

Training and Exercise deaths in the **UK** armed forces

1 January 2000 to 28 February 2021

Published 25 March 2021

This Official Statistic provides summary information on deaths among UK regular armed forces personnel and 'on duty' reservists which occurred whilst on training or exercise from 1 January 2000 to 28 February 2021. This information was first published as an Official Statistic on 30 March 2017.

On 16 October 2015 the Sub-Committee of the House of Commons Defence Select Committee announced an inquiry into the duty of care of service personnel during military training: Beyond endurance? Military exercises and the duty of care inquiry. This bulletin has been developed in support of the inquiry and subsequently continued after its conclusion on 29 November 2016 to provide Official Statistics and meet the continued public interest in the number of UK armed forces who die whilst on training and exercise. Publishing this information ensures the public has equal access to the information and supports the MOD's commitment to release information where possible.

The statistics provided are for all types of training and exercise and for all causes of death: disease related conditions; injuries; or where the cause was not yet known or unascertained.

Key points and trends

149

UK armed forces deaths whilst on training or exercise 1 January 2000 to 28 February 2021



Royal Navy

27 deaths in the Royal Navy



exercise

Biggest cause of death

Diving or Snorkeling incidents with **seven** deaths

Army

99 deaths in the Army



reserve personnel

Biggest cause of death Disease-related conditions with 21 deaths

related

related

RAF

(Five deaths under age of 18)

23 deaths in the RAF



Biggest cause of death Aircraft accidents with 12 deaths

Responsible statistician: Deputy Head of Health

Further information/Mailing list

Press office

Tel: 030 679 84423

Tel: 030 679 84423 Tel: 020 721 83253 Email: Analysis-Health-PQ-FOI@mod.gov.uk Email: Analysis-Health-PQ-FOI@mod.gov.uk

unascertained

Background quality report: The Background Quality Report for this publication can be found here at www.gov.uk

Would you like to be added to our contact list so that we can inform you about updates to these statistics and consult you if we are thinking of making changes? You can subscribe to updates by emailing: Analysis-PQ-FOI@mod.gov.uk

Contents

Introduction:	2
Results – UK armed forces deaths on training or exercise by year	4
Results – UK armed forces deaths on training or exercise by year and service	4
Results – UK armed forces deaths on training or exercise by service type, gender, trained status, training type and medical cause	6
Results – UK armed forces deaths on training or exercise by activity type	7
Results – UK armed forces deaths on training or exercise by activity type cont'd	8
Glossary	9
Methodology	11
Changes to previously published data	13
Further information	13
Other bulletins in this series can be found here	
Supplementary tables and further detail containing all data presented in this publication can be found here	

Introduction

The ultimate aim of all training is the creation of resilient soldiers and commanders who can analyse, decide and manoeuvre to win in the complex battle space of the 21st Century. Training provides the means to practice, develop, and validate, within constraints, the practical application of a common doctrine. It also provides the basis for the training of commanders and their staffs in the exercise of command and control respectively. Training should produce force elements at readiness to deploy and undertake specified tasks. Once committed to operations, training plays an important role in optimising the force to meet developing mission requirements.

This report provides information on deaths among UK regular armed forces personnel and 'on duty' reservists which occurred whilst on training and exercise. These data does not include members of the Royal Fleet Auxiliary, Merchant Navy or MOD civilians.

The data used in this report forms a subset of data from the National Statistic publication: <u>Deaths in the UK regular armed forces</u>: <u>Annual Summary and Trends over Time - 1 January 2010 to 31 December 2020</u>. Each report uses different ways of categorising deaths and are therefore mutually exclusive of one another.

On 16 October 2015 the Sub-Committee of the House of Commons Defence Select Committee announced an inquiry into the duty of care of service personnel during military training: Beyond endurance? Military exercises and the duty of care inquiry. This Official Statistic was developed in support of the inquiry and subsequently continued after its conclusion on 29 November 2016 to provide Official Statistics to meet the continued public interest in the number of UK armed forces who die whilst on training and exercise.

This information was first published as an Official Statistic on 30 March 2017.

Publishing this information ensures the public has equal access to the information and supports the MOD's commitment to release information where possible. To provide enough time to complete analysis for this publication, the information shown has been compiled from data held by Defence Statistics as at 28 February 2021.

Details of the data sources and methods used to collect and analyse these data are described in the 'Methodology' section of the report. In line with National Statistics protocols, amendments have been annotated by the letter 'r' and explanations provided in the section 'Changes to previously published data'.

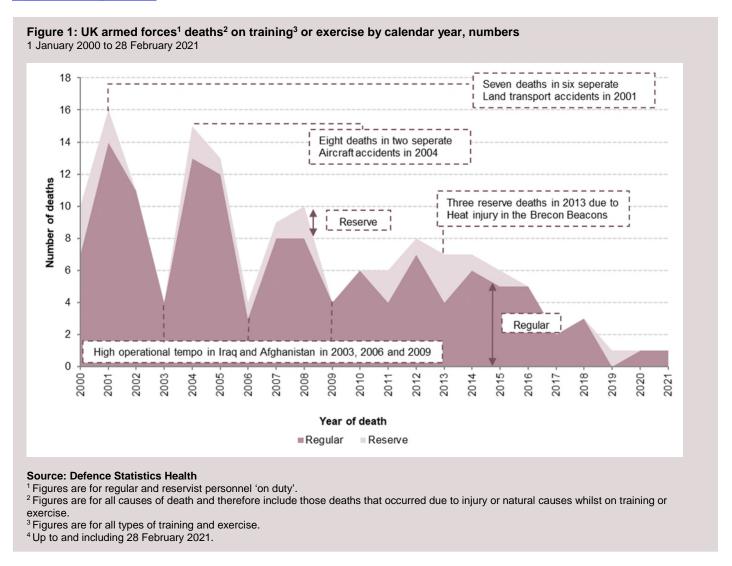
All tables provided in the release of this report are available <u>in separate MS Excel or OpenOffice document files</u>.

Results

Figure 1 presents the number of UK armed forces deaths which occurred whilst on training or exercise by year of death. From 1 January 2000 up to and including 28 February 2021, **149** UK armed forces personnel died whilst taking part in some form of training or exercise. This represents 5% of all UK regular armed forces personnel and 'on-duty' reservist deaths (N=2,721) for the same period.

The most training and exercise deaths observed in any given year were in 2001 when 16 personnel died. Seven personnel died in six separate Land Transport Accidents in this year.

A further breakdown of these deaths by regular and reserve forces can be found in the accompanying supplementary tables¹ to this document.



Deaths by year and service

Figures 2 to 4 present the number of UK armed forces deaths which occurred whilst on training or exercise by year and service.

Between 1 January 2000 and 28 February 2021, 27 Royal Navy personnel died whilst on training or exercise (**Figure 2**). This represents 6% of all Royal Navy deaths (n=482) for the period 1 January 2000 to 28 February 2021.

The most training and exercise deaths in any given year for the Royal Navy were in 2002 when five personnel died. Three people died in two separate aircraft accidents and two people died in two separate diving accidents.

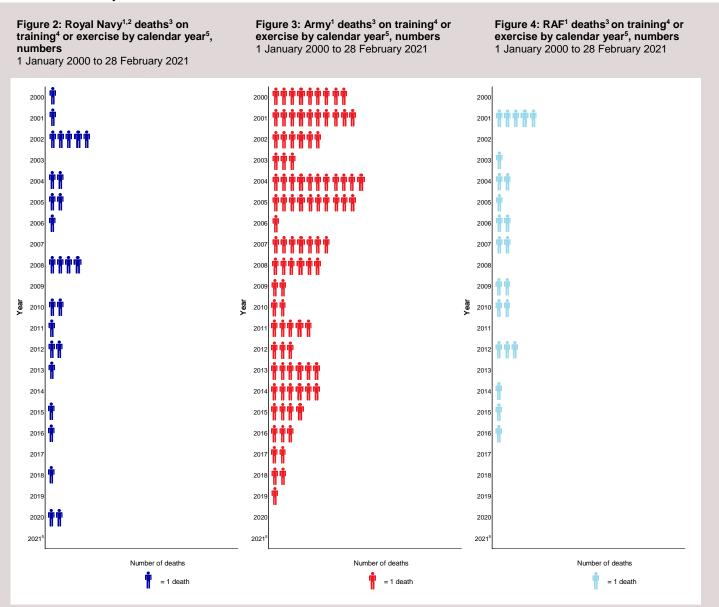
¹ https://www.gov.uk/government/collections/training-and-exercise-deaths-in-the-uk-armed-forces

In the Army, 99 personnel died whilst on training or exercise (**Figure 3**). This represents 6% of all Army deaths (n=1,747) for the period 1 January 2000 to 28 February 2021. There were 38% (n=38) of Army training or exercise deaths in the Infantry and 12% (n=12) in The Royal Logistic Corps. This is representative of the Army as a whole with the Infantry and The Royal Logistic Corps being the two biggest Arm Corps. A breakdown of all Army deaths by Arm Corps can be found in additional **Table A1** of the accompanying <u>supplementary tables</u>² to this document.

The most training and exercise deaths in any given year for the Army were in 2004 when 11 personnel died. There were six deaths in one incident following a Lynx helicopter accident.

In the RAF, 23 personnel died whilst on training or exercise (**Figure 4**). This represents 5% of all RAF deaths (n=492) for the period 1 January 2000 to 28 February 2021.

The most training and exercise deaths in any given year for the RAF were in 2001 when five personnel died. Two deaths occurred in one incident following a Yachting accident. In 2004, 2007, 2009 and 2012 one aircraft accident in each year accounted for all deaths.



Source: Defence Statistics Health

¹ Figures are for regular and reservist personnel 'on duty'.

² Royal Navy and Royal Marines

⁵ Up to and including 28 February 2021.

³ Figures are for all causes of death and therefore include those deaths that occurred due to injury or natural causes whilst on training or exercise.

⁴ Figures are for all types of training and exercise.

² https://www.gov.uk/government/collections/training-and-exercise-deaths-in-the-uk-armed-forces

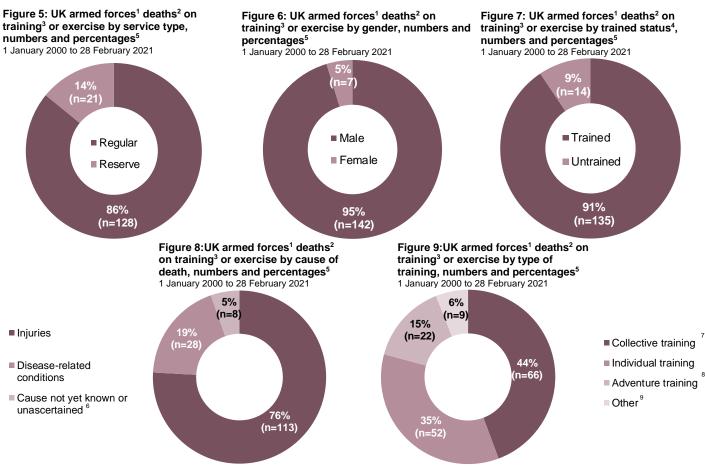
Deaths by service type, gender, trained status, medical cause and training type

Figures 5 to 9 present the number of UK armed forces deaths that occurred whilst on training and exercise by service type, gender, trained status, medical cause and training type.

Of the 149 deaths which occurred whilst on training or exercise:

- 86% (n=128) were regular personnel and 14% (n=21) were reserve forces (**Figure 5**). 86% (n=18) of reserve deaths were from the Army.
- 95% (n=142) were males and 5% (n=7) were females (Figure 6).
- 91% (n=135) were fully trained personnel and 9% (n=14) were untrained personnel in phase 1 or phase 2 of their training (Figure 7).
- 76% (n=113) of deaths were the result of injuries. 19% (n=28) the result of disease-related conditions and 5% (n=8) cause not yet known or unascertained (**Figure 8**). 86% (n=24) of disease-related conditions were due to conditions of the circulatory system such as heart attacks and coronary artery disease.
- 44% (n=66) of deaths occurred whilst undertaking collective training, 35% (n=52) occurred in individual specific training, 15% (n=22) whilst on adventurous training and 6% (n=9) other training (**Figure 9**).

A further breakdown of these deaths by each service can be found in the accompanying <u>supplementary</u> tables³



Source: Defence Statistics Health

- 1. Figures are for regular and reservist personnel 'on duty'.
- 2. Figures are for all causes of death and therefore include those deaths that occurred due to injury or natural causes whilst on training or exercise.
- Figures are for all types of training and exercise.
- 4. Untrained personnel are classed as those in phase 1 and phase 2 of their training.
- Percentages may not add up to 100% due to rounding.
- 6. Deaths which have been investigated by a coroner or by the Procurator Fiscal for Scotland and for which no definitive medical cause of death can be found.
- 7. In accordance with the Defence Collective Training Policy issued on 2 June 2015, Collective Training is defined as "training that is aimed at improving the ability of teams, units or formations to function as a cohesive entity and so enhance operational capability."
- 3. Adventurous training deaths have been identified on the basis of personnel participating in specifically regulated Adventurous training courses. Some activities performed under Adventurous training can also form part of an individual's specific job role (e.g. Parachuting) and therefore a death is not assumed to be on Adventurous training unless stated as such.
- 9. Includes six deaths which occurred whilst conducting training on operations and three deaths which occurred on selection training.

³ https://www.gov.uk/government/collections/training-and-exercise-deaths-in-the-uk-armed-forces

Deaths by activity type

Figure 10 presents the number of UK armed forces deaths which occurred whilst on training or exercise by activity type. Aircraft accidents were the single biggest cause of death accounting for 19% (n=29) of training or exercise deaths over the period of 1 January 2000 to 28 February 2021. It is essential for the UK armed forces to create a training programme that prepares personnel for real time scenarios that could happen in an operational environment. The use of aircraft is vital to recreate such scenarios. The nature of an aircraft accident whether pilot or mechanical error, will often lead to multiple fatalities in any one incident with aircraft being used to manoeuvre personnel to designated positions and areas. There were 12 separate incidents that accounted for the 29 deaths due to aircraft accidents.

Deaths as a result of disease-related conditions accounted for 19% (n=28) of deaths whilst on training or exercise, with 24 of those due to diseases or conditions of the circulatory system. Training in the UK armed forces is vigorous and demands the highest standards of individual fitness to ensure operational capability. Underlying conditions cannot always be detected in an individual, which aligned with strenuous physical activity, can sadly cause fatalities.

In the Royal Navy, diving or snorkelling incidents were the biggest cause of death with 26% (n=7) of all Royal Navy training and exercise deaths. Six were Military Diving incidents and one Snorkelling incident whilst on Adventurous training. Military Diving is recognised as an activity which due to the nature of the unforgiving environment poses an absolute Risk to Life (RtL). The RtL is mitigated through frequent frontline assurance and close regulation by the Defence Maritime Regulator to ensure the MOD complies with the Health and Safety Executive (HSE) approved code of practice and aligns where possible with UK legislation. Any deviations are reported to the HSE by the MOD Superintendent of Diving on behalf of the Defence Maritime Regulator for approval.

In the Army, deaths due to disease-related conditions were the biggest cause of death with 21% (n=21) of all Army training and exercise deaths. Of these, 81% (n=17) were due to conditions of the circulatory system such as heart attacks and coronary artery disease.

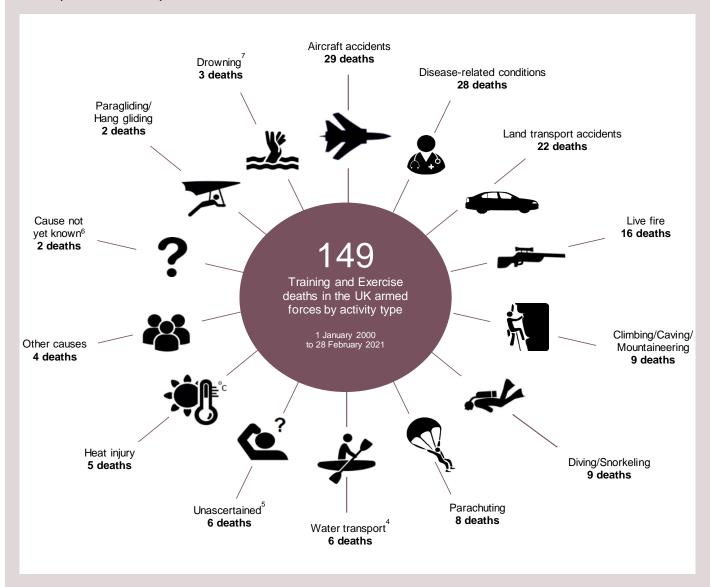
Land transport accidents accounted for 17% (n=17) of all Army training and exercise deaths, with live fire accidents accounting for 14% (n=14).

In the RAF, aircraft accidents were the biggest cause of death with 52% (n=12) of all RAF training and exercise deaths. Disease-related conditions accounted for 13% (n=3) and water transport accidents and other causes both 9% (n=2)

A further breakdown of all deaths by activity type and Service can be found in the accompanying <u>supplementary</u> tables⁴ to this document.

⁴ https://www.gov.uk/government/collections/training-and-exercise-deaths-in-the-uk-armed-forces

Figure 10: UK armed forces¹ deaths² on training³ or exercise by activity type, numbers 1 January 2000 to 28 February 2021



Source: Defence Statistics Health

- ¹ Figures are for regular and reservist personnel 'on duty'.
- ² Figures are for all causes of death and therefore include those deaths that occurred due to injury or natural causes whilst on training or exercise.
- ³ Figures are for all types of training and exercise.
- ⁴ Includes Kayaking, Rafting, Canoeing, Yachting and all other water transport.
- ⁵ Deaths which have been investigated by a coroner or by the Procurator Fiscal for Scotland and for which no definitive medical cause of death was found.
- ⁶ Deaths which have not yet been investigated by a coroner or investigations are ongoing.
- ⁷ Not water transport related.

Glossary

Adventurous training – Challenging outdoor training for Service personnel in specified adventurous activities, involving controlled exposure to risk, to develop leadership, teamwork, physical fitness, moral and physical courage, among other personal attributes and skills vital to Operational Capability.

Armed forces — The UK armed forces form the military of the United Kingdom, tasked with defence of the country, its overseas territories and the Crown dependencies; as well as promoting the UK's wider interests, supporting international peacekeeping efforts, and providing humanitarian aid.

Army – The British Army consists of the General Staff and the deployable Field Army and the Regional Forces that support them, as well as Joint elements that work with the Royal Navy and Royal Air Force. Its primary task is to help defend the interests of the UK.

Collective training – Training that is aimed at improving the ability of teams, units or formations to function as a cohesive entity and so enhance operational capability.

House of Commons Defence Select Committee – The Defence Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Ministry of Defence and its associated public bodies.

Individual training – The education and training that enables an individual to perform his or her job and designed specifically to develop individual skills for use in a collective environment.

Ministry of Defence — The Ministry of Defence (MOD) is the United Kingdom government department responsible for the development and implementation of government defence policy and is the headquarters of the British armed forces. The principal objective of the MOD is to defend the United Kingdom and its interests. The MOD also manages day to day running of the armed forces, contingency planning and defence procurement.

Phase 1 training is all new entry training to provide basic military skills.

Phase 2 training is initial individual specialisation.

Phase 3 training is that undertaken throughout a career, often linked to progression in rank and which develops military knowledge, skills and attitude.

Royal Air Force (RAF) – The Royal Air Force (RAF) is the aerial defence force of the UK.

Royal Navy (RN) – Royal Navy, the sea-going defence forces of the UK, and Royal Marines, sea-going soldiers. Excludes the Royal Fleet Auxiliary Service (RFA).

UK regulars are full time service personnel, including Nursing services, but excluding FTRS personnel, Gurkhas, Naval activated reservists, mobilised reservists, Military Provost Guarding service (MPGS) and Non regular Permanent service (NRPS). Unless otherwise stated, includes trained and untrained personnel.

• FTRS (Full-Time Reserve service) are personnel who fill service posts for a set period on a full-time basis while being a member of one of the Reserve services, either as an ex-regular or as a volunteer. An FTRS reservist on:

Full Commitment (FC) fulfils the same range of duties and deployment liability as a regular service person;

Limited Commitment (LC) serves at one location but can be detached for up to 35 days a year; **Home Commitment (HC)** is employed at one location and cannot be detached elsewhere.

- Each service uses FTRS personnel differently:
- The Royal Navy predominantly uses FTRS to backfill gapped regular posts. However, they do have a small number of FTRS personnel that are not deployable for operations overseas. There is no distinction made in terms of fulfilling baseline liability posts between FTRS Full Commitment (FC), Limited Commitment (LC) and Home Commitment (HC).
- The Army employ FTRS(FC) and FTRS(LC) to fill regular Army Liability (RAL) posts as a substitute for regular personnel for set periods of time. FTRS(HC) personnel cannot be deployed to operations and are not counted against RAL.
- The RAF consider that FTRS(FC) can fill regular RAF Liability posts but have identified separate liabilities for FTRS(LC) and FTRS(HC).
- **Gurkhas** are recruited and employed in the British and Indian Armies under the terms of the 1947 Tri-Partite Agreement (TPA) on a broadly comparable basis. They remain Nepalese citizens but in all other respects are full members of HM Forces. Since 2008, Gurkhas are entitled to join the UK regular Forces after 5 years of service and apply for British citizenship.
- Military Provost Guard service (MPGS) provides trained professional soldiers to meet defence armed security requirements in units of all three services based in Great Britain. MPGS provide armed guard protection of units, responsible for control of entry, foot and mobile patrols and armed response to attacks on their unit.
- Mobilised reservists are Volunteer or regular Reserves who have been called into permanent service
 with the regular Forces on military operations under the powers outlined in the Reserve Forces Act 1996.
 Call-out orders will be for a specific amount of time and subject to limits (e.g. under a call-out for warlike
 operations (Section 54), call-out periods should not exceed 12 months, unless extended.)
- Non regular Permanent Staff (NRPS) are members of the Army Volunteer Reserve Force employed on a full time basis. The NRPS comprises Commissioned Officers, Warrant Officers, Non Commissioned Officers and soldiers posted to units to assist with the training, administrative and special duties within the Army Reserve. Typical jobs are Permanent Staff Administration Officer and Regimental Administration Officer. Since 2010, these contracts are being discontinued in favour of FTRS (Home Commitment) contracts. NRPS are not included in the Future Reserves 2020 Volunteer Reserve population as they have no liability for call out.

Methodology

Data Sources

Defence Statistics receive weekly notifications of all regular armed forces deaths from the Joint Casualty and Compassionate Centre (formerly the single Service casualty cells). Defence Statistics also receive cause of death information from military medical sources in the single Services.

NOTICAS - Notification of Casualty (NOTICAS) is the name for the formalised system of reporting casualties within the UK armed forces. It sets in train the MOD's next of kin informing procedure. The MOD's Joint Casualty and Compassionate Policy and procedures set out the guidance under which a NOTICAS report is to be raised. NOTICAS takes precedence over all but the most urgent operational and security matters.

Joint Personnel Administration (JPA) system service requests - JPA is the system used by the armed forces to deal with matters of pay, leave and other personnel administrative tasks. JPA replaced a number of single-Service IT systems and was implemented in April 2006 for the RAF, November 2006 for the Royal Navy and April 2007 for the Army. When an incident occurs a service request is raised for each casualty which holds brief information about each incident.

Armed forces Memorial database (AFMDb) - The AFMDb is owned by the tri-Service Joint Casualty and Compassionate Centre. The AFMDb database was created to identify Service personnel whose names were to be, and continue to be engraved on the armed forces Memorial at the National Arboretum in Staffordshire. The AFMDb records the deaths of all personnel who have died in Service since 1st Jan 1948 and for those who were killed or who died in Palestine from 1st Aug 1945 to 31st Aug 1948. Please note, the AFMDb is not regarded as a validated source of historical fatality information, therefore, it cannot be guaranteed to be 100% complete or accurate due to it being populated manually from Service files.

Defence Inquests Unit (DIU) Post Inquest Report (PIR) - The Defence Inquests Unit (DIU) was established in 2008 at the direction of Ministers and the Permanent Under Secretary (PUS) to coordinate and manage all Defence related inquests into the deaths of Service and MOD personnel, who die on, or as a result of injuries sustained while on operations; and those who die as a result of training activity.

The DIU is also the Departmental focal point for any other inquests involving MOD personnel. Defence Statistics receive regular PIR's from the DIU at the conclusion of a coroner's inquest. The PIR summarises the circumstances surrounding a death, the medical cause of death and the verdict reached by the coroner.

Death Certificates - At the end of each calendar year, Defence Statistics cross-reference the medical information it holds against publicly available death certificate information available from NHS Digital.

Data Coverage

The information on deaths presented are for all regular and reservist UK armed forces personnel only who died whilst on duty and whilst taking part in training or on exercise. Members of the Royal Fleet Auxiliary, Merchant Navy and MOD civilians are not included.

Methods

Defence Statistics receive weekly notifications of all regular armed forces and 'on duty' reservist deaths from the Joint Casualty and Compassionate Centre (formerly the single Service casualty cells).

Whilst Defence Statistics receive the duty status of all personnel who died in the UK armed forces via the NOTICAS reporting system, to identify those deaths that occurred on training or exercise a search of all free text information for mention of 'training' or 'exercise' and any associated abbreviations in the available data sources had to be completed. Therefore figures presented may be subject to change should further information become available.

To identify those deaths that were deemed 'Collective training' and those that were deemed 'Individual' training, the cohort of deaths was sent to each individual Service Secretariat to categorise each death.

Adventurous training deaths have been identified on the basis of personnel participating in specifically regulated Adventurous training courses. Some activities performed under Adventurous training can also form part of an individual's specific job role (e.g. Parachuting) and therefore a death is not assumed to be on Adventurous training unless stated as such.

Personnel who died in hospital of injuries or illness sustained whilst on training and exercise have been included in the data presented.

To record information on cause and circumstances of death, Defence Statistics uses the World Health Organisation's International Statistical Classification of Diseases and Health-related Problems 10th revision (ICD-10). In addition, Defence Statistics also record the casualty reporting categories used by the Joint Casualty and Compassionate Centre, used for reporting to the Chain of Command and for notifying the next of kin.

In line with ICD-10 definition a land transport accident is defined as any accident involving a device that has been designed for, or is being used at the time for, the conveyance of either goods or people from one place to another on land, therefore the definition covers incidents that occur on and off the public highways and incidents that involve non-motorised forms of transport. The scope of this definition does NOT include any deaths occurring in a vehicle as a result of Hostile Action.

Defence Statistics conduct a yearly validation exercise on cause of death information where it cross-references the medical information it holds against publicly available death certificate information available from NHS Digital. This validated information is released yearly in the National Statistic publication: Deaths in the UK regular armed forces.

Defence Statistics also produce a background quality report for the yearly National Statistic on Deaths and this informs users of the statistics about the quality of the data used to produce the publication and any statistics derived from that data. This report can be found on the Gov.UK website.

Strengths and weaknesses of data presented in this notice

A strength of this publication is that considerable validation is undertaken against military and public records to ensure that the information provided is complete and accurate and users of this publication should be confident that the numbers of fatalities presented are accurate. However, some causes of death require a Coroner's report before the cause of death can be formally classified and there is often a time lag between when the death occurred and when the Coroner's inquest takes place. This can result in final cause of death information not being timely and complete.

In addition, death certificates for personnel who die overseas are issued by the MOD and if buried overseas, are not always subject to a coroner's inquest to certify cause of death. Users should be aware of this when using cause of death information.

The release of the information in this notice is controlled by the statistics code of practice as outlined in the Statistics and Registration Act, 2007. This stipulates that statistics in their final form cannot be released prior to a publication. Thus because it can take many months or even years for a coroner's inquest, Defence Statistics do not update the numbers in between the publication of this notice, to ensure there is no breach of the code of practice. Therefore, any requests for information on deaths among the UK armed forces are provided using the underlying dataset used to compile this notice.

Changes to previously published data

In preparing this document, Defence Statistics will continually carry out a review of the data recorded on in-Service deaths as a result of training and exercise in UK armed forces personnel to ensure the highest accuracy of information and that all cases of deaths attributable to training or exercise are recorded.

More detailed information on the methodology used to create this report can be found in the <u>Background Quality</u> Report (BQR).

Further Information

Contact us

Defence Statistics welcome feedback on our statistical products. If you have any comments or questions about this publication or about our statistics in general, you can contact us as follows:

Defence Statistics Health

Telephone: 030 6798 4423

Email: Analysis-Health-PQ-FOI@mod.gov.uk

If you require information which is not available within this or other available publications, you may wish to submit a Request for Information under the Freedom of Information Act 2000 to the Ministry of Defence.

Other contact points within Defence Statistics are:

Defence Expenditure Analysis	030 6793 4531	Analysis-Expenditure-PQ-FOI@mod.gov.uk
Price Indices	030 6793 2100	Analysis-Econ-PI-Contracts@mod.gov.uk
Royal Navy Manpower	023 9254 7426	Analysis-Navy@mod.gov.uk
Army Manpower	01264 886175	DefStrat-Stat-Army-Enquiries@mod.gov.uk
RAF Manpower	01494 496822	Analysis-Air@mod.gov.uk
Tri-Service Manpower	020 7807 8896	Analysis-Tri-Service@mod.gov.uk
Civilian Manpower	020 7218 1359	Analysis-Civilian-Enquiries@mod.gov.uk

If you wish to correspond by mail, our postal address is:

Defence Statistics Health Ministry of Defence, Abbey Wood (North) #6028, Oak, 0, West Bristol BS34 8JH

For general MOD enquiries, please call: 020 7218 9000