

# Background Quality Report for the Tri-Service Reserves Continuous Attitude Survey (ResCAS)

June 2017

## 1 Introduction

### 1.1 Tri-Service Reserves Continuous Attitude Survey ([ResCAS<sup>1</sup>](#))

The 2017 ResCAS is the fourth time Tri-Service Reserves questions have been included in the single Service Reserves surveys to produce Tri-Service Reserves results. However, following substantial changes to the Army Reserve survey questionnaire distribution methodology and changes to the Army and RAF target populations, the 2014 Tri-Service results are not comparable to the 2015 to 2017 Tri-Service results and no comparisons to the 2014 results have been made in the statistical report. The ResCAS is one of the main ways the Department gathers information on the views and experiences of our Reserve Forces personnel. The information from this survey helps shape policies for training, support, and the terms and conditions of service.

### 1.2 Brief History

For many years prior to the introduction of Tri-Service reserve survey questions in 2014, the Maritime Reserve (Royal Navy Reserve and Royal Marines Reserve), Army Reserve and Reserve Air Force (RAF) Reserve conducted individual Continuous Attitude Surveys (CASs). These inform single Service personnel policy development. However, the individual nature of each made it difficult to obtain a picture of whole Reserve Force wide issues and compare data across the Services and meant that each was published at different times. Following direction from the Chief of Defence Personnel Reserve Forces & Cadets (RFC) team the requirement for consistent and comparable whole Reserve Forces survey results was defined. The remit was to draw upon the expertise gathered in the single Services to produce whole Reserve Force results. This was named the Tri-Service Reserves Continuous Attitude Survey (ResCAS).

The Reserves Continuous Attitude Survey (ResCAS), specifically relating to the Tri-Service questionnaire items, is designed and delivered through the collaboration of MOD occupational psychologists, researchers and statisticians, to reflect Chief of Defence Personnel (CDP) policy user requirements. The single Services administer their Reserves surveys and collate the responses. Defence Statistics then produce analysis and tabulations based on the results to the Tri-Service questions, and write and publish the Tri-Service ResCAS report. The CDP Research and Evidence (CDPRE) team, and CDP-RFC team in Head Office, in collaboration with Occupational Psychologists in the single Services and statisticians in Defence Statistics, are responsible for consulting with their stakeholders and for deciding on the content of the Tri-Service questions to meet policy user requirements.

The aim of the ResCAS is to assess and monitor the attitudes of Reserve Forces personnel across the Royal Navy Reserve (RNR), Royal Marines Reserve (RMR), Army Reserve and Reserve Air Force (RAF) on a variety of topics including pay and allowances, support, training, and equipment (see Section 2 for a list of the topic areas). The statistics are used to help identify where measures are needed to influence motivation, capabilities, and retention in the Reserve Forces and to inform policy development and assessment. The surveys are conducted annually to allow for attitudes to be tracked over time. The Service Chiefs and the Ministry of Defence (MOD) place a high value on the attitude data gathered from Service personnel. They are a vital means of understanding how our Reserve Forces personnel feel about key issues. The information is used to inform the Chief of Defence Personnel policy teams. Since 2014 the ResCAS is being published as an Official Statistic.

For the 2017 survey, fieldwork was conducted between January 2017 and March 2017.

### 1.3 Documentation

The ResCAS 2017 report contains the following sections:

- A front page – *providing a brief overview of the ResCAS and the statistical report.*
- Summary results infographic – *showing the main findings.*
- Introduction - *outlining the context and background to the survey.*
- Summary pages – *showing changes since the previous surveys, and differences between ranks and Services*
- Charts showing the results by Reserve Service and any overall changes since the 2016 and 2015 surveys – *shown with a written summary of the results, significant differences between Services and Officers and Other Ranks where applicable, and a comparison with the survey results from Regular Trained Armed Forces personnel where available.*
- Methodology – *includes a detailed explanation of the methodology used in the survey.*
- A glossary - *outlining key ResCAS terms and abbreviations.*

Excel versions of the tables of results are also available on the ResCAS page of the .gov.uk web site to aid re-use of the results.

## 1.4 Summary Production Process

There are nine stages in the ResCAS process. Each of these stages is briefly described below.

### Stage 1: Questionnaire design

For the 2017 ResCAS, Tri-Service questions were agreed by CDPRE and CDP-RFC with each of the single Services. There are three separate questionnaires, one for each Service. Any single Service questions included in the single Service Reserves Surveys are outside the scope of this report. The Reserves Continuous Attitude Survey results, published as an Official Statistic, are only concerned with questions that are asked on a Tri-Service basis.

### Stage 2: Sample design

The Maritime Reserve (RNR/RMR) ran a census of all its volunteer Reserves, the RAF Reserve ran a census of all its volunteer reserve and regular reserve but the Tri-Service ResCAS results are only concerned with the responses from volunteer Reserves (the RAF conduct further analysis using the responses from RAF regular Reserves) in addition the Maritime Reserves and RAF Reserves surveys exclude individuals that are considered hard to reach this includes deployed reservists therefore the total number of questionnaires sent out to Maritime Reservists was 3,103 and for RAF volunteer reservists was 2,622. The Army Reserve survey took a disproportionate stratified random sample of 10,830 Army volunteer reservists excluding Non-Regular Permanent Staff (NRPS) and deployed reservists. The Army sample is stratified by rank group in an attempt to achieve a sufficient number of responses in each of the rank groups. The Army sample was designed to provide sufficient responses to yield estimates with a margin of error of plus or minus 3% by: Officers - Maj and above; Officers - Capt and below; Soldiers – Sgt and above; Soldiers – Cpl and below.

### Stage 3: Survey distribution and communications

The single Service Reserves Surveys were distributed in early January 2017. Responses were collected until the surveys closed on the 31<sup>st</sup> March.

RAF reservists were able to complete an online self-completion survey or pick-up a paper questionnaire from Reserve Units when they attended for training, and RAF volunteer reserve FTRS were posted a paper questionnaire directly to their current assignment address using address details recorded on the Joint Personnel Administration (JPA) system. Respondents were able to return their completed questionnaires using an enclosed pre-paid envelope.

A random sample of 10,830 Army volunteer reservists were posted a paper questionnaire to their current unit address using details recorded on the Joint Personnel Administration (JPA) system, an online version of the Army questionnaire was also available so that participants could choose to complete the online version if they preferred too. A survey invitation email was also sent to sampled individuals DII personal email accounts for those where email addresses were available.

The Maritime Reserves survey used an online self completion questionnaire and self completion paper questionnaires were also available. Points of contact at units were sent a generic web link to the online questionnaire. The unit points of contact forwarded the link on to reservists at their home email address where possible. Paper questionnaires were also sent to unit points of contact and these paper questionnaires were available to be collected from the units by reservists if they preferred to complete the paper version.

### Stage 4: Data input

The single Services used external contractors to input paper survey responses. Online survey responses were downloaded and the Tri-Service question data was sent to Defence Statistics for collating, data cleansing and analysis.

### Stage 5: Data cleaning

All three Services data to the Tri-Service Reserves survey questions are combined into a single data set by statisticians in Defence Statistics.

Many questions are recoded to simplify the interpretation of the output. For example, all 5 point Likert scale responses are recoded into a 3 point positive, neutral, negative scale. Responses are weighted by rank and Service. This accounts for bias caused by differing levels of response. Finally the data is transferred into SPSS.

#### Stage 6: Production of tables of results

Results are produced in SPSS using Complex Samples to ensure percentage estimates and any corresponding standard errors are correctly weighted.

#### Stage 7: Production of key findings

The results for each section are analysed and summaries of the key points and figures are collated into the Main Report.

#### Stage 8: Checking

There are several stages of both automated and manual validation built into the data cleaning process.

Each section of statistics undergoes several layers of scrutiny. These include cross checking by at least one other Defence Statistics staff as well as checking carried out by CDP and single Service psychologists and researchers.

#### Stage 9: Publication

ResCAS is an Official Statistic and is produced and published in line with the [Official Statistics Code of Practice](#)<sup>2</sup>. 24hr pre-release access is given to those listed on the published ResCAS [pre-release access list](#)<sup>3</sup>. ResCAS is published on the statistics at MOD web page on the gov.uk website (<https://www.gov.uk/government/organisations/ministry-of-defence/about/statistics>).

## 2 Relevance

2.1 The principal users of the ResCAS publication are the Chief of Defence Personnel policy teams, particularly the Reserve Forces & Cadets team, and the single Service policy teams. The statistical information is used to inform and measure Reserve Forces personnel strategy and policy so it is important that stakeholder requirements are represented.

ResCAS 2017 captures information on the following topic areas:

- Life in the Reserves
- Reasons for joining, staying and leaving
- Pay, allowances and admin support
- Kit and equipment
- Mobilisation
- Training
- Career progression
- Perception of Reserves
- Family support
- Your civilian employment
- About you (demographics, including a new question asking about former Service Cadet status)

The information can also be used to answer parliamentary questions and Freedom of Information requests. The information in the ResCAS can be used by the general public and media to monitor the effectiveness of MOD programmes and by parliament to help hold the MOD to account.

The survey is anonymous. The ResCAS statistics published in the tri-Service report are shown by Service to reflect differences in the roles and experiences of reservists in each of the Services. Requests for additional breakdowns of the ResCAS data would currently be considered on an ad-hoc basis by Defence Statistics.

ResCAS 2017 is the fourth year that Tri-Service questions have been asked in all single-Service Reserves Surveys. However, following substantial changes to the Army Reserve survey questionnaire distribution methodology and changes to the Army and RAF ResCAS target populations, the 2015 to 2017 Tri-Service results are not comparable to the 2014 Tri-Service results and no comparisons to the 2014 results have been made in the statistical report. Comparisons to the 2015 results and 2016 results have been made in the report and the availability of trend results is expected to be of particular interest and use to stakeholders.

There is currently a time lag of about 5½ months between the survey first going into field and the publication of the tri-Service ResCAS report. The time lag of 5½ months between collecting data and publishing the results may reduce the relevance of results as opinions may have changed in this period, although substantively important changes would not be expected in such a relatively short time period.

### 3 Accuracy & Reliability

**3.1** The Maritime Reserve (RNR/RMR) and RAF Reserve runs a census of their volunteer Reserves, although they do not send questionnaires to what it considers hard to reach reservists which includes deployed reservists, the Army Reserve survey used a disproportionate stratified random sample of 10,830 Army volunteer reservists excluding Non-Regular Permanent Staff (NRPS) and deployed reservists. The Army sample is stratified by rank group in an attempt to achieve a sufficient number of responses to achieve a margin of error of plus or minus 3% by the following rank groups: Officers - Maj and above; Officers - Capt and below; Soldiers – Sgt and above; Soldiers – Cpl and below. The Army sample design allows the Army to conduct further rank analysis that is currently outside the scope of the Tri-Service ResCAS report.

Survey estimates are published by Service for each of the Maritime (RNR/RMR) volunteer Reserves, Army volunteer Reserves, and RAF volunteer Reserves and by Officers and Other Ranks within each Reserve Service.

The ResCAS raw data is passed through a range of automatic and manual validation and editing routines. The data sets from each of the surveys are combined into a single data set. To ensure results are representative of the Armed Forces, Defence Statistics weight responses to correct for any bias introduced by differing levels of response. The responses are weighted broadly by rank & Service. Full details are provided in the methodology section of the report.

Defence Statistics analyse the data using SPSS Complex Samples. This software produces weighted estimates and corresponding standard errors.

As the ResCAS does not achieve a 100% participation rate (the overall participation rate achieved in ResCAS 2017 was 33%) there is always the risk that those who returned questionnaires have differing views from those who did not. We assume that all non-response is Missing At Random (MAR). This means we have assumed that those people who did not return their questionnaires have (on average) the same perceptions and attitudes as those who did respond.

Weighting helps to make the ResCAS percentages as representative as possible of the volunteer Reserves populations. The Services/Ranks which are under-represented in the dataset are given more weight so that they represent more of the people in their group who did not respond. Conversely, groups that are over-represented in the dataset are given less weight. Weighting assumes that all non-response is Missing At Random (MAR). This means we have assumed that all those people who did not respond within their Service/Rank strata have (on average) the same perceptions and attitudes as those who did respond. If those who did not respond have different attitudes to those who did respond then the observations in this report will be biased and will not represent the attitudes of all volunteer Reserves personnel; rather, our observations would only represent the views of the *responding* population.

The ResCAS is designed to give an up to date snap shot of the attitudes and perceptions of our volunteer reserve personnel. While the ResCAS is reported on an annual basis it should be remembered that these attitudes and perceptions are liable to change within the calendar year, for example, as a result of events or even due to the time of the year that the responses were collected (a seasonality affect). The ResCAS timeline is driven by user reporting requirements.

All statistical results are checked by at least two Defence Statistics staff following a clear checking process. The statistics are further checked by at least one of the psychologists on the working group. Defence Statistics do not show any statistics where the responding group size is less than 30. This is to prevent the publication of unreliable statistical information and to prevent disclosure of information about individuals.

## 4 Timeliness and Punctuality

### 4.1 Timeliness

The ResCAS takes approximately 5½ months from questionnaires being distributed to publishing the ResCAS report. The time lag of 5½ months between collecting data and publishing the results may reduce the relevance of results as opinions may have changed in this period.

A general limitation of the ResCAS is that it is a snap shot of attitudes and perceptions at the time respondents answer the questionnaire. People's attitudes and perceptions may systematically change throughout the year in response to events or because of some seasonality affect. For the 2017 report, data collection took place from January 2017 to 31<sup>st</sup> March 2017.

The ResCAS statistical report is published close after the publication of the Armed Forces Continuous Attitude Survey (AFCAS) statistical report. This allows the ResCAS statistical report to draw comparisons with the results of similar questions asked of Trained Regular personnel in AFCAS to provide a Whole Force picture where available.

### 4.2 Punctuality

The release date has been pre-announced as the 29<sup>th</sup> June 2017. This is the fourth time this Official Statistic is being published.

## 5 Accessibility and Clarity

### 5.1 Access to publications

All ResCAS publications are available free of charge in pdf format, and copies of the statistical tables in Excel format, from the tri-service Reserves continuous attitude survey section of the gov.uk website (<https://www.gov.uk/government/collections/tri-service-reserves-continuous-attitude-survey-index>)

### 5.2 Clarity

In addition to this Quality Report, the ResCAS report contains a key points section that summarises the main ResCAS findings, an introduction section that provides a brief background to ResCAS and definitions of terms used in the report, a methodology section that provides users with details of the methodology including target population, information on the sample, respondents, weighting, and notations and definitions used.

## 6 Coherence and Comparability

### 6.1 Coherence

ResCAS is the definitive source of Tri-Service attitudinal data about volunteer reservists own experiences and perceptions of working in the Reserves. There are no other tri-Service data sources that collect the same attitudinal information with which to ensure coherence.

### 6.2 Comparability over Time

This is the fourth time Tri-Service Reserve survey questions have been included in each of the single Service Reserves Surveys. However, following substantial changes to the Army Reserve survey questionnaire distribution methodology and changes to the Army and RAF target populations, the 2015 to 2017 Tri-Service results are not comparable to the 2014 Tri-Service results and no comparisons to the 2014 results have been made in the statistical report. Specifically, the Army Reserves survey moved from primarily distributing it's questionnaires as a pull out questionnaire in the Army Reserve Quarterly Magazine (ARQ) open to all Army reservists in 2014 to sending questionnaires to a random sample of volunteer reservists excluding NRPS since 2015. To better align the target populations the decision was made, from ResCAS 2015, to

only include volunteer Reserves excluding the NRPS in the Army. Time series comparisons are now available to the 2016 and 2015 results, and trend results are expected to continue to be developed in the future.

## 7 Trade-offs between Output Quality Components

### 7.1 Timeliness and costs versus Quality

The main trade-off is between timeliness and quality. While the report has a key points section, there is limited contextual/or explanatory text to accompany the statistical charts. The report limits itself to examining trends over time and differences by Reserve Service and by Officers and Other Ranks no other demographic breakdowns of questions are considered in the report (such as by male or female, ethnicity, or age groups etc) and there's no attempt to cross-tabulate ResCAS questions by each other that may provide additional insights. This is so that the basic statistical information can be made available to policy users and the public as soon as possible in a clear accessible format. Additional analysis for policy users is available on request and external requests for further information would be considered under the usual FOI rules. A general limitation of the ResCAS is that it is a snap shot of attitudes and perceptions at the time respondents answer the questionnaire. People's attitudes and perceptions may systematically change throughout the year in response to events or because of some seasonality affect. For the 2017 report, data collection took place from January 2017 to 31st March 2017.

## 8 Assessment of User Needs and Perceptions

### 8.1 Description and Classification of Users

Defence Statistics work closely with the main customer and survey sponsor for the Tri-Service element of the Reserves Surveys, People Strategy CDP and sS occupational psychologists and researchers from across the department so that ResCAS reflects policy user requirements. People Strategy CDP lead steering and working groups to agree their policy user requirements and questionnaire content.

### 8.2 ResCAS Users/Uses

#### **Internal uses of ResCAS for *decision making about policies, programmes and projects:***

The main aim of each of the services is to establish their own force fully capable of meeting the demands of Future Force 2020 (FF20). To help achieve FF20, ResCAS provides performance indicators on factors that may impact Reservists satisfaction with Service life in general and their willingness to serve, reservist's capability and availability to serve, and their integration with Regulars. ResCAS questions provide intelligence on the current state of affairs. ResCAS also has an extensive list of questions relating to why volunteer reservists join, stay, and why some decide to leave. These questions help to formulate recruitment and retention strategies.

#### **External uses of ResCAS**

Service Families Federations Service Families Federations exist to give Service families an independent voice and work with Senior Officials, including the Minister and Service Heads, to help improve the lives of Service families. The Service Families Federations use ResCAS statistics as a source of evidence when voicing the situation for serving personnel and their families. A range of ResCAS statistics have been reported on Service Families Federation websites often accompanied by a link to the full ResCAS report.

The media have reported ResCAS statistics on Reservists integration with Regulars.

ResCAS statistics can be used by students to facilitate academic research.



## 9 Confidentiality, Transparency and Security

### 9.1 Security

All staff involved in the ResCAS production process adhere to the MOD and Civil Service data protection regulations. In addition all members of the working group have to follow the relevant codes of practice for their professional groups; the Government Statistical Service (GSS) and the Government Social Research (GSR) Service. All data is stored, accessed and analysed using the MOD's restricted network and IT system.

### 9.2 Confidentiality

The [Defence Statistics Disclosure and Confidentiality Policy](#)<sup>4</sup> is followed. ResCAS is an anonymous survey. Only aggregated results are provided to anyone not directly involved with the analysis. These results are only presented for groups containing at least 30 respondents.

### 9.3 Transparency

The ResCAS report is published with details of the methodology and footnotes beneath statistical tables alerting readers to potential issues. This quality report informs users of the method, production process and quality of the output. Any significant errors identified after publication will result in revisions along with explanations as to the cause of the revisions.

## 10 References

	<b>Title of Reference</b>	<b>Website Location</b>
1	ResCAS	<a href="https://www.gov.uk/government/collections/tri-service-reserves-continuous-attitude-survey-index">https://www.gov.uk/government/collections/tri-service-reserves-continuous-attitude-survey-index</a>
2	Official Statistics Code of Practice	<a href="http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf">http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf</a>
3	ResCAS pre-release access list	<a href="https://www.gov.uk/government/publications/defence-statistics-pre-release-access-list">https://www.gov.uk/government/publications/defence-statistics-pre-release-access-list</a>
4	Defence Statistics Disclosure and Confidentiality Policy - Identifiable Survey Data	<a href="https://www.gov.uk/government/publications/defence-statistics-policies">https://www.gov.uk/government/publications/defence-statistics-policies</a>

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