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CABINET

STATEMENT ON THE DEFENCE ESTIMATES 1983

Note by the Secretary of State for Defence

I attach the draft of my Statement on the Defence Estimates for 1983 which I propose to present to Parliament on 25 May.

2. This will be the fifth major Statement on defence policy in a little over two years. I have therefore made this year's Statement somewhat shorter than the previous two, and it does not reflect any major new policy initiatives. In view of the continuing high level of public interest in nuclear and arms control issues, these are given particular attention.

3. The draft takes account of comments made by members of the Defence and Oversea Policy Committee (OD) at its meeting on 18 April, and also amendments put forward subsequent to the meeting.

4. Chapter One summarises our defence policy in the light of recent events with particular attention given to arms control negotiations. Chapter Two covers nuclear forces with emphasis on the decision to deploy cruise missiles. Chapter Three describes the more important changes in our conventional forces. Chapter Four covers the military balance between East and West. Chapter Five deals with the financial and management aspects of defence and Chapter Six draws attention to the ways in which the Services assist the community at large. As in previous years the Statement will include a number of "essays" designed to provide additional background or to indicate Government thinking on important issues of current interest.

5. I invite the Cabinet to agree to the publication of my Statement.

M H

Ministry of Defence

29 April 1983

CHAPTER ONE

DEFENCE POLICY

101. The high level of public interest in defence matters has been maintained during the last year. We have seen the initiation of the Strategic Arms Reduction Talks (START) between the United States and the Soviet Union following closely on the negotiations on limiting intermediate range nuclear forces (INF), a change in the Soviet leadership and, above all, we have fought and won the conflict over the Falkland Islands. But the realities underlying our defence policy remain the same. In this Government's first Statement on the Defence Estimates in 1980 (Cmnd 7826), we said that "It is the fundamental duty of Government to ensure the nation's security and keep it free to pursue, by just and peaceful means, its legitimate interests and activities both at home and abroad". We stand by these words. In order to carry out that duty we must plan our defences on the world as it exists, not as we would wish it to be. We cannot afford policies based on emotion rather than logic, nor theatrical gestures which would achieve nothing save to weaken our own security. The key to our continued peace and freedom remains, as it has done for over three decades, our membership of the North Atlantic Alliance and the collective determination of the Allies to prevent war in Europe, by a policy of deterrence.

East-West Relations

102. The change in Soviet leadership has not led to any significant alteration in their general policy towards the West, to the other nations of

Eastern Europe or to the Third World. As the information in Chapter Four clearly demonstrates, the growth of Soviet and Warsaw Pact armaments continues unchecked, with the inevitable consequences for the balance of forces between East and West. In Poland the authorities, with Soviet support, continue to deny basic freedoms to the Polish people in direct contravention of the agreements signed by both the Soviet and Polish Governments at Helsinki in 1976. In Afghanistan the Soviet occupation, which followed the invasion in 1979 - itself a flagrant breach of the United Nations Charter - continues, and the number of Soviet troops in the country has increased to 105,000. Within the Soviet Union political opposition is ruthlessly suppressed. Vigorous measures have been taken to silence groups which have tried to question the Soviet record on human rights or nuclear disarmament.

103. The message to the West is clear. The Soviet Union continues to maintain massive military forces in Europe, both conventional and nuclear, well in excess of those required for its own defence. These forces are being constantly improved, particularly in their mobility and firepower. The Soviet leadership have demonstrated their willingness to use military force to gain their own ends, irrespective of agreements they have signed and of international opinion. While it remains the case that there is no evidence that the Soviet Union is planning any immediate attack on the West, it is plain that we and our NATO Allies cannot afford to base our defences on the assumption that the Soviet leadership are essentially benevolent and concerned only with the Soviet Union's security. The restraint shown by NATO in limiting its own force modernisation in the 1970s was not matched; instead there was an unparalleled Soviet expansion. The new Soviet leader has already made it clear that

no one should expect the Soviet Union to disarm unilaterally: "We are not naive people; we do not demand unilateral disarmament by the West". Experience over the years has shown that such gestures on the part of the West will be seen as a sign of weakness, to be exploited rather than followed. If we are to continue to guarantee our own security, the first requirement for NATO is to maintain sufficient forces, both conventional and nuclear, to convince the Soviet leadership that they could not hope to gain from any attack on the West.

Arms Control and Disarmament

104. But we must not and do not despair of ever reaching agreement with the Soviet Union on the limitation and reduction of armaments. There have been past arms control successes - for example the Test Ban Treaty, the Anti-Ballistic Missile treaty and to some extent the SALT process. The first sign of movement by the new Soviet leadership has come in the INF negotiations. Having initially refused to negotiate at all, and then put forward a series of carefully-designed proposals which would have had the effect of requiring the West to abandon its own modernisation programme (while placing no restraint on the equivalent Soviet SS20 missile deployments). They have more recently made new offers, the details of which are discussed further in Chapter Two. They are still very heavily biased in the Soviet Union's favour. Again the message is clear: the first aim of the Soviet leadership will be to bring pressure on Western Governments and public opinion so as to gain one-sided advantages for themselves. Only if they are faced with a resolute approach may they eventually be brought to recognise that a balanced agreement to limit and reduce forces is in the interests of both sides.

105. Since the 1960s NATO has been fully committed to the pursuit of arms control and disarmament measures designed to preserve our security with fewer armaments and at lower cost. We have repeatedly reaffirmed our own commitment to this policy, whether by our support for the United States in the bilateral negotiations between the superpowers to reduce their nuclear arsenals, or in our direct participation, with our Allies, in arms control negotiations between East and West. But as we said in the section on "Arms Control and Security" in last year's Statement, our aim must be for balanced, militarily significant and binding measures whose observance can be satisfactorily verified. Agreements which fail to meet these requirements are at best illusory and at worst can actually undermine our security. Our approach must be governed by realism. Experience shows we cannot achieve successful arms control from a position of substantial inferiority. Our defence effort and our arms control policy must therefore be complementary.

106. In addition to the INF talks described in detail in paragraphs 203 to 210, negotiations are also taking place between the United States and Soviet Union on strategic nuclear weapons. President Reagan has taken the initiative by proposing to reduce rather than just limit these systems, and the negotiations, which began in June 1982, are thus known as the Strategic Arms Reduction Talks (START). The American approach has been to concentrate in the first instance on the most destabilising systems, land-based strategic missiles, and they have put forward proposals for substantial reductions in both missiles and warheads. The Soviet Union has rejected these proposals, but has set out ideas of its own which, although less radical and heavily qualified, do appear to accept the concept of reductions.

107. In the area of conventional forces, the United Kingdom is a direct participant in the Vienna negotiations on Mutual and Balanced Force Reductions (MBFR) in central Europe. In a renewed effort to achieve real progress the West took a major new initiative in July 1982. It proposed, in treaty form, a single comprehensive agreement bringing in all direct participants from the outset to take significant shares in force reductions. So far Eastern reactions have been negative. Deadlock remains on the crucial disagreement over the existing size of Eastern forces and thus the size of the reductions needed to achieve parity. The East still has not responded to the Western proposals of July 1981 to make progress on this issue, and the same reluctance to establish satisfactory verification measures has been evident in Vienna as in other negotations. The latest Eastern proposals tabled in February 1983, like their predecessors, show no significant change from their long-standing position and make no attempt to meet the main Western concerns. We still await some sign that the East is prepared to negotiate seriously.

108. The Madrid Follow-up Meeting of the Conference on Security and Co-operation in Europe (CSCE) reconvened on 9 November 1982. It had adjourned in the previous March following severe criticism by Western delegations, including Foreign Ministers, of violations of the Helsinki Final Act following the imposition of martial law in Poland. The debate on the implementation of the Final Act has continued at the resumed sessions, but work has focussed principally on the negotiation of the Meeting's concluding document. The Western Alliance is working for a substantial and balanced document providing for a Conference on Disarmament in Europe (to negotiate confidence-building measures applicable to the whole of Europe) and additional commitments on human rights and in other fields of the Final Act.

109. The United Kingdom has also continued to play a major role in the work of the Committee on Disarmament in Geneva on a wide range of arms control issues. Particular attention has been focussed on the problem of chemical weapons. The evidence of the use of such weapons in South-East Asia and Afghanistan underlines the need for a comprehensive and fully verifiable convention to ban their development, production and stockpiling. All British stocks were destroyed many years ago, and with other members of the Alliance we have been striving to achieve such a ban through the Chemical Weapons Working Group in Geneva. Again, verification is the key; we have tabled papers on this aspect of a possible treaty, most recently in March of this year. But, despite some vague hints, the Soviet Union has so far refused to discuss the details of inspection procedures that they would be prepared to accept.

110. In many of these negotiations there is likely to be considerable activity in the coming months. We and our Allies will continue to adopt a positive approach in a search for real, effective and balanced measures to reduce the level of arms on both sides. Nevertheless we shall remain on our guard for Soviet attempts to use arms control negotiations as political instruments for achieving their own objectives. Past Soviet behaviour has shown that, while they are prepared to accept such agreements once convinced that it is to their advantage to do so, they are also always seeking opportunities to use arms control talks as a means of dividing the Allies. In particular they wish to reduce the United States commitment to the defence of Europe and to manipulate public opinion in the West to undermine NATO's strength and resolve from within.

Britain and NATO

111. The past year has not been an easy one for the NATO Alliance. Public concern over the role of nuclear weapons in allied defence and the approach to arms control has led to some questioning of NATO strategy while differences of view on such issues as the Siberian gas pipeline and the transfer of technology to the Soviet Union have received much publicity. In an Alliance of free independent nations it is inevitable that there will be differences of view on how to approach major issues related to the common defence, and that in our open societies these differences will be publicly aired. But this does not mean that NATO is in a state of crisis; the forces that unite the Alliance are far too strong to be broken by temporary differences. The toleration of such varying opinions only underlines NATO's strength, which has been founded for more than 30 years on its members' common goal, to defend the freedom and sovereignty of all the Allies. 1982 saw the accession of Spain as the sixteenth member of the Alliance, and the fourth to join the original twelve signatories of the Treaty in 1949. No country has ever voluntarily joined the Warsaw Pact.

112. We have made it clear in successive statements that the major threat to the security of the United Kingdom remains the Soviet Union and its Warsaw Pact allies, and that our membership of NATO provides the only realistic way of countering that threat. It cannot be repeated too often that NATO is a defensive alliance, and its overriding aim is the prevention of war by deterring aggression. The British contribution to this collective deterrence, both in terms of our conventional and nuclear forces and in making available bases for United States forces, is of crucial importance to the Alliance. Should

we withdraw these forces and close the bases, not only would NATO's ability to deter be substantially weakened, but the cohesion of the Alliance would be put seriously at risk. The result would be to undermine stability in Europe, increase the danger of war and thus jeopardise our own security.

United Kingdom Defence Policy

113. Recognising the primacy of NATO in our defence policy, in Cmnd 8288 "The Way Forward" we identified the four main roles in which the Armed Forces contribute to the collective deterrent: the provision of independent strategic and theatre nuclear forces committed to the Alliance; the direct defence of the United Kingdom homeland; a major land and air contribution on the European mainland; and the deployment of a major maritime capability in the Eastern Atlantic and the Channel. In Cmnd 8758 we reaffirmed that these roles remain the priority for our defence effort, and that the enhancement and modernisation of forces devoted to these tasks must still have the first call on our resources. Chapter Two includes details of the United Kingdom's contribution to the Alliance's nuclear deterrent, and in Chapter Three we highlight the major changes in the equipment and organisation of our conventional forces. As noted in Chapter Five, we are substantially increasing defence expenditure in real terms over the next few years, and we have made provision to meet the NATO aim of 3% annual real growth up to 1985/86, with additional provision for Falklands Islands associated costs.

114. "The Way Forward" also underlined the importance of the need for the United Kingdom, and indeed the Alliance as a whole, to take account of the threat to Western security interests outside the NATO area. Although our

capability to carry out operations in the rest of the world is necessarily not comparable with that intended to discharge our NATO roles, in either its scale or nature, it can still exert an influence out of all proportion to the resources involved. At present we engage in a great deal of military activity outside Europe. In addition to garrisons we maintain in such places as Cyprus, Hong Kong, the Falkland Islands and Belize, this activity ranges from peace keeping operations such as those in the Lebanon and Sinai, through deployments and exercises, to loan service and seconded personnel, training teams, and sales assistance. These limited forms of involvement can represent some of the most economical and cost effective ways of protecting and advancing the United Kingdom's interests outside the NATO area. As explained in Cmnd 8758, we are planning to make a number of improvements in the capability of our NATO forces to operate outside as well as in Europe. We are also taking further steps to improve the coordination and effectiveness of these diverse activities which, although subordinate to our primary NATO roles, form an important component of our overall defence policy. Our activities outside the NATO area are described further in Chapter Three.

115. The Falklands Campaign underlined the importance of the flexibility, mobility and readiness of our forces and it demonstrated the outstanding quality and commitment of our Servicemen. Above all it made abundantly clear that successful deterrence rests cricially on the perceptions of a potential enemy. The Argentine Government miscalculated our ability and resolve to defend our territory and our people. The result was war. We have maintained peace in Europe for over three decades because the Soviet leadership has been in no doubt about the collective ability and determination of the NATO Allies to defend their freedom. It is all the more important

that, after a decade of unparalleled growth in the military strength of the Soviet Union, and in the face of an unremitting propaganda campaign designed to divide the Alliance and weaken our resolve, we should not now undermine the credibility of our deterrent by indulging in any onesided reductions in our own defences. Nor, by the same token, should we fail to carry through measures which we and our Allies have judged necessary to maintain the effectiveness of our common defence. We will continue to strive for balanced measures of arms control to reduce the forces of both sides so that we can maintain our security at a lower cost, but our defence policy and that of the West as a whole will continue to be founded on the basis of making clear to the nations of the Warsaw Pact that they cannot use or threaten to use armed force against us except at the gravest risk to their own interests. In short we remain committed to the policy that all individual members of NATO have supported since the Alliance was founded: keeping the peace by effective deterrence.

ESSAY

NATO STRATEGY

1. Since 1949 the North Atlantic Alliance has maintained the peace and freedom of its member nations by a policy of deterrence. This is an essentially defensive strategy: NATO will not use any of its forces unless an attack is launched on a member nation, but in the event of any such aggression the Allies have agreed to regard an attack on one as an attack on all. Deterrence means maintaining sufficient forces to convince any potential enemy that he could not hope to gain from such an attack.

2. Throughout its existence NATO has had to face the threat posed by the massive conventional forces of the Soviet Union and the other members of the Warsaw Pact. In the early days of the Alliance the West could rely on the existence of the vastly superior nuclear forces of the United States to deter Soviet aggression against Western Europe. But as the Soviet Union moved towards broad nuclear parity in the late 1960s, NATO adopted its present strategy of "flexible response". The aim of this strategy is to deter by making plain to a potential enemy that NATO has the ability and determination to resist aggression by an effective military response at an appropriate level. The flexible response strategy has had the full support of successive British Governments, and indeed of the Governments of all the members of NATO, whatever their political complexion, for over 15 years.

3. Flexible response means that NATO must be seen to be able to mount a robust conventional defence against attack, so as to make clear to the Soviet leadership that they could not hope to gain a quick or easy victory. This means having conventional forces deployed forward in Europe in considerable strength, and having the ability to bring up reinforcements in substantial numbers in good time. Facing a potential aggressor deploying not only very large numbers of conventional forces but also a wide range of strategic and theatre nuclear forces, NATO must itself maintain adequate nuclear forces if deterrence is to be effective. The aim of the Alliance is to convince the Soviet Union that we have at our disposal a range of defensive options that would enable us both to respond to any attack at an appropriate level and any gains which Soviet aggression might be designed to achieve would be outweighed by the damage which would be inflicted on them.

4. There are several misunderstandings about the nature of the flexible response strategy. Firstly it does not commit NATO to respond to an attack in a pre-ordained way. If its fundamental purpose of preventing war failed, the Alliance's objective would be to stop the conflict at the lowest possible level. Although NATO's forces are outnumbered by those of the Warsaw Pact, they are well trained and equipped; it should not be assumed that they would easily succumb to a conventional attack, even on a massive scale. NATO cannot hope to match the Warsaw Pact conventional forces in numerical terms unless the member countries are prepared to accept very substantial increases

in defence expenditure. However the Alliance is currently examining ways of exploiting new developments in technology (discussed on pages [4-9] to [4-13]) to improve the defensive capability of conventional forces in the longer term so as to enhance deterrence.

5. The existence of substantial numbers of nuclear weapons as part of NATO's deterrent forces does not therefore mean that, if deterrence failed, they would inevitably be used; nor does it mean that NATO strategy is based on an intention of fighting and winning a nuclear war. The Allies need no convincing that in such a war there would be no winners. The flexible response strategy does not encompass any concept of a "first strike" - that is an attempt to mount a pre-emptive attack against the nuclear forces of the Warsaw Pact nor does it imply a commitment to the early use of nuclear weapons. It does mean, however, that the Soviet Union must reckon with the possibility that NATO would be prepared, if necessary, to use nuclear weapons in self-defence. This is an essential part of effective deterrence. To abandon the strategy of flexible response would only serve as a signal to the Soviet Union that they could undertake a conventional war in Central Europe without putting their own homeland at risk. But even if NATO should reach the point of considering the use of nuclear weapons, its objective would still remain the same: to convince the Soviet leadership that they had miscalculated the Alliance's resolve to resist and that by continuing the conflict they would be running unacceptable risks.

6. NATO's strategy depends upon the Alliance having adequate forces in each element of the so-called "triad" - conventional, theatre nuclear and strategic nuclear forces. Without this range of forces the Soviet Union might calculate they could escalate any conflict to a level at which the Alliance had no credible response. Effective deterrence thus requires a full range of military options. The United Kingdom contributes to all three elements of the triad, both by committing to the Alliance our own conventional and nuclear forces and by providing bases for the United States forces. Any rejection of this strategy, of which nuclear deterrence is an integral part, would make nonsense of our membership of an Alliance which has been the cornerstone of our security for nearly thirty-five years. It would lead to a major weakening of NATO, an undermining of deterrence and consequently an increase rather than a decrease in the risk of war.

7. The possession of nuclear weapons for deterrence does not make their use, and therefore nuclear war, more probable. Rather, by deterring attack it makes any kind of war - but especially nuclear war - less likely. Its sole purpose is to keep the peace. It may not seem an attractive way of doing so but in an age in which nuclear weapons exist, and cannot be disinvented, it it the surest way we have. It has worked for more than thirty years and there is no reason why it should not continue to do so.

CHAPTER TWO

NUCLEAR FORCES

201. For the past three years the Statement on the Defence Estimates has included a substantial discussion of nuclear issues. In addition there have been more parliamentary debates about nuclear policy under this Government than any other, as well as publication of a large amount of information, including Defence Open Government Documents, which give a full account of our nuclear policy, in marked contrast with the obsessive secrecy of the Soviet Government about their own huge nuclear armoury. In part this has been a response to the increasing public concern about the role of nuclear weapons. One result of the debate has been the emergence of proposals for some radical alternatives to our present strategy. Some of these are examined in the essay on page [2-10].

202. The NATO Heads of Government reaffirmed once again at the meeting in Bonn in June 1982 that none of the Alliance's weapons - conventional or nuclear - will ever be used except in response to attack. Thus, for the Warsaw Pact to "offer" NATO a non-aggression pact, as it did recently, adds nothing to commitments which we have already undertaken - at Bonn and previously in the UN Charter and the Helsinki Final Act. To remain credible the Alliance must maintain an up to date defence including strategic, intermediate and short-range nuclear forces as well as conventional components and, from time to time, these forces have to be modernised so that deterrence can continue to work. We need adequate forces to deter aggression at all levels. There has been considerable discussion recently of the opportunities

now being presented by the development of new technology for conventional weapons and how this might reduce NATO's reliance on nuclear weapons to deter. Conventional improvements will certainly take place and they could well help to reduce the likelihood of nuclear weapons ever being used; but they will be costly and may not be affordable on the scale required. It is unrealistic to imagine that, in the foreseeable future, they could eliminate the requirement for a nuclear capability to deter an overwhelming conventional attack; nor would they affect the need for appropriate nuclear forces to deter the use of the very substantial and comprehensive armoury of nuclear weapons at the disposal of the Soviet Union. Moreover effective deterrence requires that NATO must be seen to have a credible response to Soviet aggression at any level, conventional or nuclear. This is the rationale behind the general composition of NATO's nuclear forces and, in particular, behind the current plans to modernise the Alliance's intermediate range nuclear forces (INF).

INF MODERNISATION

203. Both NATO and the Soviet Union have deployed intermediate range nuclear forces in Europe for many years. Since the 1960s, NATO's INF capable of reaching the Soviet Union have consisted of US F111 and RAF Vulcan aircraft based in the United Kingdom. The Vulcans have been withdrawn from RAF service leaving approximately 170 F111s as NATO's only system in this longer-range category. While NATO capabilities have been slowly declining the Soviet Union has been modernising its equivalent forces, including the deployment of large numbers of the formidable SS20 missile. The introduction of these missiles, each of which carries three warheads compared with the single

warhead of the older SS4 and SS5 missiles, has meant that the number of missile warheads in this category directly threatening NATO has risen from about 600 in the mid 1970s to about 1,000 now. In the Spring of 1982 the late President Brezhnev announced what was patently designed to be taken as a unilateral freeze on SS20 deployments west of the Urals. It is now clear that this moratorium did not apply to the completion of partially constructed sites. Since Brezhnev's announcement five further bases have been completed in that area, adding some 135 warheads to the threat. NATO still has no comparable missiles deployed in Europe. The effect on the balance of nuclear forces based in the European theatre can be seen in Figure 3 in Chapter Four.

204. For NATO to have done nothing in these circumstances would have resulted in a severe erosion of its own capability to deter aggression and would have been seen as a lack of resolve to maintain the security of the Alliance. This would have encouraged the Soviet Union to think that it could threaten the European members of NATO with nuclear strikes without provoking a response from the strategic forces of the United States, which are the ultimate guarantee of Allied security, and so de-couple the United States from the defence of Europe. Accordingly in December 1979, after two years of intensive study, NATO Ministers took the "dual-track" decision to introduce 108 Pershing II and 464 ground launched cruise missiles in Europe over a five year period from the end of 1983 unless the Soviet Union could be persuaded through arms control negotiations in Geneva to limit this class of weapon.

205. The original Soviet response was to refuse to negotiate in the hope that by a mixture of threats and propaganda they could influence the public in the West to put pressure on their own Governments to abandon the modernisation

plans. Eventually, however, convinced of NATO's determination to go ahead, the Soviet leadership agreed to the INF negotiations, which began in 1981. At the outset of the negotiations President Reagan, with the full support of NATO, proposed the so-called "zero option", which aims to eliminate entirely a whole class of land-based nuclear missiles. If the Soviet Union agreed to dismantle all its SS4, SS5 and SS20 missiles, then NATO's modernisation programme involving the deployment of cruise missiles and Pershing II would not proceed. So far the Soviet Union have not responded constructively to this proposal. Their negotiating position is based on an allegation that an approximate nuclear balance already exists in Europe, whereas in fact they have a considerable superiority, as shown in Figure 3 of Chapter Four. Their original proposal to reduce to 300 "medium range" systems on each side, because of the conditions attached, would have prevented any NATO modernisation while allowing the Soviet Union to retain their modern weapon systems; that is they would have dismantled their older SS4 and SS5 missiles but none of their SS20s.

206. More recent offers seek to confuse the position still further, by offering parity with existing British and French strategic forces. This proposal has been to reduce the Soviet forces to about 160 missiles within range of NATO Europe, which they claim would balance the British and French systems numerically, in return for NATO abandoning its plans to deploy cruise and Pershing II missiles. This takes no account of the Alliance's need for a modernised American intermediate-range capability in Europe to deter the modernised Soviet intermediate-range capability which the SS20 represents. It also ignores the fact that the British systems, which the Russians wish to treat as matching theirs are sea-based, independent, strategic systems which

provide a "last resort" deterrent and have a completely different role from the land-based Soviet SS20. The result would be to allow the Soviet Union to retain a significant number of SS 20s directly threatening Western Europe together with an unlimited number which could be moved within range if desired, whilst NATO would have no equivalent missiles. However the Soviet Union has now at least shown signs of recognising the special nature of INF missiles. The negotiations are continuing. The US, with the support of the Government and its other NATO allies, will continue to negotiate in good faith. The ideal aim remains that of eliminating all the Soviet SS4, SS5 and SS20 missiles threatening Europe while foregoing cruise and Pershing II missile deployments. President Reagan has made it clear that the United States is willing to agree, as an interim step towards this ultimate goal, a balanced outcome involving equal numbers of missile warheads on both sides.

207. In the absence of agreement on the "zero option" in the Geneva negotiations, implementation of the modernisation track of the 1979 decision will get underway at the end of this year with the deployment of the first missiles. Of the total planned programme of 572 missiles, 160 cruise missiles are planned to be stationed at two bases in the United Kingdom; RAF Greenham Common and RAF Molesworth. It should be emphasised that these deployments are not irreversible: if, for instance, the Soviet Union agreed to the "zero option" after the first cruise missiles had arrived in the United Kingdom they would then be removed.

208. Construction work at RAF Greenham Common of those facilities necessary for the deployment of the first missiles is well under way. Work on the base will continue for about the next three years during which time all

operational and administrative facilities for the 2,000 or so personnel who will eventually work there will be completed. Missiles are not due to arrive at RAF Molesworth for several years and construction work there has not yet started.

209. The missiles, together with their launch vehicles, will be stored at their bases in specially built shelters and strict security precautions will be taken to protect them against attacks by saboteurs or terrorists. The United Kingdom will contribute RAF Regiment personnel and RAF Police to the joint US/UK defence force. From time to time it will be necessary for cruise missile units to exercise their capability to deploy off-base, as they would in a period of tension or war. Peacetime training will normally be conducted on Ministry of Defence land and will be arranged to cause the least inconvenience to the public. Live missiles and warheads will not be used during training exercises.

[210. Text on Control of Cruise missiles ot be provided].

Other Theatre Nuclear Systems

211. Two squadrons of Tornado aircraft have now been formed. Tornado is being equipped to carry British nuclear, as well as conventional, weapons. Two strike/attack squadrons will be based in the United Kingdom and seven in Germany in place of Jaguar and Buccaneer squadrons as part of our contribution to the Alliance's theatre nuclear forces. As a matter of priority NATO is examining its nuclear stockpile requirement for shorter-range nuclear forces to decide the precise nature of adjustments which will be required as a result of NATO's INF modernisation programme. This programme will involve a one for one withdrawal of existing warheads as new systems are introduced, as well as examining the balance of NATO's nuclear armoury as a whole. The aim is to ensure that the size and composition of the stockpile is set at the minimum level consistent with NATO's agreed strategy of deterrence. Any reduction in the stockpile which results from this review will be in addition to the unilateral removal of 1,000 nuclear warheads without replacement, which took place in 1981.

TRIDENT

212. Last year's Statement on the Defence Estimates (Cmnd 8529-I) gave a full account of our decision to purchase the Trident II strategic weapon system. Our view remains that it is the best replacement for Polaris and that no equivalent spending on conventional weapons could possibly have the same value in preventing war or offer a better insurance for the long term. The original agreement on the sale of Trident II, reached between the Prime Minister and the President of the United States in March last year was followed

in October by an Exchange of Letters formally amending the Polaris Sales Agreement to cover the purchase of Trident II.

213. Since the original decision we have been making good progress across a broad front with the detailed definition of our requirements. Where possible our aim has been to exploit to the full the commonality with the United States afforded by Trident II to reduce the cost of our own programme. One area we examined was the arrangements for the support of the missiles when Trident enters RN service in the mid 1990s. Trident components will be more reliable and have a longer life than those for Polaris, allowing missiles to remain in their tubes throughout their planned 7-8 year period between major submarine refits, with such periodic servicing as is necessary carried out in the submarines themselves by British personnel. This is not the case with Polaris, where the missiles have to be removed from the submarines at more frequent intervals and maintenance carried out ashore. This important difference enabled us to agree with the US authorities, as we announced in September, that we should use the planned US facilities at Kings Bay, Georgia, for the initial preparation for service of our Trident missiles, and their refurbishment at the end of the submarines' 7-8 year commissions. The arrangement significantly reduces our requirement for new shore facilities at Loch Long in Scotland. Some new facilities will still be required but we shall not need to duplicate in Scotland the full range of US processing facilities. We estimate that this decision will produce a net saving for the defence programme of several hundred millions of pounds in capital costs with equal, if not greater, additional savings in running costs over the life of the system. The arrangements do not apply to our nuclear warheads, which will be held and processed in the United Kingdom.

214. There has been no change in the estimated cost of the Trident D5 system since last year other than for the savings resulting from the decision to use the US missile processing facilities and general inflation and exchange rate changes. At average 1982/83 prices, the estimate is approximately £7½ billion. About 45% would be spent in the USA and hence the recent fall in the exchange rate, if sustained throughout the life of the project, would result in increased costs.

POLARIS

215. As foreseen in last year's Statement, the Chevaline system entered operational service in the summer of last year following a series of highly successful test firings. The system is a very sophisticated United Kingdom development which is designed specifically to penetrate Anti-Ballistic Missile (ABM) defences although it is not a MIRV system. The Chevaline programme has provided warheads which are remarkably resistant to ABMs and have penetration aids of high complexity. Together with work begun in late 1981 to fit new motors to our Polaris missiles this will ensure the continued effectiveness of our present strategic deterrent until Trident enters service in the 1990s.

NUCLEAR DISARMAMENT: ALTERNATIVE APPROACHES

1. The last two annual Statements on the Defence Estimates have included essays designed to explain the background to the Government's policy on nuclear deterrence ("Nuclear Weapons and Preventing War" in 1981) and disarmament ("Arms Control and Security" in 1982). The continuing concern over nuclear weapons and over the relatively slow progress towards arms control agreements has led to proposals for several alternative approaches to NATO's aim of balanced, verifiable, militarily significant measures of disarmament. There is no doubt that some of these ideas have been put forward or fostered by the Soviet Union in an attempt to exploit public concern in the West to its own advantage, but it is nevertheless right that they should all be given serious consideration and judged on their merits. The Government recognises the public concern over these issues, and welcomes informed debate so that they can be judged on the basis of the relevant facts. This essay considers some ideas which have been advanced in recent months.

A Nuclear Freeze

2. The Soviet proposal for a freeze on the production and/or deployment of all nuclear weapons would be attractive if it resulted in a stable and genuine balance of forces between East and West. But in present circumstances it would do no more than perpetuate and legitimise existing

Soviet superiority, most noticably in the INF, which are the subject of the Geneva negotiations. The current imbalance is not only numerical, as shown in Figure 3 of Chapter Four but qualitative: over the last decade the Soviet Union has modernised or replaced many of its nuclear weapons, while NATO has adopted a policy of self-imposed restraint. A freeze would prevent the West taking steps to modernise its forces to ensure that they continue to provide an effective deterrent, and would create a dangerous instability. It would also be very difficult to verify, and Soviet behaviour over their unilateral "moratorium" on SS20 deployments has underlined the need to ensure that there is no scope for covert circumvention. Finally by removing any incentive for the Soviet Union to negotiate seriously, it would militate against the more important and urgent task of seeking real reductions in the forces of both sides.

No First Use of Nuclear Weapons

3. NATO's strategy of deterrence is to prevent war by making plain that the Alliance has the ability and determination to resist military aggression at any level. NATO is a defensive alliance and has made it clear that none of its weapons, nuclear or conventional, will be used except in response to attack. This was formally reaffirmed by the NATO Heads of Government at their meeting in Bonn in June 1982. Moreover both the United Kingdom and the United States have undertaken not to use nuclear weapons save in the case of an attack by another nuclear power or a

state allied to a nuclear power. It might therefore seem unremarkable to go one step further and agree a mutual no first use pact with the Soviet Union. But such a proposition ignores the fundamental differences between the threats faced by the Warsaw Pact and by NATO. The Warsaw Pact has no reason to fear aggression by NATO and every reason for confidence that the massive Eastern Bloc conventional superiority would defeat any conventional attack without recourse to nuclear weapons. NATO can have no similar confidence in Soviet motivations nor, in the light of the conventional imbalance, can the Alliance be confident of deterring any Eastern aggression by its conventional forces alone; without the deterrent of possible first use of nuclear weapons by NATO, Soviet Union might be prepared to risk a conventional attack. NATO, for its own part, has foresworn the first use of any form of force. Experience teaches us to be wary of Soviet undertakings of this nature: the Soviet invasions of Afghanistan and Czechoslovakia were both clear breaches of the United Nations Charter which forbids the use of force against other sovereign states.

Nuclear Weapon Free Zones

4. A variety of ideas has been mooted for creating zones in Europe in which the deployment of any nuclear weapons would be prohibited. They range from a "nuclear-free Europe" to zones of varying breadth either side of the East/West border in central Europe. But there are a number of

practical disadvantages to such a concept. Militarily it would be of little significance since targets within such a zone could readily be attacked by longer-range systems based outside it, and the mobility of most nuclear weapon delivery systems means they could be deployed into such a zone at very short notice in a crisis. Effective verification would pose serious problems. In the case of the most frequent proposal for a "battlefield" nuclear free zone in Europe, most of the weapons concerned have both a nuclear and a conventional role, so that problems of definition would arise. Nor would such a zone raise the nuclear threshold; this is essentially determined by the strength of NATO's conventional defences and not its nuclear capability or its location. Indeed the Palme Commission Report on Disarmament and Security, which put forward the proposal for such a zone, recognised these drawbacks but felt that the idea still had some value as a means of building confidence between East and West. In response to the Palme report the Soviet Union has proposed a battlefield nuclear weapon free zone of some 500-600 kilometres width. In addition to the disadvantages already mentioned, a zone of this size would greatly favour the Warsaw Pact powers because of their overwhelming advantage in ballistic nuclear missiles capable of striking such a zone from outside. In practice the creation of any sort of nuclear free zone in Europe would be of little military value, and would create a quite false impression of enhanced security.

5. One-sided Measures.

The principal aim of those who favour unilateral nuclear disarmament is the removal of all nuclear weapons, both British and American, from the United Kingdom. The Campaign for Nuclear Disarmament has recognised the logical consequence of this and has called for British withdrawal from NATO. Our position on this is clear: without our membership of NATO and without nuclear weapons we would be virtually defenceless against Soviet threats; we would have abrogated our first duty to safeguard the peace and freedom of the nation. Moreover a NATO without Britain would be fatally weakened and, faced with the massive Warsaw Pact conventional and nuclear forces, the ability of the West to deter aggression would be substantially reduced. Others have advocated limited one-sided measures in the hope that this would provide a catalyst to more widespread disarmament. But there is no evidence that any other countries would be persuaded to follow such an example. What is the Soviet record? In the late 1950s we unilaterally abandoned chemical weapons, and the US ceased production in 1969. The Soviet Union today has a massive and growing chemical warfare capability. In the 1970s NATO introduced few new nuclear weapon systems and maintained the number of nuclear warheads virtually unchanged; in 1981 the Alliance unilaterally withdrew 1,000 nuclear warheads from its European stockpile. The Soviet response was to sustain a massive increse, both quantitative and qualitative, in its own nuclear arsenal over

the whole of the decade. The Alliance's twin policies of deterrence and multilateral disarmament may have less immediate appeal than some of the more radical alternatives now being proposed, but they have preserved the peace in Europe for over thirty years and will continue to do so provided the West remains resolute in its approach. The policy of maintaining adequate defences while being willing to negotiate balanced reductions in the forces of both sides has brought the Soviet Union to the negotiating table in Geneva. To abandon it now in favour of untried and potentially dangerous alternatives would be to put the future security of this country and our allies at risk.

CHAPTER THREE

CONVENTIONAL FORCES

301. The Alliance does not and cannot rely on nuclear forces alone. An effective deterrent to the forces of the Warsaw Pact must rest on a balance of both conventional and nuclear forces. We intend to maintain the effectiveness of our contribution to the conventional defence of the Alliance by improving equipment, organisation and training. Details of the more important changes in hand are given in this chapter.

EQUIPMENT

302. Careful consideration in last December's Cmnd 8758 of the performance of equipment and the lessons to be learnt from the Falklands Campaign in no way invalidates the policy set out for our conventional forces in the 1981 defence programme review. The additions to the programme following the Falklands operation will be used, as far as possible, to enhance our capabilities both within and beyond the NATO area.

The Procurement Programme

303. Expenditure on equipment in 1983/84 is planned to be £7,372 million (at Estimates prices) some 46% of the defence budget. When the associated costs of managing the programme, which include the costs of personnel working in the Procurement Executive and R&D establishments, of £533 million are added

the estimate of procurement expenditure is £7,904 million; almost half of the defence budget.

304. Figure 1 shows the pattern of expenditure on research, development and the main areas of production. New equipment accounts for the largest share of production expenditure which also covers the purchase of spares and the provision of maintenance items for older equipment. A list of new equipments was given in last year's Statement; a further illustrative list of unit equipment costs is given below. The costs given are at average 1982/83 prices and exclude amortisation of development costs.

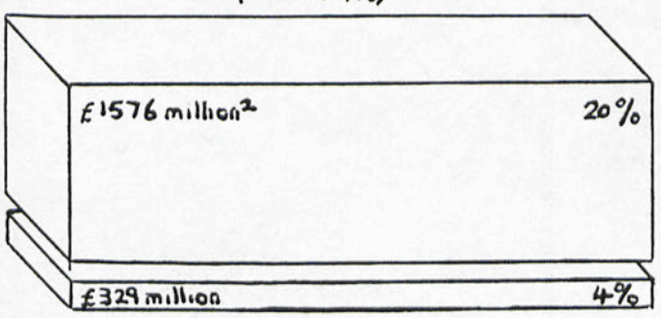
Equipment	Cost
Remotely controlled mine disposal system	£ 500 thousand
HF radio receiver	£ 5 thousand
VC10 tanker	£ 11.2 million
Fleet Minesweeper for RNR	£ 4.5 million*
Medium Field Crane	£ 70 thousand
Night Vision goggles	£ 9 thousand
20 mm practice round for Phantom	£ 2.65 thousand

* including weapons and equipments fitted in the ship.

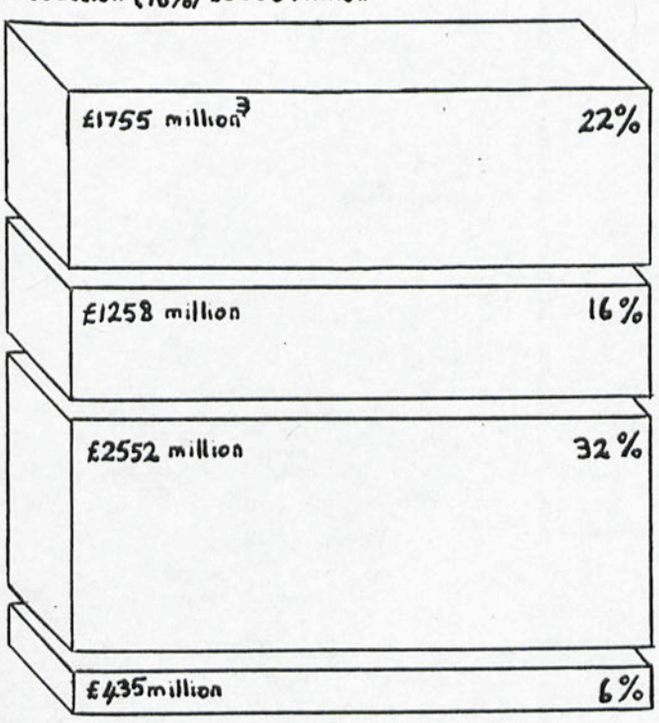
305. In last year's Statement we also included a list of major programmes authorised for full development or production since May 1979. During the last year a number of further programmes designed to improve the capability of our Armed Forces have started full development. These are discussed in

Main Divisions of the Procurement Programme 1983/84[1]

Research and Development (24%) £1905 million



Production (76%) £6000 million



[1] Figures relate to expenditure at Estimates prices and net of Appropriations-in-Aid
[2] Including R&D support costs e.g. headquarters expenses
[3] Including the cost of equipment for dockyard services

greater detail later but the broad programme costs for complete development and production programmes (as currently foreseen) are as follows:

PROJECT	ESTIMATED PROGRAMME COST (average 82/83 prices)
Comprehensive improvement and development of Army and RAF Rapier (Field Standard C)	£1,270 million
ECM-resistant communications system for the Tornado F2 (JTIDS)	£ 160 million
Wide-bodied tanker/freighter aircraft	£ 160 million
ECM equipment for surface ships	£ 136 million

306. Work is well under way on the design of three new classes of warship for the RN; the Type 2400 conventional submarine, the Type 23 frigate (see paragraph 332) and a new single-role minehunter to complement the successful multi-role Hunt class. All are due to enter service towards the end of the decade.

The Falklands Campaign: Effect on the Equipment Programme

307. We have already announced in Cmnd 8758 the major new equipments we will procure to replace those lost during the campaign. The Falklands operation identified a number of current equipments which need to be improved, in many cases re-inforcing the need for improvements which were already part of our plans.

308. Four new Type 22 frigates have been added to the shipbuilding programme to replace the Type 21 frigates and Type 42 destroyers lost in the South Atlantic. Three will be of the new Batch III design which will be equipped with many improvements including a 4.5 inch gun, more advanced surface-to-surface guided weapons, close-in weapon systems and advanced sensors. An order for the replacement of RFA Sir Galahad is expected to be placed this year and it is hoped that Sir Tristram can be repaired.

309. Work is in hand to replace all the Royal Navy Sea Harrier, Sea King and Lynx aircraft lost and on seven more Sea Harriers and six more ASW Sea Kings. Following the successful fitting of modified Searchwater radar mounted in Sea King helicopters to provide the Fleet with an interim degree of airborne early warning (AEW), the system will be developed further with the aim of providing both operational carriers with their own helicopter-borne AEW capability. With the entry into service of the Nimrod AEW aircraft our land-based AEW capability will also be greatly improved.

310. The Falklands operation underlined the need for improving the short-range air defence of ships. The software of the Sea Wolf anti-missile system was successfully adapted during the campaign to enhance its capability against low level attacking aircraft flying in close formation. The Vulcan Phalanx rapid-firing gun system has been fitted to the carriers HMS Invincible and HMS Illustrious; and we intend to extend the fitting of point defence systems to the third carrier HMS Ark Royal, the assault ships HM Ships Fearless and Intrepid, the destroyer HMS Bristol and the Type 42 destroyers.

311. For the Army, the need for a smaller, lighter rifle had already been

recognised and will be met by the Small Arms 80 programme. Other measures now in hand include the procurement of high explosive bombs for our 51mm mortars. The need to enhance the survivability of the Gazelle helicopter over the battlefield has been acknowledged for some time and work was already underway to examine the practicability and effectiveness of a number of passive and active measures. Although both our air defence missile systems, Rapier and Blowpipe, performed well in the conflict, major improvements were already underway for both, aimed at maintaining their effectiveness in the more demanding operational environment which could be expected in Europe. The operation highlighted the importance of night fighting and reinforced our plans to acquire more night vision goggles both for the Infantry and for helicopter crews. Plans were already under way to fit thermal imaging night sights to many of our armoured fighting vehicles - including main battle tanks - and to many of our anti-tank weapon systems. A new mine detector for minefield breaching operations is now being developed, effective against mines with a small metal content. Improved and more durable clothing and kit which will provide better protection from wet weather are being developed.

312. For the RAF, the Falklands campaign re-emphasised the importance of air-to-air refuelling, not only in extending the endurance of aircraft, but also in making possible operations at ranges which would otherwise have been out of the question. Indeed, without it there would still be no Falklands air-bridge. The intensity and length of their operations placed an enormous additional load on the Victor tanker force, and as a stop-gap measure a small number of Vulcan and Hercules aircraft were rapidly converted to air-to-air refuellers. This year the first of the VC10K tankers will enter service with their greater fuel carrying capability. Subject to the outcome of project

definition studies now under way, this conversion programme will be extended to form a second squadron using some of the ex-British Airways VC10s acquired by the RAF in 1981. Work is in hand on the conversion of six ex-British Airways Tristar aircraft to provide a small force of strategic tanker/freighters. These aircraft will help to support the Falklands Garrison, shorten significantly the time needed to reinforce it, and help to meet other out of area commitments. They will also be of great advantage in a NATO context, where the emphasis would be on extending endurance rather than range. The Falklands campaign also emphasised the importance of EW equipment, and the programme to fit chaff and flare dispensers to all front line aircraft has been accelerated. The RAF Harrier aircraft and Chinook helicopters lost during the Falklands operation will be replaced and additional Chinooks and Sea King helicopters will be bought to off-set deployments to the Falklands garrison.

DEFENCE OF THE UNITED KINGDOM BASE

313. Adequate air defence of the United Kingdom is vital and a major re-equipment programme is underway, designed to provide a flexible air defence system capable both of surviving attack and of swift and effective reaction. Improvements to the United Kingdom Air Defence Ground Environment (UKADGE) will enhance the RAF's capability to detect threats from the air and to provide timely and accurate tactical information to our own forces. As part of this programme 12 transportable three-dimensional air defence radars have already been ordered.

314. The first of 11 Nimrod Mk 3 AEW aircraft should become operational next

year. The air defence version of Tornado (F2) will enter service in the mid-1980s; two batches have already been ordered. We are proceeding with the development of a new communications system for United Kingdom air defence known as JTIDS and its integration into Tornado F2. In due course it is intended to apply the system also to improved UKADGE sites and the Nimrod AEW. It will provide secure data and voice communication in the face of electronic counter measures. When all the F2 squadrons have been formed we shall continue to run four squadrons of Phantom aircraft, two of which will increase the overall numbers of fighters available for air defence of the United Kingdom. Now that Phantom aircraft have been deployed for the air defence of the Falkland Islands, we are proceeding with plans to form a replacement squadron for the United Kingdom, to be equipped with refurbished aircraft purchased from the United States Navy. The modification of the Hawk to carry Sidewinder AIM 9L air-to-air missiles is under way; eventually 72 of these aircraft will be available in war. The Sky Flash medium-range air-to-air missile has boosted our air defence capability and the complementary AIM 9L short-range missile, which performed so well during the Falklands campaign, is now entering service with the RAF.

315. The Blindfire Rapier missile system is now deployed in the United Kingdom, in addition to RAF Germany, for the protection of airfields and, as already announced, additional units will be purchased for in the RAF and the Army to compensate for those deployed to the Falkland Islands. In November 1983 the first USAF Rapier squadron forms at West Raynham to be followed in 1984 and 1986 by two further squadrons at Brize Norton and Honington; although based at these RAF stations the USAF Rapier force will deploy specifically in

defence of USAF main operating bases and will significantly enhance the air defence of the UK base. A trial is also to be conducted into the partial manning of RAF Regiment Rapier Squadrons by auxiliaries.

316. Other enhancements in the field of air defence include improvements to the Bloodhound surface-to-air missile system, the continuing 'hardening' of airfields, plans for a new fixed telecommunications system and the formation of Royal Engineer squadrons equipped for rapid airfield damage repair. The original three Royal Auxiliary Air Force Regiment Field squadrons formed in 1979 as a trial venture for the ground defence of UK airfields have proved extremely successful; consequently in 1982 a further three squadrons were authorised, all of which are currently forming.

317. Equally vital is the need to maintain maritime access to and egress from UK ports. The Royal Navy plays an important part in the defence of the UK base, particularly in the field of mine clearance and ASW in the shallow waters surrounding the United Kingdom. The modernisation of the Royal Navy's mine-countermeasure (MCM) force is well in hand. Four new Hunt class multi-role MCM vessels have entered service and seven others are under construction, including two ordered at the end of last year. We have begun work on the first four of a new class of Fleet minesweeper for the Royal Naval Reserve and are placing further orders. Work on a new type of single-role minehunter is well under way and we have recently placed a contract for the design and development of this vessel. We are also examining ways of improving our shallow water capabilities. These include the introduction of modern torpedoes and active sonars with a better shallow water performance, which

will be incorporated in new frigates and the EH101, the next generation of ASW helicopter.

CENTRAL REGION

BAOR Equipment

318. With the Warsaw Pact continuing to attach the highest importance to both the quality and size of its armoured forces we need to improve our own equipment constantly if we are to maintain an effective response to the threat. The main element in our armoured warfare programme in the next few years will be the introduction of the new Challenger main battle tank. We have ordered enough to equip four regiments and their deployment to BAOR will enable us both to increase the number of our front line units while, at the same time, enlarging our war maintenance reserves of Chieftain tanks. As well as having improved mobility and agility, Challenger will be the first British tank to benefit from the greatly increased protection provided by Chobham armour.

319. Both Chieftain and Challenger will be kept in the forefront of armoured warfare technology. The main elements in their improvement programmes include thermal imaging sights, a new 120 mm high pressure gun capable of firing the new generation of armour piercing anti-tank ammunition and further improvements to the fire control system and to automotive components.

320. Both of our land-based anti-tank missile systems, the long range Swingfire and the medium range Milan, are to be fitted with night sights and improved missile warheads. Further orders have been placed for extra Milan firing

posts and missiles as part of our programme for increasing levels of war stocks. The helicopter-launched anti-tank system, Tow, is now fitted to over half our fleet of Lynx helicopters and the remainder should be equipped shortly. As with Milan and Swingfire, Tow is also being fitted with an improved warhead to maintain its effectiveness against better Soviet protective armour. For the future, work has already begun with our French and German allies on defining a new generation of anti-tank missile systems for the 1990s.

321. Our current family of anti-armour weapons will be completed with the introduction into service of LAW 80 the short range, lightweight system designed for use throughout the Army.

322. Progress is also well advanced on new ranges of full width attack fuzes for fitting to our anti-tank mines. This will greatly increase their effectiveness, giving them the ability to attack the belly of oncoming tanks and other armoured fighting vehicles, as well as their tracks.

323. Another preoccupation for BAOR is air defence. The major new development here in the next few years will be the fielding of four batteries of Tracked Rapier whose mobility and enhanced speed of reaction will make a significant contribution to the battle in forward areas.

324. The capability of the Royal Artillery will be greatly improved by the introduction - in the middle of the decade - of MLRS (Multiple Launch Rocket System) and - in the later 80s - SP70, the Self Propelled howitzer. The effectiveness of these - and of current in-service guns - will be enhanced by

BATES, the Artillery computer. The Infantry will become more mobile with the introduction over the next few years of the new wheeled Armoured Personnel Carrier (AT105/Saxon) and later in the decade of the Mechanised Combat Vehicle, MCV 80. In addition to these improvements to front-line weapons, war reserves and stock levels are also being increased.

RAF

325. The major improvement to the offensive power of the RAF is being brought about by the introduction of the Tornado GR1. Besides other weapons this aircraft will be equipped with the JP 233 airfield attack weapon for which the production order has now been placed. It will also be equipped with air-to-air missiles for self-defence and the Sky Shadow electronic counter-measures pod. The Jaguar will continue in service in the ground attack and tactical reconnaissance roles, for operations on NATO's flanks, after the Tornado GR1 squadrons have formed in the UK and in RAF Germany. These, like all the RAF's offensive aircraft, will be equipped with active jammers. Development is continuing of the Anglo-American improved Harrier which is planned to re-equip the RAF Germany Harrier squadrons. Harrier GR3 and GR5 aircraft will be equipped with integrated radar warning receivers and ECM equipment full development of which will start during 1983. An improved version of the BL 755 anti-armour weapon is being acquired for offensive support aircraft.

326. For the longer term, we are participating in an experimental aircraft programme which will provide a sounder technological basis for later decisions on future combat aircraft [options for anti-radiation missiles for use overland are being evaluated;] plans are proceeding to develop a new generation of

short and medium range air-to-air missiles under a collaborative Memorandum of Understanding with the United States, West Germany and France; and research is beginning into and advanced airborne anti-armour weapon for the 1990s and long range stand-off air-to-ground missiles carrying conventional munitions.

MARITIME FORCES

Royal Navy

327. We remain committed to the maintenance of strong and flexible naval forces equipped with modern weapons, sensors and aircraft capable of playing a major part in NATO's maritime defence effort in the Eastern Atlantic and Channel and of deploying worldwide in support of our interests and those of our allies outside the Alliance area. These forces include the Royal Marines, whose special expertise and versatility make them particularly valuable for tasks both within and beyond the NATO area.

328. With the retention in the Fleet of HMS Invincible we plan that two carriers should be operational at any one time with the third in refit or on standby. A programme of mid-life improvements to the weaponry, radar and associated equipment of the Sea Harrier is planned. The international project definition phase of the Anglo-Italian EH101 helicopter project is now complete. This helicopter is designed to replace the Sea King and will operate from carriers, frigates and Royal Fleet Auxiliaries.

329. The strength of our force of nuclear-powered hunter-killer submarines is continuing to increase. Eleven SSNs are in service and five more are currently

on order and we have invited tenders for a further vessel. Initial design and development work on the new type of conventional submarines is well in hand and a tender has been received for the first of the class. We expect to place an order later this year.

330. The building programme of major surface ships also continues. Last year the second ASW carrier HMS Illustrious, three Type 42 destroyers HM Ships Liverpool, Manchester and Nottingham and the Type 22 frigate HMS Brazen entered service. The ASW carrier HMS Ark Royal, three Type 42 destroyers and eight Type 22 frigates, including three ordered as replacements for Falklands losses, are currently on order. Our plans for a new warship, the Type 23 frigate are discussed at paragraph 332. At present the front-line force of destroyers and frigates stands at 59. Numbers are expected to decline to about 50 later in the decade with the balance between front-line ships and those in the Standby Squadron to be decided in the light of requirements and resources.

331. Considerable progress is being made in many areas on the weapons and sensors available to the Royal Navy. The past year has seen our capability improved by the entry into service of the Sea Skua air-launched, and Sub-Harpoon underwater-launched, anti-ship missile systems. The lightweight torpedo Stingray was deployed to the South Atlantic by both the Royal Navy and the Royal Air Force and is due to be formally accepted into service shortly. The new heavyweight Spearfish torpedo should enter service later in the decade. A wider fit of modern long range radars and the introduction of a new medium range surveillance radar with improved resistance to electronic countermeasures will provide the Fleet with an enhanced capability to detect

low flying missiles. Plans for new equipment in the electronic warfare field are well advanced. Development and production orders were placed last year for work to improve further the resistance of the Sea Wolf's surveillance radar to jamming and to provide a new lightweight tracking radar which will greatly enhance the all weather capability of the system to engage low level targets. Work to improve the effectiveness of the Sea Dart medium range air defence missile system continues. The first new military communications satellite is expected to be launched in 1985, and will significantly enhance our maritime communications.

332. Design work is now well under way on the Type 23 frigate. This new class of ship will complement the existing Type 22 frigate, and will be designed to conduct anti-submarine warfare (ASW) in the North Atlantic and general purpose duties worldwide. ASW is the most challenging of all our maritime tasks. The scale of the Soviet threat underlines the vital need to defend the trans-atlantic shipping on which we would be highly dependent in time of tension or war for the reinforcement and resupply of the European theatre of operations and the United Kingdom base. We also have a key role to play in providing ASW protection for the NATO Striking Fleet. The Type 23 frigate will incorporate the most modern technology to enable it to perform these vital roles. It will be fitted with a towed sonar to detect hostile submarines at long range in deep water and a hull mounted active sonar for shallow-water detection. Contacts will be prosecuted by the ship's own ASW helicopter, which will be equipped to pinpoint the target and attack it with Stingray torpedoes.

333. The Type 23 will be armed with the Sea Wolf short range anti-missile

system incorporating the latest improvements. Its equipment will also include modern surface-to-surface guided weapons and a torpedo launching system for close range defence against submarines. New radars and the most advanced command system are also planned. To optimise the performance of its ASW sensors, the ship will be powered by uniquely quiet diesel electric engines in combination with the new marine version of the Spey gas turbine. The Type 23 design will take account of experience gained in the Falklands campaign. The need to keep costs down has been given close attention throughout the design stage. This is reflected, for example, in the reduction of over a third in the ship's complement by comparison with the Type 22. Detailed design work is now well in hand at Yarrows, the lead shipbuilders, and we have employed outside consultants to advise on any areas where an alternative approach might produce the same capability more economically.

RAF

334. Two squadrons of Buccaneer aircraft will be run on in the maritime strike attack role. These and the Royal Navy's Sea Harrier aircraft will be equipped with the advanced Sea Eagle sea-skimming anti-ship missile for which production orders were placed last year. The programme to convert 34 Nimrod aircraft to the MR2 standard, which includes greatly improved navigation, anti-submarine sensors and the Searchwater radar, is proceeding. During the Falklands campaign, some of the Nimrod maritime reconnaissance aircraft were fitted with the Harpoon air-to-surface missile, which together with the aircraft's Searchwater radar provides a formidable anti-shipping capability; all Nimrod

MR2 aircraft will be capable of carrying this missile, and short range air-to-air missiles. The Nimrod maritime reconnaissance and AEW fleet will also be equipped with air-to-air refuelling probes.

RE-ORGANISATION OF LAND FORCES

Regular Army

335. By the middle of 1983, the re-organisation of 1(BR) Corps into three larger and more powerful divisions will be complete. The new organisation will give the flexibility and balance necessary to fight the immediate tactical battle (particularly if there is only a short warning of attack) and provides a credible Corps reserve. A fourth division has been formed in the United Kingdom around Headquarters 2nd Infantry Division at York which was relocated from BAOR earlier this year. It became fully operational on 1 April 1983 and comprises one all-regular brigade and two predominantly TA brigades. It would move to BAOR on mobilisation and assume responsibility for securing the Corps rear area. By streamlining Headquarters and pruning administrative staff, the new structure of 1(BR) Corps will contribute to reducing BAOR to the 55,000 level to which we have upheld for over 20 years under our Brussels Treaty commitments.

The Regular Army Reserve

336. In the 1980 Statement on Defence Estimates it was announced that Regular Army Reservists would be required to report once a year. This reporting measure which was designed to increase the readiness of the Reserves has

proved to be very successful. Over the last two years the response rate has been over 90%. It is intended to complement this reporting arrangement with opportunities for the Regular Army Reserve of Officers and Regular Reserves to take part in exercises and eventually to undertake refresher training. Thus, for example, a limited number of volunteers from these reserves will move to BAOR for 10 days and take part with regular and TA units in a major NATO exercise. In about two or three years' time it is planned to introduce a week of refresher training as a normal part of reserve service. This training which will take place once during the period of reserve service will be a natural extension of the annual reporting scheme and will constitute a cost effective way of ensuring that the Regular Army Reserve of Officers and the Regular Reserves are able and ready to take on their military roles in an emergency.

Territorial Army

337. On mobilisation, the TA would contribute to two key tasks: the reinforcement of BAOR, and home defence. Approximately half the TA would reinforce BAOR, including the 2 TA Infantry Brigades (15 and 49) which, together with a wholly regular Infantry Brigade (24), constitutes second Infantry Division, together with reinforcements for the Divisions stationed in Germany in peacetime and for British Support Command. The TA also contributes to the UKMF(L), which forms part of SACEUR's Rapid Reinforcement Plan. The remainder of the TA would contribute to Home Defence. The expansion of the TA announced in Cmnd 8288 is well underway and will increase the capability of the TA in both areas. For example, on 1 April 1993, the three home defence Yeomanry regiments were given a new role in light reconnaissance. The equipping of TA units to

the standard of Regular units is progressing well: last year saw the introduction to service with the TA of the Milan anti-tank guided weapon system which will, in due course, be supplied to all 1 (BR) Corps reinforcing battalions. The formation over the last year of training teams for specialist training and recruit reception will help to improve recruitment and retention. We are confident that the expansion of the TA beyond its December 1982 strength of over 72,500, to the planned figure of 86,000 by the early 1990s, will be achieved.

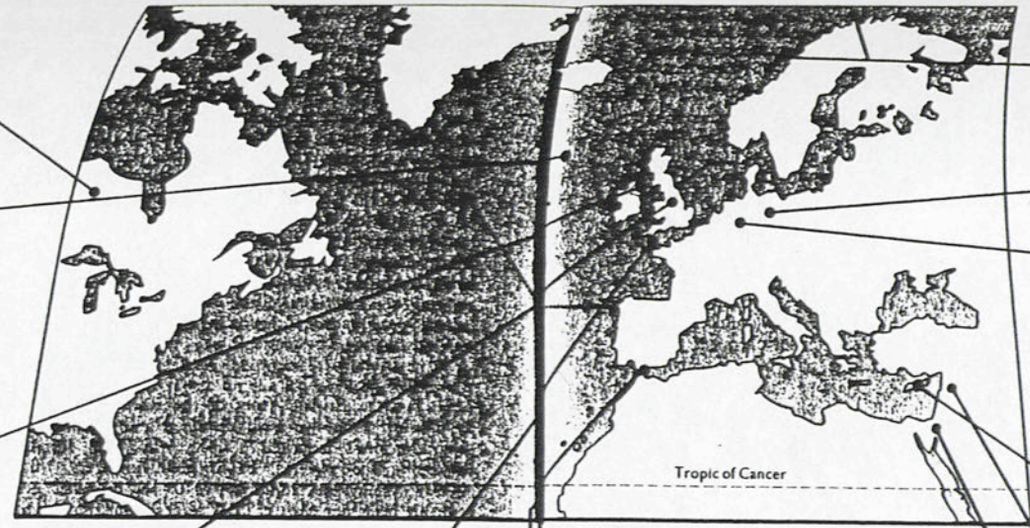
Home Service Force

338. The decision to form a Home Service Force was announced on 3 March 1982. Its role will be to provide static guard forces for lower priority key points in times of tension or war, thus relieving more highly trained units for other tasks. Recruitment of four pilot companies, attached to local Territorial Army Units, in Eastern Scotland, East Anglia, the Midlands and Berkshire began on 1 September 1982. Admission to the Home Service Force is open to ex-Regulars, past or present members of the Territorial Army and certain other categories with relevant service experience, between the ages of 20 and 50. Recruitment is progressing extremely well and training is already underway.

Royal Auxiliary Air Force Regiment Squadrons

339. Since the beginning of 1982, three additional Royal Auxiliary Air Force Regiment squadrons have been raised for the ground defence of Royal Air Force

Figure 2 Deployment of the Armed Forces, Early 1983



Canada

Army Training Unit

Eastern Atlantic and North Sea

Royal Navy

Destroyers	Offshore Patrol Vessels
Frigates	Survey Vessels
Submarines	Shore-based
RFAs	Wessex and
MCMVs	Sea Kings

Royal Air Force
Buccaneers, Canberras
Nimrods, Phantoms and Victors

Northern Ireland

Royal Navy
MCMV Patrol

Army
HQ Northern Ireland
2 Brigade HQs

1 Engineer Squadron
6 resident Infantry Bns
2 roulement Infantry Bns
2 Squadrons AAC
11 UDR Bns

Royal Air Force
Wessex
Pumas
1 Squadron RAF Regt

Great Britain

CVS

Royal Navy
Destroyers
Frigates
Submarines
RFAs
MCMVs
Survey Vessels
Helicopters
Royal Marines Commando Forces
Royal Marines SBS

Army
Specialist Reinforcement units for NATO.
Reinforcements for BAOR
Forces for UK defence
1 SAS Regt

Royal Air Force
Buccaneers, Canberras, Chinooks, Harriers, Jaguars, Lightnings, Nimrods, Phantoms, Pumas, Hercules, VC10s Shackletons, Tornados, Victors, Vulcans, communications aircraft and helicopters
RAF Regiment Squadrons
Bloodhound, Rapier

Channel

Royal Navy

Destroyers	Offshore Patrol Vessels
Frigates	Shore-based
Submarines	Wessex and
RFAs	Sea Kings
MCMVs	

Royal Air Force
Canberras and Nimrods

Gibraltar

Royal Navy
Frigate

Army
1 Specialist Team RE
1 Infantry Bn
1 Surveillance Troop Royal Artillery

Forces outside NATO Area

Hong Kong
Patrol Craft,
RM Raiding Squadron
1 Gurkha Engineer Regt.
1 UK Infantry Bn.
4 Gurkha Infantry Bns.
1 Squadron AAC
1 Wessex Squadron

Belize
1 Armd Recce Troop
1 Field Artillery Battery
1 Light AD Detachment,
1 Infantry Bn.
1 Detachment AAC.
Harriers, Pumas
½ Squadron RAF Regt.

Brunei
1 Gurkha Infantry Bn.
1 Flight AAC

Falkland Islands
Submarines, Destroyers, Frigates, RFAs.
1 Infantry Bn. group incl 1 RM Company.
Phantoms, Harriers, Hercules, Chinook, and Sea King helicopters.
Rapier Air Defence systems.

Diego Garcia
Naval Party
RM Detachment

West Indies
CVS, Destroyers, Frigates, Submarines, RFAs, survey vessels.

Indian Ocean
Frigate, RFA

Pacific Ocean
Royal Yacht
Frigate, RFAs

Norway and Denmark (exercises)
Royal Navy
CAH/LPH, LPD, Frigates, RFAs
Royal Marine Commando Brigade HQ.
2 RM Commandos with combat and logistic support, RM Raiding Squadron. Sea Kings.
RAF
Harriers, Jaguars, Pumas, Chinooks

Berlin
1 Infantry Brigade

West Germany

British Army of the Rhine
1 Corps HQ
3 Armd Divisions
1 Artillery Division

RAF Germany
Buccaneers, Jaguars, Tornados
Phantoms, Harriers,
Pumas, Chinooks
Bloodhound, Rapier
RAF Regt Squadrons

Cyprus

Army
1 Engineer Support Squadron
1½ Infantry Bns
1 Flight AAC

Royal Air Force
Wessex
1 RAF Regt Squadron

UNFICYP Contingent
½ Infantry Bn.
1 Flight AAC

Lebanon
MNF contingent
Force HQ.
1 Armd Recce Squadron

Sinai
MFO detatchment

Legend

AD – Air Defence
Armd – Armoured
Bn – Battalion
CMS – Coastal Minesweeper
CVS – Anti-Submarine Carrier
MCMV – Mine Counter- measures Vessel
Recce – Reconnaissance
RE – Royal Engineers
Regt – Regiment
RFA—Royal Fleet Auxillary
HQ – Headquarters
SAS – Special Air Service
SACEUR – Supreme Allied Commander Europe
SBS – Special Boat Squadron
UDR – Ulster Defence Regiment
UNFICYP – United Nation Force in Cyprus
CAH/LPH – Commando Carrier
LPD – Assault Ship
AAC – Army Air Corps

stations in the UK. The total number of squadrons is now six and the long term aim is to add further squadrons.

BEYOND THE NATO AREA

340. The United Kingdom's defence resources must be concentrated on our key NATO tasks, but our defence policy must also take account of the threat to our own and more general Western interests outside the NATO area. The Alliance has acknowledged that the growing Soviet military reach and readiness to exploit unrest in all parts of the world make it increasingly necessary for NATO members to look to Western security concerns over a wider field than before, and not to assume that these concerns can be limited by the boundaries of the Treaty area. The United Kingdom's capability to act outside the NATO area was clearly demonstrated by the Falklands campaign. But, of course, as explained in paragraph 114, looking after our interests further afield need not mean direct military action; there are many ways in which our military capability and the skill of our forces can be used to maintain stability and to help friendly countries to strengthen their own defences.

341. One example of the use of our capability to operate outside Europe has been in support of peacekeeping operations in the Middle East. In February 1983, at the request of the Lebanese Government, an armoured reconnaissance squadron of about 100 men joined the multinational force in Beirut where it has contributed to the decrease in tension and the restoration of the Lebanese Government's authority in the city. This deployment and our continuing involvement with the UN forces in Cyprus and the military forces and observers along the Egypt-Israel border indicate the United Kingdom's willingness to

contribute to the maintenance of peace and stability in potential trouble spots.

The Falklands Garrison

342. The Falklands garrison comprises ships, aircraft and land forces and is designed to be of sufficient size to deter any further Argentine aggression. The garrison is maintained at a high state of readiness, and our capability to deploy rapid reinforcements from the United Kingdom has been tested. Since the repossession of the Falkland Islands last June our forces have begun a wide-ranging programme of measures to enable us to maintain a garrison on this scale. This programme includes the rapid construction by the Royal Engineers of a temporary runway at Stanley airfield, the erection of a number of pre-fabricated camps around the islands and the mooring of three large Floating hotels. Support of the garrison also requires a major logistic effort by air from Ascension Island and by sea. We have decided to construct a permanent strategic airfield capable of operating wide-bodied jets, which will significantly improve our ability to reinforce the garrison in an emergency and will also improve the roulement of personnel and the transport of supplies. The location and precise specification of the airfield will be decided shortly on the basis of tenders submitted by UK civil contractors.

343. Relations between the garrison and the islanders remain excellent. The forces have taken on tasks to help the rehabilitation of the civil community, including identifying and fencing Argentine minefields; the clearance of war debris and mines; and providing transport around the islands.

EXERCISES AND DEPLOYMENTS

344. The past training year was overshadowed by the Battle for the Falklands. Our successful operation proved the effectiveness of the realistic and demanding training carried out by the officers and men of the three Services. However, the reduction in resources available to support exercises, particularly movement resources, had some effect on the level of training but flexibility in all Services allowed the majority of the training programme, both within and outside the NATO area, to be completed. Details of the more significant exercises undertaken in 1982/83 are at Annex A and the world-wide deployment of our forces in early 1983 is illustrated in Figure 2.

MANPOWER

345. Though the manpower objectives set out in Cmnd 8288 will continue to guide further planning, as a result of changes arising from operations in the South Atlantic and of the need to provide for forces in that area, there will be adjustments to the timings of reductions, and increases in some areas. The rate of voluntary outflow has remained low, and fewer people left the Armed Forces in 1981/82 than in any year since the ending of conscription. This has had its effect on the need for recruitment, since there have been fewer vacancies. However, though the general situation is satisfactory, future trends, such as the projected reduction in the manpower pool over the coming years, suggest there are no grounds for complacency. Even now, against a background of a recruitment situation which is satisfactory overall there still continue to be problems in those categories which have been difficult in the past - officers and certain technical grades. Recruiting targets in

the past year were lower than those projected for 1983/84 and if an increased intake is to be secured measures to attract and retain men and women of the right calibre must continue to take high priority.

THE UNITED STATES FORCES IN THE UNITED KINGDOM

1. For historical and cultural reasons, Britain has always had especially close ties with the United States, and there has been an American military presence in the United Kingdom for an almost unbroken period of 40 years. From 1942 until the end of the Second World War, aircraft of the United States Air Force (USAF) operated from airfields in the United Kingdom. In 1948, when the Russians began the blockade of Berlin, American long-range bombers returned to bases in East Anglia. American Forces have remained in this country ever since as a major symbol of the United States' commitment to the security of Europe. Unlike the First and Second World Wars, we could not hope to defend ourselves against a Soviet attack for two or three years before the United States become involved; their presence in Europe in substantial numbers is essential if dererrence is to be effective.

2. Since the inception of the North Atlantic Alliance in 1949 successive British Governments have agreed to and welcomed the continued stationing of American Forces at bases in the United Kingdom. Today, there are some 27,000 American Service personnel and 32,500 dependants here, predominantly USAF, with just under 23,000 Servicemen under the command of the Commander Third USAF at Mildenhall, Suffolk. About 360 of the 800 or so aircraft which the USAF stations in Europe are in the United Kingdom. These aircraft are distributed among seven main operating bases: Mildenhall, Lakenheath, Bentwaters and Woodbridge in Suffolk; Alconbury in Cambridgeshire; Upper

Heyford in Oxfordshire; and Fairford in Gloucestershire. In an emergency, three further bases could be activated at short notice: at Greenham Common in Berkshire, Sculthorpe in Norfolk and Wethersfield in Essex. Together, these account for about 95% of the total USAF presence in the United Kingdom. Aircraft of the USAF would operate alongside the RAF from about a dozen other airfields in wartime. Greenham Common, mentioned above as a standby base and used in the past by the USAF B-47 nuclear bombers under the same arrangements as will apply to cruise missiles, and Molesworth in Cambridgeshire, formerly a USAF storage site, were chosen in 1980 as bases for the ground-launched cruise missiles. The first of these are planned to be deployed in Britain towards the end of this year unless agreement is reached in the Geneva negotiations which renders such deployment unnecessary. There are also a number of USAF storage depots and other logistic and communications facilities, in the majority of which little more than a score of men are stationed.

3. The scale of the American naval and land forces in the United Kingdom is very much smaller. The United States Navy has just under 4,000 personnel, most of whom serve at the important nuclear submarine support facility at Holy Loch in Scotland. There are in addition some communications and other support facilities. The United States Army stations about 200 Servicemen in Britain, of whom the majority are based at the logistic storage area at Burtonwood near Liverpool, and the balance at a number of other armaments, storage and communications facilities.

4. The American Forces are here in the interests of our mutual security, and every effort is made to promote friendship and understanding between American Service personnel and their dependants and the local communities. The voluntary work done by Anglo-American Community Relations Committees throughout the United Kingdom is a most valuable contribution to this. The United Kingdom provides the American Forces with local support and assistance in the same way as do other NATO member countries with Allied forces on their territory. In some cases, such as the provision of surplus defence land for operational and other facilities, this support is free of charge; in others it is provided on full or partial repayment. Repayment for construction and works maintenance amounted to some £70 million in 1981/82; in the years ahead, this expenditure is expected to rise even higher as new US construction projects are put in hand.

5. This expenditure directly benefits local economies by providing employment and income for British contractors and workers. Altogether the US forces based in the United Kingdom are expected to spend some £390 million in 1983/84. At least 25,000 workers are employed either directly or indirectly to meet their needs.

6. There are some who maintain that the presence of American Forces in this country increases Britain's chances of becoming a target in war. But to argue thus is to miss two crucial points: first, that in any conceivable conflict affecting Western Europe, the facts of geography and

the United Kingdom's intrinsic strategic importance would alone be enough to make this country a target for attack; and secondly, that the solidarity of the NATO Alliance, and its strategy of deterrence, are themselves our surest guarantee against war.

7. It is essential for the success of deterrence that the Soviet Union should be in no doubt that the United States will defend Western Europe. The deployment of American Forces in the United Kingdom, as in other European countries (amounting to some 500,000 Servicemen and their dependents), is the most visible proof of the United States' readiness to regard the security of their allies as inseparable from that of the United States itself. So far from putting the United Kingdom at greater risk, the presence here of US forces is a vital element in ensuring that war does not break out.

CHAPTER FOUR

THE BALANCE

401. A full assessment of the military balance between NATO and the Warsaw Pact depends on more than simple numerical comparisons. Factors such as strategic objectives and requirements, the age and quality of equipment and positioning of forces and training clearly play an important part. Nevertheless, numerical differences give an impression of the scale of the Soviet military effort and the degree of imbalance between NATO and Warsaw Pact forces.

THE SOVIET THREAT

402. The Soviet military build up in recent years is well illustrated by the steady increase in military expenditure. NATO's current estimate is that since 1970 this has risen by an average of 4 per cent a year in real terms, while NATO expenditure during the 1970s showed an overall slight decline. Soviet defence expenditure now accounts for some 14-16 per cent of GNP in current prices, over twice the level of any NATO country. Moreover with a largely conscript army and low labour costs the Soviet Union spends a much smaller proportion of its defence budget on personnel and can therefore devote a much greater proportion to equipment and research. The scale of existing programmes in the Soviet Union suggests that military spending will continue at a high level during the rest of the 1980s. In spite of their economic problems Soviet leaders have continued to stress that they will make available whatever resources are required for defence.

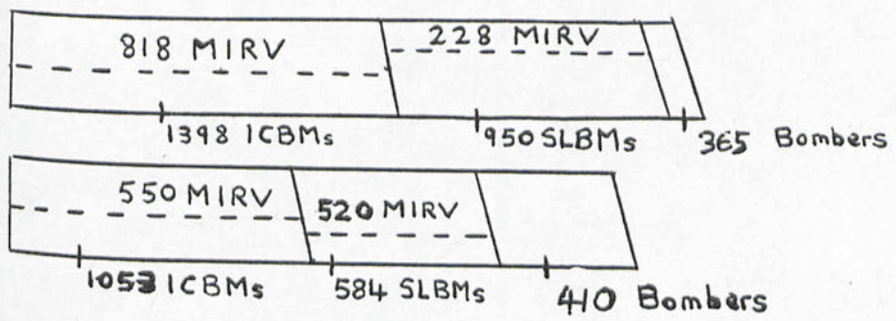
Nuclear Forces

403. The balance of nuclear forces at the end of 1982 is shown at Figure 3. At the strategic level, over the past decade the Soviet Union has improved the quality of its forces to a much greater extent than NATO. Since 1970 three new types of intercontinental ballistic missile (ICBM) and at least three new submarine launched ballistic missiles (SLBMs) have been introduced whereas the US has put only two new SLBMs into service. The MX ICBM, which the US is planning to deploy from 1986 as part of the modernisation of its strategic nuclear forces will be its first new ICBM since 1970. Currently the Soviet Union has several ICBMs, a new heavy bomber (Blackjack) and long-range cruise missiles under development and has recently tested a new ICBM.

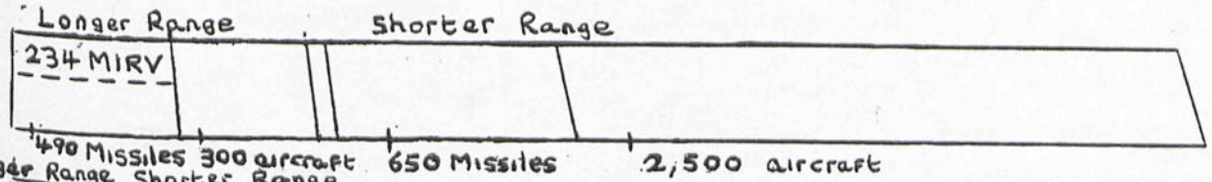
404. Below the strategic level, the intermediate-range nuclear forces (INF) and short-range systems of the Warsaw Pact and NATO are shown. Among the longer-range systems, the main change since the end of 1981 has been the increase in the deployment of SS20 missiles within range of Western Europe from 190 to about 245 (the total number of SS20 launchers deployed throughout the Soviet Union has risen from 279 to 351 on latest estimates). Some of the older SS4 and 5 missiles are being withdrawn slowly, but since the SS20 carries three warheads, the total number of nuclear missile warheads in this category has risen to some 1,300, of which about 1,000 threaten Western Europe. This compares with the 600 deployed in the early 1970s. NATO has no comparable missiles and since last year the number of NATO longer-range aircraft has reduced because of the completed withdrawal from service of the RAF Vulcan in the nuclear role. In contrast the Soviet Union has large numbers of Backfire bombers which pose a considerable threat to Western

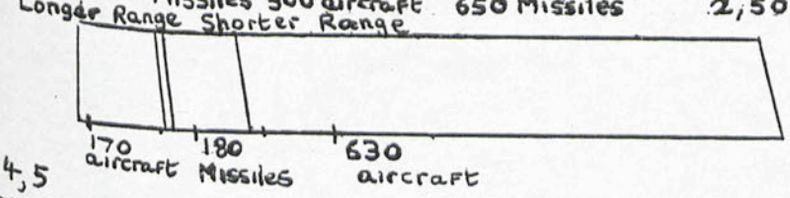
Figure 3 The Balance of Nuclear Forces, End-1982 [1,2]

Strategic Systems [3]

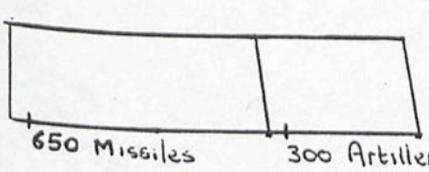


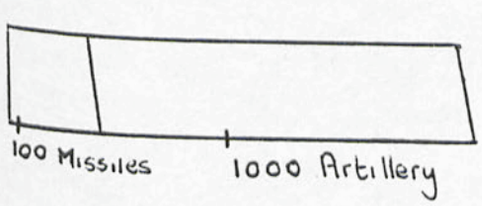
Intermediate Range [4,5] Nuclear Forces





Short Range [4,5] Nuclear Forces





Strategic Systems	Soviet Union ICBMs SS11, 13, 17, 18, 19 SLBMs SS-N-5 in Hotel Submarines, SS-N-6, SS-N-8, SS-N-17, SS-N-18, SS-NX-20 Bombers Bear, Bison, Backfire	NATO (all NATO systems operated solely by the US except where shown) ICBMs Titan 2, Minuteman 2, Minuteman 3 SLBMs Polaris (UK), Poseidon, Trident Bombers B-52, FB111	Notes 1. French systems are not included in this diagram. They comprise 64 SLBM, 36 Mirage IV bombers, 18 S3 missiles and shorter range Mirage IIIA and Jaguar aircraft and Pluton missiles. 2. The diagram does not include defensive systems such as ABM or air defence missiles and aircraft. 3. In accordance with NATO practice, strategic forces include operational systems fully within the definition used in SALT II plus the Soviet Backfire and US FB 111 aircraft which have an inherent inter-continental capability 4. Intermediate and short-range nuclear forces are land based systems in Europe west of the Urals. These figures do not include some 250 aircraft of the Soviet Naval airforce or some 20 aircraft of NATO airforces which have an anti-ship capability nor do they include sea-based nuclear capable systems on both sides which are normally deployed in the European theatre and which have a land attack capability, eg. 18 SS-N-5s on Soviet Golf class submarines in the Baltic and 20 A6 and 48 A7 aircraft on US carriers in the Mediterranean. 5. Longer Range intermediate nuclear Forces 1,000 to 5,500 KM. Shorter Range intermediate nuclear Forces 150 to 1,000 KM.
Intermediate Range Nuclear Forces	Soviet Union Longer Range Missiles SS4, SS5, SS20 Aircraft Badger, Blinder, Shorter Range Missiles Scaleboard SS22, Scud/SS23 Aircraft Fitter, Fishbed, Flogger, Fencer	NATO (all NATO systems operated solely by the US except where shown) Longer Range Aircraft F111 Shorter Range Missiles Pershing I (US, FRG) Aircraft F4, F104 (Bel, FRG, Gr, It, Nl, Tu) Jaguar (UK) Buccaneer (UK) Tornado (UK)	
Short Range Nuclear Forces	Soviet Union Missiles Frog/SS21, 203 mm & 152 mm Artillery howitzers and 240 mm mortars	NATO (all NATO systems operated solely by the US except where shown) Missiles Lance (Bel, FRG, It, Nl, UK, US) Honest John (Gr, Tu) Artillery 155 mm (Bel, FRG, Gr, UK, US) and 8 inch (Bel, FRG, Gr, It, Nl, Tu, UK, US) howitzers	

Europe. Since last year the imbalance between the Soviet Union and NATO of missiles and aircraft in this category has increased from 4:1 to 5:1.

405. Below this level the new SS22 has been, and SS23 missiles will be, deployed by the Soviet Union as replacements for the Scaleboard and Scud missiles, although NATO's only comparable missile still remains the 20 year old Pershing I. Similarly among the short range systems, new Soviet SS21 missiles continue to be introduced as replacements for the Frog, while the most recent NATO missile system in this category is the 10 year old Lance.

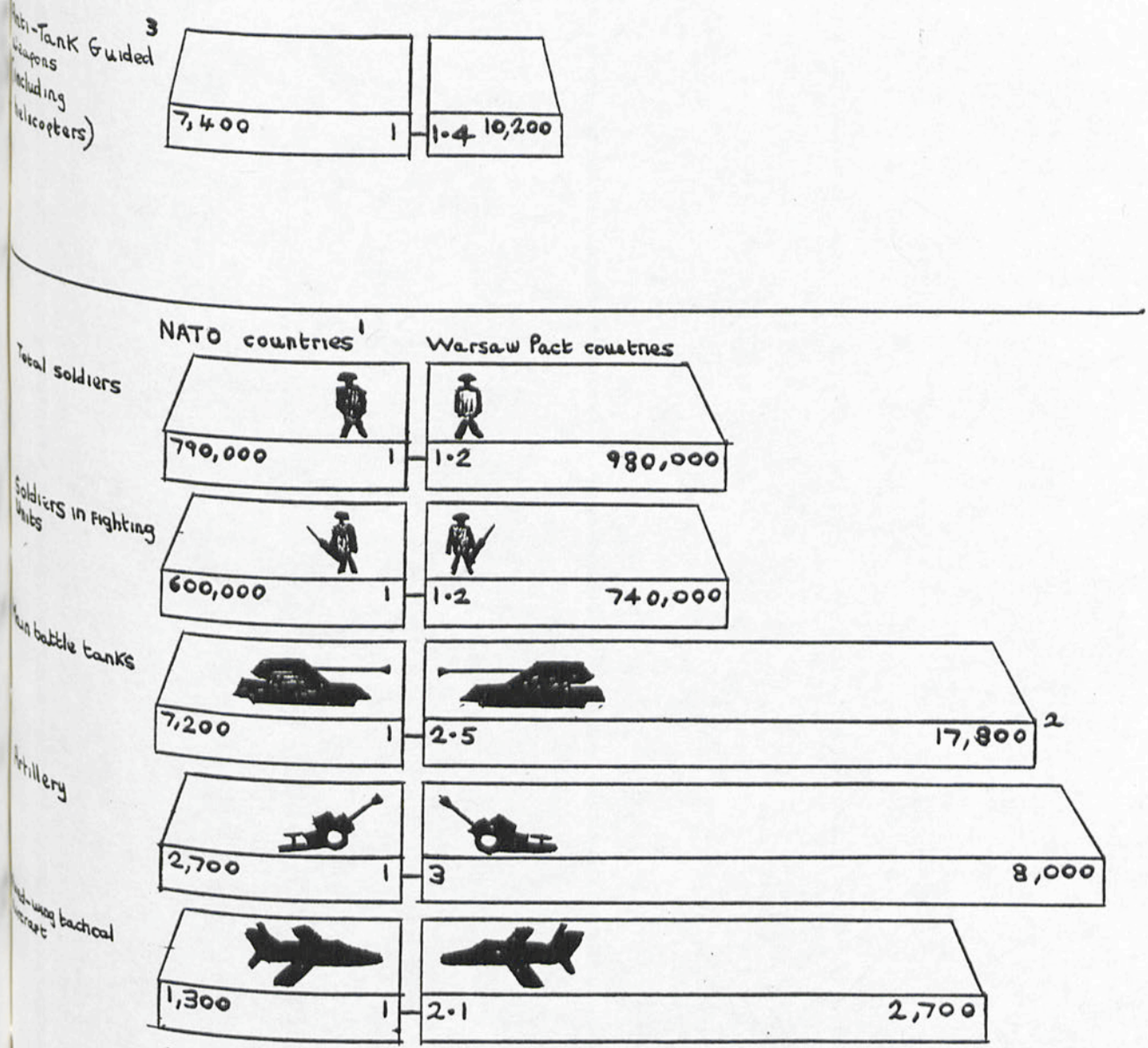
The Conventional Land/Air Balance

406. In conventional forces, as in nuclear forces, there have been significant improvements in Soviet capabilities in recent years, particularly in firepower and mobility. Modernisation of the tank force continues; most units in the forward area are now equipped with the latest T64/T72 types supported by the BMP infantry fighting vehicle and new self-propelled artillery. The fighting efficiency of these forces has been improved by the addition of extra infantry and artillery units to tank and motor rifle divisions.

407. Air power has been enhanced by the acquisition of modern swing-wing fighters which are dual capable and have considerably improved range and pay load over their predecessors. Improved avionics have increased their bad-weather capability and their ability to deliver weapons accurately. A new ground attack aircraft, Frogfoot, has been tested in Afghanistan and could possibly be introduced into Eastern Europe to complement the existing large numbers of Hind attack helicopters. In addition two new air-superiority

Figure 4

The Current Balance of Forces on the Central Front

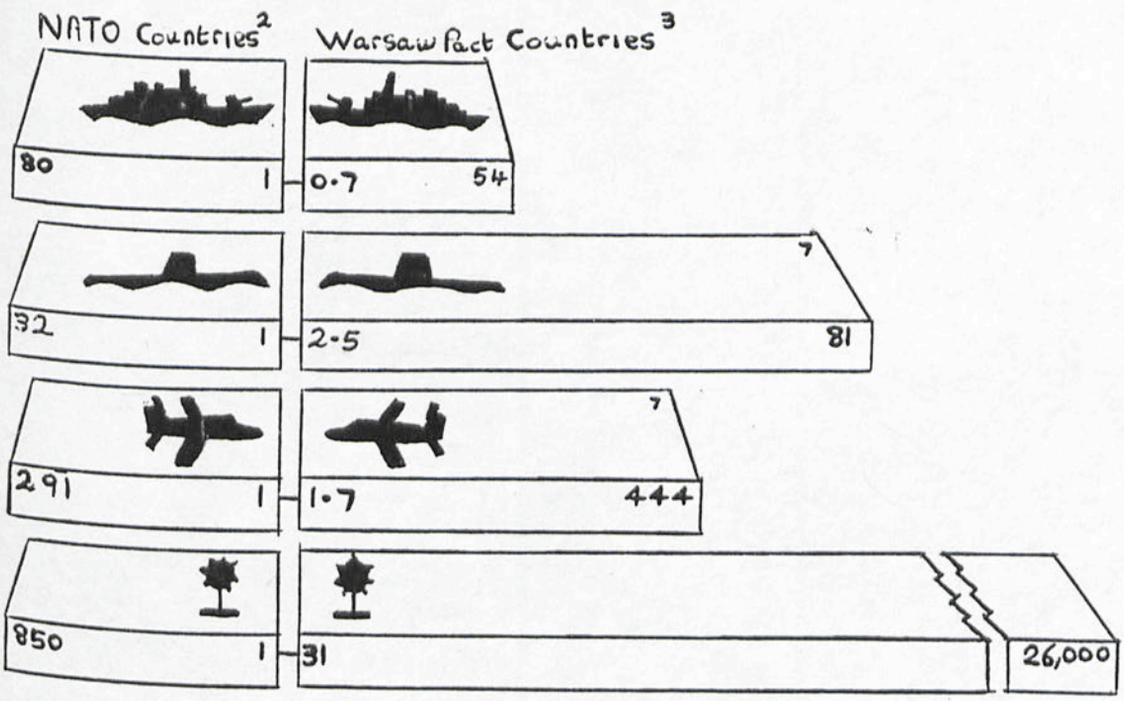


1 Including French forces in the Federal Republic of Germany but excluding the Berlin garrison, which is not declared to NATO

2 Includes some Warsaw Pact tanks in training units and storage which would be available for operational use

3 Weapons which are, or have the capability of being, vehicle or helicopter mounted.

gure 5 The Current Balance of Ready Maritime Forces in the Eastern Atlantic[1]



es

the purposes of this diagram the Eastern Atlantic comprises the NATO command areas CHANNEL, EASTLANT IBERLANT. British Forces normally operate in CHANNEL and EASTLANT but also on occasion in the more southerly IBERLANT

ludes French maritime forces

saw Pact forces comprise Northern Fleet surface ships, submarines and maritime aircraft and Baltic Fleet time aircraft

face ships of Frigate size and above

ludes SSBNs and certain submarines not formally committed to the Eastern Atlantic

ludes helicopters

threat to NATO is increased by the Warsaw Pact's capability to deploy a total of 350 -ship missiles with a range of over 200 km in its ready maritime forces. NATO has no valent capability

fighters, which will be equipped with advanced 'look down shoot down' radars, are under development. These advances are narrowing the technological gap between NATO and Soviet aircraft which has hitherto provided NATO with some compensation for the Soviet Union's overwhelming numerical superiority. The position in the Central Region is graphically demonstrated in Figure 4.

408. To the main categories of armaments should be added chemical weapons. The Soviet Union has a major capability in this field. Continuing R&D and production of chemical weapons is adding to their stockpile, already assessed to be over 300,000 tons. Moreover, Soviet forces are comprehensively equipped and trained to operate in a contaminated environment. Among NATO members only the United States has chemical weapons; but its stocks are much smaller, ageing and not declared to NATO. US plans to modernise its capability must be viewed against the continuing scale of the Soviet threat. A comprehensive and verifiable ban on chemical weapons remains the aim of the NATO Allies and there is some indication that the Soviet Union has been more active in negotiations since the US plans were announced.

Maritime Balance

409. The building programme of the new classes of surface ships and submarines continues relentlessly. In three decades the Soviet Navy has been transformed into a major force capable of projecting Soviet power and threatening Western economic and security interests throughout the world. Surface ship construction in recent years has concentrated on large and powerful vessels such as the Kiev aircraft carriers and Kirov cruisers which are particularly suited to this role. At present there are still weaknesses in Soviet Fleet

support and air cover but a large nuclear powered aircraft carrier is likely to appear later this decade. Figure 5 shows the present maritime balance in the Eastern Atlantic but cannot reflect the critical dependence of NATO on secure sea communications with North America. The Soviet naval shipbuilding programme is the largest in the world; some idea of its scale can be gained from the completion of nine major submarines in 1982 compared with only two in NATO.

Conclusions

410. The overall picture remains of an unremitting Soviet build up both in nuclear and conventional capability. This trend has continued for well over a decade, even through those periods which we in the West regarded as the high point of detente. The Alliance cannot ignore these facts, and while we must not dismiss any genuine offers from the Soviet Union which could lead to disarmament or a reduction in tension, common prudence dictates that Soviet deeds rather than words will always be a surer guide to their real intentions.

NATO'S RESPONSE

411. It was recognition of the need to respond to the unflagging growth of the Soviet threat that led the member nations of NATO to agree, in 1977, that they should aim for annual real increases in defence spending of around 3%. We remain firmly committed to this target. Simply committing more resources to defence is not enough however; and in a democratic society there are constraints on the total level of defence spending. It is equally important therefore that we and our Allies make more efficient use of the

resources we have. At a summit meeting in June 1982 NATO leaders recognised this, and in the communique issued after the summit urged the Alliance to examine ways of meeting this need. Our experiences in the Falklands, for example in the conversion and use of civil assets for military duties, could be relevant. We have kept our allies informed of the lessons that emerged from the conflict.

412. NATO needs to respond most vigorously to the conventional threats. This was another of the principal points to emerge from the NATO summit. But it is not necessary for NATO to match the Warsaw Pact tank for tank and gun for gun: nor indeed is it necessary for NATO's essentially defensive forces to mirror too closely the structure of the essentially offensive forces of the Warsaw Pact. In the longer term it may be possible for the Alliance to take advantage of new technology emerging in the United States and elsewhere to produce conventional weapons systems with a much increased capability and in particular with the ability to strike accurately targets far beyond the battlefield. The implications of a successful combination of new technology and certain new tactical concepts are discussed in greater detail on page [ ]. It is important to stress that any changes to NATO's plans which emerge from the exploitation of new technology and the use of new tactics will be firmly rooted in the existing framework of the Alliance's strategy of flexible response.

413. The Soviet threat not only manifests itself in and around Europe. The dramatic increase in the Soviet Navy mentioned in the previous section is the most tangible evidence of a massively increased Soviet ability to project power world wide. The increase in the numbers of Soviet military advisers

in Third World countries from 3,700 in 1965 (in 14 such countries) to about 15,000 in 1982 (in 31 such countries) is a less well-known but equally clear demonstration of their intent. The actions we are taking to maintain and improve the United Kingdom's ability to operate outside the NATO area reflect a shared recognition that there is a growing threat to Western interests outside the North Atlantic Treaty area. Although there is no intention to extend the Treaty area, other nations as well as ourselves are taking steps to improve their ability to counter threats to security in regions of vital interest to the West. For example the United States Rapid Deployment Task Force became operational on 1 January 1983 and is planned to reach its full strength in 1987; elements of the Force have already exercised in the Middle East. The United States is also expanding its Navy to 600 ships. The Government supports these American initiatives as a significant improvement in the free world's ability to promote stability and deter aggression in areas of importance to the West.

ESSAY

NEW TECHNOLOGY, NEW TACTICS

1. The nature of the Soviet conventional threat to the Alliance arises not only from the sheer numbers and weight of their forces and equipment, but also from the highly aggressive nature of their tactics. Soviet tactical doctrine relies on bringing overwhelming force to bear on a particular axis of attack, and maintaining intense pressure on defensive positions by the constant replacement of exhausted by fresh units so that the momentum of an attack can be maintained and defenders are faced with a seemingly never-ending stream of vigorous well equipped attackers. This tactic, if successfully carried out, could achieve the Soviet aim of the rapid and overwhelming defeat of NATO forces. However it demands detailed planning and a relatively rigid assignment of units to axes of attack. More importantly it requires that reinforcements arrive at the front line in good order and at the right time. If these units could be attacked before they reached the battle zone - in other words at some distance beyond the front line - the momentum of the assault would be disrupted, and pressure on the defensive line would be relieved.

2. This idea of striking deep behind the front line is not new. The interdiction of enemy airfields and other high value targets, principally by manned aircraft, has for some time been a feature of Alliance tactical

planning. What is new, however, is the extent to which NATO's ability to undertake interdiction missions at much increased range, and with more chance of success, could be improved by the exploitation of new technology. This is a feature of a number of new tactical concepts - the US Army's Air Land Battle 2000 for example - which are being studied in NATO. The Alliance is also considering work arising from the US initiative on Emerging Technology at the NATO summit meeting in June 1982.

3. The exploitation of new technology is potentially one of the West's greatest assets, since the free world's capacity for invention and innovation is much greater than that of the Soviet Bloc. This could be of immense importance in an era when the pace of technological change is increasing so rapidly. The most dramatic improvements stemming from technological advance are expected to occur in three broad areas:

a. Conventional weapons effectiveness. Development of systems like the Multiple Launch Rocket System (MLRS) could enable NATO to field conventional weapons with a greatly increased capability. The implications for enhanced conventional deterrence and a consequent raising of the nuclear threshold, are considerable.

b. Targetting. In order to create maximum disruption in the enemy's rear it will be important both to locate high value targets at considerable distance, and to guide weapons on to such targets. The

development of precision and terminally - guided munitions and suitable surveillance systems will be essential to achieve this.

c. Command and Control. If NATO's commanders have the ability to engage targets up to hundreds of kilometres away, this will place new pressures on the Alliance's command and control systems to provide accurate and timely information to enable the right decisions to be made, and to translate these decisions into immediate action.

4. The successful combination of new technology and new tactical concepts holds out considerable potential for a major improvement in NATO's conventional posture, and the hope of a significant raising of the nuclear threshold. In the shorter term, some elements of our future equipment programme, described in Chapter Three, offer the prospect of an increased ability to attack targets behind the front line. For example, MLRS, Tornado GR1 and the JP233 airfield attack weapon represent a considerable capability against enemy airfields and concentration of armour. In the longer term, we are considering options for an advanced airborne anti-armour weapon in the 1990s and studies are in hand to assess the potential effectiveness of conventionally armed long-range stand-off missiles as complementary systems to manned aircraft for the attack of airfields and other major static targets in the 1990s and beyond.

5. The introduction of new technology cannot take place overnight, nor should it be seen as a panacea for any weakness in our conventional forces. There are three main reasons for this. Owing to their long gestation period weapons systems that take advantage of even modest technological advances are unlikely to appear in numbers for some years; and more advanced systems may take a decade or more to appear. This is of little comfort when NATO faces a massive conventional threat now, and it highlights the need for the Alliance to make the best use of what it has. Another problem is that of cost. New technology is not cheap. There is a limit to how far quality can substitute for quantity, and advanced weapons will have to be deployed in sufficient numbers to provide a credible deterrent. The third problem concerns our potential adversary. The Soviet Union is hardly likely to idly by while the West develops weapons and tactics that take advantage of possible weaknesses in their strategic and tactical plans. We should not underestimate their ability to adapt their tactics. Nor should we ignore their ability to develop their own high technology weapons, weapons moreover that are likely to be as effective in attack as in defence. There is a related problem of control of technology transfer to the Soviet Bloc. The Soviet Union has had considerable success in the past in making use of Western technology for military purposes, and its efforts to acquire it are unlikely to diminish in an age of rapid technological advancement. Nevertheless, the ideas discussed in this essay might, if realised, lead to a major improvement in NATO's conventional capability. It will be important for the Alliance to study them closely

and examine ways in which they can be turned into realistic and specific proposals.

CHAPTER FIVE

MONEY, MANAGEMENT AND ORGANISATION

THE DEFENCE BUDGET

501. The cash limit for 1982/83 was originally set at £13288 million. This was increased to £13,606 million to allow for additional expenditure incurred as a result of the Falklands campaign, less a reduction in provision as a result of the reductions in the National Insurance Surcharge. We expect the 1982/83 outturn to be within the revised cash provision.

502. The defence budget for 1983/84 totals £15,973 million. This includes £624 million to meet Falklands costs. The defence cash limit is £15,036 million an increase of some 10% on the final 1982/83 cash limit.

503. Despite economic problems we have increased defence spending every year since taking office. In real terms the provision for 1983/84 shows an increase of about 19% over expenditure in 1978/79. Defence is now the second largest public expenditure programme. On the basis of average market exchange rates defence spending by the United Kingdom was higher in 1982 in absolute terms than any other major European ally; it was also higher per capita and as a proportion of GDP. NATO comparisons are illustrated in Figure 8. We remain committed to plan to implement in full the NATO target of 3% real growth in defence spending each year until 1985/86. The expenditure plans for defence announced in Cmnd 8789 provide for 3% real growth a year, with Falklands costs in addition.

Figure 6 Division of the Defence Budget by Principal Headings 1983/84

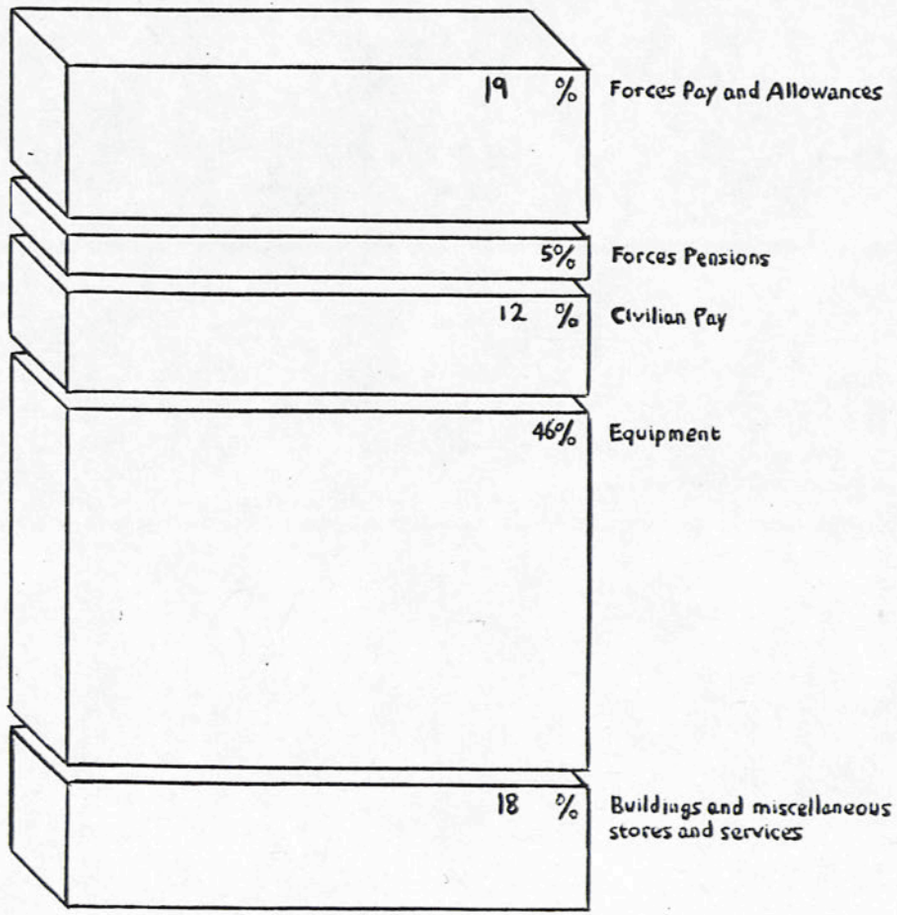


Figure 7. Analysis of Defence Resources (1983/84) by Major Programmes

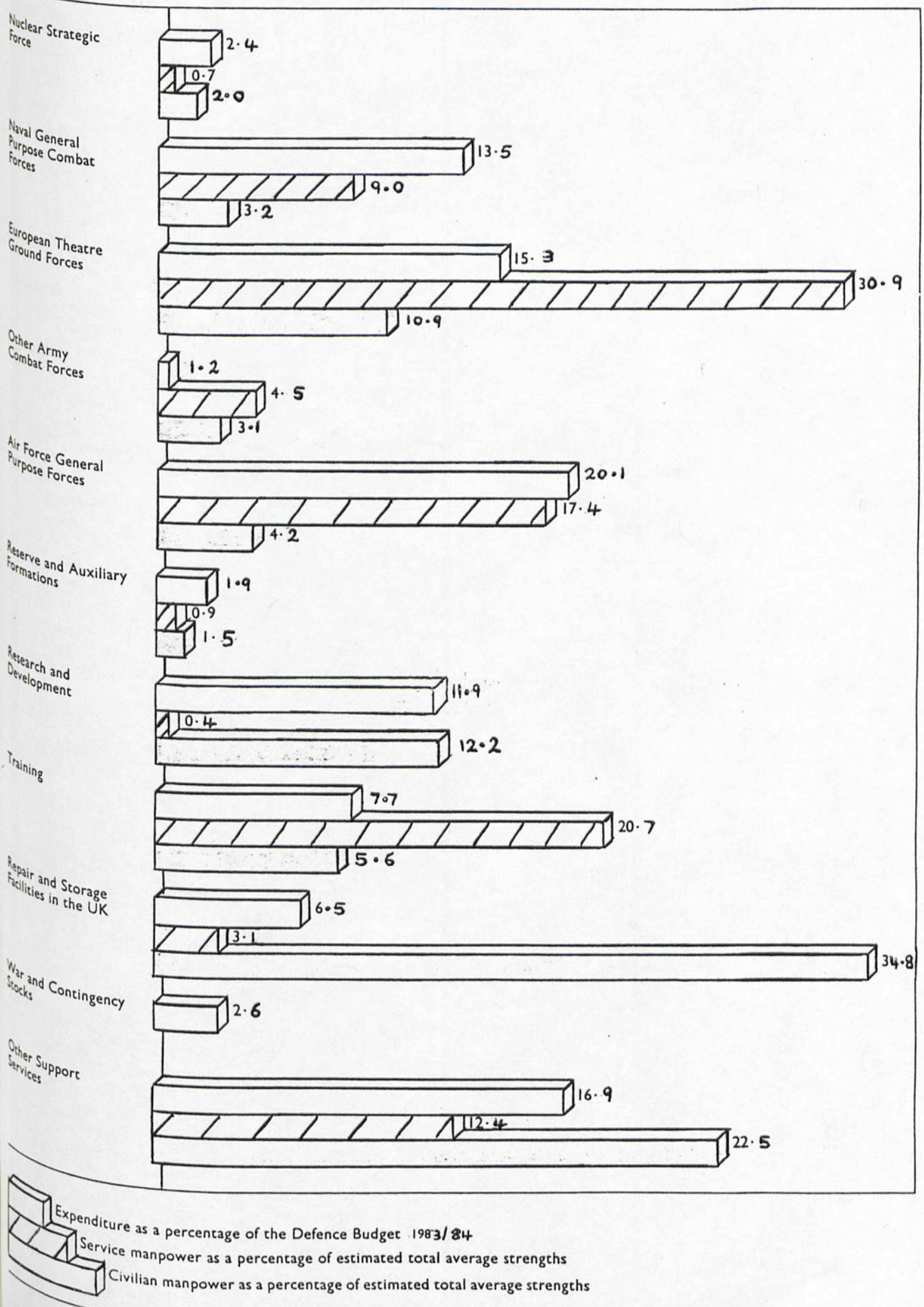
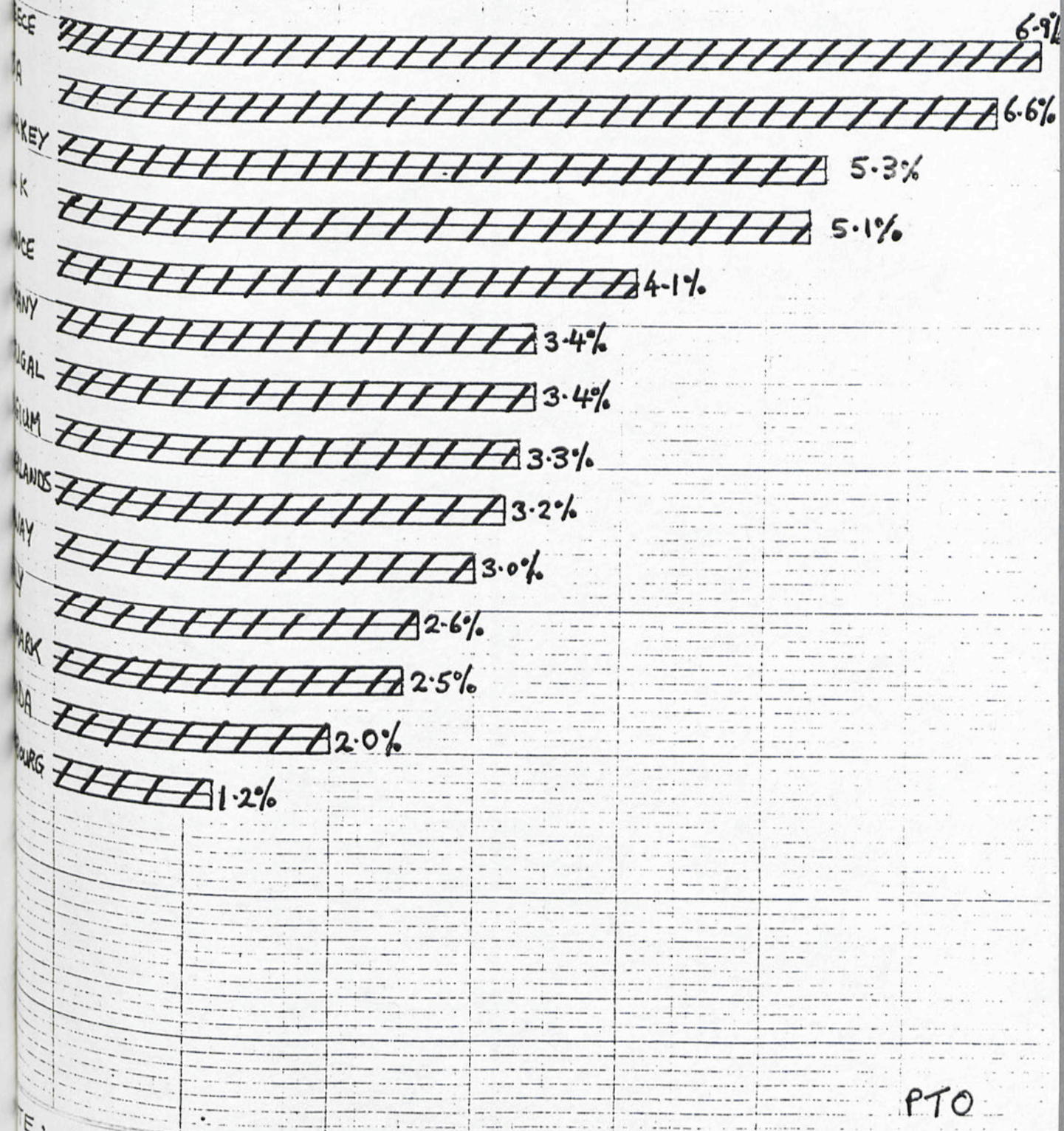


FIGURE [ ] Comparisons: NATO Countries 1982

Defence Expenditure as a percentage of GDP (at market prices).

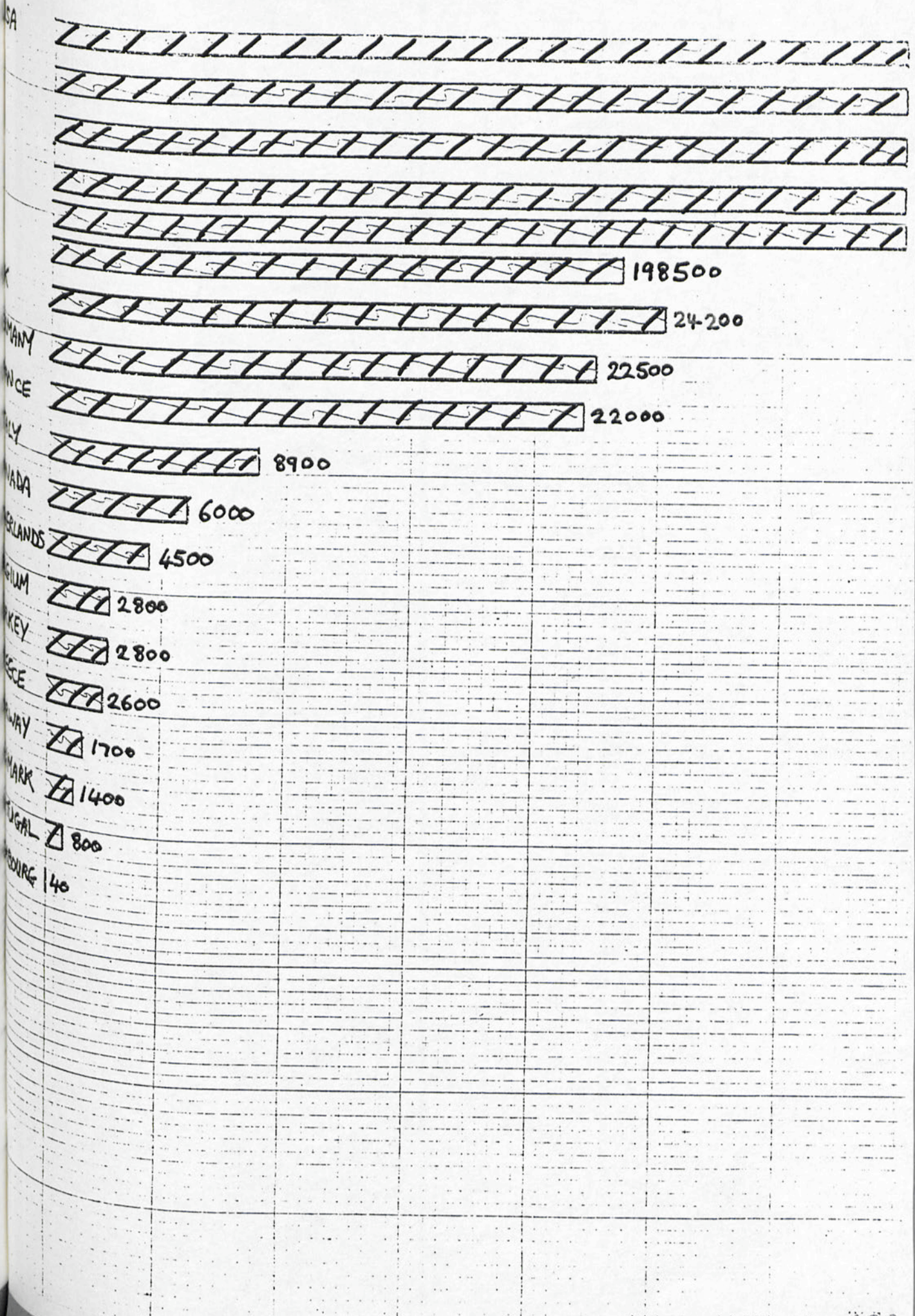


PTO

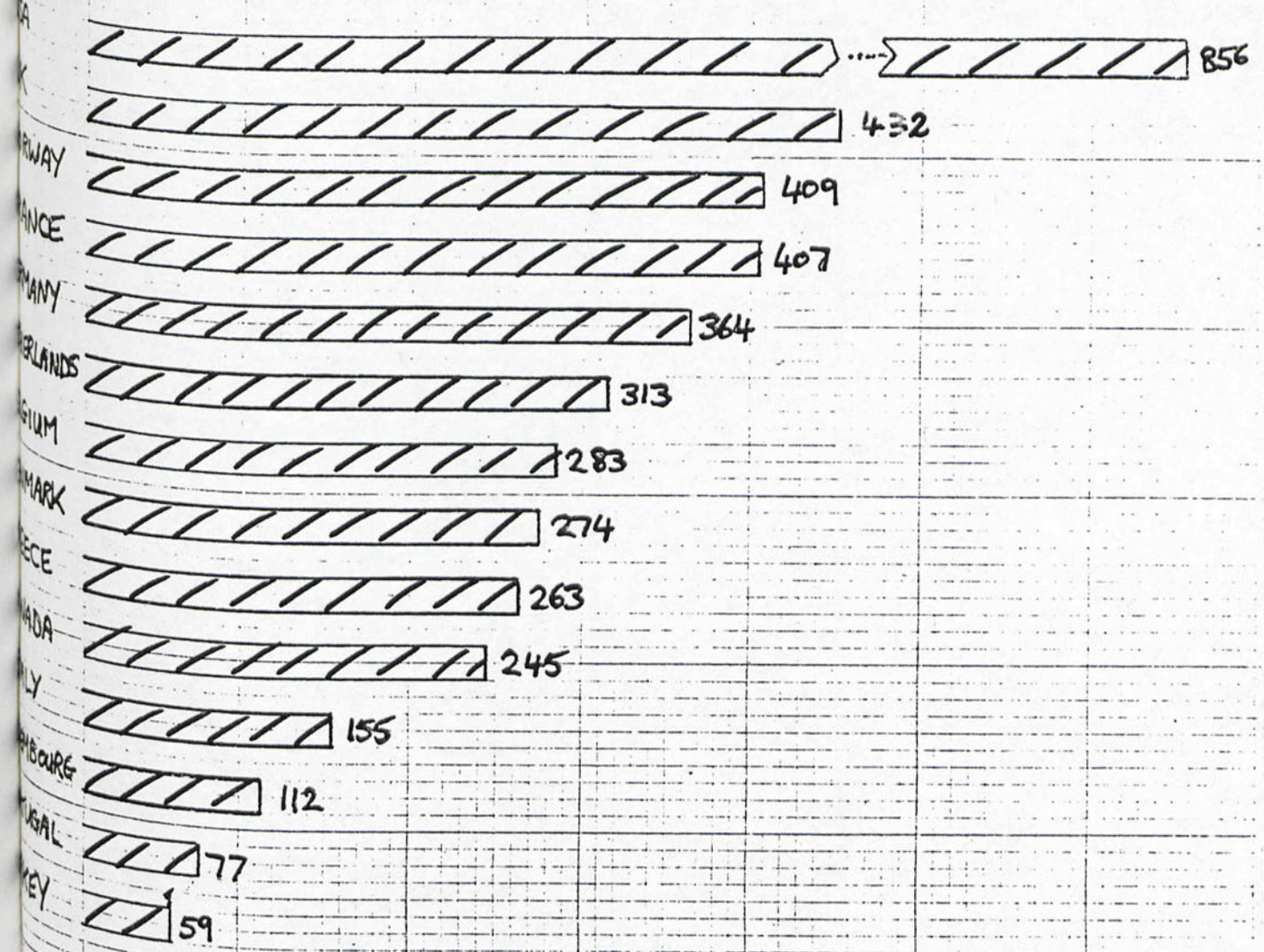
NOTE: These figures, which are provisional, have been compiled from NATO sources. Total expenditure and per capita figures are based on 1982 average market exchange rates. They reflect the fact that in 1982 the dollar appreciated less against sterling than against most other NATO currencies. Market exchange rates do not necessarily reflect the relative purchasing powers of individual currencies and so are not a complete guide to comparitive resource allocation to defence.

CONFIDENTIAL

Total Defence Expenditure (US $ million)



Per Capita Defence Expenditure (US $)



504. Figure 6 breaks down the 1983/84 defence budget by major categories of expenditure and Figure 7 analyses defence resources by major programmes. Volume 2 of this Statement contains a number of further analyses of the 1983/84 Estimates.

DEFENCE MANAGEMENT

505. Given the scale of defence expenditure, the Department has always placed particular emphasis on good management of its resources and on increasing the efficiency and effectiveness of its organisation. This is in line with our declared policy of improving the quality of public sector management. In order to make further substantial advances the Ministry of Defence is currently introducing the MINIS system of Management Information for Ministers and top management, based on the system already operating in the Department of the Environment.

506. The MINIS system is designed to provide top management - Ministers, senior officers and officials - with sufficient management information, particularly about activities, costs and performance, to provide an overall picture of all the functions of the Department and to allow them to exercise their management of these functions positively rather than reactively. It is being developed to link with and complement the management control, information and accounting systems which already exist in the Department and to encompass not only the headquarters organisation but also the major executive operations that implement defence policy. MINIS will cover some 150 individual management areas, typically headed by an Under Secretary, Rear Admiral or equivalent Service rank, each of whom will be required to produce a return setting out a

range of detailed information on their responsibilities and objectives, their performance in meeting these, and the resources, particularly manpower, allocated to them.

BUDGETARY MANAGEMENT

507. Further proposals for improving management of defence activities were set out in the Report of the Study of Financial Accountability, published in 1982 as Open Government document 82/25. Decisions on its recommendations are being taken progressively. One of the major proposals in the report is that a comprehensive system of Responsibility Budgets should be introduced with the aim of strengthening financial control over the cost of activities and giving greater financial responsibility to line managers. As a means of evaluating this proposal it has been decided to inaugurate a number of trials in the support field in 1983/84. In addition to these wider reforms the Department continues to play its part in the central programme of "Rayner" scrutinies and associated efficiency exercises as one means of ensuring that the sums expended on the support of the Armed Forces represent value for money.

CIVILIAN MANPOWER

508. The number of United Kingdom based civilians provided for in Estimates at 1 April 1983, together with those employed and funded separately in the Royal Ordnance Factory organisation, amounts to 209,000. Thus since we took office, United Kingdom based staff in the Ministry of Defence have already been reduced by nearly 39,000 (16%). A further reduction of 9,000

is being sought during 1983/84; we are therefore well-placed to achieve the target of 200,000 United Kingdom based staff set by us for 1 April 1984. Provision is also made in the Estimates for 34,174 locally engaged civilians serving overseas at 1 April 1983 and 32,503 at 31 March 1984. Within the economies in civilian manpower, financial savings of £1.9 million were achieved during the course of 1981/82 (equivalent to £5.8 million in a full year at 1981/82 prices) as a direct result of contracting out work previously undertaken by MOD civilian staff, mainly in the area of cleaning services.

509. We are presently reviewing our projected manpower requirements, including those for the Ministry of Defence, for the period April 1984 to April 1988. The results of this review will be promulgated in due course.

DEFENCE PROCUREMENT POLICY

510. Chapter Four of the Statement on Defence Estimates 1982 ("Defence Equipment: Costs and Choices") set out the major problem arising from the real increase in costs from one generation of defence equipment to the next. It also spelt out the measures being introduced to keep costs within bounds. Over the past year all these measures have continued to receive close attention, with the aim of maintaining the momentum. The wider policy issues have been examined on a number of fronts. During the course of the year the House of Commons Defence Committee completed an enquiry into Defence Organisation and Procurement, culminating in a Report which was published in July 1982. Our detailed observations on this Report were presented to Parliament in Cmnd 8678 of October 1982. The Committee took evidence, both oral and written, from a wide range of witnesses: Ministers, MPs, officials, representatives of industry,

and academics. Their Report identified two major themes arising in the course of their enquiry; the increasing emphasis on the Centre of the Ministry of Defence as a source of policy coupled with greater delegation of authority for the implementation of that policy; and the increasing need to associate contractors more closely with the planning of operational requirements. We were pleased to note that the Committee generally endorsed the thrust of the measures which the Ministry has been taking towards these objectives as well as the progress that has been made towards achieving them.

Defence Sales.

511. 1982 has proved a successful year for defence sales. Major orders were obtained for Rapier, FH70 Howitzers, fast patrol boats, torpedoes and naval fire control systems. In the sphere of military services extensions have been negotiated for important communications and air defence contracts. We expect this growth to continue and estimate that receipts from defence sales in 1983/84 will amount to £2,400 million. The primary responsibility for marketing of their products lies with the defence industries. However, the Ministry of Defence continues to provide a wide range of supporting services to companies selling overseas in the defence sector. The Defence Sales Organisation has been restructured to focus this support on major market opportunities where assistance to industry is needed most and brings the largest returns. Arrangements have been made to strengthen the market research and strategic planning capabilities of the Defence Sales Organisation and private sector experience has been brought to bear by secondment from industry to fill certain posts. The Falklands Campaign has provided an opportunity to evaluate the performance of our defence equipment under the

most exacting conditions. This experience has already been shared with the manufacturers and should enhance the sales prospects of their equipment in the future.

R & D ESTABLISHMENTS

512. The R & D establishments continue to play a full part in the drive to increase efficiency in the use of resources and to reduce costs. The recommendations of a Rayner review of administrative and technical support services are being followed up and work is being contracted out where it is economical to do so. Thus contracts were awarded in 1982 for the provision of range services at West Freugh and Kirkcudbright. By these and other measures the number of staff at establishments has been reduced in the past year by about 1,000, making a reduction of over 4,000 (nearly 16%) since 1979. Studies have shown no overall advantage in a major change in the balance between Government and industrial involvement in the gas turbine engine activity; the National Gas Turbine Establishment (NGTE) was however amalgamated with the Royal Aircraft Establishment (RAE) in April. Studies are continuing of greater industrial involvement in rocket motor activity and of the arrangements for transfer from the establishments to the ROFs of certain research and development functions. The responsibilities for nuclear procurement have been brought together with those of the control of the research programme and Establishments in a single post entitled "Controller R & D Establishments, Research and Nuclear" (CERN).

513. Although the prime objective of defence R&D must be to support the defence programme, the value of defence-inspired technology to industry

generally is fully recognised, and a great deal is done to make this "spin-off" available. During 1982 the Department hosted a seminar, including defence and non-defence manufacturers, financiers, and management consultants, to look further at the exploitation of potential civil "spin-off" from defence research.

THE ROYAL ORDNANCE FACTORIES

514. We announced in May last year our intention to bring forward legislation as soon as Parliamentary time can be provided to enable the Royal Ordnance Factories (ROFs) to operate under the Companies Acts. Government ownership will continue but the involvement of private capital directly - either through sale to the private sector, joint venture or flotation of shares - is intended in due course.

515. Mr Frederick Clarke has more recently been appointed Chairman and Chief Executive of the ROFs with responsibilities for planning and supervising the development of the ROFs into a free-standing commercial organisation and for directing and expanding the business of the ROFs both within the United Kingdom and abroad.

516. As a first step, action is in hand to transfer relevant Ministry of Defence research and development capabilities and sales functions to ROF control. ROF Directors for research and development, and sales have now been appointed. The ROFs have taken responsibility for the sale of their products from 1 April this year and discussions are continuing on the completion of the

transfer of these functions. Relevant MOD research and development capabilities are also being transferred to the ROFs.

517. A consultative document setting out our approach to the personnel issues which will arise on a change of status has been issued and these will continue to be the subject of discussions with the trade unions concerned. We hope to reach agreement on it as soon as possible; our intention is that transfer shall not result in a worsening of the terms and conditions of service taken as a whole which existing ROF employees enjoy at that time.

THE ROYAL DOCKYARDS

518. Our plans for the future of the Royal Dockyards, announced in Cmnd 8288, are being implemented. Chatham naval base, including the dockyard, is to close on 31 March 1984. The reduction of Portsmouth dockyard to the status of a fleet operating and maintenance base, which was to have been completed by the same date, was interrupted by the Falklands crisis. We are now making arrangements to complete this change by 30 September 1984. The Gibraltar dockyard is to close later this year, and we are engaged in discussions with the Government of Gibraltar about the possibility of the dockyard subsequently coming under commercial management. The development of Devonport and Rosyth dockyards continues. It remains our intention to concentrate dockyard resources at these two locations, although we now plan additionally to retain a measure of docking and refitting capacity at Portsmouth. We are discussing with the trades unions our plans for that base.

519. The dockyard efficiency scheme was introduced in 1981 to improve work

practices and determine bonus payments. We are progressing towards full implementation of the scheme at Devonport and Rosyth, although progress was delayed by the Falklands crisis. We have halted the introduction of the scheme at Chatham because of its impending closure. We will be putting to the trade unions in due course proposals for an incentive bonus scheme appropriate to the future needs of Portsmouth naval base.

520. Our consideration of the organisation for the management of ship repair and maintenance matters in the light of the Dockyard Study and of the defence programme review is continuing. We are in consultation with the trade unions on the initial results of this work. The operations of the Royal Dockyards are set out in statistical form in Table 3.7 of Volume 2.

Fleet Support Establishments

521. We announced in Cmnd 8288 that altered demand in the Fleet support area had resulted in the decision to close a number of naval stores and fuel depots. The fuel depot at Pembroke Dock will close in 1983 and the stores depot at Deptford and Llangennech in 1985 and 1987 respectively. The revised timescale for the reduction of Portsmouth dockyard to a fleet operating and maintenance base has, however, affected the plans announced for the closure of the stores depot at Woolstan and this will not take place until 1985.

ESSAY

MANAGEMENT OF DEFENCE

1. The Ministry of Defence is principally concerned with the management of physical resources rather than the performance of advisory, regulatory or legislative functions. In this it differs from most other Whitehall Departments. The sheer scale and diversity of this task, ranging across the three Service organisations and the Procurement Executive presents daunting problems of control and direction. A clear management policy is essential.

2. The Ministry of Defence's management policy can be summarised as:

a. Strong central control of defence policy and resource allocation;

b. Overall coordination of the activities of the three Services and the Procurement Executive;

c. Day to day management exercised by the Service Boards and Procurement Executive Management Board;

d. Delegation of authority to line managers as far as possible for the efficient and effective use of resources to meet centrally set targets;

e. Good management audit to help achieve an optimum balance between effectiveness and economy.

3. The central control of policy and resource allocation is achieved through an annual costing of the Defence Programme the Long Term Costing, which provides the basis for Ministers to take decisions on the main issues of defence policy. It is also the means by which resources are allocated to defence capabilities. This central control of the defence budget has been further strengthened in recent years by the revised Ministerial structure and the new Chief of Defence Staff's organisation (described in last year's statement on the Defence Estimates). With the same aim, the work of the central equipment committees has also been reorganised by concentrating their efforts on a smaller number of key defence projects.

4. It is an important responsibility of Ministers and senior management to ensure that the objectives and priorities of defence policy are translated into effective programmes of action throughout the defence organisation. Managers at every level must be aware of the functions they should perform and the value of the resources they manage. In order to improve this aspect of Defence management the MINIS system (The Management Information System for Ministers and Top Management) is being introduced into the Department. MINIS will record detailed information about the Ministry of Defence's activities, costs and performance to provide a basis for

Ministers and senior officials to review the work of the Department and to decide on future action, including studies leading to changes in organisation and the deployment of departmental manpower and other resources. Because the Ministy of Defence is largely executive, the MINIS process is being adapted so that it not only provides detailed information on the work of the mainly office-based headquarters staff but also covers certain essentail aspects of the wide variety of executive support operations outside the headquarters, such as the Royal Dockyards, stores, depots, workshops, maintenance units, training establishments and R & D establishments.

5. The first, experimental, round of MINIS will run from March to July 1983, and a quarter of a million Service personnel and civilians and the resources they manage will be encompassed by the new system. The second, full round will take place from August 1983 to March 1984 and will be repeated annually thereafter. An important feature of the Ministry of Defence MINIS is the way it will link together on the one hand the Long Term Costing process and on the other the management information and control systems, such as cost and management accounts, which already cover most defence support operations.

6. It is neither possible nor desirable to exercise central control over the day to day management of most defence activities, and a high degree of devolved authority is called for. Although such delegated authority

is now an established feature of Defence organisation it has not always operated in such a way as to allow line managers to be called fully to account for their performance. The Long Term Costing necessarily focusses on programmes expressed in terms of input costs and this means that the full cost of some defence activities may not be immediately apparent. In areas such as Service training for example, where a large number of interests interlock, no individual has sole control over all the resources consumed. Some overlapping may be unavoidable, but the MINIS process will contribute greatly to the establishing of clear lines of accountability for all defence activities.

7. Other recent management reforms have also centred on improving ways in which responsibility is defined and distributed. An important development is the concept of "responsibility budgets", the essence of which is that selected line managers should accept responsibility for achieving a specified level of performance in a defined area of activity against a financial budget. Under a budget system managers would be made more fully aware of the cost of the activities they manage and of their responsibility for controlling and making the most effective use of their resources. Managerial tasks and lines of responsibility would be defined more clearly. It would also be an aim to develop new and existing indicators against which managers' performance could be measured and to give managers greater freedom, within such constraints as annual cash limits, to manage the resources needed to achieve their tasks. The

responsibility budget concept offers considerable potential and its successful application to defence support activities would be a major innovation in civil service management. It is being evaluated in trials beginning in April at the following establishments:

Royal Navy	RN Aircraft Yard, Fleetlands.
	Naval Medical Services, including RN Hospitals Haslar, Stonehouse and Institute of Naval Medicine.
Army	The REME No 34 Central Workshop, Donnington.
RAF	The Basic Flying Training Schools at Linton on Ouse, Cranwell and Church Fenton.
PE	Royal Signals Research Establishment, Malvern.

The scope for introducing responsibility budgets in other areas is also being considered.

8. A comprehensive system of management inspection and audit is needed to ensure that the Department is organised and run at maximum efficiency, and that consistent, acceptable standards of performance prevail through out. The management audit concept explained more fully in last year's Statement is therefore an essential element in management policy. While

delegation of authority has a key role to play in efficient conduct of the Department's business there is still a need to ensure that minimum resources are used to meet objectives and maximum value for money obtained from defence spending. Considerable economies have already been achieved in recent years, especially in the area of civilian manpower, where the target set for the Department requires a reduction of 19% which compares with an average of 11% for the rest of the Civil Service. Continuous pressure is needed to ensure that taut manning is maintained everywhere and this will be exercised through the allocation of individual staff budgets.

9. The evolution of Defence management policy is taking place against the background of reforms throughout the Civil Service. The measures being taken reflect the management principles set out in the Government observations on "Efficiency and Effectiveness in the Civil Service" (Cmnd 8616) and it is important to view them in this wider perspective rather than as isolated responses to particular defence needs. The Ministry of Defence is one of the leaders in the movement within Whitehall to improve financial accountability and the work has been given a new impetus by the Government's Financial Management Initiative which will serve as a means to coordinate efforts towards greater management efficiency and maintain the progress already made.

CHAPTER SIX

THE SERVICES AND THE COMMUNITY

601. The services which the Armed Forces render to the community at large are not limited to deterrence in peacetime and defence in war. Many of the facilities and functions which are maintained for defence purposes can also be vital to the civil community in an emergency.

Northern Ireland

602. The support given by the Armed Forces to the Royal Ulster Constabulary (RUC) in Northern Ireland continues to be one of the Services' most publicised tasks. For a large part of 1982 the spotlight was directed elsewhere; however, throughout this period the Servicemen in Northern Ireland continued to perform their vital work with their customary unfailing dedication and bravery.

603. Continuing a welcome trend shown in recent years, we have again been able to reduce the number of major units on emergency tours from three to two. As a result, the number of troops in the Province is now about 10,000. This reduction reflects both the steady expansion of the RUC and its increased effectiveness in combatting terrorism; and also the value of the Ulster Defence Regiment, whose soldiers have again demonstrated outstanding resilience and dedication and whose strength and expertise is such that they now provide first-line support to the police in nearly all areas of the Province. The reduction in regular troop numbers also reflects the gradual but continuing fall in the level of terrorist crime, a trend which is being maintained

despite a number of atrocities such as the bombing attacks in London in July and at Ballykelly in December, crimes which serve as reminders of the sheer brutality and arbitrariness of terrorist activity.

604. The vigilance and dedication of the security forces has again been rewarded with a number of arrests and discoveries of arms and explosives (see Table 7.1 of Volume 2) and their bravery has, as in previous years, been justifiably recognised by the number of awards made for service in Northern Ireland of which there were 87 in 1982, including an Air Force Cross, three Military Medals, one Air Force Medal and sixteen Queen's Gallantry Medals.

Military Aid to the Civil Community

605. Over the past year the Services have participated in a number of projects which have given both benefit to the civil community and valuable training to the personnel involved. This support has employed a wide range of skills, as shown in the following examples. During the Pope's visit in May 1982, the Services helped with access facilities - including the construction of a footbridge at Cardiff - and provided first aid posts and field hospital facilities at several of the large open-air gatherings. In September, the Army provided assistance in running a camp organised by the Prince's Trust for 80 under-privileged youngsters from inner-city areas. The raising of the wreck of the Mary Rose in October marked the culmination of valuable assistance given by Royal Engineer divers to the Mary Rose Trust. Construction projects have included the building of part of a riding school at a residential centre for handicapped children in Cambridgeshire. The

Royal Navy helped to convert a former hunting lodge to a youth centre on a Scottish estate and carried out essential repairs to a community centre for the mentally handicapped in the Plymouth area. RAF support helicopters have performed a number of tasks which required heavy lift capability, including the lifting of a wind powered generator onto its tower to provide electricity to a farm in Halifax, Yorkshire and the removal, by Puma, of a dialysis unit from a house in Haxby, Yorkshire to facilitate the move of a patient.

Military Aid to Civil Ministries

606. The Services were on standby to assist in maintaining the ambulance service in various parts of the country during the National Health Service dispute last year. A very few Service ambulances were deployed during the strike of London ambulancemen in September 1982. Servicemen also laid track-way in Hyde Park and Regent's Park in London to provide emergency parking facilities during the disruption caused by the British Rail and London Underground disputes. Large numbers of Servicemen were held at short notice during the strike by manual workers in the water industry in January and February 1983.

Protection of Offshore Resources

607. Patrols of the waters contained within the United Kingdom fishing limits are carried out on behalf of the Fisheries Departments by the Royal Navy's Fishery Protection Squadron and Royal Air Force Nimrod aircraft. The Nimrods fly almost daily, and they identify and report the position and activities of some 14,000 fishing vessels each year. From this data a current plot

and photographic record is kept of fishing vessels of all nationalities operating within our fishing limits. During 1982, 1,869 British and foreign fishing vessels were boarded and their fishing gear and catches examined; this led to 27 convictions for contravention of United Kingdom fishing regulations. In addition to fishery protection duties, the offshore patrol vessels and Nimrod aircraft carry out surveillance of the nation's offshore oil and gas installations. Comacchio Company Royal Marines provides special forces to deal with serious threats to offshore installations.

608. Details of expenditure on offshore tasks included in the defence budget and a statement of fishery protection boardings and convictions are to be found at Table 7.4 and 7.5 in Volume 2.

Search and Rescue

609. Helicopters of the Royal Navy and Royal Air Force, Nimrod maritime patrol aircraft and RAF mountain rescue teams operate a permanent standby service for search and rescue missions. Aircraft of the two services were called out on 1,228 occasions in 1982 and 906 people were rescued or assisted. Of these missions, approximately 90% were reactions to civilian incidents. In November, for example, six seamen were rescued from the sea at night following the sinking of the freighter Nesam off Lands End in an operation involving RAF Nimrods and helicopters. In that same month the Nimrods and RAF helicopters again combined to recover two injured Chinese seamen from the vessel Kungming in heavy seas in the North Sea. Search and rescue missions were also mounted in co-operation with neighbouring nations. Earlier in 1982 search and rescue agencies of the United Kingdom, the United States and the Netherlands combined

forces to rescue 16 crewmen from the MV Victory which broke up in heavy seas off the Azores. In February 1982 the President of Iceland presented four members of the Royal Navy with the Icelandic Medal of Valour for helping to rescue the crew of the MV Tungofoss.

Bomb disposal

610. In a year when explosions such as those at Ballykelly and in two London parks provided a horrifying reminder of the threat which faces the civil community as well as Service personnel, bomb disposal teams have again been active throughout the United Kingdom. Successful operations in Northern Ireland resulted in a total of well over 5,600 kg of explosives - most of it home made - being recovered. In one incident alone, a major shipment of more than 1,000 kg of explosives was intercepted and neutralized. In another, a bomb containing 400 kg of explosive was discovered close to a border crossing point at Caledon in Co. Armagh. The bomb was defused safely. On the mainland, bomb disposal teams undertook over 4,000 individual tasks in 1982. The great majority of these were routine operations involving the location and neutralization of unexploded ordnance, (including three tonnes of small arms ammunition and 385 kg of explosives). However, there was significant success, too, in dealing with improvised explosive devices.

METEOROLOGY

611. The Meteorological Office is the state meteorological service and as such has a wide range of national and international civil responsibilities. Its most important civil products are the weather forecasts and warnings

supplied free to the public through the news media and, in greater detail and on repayment, to a number of specialised users. The most important being international civil aviation (for which we act as a World Area Forecasting Centre) and the off-shore oil industry. As part of the Department programme of efficiency studies a resource control review is examining a wide range of Meteorological Office activities.

HYDROGRAPHY

612. 1982 saw an important change in the arrangements for funding civil hydrography. For the first time the Department of Trade - the Department with responsibility for maritime safety in British waters - contributed to the cost of civil surveys, and they plan to do the same in 1983/84 and 1984/85. From 1985/86 full financial responsibility will pass to that Department, together with a transfer of funds equivalent to the Ministry of Defence's annual contribution. The Hydrographer of the Navy will continue to exercise professional supervision over the civil programme.

613. The Surveying Flotilla is planned to remain at its present size, with four ocean survey ships, four coastal survey vessels and three inshore survey craft, for the immediate future. The three ageing inshore survey craft are planned to pay off after the end of 1984 and to be replaced by a surface effect craft and a harbour survey launch for inshore and shallow water work. A new coastal survey vessel is due to enter service with the Royal Navy in early 1986 for work on the civil survey programme.

THE DEFENCE ESTATE

614. In pursuance of the established policy of releasing land and buildings for which no defence requirement is foreseen, the defence estate was reduced by 2,212 hectares during the year ended 30 September 1982. At that date a further 3,600 hectares had been made available for disposal. Further details of the defence estate are given in Tables 6.13 and 6.14 of Volume 2. The future rate of disposals will necessarily be affected by major policy initiatives: in some cases substantial new disposals are expected to result, in other cases disposal will be inhibited by the need to provide for units returning from overseas. Because of the higher number of units stationed in the United Kingdom in recent years, together with the greater range of modern weapons and the restrictions often placed on the use of military training areas for environmental and agricultural reasons, training land in this country is in short supply.

YOUTH TRAINING SCHEME

615. As part of our plan to provide training and work experience for unemployed school leavers, the three Services will make available a number of places for young people to join the Armed Forces on the same basis as the Youth Training Scheme. As with civilian employers, attachments will last for one year and consist of both formal training and work experience. The trainees will all be volunteers and able to leave at short notice should they so wish. The scheme will be entirely consistent with our continuing plans for highly trained, volunteer regular forces. Participation by the Armed Forces reflects a desire to make a positive contribution to alleviate youth unemployment

and to provide high quality training which it is hoped will be of general use in civilian life.

Figure 9 Exercises Outside Europe in 1982

U.S.A.
2 Battalion exercises
Reciprocal training by 2 Regular and 2 TA Companies
low-level tactical training by Buccaneers, Jaguar and Hercules

Canada
Training by 7 Battle Groups and 2 Battalion Groups.
RE Construction training.
Harrier low-level training.

Caribbean
2 Company level exercises

Cyprus
2 Battalion and 17 Company-level exercises.
10 RAF Armament Practice Camps

Kenya
2 Battalion and 1 Company-level exercises.
RE Construction and Survey training.

Oman/Indian Ocean
Naval exercises with US and Australian ships.
2 Company-level exercises.

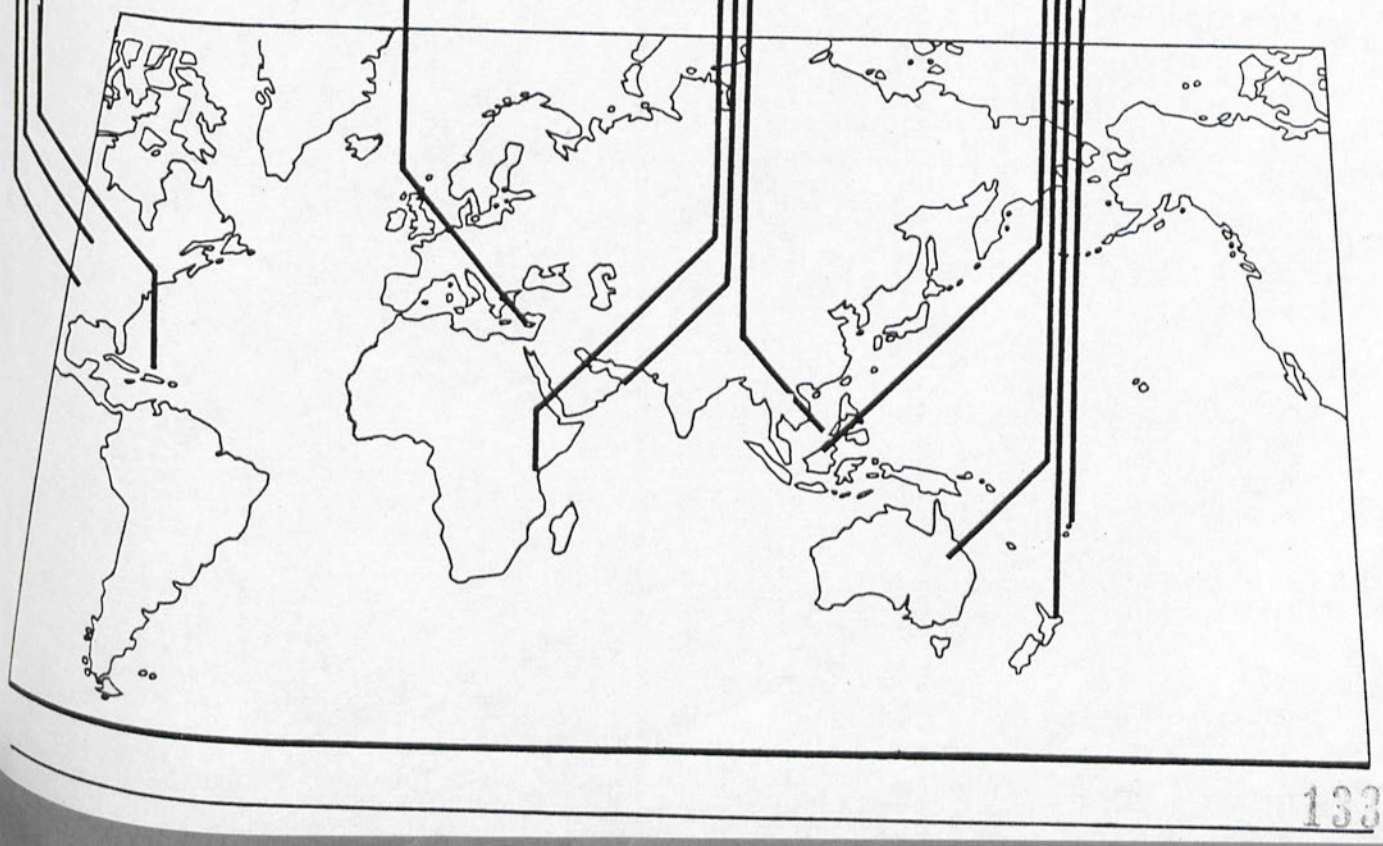
South China Sea
FPDA exercise involving 1 RN Frigate and 2 RN Patrol Craft.

Brunei
8 Army and 1 RM jungle training periods.

Australia/Papua New Guinea
3 Company-level exercises

New Zealand
1 Company-level exercise.
Nimrod to ASW competition and ANZUS maritime training.

Fiji
1 Company-level exercise.



ANNEX A

EXERCISES

ALLIANCE EXERCISES

Exercise NORTHERN WEDDING 82 (6-17 Sep 82).

1. Ten nations of NATO took part in one of the most extensive maritime exercises ever conducted. It stretched from the Atlantic to the Baltic and covered a number of maritime options including aircraft carrier battle group operations, reinforcement convoy operations in the North Sea, sea control operations in the South West Approaches and Baltic Approaches, maritime and submarine operations and an amphibious landing on Jutland. Royal Navy participation in the exercise, which was reduced by the commitment to operations in the South Atlantic, included HMS Fearless together with surface ships and submarines. Aircraft of Royal Air Force Strike Command provided extensive tactical support for the maritime operations.

Exercise BOLD GUARD (20-24 Sep 82).

2. This major NATO exercise in the Baltic Approaches involved the United Kingdom Mobile Force excluding 3 Commando Brigade of the Royal Marines who had only just returned from the South Atlantic. The successful reinforcement phase was followed by a major field training phase in conjunction with the Danish and German armies.

OTHER EXERCISES

Exercise COLD WINTER (8-17 Mar 83).

3. Units from the Royal Navy, the Royal Marines, United Kingdom Land Forces and Royal Air Force Strike Command accepted an invitation to participate in this Norwegian national exercise. Elements of the United Kingdom contingent of the Allied Command Europe Mobile Force and of the United Kingdom/Netherlands Landing Force joined the exercise after completing their annual arctic warfare training in Norway.

Exercise KEYSTONE (24 Sep - 5 Oct 82).

4. This United Kingdom national exercise for the British Army of the Rhine was designed to test 2nd Division in its new role of rear area defence. The Division was substantially reinforced by its TA elements from the United Kingdom using chartered civilian aircraft. This added greater realism to the reinforcement phase of the exercise.

Exercise QUARTER FINAL (8-23 Oct 82).

5. The reorganisation of 4th Armoured Division within the British Army of the Rhine from 2 to 3 brigades was tested in this national exercise. The Division was successfully reinforced by its TA elements and all the exercise objectives were achieved.

Exercise TRUMPET DANCE 1 and 2 (3 Feb - 7 Apr 83).

6. These were two battalion-sized pilot exercises in the USA in addition to our long-standing battalion training exercises in Canada and Kenya. The battalions were able to carry out realistic fire and manoeuvre training within the extensive exercise area.

Exercises for the Hong Kong Garrison.

7. Because of the lack of adequate exercise areas within Hong Kong, the garrison units require extensive external training. Some 14 company level external exercises were conducted in 1982/83 and exercise areas included Papua New Guinea, Malaysia, Brunei, New Zealand, Fiji and Australia. A company from the garrison joined with forces from our partner countries in the Five Power Defence Arrangement (Australia, Malaysia, New Zealand, Singapore) in the annual land exercise in New Zealand in April 1982.

ANNEX B

DEFENCE INDUSTRY

UK-BASED MOD CONTRACTORS PAID £5M OR MORE BY MOD FOR EQUIPMENT 1981/2

Over £100M

1. British Aerospace PLC (Aircraft)
2. British Aerospace PLC (Dynamics)
3. British Shipbuilders
4. Ferranti Ltd
5. The General Electric Co Ltd
6. The Plessey Co Ltd
7. Rolls Royce Ltd
8. Royal Ordnance Factories
9. Westland PLC

£50-100M

10. Hunting Associated Industries PLC
11. Philips Electronic and Associated Industries Ltd
12. Racal Electronics Ltd
13. Sperry Ltd *
14. Thorn EMI PLC
15. Vauxhall Motors Ltd

£25-50M

16. British Leyland PLC ≠
17. Cable & Wireless Ltd
18. Dowty Group Ltd
19. Lucas Industries Ltd
20. Marshall of Cambridge Ltd
21. Short Bros Ltd
22. Smiths Industries PLC
23. United Scientific Holdings Ltd ≠

£10-25M

24. British Electric Traction Co Ltd
25. BTR Ltd
26. Cossor Electronics Ltd
27. Dickinson Robinson Group PLC
28. Dunlop Holdings Ltd
29. Guest Keen and Nettlefolds Ltd
30. Hawker Siddeley Group Ltd

* Sperry (Bracknell) are now part of British Aerospace PLC (Dynamics)
≠ USH Ltd includes Alvis Ltd, acquired from BL PLC in 1981

31. Pilkington Bros PLC
32. Ropner Holdings Ltd
33. Singer Co (UK) Ltd
34. Standard Telephones & Cables Ltd
35. United Kingdom Atomic Energy Authority
36. Vickers PLC
37. The Weir Group Ltd

£5-10M

38. David Brown (Holdings) Ltd
39. Digital Equipment Co Ltd
40. Ferguson Industrial Holdings Ltd
41. Flight Refuelling (Holdings) Ltd
42. Gresham Lion Ltd
43. Hewlett Packard Ltd
44. The Ingram Maritime Co Ltd
45. ICL PLC
46. MacTaggart Scott & Co Ltd
47. Negretti and Zambra Ltd
48. Louis Newmark Ltd
49. S Pearson & Co Ltd
50. Portsmouth Aviation Ltd
51. RCA Ltd
52. Remploy Ltd
53. Schlumberger Ltd
54. Siemens Ltd
55. Stone Platt Industries Ltd
56. The Throgmorton Trust Ltd
57. Yarrow & Co Ltd

ANNEX C

STRENGTH OF THE FLEET

Table 1. Ships of the Royal Navy

All ships at Serials 1 to 7, the Island class at Serial 8, and three of the Ton Class minehunters at Serial 9 are assigned to NATO. The remaining ships are under national control though available for the support of NATO operations.

Ser	Type/Class	No	Operational or engaged in preparing for service or trials or training	No	Undergoing major refit or conversion, on standby etc
1	Submarines				
	Polaris	3	Renown, Repulse, Revenge	1	Resolution
	Fleet	9	Valiant, Warspite, Courageous, Swiftsure, Superb, Sceptre, Spartan, Splendid, Trafalgar*	3	Churchill, Sovereign, Conqueror
	Oberon Class	10	Orpheus, Oberon, Onslaught, Otter, Oracle, Otus, Ocelot, Osiris, Opossum, Onyx	3	Odin, Opportune, Olympus
	Porpoise Class	-		2	Sealion, Walrus
2	ASW Carrier	2	Invincible, Illustrious		
3	ASW/Commando Carriers	1	Hermes		
4	Assault Ships	1	Fearless +	1	Intrepid
5	Guided Missile Destroyers				
	County	3	Glamorgan, Fife, Antrim		
	Type 82	1	Bristol		
	Type 42	9	Birmingham, Cardiff, Newcastle, Glasgow, Exeter, Southampton, Nottingham, Liverpool, Manchester		

Ser	Type/Class	No	Operational or engaged in preparing for service or trials or training	No	Undergoing major refit or conversion, on standby etc
6	General Purpose Frigates				
	Leander Class	21	Leander, Ajax, Galatea, Naiad, Aurora, Euryalus, Arethusa, Dido, Cleopatra, Phoebe, Sirius, Argonaut, Minerva, Danae, Penelope, Andromeda, Charybdis, Achilles, Diomede, Apollo, Ariadne	4	Hermione, Jupiter, Scylla, Juno
	Rothesay Class	7	Rothesay, Plymouth, Rhyl, Yarmouth, Lowestoft †, Berwick, Falmouth		
	Tribal Class	3	Zulu, Tartar, Gurkha		
	Type 21	6	Amazon, Active, Ambuscade, Arrow, Alacrity, Avenger		
	Type 22	5	Broadsword, Battleaxe, Brilliant, Brazen, Boxer*		
7	Anti-Submarine Frigate				
	Type 12	1	Torquay		
8	Offshore Patrol				
	Island Class	7	Alderney, Anglesey, Guernsey, Jersey, Lindisfarne, Orkney, Shetland		
	Castle Class	2	Dumbarton Castle, Leeds Castle		

Ser	Type/Class	No	Operational or engaged in preparing for service or trials or training	No	Undergoing major refit or conversion, on standby etc
9	MCMVs				
	Ton Class Minesweepers	14	Alfriston, Bickington, Crichton, Crofton, Cuxton, Hodgeston, Lewiston, Pollington, Shavington, Soberton, Stubbington, Upton, Walkerton, Wotton		
	Minehunters	15	Bildeston, Bossington, Brereton, Brinton, Bronington, Gavinton, Hubberston, Iveston, Kedleston, Kellington, Kirkliston, Maxton, Nurton, Sheraton, Wilton		
	Chartered Trawlers	2	St David, Venturer		
	Hunt Class	6	Brecon, Brocklesby, Cattistock, Cottesmore, Dulverton*, Ledbury		
10	Patrol Craft				
	Bird Class	4	Cygnet, Kingfisher, Peterel +, Sandpiper+		
	Loyal Class	2	Alert, Vigilant		
	20m Class	3	Attacker, Fencer, Hunter		
	Coastal Patrol Craft	5	Beachampton, Monkton, Wasperton, Wolverton, Yarnton		
	Peacock Class	2	Peacock, Plover*		
	Falkland Islands Patrol Vessels	3	Protector ≠, Guardian ≠, Sentinel ≠,		
11	Support Ships				
	Submarine Tender	1	Wakeful		

Ser	Type/Class	No	Operational or engaged in preparing for service or trials or training	No	Undergoing major refit or conversion, on standby etc
11	Contd				
	MCM Support Ship	1	Abdiel		
12	Royal Yacht/ Hospital Ship	1	Britannia		
13	Training Ships				
	Ex Survey Vessels	2	Waterwitch, Woodlark		
	Ex Seaward Defence Boat	1	Droxford		
	Fleet Tenders	4	Manley, Mentor, Messina, Millbrook		
14	Ice Patrol Ship	1	Endurance		
15	Survey Ships	11	Beagle, Bulldog, Echo, Egeria, Enterprise, Fawn, Fox, Hecate, Hecla, Herald, Hydra		
16	Trials Ship	1	Londonderry		

Notes:

(1) This table includes ships due for completion or disposal during the course of 1983/84 and the numbers of each type are not therefore an accurate indication of the ships available at any one time. It does not include those ships solely engaged in harbour training duties.

(2) Ships marked * will be under construction on 1 April 1983 and are planned to enter service during 1983/84.

(3) Ships marked ≠ will be undergoing conversion on 1 April 1983 and are planned to re-enter service during 1983/84.

(4) Ships marked ≠ are engaged partially on trials or training.

(5) Ships approved during 1982/83 for disposal:

Bacchante, Porpoise.

(6) Ships sunk during operations in the South Atlantic in 1982:

Ardent, Antelope, Coventry, Sheffield

Table 2. Ships of the Royal Fleet Auxiliary Service - Strength at 1 April 1983

Ser	Type	No	Operational, preparing for service or engaged in trials	No	Refit
1	Fleet Tankers, Large	3	Olna, Olwen, Tidespring	1	Olmeda
2	Fleet Tankers, Small	3	Green Rover, Blue Rover, Black Rover	2	Grey Rover, Gold Rover
3	Support Tankers	5	Bayleaf, Pearleaf, Plumleaf, Appleleaf, Brambleleaf		
4	Fleet Replenishment Ships	4	Regent, Resource, Fort Grange, Fort Austin		
5	Helicopter Support Ship	1	Engadine		
6	Landing Ships, Logistic	6	Sir Lancelot, Sir Percivale, Sir Geraint, Sir Bedivere, Sir Caradoc, Sir Lamorak		

Notes:

(1) Tankers. RFA Pearleaf's charter has been extended until mid 1984

(2) LSL a. Sir Caradoc and Sir Lamorak are interim replacements for Sir Tristram and Sir Galahad

b. It is planned to rebuild Sir Tristram for future use.

(3) Disposals: RFA Stromness was approved for disposal during 1982/83 and will be sold.

Table 3. Royal Marines Commando Forces

Ser	Type	No	
1	Headquarters Commando Brigade Headquarters RM	1	
2	Commandos RM Commandos	3	
3	Artillery Commando Regiment RA	1	
4	Engineers Commando Squadron RE	1	
	Commando Squadron RE (Volunteer)	1	
5	Light Helicopter Support Brigade Air Squadron RM	1	
6	Logistic Units Commando Logistic Regiment RM	1	
7	Special Boat Squadron Squadron RM	1	
8	Raiding Squadrons Squadron RM	2	
	Squadron RMR	1	

Table 4. Naval Aircraft

Ser	Type	Role	Deployment	Squadron No	No of Flights
	Fixed Wing				
1	Sea Harrier	FRS	CVS	800	
	Sea Harrier	FRS	CVS	801	
	Sea Harrier	Aircrew Training	RNAS Yeovilton	899	
2	Jetstream Mk 2	Aircrew Training	RNAS Culdrose	750	
	Helicopters				
3	Sea King Mk 5	ASW	Falklands Garrison	826	
	Sea King Mk 2 (ii)	ASW	CVS	814	
	Sea King Mk 5	ASW	CVS	820	
	Sea King Mk 2 (ii) (iii)	ASW	Trials and AEW	824	
	Sea King Mk 2	ASW	HMS Gannet (Prestwick)	819	
	Sea King Mk 2 (ii)	Aircrew Training	RNAS Culdrose	706	
	Sea King Mk 5	Aircrew Training	RNAS Culdrose	810	
4	Lynx Mk 2	ASVW/ASW	RNAS Portland	815	
	Lynx Mk 2	ASVW/ASW	Leander Class, Type 21 and Type 22 frigates and Type 42 destroyers		35
	Lynx Mk 2	Aircrew Training	RNAS Portland	702	
5	Wasp	ASW	Leander and Rothesay Classes		27
	Wasp	Aircrew Training	RNAS Portland	829	
	Wasp	Hydrography and Aerial Photography	Ocean Survey Ships and HMS Endurance		5
6	Wessex Mk 3	ASW	County Class Destroyers		1
7	Wessex Mk 5 (iv)	Cdo Assault	RNAS Yeovilton	845	
	Wessex Mk 5	Aircrew Training	RNAS Yeovilton	707	
	Wessex Mk 5	SAR	RNAS Culdrose	771	
	Wessex Mk 5	Fleet Requirements and SAR	RNAS Portland Lee-on-Solent	772	
	Sea King Mk 4 (iv)	Cdo Assault	RNAS Yeovilton	846	
	Gazelle Mk 2	Aircrew Training	RNAS Culdrose	705	

Notes:

(i) All the above aircraft,except those on ocean survey ships and HMS Endurance, are declared to NATO.
(ii) These squadrons are being re-equipped with Sea King Mk 5 during 1983/4
(iii) Aircraft of this squadron will be deployed in single and multi flights as required.
(iv) These squadrons are available to embark in a CVS as required.

Abbreviations:

AEW - Airborne early warning.
ASW - Anti-submarine warfare.
ASVW - Anti-surface vessel warfare.
CVS - Anti-submarine carrier.
FRS - Fighter, reconnaissance and strike.
RFA - Royal Fleet Auxiliary.
RNAS - Royal Naval Air Station.
SAR - Search and rescue.

ANNEX D

STRENGTH OF THE ARMY

Major Combat Headquarters and Combat Arm Numbers (i)

	Regular Army				TA
	BAOR	Berlin	UK	Elsewhere	UK
Headquarters					
Corps Headquarters	1				
Armoured Divisional Headquarters	3				
Infantry Divisional Headquarters			1		
Artillery Divisional Headquarters	1				
Brigade Headquarters	8	1	13		
Field Force Headquarters				1(ii)	
Armour					
Armoured Regiments	9		3(iii)		
Armoured Reconnaissance Regiments	4		3		5
Artillery (iv)					
Field Regiments (incl one Commando Regt)	9		5		2
Heavy Regiments	2				
Missile Regiments	1				
Guided Weapon Regiments			1		
Independent Anti-Tank Batteries (v)	4				
Air Defence Regiments	2		1		3
Locating Regiments	1				
Engineers					
Engineer Regiments	5		4	1(vi)	7
Armoured Engineer Regiments	1				
Amphibious Engineer Regiments	1				
Infantry					
Battalions	14	3	30	3	35
Gurkha Battalions			1(vii)	5	
Special Air Service Regiments			1		2
Army Air Corps (viii)					
Regiments	3		1		
Corps Squadrons	1				
Honourable Artillery Company Regiments					1

Notes:

(i) Normal deployment locations as at 1 April 1983 are shown; no account is taken of temporary or emergency deployments.

(ii) Gurkha Field Force.

(iii) Includes 2 training regiments at Bovington and Catterick.

(iv) Artillery unit equipments consist of:

Field Regiments - depending on role, 105 mm light guns, 105 mm self-propelled (SP) guns, 155mm FH70 towed howitzers and 155mm SP guns.

Heavy Regiments - 175 mm SP guns and 8 inch SP howitzers.

Missile Regiments - Lance.

Guided Weapon Regiments - Swingfire and Blowpipe.

Anti-Tank Batteries - Swingfire.

Air Defence Regiments - Rapier and Blowpipe.

(v) This role reverts to Royal Armoured Corps in 1983/84.

(vi) Queen's Gurkha Engineer Regiment. An additional Gurkha Engineer Squadron is stationed at the Royal School of Military Engineering, Chatham.

(vii) Includes two additional companies one each at the Royal Military Acadamy, Sandhurst, and at the NCO Tactics Wing, School of Infantry, Brecon.

(viii) Aircraft types are:

Beaver
Alouette
Scout
Lynx
Gazelle

ANNEX E

STRENGTH OF THE ROYAL AIR FORCE

Front Line Units (i)

Ser	Role	Aircraft or Equipment	UK	RAF(G)
1	Strike/Attack (ii)	Tornado GR1	9 Squadron 617 Squadron	
		Buccaneer	12 Squadron 208 Squadron	15 Squadron 16 Squadron
		Jaguar		14 Squadron 17 Squadron 20 Squadron 31 Squadron
2	Offensive Support	Harrier	1 Squadron	3 Squadron 4 Squadron
		Jaguar	6 Squadron 54 Squadron	
3	Maritime Patrol	Nimrod MR	42 Squadron 120 Squadron 201 Squadron 206 Squadron	
4	Reconnaissance	Canberra PR9	1 PRU (iii)	
		Jaguar	41 Squadron	2 Squadron
5	Air Defence	Lightning	5 Squadron (iv) 11 Squadron (iv)	
		Phantom FG1	43 Squadron 111 Squadron (iv)	
		Phantom FGR2	 29 Squadron 56 Squadron (iv)	19 Squadron (iv) 92 Squadron (iv)
		Bloodhound	85 Squadron (iv) 25 Squadron	

Ser	Role	Aircraft or Equipment	UK	RAF(G)
		Rapier	27 Squadron RAF Regiment (iv) 48 Squadron RAF Regiment (iv)	16 Squadron RAF Regiment (iv) 26 Squadron RAF Regiment (iv) 37 Squadron RAF Regiment (iv) 63 Squadron RAF Regiment (iv)
6	Airborne Early Warning	Shackleton	8 Squadron	
7	Air Transport	VC10	10 Squadron	
		Hercules	24 Squadron 30 Squadron 47 Squadron 70 Squadron	
		Chinook Helicopters	7 Squadron	18 Squadron
		Wessex Helicopters	72 Squadron	
		Puma Helicopters	33 Squadron	230 Squadron
8	Tanker	Victor K2	55 Squadron 57 Squadron	
		Vulcan K2	50 Squadron	
9	Search and Rescue	Sea King Helicopters	202 Squadron	
		Wessex Helicopters	22 Squadron	
10	Ground Defence	Light Armour/ Infantry Weapons	2 Squadron RAF Regiment 15 Squadron RAF Regiment 51 Squadron RAF Regiment 58 Squadron RAF Regiment 2503 (County of Lincoln) Squadron R Aux AF Regiment (v)	1 Squadron RAF Regiment

Ser	Role	Aircraft or Equipment	UK	RAF(G)
			2620 (County of Norfolk) Squadron R Aux AF Regiment (v) 2622 (Highland) Squadron R Aux AF Regiment (v) 2623 (East Anglian) Squadron R Aux AF Regiment (v) 2624 (County of Oxford) Squadron R Aux AF Regiment (v) 2625 (County of Cornwall) Squadron R Aux AF Regiment (v)	

Notes:

(1) This table shows normal deployment locations as at 1 April 1983. All front-line aircraft, together with certain training aircraft, are assigned to NATO or available in support of NATO operations. At 1 April 1983 the following were deployed outside the NATO area:

a. Falkland Islands. Phantoms, Harriers, Hercules, Chinook helicopters, Sea King helicopters and Rapier. Victor and Hercules aircraft are also deployed to Ascension Island for the Falklands airbridge.

b. Cyprus. One squadron of Wessex helicopters and one RAF Regiment squadron.

c. Hong Kong. One squadron of Wessex helicopters.

d. Belize. One flight of Harriers, four Puma helicopters and a half squadron Rapier of RAF Regiment.

(ii) The last Vulcan squadron in service is now deployed in the tanker role, with some reconnaissance capability.

(iii) PRU - Photo Reconnaissance Unit.

(iv) These are forces under NATO command.

(v) R Aux AF - Royal Auxiliary Air Force, including three Squadrons, formed since April 1982.

ANNEX F

ACCIDENTS INVOLVING LOSS OR SERIOUS DAMAGE TO AIRCRAFT OF THE THREE SERVICES
1 JANUARY 1982 TO 31 DECEMBER 1982

DATE	AIRCRAFT	PARENT SERVICE	SERVICE CASUALTIES		CIVILIAN CASUALTIES	
			KILLED	SERIOUS INJURY	KILLED	SERIOUS INJURY
12 FEB	HARRIER	RAF	1(i)			
20 FEB	BULLDOG	RAF				
24 FEB	GAZELLE	ARMY				
24 FEB	GAZELLE	ARMY				
25 FEB	CANBERRA	RAF		1		
12 MAR	GAZELLE	RN				
2 APR	JAGUAR	RAF	1(ii)			
14 APR	PHANTOM	RAF		2		
22 APR	JET PROVOST	RAF		1		
*22 APR	WESSEX	RN				
*22 APR	WESSEX	RN				
*23 APR	SEA KING	RN	1			
* 6 MAY	SEA HARRIER(2)	RN	2			
12 MAY	TORNADO	RAF				
*12 MAY	SEA KING	RN				
13 MAY	HUNTER	RAF		1		
17 MAY	JET PROVOST	RAF	1			
*18 MAY	SEA KING	RN				
*19 MAY	SEA KING	RN	21 (iii)	5(iv)		
23 MAY	CHIPMUNK	RAF		1		
*23 MAY	SEA HARRIER	RN	1			
25 MAY	JAGUAR	RAF				
*29 MAY	SEA HARRIER	RN				
* 8 JUN	HARRIER	RAF				
11 JUN	JAGUAR	RAF				
11 JUN	GAZELLE	ARMY	1	2		
17 JUN	BUCCANEER	RAF		2(v)		
29 JUN	HARRIER	RAF	1			

DATE	AIRCRAFT	PARENT SERVICE	SERVICE CASUALTIES KILLED	SERVICE CASUALTIES SERIOUS INJURY	CIVILIAN CASUALTIES KILLED	CIVILIAN CASUALTIES SERIOUS INJURY
7 JUL	PHANTOM	RAF	2			
11 JUL	SEA KING	RN				
28 JUL	HAWK	RAF	1	1		
5 AUG	HUNTER	RAF				
24 AUG	GAZELLE	ARMY				
13 SEPT	JAGUAR	RAF				
15 SEPT	GAZELLE	ARMY		1		
20 SEPT	BUCCANEER	RAF				
29 SEPT	JAGUAR	RAF				
30 SEPT	LYNX	RN				
15 OCT	VICTOR	RAF				
20 OCT	HAWK	RAF				
28 OCT	WASP	RN				
6 NOV	HARRIER	RAF				
1 DEC	GAZELLE	ARMY				
9 DEC	JET PROVOST	RAF	1			
16 DEC	HUNTER	Rn			1(v)	

NOTES: (i) United States Navy aircrew.
(ii) Norwegian aircrew.
(iii) Comprises 19 Army, 1 RM and 1 RAF personnel.
(iv) Includes 3 Army personnel.
(v) Includes 1 Australian Airforce aircrew.
(vi) Civilian test pilot.
* Indicates aircraft accidently lost in the Falklands Campaign.
This table does not include details of aircraft lost to enemy fire in the Falklands Campaign.

tatement on the Defence Estimates 1983

2

ENCE STATISTICS

ted to Parliament by the Secretary of State for Defence by Command of Her Majesty 1983

NDON
R MAJESTY'S STATIONERY OFFICE

Cmnd. 145

A publication of the Government Statistical Service

Government Statistical Service

A service of statistical information and advice is provided to the Government by specialist staffs employed in the statistical divisions of the individual Departments. Statistics are made generally available through their publication and further information and advice on them can be obtained from the Departments concerned.

General notes on the tables

Symbols

- nil or less than half the final unit shown
.. not available
* not applicable

Souces

Except where otherwise stated all information is from records maintained by the Ministry of Defence for departmental purposes.

Roundins

In many of the tables the figures are individually rounded and thus may not sum precisely to the totals shown.

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CONTENTS

SUMMARY

	1977	1978	1979	1980	1981	1982
	£ million					
DEFENCE SPENDING (Outturn)(2.1)....	6158	6787	7455	9178	11182	12607
of which						
expenditure on personnel.....	2864	3021	3293	3912	4556	5058
expenditure on equipment.....	2138	2565	2984	3640	4885	5638
other costs.....	1156	1201	1178	1626	1741	1910
DEFENCE TRADE AND PRODUCTION						
Visible Trade (a)						
exports of identifiable equipment(2.7).	356	392	393	537	613	904
imports of identifiable equipment(2.8).	67	89	105	147	137	199
Invisible trade(2.9)						
total debits.....	815	811	917	961	1021	1183
total credits.....	64	78	166	82	119	114
net balance (debit).....	-751	-733	-751	-879	-902	-1068
Royal Ordnance Factories(3.8)						
sales:total.....	211	263	284	278	281	350
Meteorological Office(7.7)						
net expenditure.....	20	20	23	21	27	30
Royal Dockyards(3.7)						
cost of completed work.....	245	225	295	382	458	457
SERVICE PERSONNEL	Thousands					
Strengths:(b)						
UK Regular Forces: total(4.1).....	330	321	315	321	334	328
Locally entered: total(4.4).....	9	8	8	8	10	10
Regular reserves total(4.3).....	175	180	188	193	196	196
Volunteer reserves total(4.3).....	75	75	73	77	84	86
Strength changes in year: UK Regular Forces						
Total recruitment (4.8).....	40	38	43	51	50	23
Total outflow (4.10).....	46	48	49	45	38	29
CIVILIAN STAFF(5.1)(b)						
MOD Total.....	301	290	286	276	265	252
of which: non-industrial.....	138	134	132	129	124	119
industrial.....	163	157	154	147	141	133
UK based.....	259	250	248	240	230	217
Locally engaged.....	42	40	38	36	35	35
ENERGY CONSUMPTION (3.6)	Million tonnes oil equivalent					
Total consumption in year.....	3.9	3.9	3.9	3.7	3.4	3.4
HEALTH,EDUCATION AND ACCOMMODATION	Number					
Number of hospitals (6.1)(c) UK.....	18	12	11	11	11	11
Overseas....	12	12	10	10	10	10
Average Number of beds (6.1)(a) UK.....	2555	2352	2297	2287	2290	2264
Overseas....	1422	1351	1243	1231	1247	1240
Service Children's Education (6.11)						
Number enrolled in Autumn term.....	39200	36300	34500	33700	33300	32500
Married quarters (6.7)(c)UK.....	98300	98000	95400	92700	88600	87500
Overseas.....	47600	47400	46700	46500	46400	45900
MOD land held(6.13)(b)(thousand hectares)	236	235	235	234	233	231
SEARCH AND RESCUE						
Total number of incidents (7.2)(a).....	1206	1373	1268	1063	1092	1106

Notes:

1. Reference numbers in brackets refer to the main tables where more detailed notes and definitions are given for the later years.
2. Figures in the table are normally for the financial year ending in March of the year in the column heading except where referenced:-
   (a) for calendar year figures (b) for April figures. (c) for January figures.

1. The Armed Forces

Formation of the Armed Forces Table 1.1 shows the number of units which comprise the 'teeth' elements of the Armed Forces and excludes supporting units. The number of personnel and the amount of equipment in each vessel, regiment, battalion and squadron vary according to the role currently assigned. More details are given in Annexes C, D and E in Volume 1.

Functional analysis of Service personnel. The strengths shown in Table 1.2 are the averages provided for in the annual Estimates.

1.1 Formation of the Armed Forces:front line units
1 April

	Unit(1)	1978	1979	1980	1981	1982	1983(2)
Royal Navy(3)							
Submarines	Vessels	24	22	23	22	22	21
Carriers and assault ships	Vessels	4	3	4	3	3	4
Cruisers and destroyers	Vessels	12	11	10	12	11	13
Frigates	Vessels	43	42	39	36	38	42
Mine counter-measure(4)	Vessels	35	35	35	32	33	36
Patrol ships and craft	Vessels	19	19	23	22	21	25
Fixed wing aircraft	Squadrons	3	-	2	3	3	3
	Flights	1	-	-	-	-	-
Helicopters	Squadrons	12	13	14	14	15	10
	Flights	47	49	43	47	49	68
Royal Marines	Commandos	4	4	4	3	3	3
Army(5)							
Royal Armoured Corps	Regiments	19	19	19	19	19	19
Royal Artillery	Regiments	22	22	22	22	22	23
Royal Engineers(6)	Regiments	10	9	10	11	11	12
Infantry(6)	Battalions	55	56	56	56	57	56
Special Air Service	Regiments	1	1	1	1	1	1
Army Air Corps	Regiments	6	6	6	6	6	4
Royal Air Force(5)							
Strike/attack	Squadrons	14	14	15	15	12	10
Ground support	Squadrons	5	5	5	5	5	5
Air defence	Squadrons	9	9	9	9	9	9
Maritime patrol	Squadrons	4	4	4	4	4	4
Reconnaissance	Squadrons	5	5	5	5	3	2
Airborne early warning	Squadrons	1	1	1	1	1	1
Transport(7)	Squadrons	10	10	10	9	10	11
Tankers	Squadrons	2	2	2	2	2	3
Search and rescue	Squadrons	3	3	3	3	3	3
Surface to air missiles	Squadrons	7	7	8	8	8	8
Ground defence	Squadrons	5	6	6	6	6	6

1. The number of personnel and the amount of equipment in each vessel,regiment,etc, varies according to the role currently assigned.
2. Forecast figures.
3. Excludes vessels undergoing major refit,conversion,or on stand-by etc.
4. In 1981 4 ex-inshore minesweepers used for training are excluded.
5. Regular forces only.
6. Includes Gurkhas.
7. Includes helicopters.

1.2 Functional analysis of Service personnel: average strengths provided for in the Estimates

Thousands

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Total Service manpower(1)	332.5	330.0	330.2	340.6	334.7	333.1
Nuclear strategic force	2.8	2.5	2.5	2.4	2.4	2.3
Navy general purpose combat forces	32.4	32.2	30.4	30.1	29.7	30.1
Submarines	2.5	2.5	2.7	2.7	2.9	2.9
Aircraft and ASW carriers	2.5	2.8	1.9	1.5	2.1	2.5
Amphibious forces	3.9	5.0	4.6	4.8	4.1	4.4
Cruisers	1.4	1.3	1.0	0.7	..	..
Destroyers and frigates	14.9	14.0	13.0	13.0	13.0	12.5
Mine counter-measures vessels	1.1	1.1	1.1	1.1	1.1	1.2
Other vessels	1.7	1.7	1.8	1.7	1.6	1.8
Aircraft	2.5	1.9	2.2	2.4	2.6	2.5
Fleet headquarters	0.7	0.9	1.1	1.1	1.2	1.2
Overseas shore establishments	1.2	1.0	1.0	1.1	1.1	2.1
European theatre ground forces(2)	101.8	98.4	95.2	97.3	104.2	103.0
British Army of the Rhine	57.0	58.0	55.0	56.8	58.8	58.8
Berlin	3.1	3.1	3.1	3.0	3.0	3.1
Home forces	41.7	37.3	37.1	37.5	42.4	41.1
Other Army combat forces	14.1	14.4	14.9	15.0	14.7	14.9
Mediterranean	4.1	4.1	4.2	4.2	4.3	4.2
Hong Kong and other Far East	8.8	8.8	9.0	9.2	9.6	9.5
Other areas(2)	1.2	1.5	1.7	1.6	0.8	1.2
Air Force general purpose forces	53.7	53.8	54.6	58.6	58.6	58.1
Air defence	3.8	3.6	3.9	4.4	4.4	4.6
Offensive support	1.3	1.1	1.1	1.1	1.2	1.2
Strike/attack/reconnaissance	4.8	4.8	5.1	5.3	4.5	4.8
Maritime aircraft	1.5	1.5	1.6	1.6	1.7	1.7
Transport aircraft	2.9	2.9	3.3	3.4	3.7	3.7
Tanker aircraft	0.4	0.4	0.4	0.5	0.5	0.6
Other aircraft	2.8	3.0	3.3	3.8	3.9	3.8
Operational stations	17.9	18.8	18.1	19.9	20.2	19.0
Headquarters	2.7	2.7	2.7	2.8	2.7	2.7
General support	15.6	15.0	15.1	15.8	15.8	16.0
Reserve and Auxiliary formations(3)	2.5	2.5	2.8	2.9	3.0	3.0
Navy	0.3	0.3	0.3	0.3	0.3	0.3
Army	1.9	1.9	2.2	2.3	2.4	2.4
Air Force	0.3	0.3	0.3	0.3	0.3	0.3
Research and development	1.3	1.3	1.4	1.5	1.5	1.3
Ship construction and underwater warfare	0.1	0.1	0.1	0.1	0.1	0.1
Ordnance and other Army	0.3	0.3	0.3	0.3	0.3	0.3
Military aircraft	0.3	0.3	0.2	0.3	0.3	0.3
Guided weapons	0.1	0.1	0.1	0.1	0.1	-
Other electronics	0.1	0.1	0.1	0.1	0.1	0.1
Other research and development	0.4	0.4	0.6	0.6	0.6	0.5
Training(4)	71.6	76.2	78.8	81.5	67.8	68.9
Service colleges	4.1	3.9	4.3	4.7	4.1	4.5
Navy	22.8	23.2	22.3	24.0	22.6	21.0
Army	30.6	31.9	34.2	35.2	26.9	27.2
Air Force	14.1	17.2	18.0	17.6	14.2	16.2
Repair and associated facilities in UK	9.9	9.7	9.8	10.3	10.7	10.2
Royal Dockyards	0.1	0.1	0.1	0.1	0.1	0.1
Other repair and maintenance	6.2	6.3	6.5	6.9	7.2	7.2
Storage and supply	3.3	3.1	3.0	3.1	3.2	2.7
Quality assurance	0.3	0.2	0.2	0.2	0.2	0.2
Other support functions	42.4	39.0	39.8	41.0	42.1	41.3
Whitehall organisation	2.6	2.8	2.7	2.8	2.6	2.7
Local administration communications etc in UK	18.1	16.9	18.0	19.5	20.0	18.8
Family and personnel services in UK	6.7	6.4	6.6	6.6	6.8	6.4
Other support services	15.0	12.9	12.5	12.1	12.7	13.4

1. These figures are the average strengths of UK Regular Forces plus locally entered personnel.
2. For operational and security reasons, the average Army manpower strength in the South Atlantic area is included in the European theatre ground forces total.
3. Regular whole-time serving personnel attached to Reserve and Auxiliary formations only.
4. Comprises administrative and training staff and the average number of trainees both at initial and higher levels, but excludes personnel on short courses, training carried out by front-line units and operational training.

2. Finance and trade

The tables in this section are particularly relevant to Chapter 5 of Volume 1. The meanings of certain financial terms are given in the glossary below.

Industrial analysis of Defence expenditure in the United Kingdom: estimated allocation by commodity group. The figures shown in Table 2.4 are based in part on an analysis of contract payments. Each contract let is allocated to a particular industry, as defined in the Standard Industrial Classification, according to the nature of the goods or services to be supplied. All payments against the contract are then recorded to that industry, irrespective of the actual industry to which the establishment supplying the goods may be classified in other official statistics. Non-contract expenditure is allocated on the basis of its Vote designation.

Exports and imports of defence equipment. Tables 2.7 and 2.8 give details of certain exports and imports of defence equipments which can be identified through the Customs and Excise Tariff (at fob and cif prices respectively).A revision to the Tariff enabled some military communications and radar equipment to be identified from 1978 onwards. The Society of British Aerospace Companies compiles statistics on the sales of goods and services by its member companies from which it is possible to identify the exports of other aerospace products for military purposes, most of which cannot be separately identified in the Customs statistics. To give a more complete picture of the exports of defence equipment these figures, together with information supplied by individual electronics and motor vehicle manufacturing companies are shown in the lower section of Table 2.7. It should be noted that the figures in Table 2.7 refer to actual deliveries of defence equipment. As such they are on a different basis from the figure given for Defence Sales in Volume 1 which constitutes a forecast of expected sales in the Estimates year 1983-84 and also covers infrastructure projects outside the scope of the statistics in this table.

Defence balance of payments: invisible transactions. Table 2.9 covers transactions by the British Government in relation to defence and includes receipts from the American Government in respect of forces stationed in the United Kingdom. The figures for local defence expenditure represent the drawings of foreign exchange necessary to support our forces overseas. They take no account of offsetting factors such as the reduction in imports to the United Kingdom and the generation of exports from the United Kingdom which result from the stationing of forces overseas. In addition estimates are made of non-governmental transactions relating to defence. Official payments by the American Forces in the United Kingdom to British firms and agencies other than central government plus private expenditure by American personnel are expected to amount to about £310 million in 1983-84.

Glossary of financial terms

Appropriation accounts are prepared after the end of the financial year and record the actual payments and receipts.

Appropriations-in-aid are receipts used to offset expenditure. They generally arise from the provision of repayment services, the sale of surplus goods or of equipment purchased on behalf of the Defence Sales organisation.

Defence budget consists of all the expenditure for which the Secretary of State for Defence is responsible. It comprises the net total of voted expenditure by the Ministry of Defence and by the Property Services Agency on behalf of the Ministry of Defence which are classified as direct public expenditure for the purpose of public expenditure white papers and the national accounts.

Defence Programme comprises the Defence budget (q.v) plus net Government lending to the Royal Ordnance Factories from the National Loans Fund.

Estimates, Supply Estimates are prepared before the beginning of the financial year and give the proposed expenditure. These are then voted by Parliament.

Estimates prices are the prices used in the Estimates presented to Parliament. Prior to 1979-80 these were the prices ruling in the autumn preceding the financial year in question. From 1979-80 onwards they are forecasts of the prices expected to rule when the expenditure occurs. However in 1980-81 no allowance was included for civilian pay increases beyond those approved for non-industrials at 1 January 1980 and for industrials at 1 April 1980, Estimates provision for Civil Service pay increases was made in Class XIII.

Outturn, forecast outturn describes actual expenditure or estimates of it made on the basis of incomplete information i.e. before the Appropriation Accounts are prepared.

Outurn prices are the prices of the period when the expenditure occurs, also described as current prices.

Public Expenditure Survey is the annual review of public expenditure plans undertaken by the Government.

2.1 Principal headings of the Defence budget

	Outturn				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(1)	1983-84
	£ million					
Total expenditure(2).....	7455	9178	11182	12607	14091	15973
of which:						
Expenditure on personnel.....	3293	3912	4556	5058	5331	5681
Pay,etc,of the Armed Forces....	1639	2099	2460	2728	2845	3072
Retired pay,etc,of the Armed Forces.....	432	459	503	624	657	755
Pay,etc,of civilian staff.....	1222	1354	1593	1706	1829	1854
Expenditure on equipment.....	2984	3640	4885	5638	6545	7372
Sea.....	878	1110	1513	1624	1913	2093
Land.....	601	740	904	1101	1285	1502
Air.....	1214	1427	2059	2458	2795	3146
Other.....	291	363	410	456	551	631
Other expenditure.....	1178	1626	1741	1910	2215	2919
Works,buildings and land.....	405	600	623	664	805	1063
Miscellaneous stores and services.....	773	1026	1118	1246	1410	1856
Total expenditure at constant (1975-76) prices.....	5089	5243	5421	5498	5700	6154
	Per cent					
Percentage shares of the total expenditure						
Expenditure on personnel.....	44.2	42.6	40.7	40.1	37.8	35.6
Pay,etc,of the Armed Forces....	22.0	22.9	22.0	21.6	20.2	19.2
Retired pay,etc,of the Armed Forces.....	5.8	5.0	4.5	4.9	4.6	4.7
Pay,etc,of civilian staff.....	16.4	14.7	14.2	13.5	13.0	11.6
Expenditure on equipment.....	40.0	39.7	43.7	44.7	46.4	46.2
Sea.....	11.8	12.1	13.5	12.9	13.6	13.1
Land.....	8.1	8.1	8.1	8.7	9.1	9.4
Air.....	16.3	15.5	18.4	19.5	19.8	19.7
Other.....	3.9	4.0	3.7	3.6	3.9	4.0
Other expenditure.....	15.8	17.7	15.6	15.2	15.7	18.3
Works,buildings and land.....	5.4	6.5	5.6	5.3	5.7	6.7
Miscellaneous stores and services.....	10.4	11.2	10.0	9.9	10.0	11.6

1. The figures in this column are derived from the original Supply Estimates for 1982-83. Current forecast outturn at constant 1975-76 prices is £5836 million.
2. Outturn and Estimates are given at outturn and Estimates prices respectively.

2.2 Functional analysis of the Defence budget(1)

£ million

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Total expenditure	6919	8558	10785	12274	14091	15973
Nuclear strategic force	93	126	165	269	327	382
Navy general purpose combat forces	1017	1131	1461	1663	1861	2149
Submarines	155	197	253	339	463	468
Aircraft and ASW carriers	26	23	23	26	71	140
Amphibious forces	28	36	44	52	52	60
Cruisers	92	89	98	95	-	-
Destroyers and frigates	402	418	537	594	636	722
Mine counter-measures vessels	52	50	75	90	150	159
Other vessels	126	159	206	210	204	285
Aircraft	102	108	158	175	198	242
Fleet headquarters	6	13	18	23	26	24
Overseas shore establishments	28	38	49	59	61	49
European theatre ground forces	1251	1496	1746	1881	2194	2445
British Army of the Rhine	905	1079	1227	1302	1512	1700
Berlin(2)	18	20	27	27	38	42
Home forces	328	297	492	552	644	703
Other Army combat forces	74	81	105	44	41	191
Mediterranean	43	50	64	56	62	62
Hong Kong and other Far East	20	17	19	-35	-36	1
South Atlantic	-	-	-	-	-	105
Other areas	11	14	22	23	15	23
Air Force general purpose forces	1107	1462	1865	2240	2729	3207
Air defence	128	145	199	187	453	579
Offensive support	61	63	68	76	83	118
Strike/attack/reconnaissance	335	458	620	785	1005	922
Maritime aircraft	50	64	85	108	143	139
Transport aircraft	82	135	168	168	164	231
Tanker aircraft	15	26	32	43	42	128
Civil charter	7	11	13	14	18	17
Other aircraft	69	101	104	100	112	122
Operational stations	158	221	268	279	328	418
Headquarters	33	41	50	57	54	68
General support	169	197	258	323	327	465
Reserve and Auxiliary formations	122	148	213	253	287	312
Navy	6	8	14	12	14	15
Army	107	130	182	222	255	279
Air Force	9	10	17	19	18	18
Research and development(3)	872	1151	1479	1676	1833	1896
Ship construction and underwater warfare	81	149	209	298	287	328
Ordnance and other Army	67	92	120	150	164	177
Military aircraft	332	439	509	498	596	556
Guided weapons	105	124	183	223	235	245
Other electronics	126	163	231	259	284	282
Other research and development	161	184	227	248	267	308
Training	604	777	975	1097	1162	1230
Service colleges	38	48	71	78	75	85
Navy	183	249	311	358	418	443
Army	263	312	377	429	420	428
Air Force	120	168	216	232	249	274
Repair and associated facilities in UK	449	590	705	814	869	1040
Royal Dockyards	87	91	108	114	125	128
Other repair and maintenance	115	177	218	257	272	401
Storage and supply	188	247	289	337	357	403
Quality assurance	59	75	90	106	115	108
War and contingency stocks	178	160	224	326	403	410
Navy	44	56	73	94	110	161
Army	79	61	88	145	202	165
Air Force	55	43	63	87	91	84
Other support functions	1255	1481	1820	2081	2307	2631
Whitehall organisation	103	130	164	195	205	222
Local administration communications etc in UK	452	535	666	812	903	1080
Meteorological services(3)	24	29	36	34	37	34
Family and personnel services in UK	125	163	197	229	240	241
Service pensions	397	458	554	603	657	754
Other support services	154	166	203	208	265	300
Miscellaneous expenditure and receipts	-103	-45	27	-70	78	80

1. The figures given in this table reflect the price levels of the original Estimates for the years in question.
2. In accordance with the Allied "Declaration on Berlin"of 1952, local expenditure on supplies and services for the British Forces in Berlin is met without charge to U.K. funds. The figures for Berlin do not include these costs; they are estimated to be £71.8 million in 1983-84.
3. Meteorological research and development is included under Meteorological services.

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2.3 Defence budget and related expenditure (1)

£ million

	1979-80	1980-81	1981-82	1982-83	1983-84
Defence Votes	8462.5	10668.0	12138.3	13945.4	15791.5
Attributions from other votes(2)	89.0	109.2	126.7	138.1	173.1
Other adjustments(3)	6.2	7.3	8.8	7.1	8.0
Defence budget	8557.7	10784.5	12273.8	14090.6	15972.6
Military aid to overseas countries	13.6	6.9	11.4	14.9	14.6
Supporting services(4)					
Accommodation(maintenance and rental)(5)	41.9	60.1	66.0	62.6	*
Stationery and printing(5)	32.7	*	*	*	*
Home publicity	8.6	10.7	7.5	7.2	7.1
Civil superannuation	181.5	208.3	248.8	254.1	333.0
Computers and telecommunications(5)	14.4	*	*	*	*
Rates(6)	64.3	77.9	92.7	119.2	78.9
Services by Exchequer and Audit	1.4	1.7	2.6	2.7	3.2
Services by Treasury Solicitor(7)	..	..	2.0	2.3	2.7
Valuation services by Inland Revenue(7)	..	..	0.1	0.1	0.1
Various other services	2.3	3.2	1.8	1.9	1.8
Meteorological services in Defence budget	-28.9	-36.5	-34.2	-36.7	-34.5
Other adjustments	-4.2	-4.2	-4.2	14.8	14.0
Defence expenditure(8)	8885.3	11112.6	12668.3	14533.7	16393.5

1. The figures given in the table are based on the Supply Estimates and reflect the price levels of Supply Estimates for the years in question.
2. These represent Property Service Agency staff costs and other expenditure for which the Secretary of State for Defence is responsible.
3. These cover those Appropriations-in-Aid and expenditure which are included in the Defence Votes but not classified as public expenditure.
4. These are the Defence portion of services performed by certain government departments for government generally.
5. An asterisk * against these items indicates that they have been included in the Defence budget for the years shown.
6. Rates on the Defence portion of the UK civil estate are included in the Defence budget for 1983-84
7. Prior to 1981-82 included under 'Various other services'.
8. This is the standard NATO and National Accounts definition of defence expenditure.

2.4 Industrial analysis of Defence expenditure in the United Kingdom(1): estimated allocation by commodity group

£ million

	SIC [80] Group(2)	1979-80	1980-81	1981-82
Total		3986	5102	6180
Solid Fuels(3)	111-120	8	8	9
Petroleum products(3)	130,140	427	433	553
Gas,electricity and water supply(3)	161-170	111	133	160
Ordnance and small arms and explosives	256(part),329	311	423	431
Other mechanical and marine engineering	320-328	221	303	278
Data processing equipment	330	) 128	) 155	87
Other electrical engineering	341-348,nes	)	)	131
Electronics	344,345	699	1004	1208
Motor vehicles	351	133	180	157
Shipbuilding and repairing	361	331	424	544
Aerospace	364	1120	1496	2007
Instrument engineering	371-374	101	137	172
Food(3)	411-429	93	101	103
Textiles, leather goods and clothing(3)	431-456	78	80	73
Other production industries	111-495,nes	119	127	154
Other industries and services	nes	104	99	113

1. Gross expenditure at current prices excluding VAT,pay and allowances, general administrative expenses (amounting to some £410 million in 1980-81 and £431 million in 1981-82), Property Services Agency expenditure on behalf of the Ministry of Defence and other expenditure on land,buildings and works services.
2. Code numbers relate to groups of activity headings in the 1980 revision of the Standard Industrial Classification (SIC).
3. Includes payments for goods and services purchased overseas.

2.5 Defence and other spending from the National Income

	1976	1977	1978	1979	1980	1981
	£ thousand million					
At market prices:						
Consumers expenditure:total	74.8	85.9	98.9	117.1	135.7	151.0
of which:						
Food	13.9	16.1	17.9	20.4	22.9	24.1
Housing	10.6	12.4	14.0	16.8	20.4	24.4
Clothing and footwear	5.7	6.5	7.7	8.9	9.8	10.1
Drink and tobacco	8.9	10.3	11.4	13.1	15.0	17.0
Fuel and light	3.6	4.3	4.7	5.3	6.4	7.8
General government(1)final consumption(2)	26.7	29.2	33.0	38.3	48.4	55.2
of which:						
Defence	6.1	6.8	7.5	8.9	11.3	12.7
National Health Service	5.8	6.5	7.4	8.5	11.1	12.9
Education	5.5	6.0	6.6	7.6	9.4	10.9
Gross domestic fixed capital formation	23.6	25.7	29.7	34.5	39.4	39.4
of which:						
General government	5.4	4.8	4.6	5.2	5.6	4.6
Increase in stocks and work in progress	0.9	1.9	1.6	3.0	-2.7	-4.2
Plus Exports	35.4	43.6	47.7	55.1	63.2	67.9
Minus Imports	-36.9	-42.6	-45.5	-54.6	-57.9	-60.9
Gross Domestic Product at market prices	124.5	143.8	165.4	193.4	226.1	248.4
	Per cent					
Total Defence expenditure as percentage of Gross Domestic Product at market prices	4.9	4.7	4.5	4.6	5.0	5.1

Source:National Income and Expenditure (1982 Edition)

1. General government consists of central and local government.
2. Final consumption is current expenditure plus an imputed charge for the consumption of non-trading capital. All expenditure by government trading bodies, expenditure on grants, subsidies and all other transfers,and expenditure on fixed assets and stocks, is excluded.

2.6 Defence and other general government spending

£ thousand million

	1976	1977	1978	1979	1980	1981
General government total expenditure(1)	58.4	61.9	71.9	85.2	104.0	116.8
of which:						
Defence	6.2	6.9	7.5	9.0	11.4	12.8
National Health Service	6.1	6.8	7.7	8.8	11.5	13.4
Education	7.3	7.8	8.6	9.7	12.0	13.7
Social Security benefits	11.2	13.2	15.8	18.5	22.2	27.4
Other grants in UK	2.0	2.2	2.8	3.0	3.8	4.7
Other grants abroad	0.7	1.0	1.5	1.9	1.6	1.4
Debt interest	5.4	6.4	7.2	9.0	11.4	13.1
Non-trading capital consumption	0.9	1.0	1.2	1.4	1.8	1.9

Source:National Income and expenditure (1982 Edition)

1. Including debt interest and allowance for non-trading capital consumption not allocated to specific services.

2.7 Exports of defence equipment

£ million

	1977	1978	1979	1980	1981	1982
Identified defence equipment(1):total.....	356	392	393	537	613	904
of which:						
Armoured fighting vehicles and parts.....	52	61	53	50	112	208
Combat aircraft including helicopters(2).	48	15	11	40	71	126
Military non-combat aircraft including helicopters(2).	9	34	22	64	66	90
Other military aircraft and helicopters..	6	10	19	66	-	-
Warships	123	39	82	59	4	27
Guns,small arms and parts.....	32	36	52	64	51	68
Guided weapons and missiles.....	27	24	24	25	21	61
Ammunition.....	59	97	76	102	175	184
Radio and radar apparatus.....	..	56	42	55	96	100
Optical equipment and training simulators	..	20	12	12	19	39
Destination of identified equipment						
NATO countries and other W.Europe.....	48	77	82	111	172	185
Middle East and N.Africa.....	162	202	127	158	239	405
Asia and Far East.....	19	46	63	134	124	192
Sub-Saharan Africa.....	10	18	36	121	67	97
Latin America and Caribbean.....	117	49	85	13	11	25
Estimates of additional equipment(3):total..	421	678	682	1000	1133	..
of which:						
Military airframe parts.....	253	240	191	325	417	..
Military aircraft equipment.....	88	108	140	217	169	..
Military aeroengines and parts.....	70	98	95	114	123	..
Military space equipment.....	10	2	11	14	19	..
Other military electronics.....	..	140	155	220	280	..
Military road vehicles.....	..	90	90	110	125	..

1. Categories of equipment which can be identified through the Customs and Excise Tariff.
2. Newly constructed only.
3. It is not possible to distinguish these items from similar goods for civilian purposes in Customs & Excise records. These estimates are based on information from the Society of British Aerospace Companies and individual electronics and motor vehicle manufacturing companies. Exports in connection with international collaborative projects are excluded.

2.8 Imports of defence equipment

£ million

	1977	1978	1979	1980	1981	1982
Identified defence equipment(1):total.....	67	89	105	147	137	199
of which:						
Guided weapons and missiles.....	23	41	41	65	57	108
Ammunition.....	20	15	26	20	16	18
Guns,small arms and parts.....	16	19	16	32	29	27
Armoured fighting vehicles and parts.....	7	7	7	7	4	14
Radio,radar and optical equipment.....	..	7	14	21	21	28
Military aircraft including helicopters...	1	-	1	2	11	3
Origins of identified equipment						
NATO countries and other W.Europe.....	64	82	100	137	128	184
Asia and Far East.....	2	4	2	5	3	5
Others.....	1	3	3	5	6	9

1. Categories of equipment which can be identified through the Customs and Excise Tariff.

2.9 Defence balance of payments: invisible transactions(1)

£ million

	Outturn(2)				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(3)	1983-84
Total debits	917	961	1021	1183	1243	1571
Total military services	894	938	996	1156	1212	1536
Local defence expenditure	769	739	783	925	896	1067
of which:						
Germany	619	612	654	784	788	878
Other NATO area	41	40	35	57	42	70
Mediterranean	77	70	71	94	87	112
South Atlantic	-	-	-	-	-	8
Far East	10	-8	-5	-40	-46	-30
Other areas	22	25	28	30	25	29
Other military services(4)	125	199	213	231	316	469
Transfers-contributions to international defence organisations	23	23	25	27	31	35
Total credits	166	82	119	114	131	164
Receipts from US Forces	51	47	76	72	104	121
Other receipts(5)	115	35	43	43	27	43
Net balance (- = debit)	-751	-879	-902	-1068	-1112	-1407

1. Non-governmental transactions are excluded but details of these are given in the note on page 9.
2. Outturn and Estimates are given at outturn and Estimates prices respectively.
3. The figures in this column are derived from the original Supply Estimates for 1982-83.
4. Including contributions to infrastructure projects (net) and payments for R and D levies.
5. Receipts for R and D levies, etc are entered as 'other receipts'.
6. Includes offset receipts from the Federal Republic of Germany up to 31 March 1980 when the offset arrangement ended (Exchange of Notes between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Federal Republic of Germany for Offsetting the Foreign Exchange Expenditure on British Forces in the Federal Republic of Germany:Cmnd 6970).

3. Equipment

The tables in this section are particularly relevant to Chapter 3 of Volume 1.

Equipment procurement expenditure. Table 3.1 relates to the costs of intramural and extramural research and development, the production of new equipment and spares, repairs, and the associated costs of managing the equipment programme which cover the pay of MOD personnel and other administrative costs. The figures exclude intramural maintenance costs, which are not easy to identify.

Defence research and development expenditure. The figures in Tables 3.2 and 3.3 relate to defence research and development(R&D) carried out both in MOD R&D establishments and extramurally by industry and the universities. Table 3.2 differs from similar data on defence R&D expenditure published periodically in general articles on the subject (see, for example, Economic Trends, August 1982 pp 82 et seq), in that it includes payments to civil votes and central government funds. Table 3.3 gives details of the cost of R&D to the Defence budget, i.e. gross expenditure less receipts.

Service supply systems: major depots. Table 3.5 covers major stockholding depots only; the Services have different operational requirements, and thus keep different proportions of their stocks within major depots. Consequently, this table should not be used as a proxy for comparisons between each Service's 'total' stocks. The table excludes the Procurement Executive and the research and development establishments. The figures cover general, electronic, technical, engineer and accommodation stores, weapons, ammunition, petrol, oil, lubricants, food and medical supplies, aircraft in reserve and stored vehicles; repairable items are included. Forms and publications are excluded.

For the first three years there are some differences in the make up of the figures. In particular stored vehicles, aircraft in reserve, the RAF holdings of explosives and weapons, and certain Army holdings of weapons are excluded while petrol, oil and lubricants are only included for the Royal Navy. These exclusions do not apply to the 1981-82 figures. For the purpose of comparison, figures for 1981-82 based on the previous years coverage are provided.

The value of stock is based as far as possible on the best estimate of prices ruling at the end of each financial year. The item types held in the supply systems of more than one Service are counted once for each Service holding them. The figures on issue transactions reflect the differences in the number of issuing points and ordering points in each Service.

Defence energy consumption. Table 3.6 covers the 3 Services, Procurement Executive and the Royal Ordnance Factories. Fuel used in Ministry of Defence buildings which are part of the Civil Estate is excluded.In the case of electricity the figures represent the quantity of oil required to generate the electricity in power stations of average efficiency.

3.1 Equipment procurement expenditure(1)

£ million

	Outturn				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(2)	1983-84
Procurement expenditure: total	3303	4017	5324	6121	7060	7904
Equipment	2984	3640	4885	5638	6545	7372
Associated costs	319	377	439	483	515	533
Procurement expenditure: total	3303	4017	5324	6121	7060	7904
Research and development	1028	1305	1627	1688	1841	1905
Production and repair	2275	2712	3697	4433	5218	6000
Sea	878	1110	1513	1624	1913	2093
Development	127	199	283	281	322	339
Production and repair	751	911	1229	1343	1591	1755
Land	601	740	904	1101	1285	1502
Development	80	114	182	236	217	244
Production and repair	521	626	722	864	1068	1258
Air	1214	1427	2059	2458	2795	3146
Development	330	393	499	513	560	593
Production and repair	884	1034	1560	1945	2235	2552
General support	610	739	849	939	1067	1163
Research and development	491	598	663	657	742	728
Production	119	141	186	282	325	435

1. This table is derived from the Appropriation Accounts and the Supply Estimates. The expenditure is net of Appropriation-in-aid. Outturn and Estimates are given at outturn and Estimates prices respectively.
2. The figures in this column are from the original Supply Estimates for 1982-83.

3.2 Defence research and development expenditure(1)

£ million

	Outturn				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(2)	1983-84
Gross expenditure : total.....	1076	1373	1709	1783	1923	1982
Intramural R & D.....	330	399	448	502	553	552
Current:						
Salaries and wages.....	189	218	263	287	298	287
Materials and equipment.....	90	114	120	145	173	173
Other.....	14	17	18	18	25	24
Capital:						
Land and buildings.....	13	15	16	15	12	18
Plant and equipment.....	23	36	31	37	43	50
Extramural R & D.....	746	973	1261	1281	1370	1430
Other Votes and central government funds.....	11	9	4	6	15	15
Universities and further educational establishments..	3	5	7	7	6	6
Private industry and public corporations.....	646	875	1146	1190	1217	1292
Other.....	1	7	15	1	10	10
Overseas.....	85	77	89	77	122	107

1. Total money disbursed by MOD for Defence R & D before off-setting receipts. Excludes civil work carried out by MOD on repayment terms. Outturn and Estimates are given at outturn and estimates prices respectively.
2. The figures in this column are from the original Supply Estimates for 1982-83.

3.3 Defence research and development expenditure: net cost to the Defence budget(1)

£ million

	Outturn				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(2)	1983-84
Net cost: total.....	1028	1305	1627	1688	1841	1905
Pay,etc.....	174	201	245	258	266	256
Royal Navy personnel.....	3	4	5	6	6	6
Army personnel.....	2	4	5	5	5	5
Royal Air Force personnel....	3	4	4	5	6	6
Civilian staff(3).....	165	188	231	242	248	239
Stores, supplies and miscellaneous services.....	3	9	6	6	10	8
Procurement Executive R & D						
Administration and common services(4).....	287	355	378	358	417	417
Sea equipment development....	127	199	283	281	322	339
Land equipment development...	80	114	182	236	217	244
Air equipment development....	330	393	499	513	560	593
Accommodation services.....	27	33	34	35	49	48

1. Outturn and Estimates are given at outturn and estimates prices respectively.
2. The figures in this column are from the original Supply Estimates for 1982-83.
3. Includes the cost of the Procurement Executive Staff.
4. Includes the cost of Research and Development establishments.

3.4 Defence production expenditure(1)

£ million

	Outturn				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83(2)	1983-84
Gross expenditure:total	2674	3088	4209	5046	6131	6610
Sea equipment	824	992	1337	1469	1830	1898
of which:						
Ships hulls and machinery	289	331	422	519	555	558
Weapon systems etc	250	298	444	483	714	662
Ship equipment and support services	56	65	93	87	127	140
Ship/weapon maintenance equipment,stores and services.	146	193	258	256	323	405
Dockyard services etc	82	105	120	125	111	132
Land equipment	704	792	950	1103	1332	1449
of which:						
Guns,small arms and chemical defence stores	46	48	63	67	80	59
Ammunition,mines and explosives.	179	176	212	251	273	281
Fighting vehicles	95	96	93	124	191	198
Load carrying vehicles	105	127	177	144	153	144
Engineering equipment	31	49	54	45	59	88
Guided weapons,electronic equipment and instruments.	218	258	310	425	521	605
Plant and machinery	1	1	4	3	2	8
Other stores	30	39	37	44	53	66
Air equipment	1004	1139	1715	2167	2597	2784
of which:						
Aircraft,aero-engines and aircraft equipment	809	916	1347	1654	1800	1879
Guided weapons and electronic equipment	195	223	368	513	797	906
General support(3)	142	165	207	306	373	478
Appropriations-in-aid: total(4)	399	376	512	612	913	610
Sea equipment	73	81	108	127	239	143
Land equipment	183	167	228	239	264	191
Air equipment	120	105	155	223	362	232
General support	23	24	21	24	47	43
Net expenditure:total	2275	2712	3697	4433	5218	6000
Sea equipment	751	911	1229	1343	1591	1755
Land equipment	521	626	722	864	1068	1258
Air equipment	884	1034	1560	1945	2235	2552
General support	119	141	186	282	325	435

1. This table is based on the Appropriation Accounts and the Supply Estimates.Outturn and Estimates are given at Outturn and Estimates prices respectively.
2. The figures in this column are from the original Supply Estimates for 1982-83.
3. Including provision of facilities and quality assurance.
4. Appropriations-in-aid arise from the sale of surplus and of goods purchased on behalf of the Defence Sales organisation.

3.5 Service supply systems: major depots

	1978-79	1979-80	1980-81	1981-82(1)	1981-82(2)
	£ million				
Value of stock at the year end :Total.....	3835	4486	5568	6072	6873
Royal Navy	1903	2237	2678	2855	2855
Army	889	1031	1264	1328	1816
Royal Air Force.....	1043	1218	1626	1889	2202
	Millions				
Item types in inventory at year end:Total..	2.9	2.9	3.0	2.9	2.9
Royal Navy.....	0.8	0.8	0.8	0.8	0.8
Army	0.9	0.9	0.9	0.8	0.8
Royal Air Force	1.2	1.2	1.2	1.2	1.2
Number of issue transactions in year:Total.	8.2	8.2	7.4	7.7	7.8
Royal Navy.....	3.2	3.0	2.8	2.7	2.7
Army.....	3.2	3.3	2.8	3.1	3.1
Royal Air Force.....	1.8	1.9	1.8	1.9	2.0

1. The figures in this column are based on the coverage used in earlier years and are provided for comparison purposes only.
2. From 1981-82 the coverage of items across the Services is on a more consistent basis.

See notes on page16.

3.6 Defence energy consumption

Thousand tonnes of oil or oil equivalent

	Financial years				1 Apr-31 Dec	
	1978-79	1979-80	1980-81	1981-82	1981	1982
Total	3873	3702	3427	3444	2405	2697
Royal Navy (1).....	1146	1111	1006	1027	739	974
Army.....	788	722	669	654	431	406
Royal Air Force.....	1478	1453	1355	1344	956	1057
Procurement Executive...	279	248	241	244	165	151
Royal Ordnance Factories	181	169	156	175	115	106
Liquid fuels: total.....	2873	2747	2480	2491	1755	2097
Aviation fuel.....	1091	1083	1010	1000	741	873
Petrol.....	92	87	78	79	51	59
Diesel.....	551	566	482	496	365	621
Furnace oil.....	1119	992	892	898	580	532
Other.....	21	20	19	19	12	12
Non-liquid fuels: total...	1000	955	947	953	650	600
Solid fuel.....	139	128	115	124	81	76
Gas.....	189	190	192	187	118	119
Electricity.....	671	637	639	642	451	406

1. Royal Navy figures include the Royal Dockyards.

3.7 Royal Dockyards

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
	£ million					
Dockyard costs charged to production: total(1)	255.1	308.1	338.9	403.6	494.8	514.3
Direct costs						
Labour	59.7	67.2	68.7	73.9	94.7	97.8
Material	51.1	74.0	87.4	89.1	112.6	93.3
Dockyard services	21.6	26.3	29.4	36.1	47.4	56.1
Contract services	7.2	7.7	7.4	8.9	9.8	10.7
Overhead costs						
Production overheads	53.9	60.4	68.4	76.8	94.5	95.6
Administration and general	61.6	72.5	77.6	118.8	135.8	160.8
less Increase in work in progress	9.9	83.1	44.3	21.3	36.6	57.4
Cost of completed work: total	245.2	225.0	294.6	382.3	458.2	456.9
For MOD customers: total	235.5	217.4	290.5	375.1	445.4	447.0
Ship repairs and alterations	182.4	155.9	222.9	289.3	346.4	339.1
Major refits	76.8	66.3	113.8	119.2	183.5	148.7
Normal refits	58.1	70.2	81.8	87.9	95.0	105.0
Other shipwork	47.5	19.4	27.3	82.2	67.9	85.4
Ship construction	2.6	0.8	5.0	2.0	4.9	4.6
Repairs and modification of stores for stock	16.1	19.8	20.4	27.9	27.8	31.7
Manufacture of stores for stock	6.9	8.0	8.0	10.7	11.5	11.2
Plant and machinery for other establishments	0.9	0.7	0.3	3.5	1.8	2.3
Maintenance etc for other establishments	26.6	32.2	33.9	41.7	53.0	58.1
For non-MOD customers,on repayment	6.1	1.3	1.0	1.0	1.2	1.3
Plant and machinery for Dockyard use	3.6	6.3	3.1	6.2	11.6	8.6
	Number					
Major refits completed: total	5	11	9	6	8	5
Submarines	3	2	2	1	2	1
Destroyers	-	-	-	-	1	-
Frigates	-	3	1	3	3	3
Mine counter-measures vessels	1	3	4	2	2	1
Others	1	3	2	-	-	-
Normal refits completed: total	53	42	37	33	30	36
Royal Navy vessels						
Aircraft carriers	1	1	-	-	-	1
Commando assault vessels	1	-	1	-	-	-
Submarines	1	1	3	1	2	1
Cruisers/destroyers	3	2	1	1	2	1
Frigates	8	8	5	9	4	3
Mine counter-measures vessels	12	11	10	7	9	10
Patrol vessels	3	3	4	3	2	5
Others	13	9	7	10	9	7
Royal Fleet Auxiliary vessels: total	-	2	-	-	-	3
Royal Maritime Auxiliary Service vessels: total	11	5	6	2	2	5
Average number of employees: total	35882	35355	34628	34049	33232	31923
Civilian personnel	35803	35277	34555	33982	33165	31861
Service personnel	79	78	73	67	67	62

1. Costs do not necessarily correspond to cash payments from Votes during the year: for example the direct costs include notional liability for civil superannuation and the cost of material used during the year, though possibly bought in previous years. The overhead costs include provision for the depreciation of fixed assets, many of which were aquired in previous years, and from 1979-80 onwards notional interest on capital.

3.8 Royal Ordnance Factories

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
	£ million					
Sales: total	211.0	263.2	284.0	277.7	280.8	349.6
Destination						
United Kingdom	102.3	123.4	132.9	169.6	182.6	195.7
Overseas	108.7	139.8	151.1	108.1	98.2	153.9
Final product						
Ammunition	136.4	149.1	157.9	150.2	158.0	196.8
Vehicles	27.4	53.1	49.8	41.6	9.2	57.3
Guns and small arms	24.4	34.2	31.3	25.1	48.1	45.7
Electronic and guided weapons components	5.6	8.0	14.2	22.6	26.6	13.7
Chemicals and explosives	4.1	5.5	5.4	6.4	6.4	4.7
Engineers' equipment	3.7	3.0	10.1	13.5	10.0	2.8
Experimental and development work	6.9	7.1	8.3	13.6	18.2	21.2
Other work	2.5	3.2	7.0	4.7	4.3	7.4
Customer						
Ministry of Defence: total	94.1	111.6	117.9	149.7	156.5	167.1
Sea equipment	7.5	7.7	6.2	4.1	5.4	5.9
Land equipment	77.3	87.9	90.9	118.7	125.4	134.9
Air equipment	5.3	10.4	12.3	14.8	14.5	15.8
Common services	4.0	5.6	8.5	12.1	11.2	10.5
Overseas customers	108.7	139.8	151.1	108.1	98.2	153.9
UK commercial work	8.2	11.8	15.0	19.9	26.1	28.5
Operating results						
Surplus on operations(1)	34.3	38.6	32.7	12.2	-6.8	9.4
Net interest receivable	3.3	1.4	5.5	6.0	7.7	2.7
Surplus after interest	37.6	40.0	38.2	18.2	0.9	12.1
of which						
Dividend payable to Consolidated Fund	5.3	8.5	11.5	10.5	6.0	9.0
Transferred to general reserve	28.7	27.3	22.1	2.1	-5.1	3.1
Transferred to additional depreciation reserve	3.6	4.2	4.6	5.6	-	-
	Thousands					
Average number of employees	22.5	23.2	23.3	22.1	21.7	20.2
	£ thousand					
Value added per employee(2)	5.9	6.4	6.6	6.5	7.5	9.2

1. Includes in 1978-79 an extraordinary item of £1.5 million arising from premature repayment of the originating debt from the National Loans Fund.
2. Value added is the difference between the sale value of goods produced and the cost of materials and bought-in services used in manufacturing these goods.

4. Service personnel

Personnel matters are discussed in Chapter 3 of Volume 1.

Regular Forces comprise both UK Service personnel and locally entered personnel.

UK Service personnel are normally recruited in the United Kingdom for service worldwide.

Locally entered personnel are recruited outside the United Kingdom to serve in special formations with special conditions of service. In some cases there are restrictions on the areas in which they are required to serve.

Regular Reserves consist of former members of the Regular Forces who have a liability for service in the Reserves.

Volunteer Reserves and Auxiliary Forces comprise personnel in civilian occupations who undertake to give a certain amount of their time to train in support of the Regular Forces. They also include a number of non-Regular permanent staff.

Officers designate are candidates for commissioned service who are required to complete successfully a period of training before they are appointed to commissions. Some enter direct from civil life and others are selected from the ranks. Figures shown for officers include officers designate.

The numbers shown for females comprise the Women's Services and female members of the Nursing Services. Certain professionally qualified female officers are not commissioned in the Women's Services but in the Branch or Corps appropriate to their qualifications. These officers of whom there were 114 at 1 January 1983 serving in the medical, dental, veterinary and legal specialisations, are included in the numbers of male officers.

Strengths of UK Service personnel: Regular Forces. Table 4.1 includes personnel undergoing initial training.

Strengths of trained UK Service personnel: Regular Forces. Table 4.2 shows personnel who have completed initial training.

Strengths of the Reserves and Auxiliary Forces Table 4.3 includes the Ulster Defence Regiment (UDR).Detailed numbers of full-time and part-time members of the UDR are given in Table 7.1.

Strengths of cadet forces. Table 4.5 includes the appropriate Service component of Combined Cadet Force but excludes officers, training and administrative staff. The Girl's Nautical Training Corps, a formerly independent organisation was incorporated into the Sea Cadet Corps in 1980.

Recruitment of UK Service personnel: to each Service. Table 4.8 comprises entrants from civil life.

Recruitment of male UK Service personnel: categories of entry. Table 4.9 uses the following definitions:

Pre-cadets are Army officer candidates who undertake a short period of service as soldiers prior to appearing before the Army's officer selection board.

Officer cadets are entrants who have been selected to serve as officers but who are required to complete successfully a period of training prior to being commissioned.

University cadets are students at universities and comparable educational establishments who have been appointed as midshipmen in the Royal Navy, as acting second lieutenants in the Royal Marines or as officers in the Army and Royal Air Force and who, on graduation, will take up whole-time duty with the Services.

Outflow of UK Service personnel: from each Service. Table 4.10 comprises all those who left the Regular Forces and includes deaths.

Outflow of UK Service personnel: categories of exit. The All Services totals given in Table 4.10 are sub-divided in Table 4.11 to show the cause of leaving. As the numbers for female officers designate are small, they have been included in those for female officers. The numbers shown as premature release at own request, for both officers and servicemen, relate only to trained personnel.

Outflow of trained Service personnel: major skill or trade group. Table 4.14 shows the numbers of personnel leaving the Services possessing certain skills useful to the civil community. Only personnel in readily identifiable groups of reasonable size have been included. Personnel are classified according to their primary employment in the Services at the time of leaving, in the case of Army officers by the function of their Arm or Corps. Each group covers the full range of skills from the professionally qualified to the semi-skilled

Service pay: indices and illustrative rates of military salary. Table 4.16 provides index numbers of military salary based on April 1975 = 100,a date at which fully up to date rates of pay were implemented.

4.1 Strengths of UK Service personnel: Regular Forces
1 April

Thousands

	Actual					Estimates(1)	
	1979	1980	1981	1982	1983(2)	1983	1984
All Services: total	315.0	320.6	333.8	327.6	320.9	321.0	323.6
Male	299.7	304.4	316.8	311.9	305.8	305.6	308.2
Officers	39.8	39.9	40.9	40.9	40.1	40.4	40.4
Servicemen	259.9	264.5	275.9	271.0	265.7	265.2	267.8
Female	15.3	16.2	16.9	15.7	15.1	15.4	15.4
Officers	1.9	2.0	2.2	2.2	2.1	2.1	2.1
Servicewomen	13.4	14.2	14.8	13.5	13.0	13.2	13.3
Royal Navy	65.1	64.4	66.4	65.1	63.6	64.1	62.3
Male	61.2	60.5	62.3	61.1	59.8	60.2	58.4
Officers	9.0	9.1	9.4	9.3	9.1	9.1	8.8
Servicemen	52.2	51.5	52.9	51.8	50.8	51.1	49.6
Female	3.8	3.8	4.1	4.0	3.8	3.9	3.8
Officers	0.4	0.4	0.5	0.5	0.5	0.4	0.4
Servicewomen	3.4	3.4	3.6	3.5	3.3	3.5	3.4
Royal Marines	7.4	7.6	7.9	7.9	7.7	7.8	7.8
Male	7.4	7.6	7.9	7.9	7.7	7.8	7.8
Officers	0.6	0.6	0.7	0.7	0.6	0.6	0.7
Servicemen	6.8	6.9	7.3	7.2	7.1	7.1	7.1
Army	156.2	159.0	166.0	163.2	160.3	159.3	161.2
Male	150.4	152.8	159.4	157.2	154.3	153.1	155.0
Officers	16.3	16.2	16.5	16.5	16.2	16.4	16.4
Servicemen	134.1	136.6	142.9	140.7	138.1	136.7	138.6
Female	5.8	6.3	6.6	6.0	6.0	6.1	6.2
Officers	0.9	0.9	0.9	1.0	0.9	0.9	1.0
Servicewomen	4.9	5.4	5.6	5.0	5.0	5.2	5.2
Royal Air Force	86.3	89.6	93.5	91.5	89.3	89.9	92.3
Male	80.7	83.5	87.2	85.7	83.9	84.5	87.0
Officers	14.0	14.1	14.4	14.5	14.2	14.3	14.5
Servicemen	66.7	69.4	72.8	71.2	69.7	70.2	71.3
Female	5.6	6.1	6.3	5.8	5.4	5.3	5.4
Officers	0.6	0.7	0.8	0.8	0.8	0.8	0.7
Servicewomen	5.0	5.4	5.5	5.0	4.7	4.6	4.6

1. The 1983 figures are the latest available manpower estimates: the 1984 figures are those used for the financial costings.
2. Figures are for 1 January 1983.

4.2 Strengths of trained UK Service personnel: Regular Forces
1 April

Thousands

	Actual					Estimates(1)	
	1979	1980	1981	1982	1983(2)	1983	1984
All Services: total	284.1	285.1	298.6	304.5	299.1	298.4	296.9
Male	270.4	270.6	282.9	289.4	284.8	284.2	282.6
Officers	36.3	36.0	36.5	36.6	36.3	36.3	36.1
Servicemen	234.2	234.6	246.4	252.7	248.4	247.9	246.5
Female	13.7	14.5	15.7	15.2	14.4	14.2	14.4
Officers	1.8	1.9	2.0	2.1	2.1	2.1	2.0
Servicewomen	11.9	12.6	13.7	13.1	12.3	12.2	12.3
Royal Navy	59.3	57.2	58.7	59.9	58.9	59.1	57.9
Male	55.7	53.8	55.0	56.1	55.3	55.6	54.3
Officers	7.7	7.6	7.7	7.7	7.7	7.7	7.4
Servicemen	48.0	46.2	47.3	48.4	47.6	47.9	46.9
Female	3.5	3.4	3.7	3.8	3.6	3.6	3.6
Officers	0.4	0.4	0.5	0.5	0.5	0.4	0.4
Servicewomen	3.1	3.0	3.2	3.4	3.2	3.1	3.2
Royal Marines	6.6	6.5	6.8	7.4	7.3	7.4	7.1
Male	6.6	6.5	6.8	7.4	7.3	7.4	7.1
Officers	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Servicemen	6.1	6.0	6.3	6.8	6.8	6.8	6.5
Army	138.6	139.1	146.8	150.8	147.9	147.5	145.5
Male	133.5	133.6	140.7	145.0	142.4	142.0	139.8
Officers	15.3	15.2	15.5	15.6	15.4	15.4	15.4
Servicemen	118.2	118.4	125.1	129.4	127.0	126.6	124.5
Female	5.1	5.4	6.2	5.8	5.5	5.5	5.7
Officers	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Servicewomen	4.3	4.6	5.3	4.8	4.6	4.6	4.7
Royal Air Force	79.7	82.2	86.2	86.5	85.0	84.4	86.4
Male	74.7	76.7	80.3	80.9	79.7	79.3	81.4
Officers	12.7	12.7	12.7	12.8	12.7	12.6	12.8
Servicemen	62.0	64.0	67.6	68.2	67.1	66.6	68.6
Female	5.0	5.6	5.8	5.6	5.2	5.2	5.0
Officers	0.5	0.6	0.6	0.7	0.7	0.7	0.7
Servicewomen	4.5	4.9	5.2	4.9	4.5	4.5	4.4

1. The 1983 figures are the latest available manpower estimates: the 1984 figures are those used for the financial costings.
2. Figures are for 1 January 1983.

4.3 Strengths of the Reserves and Auxiliary forces
1 April

Thousands

	1977	1978	1979	1980	1981	1982	1983(1)
All Services							
Regular Reserves:							
Male	173.2	177.9	186.9	191.2	195.1	195.0	192.0
Female	1.7	1.6	1.5	1.4	1.4	1.4	1.4
Volunteer Reserves and Auxiliary Forces:							
Male	70.1	69.6	67.9	70.8	76.5	78.6	79.0
Female	5.1	5.7	5.6	6.2	7.4	7.7	7.8
Royal Navy							
Regular Reserves:							
Male	27.8	26.2	28.3	26.9	26.4	24.6	24.2
Female	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Volunteer Reserves and Auxiliary Forces:							
Male	4.5	4.6	4.5	4.2	4.3	4.3	4.3
Female	0.9	0.8	0.9	0.8	1.1	1.1	1.2
Royal Marines							
Regular Reserves:							
Male	2.4	2.4	2.4	2.2	2.2	2.2	2.3
Volunteer Reserves and Auxiliary Forces:							
Male	0.9	1.0	0.9	0.8	0.9	1.1	1.0
Army							
Regular Reserves:							
Male	110.3	117.7	126.1	132.3	136.7	139.4	137.0
Female	0.9	0.8	0.8	0.8	0.7	0.7	0.7
Territorial Army:							
Male	57.4	56.7	55.5	58.8	64.1	66.3	66.8
Female	3.5	3.9	3.9	4.5	5.5	5.8	5.8
Ulster Defence Regiment:							
Male	7.0	7.2	6.9	6.7	6.7	6.5	6.3
Female	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Royal Air Force							
Regular Reserves:							
Male	32.7	31.6	30.1	29.8	29.6	28.8	28.6
Female	0.7	0.7	0.6	0.5	0.5	0.5	0.5
Volunteer Reserves and Auxiliary Forces:							
Male	0.2	0.2	0.2	0.4	0.5	0.5	0.5
Female	0.1	0.1	0.1	0.1	0.1	0.1	0.1

1. Figures are for 1 January.

4.4 Strengths of locally entered Service personnel
1 April

Number

	Actual					Estimates(1)	
	1979	1980	1981	1982	1983(2)	1983	1984
All Services: total	8368	8189	9730	10081	9695	10071	10059
United Kingdom	767	841	903	1190	1252	1730	2125
Gibraltar	44	44	42	43	43	45	45
Hong Kong	5708	5352	6593	6702	6121	6753	6741
Brunei	796	784	866	788	792	457	61
Nepal	1053	1168	1326	1358	1487	1086	1086
Royal Navy	261	307	348	346	353	343	331
Hong Kong	261	307	348	346	353	343	331
Army	8107	7882	9382	9735	9342	9728	9728
United Kingdom	767	841	903	1190	1252	1730	2126
Gibraltar	44	44	42	43	43	45	45
Hong Kong	5447	5045	6245	6356	5768	6410	6410
Brunei	796	784	866	788	792	457	61
Nepal	1053	1168	1326	1358	1487	1086	1086

1. The figures shown are those used for the financial costings.
2. Figures are for 1 January 1983.

4.5 Strengths of cadet forces
1 April

Thousands

	1977	1978	1979	1980	1981	1982	1983(1)
All Services							
Male	141.2	141.6	139.3	140.6	141.1	141.3	138.7
Female	0.4	0.6	0.6	0.9	3.0	3.3	3.1
Royal Navy cadets							
Male	25.1	24.9	23.8	22.7	22.5	22.6	20.7
Female	0.1	0.1	0.1	0.1	2.0	2.0	1.8
Army cadets							
Male	72.5	73.1	72.2	74.0	74.5	73.2	73.2
Female	0.2	0.4	0.4	0.5	0.7	0.9	0.9
Royal Air Force cadets							
Male	43.6	43.6	43.3	43.9	44.1	45.6	44.8
Female	0.1	0.2	0.2	0.2	0.3	0.4	0.4

1. Figures are for 1 January.

4.6 Deployment of UK Service personnel: United Kingdom(1)
1 July

Thousands

	1977	1978	1979	1980	1981	1982(2)
United Kingdom: total	241.9	230.2	232.2	238.1	245.0	215.2
males	229.7	217.7	219.1	224.2	231.1	202.6
females	12.2	12.5	13.1	13.9	14.0	12.6
National totals (3)						
England	202.8	192.7	192.6	200.0	207.7	195.9
males	191.7	181.2	180.5	187.5	195.0	184.4
females	11.1	11.5	12.1	12.5	12.7	11.5
Wales	6.4	6.3	6.3	6.9	6.3	6.1
males	6.4	6.2	6.2	6.7	6.2	6.0
females	0.1	0.1	0.1	0.2	0.2	0.1
Scotland	19.1	19.3	19.0	18.1	18.9	19.0
males	18.4	18.6	18.3	17.3	18.1	18.2
females	0.6	0.7	0.7	0.7	0.8	0.8
Northern Ireland(4)	14.7	14.4	13.6	11.9	11.6	10.9
males	14.4	14.1	13.3	11.5	11.3	10.6
females	0.3	0.3	0.3	0.3	0.3	0.3
Standard regions of England						
North	1.3	1.1	1.1	1.2	1.2	1.7
males	1.3	1.0	1.1	1.1	1.1	1.7
females	-	-	0.1	0.1	0.1	0.1
Yorkshire and Humberside	13.0	14.8	13.9	14.6	13.6	13.5
males	12.5	14.2	13.3	14.0	13.0	12.9
females	0.5	0.6	0.7	0.6	0.6	0.6
East Midlands	12.5	12.3	12.8	13.9	14.4	12.7
males	11.9	11.6	12.0	13.0	13.4	11.8
females	0.6	0.6	0.8	0.9	1.1	0.9
East Anglia	14.7	13.8	14.5	13.8	15.6	15.7
males	14.1	13.2	13.8	13.1	14.8	14.9
females	0.6	0.6	0.7	0.8	0.8	0.7
South East	95.3	91.1	92.0	94.8	97.9	90.2
males	88.9	84.5	85.4	88.0	91.0	84.2
females	6.4	6.6	6.7	6.9	6.9	6.1
South West	55.4	49.6	46.6	50.0	53.2	51.9
males	53.2	47.4	44.5	47.7	50.6	49.4
females	2.2	2.2	2.2	2.3	2.5	2.4
West Midlands	8.2	8.1	9.5	9.7	9.7	8.7
males	7.5	7.3	8.6	8.8	9.0	8.1
females	0.7	0.8	0.9	0.9	0.7	0.6
North West	2.3	1.9	2.0	2.0	2.2	1.4
males	2.2	1.9	2.0	2.0	2.1	1.4
females	-	-	0.1	0.1	0.1	0.1

1. Royal Navy and Royal Marine personnel on board ships in home waters are included.
2. The 1982 national and regional figures include personnel who are UK based but temporarily deployed in the South Atlantic.
3. The source from which the individual national and regional totals are compiled is different from that used to obtain the United Kingdom element of global deployments. Consequently, the sum of the national figures can differ from the United Kingdom figures by up to 2.5 thousand in any year. The larger difference in 1982 is explained by footnote 2.
4. The figures for Northern Ireland include all personnel from other parts of the United Kingdom and from the British Army of the Rhine who are serving on emergency tours of duty, but exclude the Ulster Defence Regiment.

4.7 Deployment of UK Service personnel: overseas
1 July

Number

	1977	1978	1979	1980	1981	1982
All overseas areas(1)						
Royal Navy and Royal Marines	3392	7846	4465	5878	3831	14696
Army(2)	70463	69445	66484	67445	72597	78785
Royal Air Force	14696	14458	13908	14324	14839	16307
Federal Republic of Germany						
Royal Navy and Royal Marines	24	19	24	38	34	19
Army(2)	58153	56579	55038	55545	60067	59582
Royal Air Force	8971	9090	9556	9745	10297	10179
Elsewhere in Continental Europe(3)						
Royal Navy and Royal Marines	1215	366	376	362	383	369
Army	3995	3919	3679	3690	4001	4094
Royal Air Force	1637	1609	1625	1657	1687	1734
Gibraltar						
Royal Navy and Royal Marines	841	1556	920	1998	962	1414
Army	857	741	691	755	784	818
Royal Air Force	456	420	415	419	408	421
Malta						
Royal Navy and Royal Marines	477	322	7	-	-	-
Army	103	79	-	-	-	-
Royal Air Force	1212	889	-	-	-	-
Cyprus						
Royal Navy and Royal Marines	12	15	25	15	15	15
Army	3337	3311	2698	3268	3485	3367
Royal Air Force	1347	1267	1303	1409	1365	1375
Elsewhere in Mediterranean,Near East & Gulf						
Royal Navy and Royal Marines	47	42	20	15	1047	783
Army	300	284	263	278	230	248
Royal Air Force	117	88	78	78	88	91
Hong Kong						
Royal Navy and Royal Marines	261	257	262	334	298	331
Army	2002	1938	1896	1941	1992	1952
Royal Air Force	324	241	218	249	254	253
Elsewhere in the Far East						
Royal Navy and Royal Marines	42	45	1724	1614	102	62
Army	216	214	103	105	210	220
Royal Air Force	17	18	15	19	21	19
Other locations(4)						
Royal Navy and Royal Marines	473	5224	1107	1502	990	11703
Army	1500	2380	2116	1863	1828	8504
Royal Air Force	615	836	698	748	719	2235

1. The figures include personnel who are on loan to countries in the areas shown. The Royal Navy and Royal Marine figures include personnel who are at sea in each area at the situation date. All Defence Attaches and Advisers and their staffs are included under "Other locations" and not identified within specified areas.
2. Personnel serving in Northern Ireland on emergency tours of duty but remaining under the command of the Commander-in-Chief, British Army of the Rhine are included in these numbers.
3. These figures include personnel stationed in Berlin and Sardinia.
4. The 1982 figures include personnel in the South Atlantic on Operation Corporate.

4.8 Recruitment of UK Service personnel: to each Service

Number

	Financial years				1 Apr-31 Dec	
	1978-79	1979-80	1980-81	1981-82	1981	1982
All Services: total	43366	50652	50488	22607	19085	14699
Male	38774	46206	46693	21188	17942	13330
Officers	2110	2547	2924	2319	1749	1459
Servicemen	36664	43659	43769	18869	16193	11871
Female	4592	4446	3795	1419	1143	1369
Officers	280	333	409	282	225	149
Servicewomen	4312	4113	3386	1137	918	1220
Royal Navy	6791	8526	9088	3805	3419	1849
Male	5978	7701	8130	3353	3001	1665
Officers	533	649	685	400	288	259
Servicemen	5445	7052	7445	2953	2713	1406
Female	813	825	958	452	418	184
Officers	27	22	47	18	18	13
Servicewomen	786	803	911	434	400	171
Royal Marines	1282	1676	1674	699	565	285
Male	1282	1676	1674	699	565	285
Officers	51	42	69	52	47	22
Servicemen	1231	1634	1605	647	518	263
Army	25254	29189	28871	14204	12315	10020
Male	23528	27164	27241	13603	11883	9086
Officers	1021	1127	1285	1198	855	840
Servicemen	22507	26037	25956	12405	11028	8246
Female	1726	2025	1630	601	432	934
Officers	156	154	204	148	99	86
Servicewomen	1570	1871	1426	453	333	848
Royal Air Force	10039	11261	10855	3899	2786	2545
Male	7986	9665	9648	3533	2493	2294
Officers	505	729	885	669	559	338
Servicemen	7481	8936	8763	2864	1934	1956
Female	2053	1596	1207	366	293	251
Officers	97	157	158	116	108	50
Servicewomen	1956	1439	1049	250	185	201

4.9 Recruitment of male UK Service personnel: categories of entry

Number

	Financial years				1 Apr-31 Dec	
	1978-79	1979-80	1980-81	1981-82	1981	1982
All Services: total	38774	46206	46693	21188	17942	13330
Officers	2110	2547	2924	2319	1749	1459
Pre-cadets	523	518	624	594	438	414
Officer cadets	856	977	1051	758	534	435
University cadets	255	288	283	216	182	141
Specialists, graduates and other direct commission entrants	476	764	966	751	595	469
Servicemen	36664	43659	43769	18869	16193	11871
Royal Navy	5978	7701	8130	3353	3001	1665
Officers	533	649	685	400	288	259
Officer cadets	337	377	431	235	171	188
University cadets	96	92	74	43	28	12
Specialists, graduates and other direct commission entrants	100	180	180	122	89	59
Servicemen	5445	7052	7445	2953	2713	1406
Adults (1)	1392	2085	2158	991	943	495
Apprentices	516	555	654	509	370	437
Juniors (2)	3537	4412	4633	1453	1400	474
Royal Marines	1282	1676	1674	699	565	285
Officers	51	42	69	52	47	22
Officer cadets	37	30	52	39	34	12
University cadets	5	6	8	3	3	1
Specialists, graduates and other direct commission entrants	9	6	9	10	10	9
Servicemen	1231	1634	1605	647	518	263
Adults(1)	565	689	630	371	297	154
Juniors(2)	666	945	975	276	221	109
Army	23528	27164	27241	13603	11883	9086
Officers	1021	1127	1285	1198	855	840
Pre-cadets	523	518	624	594	438	414
Officer cadets	243	275	237	226	130	121
University cadets	65	81	79	60	45	65
Specialists, graduates and other direct commission entrants	190	253	345	318	242	240
Servicemen	22507	26037	25956	12405	11028	8246
Adults(1)	9496	12254	12317	3876	2912	3160
Young Soldiers(3)	4389	4413	3463	340	308	92
Apprentices	1562	1625	1976	1625	1525	1440
Juniors(4)	7060	7745	8200	6564	6283	3554
Royal Air Force	7986	9665	9648	3533	2493	2294
Officers	505	729	885	669	559	338
Officer cadets	239	296	331	258	199	114
University cadets	89	109	122	110	106	63
Specialists, graduates and other direct commission entrants	177	325	432	301	254	161
Servicemen	7481	8936	8763	2864	1934	1956
Adults (1)	3575	4196	5258	2018	1306	1479
Young Airmen(2)	3675	4593	3266	524	378	311
Apprentices	231	147	239	322	250	166

1. Entrants over the age of 17½, but excluding RN and RAF apprentices. (In the Army all apprentices are below the age of 17½ on entry.)
2. Entrants below the age of 17½, but excluding apprentices.
3. Entrants between the ages of 17 and 17½, but excluding apprentices.
4. Entrants below the age of 17, but excluding apprentices.

4.10 Outflow of UK Service personnel: from each Service

Number

	Financial years				1 Apr-31 Dec	
	1978-79	1979-80	1980-81	1981-82	1981	1982
All Services: total	49306	45042	37535	29451	22014	21509
Male	45369	41465	34438	26799	20049	19571
Officers	3596	3138	2630	2833	2208	2506
Servicemen	41773	38327	31808	23966	17841	17065
Female	3937	3577	3097	2652	1965	1938
Officers	299	285	286	311	224	225
Servicewomen	3638	3292	2811	2341	1741	1713
Royal Navy	9803	9155	7341	5708	4275	3404
Male	8828	8314	6563	5131	3839	3018
Officers	710	708	567	634	488	559
Servicemen	8118	7606	5996	4497	3351	2459
Female	975	841	778	577	436	386
Officers	66	46	46	56	44	39
Servicewomen	909	795	732	521	392	347
Royal Marines	1348	1568	1347	781	632	500
Male	1348	1568	1347	781	632	500
Officers	67	48	49	52	40	48
Servicemen	1281	1520	1298	729	592	452
Army	29807	26348	21919	17094	12703	12824
Male	28162	24753	20627	15878	11813	11883
Officers	1847	1549	1355	1415	1099	1166
Servicemen	26315	23204	19272	14463	10714	10717
Female	1645	1595	1292	1216	890	941
Officers	130	169	142	139	92	123
Servicewomen	1515	1426	1150	1077	798	818
Royal Air Force	8348	7971	6928	5868	4404	4781
Male	7031	6830	5901	5009	3765	4170
Officers	972	833	659	732	581	733
Servicemen	6059	5997	5242	4277	3184	3437
Female	1317	1141	1027	859	639	611
Officers	103	70	98	116	88	63
Servicewomen	1214	1071	929	743	551	548

4.11 Outflow of UK Service personnel: categories of exit.

Number

	Financial years				1 Apr-31 Dec	
	1978-79	1979-80	1980-81	1981-82	1981	1982
Total	49306	45042	37535	29451	22014	21509
Male officers: total	3596	3138	2630	2833	2208	2506
Commissioned Officers	3083	2598	2000	2109	1658	1971
Time and age expiries or exercise of right at option point	1023	1040	820	885	680	939
Premature release at own request	1444	1220	877	851	687	688
Redundancies	287	37	-	-	-	27
Medical reasons and deaths	145	142	155	107	81	109
Other reasons	184	159	188	266	210	208
Officers designate	513	540	630	724	550	535
At own request	167	160	168	136	102	115
Medical reasons and deaths	10	20	9	6	6	5
Other reasons	336	360	453	582	442	416
Servicemen: total	41773	38327	31808	23966	17841	17065
Before completion of 6 months service	10574	11473	10406	4705	3788	1900
By exercise of right	7410	8164	6511	3087	2428	1232
Unsatisfactory, for disciplinary or other reasons	2891	3094	3647	1502	1270	616
Medical reasons and deaths	270	199	240	112	86	51
Compassionate release	3	16	8	4	4	1
After completion of 6 months service	31199	26854	21402	19261	14053	15165
Time and age expiries or exercise of right at option point	13783	12031	10734	9009	6718	7350
Premature release at own request	10720	9695	6240	4158	3012	2963
Redundancies	1364	153	2	22	21	112
Unsatisfactory, for disciplinary or other reasons	3327	3446	3268	4953	3464	3641
Medical reasons and deaths	1586	1289	1007	963	729	992
Compassionate release	419	240	151	156	109	107
Female officers: total	299	285	286	311	224	225
Time and age expiries or exercise of right at option point	140	139	142	141	100	121
At own request	145	128	131	156	111	91
Medical reasons and deaths	6	9	4	3	3	6
Other reasons	8	9	9	11	10	7
Servicewomen: total	3638	3292	2811	2341	1741	1713
Time and age expiries or exercise of right at option point	166	114	80	73	47	56
By exercise of right to give 18 months notice	489	545	446	411	296	260
At own request	738	644	424	150	105	168
Marriage, pregnancy	1730	1502	1363	1327	1000	1054
Unsatisfactory, for disciplinary or other reasons	431	417	439	326	256	155
Medical reasons and deaths	70	54	48	44	28	14
Compassionate release	14	16	10	10	9	6

4.12 Strengths of male UK Service personnel and numbers married(1): age distribution
1 July

Number

	1978	1979	1980	1981	1982
Male Officers:					
Strengths					
All ages: total	40006	39359	39810	40721	40515
17-19	836	861	870	971	763
20-24	4645	4838	5248	5709	5724
25-29	5647	5230	5237	5401	5613
30-34	7401	7227	6893	6632	5909
35-39	6283	6423	6753	7076	7509
40-44	6246	5859	5702	5557	5536
45-49	5702	5571	5510	5507	5428
50 and over	3246	3350	3597	3868	4033
Numbers married					
All ages: total	31260	30281	30135	30504	30363
17-19	-	1	-	2	2
20-24	577	546	521	600	607
25-29	3617	3173	3053	3191	3236
30-34	6550	6366	6075	5797	5133
35-39	5928	6032	6313	6640	7032
40-44	6003	5626	5427	5318	5276
45-49	5489	5341	5284	5275	5220
50 and over	3096	3196	3432	3681	3857
Servicemen:					
Strengths					
All ages: total	263443	259291	267154	276929	268452
16-19	58092	58634	64220	64848	50565
20-24	79383	80096	83306	89109	91938
25-29	48055	44625	43828	46254	48964
30-34	37935	36250	34959	34655	32573
35-39	24941	24512	25475	26593	28784
40-44	9990	10191	10129	10006	9959
45-49	3644	3413	3434	3482	3584
50 and over	1403	1570	1803	1982	2085
Numbers married					
All ages: total	140956	134238	133567	137589	140668
16-19	1708	1498	1591	1677	1497
20-24	29647	28166	28602	30384	31519
25-29	37739	34688	33643	35107	37059
30-34	34324	32680	31485	31139	29194
35-39	23311	22843	23746	24720	26757
40-44	9469	9680	9572	9421	9323
45-49	3450	3208	3233	3281	3373
50 and over	1308	1475	1695	1860	1946

1. Widowed and divorced personnel are excluded from the numbers married, except those in the Royal Navy, the Royal Marines and the Army with dependent children.

4.13 Strengths of male UK Service personnel and numbers married(1): rank distribution(2)
1 July

Number

	1978	1979	1980	1981	1982
Male Officers:					
Strengths					
All ranks: total	40006	39359	39810	40721	40515
Major General and above	225	229	228	216	221
Brigadier	370	377	384	387	391
Colonel	1392	1444	1458	1485	1484
Lieutenant Colonel	4553	4502	4516	4654	4590
Major	11642	11577	11614	11860	11837
Captain	14887	14203	14100	14125	14262
Lieutenant and below	6937	7027	7510	7994	7730
Numbers married					
All ranks: total	31260	30281	30135	30504	30363
Major General and above	218	221	219	204	209
Brigadier	359	366	373	376	383
Colonel	1344	1384	1385	1394	1415
Lieutenant Colonel	4358	4312	4307	4388	4374
Major	10926	10836	10797	11067	11076
Captain	12223	11433	11237	11212	11152
Lieutenant and below	1832	1729	1817	1863	1754
Servicemen:					
Strengths					
All ranks: total	263443	259291	267154	276929	268452
Warrant Officer	11024	10953	11219	11557	11565
Staff Sergeant	22698	22363	22930	23160	23076
Sergeant	34261	34218	34651	35066	35403
Corporal	46682	47548	48440	50484	51439
Lance corporal	20915	20624	21693	22757	23211
Private (incuding juniors)	127863	123585	128221	133905	123758
Numbers married					
All ranks: total	140956	134238	133567	137589	140668
Warrant officer	10698	10611	10860	11163	11177
Staff Sergeant	21180	20859	21305	21488	21346
Sergeant	30551	30299	30581	30797	30998
Corporal	35762	35492	35329	36397	37314
Lance corporal	12779	11554	11631	12358	13178
Private (including juniors)	29986	25423	23861	25386	26655

1. Widowed and divorced personnel are excluded from the numbers married, except those in the Royal Navy, the Royal Marines and the Army with dependent children.
2. In Army terms.

4.14 Outflow of trained Service personnel: major skill or trade groups

Number

	1978-79	1979-80	1980-81	1981-82
Engineering: total	7869	7347	5708	4855
of which:				
Mechanical	4023	3616	3415	2467
Electrical	2856	2997	1742	1956
Civil	990	734	551	432
Mechanical transport(1)	4181	3046	2378	2128
Communications(2)	2537	1916	1519	1296
Catering	1889	1448	1242	1219
Accounting and secretarial	1953	1229	1123	1268
Supply and stores	1576	1250	900	978
Medical and dental(3)	1451	900	864	1037
Aviation(4)	1313	1199	754	836
Security and fire services	915	751	544	529
Education(5)	272	184	144	156
Administration and personnel management(6)	188	86	66	240

1. Comprising all personnel trained in the control and operation of wheeled and tracked vehicles
2. Comprising all personnel trained in the control and operation of communications systems.
3. Comprising doctors, dentists, nurses and supporting staff.
4. Comprising flying and ground control personnel.
5. Including physical education instructors other than those with skills covered by other categories.
6. Including officers of the rank of Captain RN and above, and the equivalent ranks in the other Services, who are not included in other categories.

4.15 Service pensioners(1)
1 April

Thousands

	1977	1978	1979	1980	1981	1982
Total:	214.8	218.6	219.0	219.1	217.9	217.5
Male	212.7	216.5	216.9	216.9	215.7	215.2
Female	2.1	2.1	2.1	2.2	2.2	2.2
Officers total:	57.6	58.5	59.0	59.3	59.1	59.0
Male	56.5	57.4	57.8	58.1	57.9	57.8
Female	1.1	1.1	1.1	1.2	1.2	1.2
Others total:	157.2	160.1	160.0	159.8	158.8	158.5
Male	156.2	159.1	159.0	158.8	157.8	157.4
Female	1.0	1.0	1.0	1.0	1.0	1.0
Age of pensioner						
Under 40	5.3	6.6	7.9	7.8	7.2	6.8
40-49	48.2	49.4	48.4	47.5	46.5	45.8
50-59	59.0	59.7	60.5	60.0	58.2	57.4
60-69	60.3	59.8	58.3	58.6	59.4	59.8
70-79	33.8	34.8	35.3	36.2	36.3	36.6
80 and over	8.2	8.4	8.5	9.1	10.3	11.0
Pension commenced(2)						
Pre 1945	20.7	18.9	17.0	15.4	13.8	12.4
1945-1955	43.7	41.5	39.1	36.7	34.2	31.8
1956-1961	39.2	38.4	37.1	36.0	34.9	33.9
1962-1969	52.7	52.0	50.9	50.1	49.1	48.2
1970-1974	40.7	40.4	38.4	38.1	37.7	37.2
1975-1979	17.8	27.4	36.6	42.7	42.3	42.1
1980	*	*	*	*	5.7	5.7
1981	*	*	*	*	*	5.8

1. Comprises recipients of Service retired pay(officers) and pensions(servicemen/servicewomen) and invaliding and attributable retired pay and pensions but not purely disability pensions.
2. Financial years beginning 1 April,except 1945 when the effective date was 19 December.Figures for 1978 are estimates.

4.16 Service pay: indices and illustrative rates of military salary(1)
1 April

	1977	1978	1979	1980	1981	1982
	April 1975=100					
Military salary index: all ranks(2).....	115.3	130.1	173.7	201.7	222.9	236.1
Senior officers(Major General & above)....	101.6	111.8	140.5	171.9	189.7	210.2
Officers(up to Brigadier.....	109.8	123.3	163.5	194.3	220.8	236.8
Other ranks(Sergeant & above).....	113.8	129.2	175.7	204.2	226.8	241.0
Other ranks(up to Corporal).....	118.4	133.4	176.9	203.4	221.7	233.1
	£					
Illustrative rates of military salary (in terms of Army ranks)(3)						
General.....	18133	19947	25474	31000	34000	37748
Brigadier.....	10209	11545	15251	18250	20900	22750
Colonel after 4 years in the rank..	8807	10063	13502	16151	18400	19998
Lieutenant Colonel after 4 years in the rank..	7621	8581	11500	13750	15801	17199
Major after 4 years in the rank..	6121	6877	9249	11001	12399	13301
Captain after 3 years in the rank..	4971	5648	7250	8501	9702	10305
Lieutenant after 2 years in the rank..	4004	4457	5677	6650	7599	8048
Second Lieutenant.....	3139	3478	4352	5201	5949	6249
Warrant Officer 1 band 6,scale C; after 18 years(4)..	4964	5636	7631	8983	10129	10800
Warrant officer 11 band 6,scale C; after 18 years(4)..	4778	5413	7324	8592	9636	10257
Staff Sergeant band 5,scale C; after 18 years(4)..	4358	4891	6555	7669	8519	9030
Sergeant band 5,scale C; after 12 years(5)..	4084	4599	6182	7172	7917	8515
Corporal class 1,band 2,scale C.	3694	4183	5662	6482	7125	7508
Lance Corporal class 1,band 1,scale C.	3103	3497	4670	5344	5814	6106
Private class 2,band 1,scale C.	2686	2993	3894	4453	4811	5048

1. All forms of additional pay,e.g flying pay, diving pay, parachute pay are excluded since they are not paid to the majority of Service personnel.
2. The index covers adult male UK Service personnel. In the weighting, based on paid strengths at April 1977,doctors,dentists, chaplains, legal and educational officers are excluded.
3. For officers, the mid point of the incremental scales have been used. For soldiers, the pay bandings have been selected which contain the largest number at each rank. Within each rank servicemen are divided for the purposes of pay into classes, bands and scales according to their employment classification, the nature of their specialisation and the period of commitment to serve
4. Includes length of service increments - £219(up to 1979), £328.50(1980) £365(1981) and £383.25(1982).
5. Includes length of service increments - £128(up to 1979), £182.50(1980) £200.75(1981) and £346.75(1982).

5. Civilian staff

The tables in this section are particularly relevant to Chapter 5 of Volume 1.

In the strengths tables part-time staff are counted as half. In some cases the figures shown do not add precisely to the totals because of roundings.

Occupational recruitment and losses of UK-based civilian non-industrial staff. Table 5.7 shows those entering the department from outside the Civil Service and those leaving both MOD and the Civil Service. The net gains or losses for individual groups in this table do not account entirely for the year to year changes in the corresponding group strength shown in Table 5.6, since transfers between groups, movements from industrial to non-industrial grades and exchanges with government departments are all excluded.

Civilian Apprentices: location. Table 5.9 now gives information for a run of years. The figures include a very small number of female apprentices.

5.1 Strengths of civilian staff employed in the Ministry of Defence
1 April

Thousands

	Actual					Estimates	
	1979	1980	1981	1982	1983(1)	1983	1984(2)
MOD civilian staff: total	285.9	276.2	264.9	251.7	244.0	243.2	232.5
UK based(3): total	247.7	239.8	229.6	216.9	210.2	209.0	200.0
United Kingdom(excluding Royal Ordnance Factories):							
Non-industrial	109.8	107.8	103.1	98.2	96.4	95.9	93.0
Industrial	108.5	104.0	99.8	93.6	89.8	88.8	82.5
Royal Ordnance Factories:							
Non-industrial	5.9	5.9	5.8	5.4	5.1	5.1	5.3
Industrial	17.1	15.9	15.0	14.0	13.3	13.5	13.6
Overseas:							
Non-industrial	4.9	4.8	4.6	4.5	4.2	4.3	4.2
Industrial	1.5	1.4	1.3	1.2	1.3	1.4	1.4
Locally engaged: total	38.2	36.4	35.3	34.8	33.8	34.2	32.5
Non-industrial	11.2	11.0	10.9	10.7	10.6	10.4	10.1
Industrial	27.1	25.5	24.4	24.1	23.2	23.8	22.4

1. Figures are for 1 January.
2. The Estimate figures for 1984 are as at 31 March.
3. UK based personnel are those recruited in the UK even though in some instances they may be serving overseas. Locally engaged staff are those recruited overseas.

5.2 Functional analysis of civilian staff: average strengths provided for in the Estimates

Thousands

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Total civilian staff(1)	266.8	263.3	255.5	242.3	230.2	219.1
Nuclear strategic force	4.1	4.4	4.5	4.4	4.5	4.3
Navy general purpose combat forces	8.4	8.2	8.1	7.7	6.9	7.1
Other vessels	5.5	5.5	5.4	5.1	4.9	5.2
Aircraft	0.1	0.1	0.1	0.1	0.1	-
Fleet headquarters	0.1	0.2	0.2	0.2	0.2	0.2
Overseas shore establishments	2.7	2.4	2.4	2.3	1.7	1.7
European theatre ground forces (British Army of the Rhine)	28.2	27.7	26.9	25.2	24.6	23.8
Other Army combat forces	6.9	6.8	6.6	6.9	6.9	6.9
Mediterranean	3.1	2.9	2.6	2.7	2.8	2.8
Hong Kong and other Far East	3.7	3.7	3.8	4.0	4.1	4.0
Other areas	0.1	0.2	0.2	0.2	-	0.1
Air Force general purpose forces	11.6	11.4	11.0	10.2	9.8	9.3
Air defence	0.1	0.1	0.1	0.1	0.1	0.1
Other aircraft	0.3	0.3	0.3	0.3	0.3	0.3
Operational stations	5.1	5.1	4.9	4.6	4.5	4.3
Headquarters	1.1	1.0	0.9	0.9	0.7	0.6
General support	5.0	4.9	4.8	4.3	4.2	4.0
Reserve and Auxiliary formations	3.6	3.5	3.3	3.2	3.0	3.3
Navy	0.2	0.2	0.2	0.2	0.2	0.2
Army	2.9	2.8	2.6	2.5	2.3	2.6
Air Force	0.5	0.5	0.5	0.5	0.5	0.5
Research and development	33.7	33.2	32.0	31.0	29.5	26.7
Ship construction and underwater warfare	3.1	3.5	3.4	3.5	3.3	3.6
Ordnance and other Army	5.0	4.8	3.9	3.7	3.6	3.9
Military aircraft	6.8	6.5	6.5	7.5	7.2	6.0
Guided weapons	3.0	2.5	2.9	2.6	2.4	2.1
Other electronics	3.7	4.3	4.7	3.7	3.5	2.2
Other research and development	12.1	11.6	10.6	10.0	9.5	8.9
Training	20.5	21.0	20.8	19.7	18.6	12.2
Service colleges	3.3	3.3	3.3	3.0	2.8	2.7
Navy	3.9	4.0	3.8	3.6	3.4	3.0
Army	10.5	10.9	10.9	10.4	9.9	3.9
Air Force	2.8	2.8	2.8	2.7	2.5	2.6
Repair and associated facilities in UK	88.3	87.2	84.9	78.9	73.9	76.2
Royal Dockyards	34.2	33.8	32.8	31.0	28.8	25.6
Other repair and maintenance	15.6	15.7	15.8	15.1	14.2	17.5
Storage and supply	28.9	28.3	27.2	24.7	23.2	25.5
Quality assurance	9.6	9.4	9.1	8.1	7.7	7.7
Other support functions	61.5	59.9	57.4	55.1	52.5	49.3
Whitehall organisation	12.2	12.4	11.6	11.1	10.4	10.1
Local administration communications etc in UK	30.2	29.0	28.1	27.1	26.1	28.0
Meteorological services	3.3	3.2	3.1	2.9	2.8	2.7
Family and personnel services in UK	10.6	10.5	9.8	9.3	8.6	7.2
Service pensions	0.2	0.2	0.2	0.2	0.2	-
Other support services	5.0	4.6	4.6	4.5	4.4	1.3
Staff not provided for in Defence Estimates(2)						
Royal Ordnance Factories	23.5	23.5	21.9	20.9	19.3	18.7
Department of Environment civilians engaged on Defence work	28.0	26.0	24.7	23.3	22.1	20.7

1. These figures are the average strengths of industrial and non-industrial staff provided for in the original Estimates and include locally engaged staff.
2. Civilians employed in the Royal Ordnance Factories and Department of the Environment staff directly employed on Defence work who are excluded from the Defence Estimates provisions.

5.3 Organisational strengths of UK-based civilian staff(1)
1 April

Thousands

	1977	1978	1979	1980	1981	1982	1983(2)
Ministry of Defence: total(3)	258.7	250.4	247.7	239.8	229.6	216.9	210.2
Headquarters							
Centre	11.9	11.8	11.4	10.8	9.7	9.2	8.8
Navy	1.6	1.6	1.5	1.5	1.5	1.4	1.4
Army	1.5	1.9	1.4	1.4	1.3	1.2	1.3
Air	1.0	1.0	0.9	0.8	1.1	0.9	0.9
Procurement Executive	9.4	8.4	8.1	8.2	7.9	7.6	7.4
Maintenance,repair,storage and supply organisations							
Centre	0.6	0.5	0.5	0.5	-	-	-
Navy, including Royal Dockyards	58.3	58.2	57.8	56.6	54.6	51.6	50.8
Army	28.2	27.0	27.2	26.1	24.7	23.1	23.1
Air	10.4	8.4	7.6	7.7	7.7	7.3	7.1
Command and support services(4)							
Centre	11.1	10.1	9.7	9.6	9.9	9.6	6.3
Navy	10.6	10.5	10.6	10.3	9.8	9.0	9.0
Army	31.4	30.2	30.1	28.6	27.1	25.9	25.4
Air	14.6	14.4	15.2	14.2	13.8	13.1	12.7
Procurement Executive(5)	42.2	40.4	39.7	38.8	36.7	34.8	34.7
Meteorological services	3.2	3.1	3.1	3.1	2.9	2.8	2.7
Royal Ordnance Factories	22.8	22.9	23.0	21.8	20.8	19.4	18.4

1. From 1982 a change has been made in the designation of Headquarters and other staffs.In order to provide a comparison with earlier years,figures prior to 1982 have been broadly adjusted to reflect the change.
2. Figures are for 1 January.
3. This table includes UK-based staff serving overseas.
4. Including medical, educational and training establishments.
5. Including research and development establishments.

5.4 Strengths of civilian staff(1): United Kingdom
1 January

Thousands

	1978(2)	1979	1980	1981	1982	1983
United Kingdom	243.8	242.1	235.4	226.8	215.7	204.6
Non-industrial	117.1	115.9	114.2	110.1	105.7	101.5
Industrial	126.7	126.2	121.2	116.7	110.0	103.1
England	208.8	206.8	200.9	192.3	182.5	172.3
Non-industrial	105.2	104.1	102.5	98.4	94.3	90.4
Industrial	103.5	102.7	98.4	93.9	88.2	81.8
Wales	9.7	9.8	9.4	9.5	9.2	8.9
Non-industrial	3.4	3.4	3.4	3.4	3.4	3.2
Industrial	6.4	6.4	6.1	6.1	5.9	5.7
Scotland	21.9	22.2	21.9	21.9	21.1	20.6
Non-industrial	7.4	7.4	7.3	7.4	7.1	7.0
Industrial	14.6	14.8	14.6	14.5	14.0	13.6
Northern Ireland	3.4	3.3	3.2	3.1	2.9	2.8
Non-industrial	1.1	1.0	1.0	1.0	0.9	0.9
Industrial	2.2	2.3	2.2	2.1	2.0	1.9
Standard regions of England						
North	6.6	6.4	6.4	6.3	5.7	5.4
Non-industrial	2.3	2.2	2.4	2.3	2.2	2.1
Industrial	4.2	4.2	4.1	4.0	3.5	3.3
Yorkshire and Humberside	10.3	10.3	9.6	9.1	8.8	8.5
Non-industrial	5.1	5.1	5.1	4.9	4.9	4.7
Industrial	5.2	5.2	4.5	4.2	4.0	3.7
East Midlands	9.8	9.7	9.4	8.8	7.6	6.7
Non-industrial	3.5	3.4	3.4	3.2	2.8	2.6
Industrial	6.4	6.3	6.0	5.6	4.8	4.1
East Anglia	2.8	3.0	2.8	2.7	2.5	2.5
Non-industrial	1.3	1.4	1.3	1.3	1.1	1.2
Industrial	1.6	1.6	1.4	1.4	1.3	1.2
South East	101.9	99.9	96.8	92.4	87.9	80.9
Non-industrial	57.0	55.6	54.1	51.8	49.8	47.0
Industrial	44.9	44.4	42.6	40.6	38.1	33.9
South West	53.0	53.0	51.9	49.8	48.0	47.0
Non-industrial	25.6	25.8	25.6	24.7	23.8	23.3
Industrial	27.3	27.2	26.4	25.0	24.2	23.8
West Midlands	11.3	11.2	11.2	10.8	10.7	10.4
Non-industrial	5.5	5.4	5.5	5.3	5.1	5.0
Industrial	5.8	5.8	5.7	5.5	5.6	5.4
North West	13.0	13.3	12.8	12.5	11.4	10.9
Non-industrial	4.9	5.2	5.1	4.9	4.7	4.6
Industrial	8.1	8.0	7.7	7.6	6.7	6.3

1. This table includes staff at the Royal Ordnance Factories.
2. At 1 April.

5.5 Strengths of civilian staff: overseas
1 April

Number

	1978	1979	1980	1981	1982	1983(1)
All overseas areas						
UK based	6557	6371	6220	5948	5708	5524
Locally engaged	40001	38204	36442	35303	34795	33810
Federal Republic of Germany						
UK based	2387	2301	2191	2093	2044	1912
Locally engaged	26800	26875	25098	24312	23851	23279
Elsewhere in Continental Europe						
UK based	76	84	92	70	73	102
Locally engaged	826	792	766	767	746	748
Gibraltar						
UK based	297	303	299	275	251	217
Locally engaged	2661	2673	2656	2662	2600	2528
Malta						
UK based	130	4	1	1	1	1
Locally engaged	1589	18	14	13	11	12
Cyprus						
UK based	349	363	370	368	357	351
Locally engaged	2878	2880	2913	2749	2712	2657
Hong Kong						
UK based	380	394	383	386	400	299
Locally engaged	3313	3253	3273	3066	3137	3133
Elsewhere in the Far East						
UK based	23	16	27	22	7	5
Locally engaged	793	730	754	772	534	553
Other areas(2)						
UK based	2915	2906	2857	2733	2575	2637
Locally engaged	1141	983	968	964	1204	900

1. Figures are for 1 January.
2. Including duty afloat and Royal Fleet Auxiliary crews.

5.6 Strengths of occupational groups or classes of civilian non-industrial staff(1)
1 April

Thousands

	1977	1978	1979	1980	1981	1982
Total	125.9	122.2	120.6	118.5	113.5	108.1
Administrative and executive	12.0	11.5	11.4	11.5	11.0	10.6
Clerical	32.6	31.7	31.4	29.9	28.0	26.4
Secretarial	7.0	6.8	6.6	6.4	6.2	5.8
Supervisory	4.8	4.7	4.7	4.7	4.6	4.4
Professional and technological	27.2	26.7	26.6	26.5	25.5	23.9
Science	11.2	10.8	10.7	10.6	10.0	9.7
Cartographic and hydrographic	1.1	1.1	1.2	1.1	1.1	1.1
Retired officers	1.9	1.9	1.9	1.9	1.9	1.9
Police	4.2	4.0	3.8	3.9	3.8	3.7
Education	2.8	2.6	2.5	2.4	2.3	2.2
Medical and nursing	1.0	0.9	0.9	0.9	0.9	0.9
Others	20.2	19.5	18.9	18.7	18.2	17.6

1. This table covers all UK based non-industrial staff employed within the Ministry of Defence, including those working at the Royal Ordnance Factories.

5.7 Occupational recruitment and losses of UK-based civilian non-industrial staff(1)

Number

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
Total(2)						
Recruitment	6659	8503	10022	8825	5079	4565
Losses	11269	12778	13028	12297	10372	10632
Administration and executive:						
Recruitment	223	177	236	373	135	133
Losses	656	898	836	819	817	749
Clerical:						
Recruitment	2729	4021	4915	3774	2050	2106
Losses	4214	4407	5005	4944	3500	3417
Secretarial:						
Recruitment	730	862	994	799	666	439
Losses	907	1034	1096	1014	815	720
Supervisory:						
Recruitment	54	66	71	69	33	39
Losses	383	426	379	397	310	228
Professional and technological:						
Recruitment	266	155	226	236	270	187
Losses	1300	1662	1436	1475	1607	2344
Science:						
Recruitment	248	313	719	744	300	277
Losses	547	690	820	771	905	644
Cartographic and Hydrographic:						
Recruitment	84	137	117	78	41	21
Losses	67	78	116	100	64	53
Retired Officers:						
Recruitment	68	227	235	208	187	180
Losses	177	230	203	195	201	227
Police:						
Recruitment	179	264	246	401	178	37
Losses	368	475	420	357	232	207
Educational:						
Recruitment	403	251	256	265	175	193
Losses	337	369	394	366	305	254
Medical and nursing:						
Recruitment	189	164	190	173	144	120
Losses	183	212	181	151	153	132
Others:						
Recruitment	1486	1866	1817	1705	900	833
Losses	2130	2297	2142	1708	1463	1657

1. Recruitment figures refer to staff entering the Ministry of Defence from outside the UK Civil Service and losses relate to those leaving the Ministry of Defence and the UK Civil Service.A comparison of tables 5.7 and 5.6 indicates the net effect of movements internal to the Ministry of Defence.

2. Royal Ordnance Factory recruitment and losses are included.Royal Fleet Auxiliary crews and some staff serving on ocean weather ships are excluded.

5.8 Civilian apprentices: type of establishment
1 April

Number

	1978	1979	1980	1981	1982	1983(1)
Total	7541	7776	7904	7850	7318	6373
Royal Dockyards(2)	3521	3547	3612	3390	2924	2202
Stores and maintenance establishments:						
Navy	399	445	355	341	377	405
Army	714	701	731	729	669	568
Air Force	218	240	251	236	260	232
Research and development establishments	1221	1269	1418	1512	1355	1236
Royal Ordnance Factories	962	1012	997	1051	1068	956
Other establishments	506	562	540	591	665	774

1. Figures are for 1 January.
2. Includes the Clyde submarine base.

5.9 Civilian apprentices: location
1 April

Number

	1979	1980	1981	1982	1983(1)
United Kingdom :total	7776	7904	7850	7318	6373
ROFs(2)	1012	997	1048	1068	956
others	6764	6907	6802	6250	5417
England :total	6286	6412	6490	5873	5002
ROFs	905	887	935	948	843
others	5381	5525	5555	4925	4159
Wales :total	374	402	411	376	386
ROFs	55	56	55	57	55
others	319	346	356	319	331
Scotland :total	1079	1057	919	1037	956
ROFs	52	54	58	63	58
others	1027	1003	861	974	898
Northern Ireland :total	37	33	30	32	29
Standard Regions of England (3)					
North :total	65	71	75	89	109
ROFs	41	47	51	51	41
Yorks and Humberside :total	291	327	351	254	217
ROFs	175	176	193	196	165
East Midlands :total	458	369	370	351	327
ROFs	199	170	165	161	138
South East :total	3306	3294	3392	2596	1949
ROFs	99	98	117	128	125
South West :total	1658	1755	1694	1904	1847
ROFs	32	35	39	39	30
West Midlands :total	124	205	206	246	189
North West :total	384	391	402	433	364
ROFs	359	361	370	373	344

1. Figures are for 1 January
2. Throughout this table ROFs is used as an abbreviation for Royal Ordnance Factories.
3. All regional totals include Royal Ordnance Factory apprentices.

6. Health, education and accommodation of the Services

Service hospitals and in-patients. Table 6.1 gives the number of Service hospitals in the United Kingdom and in areas abroad where there is a significant British military presence. These hospitals take as patients members of all 3 Services and their dependants. In the United Kingdom hospitals take other civilian patients under arrangements agreed with the National Health Service. The hospitals abroad also admit UK-based MOD civilians and their dependants and certain other personnel (e.g. Hong Kong Government employed personnel and Gurkhas and their dependants).

Medical discharges of UK Service personnel. Table 6.4 gives the number of Regular UK Service personnel who are invalided out of the Services before the completion of their engagement.

Service married accommodation. Table 6.7 gives details of the accommodation provided for Service families in the United Kingdom and abroad partly by building to approved standards and partly by renting accommodation. The multiple hirings in British Army of the Rhine(BAOR) and Royal Air Force Germany(RAFG) relate to accommodation built by private developers and leased by the Federal German authorities on behalf of the British Forces. Small numbers of multiple hirings are held elsewhere and are included in the 'hirings' figures.

House ownership by Service personnel. Table 6.8 derives from the Armed Forces Accommodation and Family Education surveys. Information for these surveys is collected by means of questionnaires posted to a random sample of personnel, stratified by rank, from all three Services. The last survey was carried out in 1980 when the sample size was 30,000. A new survey is being carried out this year and the results will be published later.

Officer training in selected Service colleges: student numbers and student/staff ratios. The colleges listed in Table 6.9 provide courses of various lengths, largely for basic and higher officer training. Average student population is calculated by dividing the number of days' instruction given during the year by the number of days available for instruction. The student/staff ratios are constructed by comparing the average student population at each establishment with the numbers of staff actually in post. The figures are based on MOD cost accounting methods which differ from those used by the Department of Education and Science. The figures reflect wide differences between the tasks of the various Service colleges whose functions differ from those of civilian institutions of Higher Education so that the use of DES accounting methods would be inappropriate.It is therefore impossible to make comparisons between these figures and similar figures produced by the Department of Education and Science.

Selected qualifications obtained under Service sponsorship. As a result of training and assistance given by the Services to their personnel, skills valuable in later civilian life are acquired and formal qualifications are often obtained. Those given in Table 6.10 are illustrative of the wide range involved.

Not all the degrees are obtained at universities. A number of degree courses are run at the Service education establishments, Royal Naval Engineering College Manadon and Royal Military College of Science Shrivenham. In Service units and ships, education officers organise instruction for a range of General Certificate of Education and other academic examinations. In addition, Service personnel may attend local education authority and other external courses and will normally be eligible for financial assistance, but these instances are not recorded centrally and are excluded from this table.

Service Children's Education Authority schools Table 6.11 gives details of the Service Children's Education Authority(SCEA) which administers primary and secondary schools in overseas military commands for the children of serving personnel. The total number of Service children in primary or secondary schooling in the United Kingdom and overseas was estimated to be 148,300 in 1980. The 1980 Armed Forces Accommodation and Family Education survey also revealed a total of 25,400 Service children in nursery schools. Enrolment in SCEA schools also includes children of MOD and other UK Civil Service employees serving overseas.

Social expenditure included in the Defence budget. The Defence budget provides certain social services as specified in Table 6.12 for members of the Armed Forces and their families. These are also of benefit to UK-based civilians serving overseas. The figures shown for Education cover the education of Service personnel, the Service Children's Education Authority and contributions towards the cost of educating Service children in other schools. The cost of Service pensions which do not relate to the current Defence effort, is also shown. Civil superannuation, not covered by the Defence budget is not included in this table.

Service entertainment and welfare. Tables 6.15 and 6.16 show a range of the entertainment and welfare services available to HM Forces.The Services Sound and Vision Corporation (SSVC) is a registered charity and a private company limited by guarantee with its head office at Chalfont Grove, Bucks. It incorporates the former Services Kinema Corporation (SKC) and the British Forces Broadcasting Service (BFBS). NAAFI is also a registered company limited by guarantee. A Memorandum of Association defines its powers and objects while Articles of Association govern the way in which the NAAFI Council and the Board of Management are appointed and work. There are no shareholders,no subscribed capital and no private interests with any stake in the business. NAAFI is financially self-supporting and operates as the Armed Forces' co-operative,returning its profits to the customer and with the Forces themselves having ultimate control through the NAAFI Council.

6.1 Service hospitals and in-patients

Number

	1977	1978	1979	1980	1981	1982
Number of Service hospitals(1)						
United Kingdom(2)	18	12	11	11	11	11
Overseas(3)	12	12	10	10	10	10
Average number of beds						
United Kingdom: total	2555	2352	2297	2287	2290	2264
Royal Navy	615	598	574	574	574	574
Army	1117	1020	989	979	973	946
Royal Air Force	823	734	734	734	743	744
Overseas: total	1422	1351	1243	1231	1247	1240
Royal Navy	133	88	65	65	65	65
Army	1025	999	914	902	918	911
Royal Air Force	264	264	264	264	264	264
Average number of occupied beds						
United Kingdom: total	1637	1490	1537	1504	1468	1351
UK Service personnel	785	700	655	638	628	596
Service dependants	259	234	221	204	205	197
NHS/others	593	556	661	662	634	559
Overseas: total	837	762	727	749	739	708
UK Service personnel	282	250	226	253	243	245
Service dependants	332	311	301	297	305	318
Others	223	201	199	199	191	146
Average percentage of beds occupied(4)						
United Kingdom	64.1	63.4	67.0	65.8	64.1	59.7
Overseas	58.9	56.4	58.5	60.8	59.2	57.1
Total number of inpatient admissions						
United Kingdom: total	73246	68331	72291	76030	75900	71310
UK Service personnel	30511	28430	27415	28208	28565	26984
Service dependants	15832	14479	14396	14620	14422	14112
NHS/others	26903	25422	30480	33202	32913	30214
Overseas: total	45546	43447	42095	43800	42330	42706
UK Service personnel	12827	12562	12360	13153	12675	13566
Service dependants	24725	23303	20811	21818	21542	23191
Others	8000	7582	8924	8829	8113	5949
Average number of admissions per bed						
United Kingdom: total	28.7	29.1	31.5	33.2	33.1	31.5
UK Service personnel	11.9	12.1	11.9	12.3	12.5	11.9
Service dependants	6.2	6.2	6.3	6.4	6.3	6.2
NHS/others	10.5	10.8	13.3	14.5	14.4	13.3
Overseas: total	32.0	32.2	33.9	35.6	33.9	34.4
UK Service personnel	9.0	9.3	9.9	10.7	10.2	10.9
Service dependants	17.4	17.2	16.7	17.7	17.3	18.7
Others	5.6	5.6	7.2	7.2	6.5	4.8
Average days in hospital per patient						
United Kingdom: total	8.2	8.0	7.8	7.2	7.1	6.9
UK Service personnel	9.4	9.0	8.7	8.3	8.0	8.1
Service dependants	6.0	5.9	5.6	5.1	5.2	5.1
NHS/others	8.0	8.0	7.9	7.3	7.0	6.7
Overseas: total	6.7	6.4	6.3	6.2	6.4	6.1
UK Service personnel	8.0	7.3	6.7	7.0	7.0	6.6
Service dependants	4.9	4.9	5.3	5.0	5.2	5.0
Others	10.2	9.7	8.1	9.0	8.6	8.9

1. As at 1 January of each year.
2. The Maternity Hospital Woolwich, Queen Alexandra Millbank and the Military Hospital Tidworth were closed at the end of March 1977. The Royal Herbert Shooters Hill Road was closed in July 1977. The Military Hospital Colchester and the RAF Hospital Cosford were closed at the end of 1977. The Royal Victoria Netley was closed in June 1978.
3. The Army Hospital Dhekelia and the Navy Hospital Malta were closed in March 1978. The British Military Hospital Falkland Islands is not included. The available returns for November and December 1982 show that the average number of beds was 20, the average percentage occupied was 69.0% and that there were 137 inpatient admissions in those two months.
4. The 1982 figures reflect the restriction of non-urgent admission during the Falklands campaign.

6.2 Strengths of uniformed medical staff(1)
1 April

Number

	1978	1979	1980	1981	1982	1983(2)
Qualified doctors: total.....	1243	1181	1176	1185	1180	1175
Royal Navy.....	286	282	272	290	295	287
Army.....	544	504	496	507	493	509
Royal Air Force.....	413	395	408	388	392	379
Qualified dentists: total.....	371	366	376	380	399	397
Royal Navy.....	90	91	95	98	101	98
Army.....	171	172	173	173	182	189
Royal Air Force.....	110	103	108	109	116	110
Nursing services: total(3).....	2719	2686	2917	3012	2976	2991
QARNNS(4).....	581	568	586	591	596	587
QARANC(5).....	1463	1418	1402	1567	1637	1664
PMRAFNS(6).....	675	700	929	854	743	740
Medical and dental supporting staff: total.....	5870	5807	5575	5655	5808	5824
Royal Navy.....	1243	1295	1253	1227	1317	1292
Army.....	3108	3002	2893	2982	3051	3127
Royal Air Force.....	1519	1510	1429	1446	1440	1405

1. Includes staff employed at units(including ships) and in hospitals.
2. Figures are for 1 January.
3. Comprises trained personnel and personnel undertaking 'on-the-job' training and held against established posts.
4. Queen Alexandra's Royal Naval Nursing Service.
5. Queen Alexandra's Royal Army Nursing Corps.
6. Princess Mary's Royal Air Force Nursing Service(from 1980 includes male nurses).

6.3 Sickness of UK Service personnel: selected diagnoses of cases(1)

Number

	ICD Codes(2)		1976	1977	1978	1979	1980	1981
Average strength.....		male	318539	312597	304466	300573	308731	317078
		female	14601	14485	14763	15467	16475	16673
All causes.....	001-999	male	60827	51292	53101	50033	50038	48489
		female	5621	4652	5098	5151	5032	4697
All diseases.....	001-799	male	47090	37985	40883	38340	38027	36549
		female	5058	4138	4633	4591	4512	4249
Infective & parasitic diseases.....	001-139	male	5118	4302	4803	3688	3416	3042
		female	618	453	470	353	366	265
Neoplasms.....	140-239	male	688	585	517	524	457	493
		female	85	87	91	42	44	50
Endocrine,nutritional & metabolic diseases...	240-279	male	491	436	356	342	365	433
		female	29	39	41	29	26	31
Diseases of blood & blood forming organs.....	280-289	male	100	98	100	104	97	71
		female	27	17	14	12	20	5
Mental disorders.....	290-319	male	1549	1333	1151	1292	1324	1193
		female	149	131	125	148	133	114
Diseases of the nervous system & sense organs.	320-389	male	1324	1181	1150	1174	1133	1094
		female	120	71	87	92	88	87
Diseases of the circulatory system.....	390-459	male	2829	1774	1730	1633	1608	1371
		female	61	54	40	49	53	45
Diseases of the respiratory system.....	460-519	male	15482	10175	13235	10828	10464	9022
		female	1803	1098	1627	1357	1219	985
Diseases of the digestive system.....	520-579	male	6614	5952	5605	6705	7042	7185
		female	594	606	616	808	900	888
Diseases of the genito-urinary system.....	580-629	male	1723	1595	1591	1812	1815	1922
		female	419	411	388	458	416	417
Complication of pregnancy, childbirth & puerperium.	630-676	female	120	143	162	185	215	267
Diseases of the skin & subcutaneous tissue.....	680-709	male	2368	2223	2117	1996	2089	2106
		female	156	117	139	155	153	144
Diseases of musculoskeletal system.....	710-739	male	5169	5115	5176	5590	5632	6171
		female	353	394	385	441	465	557
Congenital anomalies.....	740-759	male	258	270	310	283	288	327
		female	37	40	32	28	32	39
Symptoms & ill-defined conditions.....	780-799	male	3377	2946	3042	2369	2297	2119
		female	487	477	416	434	382	355
All injuries(3).....	800-999	male	10971	10664	9610	9380	9880	9727
		female	472	448	369	442	423	370
Aircraft accident injuries		male	151	137	138	142	109	122
		female	4	7	4	18	5	5
Training & exercise injuries		male	511	490	480	673	925	1080
		female	10	1	11	22	31	24
Road traffic accident injuries		male	1786	1718	1540	1548	1712	1684
		female	54	57	61	46	58	51
Other injuries.....		male	8523	8319	7452	7017	7134	6841
		female	404	383	293	356	329	290
Supplementary classifications(4).....	V01-V82	male	2766	2643	2608	2313	2131	2213
		female	91	66	96	118	97	78

1. Based upon spells of off-duty sickness lasting 2 days or more terminating during the year. Sickness of Army personnel not requiring admission to a medical unit is excluded. Includes all cases whether occurring on or off duty.
2. Code numbers refer to the Ninth Revision (1977) of the International Statistical Classification of Diseases, Injuries and Causes of Death. Prior to 1979 the Eighth Edition(1967) was used and this may mean that some groups of diseases are not exactly comparable, the changes however are small.
3. Where an injury could be classified under more than one cause(eg aircraft crash during an exercise) then the injury is shown under the first listed cause(ie in the example 'Aircraft accident').
4. Used where no classifiable diagnosis is reported or where the person is not sick, eg admission for investigation, preventive measure or elective surgery.

6.4 Medical discharges of UK Service personnel

Number

ICD Codes(1)		1976	1977	1978	1979	1980	1981
Average strength	male	318539	312597	304466	300573	308731	317078
	female	14601	14485	14763	15467	16475	16673
All causes.....001-999	male	1694	1630	1575	1334	956	830
	female	55	61	57	52	48	47
All diseases.....001-799	male	1436	1352	1307	1138	793	691
	female	51	59	56	49	47	43
Infective & parasitic diseases.....001-139	male	13	8	14	9	3	11
	female	1	-	-	-	-	-
Malignant neoplasms.....140-208	male	16	18	13	15	15	7
	female	1	2	4	-	-	-
Other neoplasms.....210-239	male	6	3	8	4	5	1
	female	-	-	-	-	-	-
Endocrine, metabolic & other blood disease....240-289	male	66	56	56	42	28	37
	female	2	2	3	2	2	1
Mental disorders.....290-319	male	358	323	178	166	144	111
	female	16	22	13	8	14	14
Epilepsy.....345	male	81	74	68	62	52	51
	female	4	2	2	4	3	-
Migraine.....346	male	18	4	6	12	7	4
	female	1	-	3	-	-	1
Other disease of the nervous system & sense organs.....320-379 nes	male	74	50	60	67	34	27
	female	2	4	2	-	3	3
Diseases of the ear.....380-389	male	99	129	124	124	96	85
	female	2	1	8	3	2	4
Hypertensive disease & ischaemic heart disease.401-414	male	47	49	37	31	25	6
	female	-	-	-	-	-	-
Other diseases of the circulatory system.....390-459 nes	male	33	37	37	36	25	24
	female	2	2	2	1	1	1
Bronchitis,emphysema & asthma.....490-493	male	58	63	75	53	53	49
	female	1	1	3	3	9	3
Other diseases of the respiratory system.....460-519 nes	male	16	6	12	7	3	4
	female	-	-	1	2	-	2
Peptic ulcers.....531-533	male	40	28	39	16	8	4
	female	-	1	-	-	-	-
Other diseases of the digestive system.....520-579 nes	male	27	27	25	20	14	21
	female	2	2	2	1	1	2
Diseases of genito-urinary system.....580-629	male	13	14	7	17	4	7
	female	-	-	1	-	-	-
Diseases of the skin & subcutaneous tissue....680-709	male	54	48	51	48	30	19
	female	4	-	2	3	2	2
Arthritis & spondylitis.(710-716) (720-721)	male	49	50	47	29	27	25
	female	-	2	1	-	1	-
Other diseases of the musculoskeletal system.710-739 nes	male	260	279	355	303	184	162
	female	11	14	8	17	6	7
Congenital anomalies....740-759	male	55	46	51	39	21	28
	female	1	2	1	4	-	1
All other diseases.....001-799 nes	male	53	40	44	38	15	8
	female	1	2	-	1	3	2
All injuries.....800-999	male	258	278	268	196	163	139
	female	4	2	1	3	1	4

1. Code numbers refer to the Ninth Revision(1977) of the International Statistical Classification of Disease, Injuries and Causes of Death. Prior to 1979 the Eighth Edition(1967) was used and this may mean that some groups of diseases are not exactly comparable, the changes however are small.

6.5 Deaths of UK Service personnel(1)

	ICD CODES(2)	1977	1978	1979	1980	1981	1982(3)
All Services							
All causes	001-999	412	393	384	365	368	596
Male	001-999	404	387	378	362	362	592
Female	001-999	8	6	6	3	6	4
All diseases	001-799	165	125	133	118	136	118
Neoplasms	140-239	62	43	50	44	54	46
Ischaemic heart disease	410-414	57	38	47	43	48	39
Other heart disease	390-429nes	6	10	5	6	11	8
Cerebrovascular disease	430-438	12	9	7	7	6	7
Other diseases	001-799nes	28	25	24	18	17	18
All injuries	800-999	247	268	251	247	232	47P
Road traffic injuries		142	135	132	142	130	115
Other injuries(4)		105	133	119	105	102	363
Royal Navy and Royal Marines							
All causes	001-999	91	61	73	77	69	161
All diseases	001-799	32	18	24	28	22	20
Neoplasms	140-239	11	11	12	9	9	9
Ischaemic heart disease	410-414	10	3	6	7	7	5
Other heart disease	390-429nes	4	2	1	4	1	4
Cerebrovascular disease	430-438	1	1	1	4	2	-
Other diseases	001-799nes	6	1	4	4	3	2
All injuries	800-999	59	43	49	49	47	141
Road traffic injuries		32	20	32	28	22	15
Other injuries(4)		27	23	17	21	25	126
Army							
All causes	001-999	233	232	215	193	203	336
All diseases	001-799	82	62	69	56	69	60
Neoplasms	140-239	29	17	19	18	25	20
Ischaemic heart disease	410-414	27	20	30	25	26	21
Other heart disease	390-429nes	2	6	3	-	7	1
Cerebrovascular disease	430-438	8	4	5	3	2	6
Other diseases	001-799nes	16	15	12	10	9	12
All injuries	800-999	151	170	146	137	134	276
Road traffic injuries		86	90	67	81	78	73
Other injuries(4)		65	80	79	56	56	203
Royal Air Force							
All causes	001-999	88	100	96	95	96	99
All diseases	001-799	51	45	40	34	45	38
Neoplasms	140-239	22	15	19	17	20	17
Ischaemic heart disease	410-414	20	15	11	11	15	13
Other heart disease	390-429nes	-	2	1	2	3	3
Cerebrovascular disease	430-438	3	4	1	-	2	1
Other diseases	001-799nes	6	9	8	4	5	4
All injuries	800-999	37	55	56	61	51	61
Road traffic injuries		24	25	33	33	30	27
Other injuries(4)		13	30	23	28	21	34

1. Regular Service personnel only. For average strengths see table 6.3. Includes all deaths whether occuring on or off duty.
2. Code numbers refer to the Ninth Revision (1977) of the International Statistical Classification of Disease, Injuries and Cause of Death.
3. Latest year figures by cause are provisional.
4. The 1982 figure includes UK Service personnel killed in the Falklands Campaign: All services 236; Royal Navy and Royal Marines 113, Army 122, Royal Air Force 1.

6.6 Service aircraft: accidents involving loss or serious damage, rates and casualties

	1977	1978	1979	1980	1981	1982(1)
Number of accidents						
All Services: total	28	39	39	37	32	45
Helicopters	11	14	15	12	10	16
Fixed wing	17	25	24	25	22	29
Royal Navy	8	8	3	5	8	14
Helicopters	7	6	3	3	7	10
Fixed wing	1	2	-	2	1	4
Army	4	7	11	9	1	6
Helicopters	3	6	10	7	1	6
Fixed wing	1	1	1	2	-	-
Royal Air Force	16	24	25	23	23	25
Helicopters	1	2	2	2	2	-
Fixed wing	15	22	23	21	21	25
Rates per 10000 flying hours						
Royal Navy	0.88	0.89	0.36	0.56	0.86	1.14
Helicopters	1.13	1.00	0.49	0.46	1.01	1.07
Fixed wing	0.34	0.68	-	0.81	0.42	1.36
Army	0.39	0.69	1.18	1.01	0.11	0.63
Helicopters	0.32	0.65	1.17	0.85	0.12	0.68
Fixed wing	1.31	1.26	1.22	2.84	-	-
Royal Air Force	0.34	0.51	0.52	0.48	0.50	0.49
Helicopters	0.18	0.35	0.33	0.33	0.32	-
Fixed wing	0.36	0.53	0.55	0.50	0.52	0.57
Casualties to personnel						
Killed: total	14	32	21	23	11	35
Royal Navy	4	2	3	3	5	4
Royal Marine	-	-	-	3	-	1
Army	1	7	4	3	-	20
Royal Air Force	6	22	9	12	6	7
Allied and Foreign(2)	-	1	2	1	-	2
Civilians	3	-	3	1	-	1
Seriously injured: total	16	17	12	12	10	17
Royal Navy	1	1	-	2	-	2
Royal Marine	-	-	-	-	-	-
Army	1	4	3	1	-	6
Royal Air Force	14	9	9	9	10	8
Allied and Foreign(2)	-	-	-	-	-	1
Civilians	-	3	-	-	-	-

1. Figures in this column do not include details of aircraft lost to or casualties caused by enemy fire in the Falklands Campaign. Aircraft accidently lost in the Falklands Campaign and separately identified in Annex F to Volume 1, are included.
2. These are officers on exchange from Allied and Foreign forces.

6.7 Service married accommodation
15 January(1)

Thousands

	1978	1979	1980	1981	1982	1983
United Kingdom:total	97.9	95.4	92.7	88.7	87.5	87.0
Royal Navy:						
Permanent holdings	16.3	15.9	15.7	15.4	15.1	14.9
Furnished hirings	0.3	0.2	0.1	0.1	0.1	0.1
Army:						
Permanent holdings(2)	45.5	44.7	44.4	42.1	41.6	41.5
Furnished hirings	0.6	0.3	0.1	0.1	0.1	0.1
Royal Air Force:						
Permanent holdings	34.8	34.1	32.2	30.8	30.5	30.2
Unfurnished hirings	0.1	-	-	-	-	-
Furnished hirings	0.3	0.2	0.1	0.1	0.1	0.1
Vacancies summary (United Kingdom only)						
Total vacant	18.8	21.6	21.4	15.8	13.6	14.2
Vacancies as a percentage of holdings	19.5	22.8	23.2	17.9	15.6	16.4
Overseas:total	47.4	46.7	46.5	46.4	45.9	46.0
Royal Navy:						
Permanent holdings	0.9	0.7	0.7	0.6	0.6	0.6
Hirings	0.1	-	-	-	-	-
Army:						
Permanent holdings	16.1	16.1	16.1	16.4	16.4	16.4
Multiple hirings in BAOR	16.7	17.3	17.2	17.5	17.3	17.4
Other hirings	3.8	3.2	2.8	2.0	1.7	1.6
Royal Air Force:						
Permanent holdings	4.5	4.4	4.3	4.4	4.4	4.4
Unfurnished hirings in RAF Germany(3)	4.3	4.3	4.5	4.5	4.6	4.6
Other hirings	0.4	0.1	0.3	0.4	0.3	0.4
Tri-service hirings	0.6	0.6	0.6	0.6	0.6	0.6

1. Prior to 1978 the different Services collated information at different times but all figures were collected between 1 December in the previous year and 1 February.
2. Including a small number of unfurnished hirings taken on from local authorities and the Scottish Special Housing Association,which are not recorded separately.
3. Includes multiple hirings.

6.8 House ownership by Service personnel(1)

	September-October			October-November	November-December
	1970	1973	1977	1978	1980
	Thousands				
Estimated number of house owners(2)					
All ranks:total	45.6	55.0	55.2	54.8	59.2
Royal Navy and Royal Marines	20.7	21.1	20.8	20.7	21.2
Army	11.0	14.1	15.1	15.5	17.2
Royal Air Force	14.0	19.8	19.4	18.6	20.7
Officers	14.7	19.9	19.8	20.0	21.7
Royal Navy and Royal Marines	5.4	6.0	5.9	5.9	6.0
Army	4.1	6.1	6.8	6.9	7.6
Royal Air Force	5.2	7.8	7.0	7.3	8.1
Servicemen	30.9	35.1	35.4	34.8	37.5
Royal Navy and Royal Marines	15.3	15.1	14.9	14.9	15.2
Army	6.9	8.1	8.2	8.7	9.7
Royal Air Force	8.8	12.0	12.3	11.3	12.7
	Per cent				
Percentage of personnel owning their own houses(2)					
All ranks:total	22	26	31	33	36
Royal Navy and Royal Marines	45	50	57	60	64
Army	12	15	17	19	22
Royal Air Force	19	27	36	36	41
Officers	40	54	62	66	73
Royal Navy and Royal Marines	69	80	83	85	90
Army	30	45	54	57	65
Royal Air Force	34	50	57	63	70
Servicemen	18	21	24	25	28
Royal Navy and Royal Marines	40	43	51	53	57
Army	9	10	11	12	14
Royal Air Force	15	22	29	29	32

1. These figures derive from surveys and are thus subject to sampling error.Surveys were conducted only in the years shown.House is taken to include flat and maisonette but to exclude caravan or mobile home.
2. Married male personnel only.

6.9 Officer training in selected Service Colleges:student numbers and student/staff ratios.

	1978-79	1979-80	1980-81	1981-82
Average student population				
Royal Navy				
Britannia Royal Naval College,Dartmouth.....	501	545	526	478
Royal Naval College,Greenwich.....	156	150	158	161
Royal Naval Engineering College,Manadon.....	317	347	350	441
Army				
Royal Military Academy,Sandhurst.....	661	575	638	655
Staff College,Camberley.....	158	159	170	166
Royal Military College of Science,Shrivenham.	373	370	368	366
Royal Air Force				
RAF College,Cranwell(1).....	307	340	570	572
RAF Staff College,Bracknell.....	88	94	87	86
Joint Service				
Royal College of Defence Studies(2).....	77	76	76	76
Ratio_students:instructional staff				
Royal Navy				
Britannia Royal Naval College,Dartmouth.....	5.7	7.0	7.2	7.4
Royal Naval College,Greenwich.....	2.9	2.4	3.0	3.8
Royal Naval Engineering College,Manadon.....	2.5	2.8	2.8	3.4
Army				
Royal Military Academy.Sandhurst.....	3.5	2.9	2.8	3.4
Staff College,Camberley.....	5.1	5.1	5.9	5.7
Royal Military College of Science,Shrivenham.	1.5	1.9	2.0	2.1
Royal Air Force				
RAF College,Cranwell(1).....	2.3	2.2	2.7	3.0
RAF Staff College,Bracknell.....	4.6	5.2	4.6	3.9
Joint Service				
Royal College of Defence Studies(2).....	7.7	6.9	7.6	7.6
Ratio_students:other staff(3)				
Royal Navy				
Britannia Royal Naval College,Dartmouth.....	1.1	1.1	1.1	0.8
Royal Naval College,Greenwich.....	0.7	1.0	1.0	0.6
Royal Naval Engineering College,Manadon.....	0.9	1.0	1.0	0.9
Army				
Royal Military Academy,Sandhurst.....	0.8	0.8	0.8	0.8
Staff College,Camberley.....	0.9	0.9	1.1	1.1
Royal Military College of Science,Shrivenham.	0.7	0.7	0.7	0.7
Royal Air Force				
RAF College,Cranwell(1).....	0.5	0.6	1.0	0.9
RAF Staff College,Bracknell.....	0.5	0.5	0.5	0.5
Joint Service				
Royal College of Defence Studies(2).....	2.7	2.7	2.7	2.7

1. Excluding that part of RAF Cranwell devoted to flying training.The large increase in the average student population at RAF Cranwell in 1980-81 resulted from the concentration of all RAF initial training at that station (previosly a proportion was conducted at RAF Henlow.)
2. Figures on a calendar year basis.
3. 'Other staff' include those in direct support of training as well as cleaners,cooks etc.

6.10 Selected qualifications obtained under Service sponsorship

Number

	1976	1977	1978	1979	1980	1981
Degrees(1)						
Postgraduate degrees: total	121	113	115	94	72	91
Royal Navy and Royal Marines	10	18	22	20	14	17
Army	95	78	74	62	51	53
Royal Air Force	16	17	19	12	7	21
Medical and dental degrees: total	112	145	126	118	101	126
Royal Navy and Royal Marines	35	22	22	29	21	23
Army	40	73	81	60	58	56
Royal Air Force	37	50	23	29	22	47
Other first degrees: total	361	378	376	397	349	365
Royal Navy and Royal Marines	135	112	130	125	123	135
Army	102	171	165	204	162	179
Royal Air Force	124	95	81	68	64	51
Higher National Certificates: total(2)	19	29	19	44	31	55
Royal Navy and Royal Marines	3	11	5	-	-	-
Army(3)	16	18	14	44	31	55
Royal Air Force	-	-	-	-	-	-
Ordinary National Certificate: total(2)	326	439	444	247	136	7
Royal Navy and Royal Marines	229	218	232	123	-	-
Army(3)	30	35	37	46	8	7
Royal Air Force	67	186	175	78	128	-
General Certificate of Education(2)						
Certificates awarded: total(4)	4324	3466	3023	2930	3416	2886
Royal Navy and Royal Marines	1689	1414	1183	1248	1224	1558
Army	670	542	534	640	733	205
Royal Air Force	1965	1510	1306	1042	1459	1123
Advanced level passes: total	59	49	29	58	48	29
Royal Navy and Royal Marines	4	8	8	8	26	7
Army	23	17	4	32	8	12
Royal Air Force	32	24	17	18	14	10
Ordinary level passes: total(4)	4898	4016	3347	2936	2726	3034
Royal Navy and Royal Marines	1799	1657	1268	1240	1198	1091
Army	859	650	600	511	461	803
Royal Air Force	2240	1709	1479	1185	1067	1240
City and Guilds of London Institute						
Operator certificates: total(2)	859	3265	1503	604	819	2
Royal Navy and Royal Marines	420	2878	1058	202	661	-
Army	439	387	327	402	158	-
Royal Air Force	-	-	-	-	-	-
Craft certificates: total(2)	2584	2141	2499	4411	2383	6728
Royal Navy and Royal Marines	309	319	172	737	570	2194
Army	971	685	784	1604	1079	1877
Royal Air Force	1304	1137	1543	2070	734	2657
Technician certificates: total(2)	903	1018	850	1006	86	215
Royal Navy and Royal Marines	299	251	159	46	-	4
Army	339	341	361	616	86	211
Royal Air Force	265	453	330	344	-	-
Technician Education Council						
Higher certificate/diplomas: total(2)	-	10	5	15	60	152
Royal Navy and Royal Marines	-	-	-	-	-	-
Army	-	10	5	15	7	8
Royal Air Force	-	-	-	-	53	144
Certificate/diplomas: total(2)	-	-	336	843	1576	1554
Royal Navy and Royal Marines	-	-	144	362	611	480
Army	-	-	-	-	140	-
Royal Air Force	-	-	192	481	825	1074
Heavy Goods Vehicle driving test passes: total(5)	8792	8389	9322	9046	10034	11801
Royal Navy and Royal Marines	199	152	44	41	131	30
Army	7570	7411	8310	7611	8056	10129
Royal Air Force	1023	826	968	1394	1847	1642

1. Includes degrees obtained by serving personnel and University Cadets at Universities and Service educational establishments.
2. Includes only candidates studying for and/or taking examinations directly through their Service.
3. Army figures shown are minima: true Army figures may be considerably higher.
4. Excluding Ordinary level passes gained in Advanced level examinations.
5. All heavy goods vehicle classes combined.

6.11 Service Children's Education Authority schools

	1977	1978	1979	1980	1981	1982
	Thousands					
Pupils enrolled in Autumn term: total....	39.2	36.3	34.5	33.7	33.3	32.5
NW Europe(including BAOR)						
5-11.....	24.1	22.7	21.1	20.5	20.2	19.3
11-19.....	8.8	8.4	8.0	8.0	8.1	8.3
Elsewhere overseas						
5-11.....	4.5	3.9	4.0	3.8	3.7	3.5
11-19.....	1.8	1.3	1.3	1.4	1.4	1.4
Teachers :total.....	2.4	2.2	2.1	2.0	2.0	1.9
NW Europe(including BAOR).....	2.0	1.9	1.7	1.7	1.7	1.6
Elsewhere overseas.....	0.4	0.3	0.3	0.3	0.3	0.3
	Number					
Schools: total.....	127	123	123	120	117	118
NW Europe(including BAOR)						
First and primary.....	87	86	85	83	81	82
Middle and secondary.....	17	17	17	16	15	15
Elsewhere overseas						
Primary.....	19	17	18	18	18	18
Secondary.....	4	3	3	3	3	3

6.12 Social expenditure included in the Defence budget(1)

£ million

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Total expenditure.....	697	830	963	1022	1118	1223
Education(2).....	94	114	123	131	149	170
Married accommodation(3).....	79	108	106	76	105	86
Medical services(4).....	127	150	191	212	207	211
Service pensions(5).....	397	458	543	603	657	755

1. The figures given in this table are based on the original Estimates and reflect the price levels of the Estimates for the years in question.
2. Comprising education allowances, the cost of Service schools in table 6.11 and adult education. It is difficult to separate the cost of Service schools from the cost of adult education but it is assessed that SCEA schools account for approximately one third of the total.
3. Net of rents payable for married quarters.
4. Net of repayments for civilian patients not entitled to treatment in Service hospitals.
5. Expenditure on Service pensions is included above as a social payment because it does not relate to the current defence effort.

6.13 Land and foreshore holdings: location(1)
1 April

Thousand hectares

		1977	1978	1979	1980	1981	1982
United Kingdom							
Land:	Freehold	223.1	222.1	221.2	220.2	220.1	217.8
	Leasehold	11.9	12.0	11.9	11.9	11.9	11.9
Foreshore:	Freehold	13.2	13.2	13.3	13.2	13.2	13.2
	Leasehold	4.9	4.9	4.9	4.9	4.9	4.9
Rights		30.3	30.5	31.3	31.1	36.7	36.7
England							
Land:	Freehold	181.9	181.0	180.6	179.9	179.6	177.7
	Leasehold	8.1	8.0	8.0	8.0	8.0	8.0
Foreshore:	Freehold	10.5	10.5	10.5	10.5	10.4	10.4
	Leasehold	4.6	4.6	4.6	4.6	4.6	4.6
Rights		26.1	26.5	27.3	27.1	27.1	27.1
Wales							
Land:	Freehold	20.6	20.5	20.4	20.2	20.2	19.9
	Leasehold	0.7	0.7	0.7	0.7	0.7	0.7
Foreshore:	Freehold	1.1	1.1	1.1	1.1	1.1	1.1
	Leasehold	–	–	–	–	–	–
Rights		1.2	1.2	1.2	1.2	1.2	1.2
Scotland							
Land:	Freehold	18.4	18.3	17.9	17.8	17.9	17.9
	Leasehold	2.6	2.5	2.5	2.5	2.5	2.5
Foreshore:	Freehold	1.4	1.4	1.6	1.6	1.5	1.5
	Leasehold	0.2	0.2	0.2	0.2	0.2	0.2
Rights		2.6	2.7	2.7	2.7	8.4	8.4
Northern Ireland							
Land:	Freehold	2.3	2.3	2.3	2.3	2.3	2.3
	Leasehold	0.5	0.8	0.8	1.0	1.0	0.8
Foreshore:	Freehold	0.2	0.2	0.2	0.2	0.2	0.2
	Leasehold	0.1	0.1	0.1	0.1	0.1	0.1
Rights		0.4	0.1	0.1	0.1	0.1	0.1
Defence land(freehold and leasehold) used for agricultural purposes							
Used for grazing only		61.9	60.1	61.2	60.2	59.8	58.1
full agricultural use		50.3	51.5	51.4	53.6	52.0	50.3
Total		112.2	111.6	112.6	113.8	111.9	109.1
of which:							
England		86.2	86.0	87.6	88.4	86.9	84.8
Wales		15.2	15.3	15.0	15.3	15.2	14.8
Scotland		9.9	9.6	8.9	9.0	8.8	8.5
Northern Ireland		0.8	0.8	1.0	1.1	1.1	1.1

1. Comprises land and foreshore owned by the Ministry of Defence and land and foreshore over which it has limited rights under grants or licences. Includes also land declared as surplus to Defence requirements. During the year to 30 September 1982, the size of the Defence estate was reduced by 2212 hectares. At that date, 3600 hectares were awaiting disposal by the Property Service Agency. MOD office buildings, which are held by the Department of the Environment as part of the Civil Estate, are excluded.

6.14 Land and foreshore (1) holdings: type of use.
1 April

Thousand hectares

	1979	1980	1981	1982
Freehold: total	234.6	233.6	233.3	231.0
Royal Navy:total	12.3	11.9	11.9	11.8
Airfields etc	1.5	1.5	1.5	1.5
Naval bases	1.1	1.1	1.1	1.1
Training areas and ranges	1.9	1.8	1.8	1.8
Barracks and camps	1.4	1.4	1.4	1.4
Storage and supply depots	3.6	3.6	3.6	3.5
Radio and W/T stations	1.6	1.3	1.3	1.3
Miscellaneous	1.3	1.3	1.3	1.3
Army:total	149.4	149.9	149.5	149.0
Airfields etc	0.4	0.4	0.4	0.4
Training areas and ranges	133.7	133.7	133.8	133.6
Barracks and camps	9.0	9.4	9.2	9.0
Storage and supply depots	5.1	5.0	4.8	4.7
Radio and W/T stations	0.3	0.3	0.3	0.3
Miscellaneous	1.0	1.0	0.9	0.9
Royal Air Force:total	40.6	39.8	39.6	39.0
Airfields etc	28.5	27.3	27.0	26.6
Training areas and ranges	3.3	3.7	3.6	3.6
Barracks and camps	1.1	1.1	1.1	1.0
Storage and supply depots	3.0	3.0	2.9	2.8
Radio and W/T stations	3.9	3.8	4.2	4.1
Miscellaneous	0.8	0.8	0.8	0.8
Research establishments:total	32.2	32.0	32.3	31.3
Leasehold: total	16.9	16.9	16.8	16.8
Royal Navy:total	2.6	2.6	2.6	3.2
Airfields etc	0.1	0.1	0.1	0.1
Training areas and ranges	2.3	2.3	2.3	2.9
Miscellaneous	-	-	0.1	0.1
Army:total	4.6	4.6	4.6	4.0
Training areas and ranges	4.2	4.3	4.2	3.7
Barracks and camps	0.3	0.3	0.3	0.3
Miscellaneous	0.1	0.1	0.1	0.1
Royal Air Force:total	8.4	8.4	8.4	8.4
Training areas and ranges	7.9	7.9	7.8	7.9
Storage and supply depots	0.1	0.1	0.1	0.1
Radio and W/T stations	0.4	0.4	0.4	0.4
Research establishments:total	1.3	1.2	1.2	1.2
Rights held (2):total	31.3	31.1	36.7	36.7
Royal Navy:total	13.7	13.7	13.7	13.8
Training areas and ranges	13.4	13.3	13.3	13.3
Barracks and camps	0.2	0.2	0.2	0.2
Radio and W/T stations	0.1	0.1	0.1	0.1
Miscellaneous	-	-	0.1	0.1
Army :total	13.8	13.7	13.7	13.5
Training areas and ranges	13.6	13.5	13.0	12.8
Barracks and camps	0.1	0.1	0.1	0.1
Miscellaneous	-	-	0.5	0.5
Royal Air Force:total	2.5	2.5	8.2	8.2
Airfields etc	0.9	0.9	0.9	0.9
Training areas and ranges	1.2	1.2	6.9	6.9
Radio and W/T stations	0.2	0.2	0.3	0.3
Miscellaneous	0.1	0.1	0.1	0.1
Research establishments:total	1.3	1.3	1.2	1.1

1. Foreshore lands comprise less than 6% of the total freehold land held, about 30% of leasehold and 1% of land where licenced rights are held.
2. About 90% of this land is held under licences.

6.15 Service entertainment and welfare

Number

	1977	1978	1979	1980	1981	1982
Services Sound and Vision Corporation(SSVC)(1)						
SSVC Cinemas: total	65	64	63	60	59	55
United Kingdom	10	10	10	10	10	9
Overseas	55	54	53	50	49	46
of which:						
Federal Republic of Germany	48	48	47	45	39	37
SSVC Combined Services Entertainment Productions of stage and cabaret shows (for Northern Ireland and overseas)	43	43	42	44	51	57
SSVC Centres (trading outlets)(2)	70	74	77	80	78	78
NAAFI trading outlets(3) Total	1211	1190	1184	1147	1112	1122
United Kingdom	690	679	683	690	682	690
BAOR/RAFG	325	317	317	280	260	256
Elsewhere including HM ships	196	194	184	177	170	176
Circulation of Service Journals(4)						
Navy News(monthly)	78000	80000	82000	85000	86000	91000
Soldier News(fortnightly) (5)	*	*	22000	19000	16000	*
Soldier Magazine(fortnightly) (5)	38000	39000	36000	35000	32000	30000
RAF News	35000	32000	31000	32000	34000	33000

1. Incorporating the former Services Kinema Corporation and BFBS. See notes on page 44.
2. In 1982 Video Tape Hire Libraries were established in 40 outlets of which 25 are in the Federal Republic of Germany.
3. Trading outlets comprise shops and messing issue stores,Junior Ranks clubs and ships canteens.Figures for petrol stations,sub-post offices,bowling alleys and shops attached to Junior Ranks clubs are included but shops and stores opened for military exercises or temporary training camps are excluded.
4. The figures quoted give the average per issue for each year.
5. Soldier News ceased publication in October 1981 when Soldier Magazine changed from a monthly to a fortnightly journal.

6.16 SSVC Broadcasting Divisions (BFBS)

Hours

		1980	1981	1982
BFBS TV	Live(1)	56	60	60
	Casette(2)	-	21	21
BFBS Radio(3)				
Cologne:	Total.....(4 Stations)	168	168	168
	Produced locally	76	76	76
	Produced in London	38	38	38
	Produced by BBC	53	53	53
Cyprus:	Total.....(2 Channels from 1981)	168	183	183
	Produced locally	94	94	94
	Produced in London	46	46	46
	Produced by BBC	28	43	43
Gibraltar:	Total.....(2 Channels)	177	177	177
	Produced locally	102	102	102
	Produced in London	35	35	35
	Produced by BBC	40	40	40
Hong Kong				
English:	Total	30	80	99
	Produced locally	3	39	42
	Produced in London	23	33	32
	Produced by BBC	5	8	25
Nepali:	Total	60	72	76
	Produced locally	52	64	72
	Produced in London	-	-	-
	Produced by BBC	8	8	3
Estimated audiences(4)				
	BFBS TV (BAOR/RAFG)	145000	154000	156000
	BFBS radio (4 stations)	196000	200000	200000

1. Drawn proportionately from ITV and BBC channels to provide a service in the Federal Republic of Germany.
2. Drawn from the live broadcasts to serve British service personnel in Belize, Sardinia, the Falkland Islands, HM ships, and from April 1981, Cyprus.
3. These figures represent the output in a typical week during the year. The London Programme Unit of BFBS radio supplies approximately 30 hours of packaged programmes weekly, some of which are repeated the same week. Programmes are also supplied to HM ships.
4. Comprising UK based civilians, Service personnel and their dependants.

7. Defence services and the civilian community

The tables in this section are particularly relevant to Chapter 6 of Volume 1.

Armed Forces and security in Northern Ireland. Table 7.1 gives annual figures of the Regular Forces in Northern Ireland in terms of major units of the combat arms, e.g. battalion or regiment, the size of which may vary according to the primary role. Figures are also given of the number of deaths of Service personnel resulting from violence attributable to terrorist activity in the province.

Search and rescue operations at home. Table 7.2 covers incidents in which Rescue Co-ordinating Centres(RCCs) in the United Kingdom co-ordinated search and rescue(SAR) actions in which elements of the Armed Forces were involved. The table also includes urgent medical incidents in which the Forces SAR facilities gave assistance (e.g. inter hospital transfers).

7.1 Armed Forces and security in Northern Ireland

Number

	1977	1978	1979	1980	1981	1982	1983
Regular Army(1)							
Force levels at 1 April:							
Major units of the combat arms(2)	14	13	13	12	10	9	8
of which:							
Resident units	5	5	6	6	6	6	6
Roulement units	9	8	7	6	4	3	2
Total units which served in the province during the year	47	41	40	32	24	22	..
Ulster Defence Regiment at 1 April(3)							
Full time: total	1669	2192	2469	2554	2738	2739	2793
Males	1639	2113	2346	2416	2580	2561	2603
Females	30	79	123	138	158	178	190
Part time: total	5962	5670	5154	4819	4741	4391	4233
Males	5355	5039	4556	4267	4159	3893	3716
Females	607	631	597	552	582	498	517
Deaths							
Service personnel	29	21	48	16	23	28	..
of which serving in the Ulster Defence Regiment	14	7	10	8	13	7	..
Security							
Bombs neutralised	169	178	143	120	132	113	..
Weight of explosives(Kgs):							
Neutralised	992	2658	2054	2905	4159	3311	..
In explosions(estimated)	1287	2468	5070	4108	4364	5080	..
Finds:							
Explosives(Kgs)	1727	956	892	821	3419	2297	..
Firearms	590	400	301	203	398	321	..
Ammunition	52091	43511	46280	28078	47070	41453	..
Persons charged with serious security-type offences	1308	843	670	550	918	686	..

1. Includes Royal Marine commandos in the infantry role.
2. Excludes temporary deployments.
3. In 1983 at 1 January.

7.2 Search and rescue operations at home

Number

	1977	1978	1979	1980	1981	1982
Incidents: total(1)	1206	1373	1268	1063	1092	1106
Royal Navy	277	401	355	308	280	256
Royal Air Force	952	940	925	763	845	889
Call outs(2)						
of Helicopters: total	1206	1317	1309	1082	1165	1169
Royal Navy	312	404	407	347	324	288
Royal Air Force	894	913	902	735	841	881
of Other aircraft: total	67	113	98	68	58	59
Royal Navy	3	-	2	-	-	1
Royal Air Force	64	113	96	68	58	58
of Marine craft(Royal Air Force only)	7	11	2	9	6	3
of Mountain rescue teams(Royal Air Force only)	47	60	55	45	43	58
Persons assisted: total(3)	713	1030	986	856	858	906
by Helicopter: total	692	945	974	834	839	842
Royal Navy	181	275	314	190	236	130
Royal Air Force	511	670	660	644	603	712
by Marine craft(Royal Air Force only)	3	6	-	1	-	1
by Mountain rescue teams(Royal Air Force only)	18	79	12	21	19	63

1. Since both the Royal Navy and the Royal Air Force are involved in some incidents, the total may not be the sum of the incidents attended by the Services separately.
2. More than one element of the Search and Rescue services may be called out to a reported incident.
3. Figures for persons assisted relate only to numbers of persons who were actually removed (alive) from a hazard or who were assisted in an urgent medical incident.

7.3 Military aid to civil ministries during industrial disputes: involvement of Service personnel

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83(1)
Disputes requiring involvement of Service personnel(2)	Firemen	Oil tanker drivers Ambulance drivers	-	Prison officers	Ambulance drivers	Ambulance drivers Railway workers Water workers
Deployment:						
Period(weeks)	9	5	-	17	-	1
Number of personnel	20000	650	-	1000	18	305
Total estimated effort (man weeks)	180000	1550	-	17000	3	305
Standby(3):						
Total estimated effort (man weeks)	20000	150000	-	60000	54000	59360

1. Up to 28 February 1983.
2. Service personnel were deployed only in Northern Ireland as a result of the oil tanker drivers dispute in 1978-79.
3. Covers Service personnel at 72 or less hours notice to deploy.

7.4 Expenditure on offshore tasks included in the Defence budget(1)

£ million

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Total expenditure on offshore tasks..	15.97	21.80	26.60	37.00	43.14	42.99
Offshore protection						
Fishery protection and the protection of oil and gas installations:						
RN Fishery Protection Squadron(2,3)						
Offshore(3)..	2.01	2.80	3.80	7.90	8.30)	20.53
Coastal(4)...	4.34	5.60	5.20	6.80	9.30)	
RAF Nimrod aircraft(3).....	3.26	4.00	4.90	6.30	8.99	11.21
RN Sea Devon aircraft.....	0.09	0.10	0.20	-	-	-
RN Sea King helicopters.....	-	-	-	0.20	0.20	-
Headquarters of Captain Fishery Protection...	0.11	0.20	0.40	0.40	0.45	0.38
Traffic Separation Scheme- Dover Straights Patrol(5)						
HM Ships.....	0.29	-	*	*	*	*
RN Sea Devon aircraft.....	0.05	0.10	*	*	*	*
Hydrographic surveys of home waters.	5.82	9.00	12.10	15.40	15.90	10.87

1. The figures given in this table are based on the original Supply Estimates and reflect the price levels of the Estimates for the years in question.
2. There is no longer a division between the offshore and coastal responsibility of the RN Fishery Protection Squadron.
3. Certain of these costs are recovered from the Department of Energy and the fisheries departments.
4. Includes £0.75million capital expenditure in 1978-79 and £0.7million in 1979-80.
5. Department of Trade contributed towards these costs. HM ships and RN aircraft are no longer employed on a regular basis for this purpose.

7.5 Fishery protection (1)

Number

		1978	1979	1980	1981	1982
Vessels boarded:total.....		1637	1563	1508	1548	1869
of which in sea areas (2)						
North Sea.....	IV.....	783	746	638	770	1087
Faroes.....	Vb)					
West of Scotland/Rockall.....	VI).....	14	6	26	21	10
Irish Sea/Celtic Sea/Bristol Channel/ Western Approaches/English Channel.....	VII.....	840	811	844	757	772
Convictions arising from RN boardings (3):total.....		20	24	22	43	27
of which						
Belgium.....		1	-	-	3	2
Denmark.....		-	3	2	6	2
Eire.....		-	-	1	2	2
France.....		8	4	8	7	1
Holland.....		-	2	-	4	1
Norway.....		-	-	-	1	-
Spain.....		9	3	1	7	6
United Kingdom.....		2	12	10	13	13

Source:Ministry of Agriculture,Fisheries and Food

1. This table relates to activities of the RN Fishery Protection Squadron operating within the total UK fishing limits.Boardings carried out by vessels of the Department of Agriculture and Fisheries for Scotland are not included.
2. Sea areas as defined by the International Council for the Exploration of the Sea.
3. Up to 1979 convictions obtained from prosecutions initiated by the Ministry of Agriculture,Fisheries and Food only.From 1980 comprises convictions obtained from prosecutions initiated by all United Kingdom Fisheries Departments.

7.6 Hydrographic services

	1977	1978	1979	1980	1981	1982
	Number					
Surveying vessels						
Ocean	4	4	4	4	4	4
Coastal	4	4	4	4	4	4
Inshore	5	5	5	4	3	3
Charts and publications produced						
New charts: total	203	207	236	226	143	163
Navigational	114	122	108	108	89	127
Lattice	69	54	78	61	35	32
Miscellaneous	20	31	50	57	19	4
New editions of charts: total	250	289	353	254	300	372
Navigational	175	183	248	194	220	281
Lattice	63	78	76	53	70	76
Miscellaneous	12	28	29	7	10	15
Small corrections to charts	5853	5723	5934	5279	5632	5883
Notices to Mariners	3239	3376	3408	3287	3491	3734
Block corrections to charts	145	156	157	158	171	305
Radio Navigational Warnings	1142	917	1017	723	860	929
Revised volumes:						
Sailing Directions(a series of 75 books)	3	2	7	4	4	4
Lights list(a series of 12 books)	9	8	9	8	9	8
Admiralty list of radio signals(6 volumes)	4	6	5	5	6	6
Tide tables(3 volumes)	3	3	3	3	3	3
Supplements to Sailing Directions	44	40	40	37	46	49
	Thousands					
Sales and issues						
Charts printed	4280	3455	3519	3522	3587	3546
Charts sold	3296	2570	2672	2772	2845	2686
Charts issued to government departments	607	627	640	610	511	636
Books sold	599	506	539	575	613	571

7.7 Meteorological Office: finance

£ million

	Outturn(1)				Estimates	
	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Expenditure(2)	33.60	34.29	43.77	49.33	54.51	51.86
Receipts	10.85	12.81	17.14	19.17	17.83	17.81
Civil Aviation Authority(3)	9.25	10.38	12.23	13.42	12.72	..
Gas and electricity Boards	0.14	0.16	0.33	0.35	0.34	..
Oil Industry	0.40	0.49	0.75	1.01	1.10	..
Automatic Telephone Weather Service	0.14	0.20	0.19	0.30	0.28	..
General public and local authorities	0.10	0.16	0.16	0.13	0.32	..
Commerce and industry	0.36	0.46	0.51	0.85	0.77	..
Others	0.46	1.02	2.97	3.11	2.30	..
Net Expenditure	22.75	21.42	26.63	30.16	36.68	34.05
apportioned to:						
Defence	16.00	13.64	16.14	18.33	23.20	21.54
Civil-free service to the public	5.10	4.32	5.45	5.21	6.50	6.03
Civil-on repayment net of recoveries made	1.65	3.46	5.04	6.62	6.98	6.48

1. These figures combine actual expenditure where known, and the original Estimates where Meteorological Office expenditure cannot be distinguished from that of other establishments. Common supporting services expenditure is excluded.
2. Works expenditure is included from 1979-80: comparable information is not available for previous years.
3. Adjusted annually for recoveries in arrears from the Civil Aviation Authority. An adjustment to the figures for 1979-80 as published in the Statement on the Defence Estimates 1982 (Cmnd 8529-11) has also been carried out.

7.8 Meteorological Office: activities

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
	Thousands					
For aviation						
Meteorological briefings in UK	362	360	374	368	370	371
Forecasts in UK	1868	1956	2131	2124	1761	1704
Other than for aviation						
Forecast enquiries answered	1897	2051	2222	2253	2008	2008
Automatic Telephone Weather Service-calls made	16914	21531	28992	25567	26350	30600
Climatological enquiries	27	30	34	36	40	37
	Number					
Local radio stations for which Meteorological Office staff broadcast forecasts(1)	12	16	18	19	22	24

1. Scripts are also provided for both national and local radio services.

Bibliography

Additional information may be found in the following publications. Many of these are referenced in the CSO Guide to Official Statistics which also gives details of more general defence interests.

Armed Forces Pay Review Body reports

Sixth	1977 Cmnd. 6801	Ninth	1980 Cmnd. 7899
Seventh	1978 Cmnd. 7177	Tenth	1981 Cmnd. 8241
Eighth	1979 HMSO,17 April 1979	Eleventh	1982 Cmnd. 8549

Annual Abstract of Statistics, HMSO(The Defence chapter includes longer runs of data for some of the tables included here)

Appropriation Accounts: Class 1 Defence(in Volume 1)

1978-79 HC 355 15 January 1980	1980-81 HC 76 9 December 1981
1979-80 HC 96 15 January 1981	1981-82 HC 42 17 November 1982

Civil Service Statistics, HMSO;annual

Economic Trends, HMSO; No 346 August 1982, contains an article entitled 'Central government expenditure on research and development'.

Exchange of Notes between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Federal Republic of Germany for Offsetting the Foreign Exchange Expenditure on British Forces in the Federal Republic of Germany. Cmnd.6970. Agreement ended 31 March 1980.

Declaration on Berlin.Cmnd 8564 dated 26 May 1952.

The Government's Expenditure Plans 1983-84 to 1985-86. Cmnd. 8789.

Guide to the Classification For Oversea's Trade Statistics 1982; obtainable from the Controller, Statistical Office, Customs & Excise, Southend-on-sea SS2 9AL.

Report by the Hydrographer of the Navy; annual; obtainable from the Hydrographic Department, MOD, Taunton, Somerset.

Meteorological Office-annual report,HMSO

National income and Expenditure, HMSO;annual

Navy, Army and Air Force Institutes(NAAFI)-annual report and accounts; obtainable from NAAFI, Imperial Court, London SE11

Overseas Trade Statistics of the United Kingdom, HMSO;monthly and annually

Report on the Armed Forces Accommodation and Family Education survey 1970; 1973 (out of print); 1977; 1978(Accommodation only);1980;obtainable from Ministry of Defence(Stats(S)4), Tavis House, Tavustock Square, London WC1H 9NL

Royal Ordnance Factories-Trading Fund accounts; 1981-82 HC 40 11 November 1982

Standard Industrial Classification: Revised 1980; HMSO

Statistical News, HMSO; No 51 November 1980, contains an article entitled 'Employment and Defence' by Chris Pite

Supply Estimates, Class 1 Defence 1978-79 HC 212, 1979-80 HC 244, 1980-81 HC 469-I, 1981-82 HC 190, 1982-83 HC 214-I, 1983-84 HC 237-I