passengers if the air carrier receives commercial remuneration. They are counted only once on a particular flight (with one flight number) and not for each stage of that flight.

*International services:* These services are flown between the United Kingdom, Isle of Man or Channel Islands and points in other countries.

*Domestic services:* Those entirely within the United Kingdom, Isle of Man and Channel Islands.

*Scheduled services:* Those performed according to a published timetable, including those supplementary thereto, available for use by members of the public.

*Non-scheduled services:* Air transport movements other than scheduled services.

### United Kingdom airline fleet: AVI0202

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This table was discontinued in 2011.

### **Worldwide employment by UK airlines: AVI0203**

AVI0203 is derived from the CAA publication *United Kingdom Airline Statistics* (annual) and earlier volumes:

<u>TSGB table</u>	<u>CAA Airline Statistics table</u>
AVI0203	1.14

AVI0203 shows the average number of personnel employed by United Kingdom airlines in the United Kingdom and overseas. Personnel employed by companies performing solely air-taxi operations are excluded.

Terms used in AVI0203 are defined as follows:

*Other Cockpit Personnel:* Flight engineers, radio operators and navigators.

*Cabin Attendants:* Purser, stewards and flight attendants.

*Maintenance and Overhaul Personnel:* Ground personnel, including supervising, planning and inspection personnel at Maintenance and Overhaul Personnel shops. Also includes stores and supplies personnel, time-keepers and accounts personnel at Maintenance and Overhaul Personnel workshops.

*Ticketing and Sales Personnel:* Personnel engaged in ticketing, sales and promotional activities.

### **Major international airports and airlines**

#### **Traffic at major international airports: AVI0301**

AVI0301 gives a comparison of the activity at some of the world's major airports. Airports are selected such that the largest 25 by number of terminal passengers are included. Data for this table are taken from a range of sources: the International Civil Aviation Organisation (ICAO), the Airports Council International and individual airports websites. Due to differences in definitions and level of detail reported, figures may not be directly comparable between airports. For example, it is possible that in some cases the 'terminal passenger' figures may include some transit passengers and the 'commercial air transport movements' may include some non-commercial aircraft movements. Every attempt has been made to use the most reliable, complete source for each airport but this table should be used only as a guide.

#### **Passenger traffic on major international airlines: AVI0302**

AVI0302 gives a comparison of the major international airlines. Airlines are selected such that the

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largest 25 (as reported to ICAO) by passengers uplifted are included. Where complete information was not available from ICAO, data published by the International Air Transport Association was used instead; this applied to China Southern Airlines, US Airways and Emirates. The ranking is only a guide as most 'non-reporting' airlines are excluded. Airlines which have no international flights are also excluded.

## Casualties and incidents

### **Casualties caused by aviation accidents: AVI0401**

AVI0401 includes deaths, serious and minor injuries where an aircraft was engaged in airline, air taxi, general aviation (including private flights) and other commercial (including training) operations.

Terms used in AVI0401 are defined as follows:

*Airline:* Public transport flights, which are subject to a United Kingdom Air Transport Licence. Also public transport flights which are not subject to a United Kingdom Air Transport Licence, but which utilise aircraft having a maximum take-off weight of 15 tonnes or more. Positioning flights are excluded. There have been no reported casualties involving either UK-registered rotary wing services in foreign airspace or foreign-registered rotary wing services in UK airspace.

*Air Taxi:* Public Transport flights which utilise aircraft with a maximum take-off weight of less than 15 tonnes and which are not subject to a UK Air Transport Licence. Positioning flights are excluded.

*General Aviation:* Includes executive, club and group, private and training flights, but does not include accidents to gliders, microlights, hang gliders or hot-air balloons.

### **Aircraft proximity (AIRPROX): number of incidents: AVI0402**

An AIRPROX (aircraft proximity hazard) is a situation in which, in the opinion of a pilot or controller, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft was or may have been compromised. AIRPROX can occur between various combinations of commercial, military and private aircraft. The numbers of AIRPROX incidents involving commercial transport aircraft are shown separately in the table.

All AIRPROX reports are assessed and, following guidelines given by the International Civil Aviation Organisation, the degrees of risk involved are categorised as 'risk of collision', 'safety not assured', 'no risk of collision', and 'risk not determined'.

These notes and definitions relate to the detailed statistics on "Aviation" that can be found on the Transport Statistics Great Britain Aviation web page, table numbers AVI0101 to AVI0402.
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