



Department
for Transport

Search and Rescue Helicopter Statistics - Forthcoming changes to data series

Introduction

This document sets out the proposed changes to the production of the experimental Civilian Search and Rescue Helicopter Statistics (SARH) series and how we are responding to user feedback.

On 18 November 2015, the Department for Transport (DfT) published the first statistical release in a new experimental series covering civilian search and rescue helicopter operations in the United Kingdom, previously managed by the Ministry of Defence (MOD). Since the first release was published, DfT have continuously been looking for ways to improve the methodology of these statistics. The latest statistical release was published 14 June 2017, covering SARH taskings between April 2016 to March 2017 and can be found here: <https://www.gov.uk/government/statistics/search-and-rescue-helicopter-statistics-year-ending-march-2017>

Currently, the data are derived from an administrative system used by the helicopter operators and provided to DfT by the Maritime and Coastguard Agency (MCA). Due to the availability of a new data source with improved data coverage, the data used to produce the civilian SARH statistics will be transitioning to this source and incorporated into the next statistical release, covering helicopter taskings between April to June 2017 and being published in the late summer 2017. The new data source will provide an opportunity to make additional information available to users.

This new data source originates from the Aeronautical Rescue Co-ordination Centre (ARCC). ARCC are responsible for the co-ordination of the Search and Rescue helicopters, from answering the initial request through to the conclusion of the tasking. Implementing the new data source will increase efficiency in data processing and quality, offering more scope to explore additional variables compared to the current data source. This means that more detailed information about the helicopter tasking can become available.

This document explains and quantifies the differences between the current and new data source, including proposed changes to the statistical release, an explanation of the differences and the changes we will make to the statistical tables to accommodate the new data source and address user needs.

Comparison of sources

The data and topics included in the series so far have been derived from the helicopter operators' administrative database, and provided to DfT by the Maritime and Coastguard Agency (MCA).

DfT have been evaluating the ARCC data alongside the existing data source and have established the extra variables associated with the new data. These variables may provide extra context to the statistics and some of the key differences between the current and new data source are highlighted below.

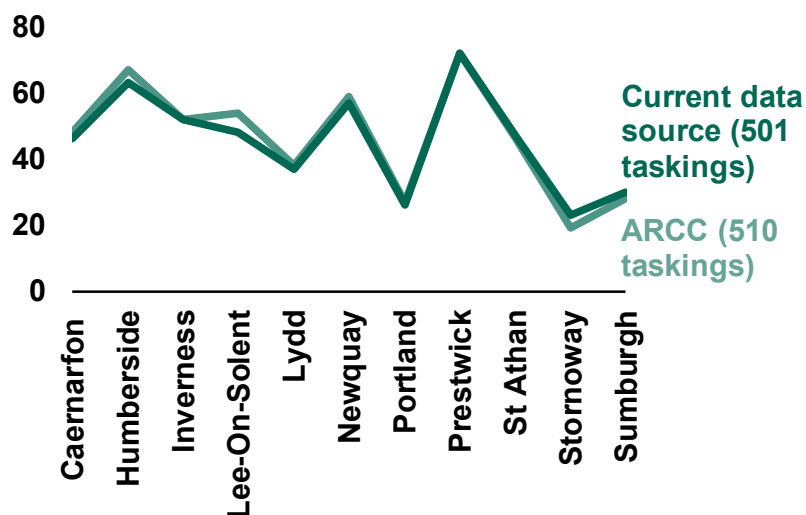
Tasking count

A tasking is defined as the response of a SAR helicopter to an emergency as notified by the ARCC.

When comparing both the current and new data source, between January and March 2017, the number of taskings between both sources matched with minimal differences. For example, the new data source includes information relating to incidents where a request for assistance was logged but resolved before a helicopter had been formally tasked. The current data source did not capture this activity.

To maintain similar and consistent results, the ARCC data will be reviewed on a monthly basis to ensure the correct number of taskings have been recorded. There are checks in place by DfT and the MCA to ensure the correct number of taskings are captured consistently and correctly, which can be cross-checked with the current data source.

Total number of taskings, Jan to Mar 2017



The overall number of taskings is comparable between both data sources and therefore, DfT do not intend to revise previous data tables (i.e. data from April 2015 to March 2017) with the ARCC data.

It is worth noting that once the new data source is implemented, we do not lose information already available in the current data source (i.e. location of taskings, type of tasking, time spent in air etc.), instead the ARCC data may offer scope to explore additional variables which are of interest to our users.

Breakdown of tasking count

As all calls received by the ARCC, where a helicopter responds are recorded as a tasking, there are no missing data. The main differences between the current and new data sources are outlined in the table below including additional variables which will be explored and may be incorporated in future statistical editions.

Current data source	ARCC data source
Incident date	Incident date
Tasking category	Tasking category
Base	Base
Time started	Time started
Time ended	Time ended
Latitude and Longitude co-ordinates	Latitude and Longitude co-ordinates
Duration time	Duration time
Location of tasking (based on longitude/ latitude)	Location of tasking (based on longitude/ latitude)
Region of tasking (based on longitude/ latitude)	Region of tasking (based on longitude/ latitude)
Tasking outcome	Tasking outcome
	Number of taskings which have been declined/ deferred.
	Number of people rescued/ assisted
	Primary stakeholders

Additional variables in new data source

In the long term, the plan would be to publish as much detailed information as possible. DfT will be reviewing the additional data in the new data source and where we are confident with the accuracy of the data, and user interest, we will look into delivering this data to users when possible.

Tasking Category and Location

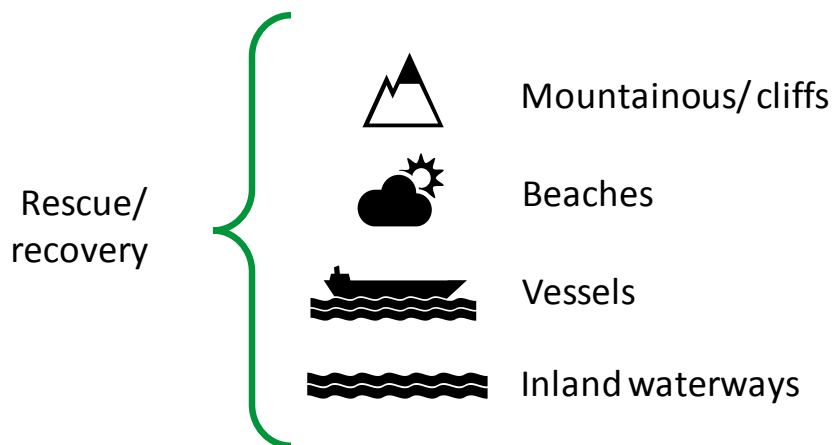
Currently, the type of tasking is based on 4 categories i.e. whether the tasking was a pre-arranged transfer, rescue or recovery, search or support tasking. This information is derived from a free text field completed by the helicopter operators and coded by database administrators at the MCA.

DfT also currently publish taskings by location - whether they occurred over land, maritime or coastal areas. This information is based on the latitude and longitude of the tasking and are overlaid onto a map of the UK, where distances between the taskings and the outline of the map are used to categorise the data.

In the future, DfT will be looking into ways to provide more detailed analysis on each tasking, including a breakdown on the number of taskings relating to outdoor pursuits such as taskings taking place in mountainous areas, vessels, inland waterways etc. This can be checked against the coordinate information obtained to improve reliability of results.

For example, DfT will explore the breakdown of rescue/ recovery taskings into mountainous rescues, beach rescues, inland waterway rescues, vessel rescues and so on.

Tasking Category breakdown example:



Number of declined/ deferred taskings

The ARCC data provides information on the number of taskings which were declined or deferred by the coordination centre (due to reasons such as weather, or another organisation was better suited to support the tasking etc.). In these cases, the base was not informed and therefore the tasking was not carried out. This information will not be included as a tasking count, however we will look into ways to provide this level of background information in future statistical releases.

Number of people rescued/ assisted

The ARCC data also includes information on the number of people rescued/ assisted by Search and Rescue Helicopters. We are evaluating the accuracy of this data and in response to user interest plan to publish this data in the future.

Primary stakeholders

Information on who initiated the tasking to the coordination centre will become available to users e.g. police force, ambulance etc. We are evaluating the accuracy of this data and plan to provide users with detailed information about the organisations who initially contacted the ARCC. This information will become available to users in the future.

Accuracy and reliability of the ARCC data

Both the current and new data source are based on administrative data. The current data source records data for management information purposes and therefore are not directly for use in statistics whereas the new data source relies on information recorded by the ARCC. As the new data source is managed by the MCA, we are confident that the level of accuracy within the data will be enhanced.

The ARCC data will be reviewed by both the MCA and DfT on a monthly basis where validations and checks are in place to ensure the correct number of taskings are recorded. Previous discussions between ARCC and DfT/ MCA have resulted in more consistent recording. The ARCC data also includes a free text description, similar to the current data source which means similar, comparable results can be captured.

Accuracy within the ARCC data will be ensured by:

- Working with data suppliers, reviewing that correct information is inputted and cross checking with the current data source.
- Understanding the operational context behind the data and any bias that may be created where the data is used for other requirements.
- Communicating to user about the quality of statistics in a timely manner.

As all calls received by the ARCC are inputted into a spreadsheet, there are no missing data. Currently, we are able to compare the ARCC data source with the current data source received by the helicopter operators which will allow us to cross check results.

User feedback

A public consultation was run until the beginning of January 2016 and the response to this can be found here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/505975/user-feedback-recommendations.pdf. Some user feedback was addressed such as incorporating analysis on taskings by region, day of week and time of day into the statistical releases. Moving to the new data source may address some additional feedback from users.....



Users said....



Our response....

“Specific information regarding mountain rescue data would be useful to us for targeting mountain safety information”

and

“The breakdown of tasking category is difficult to visualise without knowing how low-level your data is, but I can imagine it would be useful to be able to breakdown rescue/recovery further (i.e. filtering out direct transfers to hospital)..”

“Every stakeholder will have a unique requirement and no two will be the same - having the option to download the exact data of interest in the format that is most useful (map, CSV, JSON, charts etc..) is critical.”

and

“The maps and commentary are very useful to provide context, but the most useful would be open data.”

“We will continue to present data on tasking category, but will explore the breakdown of whether a tasking occurred over a mountainous region, on a beach, vessel etc. We are confident that the new data source is reliable, and we will work together with the ARCC to provide a more specific breakdown by category to users in the near future.”

“We are aware that users would want as much information as possible. Alongside the statistical release, we publish data tables to allow users to produce the analysis they require. We are more than happy to provide additional analysis and graphics when requested.

DfT have started to publish an [online interactive map](#) where users will be able to select the data they're interested in for their own purposes. Table [SARH0112](#) provides individual record level data. DfT will still be looking into ways to meet these needs in a timely manner.”

Future steps

The next statistical release being published in Summer 2017 will encompass the ARCC data and include analysis on the number of taskings between April to June 2017. In preparation for this release, we will:

- Continue to engage with users of the statistics by social media, email and face to face engagement.
- Transfer to a better quality data source and cross checking results with the current data source when required.
- Capture additional analysis available within the ARCC data.
- Continue to explore the enhancement of the interactive online visualisation map to help users explore the data further.
- Produce a quality document - explaining the strengths and weaknesses of the new data source clearly to users.

DfT will also continue to explore the potential of data held by the ARCC as well as from other search and rescue organisations such as the coastguard and lifeboat organisation to further deepen and broaden these statistics with respect to user needs.

Feedback

We would be grateful for any further feedback that users have on the changes made so far to the series and on the developments that will be made over the coming months, so that we can consider how the release can better meet user needs and how the dissemination of information can be improved. You can contact us by **email** to SARH.Stats@dft.gsi.gov.uk or **phone** 020 7944 2403.

Links

- The annual statistical release for 2016/17 can be found here: <https://www.gov.uk/government/statistics/search-and-rescue-helicopter-statistics-yearendingmarch2017>
- Eventually, the plan is to badge these statistics as National Statistics. National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs: <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>
- To hear more about DfT statistics publications as they are released, please follow us on Twitter via our [@DfTstats account](#).