



Ministry
of Defence

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Reference: [REDACTED] correspondence dated : 16 October 2013

[REDACTED] Date: 14 November 2013

Dear [REDACTED]

Thank you for your email of 16 October 2013 requesting the following information:

For the Armed Forces Strengths, part 1 of the request:

- *Annual Strengths of the UK Regular Armed, including Ghurkhas and Full Time Reserve Service from 1992 to 2012*

For deaths, part 1 of the request [data source: death certificates]:

- *The number of UK Regular Service personnel who died whilst in-Service and were given a primary cause of death as Cancer (including Multiple Myeloma Cancer), 1984 to 2012.*
- *The number of UK Regular Service personnel who died whilst in-Service and had a contributory cause of death as Cancer (including Multiple Myeloma Cancer), 1984 to 2012.*
- *The number of UK Service personnel who deployed to the Gulf 1 conflict (1991) and have died since leaving Service with either a primary or contributory cause of death as Cancer (including Multiple Myeloma Cancer), 1991 to 2012.*
- *The number of UK Service personnel who did not deploy to the Gulf 1 conflict (1991) and are members of the 'era' cohort and have died since leaving Service with either a primary or contributory cause of death as Cancer (including Multiple Myeloma Cancer), 1991 to 2012.*

For Cancer Morbidity, part 1 of the request:

- *The number of UK Service personnel who deployed to the Gulf 1 conflict (1991), including serving and veteran personnel, with a cancer registration (including Multiple Myeloma Cancer), 1991 to 2012. [data source NHS cancer registrations]*
- *The number of UK Regular Service personnel with a code for Cancer (including Multiple Myeloma Cancer) recorded on their electronic primary care records¹, 2010 to 2013 [data source: electronic primary care record].*

For medical discharges, part 3 of the request:

- *The number of UK Service personnel medically discharged with principal or contributory cause of cancer (including Multiple Myeloma Cancer), 1995 to 2013.*
- *Further breakdowns by Service and age can also be provided.*

For Pensions & Compensation, part 2, 4 and 5 of the request:

¹ Defence Medical Information Capability Programme (DMICP)

- *The number of ex-Service personnel in receipt of an Armed Forces Pension, as at 2013.*
- *The number of ex-Service personnel in receipt of a War pension, as at 31 March 2013, including cancer.*
- *The number of Service and ex-Service personnel in receipt of Armed Forces Compensation Scheme, including cancer.*
- *Further breakdowns by Service and age can also be provided*

I am treating your correspondence as a request for information under the Freedom of Information Act 2000 (FOIA).

A search for the information has now been completed within the Ministry of Defence, and I can confirm that all the information in scope of your request is held. The information you requested is enclosed.

The information provided is not mutually exclusive and personnel may be counted in more than one of the datasets presented in this response. For example, UK Regular Armed Forces personnel may have a cancer recorded in the MOD electronic patient record system, be medically discharged for cancer and receive a war pension for cancer. Therefore the figures cannot be added together to produce an overall 'total'.

The preferred option for identifying individuals with cancer is from a cancer registry. Please note however that the MOD does not hold a cancer registry for serving UK Armed Forces personnel with the exception of Gulf 1990/91 veterans and those in the Era comparison cohort. The information provided in this response has therefore been collated from information held on existing systems within the MOD. To identify data from the primary care electronic record and the war pension and compensation scheme data it was necessary to examine hundreds of potential codes and decide which ones were, or could have been, cancer. Therefore, these figures cannot be compared with UK national cancer registry data.

UK Regular Armed Forces strengths

Table 1 presents the annual strengths of the UK Regular Armed Forces, including Full Time Reserve Service (FTRS) and Gurkhas between 1992 to 2012.

Table 1 : UK Regular Armed Forces Strength by calendar year, 1992 to 2012, numbers ^{1,2,3,4}

	Total	UK Regulars	FTRS ¹	Gurkhas
1992	293,440	293 440	Not Available	Not Available
1993	274,850	274,850	Not Available	Not Available
1994	254,490	254,490	Not Available	Not Available
1995	233,340	233,340	Not Available	Not Available
1996	221,870	221,870	Not Available	Not Available
1997	210,820	210,820	Not Available	Not Available
1998	210,130	210,130	Not Available	Not Available
1999	208,630	208,630	Not Available	Not Available
2000	212,330	207,610	1,040	3,670
2001	205,650	205,650	Not Available	Not Available
2002	204,690	204,690	Not Available	Not Available
2003	206,920	206,920	Not Available	Not Available
2004	213,170	207,020	2,430	3,720
2005	206,480	201,100	1,690	3,690
2006	201,050	195,850	1,540	3,660
2007	195,970	190,670	1,600	3,690
2008	192,530	186,910	1,750	3,870
2009	194,550	188,600	2,100	3,850
2010	197,820	191,710	2,280	3,840
2011	192,330	186,360	2,060	3,910
2012	185,690	179,800	2,060	3,820

Source: UK Defence Statistics (UKDS)

1. Full Time Reserve Service
2. UK Regular Forces includes all trained and untrained personnel. Gurkhas, Full Time Reserve personnel, and mobilised reservists are excluded.
3. Figures are rounded to the nearest 10, numbers ending in 5 have been rounded to the nearest 20 to prevent systematic bias.
4. FTRS and Gurkhas strength data prior to 2007 is sourced from previous MOD publications.

Deaths among UK Regular Armed Forces personnel whilst in-Service

Between 1 January 1984 and 31 December 2012, **941** UK Armed Forces personnel have died whilst in-Service where the primary cause of death is cancer. Of these, **nine** had a primary cause of Multiple Myeloma.

A further **eight** UK Armed Forces personnel died in the same period where cancer was given as a contributory cause but not the primary cause of death. Of these, **none** had a contributory cause of Multiple Myeloma.

Deaths after leaving Service among Gulf 1 veterans and the Era comparison cohort

Between 1 April 1991 and 31 December 2012, **291** Gulf 1 veterans have died after leaving Service where the primary cause of death is cancer. Of these **three** had a primary cause of Multiple Myeloma.

A further **44** Gulf 1 veterans died after leaving Service in the same period where cancer was given as a contributory cause but not the primary cause of death. **None** of these had a contributory cause of Multiple Myeloma.

Between 1 April 1991 and 31 December 2012, **346** members of the Era comparison cohort have died after leaving Service where the primary cause of death is cancer. Of these **five** had a primary cause of Multiple Myeloma.

A further **38** members of the Era comparison cohort died after leaving Service in the same period where cancer was given as a contributory cause but not the primary cause of death. **None** of these had a contributory cause of Multiple Myeloma.

Cancer Morbidity

Electronic Primary Care records

Please note that the figures below are taken from primary care (GP) records, not from a cancer registry, and therefore cannot be compared with cancer or Multiple Myeloma figures for the UK as a whole.

Between 1 January 2010 and 1 November 2013, **2,344** UK Regular Service personnel had a code for cancer recorded in their electronic primary care record (DMICP¹). Of these, **11** had a record of Multiple Myeloma.

Cancer registrations among Gulf 1 veterans and the Era comparison cohort

Between 1 April 1991 and 31 December 2012, **1,754** Gulf 1 veterans were registered with cancer. Of these **10** had a registration specifically for Multiple Myeloma.

Between 1 April 1991 and 31 December 2012, **1,869** members of the Era comparison cohort were registered with cancer. Of these **15** had a registration specifically for Multiple Myeloma.

Please note that the cancer registrations for Gulf 1 veterans and the Era cohort may have been whilst in Service or after leaving the Armed Forces.

Medical discharges

Table 2 presents the number of UK Regular Armed Forces personnel medically discharged with a principal condition of cancer by age group and Service for the period 1 January 1995 to 31 March 2013.

Table 2: UK Regular Armed Forces personnel medically discharged with a principal condition of cancer by age group and Service, 1 January 1995 - 31 March 2013, Numbers¹

	Naval Service ²	Army	RAF
All	86	146	83
Under 20	~	9	~
20 - 24	9	31	~
25 - 29	23	30	14
30 - 34	16	23	13
35 - 39	16	16	8
40 - 44	8	27	11
45 - 49	7	~	10
50+	~	~	23

Source: Defence Statistics Medical Discharge data

1 - Data presented as "~" has been suppressed in accordance with Defence Statistic's rounding policy (see medical discharge background notes)

2 - Includes Royal Navy and Royal Marines

¹ DMICP – Defence Medical Information Capability Programme. The MODs electronic primary care record system.

Of those personnel with a principal condition of cancer leading to medical discharge, between 1 January 1995 to 31 March 2013 there were;

- a. **Fewer than five** Naval Service personnel medically discharged with a principal condition of a Multiple Myeloma.
- b. **Fewer than five** Army personnel medically discharged with a principal condition of a Multiple Myeloma.
- c. **Fewer than five** RAF personnel medically discharged with a principal condition of a Multiple Myeloma.

Table 3 presents the number of UK Regular Armed Forces personnel medically discharged with a contributory (but not a principal) condition of cancer by age group and Service for the period 1 January 1995 to 31 March 2013.

Table 3: UK Regular Armed Forces personnel medically discharged with a contributory (but not a principal) condition of cancer by age group, Service, 1 January 1995 - 31 March 2013, Numbers^{1,3}

	Naval Service ²	Army	RAF
All	7	10	13
Under 20	0	~	~
20 - 24	~	~	~
25 - 29	~	~	~
30 - 34	~	~	~
35 - 39	~	~	~
40 - 44	~	~	0
45 - 49	0	0	~
50+	0	0	5

Source: Defence Statistics Medical Discharge data

1 - Data presented as “~” has been suppressed in accordance with Defence Statistic's rounding policy (see medical discharge background notes)

2 - Includes Royal Navy and Royal Marines

Of those with a contributory (but not principal) condition of cancer **none** were medically discharged for Multiple Myeloma.

Pensions and compensation

Please note that the figures below are taken from administrative records for War Pensions and Armed Forces compensation schemes, not from a cancer registry, and therefore cannot be compared with cancer or Multiple Myeloma figures for the UK as a whole.

As at 12 July 2011 (the latest date for which data is available) the total number of individuals in receipt of an occupational pension under the Armed Forces Pension Scheme was **339,745**. An update of these figures as at 31 March 2013 will be published in November 2013.

As at 31 March 2013 there were a total of **2,545** ex-Serving personnel in receipt of a war pension under the War Pension Scheme with a diagnosis code for cancer (see background notes for details of cancer diagnosis codes). **Table 4** presents this information broken down by Service and age group. A total of **10** ex-Serving personnel were in receipt of a pension specifically for Multiple Myeloma.

Table 4: WPS recipients for malignant and non-malignant conditions, as at 31 March 2013, numbers^{1,2,3}

Age group	All	Royal Navy	Army	RAF	Not available
All	2,545	620	1,260	510	160
Under 30	~	0	~	0	0
30-34	20	~	15	~	0
35-39	30	10	15	5	0
40-44	70	15	35	20	0
45-49	85	20	45	15	~
50-54	115	30	65	20	~
55-59	95	20	50	25	~
60-64	95	25	40	25	~
65-69	185	60	70	45	10
70-74	230	75	95	50	10
75-79	350	75	195	60	20
80-84	340	70	190	45	35
85-89	460	150	205	80	25
90+	480	70	240	115	50

Source: War Pension Computer System

1. In line with Defence Statistics rounding policy figures have been rounded to the nearest 5 and figures fewer than five have been suppressed and marked ~

2. Includes Royal Navy and Royal Marines

3. Age group is as at latest data extract (31 March 2013)

Between 6 April 2005 (the start of the AFCS) and 31 March 2013 (the latest date for which AFCS data is available) **fewer than five** individuals were awarded compensation under the Armed Forces Compensation Scheme (AFCS) where the claimed condition referred to cancer. **None** of these were specifically for Multiple Myeloma. Please note it is not possible from this data source to separate the category of 'malignant and non-malignant conditions'. Not all personnel in the table above will therefore have cancer. The category of 'benign neoplasms' has not been included.

Background Notes

Would you like to be added to our contact list, so that we can inform you about updates to our statistical publications covering deaths, medical discharges, pensions, compensation and Armed Forces strengths and consult you if we are thinking of making changes? You can subscribe to updates by emailing DefStrat-Stat-Health-PQ-FOI@mod.uk

Deaths

Defence Statistics (Health) compiles the Department's authoritative deaths database for all **UK Armed Forces personnel who died whilst in Service** going back to 1984. Information is compiled from several internal and external sources from which we release a number of internal analyses and external National Statistics Notices.

Figures are for regular personnel and only as Defence Statistics (Health) do not receive routine notifications of all deaths among reserve forces.

Defence Statistics receive weekly notifications of all regular Armed Forces deaths from the Joint Casualty and Compassionate Cell (formerly the single Service casualty cells). Defence Statistics also receive cause of death information from military medical sources in the single Services. At the end of each calendar year, Defence Statistics cross-reference the medical information it holds against publicly available death certificate information available from the NHS.

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). The following ICD-10 codes have been used to identify Cancers and specifically Multiple Myeloma;

All Cancers - C00.0 to D48.9
Multiple Myeloma – C90.0

Please note, one death among the 941 UK Armed Forces personnel who have died whilst in-Service during this period from cancer was the result of a benign brain tumour.

The Gulf 1 veterans mortality National Statistic provides summary statistics on the causes of deaths that occurred among the UK veterans of the 1990/91 Gulf Conflict between 1 April 1991 and 31 December 2012. The purpose of the study was to compare the mortality rates of 53,409 UK Armed Forces personnel that deployed to the 1990/91 Gulf Conflict to those of a comparison group, the Era cohort. The Era cohort consists of 53,143 UK Armed Forces personnel of similar age, gender, Service, regular/reservist status and rank who were in Service on 1 January 1991 but did not deploy to the Gulf. The findings include deaths that occurred to personnel whilst in service and deaths that occurred after personnel had left the UK Armed Forces. The report is available on the Defence Statistics website (www.dasa.mod.uk) under 'National Statistics'.

Electronic patient records

Defence Medical Information Capability Programme (DMICP) is the source of electronic, integrated healthcare records for primary healthcare and some MOD specialist care providers. The data presented here has been extracted from the DMICP management information system. The electronic patient record has information that is Read coded. Read codes are a set of clinical codes designed for Primary Care to record the every day care of a Patient. They are part of a hierarchical structure and form the recognised standard for General Practice.

DMICP cancer READ codes recorded between 1 January 2010 and 1 November 2013 were used for the analysis. Please note that data taken from the DMICP data warehouse has not been validated against individual patient records.

All the cancer related codes from Read diagnostic chapter 'B – Neoplasms' were extracted, and scrutinised to identify which codes relate to a malignant cancer. Any neoplasm description which could be either benign or malignant was included; therefore numbers presented may be higher than actual numbers of personnel with 'cancer'. The code B630 was used to identify personnel with Multiple Myeloma. Please see attached spreadsheet for the full list of codes which were included and excluded.

Medical discharges

Medical discharges in the UK Armed Forces involve a series of processes, at times complex, which differ in each Service to meet their specific employment requirements. Due to these differences between the three Services, comparisons between the single Service statistics are judged to be invalid. Therefore, the figures in this answer are presented separately for each Service.

Medical discharges are the result of a number of specialists (medical, occupational, psychological, personnel, etc) coming to the conclusion that an individual is suffering from a medical condition that pre-empts their continued service in the Armed Forces. Statistics based on these discharges do not represent measures of true morbidity or pathology. At best they indicate a minimum burden of ill-health in the Armed Forces. Furthermore, the number and diversity of processes involved with administering a medical discharge introduce a series of time lags, as well as impact on the quality of data recorded.

The information on cases was sourced from electronic personnel records and manually entered paper documents from medical boards. The primary purpose of these medical documents is to ensure the appropriate administration of each individual patient's discharge. Statistical analysis and reporting is a secondary function.

Although Medical Boards recommend medical discharges they do not attribute the principal disability leading to the board to Service. A Medical Board could take place many months or even years after an event or injury and it is not clinically possible in some cases to link an earlier injury to a later problem which may lead to a discharge. Decisions on attributability to Service are made by the Service Personnel and Veterans' Agency.

To record information on cause and circumstances of medical discharges, Defence Statistics uses the World Health Organisation's International Statistical Classification of Diseases and Health-related Problems 10th revision (ICD-10). The following ICD-10 codes have been used to identify Cancers and specifically Multiple Myeloma;

All Cancers - C00.0 to D48.9
Multiple Myeloma – C90.0

Pensions and compensation

There are a number of different occupational pension schemes available to Armed Forces personnel. The data presented in these tables cover Armed Forces Pension Scheme 1975 (AFPS 75) and Armed Forces Pensions Scheme 2005 (AFPS 05). AFPS 75 pension benefits are based on rank and length of Service. All personnel serving between 6 April 1975 and 6 April 2005 will have served under the AFPS 75 scheme. AFPS 05 pension benefits are based on length of Service and final salary, and personnel who joined after 6 April 2005 will be serving under the AFPS 05 scheme. Service personnel need to have at least two years' reckonable service before they are entitled to receive benefits on either scheme. Therefore the figures provided will not include anyone who left with less than two years of Service. The figures do not include personnel who are eligible for future pension payments but are not yet in receipt of AFPS payments. Further details of these schemes can be found on the MOD website (www.mod.uk).

There are currently two compensation schemes in operation regarding UK Veterans. The War Pensions Scheme (WPS) provides no-fault compensation for all ex-service personnel where illness, injury or death is caused by Service from the start of the First World War in 1914 up until 5 April 2005. The Armed Forces and Reserve Forces Compensation Scheme (AFCS) came into force on 6 April 2005 to pay compensation for injury, illness or death caused by Service on or after that date. Further details of these schemes can be found in the War Pensions National Statistics publication (<http://www.dasa.mod.uk/index.php/publications/health/veterans/war-pensions>) and Armed Forces Compensation Scheme Official Statistics publication (<http://www.dasa.mod.uk/index.php/publications/health/veterans/armed-forces-compensation-scheme>).

War pension scheme figures for cancer were produced using the medical diagnosis codes on the WPS data. The cause group for cancers includes the following categories: Malignant and non-malignant Conditions (as this cancer cannot be separately identified in this category), Cancer of the Oesophagus/Stomach, Cancer of the Colon/Rectum, Cancer of the Lung/Bronchus, Mesothelioma, Cancer of the Skin, Cancer of the Testis, Cancer of the Bladder/Kidney, Hodgkins' Disease, Chronic Lymphatic Leukaemia, Other Leukaemia, Other Malignant Neoplasms. Figures specifically for Multiple Myeloma were produced by searching the free text condition description for 'Multiple Myeloma'.

The claimed condition field on the AFCS data was used to produce the figures for AFCS awards for cancer and Multiple Myeloma. This field contains a free-text description of the condition claimed for. The field varies greatly in detail and is not used in Defence Statistics' regular reporting as it is not possible to summarise and group data using this field. However, this field does in some cases contain a more specific description of the claimed condition and has therefore been used to provide some more detail for this response. Records where the claimed condition specified 'Multiple Myeloma' or other possible misspellings were included. Please note that due to the free-text nature of this field, the figures quoted should be treated as a minimum as some records may have been missed.

The tables in this response have been scrutinised to ensure individual identities have not been revealed inadvertently. In line with Defence Statistic's rounding policy for health statistics (May 2009), and in keeping with the Office for National Statistics Guidelines, where appropriate all numbers less than five have been suppressed and presented as '~'. Where there is only one cell in a row or column that is less than five, the next smallest number (or numbers where there are tied values) has also been suppressed so that numbers cannot simply be derived from totals.

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Deputy Chief Information Officer, 2nd Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate your case until the MOD internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website, <http://www.ico.gov.uk>.

I hope you find this information useful

Yours sincerely,

Defence Statistics Health Head (B1)