Background Quality Report
Search and Rescue Statistics

1. Introduction

Overview
The military Search and Rescue (SAR) service exists primarily to recover aircrew from crashed military aircraft, although a large proportion of its work involves assisting shipping or civilians in distress, both on land and at sea. SAR cover for the United Kingdom and a large area of the surrounding sea is provided 24 hours a day and 365 days a year by the Royal Air Force and Royal Navy.

The military SAR force currently consists of RAF and Royal Navy SAR Sea King helicopters operating from eight locations around the UK and four RAF Mountain Rescue Teams. Fixed wing aircraft are occasionally used to provide assistance during incidents. Two RAF SAR helicopter units operate in Cyprus and the Falkland Islands.

The SAR National Statistics are published quarterly and annually and provide counts of the number of SAR incidents, callouts and persons moved dealt with by the UK Armed Forces. The annual National Statistic also provides break-downs by type of aircraft, type of assistance and region. The SAR reports are published monthly, quarterly and annually and provide greater detail than the National Statistics, including the number of flying hours. The quarterly and annual reports include maps showing the locations of incidents.

DASA has published military SAR statistics since 1992.

Methodology and Production
Data are received four times a month from the Aeronautical Rescue Co-ordination Centre (ARCC) Kinloss. The data undergo a thorough validation process, which includes consistency checks for: timings of events, type of assistance provided, number and classification of people rescued and location. Any anomalies, along with suggested edits, are sent back to ARCC Kinloss for clarification, Once the data has been validated it is confirmed on DASA's SAR database and summarised to produce the published official and National Statistics.

The published statistics are mainly counts of incidents, callouts and persons for particular categories, such as type of assistance and SAR unit. Definitions and explanations of the terminology used are provided in each report. The quarterly and annual official statistics also include data on Coastguard SAR helicopter callouts, which is obtained from the Maritime & Coastguard Agency.

Contact details
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DASA welcome feedback on this Background Quality Report or any of the statistics mentioned.

2. Relevance

The main customers of the SAR publications are the SAR bases, with SAR-HQ at RAF Valley and ARCC Kinloss being the principal customers. Trends across the different SAR bases are examined, and locations where the number of incidents is changing more than expected are examined to inform future plans and resources. The information is also used to determine SAR training policy to ensure pilots are suitably trained to meet any changing requirements.

The reports are used by the RAF and the Royal Navy to aid with invoicing. Payments are received from the Civil Aviation Authority and the National Health Service for SAR callouts involving Civil Air incidents and Medical Transfers respectively. The numbers of such incidents are established using the reports.

The Royal National Lifeboat Institute (RNLI) maintains a database of SAR incidents that occur at inland waterways. The data used to produce the SAR reports are provided by DASA to the RNLI each quarter.

The statistical publications have been developed in conjunction with the customers, who pay for their production, and meet their specific requirements to have accurate and timely statistics to inform policy decisions and billing. A customer consultation is currently underway to review the content and structure of the official statistics, to ensure continued relevance going forward during a period of change within MOD and the SAR environment.

3. Accuracy

Data are received on a weekly basis from the Aeronautical Rescue Co-ordination Centre (ARCC) Kinloss and undergo a thorough validation process, which typically leads to around 1/3 of the records being queried. The most common type of queries relate to:
i.   location, particularly between sea and costal classifications;
ii.   type of assistance; and
iii. inconsistent timings for events in a callout.

Approximate proportion of records edited	25%

For the 2010 calendar year, 717 of the 2050 callouts were queried with ARCC Kinloss. The majority of these resulted in changes being made to the data. Whilst this is a high editing rate, these edits rarely affect the number of callouts, incidents and people moved by SAR unit.

Due to the stringent validation and editing process employed revisions are rarely required. The last revision was in the June 2009 monthly official statistics. The revision was due to a single overseas incident not being included in the statistics. A revised report was published on the DASA website and emailed to the key contacts.

4. Timeliness and Punctuality

Data is received and validated from ARCC Kinloss on a weekly basis. Production of the monthly, quarterly and annual reports commences once all the queries on the data for the period covered by the report have been cleared, typically one week after the final extract for the period has been received.

Publication dates for the reports are agreed up to 12 months in advance and are published on the Publication Release Dates[1] section of DASA webpage[2] and on the National Statistics Publication Hub[3]. The table below summarises the key timeliness quality measures for recent publications.

Publication	Period Covered	Publication
Monthly Report	1 Mar 11 – 31 Mar 11	6 May 11
Monthly Pocket Brief	1 Mar 11 – 31 Mar 11	6 May 11
Quarterly Report	1 Jan 11 – 31 Mar 11	6 May 11
Quarterly Pocket Brief	1 Mar 11 – 31 Mar 11	6 May 11
Quarterly National Statistics	1 Jan 11 – 31 Mar 11	5 May 11

Annual National Statistics	1 Jan 10 – 31 Dec 10	2 Feb 11
Annual Report	1 Jan 10 – 31 Dec 10	6 Feb 11
Annual Pocket Brief	1 Jan 10 – 31 Dec 10	6 Feb 11

5. Accessibility and Clarity

The reports are published on DASA webpage[2] and are available as pdfs. The quarterly and annual National Statistics can be found under the National Statistics section of the webpage and the remainder of the publications are in the "All Other Publications" section of the webpage. Chapter 5 of UK Defence Statistics[4] reproduces some of the published SAR National Statistics and is available from DASA webpage[2] as webpages or pdfs. A search of "SAR" or "search and rescue" on DASA webpage[2] will bring up links to all of the publications.

The National Statistics publications identify the key points from the data, including significant changes from previous publications, trends and callouts of particular interest. They also provide clear definitions and explanations of the technical terms used. The information is presented as a series of tables and graphs, with maps used to present the distribution of the callout locations.

The classification of some outputs as National Statistics and others as reports, and the overlap between products may cause some uncertainty for new users. A customer consultation is currently underway with a view to rationalising the outputs and incorporating new analysis.

6. Coherence and Comparability

The Search and Rescue Reports and National Statistics, report all search and rescue activities undertaken by the UK Armed Forces in the UK, Cyprus and Falklands. Due to the varying nature of Search and Rescue responsibilities between different countries, it is not possible to directly compare the UK SAR statistics with others internationally.

In the UK, the Maritime and Coastguard Agency (MCA) also provide search and rescue services. The annual SAR report reproduces the number of incidents attended by MCA for each of their four SAR helicopter units.

The statistics are generally comparable across time, although in 2007 additional categories of callouts were introduced, to identify those callouts which included a search element. To make comparisons across this change, the five additional categories (all pre-fixed with "Search") need to be combined with their parent category. For instance, Search-Medrescue should be combined with Medrescue, and so on. The changes were made in conjunction with ARCC Kinloss, and the new definitions were explained fully in all subsequent reports. A number of monthly reports were reissued to reflect the new definitions.

It is also worth noting that prior to 2003 there were more SAR units than currently. In the time-series statistics in the annual report, callouts relating to these closed units are classified under "UK Closed Stations".

7. Trade-offs between Output Quality Components

The main trade-off is accuracy versus timeliness and respondent burden. The validation process identifies queries on over 1/3 of SAR callouts, some of these are rectified using internal editing processes rather than querying the data with ARCC Kinloss. Accuracy could be improved by querying all suspect data with the suppliers, but this would increase the burden on the data suppliers and adversely impact the timeliness of the statistics.

8. Assessment of User Needs and Perceptions

DASA are in weekly contact with ARCC Kinloss, one of the principal customers and primary data supplier, and regular contact with other data suppliers. DASA uses these communication channels to assess user

needs and to get feedback on the statistics. We also request feedback on the monthly, quarterly and annual reports and National Statistics.

DASA is currently conducting a more formal user consultation. The consultation is examining the relevance of the content and the number of SAR publications. The results of the consultation are likely to lead to the publications being revised on a rolling basis during 2011.

9. Performance, Cost and Respondent Burden

The outputs are produced from the administrative data collected from the Search and Rescue function. The benefit of DASA producing the outputs is that the administrative data is stored centrally, validated and edited, and a set of trusted statistics are produced to inform policy and decision making. The additional burden that this places on suppliers is considered to be worthwhile as the cost of maintaining the database and producing the statistics would otherwise fall to the SAR function (data suppliers).

10. Confidentiality, Transparency and Security

All staff involved in the production process have signed the Data Protection Act, and all MoD, Civil Service and data protection regulations are adhered to. All data is stored, accessed and analysed using the MoD's restricted network and IT systems.

We adhere to the principles and protocols laid out in the Code of Practice for Official Statistics[5] and comply with pre-release access arrangements. The DASA Pre-Release Access lists[6] are available on the DASA website. Since 29 January 2009 there has not been any pre-release access of SAR statistics, although there is pre-release access to UK Defence Statistics.

11. References

	Reference	Website Location
1	Publication Release Dates	http://www.dasa.mod.uk/applications/newWeb/www/index.php?page=68
2	DASA webpage	http://www.dasa.mod.uk
3	National Statistics Publication Hub	http://www.statistics.gov.uk/hub/index.html
4	Chapter 5 of UK Defence Statistics	http://www.dasa.mod.uk/index.php?pub=UKDS
5	Code of Practice for Official Statistics	http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf
6	DASA Pre-Release Access lists	http://www.dasa.mod.uk/applications/newWeb/www/index.php?page=48&pubType=3&thiscontent=800&PublishTime=09:30:00&date=2009-12-15&disText=2009&from=listing&topDate=2009-12-15

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