

Background Quality Report for the Armed Forces Continuous Attitude Survey (AFCAS) – June 2023

1 Contact

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2 Introduction

AFCAS is a key strategic survey for the Ministry of Defence (MOD) and is one of the main ways the Department gathers information on the views and experiences of Armed Forces personnel. The information from this survey helps shape policies for training, support, and the terms and conditions of service. The target population for AFCAS is trained UK Regular Service personnel, including Gurkhas. For the 2023 survey, fieldwork was conducted between September 2022 and February 2023.

AFCAS was introduced in 2007, following a direction by the Under Secretary of State for the existing single Service (Royal Navy (then known as the Naval Service), Army, RAF) attitude surveys to be combined and run as a single survey, owned and co-ordinated by the Deputy Chief of Defence staff (now known as Chief of Defence People or CDP).

The Analysis Directorate Surveys Team is tasked by CDP with administering the survey including collation of responses, validation and analysis of data, and publication of the tri-Service AFCAS report. In 2009, AFCAS was given Official Statistics publication status, and following assessment by the UK Statistics Authority, was designated a National Statistic in June 2013.

3 Statistical Processing

AFCAS is an annual survey for which there are eight main stages. Each of these stages is briefly described below.

Stage 1: Questionnaire design

A working group comprised of staff from Defence People, single Service Occupational Psychology, and Surveys teams agree the questionnaire. There are four separate questionnaires, one for each Service. Most questions are common to all Services; however, each Service has a small number of questions applicable only to their Service. Copies of [this year's questionnaires](#) are published alongside the main report.

Stage 2: Sample design, selection and cleaning

A disproportionate stratified random sample of approximately 30,000 trained UK Regular Service personnel was selected for the AFCAS in 2023. The Surveys team designs and selects the sample.

The sample is stratified by Service (Royal Navy (RN), Royal Marines (RM), Army & RAF) and Rank group. Different ranks are known to attract different response rates, so the stratification helps to ensure sufficient representativeness across the groups:

- Senior Officers (OF7-OF10)
- Officers (OF1-OF6)
- Senior Ranks (OR6-OR9)
- Junior Ranks (OR1-OR4)

The exception is the RM, which is substantially smaller than the other Services. To maximise the accuracy of RM results, a census approach is taken.

Stage 3: Survey distribution and communications

The survey is distributed bi-modally. Sampled personnel are sent a personalised email to invite them to complete the survey online accessed using their Service Number. Paper questionnaires are also sent out to personnel in the sample to help maximise participation and response rates. This year the RAF chose to move AFCAS online only, distributing postcards to sampled personnel advertising a link to the survey. Paper questionnaires are printed, packed, and distributed by an external contractor. Online questionnaires are produced and administered internally using the online survey tool Limesurvey. Personnel are offered two online options to complete the survey online either via the Internet or the MOD Intranet, in order to maximise online responses. Single Service Psychologists and Defence People team help to publicise the survey and support on communications through Chains of Command.

Stage 4: Data input

Online survey responses are held securely on MOD servers. Paper survey responses are input by the external contractors using a 100% verification technique.

Stage 5: Data validation

Two weeks after the survey closing date the Surveys team receives three separate single Service Excel datasets from the external contractor. Online datasets are available to download once the survey has closed. Each dataset is validated separately prior to combining the online and paper response data. Validation procedures at this stage include checking for expected response options and missing question items. The datasets are then combined to create a single dataset. Any invalid responses (e.g. completely blank responses) are removed and do not contribute to the response rate.

Each respondent is identifiable by their Service number and this is used to link responses with demographic data held on the Joint Personnel Administration (JPA) system. The Service number is also used to identify duplicate responses (where, for example a person started but did not complete the online survey, then filled in the paper survey). In these instances, the record with the greatest number of questions filled in is retained.

Stage 6: Data compilation and results production

Many questions are then recoded to simplify 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 disproportionate stratified sampling and differing levels of response. Full details of the weighting plan are available in the methodology section of the main report. Finally, the data is transferred into SPSS.

Tables of results are produced using SPSS Complex Samples to ensure estimates and their corresponding standard errors are correctly weighted. Where year-on-year comparisons are possible, Z-tests at the 99% confidence level are carried out. Each estimate carries a margin of error to enable users to observe the level of uncertainty in the estimate. In-year tests between Services are also carried out, and non-significant changes are not described as changes in the narrative.

Stage 7: Further Quality Assurance

There are several stages of both automated and manual validation built into the data cleaning process. A copy of the single Service SPSS data set and draft output tables are provided to each of the single Service psychologists for quality assurance purposes.

Each section of tables, along with the content of the narrative report, undergoes several layers of scrutiny. These include cross-checking by at least two members of the Surveys team as well as checking carried out by Defence People social researchers and single Service psychologists. Quality assurance checks at this stage include ensuring the reference tables match the outputs from SPSS,

unweighted counts are sensible, historical figures match and that the report commentary aligns with the tables.

Stage 8: Publication

AFCAS is published on the [MOD statistics external webpage on GOV.UK](#).

4 Quality Management

4.1 Quality Assurance

The MOD's quality management process for Official Statistics consists of three elements: (1) Regularly monitoring and assessing quality risk via an annual assessment; (2) Providing a mechanism for reporting and reviewing revisions/corrections to Official Statistics; (3) Ensuring BQRs are publishing alongside reports and are updated regularly.

4.2 Quality Assessment

The most recent internal quality assessment of AFCAS was carried out in November 2022. The quality risk of AFCAS was assessed as medium. The main risk to quality relates to accuracy and is discussed further in the accuracy section of this BQR.

5 Relevance

The principal users of the AFCAS publication are Defence People Strategy, and Central MOD and single Service policy makers. The statistical information is used to inform and measure Service personnel strategy and policy. The question set is reviewed on a regular basis to ensure that AFCAS reflects policy user requirements and the priorities of the department.

AFCAS is the largest regular survey of UK Armed Forces personnel. This year AFCAS attracted a response rate of 31% which is relatively high compared to other MOD surveys. The range of topics covered by the AFCAS means that it is one of the most comprehensive attitudinal surveys of Service personnel within the MOD and is widely used within the Department to monitor various projects and programmes. Furthermore, the non-anonymous nature of the survey enhances the value and relevance of the findings, as the results can be segmented by rank, administrative area or unit, and in some cases, individual trades. AFCAS is used to inform the Defence Board and the Armed Forces Pay Review Body, as well as the Service Conditions and Welfare Team. It can also be used to answer parliamentary questions and Freedom of Information requests. Other users and uses are included in Annex A: Further Users and Uses of AFCAS at the end of this BQR.

6 Accuracy & Reliability

6.1 Overall Accuracy

AFCAS collects mainly attitudinal data from a disproportionate stratified random sample of approximately 30,000 trained Regular Armed Forces personnel. The sample size is designed to achieve a margin of error of plus or minus three percentage points for each of the estimates. A number of questions are only asked of a subset of respondents and they typically carry a larger margin of error. For example, questions on satisfaction with Service accommodation are only asked of those living in Service accommodation.

The AFCAS is designed to give an up-to-date snapshot of the attitudes and perceptions of our Armed Forces. While the AFCAS is reported on an annual basis it should be considered 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 effect).

The AFCAS sampling process excludes deployed personnel, and those on training courses, because of the low response rates typically achieved from these personnel. Until 2014, the Army did sample deployed personnel; however, the sampling method was changed in 2015 to align with the other Services.

The raw data is passed through a range of automatic and manual validation and editing routines. Many aspects of the AFCAS data analysis have been automated, and where possible existing source code is used. This helps to minimise the risk of error and improves timeliness. Where year-on-year comparisons are possible, 99% confidence level Z-tests are carried out. This level is used to minimise the possibility of finding false positive differences that can be expected when performing a large number of significance tests.

The Analysis Surveys team do not present any results where the responding group size is less than 30 as results for groups of this size are considered too unreliable, yielding margins of error far outside the target range of plus or minus three per cent.

6.2 Sampling/Non-sampling errors

As the AFCAS does not achieve 100% response rates 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) within each weighting class. This means we have assumed that, on average, those people who did not return their questionnaires do not differ from those who did respond in their perceptions and attitudes, within each weighting class.

If those who did not respond have different attitudes to those who did respond (within each weighting class) then the observations in this report will be biased and will not represent the attitudes of all trained Regular Armed Forces personnel; rather, our observations would only represent the views of the *responding* population. In order to counter this, response patterns are monitored over time. Results do not differ outside normal expectations over time, which is one indication that the results are reliable.

One area of concern is low response rates among certain groups. Response rates tend to be lower for junior ranks, which is especially true in the RN and Army. The response rate for the lowest rank (OR-2) is 10%. This may be partly due to distribution issues; a large number of the invitation emails to this group 'bounce' suggesting they do not access the Intranet or electronic systems. This group is oversampled to compensate for expected low response rates.

This year saw a further drop in the overall response rate from 33% in 2022, and 37% in 2021, to 31% this year. Despite this decrease, the number of responses continues to yield estimates with a good level of precision. When no subsets are applied, estimates at a Tri-Service level and for Royal Navy, Army and RAF personnel are within the +/- three percentage point margins of error aimed for with the survey design. Margins of error are slightly higher for the Royal Marines and for Officer/Other Rank groups within the Services, but most have a margin of error within +/- five percentage points. Tables of corresponding margins of error for each estimate are published alongside the reference tables.

The results are weighted to account for the differing response rates observed in AFCAS. This ensures that the results reflect the distribution of Service and rank within the population of trained Regular Service personnel. A lower response rate means that those at the lowest ranks had relatively high weights when compared to other ranks. Further details on the weightings used can be found in the Methodology section of the main report.

In 2023, the RAF moved to an online only survey methodology. The removal of paper surveys has had minimal impact on the RAF's response rate, falling from 44% in 2022 to 43% this year. To understand the impact of this methodological change on the RAF results, 2022 data was used to compare the overall published RAF results with those from online respondents only. No statistically significant differences were identified. A small number of footnotes have been added to any tables

showing significant changes for the RAF, but not for the other Services, to indicate a change in methodology has taken place.

6.3 Data Revisions

Data revisions are handled in accordance with the [MOD's Official Statistics Revisions and Corrections Policy](#).

There are no scheduled revisions to AFCAS. Any required corrections in addition to the above will be released in updated reports and/or reference tables, along with the reasons for the corrections, on the GOV.UK website.

7 Timeliness and Punctuality

7.1 Timeline

The AFCAS takes approximately 8-9 months from agreeing the questionnaires to publishing the AFCAS report. The survey fieldwork period is approximately 20 weeks, with the remaining time spent on creation and distribution of questionnaires, data cleansing, analysis, and report production. The survey is in field for a relatively long period of time due to the time taken to distribute and receive postal surveys, especially from personnel serving overseas. This, along with the large and complex nature of the survey, means that there is a large gap between the beginning of fieldwork and publication of the report, so findings are not current.

The timing of data collection (from September 2022 to February 2023) has the presentational benefit of allowing results to be published within the same calendar year as the data was collected. The timing is driven by a number of factors including AFPRB reporting requirements, as well as the cycles of MOD's other Continuous Attitude Surveys for Reserves and Families, and the Armed Forces Continuous Working Patterns Survey.

7.2 Punctuality

The publication date is pre-announced on the [GOV.UK Official Statistics Release Calendar](#). All pre-announced publication deadlines have been met. This year's publication date is a week later than in 2022. This is a result of a week's delay to the launch of the survey following the death of Her Late Majesty Queen Elizabeth II.

8 Coherence and Comparability

8.1 Coherence

AFCAS is the definitive source of attitudinal data about Service personnel and their perceptions of working and living in the Armed Forces. There are no other tri-Service data sources that collect the same attitudinal information with which to ensure coherence.

There is coherence with other MOD surveys. A 2014/15 review aligned several questions with those in the Civil Service People Survey (including engagement questions), with the Reserve Forces Survey (RESCAS) and the Tri-Service Families Survey (FamCAS).

8.2 Comparability over Time

AFCAS surveys are considered to be broadly comparable over time. However, a major review conducted in 2014/15 has meant that a number of questions, whilst broadly similar, have changed sufficiently to prevent comparisons over time. This review included a comprehensive evaluation of user needs, with the aim of focusing on questions of the greatest strategic importance to the department. In addition, an external consultation exercise captured the views and needs of external users. This resulted in some changes being made to the content of the 2015 survey. Results of the [2015 AFCAS consultation](#) can be found on GOV.UK.

A smaller-scale review was carried out in 2021 which has resulted in minor wording changes to questions, impacting on the time series. Where relevant, these are highlighted in the main report and reference tables.

This year a small number of new questions were added including additions to factors considered when purchasing food at a Unit, questions specifically for those living in private rental accommodation during the working week, and a question about delivering outputs through hybrid working.

9 Accessibility and Clarity

9.1 Accessibility

All AFCAS publications dating back to 2010 are available free of charge in pdf format and, from AFCAS 2012, copies of the reference tables in Excel format online, however these versions are not fully accessible. From the 2021 report onwards, the Main Report and accompanying reference tables will be published in fully accessible formats. These are available on [gov.uk](https://www.gov.uk).

9.2 Clarity

In addition to this Quality Report, the AFCAS report highlights the main findings on the front page, contains a narrative section which aids users' interpretation of the data, a methodology section including target population, information on the sample, respondents, weighting, statistical tests used, and notations and definitions used. In 2017 the reporting format was reviewed to enhance clarity, including a substantially higher number of graphs and charts. Data quality boxes in the main report highlight any changes or issues with the underlying data which may affect users' interpretation of the results.

An ODS version of tables with detailed results are made available to accommodate different user preferences. These include tables showing margins of error for each estimate. Relevant footnotes are shown below tables to indicate any filters that have been applied to the data, data quality issues or time series comparisons.

10 Trade-offs between Output Quality Components

The main trade-off is between timeliness and quality. The tables are only broken down by Service and rank status (and very few additional cross-tabulations of AFCAS questions), nor does the analysis employ any data reduction methods. 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 and accessible format. Additional analysis for policy users is available on request and external requests for further information would be considered under the usual Freedom of Information process.

11 Cost and Respondent Burden

Costs are closely monitored, and the Surveys team and the working group strive to balance quality and timeliness against costs. The sample size is calculated to be the most efficient in order to meet the levels of precision outlined in Section 6.

Response to AFCAS is voluntary. Participant information is provided within the questionnaire to encourage informed consent. Most respondents complete the survey within 30 minutes.

Respondent burden is minimised by obtaining demographic information about respondents from the Joint Personnel Administration (JPA) database rather than asking respondents these questions in the questionnaire. This also helps to minimise costs.

12 Confidentiality and Security

12.1 Confidentiality - Policy

AFCAS is a confidential survey rather than anonymous. The paper survey contains a unique barcode that can only be linked to an individual's unique Service number by the Surveys team and the external contractor responsible for data input. Only a small number of individuals in the team have access to the person-level data including the unique identifier. In addition, a small number of named individuals in the single Services and an approved contractor have access to record-level data stripped of the unique identifier. No person from any respondent's Chain of Command is able to access individual level data. Data Protection Impact Assessments and Data Access Agreements are in place to minimise risk to confidentiality, in accordance with the Data Protection Act.

12.2 Confidentiality - Policy

Results where the responding group size is less than 30 are not presented as results for groups of this size considered too unreliable and may be disclosive.

12.3 Security

All staff involved in the AFCAS 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 secure IT system.

Last Updated: 1 June 2023

Annex A: Further Users and Uses of AFCAS

1. Defence Transformation and the Integrated Review Refresh:

The main aim of each of the single Services is to deliver the force structures outlined in the Integrated Review Refresh. To help achieve this, AFCAS provides the following performance indicators:

- a. Resilience and feeling valued: to meet the requirements of resilience, those AFCAS questions relating to: Morale, Fairness, Welfare and Health, and Reserve Forces are valuable indicators. The RAF also identifies 'feeling valued' as an important human capability goal and the AFCAS questions related to: Leadership, Training, Professional and Personal Development, Sport, Adventurous Training and Commitment will provide intelligence on the current state of affairs.
- b. Recruitment and retention: AFCAS has an extensive list of questions gauging attitudes towards terms and conditions of service as retention factors. This provides intelligence to identify problem areas in retention and to formulate recruitment strategies.
- c. Ways of working: AFCAS has a large bank of questions relating to agreement/satisfaction regarding: training undertaken (both ops pre-deployment and non-ops), job suitability (i.e. the right people for the right jobs), development opportunities, educational attainment, equipment/systems availability, and suitability. These identify areas where training policy could be revised/implemented.

2. A Modernised Employment Offer for the Armed Forces

The Defence People Strategy provides a vision for the future Defence workforce based around five areas of focus:

- a. Workforce Transformation - making sure there are plans in place to build a more sustainable, diverse, and skilled Workforce.
- b. Maximising skills and talent - making better use of skills across Defence through modern recruitment, training, and career management.
- c. Attractive offers - providing attractive offers that access and retain talent by improving wellbeing and the lived experience.
- d. People Function Transformation - creating an empowered evidence-driven People Function.
- e. Diversity & Inclusion - making sure Defence is an inclusive organisation that values the strengths of every individual.

This year, work has continued on a number of activities that support the Defence People Strategy. Some examples include:

- **Flexible working in the Armed Forces**

The package of flexible working opportunities for Service personnel includes Alternative Working Arrangements (AWAs) such as Remote Working, Compressed Working, and Variable-Start-and-Finish-Times; and Flexible Service (FS), which allows Service personnel to work part-time and/or restrict their separation from home base. All flexible working opportunities are subject to maintaining operational capability.

Thousands of Service personnel record an AWA each year and Defence's Remote Working policy has supported tens of thousands of Service personnel during the COVID-19 Pandemic and beyond. Nearly 600 Service personnel and their families have benefitted from Flexible Service since its introduction on 1 April 2019. It has helped them balance their busy committed careers with personal responsibilities and changing circumstances and helped many continue service while fulfilling caring responsibilities, taking respite or pursuing personal development.

Defence continues to improve its flexible working offer for the Armed Forces with the aim to become a more modern, flexible and attractive employer that is agile and responsive to changing needs. In 2022 this included the introduction of a new military Job Share policy, and work is also underway to expand Flexible Service entitlement to some higher commitment Reserve service types (in 2023/24).

- **New Accommodation Offer - Future Accommodation Model (FAM) programme**

Affordable, good quality accommodation is a key part of MOD's employment offer to Service personnel. Over the next decade MOD will invest around £1.5bn in improving new Single Living Accommodation and, as announced in the [Defence Accommodation Strategy](#) of October 2022, through the introduction of the New Accommodation Offer being delivered by the Future Accommodation Model (FAM) programme, MOD will also be widening entitlement to subsidised accommodation; ensuring Service personnel in long-term relationships are able to access the same accommodation support as their married or civil partnered colleagues. The New Accommodation Offer entitlement will be based on need rather than rank, age or marital status and incorporates lessons learned from the FAM pilots which ran from Sept 2019 to March 2023 at three-sites; HMNB Clyde, Aldershot Garrison and RAF Wittering.

3. Armed Forces Covenant

The Armed Forces Covenant is a promise by the nation ensuring that those who serve or who have served in the Armed Forces, and their families, are treated fairly. Since 2011, the UK Government has been statutorily required to present to Parliament every year a Covenant Annual Report, and this includes AFCAS statistics.

AFCAS provides the MOD Covenant team with performance indicators relating to the Covenant themes including the provision of healthcare, education, and housing and perceived advantages and disadvantages of Service life as compared to the general population.

4. Royal Navy People & Training Strategy

The Royal Navy recognises that its people are, and must remain, at the heart of capability. In response to the Royal Navy's ambition to transform, to improve the lived experience of its people and enable productivity, the Royal Navy's People Vision, was introduced in 2020. It offers our people 'unique opportunities to thrive and unlock potential; valued and respected as individuals, who operate and fight to win'. The People and Training Strategy 2020 is the mechanism by which this vision will continue to be delivered. One of the ways of measuring the success of this is the evidence from AFCAS. This will be used to test policy development and implementation, to understand engagement drivers across different service demographics, and to inform future policy to support the delivery of the vision and strategy.

The Royal Navy continues to work to improve exploitation of the family of Continuous Attitude Surveys in order to further validate and enhance the People and Training Strategy. Specifically looking at job satisfaction, engagement, policy awareness and policy implementation effectiveness.

5. Army People Plan

The concept at the heart of the Army People Plan is that 'The Army is its People'.

The Army People Plan aims to ensure that its People are the Army's competitive edge, prepared to win in the digital age. It defines the way in which the Army modernises, transforms, re-sizes, re-shapes and re-skills its whole workforce (Regular, Reserve and Civilians) over the next decade. The plan underpins personnel strategy, policy and plans to enable the Army to deliver the right people, with the right skills, at the right time, supported by an inclusive culture that empowers individuals to perform at their very best. Its mission is to generate a diverse Whole Force of the right size, skills, composition and cost in order to deliver the people component of operational capability.

AFCAS provides evidence on current trends and a range of performance indicators that are used to inform the development of various personnel policies in support of the Army People Plan. The findings from AFCAS also help to monitor and evaluate the lived experience of Army personnel and how they feel valued, engaged and supported.

6. RAF Strategy

The RAF recognises that its people are, and must remain, central to our capability. The Strategy puts them at the heart of delivering air power and succeeding on operations. Looking to the future, the RAF's Astra initiative continues to focus on ensuring that we have a world-class integrated, capable and inclusive Air Force delivering decisive effect across all domains. AFCAS provides us with evidence to evaluate and monitor the degree to which personnel feel valued, supported, and work within an organisational culture that is professional, diverse, joint, and that values respect, integrity, service and excellence. It also evaluates the success of our people transformation, retention efforts and how the RAF can empower and motivate our people to unlock their full potential. Close attention is given to trends across various areas including engagement, morale, future career plans and retention indicators, career management, Whole Force integration (including Regulars, Reserves and Civil Servants), line management support, flexible working, welfare and accommodation.

Where our personnel have identified that we can do better, we have addressed key themes throughout the year and tracked progress within an improvement action plan. The results from this work are communicated out via summarised reports and quarterly updates on progress are provided internally. This activity is supported by a diverse programme of additional evidence collection, including the RAF Leavers' Survey, the RAF Occupational Wellbeing Survey, the RAF Flexible Working Survey, as well as bespoke projects and deep dive analyses, such as focus groups and one-to-one interviews with personnel.

7. Armed Forces Pay Review Body (AFPRB)

AFPRB uses AFCAS statistics to inform their recommendations for remuneration and charges for Service personnel. In recommending levels of pay and charges, the AFPRB seeks to enhance the recruitment, retention, and motivation of Service personnel, and AFCAS statistics provide members a broad view of Service life in general to help inform their deliberations. AFCAS statistics used in AFPRB reports include those on pay, allowances and pension benefits, the push and pull factors associated with serving in the Armed Forces, meals, value of accommodation and efforts to improve and maintain, morale and satisfaction with Service life in general.

8. Service Complaints Ombudsman (SCO)

AFCAS includes a section on fairness, asking questions about experience of discrimination and harassment and bullying, knowledge of how to get information about how to complain and, since 2021, awareness of the SCO role. The SCO's Annual Reports have provided information from the AFCAS surveys as a baseline on which to measure trends in relation to incidence of discrimination, harassment, and bullying, and use of the Service complaints system to resolve such problems.

9. 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 AFCAS statistics as a source of evidence when voicing the situation for serving personnel and their families. A range of AFCAS statistics have been reported on Service Families Federation websites often accompanied by a link to the full AFCAS report.

10. Media

The media have previously reported AFCAS statistics on Service morale and satisfaction with accommodation.