



Department  
for Transport

## Sea Passenger Statistics Background Quality Report

This background quality report relates to the publication of sea passengers statistics.

The purpose of this document is to provide users of the statistics with information about the quality of the outputs, measured against different dimensions of statistical quality.

As a result, this document helps to demonstrate how the Department complies with the Code of Practice for Official Statistics principle on quality.

These statistics as of 12 February 2013 were designated as National Statistics. National Statistics are produced to high professional standards as set out in the Code of Practice for Statistics. They undergo regular quality assurance to ensure they meet customer needs: <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

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## Section 1: Background to the statistics

These statistics cover international and domestic passengers, with data collected and published differently for different types of route. They are collected for a range of uses (see section 2).

International short sea ferry passenger statistics are collected monthly from ferry operators. They include drivers of lorries, coaches and other vehicles. Passenger figures for domestic ferry routes from Great Britain to Northern Ireland, the Channel Islands and the Isle of Man are also collected but not published monthly.

Cruise passenger figures include all passengers on international cruise journeys who start and finish their cruise journey at a UK port as well as cruises between a UK port and a European or Mediterranean port. Cruise passengers are counted both at the beginning and the end of their cruise and included if both ends of the journey are at a UK port. Cruise figures are compiled on an annual basis. Long sea voyage passengers are those travelling on one-way scheduled voyages to and from ports outside Europe/Mediterranean. Passengers travelling on cargo vessels (one way) are not collected.

Domestic ferry passenger figures on sea crossings to Orkney and Shetland are provided on an annual basis by the Scottish Government. Figures for some other sea crossings and river ferries are also provided annually by the operators.

Sea passengers statistical publications are published in a series of three parts. Total international short sea passenger numbers are published monthly. In February the provisional annual includes international short sea routes (these include all ferry routes within Europe) and domestic short sea major routes (these include all routes between Great Britain and Northern Ireland, Isle of Man and the Channel Islands). The Final annual publication is published in November each year and includes all international and domestic passengers for which data are collected.

For further information, including a breakdown of the routes covered, see the [technical note](#).

### UK major ports covered in sea passenger statistics



## Methodology and Production

Sea passenger data is collected using surveys, which are sent to operators as email attachments. The process is broadly as follows:

- ▶ The monthly collection covers passengers on short sea routes with UK ports on vessels over 100 gross tonnes. A form with cover letter and instructions are sent to operators.
- ▶ The annual domestic passenger collection (as with the monthly collection), data is restricted to vessels over 100 gross tonnes. Collection includes river ferries in the UK that have a distance greater than 500 metres and passenger kilometres is greater than 500.
- ▶ The annual cruise collection includes cruise ships which return to the port of departure as well as those which let passengers off at a destination port. Non-round trip cruises within Europe and the Mediterranean are included in "Cruise" while one way trips outside this are "Liner" voyages and the passenger numbers come under Long Sea. The operators label the types of cruise as E/W/L:

Europe (E) - cruise in Europe/Mediterranean (including one way trip);

World (W) - cruise outside Europe/Mediterranean (excluding one way trips);

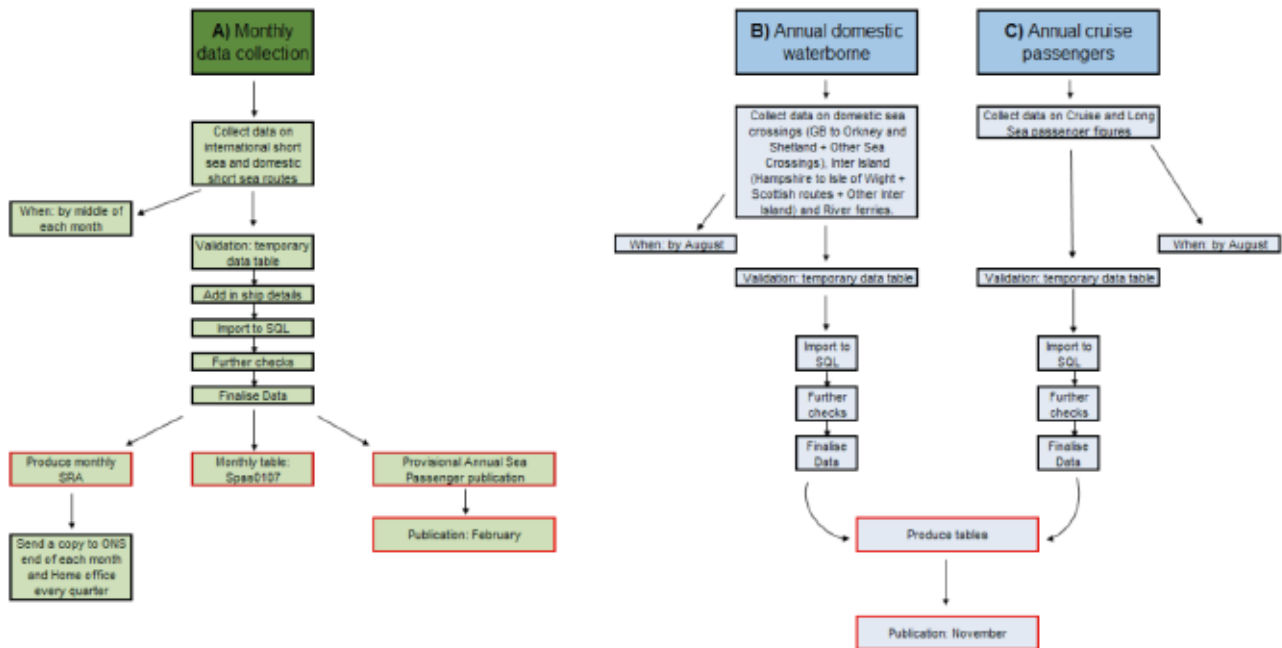
Liner (L) - voyage (one way voyage to or from a port outside Europe/Mediterranean).

Type of cruise (in form)	Area of cruise (in database)	Type of voyage (in publication)
E	1	Cruise
W	2	Cruise
L	3	Long sea

- ▶ For each monthly and annual collection process data returns are collated together using Excel macros.
- ▶ DfT validates the data to verify that the data items are accurate and consistent. This includes checking for duplicates, missing data and any anomalies, particularly flagging figures that are either considerably high or low compared to the same month previous year. These checks are done using Excel.
- ▶ Any anomalies are investigated and where we believe they may be inaccurate, queries are sent back to the operator for confirmation of the data. DfT then signs off the data for use in production of the statistics. Any missing returns are estimated by DfT at this point.
- ▶ Once the data is finalised, it is entered into a SQL database, where data tables are exported to Excel and the tables and statistical release are produced for publication. Further checks are then carried out, for example looking at trends over time.
- ▶ Each statistical release produced is independently checked by a statistician where any discrepancies are resolved before being approved by the senior statistician.



## DfT sea passenger process example



## Section 2: Quality assessment

In this section, the quality of the statistics is considered in relation to the different dimensions of quality as stated in the [European Statistical System \(ESS\) quality framework](#).

### 1. Relevance

*Relevance is the degree to which a statistical product meets user needs in terms of content and coverage.*

The statistical outputs presented within sea passenger statistics include:

- A [statistical release](#) containing key findings, trends over time and signposts to further information.
- Open Document Spreadsheet (ODS) [data tables](#) containing information on the number passengers by port, ferry route, overseas and etc.
- A notes and definitions document outlines route level breakdown and strengths and weaknesses - see our [guidance page](#).

#### Known users and uses of the statistics:

The international sea passengers data is provided to the Eurostat to meet the requirements of the EU Directive 95/64/EC on statistical returns in respect of the carriage of goods and passengers by sea. Within the DfT the statistics are used:

- For ministerial briefing and to answer public enquiries;
- As background to policy development, for example as an evidence base for cyber security policy decisions;
- For monitoring trends in sea passenger activity; and,
- By analysts in modelling overall passenger trends, or for ad-hoc work for example related to assessing the scale and impact of disruption to key routes.

Outside of DfT, known users include:

- Operators of sea passenger services, port authorities and any other maritime organisations monitoring sea passenger activity;
- The Office for National Statistics use monthly data for grossing the international passenger survey and in their statistical releases (Region and Country profiles);
- MET police, who occasionally use the data to help inform policing of ports operation;
- Home Office, who use data in preparing their National Statistics release (immigration statistics);
- HMRC have used the figures to estimate the amount of alcohol purchased on ferries;
- Other more general users who want to gain an overview of the sea passenger business, and for benchmarking.

### How well the statistics meet user needs:

DfT carried out an internal review of the sea passenger statistics in 2017 to assess if the statistics are compliant with the code of practice. The review covered things like, timeliness of the publication, explored the need for other potential data sources and checked to see if the statistical series is meeting user needs.

While the conclusion was that the statistics are generally fit for the purposes for which they are used, a number of requests were noted. These are summarised below, along with the department's response.

User requests	DfT response
A breakdown of the figures for domestic passengers by individual route	The department has checked with operators whether they would be content for a more detailed breakdown by route to be published. However, the data at this level are considered commercially sensitive, and data suppliers did not want DfT to publish further data on individual routes.
The number of cars/coaches and lorries carried, as well as passengers.	Data on vehicles can be found in table <a href="#">PORT0301</a> and <a href="#">PORT0205</a> of the Port Freight statistics published by DfT.
A distinction between foot passengers and passengers travelling by vehicle.	Whilst this data has been collected on an ad-hoc basis from some operators, we do not feel there is currently sufficient demand to increase the burden on operators.
Operators' forecast of passengers and vehicles carried.	These forecasts are commercially sensitive, therefore we are unable to include them in the publication.
Monthly data for domestic short sea passengers.	Due to the way domestic data are collected (monthly and annual), we will maintain the current approach to aggregate it annually unless there are further user requests for monthly data.
Increase coverage of the statistics to include other services (e.g. those using vessels under 100 gross tonnes)	DfT considers that the added value of seeking to collect data for these services would not justify the increased burden of data collection, which would fall on smaller operators. The consistency of the published time series would also be affected.

## 2. Accuracy and Reliability

*Accuracy refers to how close the estimated value in the output is to the true result.*

These statistics aim to measure the true number of sea passengers travelling to and from UK ports. Overall, high level comparisons with industry sources (where available) and trends over time suggest that the statistics are likely to provide a consistent approximation overall, though it is possible that in some areas (e.g. cruise passengers and domestic services) figures are slightly under-estimated.

The following summarises potential sources of risks or errors which may arise throughout the process of compiling the sea passenger statistics.

Potential source of error	Risk or error mitigation
Lloyds Registration Number (LRN) errors - invalid vessels	LRN is a unique vessel identifier. The most common error with LRN is that the contributor will have made a typo. There are validation checks in place which flags when the LRN number is greater than or less than 7 numbers. The validation also flags if it does not recognise the LRN. DfT then will rectify all the flagged LRN's.
Number of sailing errors.	If there are big discrepancies between the number of sailings arriving and departing, DfT will query with the operators to confirm the data.
Duplicate entries	Duplicate entries are identified, confirmed with operators and deleted.
Unexpected routes	Unexpected route are flagged and queried with an operator to check if the new route is accurate.
Passenger numbers	Passenger figures by routes are compared to the same month previous year. Figures are investigated if they exceed or are below the 25% benchmark.
Missing data	On rare occasions, when the DfT get no response from operators, we estimate the data. The estimation is based on an average of previous records.
Port locode errors	Locodes are port identifiers. Typos and incorrect locodes are picked up by validation routines run before the data is processed into the database.
New operator/route	We are continuously on the lookout for new operators or routes (for example monitoring trade press), to avoid underestimating passenger numbers wherever possible.

The DfT are in regular contact with the monthly data providers. This ensures a good working relationship and timely responses when querying issues with the operators. However, the annual data collection requires more chasing when collecting data or querying issues. To mitigate any errors from the late responses, in 2018 the data collection process was started earlier.

The DfT on a monthly and annual basis carry out validations to ensure the data is of sufficient quality. Because of the thorough data validation process undertaken by DfT, it is unusual that the statistics will be revised at a later stage.



### 3. Timeliness and Punctuality

*Timeliness describes the time between the date of publication and the date to which the data refers, and punctuality describes the time between the actual publication and the planned publication of a statistic.*

Sea passenger statistics are currently published monthly (table on short sea passengers) and annually (provisional sea passengers in February and final sea passengers in November). The production of the monthly table commences after the final month's data is given. The production of the provisional annual release begins after receiving the December month's data (which completes the collection of the annual data). The production of the final annual publication takes place in November, due to restrictions in accessing all data before September (for example data on Scottish routes are currently unavailable before this time).

To date, all sea passenger statistical releases have been published to the scheduled pre-announced date.

#### Example of timescales for the sea passenger releases:

Task Description	Timeline
DfT send monthly forms and receive data for the previous month.	Around and after 10 working days each month.
Validations are done and queries are sent to operators.	During the week ending the month.
DfT publishes a monthly table on international short sea figures.	Second Wednesday in the following month.
DfT collates all data for the previous year and carries out further validation.	January
DfT publishes annual publication and tables, which are provisional.	February
DfT collects cruise and domestic waterborne passenger data.	By October
DfT carries out further validation.	October
DfT publishes final tables and publication.	November

### 4. Accessibility and Clarity

*Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.*

#### Accessibility:

The outputs are published on the GOV.UK DfT statistics page in accessible formats:

- Statistical releases are available as PDFs, which are made accessible for those who use assistive technologies.
- Data tables are available in ODS file format which can be accessed by using freely available software. The published tables include information on the passenger numbers by port, ferry route and country of destination.

## Clarity:

The statistical releases use plain language, in which technical terms, acronyms and definitions are defined where appropriate. The main findings are presented using a series of text, charts and maps, with maps used to show the location of the major ports. Full details of the strengths and weaknesses of the data are provided at the end of each statistical report for users who are interested in this.

In addition to the statistical releases, a [technical note](#) has been published which lists the routes the sea passenger series covers as well as the key definitions.

## 5. Coherence and Comparability

*Comparability is the degree to which data can be compared over time and domain. Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar.*

### Comparability:

The statistical series for international sea passengers covers trends since 1950 for all short sea routes. The data are considered to be comparable over time, showing an increase in sea passenger journeys up to 1994 (when the Channel Tunnel opened). Since then there has been a slow decline in sea passenger numbers.

Long sea journeys are also considered broadly comparable over time. The trends for long sea journeys during the 1950s to the 1970s show liner journeys were popular for inter-continental travel. Since then there has been a decrease, likely to be due to the increase in demand for air travel. Numbers can fluctuate due to the use of journeys to reposition vessels by some operators.

Comparison with figures produced by industry bodies suggests that the trend shown for cruise journeys are reliable; however, a port survey carried out in early 2013 resulted in more cruise data becoming available for Harwich, Newcastle and Portsmouth, which may impact on the trends shown for these ports (at the overall level the impact is likely to be minor, compared to the real increase in demand for cruises).

A larger operator returned figures in 2019 that haven't been provided previously, with vessels operating at the port of Dover. This contributed to an increase in cruise passengers at this port. Furlough of port employees for Aberdeen and Inverness due to the coronavirus (COVID-19) pandemic meant that figures for these ports could not be included in 2019. Both reporting issues mentioned were assessed to be small compared to the total and did not impact the overall trends for cruises and long sea passengers.

The domestic sea passenger movements are on the whole considered to reflect trends over time, however figures can be affected by changes in operator recording practices (for example part of the increase in river ferry passengers in the 2017 statistics is attributed to a change in recording by a large operator)



## Coherence:

For cruises, an industry body - Cruise Lines International Association (CLIA) - also publish statistics on passengers departing the UK, their figures are consistently lower. The DfT and the CLIA generally match in trends when there are any increases or decreases in passenger numbers.

For other types of sea passengers, fewer sources are available to make comparisons.

**The following four sections cover additional principles which Eurostat asks official statistics producers to comment on when reporting on quality.**

## 6. Trade-offs between Output Quality Components

*Trade offs between output quality components describes the extent to which different aspects of quality are balanced against each other.*

The main trade off in these statistics is between timeliness and accuracy - the final annual figures could be produced around a month earlier were less time spend validating returns. Currently the annual data are released in two annual publications to ensure the data that are ready sooner can be published in the most timely fashion.

## 7. Assessment of User Needs and Perceptions

*Assessment of user needs and perception covers the processes for finding out about users and uses, and their views on the statistical products.*

DfT regularly engages with users by social media, email and face to face methods when possible. This includes requesting feedback on the quarterly and annual statistics series, with contact details provided in every statistical release. Each publication is promoted via Twitter.

DfT also regularly analyses web page usage, ad-hoc requests and social media analytics to monitor activity over time. In line with the Code of Practice for Statistics, users will be informed about any changes or revisions to the data series.

Less frequently, the department reviews the statistics (last done in 2017) and presents key results at seminars, for example those arranged by the Transport Statistics User Group (last presentation on sea passenger statistics in March 2017).

As part of the annual publication issued in November 2018, the department published a [note to users](#) listing changes made and proposals to the data tables that accompany the publication. This included informing known users about the planned changes and requesting feedback.

In December 2018, the department conducted a user feedback survey to understand if the statistics continue to be fit for purpose and meet user needs. The survey also asked for views on the actions detailed in the [note to users](#) the department published (see above). A [summary of the feedback](#) has been published detailing user responses to the survey and the department's course of action as a result. One of these actions is ceasing to update quarterly tables as, after assessment, the monthly table is sufficient to meet user needs.

## 8. Performance, Cost and Respondent Burden

*Performance, cost and respondent burden describes the effectiveness, efficiency and economy of the statistical output.*

The overall respondent burden related to these statistics is considered to be relatively small. There are around 20 operators that supply data monthly, typically larger ferry operators, and it is considered that in most cases the figures can be easily extracted from their administrative/management information systems (with the data being recorded by the company for other purposes, so that the only additional burden relates to the compilation of the monthly return).

Cruise and long sea returns are provided monthly by some operators, and annually by others. Data returned consists of a list of passenger numbers by voyage which it is assumed are already captured in management information systems.

The domestic sea passenger returns are considered to be generally straightforward, with operators permitted to provide best estimates where data are not held.

In DfT, the estimated resource involved in the sea passenger statistics is assumed to be under 0.5 FTE, which is considered to be proportionate given that the statistics are used to supply data under an EU Directive

## 9. Confidentiality, Transparency and Security

*Confidentiality, transparency and security refers to the procedures and policy used to ensure sound confidentiality, security and transparent practices.*

All data is stored, accessed and analysed using DfT secure IT systems. Data protection regulations are adhered to throughout the sea passenger statistics production process, and any information provided to DfT by operators are kept securely where access to data is controlled in accordance with departmental policy.

The information used to compile these statistics provides details on company name, company code, port names, vessel details and figures for number of passengers and sailings arriving and departing. Sensitive or personal passenger details are not collected. Passenger numbers by company are collected. However the published statistics do not include passenger figures by individual company, as data is presented in an aggregated format. No statistical disclosure control methods are applied to the outputs, as the variables included in the statistics are not considered to be sensitive.

DfT aims to publish as much data as is possible whilst ensuring that confidentiality is maintained.

DfT adheres to the principles and protocols laid out in the Code of Practice for Statistics and comply with pre-release access arrangements. The pre-release access lists are available on the [DfT website](#).

## Section 3: Summary and conclusions

This Background Quality Report presents information for users of the sea passengers statistics covering different aspects of their quality. The Department concludes, on the basis of the assessment outline above, that the statistics are of a quality which is considered fit for the purposes for which the statistics are being used.

Comments and feedback on this report, or any other aspect of these statistics are welcome, and can be provided by email to [SEA-PASSENGER.STATS@dft.gov.uk](mailto:SEA-PASSENGER.STATS@dft.gov.uk).

### Further information

#### Data tables:

- Alongside this publication a series of data tables have been published: <https://www.gov.uk/government/statistical-data-sets/sea-passenger-statistics-spas>.

#### Notes and definitions:

- The maritime statistics guidance page includes notes and definitions for the sea passenger statistics. This includes details of routes covered by the sea passenger statistics and notes on strengths and weaknesses: <https://www.gov.uk/guidance/maritime-and-shipping-statistics-information>

#### Statistical quality:

- The [European Statistical System \(ESS\) handbook for quality reports](#) provides comprehensive guidance on measuring the quality of statistical processes.
- The Code of Practice sets out common standards that should be followed by all UK organisations that produce official Code of Practice statistics: <https://www.statisticsauthority.gov.uk/osr/code-of-practice/>.