

DOCUMENT IS THE PROPERTY OF HER BRITANNIC MAJESTY'S GOVERNMENT

C(80) 8

COPY NO 83

25 January 1980

CABINET

STATEMENT ON THE DEFENCE ESTIMATES 1980

Note by the Secretary of State for Defence

1. I attach the draft of my Statement on the Defence Estimates for 1980. The draft has been agreed by the Defence and Overseas Policy Committee subject to a number of drafting points of which I have taken account.
2. The Statement seeks to offer a much more coherent basic explanation of policy and roles than the Statements of our predecessors, it emphasises the importance we attach to defence and points up our approach to important areas of policy such as nuclear weapons, the Soviet Union's threat to our interests outside the North Atlantic Treaty Organisation area, and our determination to ensure that the Services receive proper rewards and public recognition. I have expressed a positive attitude to the defence programme, while being frank about the problems we face, including the possible effect of economic factors.
3. I should be glad to have the Cabinet's agreement that I should publish this Statement on 27 February.

F P

Ministry of Defence

25 January 1980

CONFIDENTIAL

DEFENCE IN THE 1980S

STATEMENT ON THE DEFENCE ESTIMATES 1980

VOLUME I

CONFIDENTIAL

CONFIDENTIAL

CONTENTS

	<u>Page</u>
INTRODUCTION	1
Chapter 1: THE CONTEXT OF BRITAIN'S DEFENCE POLICY	1
The Warsaw Pact	2
The North Atlantic Alliance	7
Alliance Strategy	11
Arms Control	15
Chapter 2: THE BRITISH CONTRIBUTION TO NATO'S NUCLEAR FORCES	1
Strategic Nuclear Forces	3
Theatre Nuclear Forces	5
Chapter 3: THE BRITISH CONTRIBUTION TO NATO'S CONVENTIONAL FORCES	1
The Central Region of Europe	3
British Army of the Rhine	4
RAF Germany	5
The British Contribution in the Central Region	7
Exercises and Training	9
Eastern Atlantic and Channel	13
Composition of British Forces	14
The Role of British Forces	16
Exercises and Training	19
The Home Base	19
Air Defence	20
Maritime Defence	23
United Kingdom Land Forces	25
Specialist Reinforcement Forces	25
Chapter 4: WIDER DEFENCE INTERESTS	1
Deployments	5
Exercises and Training	10
Rhodesia	12
Relief Operations	13

CONFIDENTIAL

CONFIDENTIAL

	<u>Page</u>
Chapter 5: THE SERVICES AND THE COMMUNITY	1
Northern Ireland	1
Other Activities	4
Bomb Disposal	6
Military Aid to the Civil Authorities	6
Protection of Offshore Resources	6
Search and Rescue	8
Hydrography	9
Meteorology	10
Chapter 6: PERSONNEL	1
Service Personnel	1
Manpower Shortages	1
Pay	3
Recruiting	4
Other Conditions of Service	5
The Reserves	7
Cadet Forces	9
The Women's Services	9
The Arming of Women	11
Civilian Personnel	13
Civilian Numbers	15
Recruitment	18
Pay	21
Industrial Relations	23
Chapter 7: EQUIPMENT	1
The Equipment Budget	2
The Equipment Programme	3
Equipment Costs	27
Defence Procurement and Industry	29
Collaboration	31
Research	35
Defence Sales	37
The Government's Defence Industries	39
Chapter 8: THE DEFENCE BUDGET	1
Foreign Exchange Costs of Defence	4
The Search for Savings	5
IN CONCLUSION	1

ANNEXES

Annex

- 1
1
4
6
6
6
8
9
10
1
1
1
3
4
5
7
9
9
1
3
5
8
1
3
1
2
3
7
9
1
5
7
9
- A Strength of the Fleet
 - Table 1 - Ships of the Royal Navy.
 - Table 2 - Ships of the Royal Fleet Auxiliary Service.
 - Table 3 - Naval Aircraft.
 - Table 4 - Royal Marines Commando Forces.

 - B Strength of the Army: major combat headquarters and
 combat arm numbers.

 - C Strength of the Royal Air Force: front line units.

 - D Accidents involving loss or serious damage to
 aircraft of the three Services, 1 January 1979 to
 1 January 1980.

 - E Defence Expenditure with Industry: United Kingdom -
 based MOD contractors paid £5 million or more by
 MOD for equipment, 1978/79.

DIAGRAMS

CONFIDENTIAL

INTRODUCTION

1. 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. It is a duty which this Government takes very seriously. In this statement we explain how - by what means and on what principles - we propose to pursue it, and what financial and other support we need to ask of the nation to that end.
2. For Britain, defence is far from the only means that provides for security. Our relations with other countries - political, economic and cultural, both bilaterally and in international organisations - all play a key part. So too can arms control and disarmament. Non-military means like these are much to be preferred wherever they are available, effective and dependable. But the lessons of history and the plain facts of the world around us show that nations cannot safely rely on these alone. We must make it clear to any potential adversaries that they cannot - save at the gravest risk to themselves - resort to the use or threat of armed force to further their interests at the expense of our own. In short, we need effective deterrence.
3. The fate of Afghanistan has reminded us forcibly of these lessons. It shows our opponents have both the power to make new territorial and strategic gains and the nerve to use that power. If we are not to witness further such adventures in even more sensitive areas for the West, we must respond with firmness and resolve and in solidarity with all the free nations of the world. The specific implications which this holds for aspects

CONFIDENTIAL

of our defence policy are treated as they arise in the course of this statement.

4. We must be ready to meet challenges to our security, on whatever scale they may appear, not only as we perceive them today, but also in future circumstances which we cannot accurately foretell. Defence capability takes a long time to build. It cannot be acquired or re-built suddenly if, after it has been allowed to run down, the international scene darkens. We must plan for the future and insure against adverse situations while at the same time working for better ones.

5. These arguments would be hard for anyone to contest. What most people find difficult to accept is the sheer cost of defence. It is and always has been an expensive business, and we would all much rather spend the scarce resources it takes upon more direct benefits like housing, education, health, improving our environment and personal expenditure. But the hard fact is that defence spending is not an alternative to policies of this kind. It is an essential precondition for them - or at least for our having any assurance of enjoying their fruits. Without the national security which our defence capability provides, plans to contain inflation, restore incentives, secure economic growth, improve our health care and our children's education rest on sand; for the national life in which these objectives can be pursued in peace and freedom may disappear beyond recall. To insure against that danger means effort, sacrifice and expense. We live in a country which, for reasons of history and

CONFIDENTIAL

geography, cannot expect to opt out of the harsher realities of today's world. We cannot expect to be granted peace and security free of charge.

6. Thus defence is not an end in itself, but a means to an end. Our aim is to maintain deterrence. To do so in the face of the threat posed to us by the military build-up of the Warsaw Pact, we believe that this is a time for giving a higher, not lower, priority to defence - for our allies as well as ourselves.

7. To say this is not to sign a blank cheque for defence or to dismiss other spending programmes as unimportant. The scale of our defence effort cannot be divorced from our general economic capabilities, and we all know that Britain is going through difficult economic times. Within these constraints, this Government's task is to get the balance of priorities right again, to restore our defence effort to the level needed to give the best possible guarantee of our country's safety, using the most economical means available, and in full consciousness of the complexity of the decisions and judgements which this aim imposes upon us.

8. In this statement we set out the Government's general policy on the defence of the United Kingdom and the West. We review the many areas in which decisions have been and will

CONFIDENTIAL

be needed, not only to determine the level of this year's defence budget but to set the context of a coherent and stable defence effort in the years to come. Areas where particularly important issues of this kind have faced us since taking office include nuclear forces (covered in Chapter 2) and Service pay (Chapter 6); the defence budget itself is discussed in Chapter 8. We describe the steps being taken in a whole range of fields - the deployment, training and equipment of our forces, the number and quality of personnel - to sustain and improve our defence effort. We discuss the ways in which the needs of defence and the activities of the men and women engaged in it interact with the life of the community as a whole, and we illustrate the benefits, as well as the burdens, that this interrelationship can bring. Where difficulties and dilemmas exist, we try to show why we believe the solutions we are pursuing are the best available in the circumstances.

9. To complement the information offered in this statement, we are publishing a second volume containing an extensive collection of statistics on Britain's defence effort.

CONFIDENTIAL

1

THE CONTEXT OF BRITAIN'S DEFENCE POLICY

101. Our defence policy is a response to, and must be shaped by, the potential threats to the security of the United Kingdom. Such threats may take different forms of a more or less serious nature. But the gravest potential threat is posed by the military forces of the Soviet Union and the other Warsaw Pact states, which could be used directly in a military confrontation with NATO or indirectly to challenge the West's broader political and economic interests worldwide. The size and reach of these forces makes them a potent political weapon. If not counter-balanced, they could be exploited to bring unwelcome influence to bear on the domestic and foreign policies of countries which cannot match the Soviet Union's military power.

102. The United Kingdom could not face this challenge alone. Even if we could hope to do so in purely military terms, our political and economic survival is so closely bound up with that of our allies in Europe and North America that our continued security and freedom cannot be seen in isolation from theirs. Our allies, facing the same threats, share much the same perception. For the past thirty-one years, therefore, we and our allies have met the challenges facing us and have

1

CONFIDENTIAL

CONFIDENTIAL

provided for the collective security of the West by joining together in the North Atlantic Alliance.

103. Our defence policy outside NATO is discussed in Chapter 4 of this statement. This chapter discusses the main factors that shape British defence policy - the nature of the Warsaw Pact threat to NATO, and the character and strategy of the North Atlantic Alliance.

THE WARSAW PACT

104. For many years now the Soviet Union has devoted a large proportion of its economic resources to increasing and improving its armed forces. The Soviet Union does not publish any realistic or comprehensive figures for military expenditure, and the published figure of some 17 billion roubles in 1979 covers only about a quarter of actual Soviet expenditure. Western assessments indicate that military expenditure has over the last 10 years accounted for about 11% to 13% of the Soviet Union's gross national product. Military expenditure continued to rise by about 4% a year in real terms between 1973 and 1977, when NATO spending was falling. The Soviet economy is centrally controlled and the best technological and industrial resources are largely directed into the military field. Defence is given priority over other claims on available resources, rather than having to compete as it does in Western economies. With forces containing large

CONFIDENTIAL

numbers of poorly paid conscripts, Soviet military planners spend comparatively little on personnel and spend proportionately more than Western countries on equipment (see the table below). They spend proportionately less on operations and maintenance, partly because their civilian wages are lower than in the West, but also because some Soviet military equipment is used less intensively for training.

Comparative Distribution of Military Expenditure
(per cent) in 1977

	USSR	UK	US
Production of New Equipment	38	20	19
Research and Development	21	11	10
Military Personnel Costs	13	23	27
Operations and Maintenance	25	44	41
Construction of Military Facilities	3	2	3

Note Data in this table have been adjusted to conform to the NATO definition of military expenditure and is therefore not compatible with data in Chapter 7.

105. The extensive Soviet research and development programme over the last decade has in many areas eroded the technological lead which NATO used to enjoy. Soviet facilities for military production are huge and are being expanded still further, even though many plants are not working to full capacity. The Soviet armaments industry supplies nearly all the equipment

CONFIDENTIAL

used by the Warsaw Pact forces. The Warsaw Pact therefore benefits from economies in research, development and production, and the forces benefit from using standardised equipment.

106. The Soviet re-equipment programme has resulted in both quantitative and qualitative improvements. It has extended over the whole range of weapon systems, from strategic nuclear missiles to conventional weapons. As we enter the 1980s, the Soviet Union has achieved a rough equivalence with the United States in strategic nuclear capability, and will have the advantage over NATO in theatre nuclear weapons - particularly in longer-range systems where they have been deploying the most modern weapons, such as the SS-20 missile and the Backfire bomber. The Soviet navy has been strengthened by major new classes of warship, such as the Kiev class aircraft carrier. On average over the past decade the Soviet Union has launched a new nuclear-powered submarine every 6 weeks, whereas the Western nations have on average launched one every 13-14 weeks; there is also an imbalance in aircraft production rates. In the key area of central Europe, the Warsaw Pact has always had more forces than NATO, and their quality has been greatly improved with the introduction of many modern tanks, aircraft and other weapons; for example, aircraft introduced over the last five years into the Warsaw Pact's tactical air forces have twice the range and up to three times the payload of their predecessors. Unlike NATO, the Soviet Union has a major capability for offensive chemical warfare.

CONFIDENTIAL

Soviet forces maintain large stocks of chemical munitions and are fully equipped and trained to operate in a chemical environment.

107. Why has the Soviet Union channelled so much of its national wealth into the military field, especially over the last decade when both East and West have been pursuing detente? Several explanations are possible. First, Soviet leaders regard military power as a key element in the pursuit of their national aims, and as the main symbol of their superpower status. Secondly, Russian thinking has historically favoured large military forces. It can be argued that experience in World War II moves the Soviet Union to take out reinforced insurance on defence and that there is a traditional fear of encirclement, heightened by relative isolation, past and present, from the rest of the world.

108. There is also an explicitly aggressive motive for the Soviet military build-up. It is a basic, if nowadays seldom stated, tenet of Marxist-Leninist philosophy that Communism will ultimately be extended to every nation and that its spread should be promoted, if necessary, by military means when the circumstances are right. The Soviet Union has already demonstrated that it will use force to maintain the Soviet brand of Communism in Eastern Europe. The invasion of Afghanistan at the end of 1979 was the first example of military intervention to consolidate the Soviet hold on a country outside the Warsaw Pact. The Soviet Union will, we believe, continue to watch for opportunities to build up its influence in further countries and will be ready again to use force. The objective of this drive for influence is to limit and reduce first the influence and then the

CONFIDENTIAL

security of the West.

109. These are possible explanations or rationalisations for Soviet military growth. But whatever motives we might ascribe to Soviet leaders or they themselves might offer by way of justification, the fact is that the Soviet military forces facing NATO are very much larger than would, in our judgement, be needed for defence alone. This is all the more true in view of the fact that no NATO nation has any aggressive intentions against the Soviet Union, as is reflected in the Alliance's military posture. Moreover, Soviet military doctrine stresses the value of attack with concentrated use of massive force, of achieving strategic surprise by pre-emptive strike and of gaining decisive victories. Soviet forces are organised and trained accordingly. Claims that these forces, despite their massive offensive potential, serve purely defensive purposes can do nothing to reassure the Western nations. NATO must therefore ensure that the Soviet Union could never expect safely to use these forces to defeat NATO in a direct military encounter or to influence Western domestic or international policies. To prevent the Soviet military build-up from diminishing the freedom of action of the Western democracies, there is no alternative but to enhance NATO's defensive forces to ensure that deterrence is maintained.

110. Soviet strategists hold that any war in Europe is likely to escalate into a nuclear exchange, although they do now seem to accept that a campaign against NATO could start with conventional warfare. Certainly the Soviet leaders have at their disposal the forces to conduct almost any form of

CONFIDENTIAL

campaign that they may regard as necessary. Moreover, their ability to prepare rapidly for war and to launch an attack at a time and place of their own choosing has improved and is still improving. The amount of warning time NATO might receive before attack could be very limited.

111. We have no reason to believe that the present Soviet leaders are deliberately planning to attack NATO. Any such adventurism would be foolhardy in the face of NATO's defences. But, should war ever break out, they intend to win and meanwhile they can use Soviet military power to impress, influence or threaten less powerful nations to adopt policies which suit the Soviet Union. Should NATO lower its guard or falter in its determination to defend itself, the opportunities presented might be too tempting. As long therefore as the Soviet Union and its allies sustain and strengthen their large military forces with a pronounced offensive capability, we in the West must continue to ensure that our defences are such that the Warsaw Pact could never count on profiting from the use of military power.

THE NORTH ATLANTIC ALLIANCE

112. To face these growing military capabilities the United Kingdom and her allies join together in the North Atlantic Treaty Organisation. The Treaty's key provision is that an

CONFIDENTIAL

attack on one is an attack on all. NATO therefore provides each of its members with far greater security than any could achieve alone. The means by which it does this are political as well as military. The establishment of a safer and more co-operative relationship with Warsaw Pact countries is an important objective of the Alliance. But its primary task, and the one for which it was created, is to provide collective strength to deter aggression, and to resist it effectively if it comes.

113. In the thirty-one years since its formation NATO has succeeded in deterring aggression. It is in this country's vital interests that it continues to do so. This will depend on the willingness of member nations to make the effort and accept the sacrifices necessary to sustain adequate defence. This Government is wholeheartedly committed to NATO and determined that the United Kingdom shall pull its weight.

114. It will not be easy in the next few years for us or for our allies to maintain and improve our contribution to NATO's defences. We all face economic difficulties which will not be quickly overcome. Nevertheless, all the allies have endorsed the NATO aim adopted in 1977 of increases in defence budgets in the region of 3% a year in real terms. This increase in NATO's defence spending is necessary to make good the gaps and correct the weaknesses which have appeared

in the Alliance defences while the Warsaw Pact countries have been building up their military strength over the last decade.

115. In NATO, nations enjoy political and economic independence. From time to time this can bring a nation into political disagreement with an ally. For example, differences persist between Greece and Turkey which have prevented the reintegration of Greece into NATO's military structure after its withdrawal in 1974. It must be one of NATO's most pressing political aims to see this situation resolved on a basis which is acceptable to all concerned, to restore the Southern Flank to full strength. The Government will do all it can to help. Such disputes can affect NATO's cohesion, but so far the Alliance has proved politically strong enough both to withstand them and to help resolve them. By contrast, the Warsaw Pact nations generally serve the political and economic interests of the Soviet Union, giving them little room for independent manoeuvre.

116. It is in the long run an immense source of strength to NATO that its members participate freely and that their peoples cherish the freedom and way of life NATO exists to preserve. The Government believes that the people of this country and of the Alliance as a whole do recognise the threat posed by the build-up of Soviet forces, and will support the political and military measures needed to counter that threat. But they will

CONFIDENTIAL

do so only if political leaders explain the dangers and what is needed to ward them off.

117. The United States' commitment to the defence of Europe remains the vital foundation of NATO's political and military strength. It reflects our American allies' appreciation of the importance of the continued security and liberty of Western Europe to their own security. The commitment is manifest in six United States divisions stationed in the Federal Republic of Germany; in the provision of United States naval forces in the Eastern Atlantic and the Mediterranean; in United States Air Forces stationed in the Federal Republic of Germany, Italy, the Netherlands, Turkey, Greece and the United Kingdom; in the plans frequently exercised, for reinforcing all these forces rapidly from the United States; and in the undertaking reaffirmed by successive United States Presidents that they would have recourse if necessary to nuclear weapons - both those held forward in Europe and their main strategic armoury - to protect and preserve all their NATO allies. The United States has strongly underlined its commitment by the vigorous political and military leadership it has shown in encouraging the Alliance to make good the weaknesses in NATO's defences.

118. The European allies have in response shown themselves prepared to take the steps needed to strengthen their contribution to NATO's common defence, individually and through increased co-operative effort. The Eurogroup, an informal grouping of European NATO members within the framework of the Alliance, has played a valuable part in sustaining this work. The European allies also participate fully in the NATO infrastructure programme. This has an Alliance-wide budget of £2,240 million for the years 1980-84, which provides important collective facilities

CONFIDENTIAL

such as communications, hardened aircraft shelters and reinforcement support projects.

119. The decade ahead will prove crucially testing years for the Alliance, not least because of the challenge posed by the Soviet military build-up. The general political health and cohesion of the Alliance is reassuring. The United States commitment is firm. Allied Governments have improved consultation to concert their diplomatic activity effectively. Above all, there is basic agreement about the dangers we face and what needs to be done.

ALLIANCE STRATEGY

120. NATO adopts a strategy of forward defence and flexible response which is essentially deterrent and defensive. The strategy is intended to deter aggression by NATO's possession of forces which are able to mount a robust conventional defence against attack and by making clear NATO's ability and will to have recourse to nuclear weapons, should other means fail, to cause an aggressor to abandon his attack and withdraw. The concepts underlying the strategy are those of forward defence and flexible response.

121. Forward defence means that NATO must be able to mount a defence robust enough to deny an aggressor easy or rapid capture of territory or other major assets. To do this NATO must deploy conventional forces well forward in considerable strength, and must be able to bring up reinforcements in large numbers and in good time. Thus the United States, Canada, the

CONFIDENTIAL

United Kingdom, the Netherlands and Belgium all station forces permanently in the Federal Republic of Germany, as does France.

122. Flexible response means that NATO should have at its disposal a range of options from which to choose in making an appropriate military response to aggression. In contrast to the former NATO strategy of massive nuclear retaliation, flexible response does not commit us to respond in any pre-ordained way.

123. The aim of the Alliance is to make it very clear to any potential aggressor that he would run a high risk of having inflicted upon his country a degree of damage which no objective could justify. To achieve this, the Alliance must have at its disposal a range of conventional and nuclear military capabilities which could be used in response to an attack. The defence options these provide should not only be militarily effective but also express with unmistakable force and clarity the Alliance's determination to resist. The step from one level of force to higher ones must not however be so severe that an enemy might suppose that the NATO countries would be unwilling to take it. NATO therefore needs a full range of options extending from a limited response with conventional forces through to a full-scale strategic nuclear strike.

124. This strategy has evolved over the last thirty years in

CONFIDENTIAL

response to changing military and political considerations and it has certain broad implications. The strategy requires NATO to have nuclear weapons as well as strong conventional forces. NATO could match the conventional forces of the Warsaw Pact only if the Alliance countries devoted a very large proportion of their economic resources to doing so, and were prepared to distort their economic and social structures accordingly. The Soviet Union is willing to impose these penalties on its people in a way that the members of NATO are not. The NATO aim is to deter attack by possessing nuclear weapons; should deterrence fail and an attack occur which conventional forces alone could not contain, NATO could threaten to use - and, if necessary, actually use - nuclear weapons to cause the aggressor to abandon his attack. To ensure the deterrent is genuinely effective, NATO's nuclear plans must take full account of the Soviet Union's possession of strategic and theatre nuclear weapons on a scale which matches, and in some categories considerably outstrips, NATO's nuclear armoury.

125. Another consideration is that it is politically important that all allies should share the risks and burdens of providing for deterrence and defence. All the allies would commit their land and air forces to any battle on or over the European continent, and some elements are permanently stationed there. Some allies which are not nuclear weapon states also permit nuclear warheads to be stationed on their

CONFIDENTIAL

territory in peacetime, and sometimes provide the delivery systems, though the warheads remain under the control of the United States President. These commitments parallel the United States commitment to the security of Europe. This sharing of risks and burdens is a source of great strength to NATO.

126. The concept of forward defence flows from the consideration that there are in NATO no buffer states whose interests can be valued lower than those of others. There can be no question of sacrificing the territory of one ally in order to appease the aggressor or to make it easier for other allies to defend themselves.

127. NATO's strategy depends upon NATO having the necessary strength in each element of what is called the "triad" of conventional, theatre nuclear and strategic nuclear forces, and we believe that the improvements now planned to the nuclear and conventional forces of the Alliance are urgently needed.

128. The Alliance is engaged in a major programme - the Long-Term Defence Programme (LTDP) - to effect improvements in ten priority areas in which collective action is needed to make the most efficient use of Alliance resources. The ten areas cover improvements in readiness; reinforcement; reserve

CONFIDENTIAL

mobilisation; maritime posture; air defence; command, control and communications; electronic warfare; rationalisation; consumer logistics; and theatre nuclear modernisation.

129. The Government fully endorses the aims of the LTDP. We already have plans to meet many of the measures for which the United Kingdom has prime responsibility and we are playing our part in those steps calling for international co-operation. Together these measures cover a very wide spectrum of defence activity. Our plans to fulfil our part of the LTDP are reflected in the remaining chapters of this statement.

ARMS CONTROL

130. The Government believes that arms control can play an integral part in its efforts to ensure the nation's security. The members of the Atlantic Alliance have agreed since the Soviet invasion of Afghanistan that efforts to secure agreement on arms control should continue, though inevitably the prospects for success have been overshadowed. Our aim is greater stability - where possible at lower levels of forces. Balanced, practical and verifiable arms control measures can serve this by limiting arms competition and making defence relationships more predictable. But experience shows that it is not realistic to pursue arms control from a position of growing inferiority. Our defence effort and our arms control policy are therefore complementary.

CONFIDENTIAL

131. In December last year Alliance Ministers took a series of important decisions designed to improve the prospects for arms control in the early 1980s. These included an offer to the Soviet Union to negotiate on long-range theatre nuclear forces in the third round of the Strategic Arms Limitation Talks (SALT III), and a unilateral withdrawal of 1,000 United States nuclear warheads from Europe (see paragraph 217). In addition proposals were agreed to simplify the way for a Phase I agreement in Mutual and Balanced Force Reductions (MBFR) and on a package of verification and stabilization measures (Associated Measures) to accompany an MBFR agreement. These proposals were formally tabled by the West in Vienna on 20 December. Finally, consideration is to be given to proposals for developing confidence-building measures within the framework of the Conference on Security and Co-operation in Europe (CSCE). The Alliance intends to work for the adoption during the Madrid CSCE meeting of a mandate for further negotiations on militarily significant and verifiable measures.

132. The SALT II Agreement is discussed in Chapter 2. The principles which apply to SALT II must also apply to other arms control agreements; these must not codify existing imbalances and they must be subject to adequate verification, since uncertainty can only lead to suspicion and instability.

133. These principles are being upheld by the NATO Allies in the MBFR negotiations in Vienna. The Warsaw Pact has more

CONFIDENTIAL

troops than NATO in the MBFR area; it follows that reductions need to be asymmetrical if they are not merely to perpetuate the Warsaw Pact advantage. Progress in the MBFR talks has been slow, largely because of the disagreement over Eastern force levels. But we hope that the initiatives tabled by the West in December will provide a decisive impetus to enable the early attainment of a Phase I agreement as a step towards a full agreement providing for reductions to manpower parity in Central Europe.

134. The new proposals for a simplified Phase I MBFR agreement are designed to tackle those important areas which have been causing difficulty in the negotiations. First, the need for agreement on data is restricted to United States and Soviet forces; the discussion of data for forces to be reduced in a Phase II agreement can be deferred until after a Phase I agreement. This requires a modification of other aspects of the West's present proposals; in particular it would not be possible at the time of a Phase I agreement to give any specific assurances on the scope and timing of Phase II reductions. Second, the new proposals have halved the scale of United States and Soviet manpower reductions to be taken in Phase I compared with the levels previously proposed by the West, bringing the levels broadly into line with those proposed by the Warsaw Pact. Third, the West is proposing that discussion of equipment reductions be deferred. At the same time,

CONFIDENTIAL

and as part of a Phase I agreement, the West has proposed a package of measures designed to facilitate the verification of an agreement through inspection and a regular exchange of information, and to promote military stability and confidence through advance notification of military activities and of major troop movements into the reductions area. These measures are also in part designed to help safeguard the security of flank countries.

135. We believe that the proliferation of nuclear weapons would increase tensions, putting at risk international security and stability. The Non-Proliferation Treaty Review Conference in August will be an important event in the continuing search to combine non-proliferation objectives with the widespread desire of nations to enjoy the benefits of nuclear power. Non-proliferation would also be served by a comprehensive ban on testing nuclear weapons, on which we have been negotiating with the United States and the Soviet Union. In international fora we have also supported a large number of proposals which hold out hope of lowering tension among states.

CONFIDENTIAL

2

THE BRITISH CONTRIBUTION TO NATO'S NUCLEAR FORCES

201. Britain has possessed her own nuclear forces for over twenty-five years to help deter aggression. The Government is committed to maintaining their effectiveness. All of them are assigned to NATO, but they can be used only on the express authority of the British Government at the highest level.

202. Our nuclear forces exist alongside the very large ones of the United States, which has repeatedly stated its determination to apply all its military capability if needed to ensure the defence of all its NATO Allies. Critics accordingly ask why Britain should maintain any nuclear forces of its own.

203. The Government has great confidence in the depth of resolve underlying the United States commitment. Successive United States Presidents could not have affirmed this more clearly, nor backed it up more effectively by their force dispositions in and for Europe. But deterrence is a matter of perception, and particularly perception by a potential adversary. The decision to use United States nuclear weapons in defence of Europe, with all the risk to the United States homeland this would entail, would be immensely grave.

1

CONFIDENTIAL

CONFIDENTIAL

Particularly now that there is inter-continental nuclear parity, a Soviet leadership - perhaps much changed in character from today's, looking at the world in terms of values very different from those of the West and operating in turbulent internal or external circumstances - might believe that at some point in the development of conflict the determination of the United States could waver. The presence of enormous destructive power in independent European hands is an important insurance against such a misperception. The nuclear strength of Britain or France may seem modest by comparison with the super-power armouries, and so it is, but the damage it could inflict is in absolute terms immense. An adversary assessing the consequences of possible aggression in Europe would have to regard a NATO defence containing these powerful independent elements as a harder one to predict, and a more dangerous one to assail, than one in which nuclear retaliatory power rested in United States hands alone. To reduce now the West's degree of long-term insurance against Soviet miscalculations would be a most hazardous step.

204. Britain's current contribution to the Alliance in this field is unique. France's distinctive policy - well understood, long established and firmly held - debars her from undertaking the clear commitment to collective Alliance military planning and strategy which we have made; and no other European member of NATO is even remotely a potential candidate to contribute independent nuclear forces. The Government regards this distinctive British contribution to NATO as of very great importance and so do our allies.

CONFIDENTIAL

STRATEGIC NUCLEAR FORCES

205. Both the United States and the Soviet Union have vast strategic nuclear forces. Their composition is shown in Figure 2, which is based on the Statements of Data on the Numbers of Strategic Offensive Arms made in June last year at the signing of the SALT II Agreement (Strategic Arms Limitation Talks). The Treaty itself specifies the types of system to be counted as central strategic systems. The Soviet Union will have to deactivate some 250 systems, probably the older inter-continental ballistic missiles (ICBMs) and aircraft, while the United States will not have to give up any operational systems. The Treaty codifies the broad strategic parity already achieved by the two super-powers.

206. The signing of SALT II by President Carter and President Brezhnev in Vienna was an important step in the long process of limiting strategic arms. Following the movement of Soviet troops into Afghanistan at the end of 1979, however, President Carter asked Senate leaders to delay the ratification debate on the Treaty while the Administration and Congress assessed the situation and considered what response should be made. The British Government continues to hope that the Agreement will be ratified in due course, but clearly we face a period of considerable uncertainty.

207. SALT II is a complex Agreement covering a range of issues which include numerical ceilings on strategic launchers,

CONFIDENTIAL

provisions for verification, counting rules, an agreed data base and restrictions on the modernisation of existing systems and the introduction of new ones. These provisions would give each side a clearer understanding of the present and future capabilities of the other. This would bring a valuable degree of predictability and hence stability to strategic planning.

208. It was possible for the United States Administration and the Soviet Union to reach agreement on SALT II because its provisions are realistic, equitable and verifiable. It would enable the security of both parties to be maintained with fewer systems than would otherwise have been the case. The numerous verification provisions, and the acceptance that co-operation in verification is necessary, establish valuable principles for further negotiations.

209. It was an important concern of the British Government that SALT II should do nothing to undermine the effectiveness of Britain's independent nuclear forces. Following the precedent set by earlier SALT negotiations, SALT II does not cover the systems of countries other than the United States and Soviet Union. Nor does it impair the ability of the United States to co-operate and collaborate with her allies as in the past.

210. Britain's strategic force currently consists of four nuclear powered submarines each carrying 16 Polaris A3 missiles,

CONFIDENTIAL

which are committed to the Supreme Allied Commander Europe. At sea, the submarines are almost invulnerable to pre-emptive attack. There is always at least one on patrol (with more explosive power than all the munitions used in World War II) and further submarines could be quickly on station in times of tension.

211. [A programme of improvements to maintain the effectiveness of the strategic deterrent is well advanced. The programme, code-named Chevaline, is designed to respond to Soviet anti-ballistic missile capabilities which we know are being improved. Chevaline involves a major and complex development of the missile front end and changes to the fire control systems. The improved missile will carry advanced penetration aids and be able to manoeuvre its payload in space. The total cost of the programme at prevailing prices is estimated at about £1 billion. With its completion at hand, the Polaris force will remain effective into the 1990s. The Government is considering possible systems to replace it thereafter, and a decision will be taken soon.]

THEATRE NUCLEAR FORCES

212. As Chapter 1 explained, NATO recognises that to threaten all-out attack with strategic nuclear forces would not be appropriate or credible in response to aggression in any but the most extreme circumstances. To be able to respond flexibly to aggression, the Alliance needs to partner its strategic nuclear forces by a full range of strong conventional forces and theatre nuclear weapons. (The coverage of the term theatre nuclear forces varies with the context. It is used here to cover all NATO and Warsaw Pact systems of types not regarded as central strategic systems in the SALT II sense. It thus includes a wide variety of systems ranging from the

CONFIDENTIAL

Soviet SS-20 ballistic missile with multiple independently targetable re-entry vehicles (MIRVs) to artillery with nuclear shells.)

213. The disparity between NATO and the Warsaw Pact in longer-range theatre nuclear forces (LRTNF) is rightly a matter of great concern to the Alliance. The present position in such systems is shown in Figure 3. The contrast is stark. The figures for the Warsaw Pact include all land-based theatre systems not counted in SALT II which can reach targets in Western Europe from their normal bases in the Soviet Union. The figures for NATO include all Western land-based theatre systems capable of reaching the Soviet Union from their normal bases in Europe. The figures exclude on both sides naval systems which may not have land attack as their primary role. The balance is that the Soviet Union is massively superior in LRTNF capability.

214. If anything, the figures understate the relative strength of Soviet LRTNF, since they exclude more "potential" systems on the Soviet side. Even so, they show a huge Soviet lead. Moreover, the figures tell only part of the story. Although the numbers of Soviet delivery systems have not changed much over the last decade, it is the quality that has improved dramatically. The SS-20 has greater range and accuracy than the older SS-4 and SS-5. Unlike them, it has three independently targetable warheads and is mobile. Similarly, the Backfire bomber, coming into service at the rate of about 30 a year, is much more powerful and effective than the older Badger and Blinder.

CONFIDENTIAL

215. Since United States F-111s were deployed to Britain ten years ago NATO has introduced no new land-based LRTNF. The British contribution in this category consists of 56 Vulcan long-range bombers, which will have to be phased out of service in the early 1980s. The airfields on which aircraft such as they and the F-111s depend are vulnerable to SS-20s and Backfires, and their ability to penetrate Soviet territory is increasingly affected by the further modernisation of the Warsaw Pact's very extensive air defences.

216. Against this background, the Alliance decided on 12 December last year to embark upon a new LRTNF programme envisaging the deployment in a group of Western European countries of 572 United States missiles, comprising 464 ground-launched cruise missiles (GLCMs), and 108 Pershing II ballistic missiles. Britain took an active part in shaping this programme, warmly endorsed the Alliance decision and has agreed to provide basing for 160 GLCMs. The Government is now assessing with the United States where these should be based. Full account will be taken of environmental considerations but the final decisions will have to be governed mainly by military factors. The choice made will be announced as soon as possible, and this will be followed by full consultations with local authorities about the construction programme.

CONFIDENTIAL

217. The United Kingdom has also played an important role in developing the proposals agreed by NATO Ministers in December last year for LRTNF arms control (see paragraph 131).

We would regard an agreement involving significant reductions in the LRTNF deployments of both sides compared with the levels now projected as a highly satisfactory outcome; but to proceed on the assumption that this is certain in advance would actually reduce the chances of achieving it. The NATO proposals were linked with approval of the decision to withdraw unilaterally 1,000 nuclear warheads from the United States stockpile in Europe.

218. NATO and the Warsaw Pact also deploy other kinds of theatre nuclear systems. These include surface-to-surface missiles such as Scud, Scaleboard and Frog (with ranges up to 600 miles) on the Warsaw Pact side, and Lance and Pershing I on the NATO side (with ranges up to 450 miles). There are nuclear artillery shells for use in the immediate battle-field area; nuclear surface-to-air missiles to defend against air attack; atomic demolition munitions which could for example be used to close off mountain passes; nuclear warheads delivered by tactical aircraft; and nuclear depth bombs for

CONFIDENTIAL

use against submarines.

219. The Warsaw Pact has in total more theatre nuclear systems than NATO of these kinds, and is modernising them extensively, though the numerical imbalance is less marked than in long-range systems.

220. Britain's contribution to the NATO systems includes bombs which can be delivered by RAF strike aircraft and depth bombs by RN helicopters. Nimrod maritime patrol aircraft can deliver United States nuclear depth bombs. BAOR has British-owned short-range Lance missiles and artillery which can deliver United States nuclear warheads.

221. NATO theatre nuclear forces are no substitute for adequate conventional forces, nor do they indicate that NATO is prepared to engage in protracted "war-fighting" nuclear exchanges on Alliance soil. Their role, whether in deterrence or in use, is to make plain that if an attack is pressed beyond the capacity of NATO's conventional defence the Alliance has the means and the will to resist further, if necessary with nuclear weapons, rather than back down and accept defeat. Their deterrent value works through ability to impose catastrophic military effects, but their underlying purpose lies not in those effects themselves but in seeking to convince an aggressor that he must halt his attack and withdraw, or risk devastating consequences.

THE BRITISH CONTRIBUTION TO NATO'S CONVENTIONAL FORCES

301. The Alliance does not and cannot rely on nuclear forces alone. The objective must be to deter aggression, if possible, without any recourse to use of nuclear weapons. This means that NATO must be able to resist the formidable conventional forces of the Warsaw Pact at their own level. NATO's conventional forces are out-numbered by the Warsaw Pact both in Europe and in the Eastern Atlantic. Of course, it is not possible to assess military advantage purely in terms of men, ships, tanks or aircraft. Other factors include the training and morale of men, the level of readiness, the quality of equipment, the deployments of forces, tactics and strategy. The ability to achieve surprise is of course an advantage the aggressor always enjoys. Nevertheless, the current balance of readily available forces in Central Europe (Figure 4) and in the Eastern Atlantic (Figure 5) illustrates the preponderance of Warsaw Pact strength in these two areas which are crucially important to the Alliance and to which Britain commits most of her forces.

302. The full comparison is even graver, particularly in Central Europe. The bulk of Warsaw Pact reinforcements would have to travel only about 450 miles from the Soviet Union to the Central European front through Warsaw Pact territory; most of NATO's reinforcements would have to come over 3,000 miles from North America, and to expect to be attacked by Warsaw Pact forces long before they reach the battlefield. These hard

CONFIDENTIAL

facts about the Central European balance point up the limited relevance of the much publicised Soviet decision to withdraw 20,000 men and 1,000 tanks from East Germany. A reduction of Soviet forces on this scale, although welcome, will have hardly any effect on the existing imbalance.

303. Responsibility for ensuring that NATO's forces remain adequate to meet this threat falls to the three Major NATO Commanders (MNCs):

- the Supreme Allied Commander Europe (SACEUR);
- the Supreme Allied Commander Atlantic (SACLANT);
- the Allied Commander-in-Chief Channel (CINCHAN).

Figure 6 gives the command structure in more detail, showing where Britain provides forces and commanders; Figure 7 gives details of the permanent or reinforcement forces we provide for various NATO commands; and Figure 8 shows the NATO command areas.

304. In peacetime most of NATO's forces remain under national command, but they are allocated to a MNC, and would be placed under his direct command in time of tension or war. Some forces are under direct NATO command even in peacetime, such as the Standing Naval Force Atlantic and the air defence elements of the Royal Air Force, both in Germany and in Britain.

CONFIDENTIAL

305. Britain's military contribution to NATO is concentrated in four main areas:

- nuclear forces;
- the Central Region of Europe;
- the Eastern Atlantic and Channel;
- the defence of the United Kingdom home base.

We also provide important specialist reinforcements. Britain's nuclear forces have already been covered in Chapter 2. In the remaining sections of this chapter we present the essential facts on each of the other elements in our contribution, we discuss what role our forces play, and we identify the major problems this poses and describe how we are tackling them. We also give examples of the exercises and training which keep our forces prepared for any action they may have to undertake.

THE CENTRAL REGION OF EUROPE

306. NATO's longest border with the Warsaw Pact runs through the Central Region of Europe, and it is here that we face the greatest concentration of Warsaw Pact forces. The most direct invasion routes to the European heartland of the Alliance cut across this region. It is in this vital area for the defence of NATO that British Forces Germany (BFG) are deployed, consisting of the British Army of the Rhine (BAOR) and RAF Germany (RAF(G)). The presence of large British forces in the Federal Republic of Germany is a clear expression of the United

CONFIDENTIAL

Kingdom's commitment to forward defence.

307. Another commitment we have in central Europe is that dating from the end of World War II, to help maintain the security of the Western sectors of Berlin. This commitment is met by the 3,000 men of the Berlin Field Force, together with the American and French forces in Berlin and supported by the air link at RAF Gatow. The Berlin Field Force is not committed to NATO.

British Army of the Rhine

308. The main combat element of BAOR is the First British Corps (1(BR) Corps). Together with German, Dutch and Belgian Corps, it is part of the Northern Army Group, which under a British commander is responsible for the defence of the North German Plain. 1(BR) Corps defends a vital sector through which one of the main thrusts of any Warsaw Pact offensive against NATO could be expected to come. Such an attack would be spearheaded by large concentrations of tanks with armoured infantry, artillery, assault helicopter and aircraft support. The task of 1(BR) Corps is to disrupt, halt and then defeat these forces.

309. The permanent peacetime elements of 1(BR) Corps are four armoured divisions, an artillery division and units of the 5th Field Force.

The combat and

CONFIDENTIAL

support elements that make up an armoured division are illustrated in Figure 9.

310. In an emergency, these forces would be reinforced from Britain by -

- the remainder of the 5th Field Force;
- the 7th Field Force;
- other home-based units, including some from the Territorial Army (TA);
- Regular Army Reservists;
- individuals from the Army's training and support organization.

These would be moved by air and sea, using both civil and military means. After full mobilisation the strength of BAOR would be more than doubled, and up to 70% of our Army would be in central Europe and under NATO command. The reserve and reinforcement forces are essential to the ability of BAOR to fulfil its wartime role. By exploiting reinforcement, we find a middle way between the prohibitive cost of maintaining BAOR permanently at war establishment and the grave military disadvantage of complete reliance on a home-based Army all of which would have to be moved forward in time of emergency.

RAF Germany

311. RAF Germany is part of NATO's Second Allied Tactical

CONFIDENTIAL

Air Force (2 ATAF) which, with its partner to the South, 4 ATAF, makes up Allied Air Forces Central Europe. 2 ATAF, with its British commander, would be responsible for air defence and ground support of the Northern Army Group over an area of 60,000 square miles of the Federal Republic of Germany, Belgium and the Netherlands, and for operations against targets beyond the battlefield. RAF(G)'s roles would include attacking enemy ground forces, delivering conventional or nuclear weapons against targets beyond the immediate battlefield area, reconnaissance, fast helicopter lift of troops and stores and air defence. In peacetime, RAF(G) is also responsible for policing part of the airspace of the Federal Republic.

312. RAF(G) includes:

- two squadrons of Buccaneer strike/attack aircraft;
- four squadrons of Jaguars in the strike/attack role;
- one squadron of Jaguars in the reconnaissance role;
- two squadrons of Harriers, which would operate from dispersed field sites in close support of the Army;
- two squadrons of air defence Phantoms.

The Royal Air Force also provides Wessex helicopters in support of the Army. The RAF(G) airfields are defended from air attack by Bloodhound and Rapier missiles. RAF(G) would be reinforced in time of tension by aircraft from operational training units in the United Kingdom. In addition, RAF

CONFIDENTIAL

squadrons based in Britain are assigned to SACEUR's Strategic Reserve (Air) (see paragraph 352) which could, if needed, be deployed in the Central Region.

The British Contribution in the Central Region

313. The defence of the United Kingdom cannot be considered separately from that of the Alliance as a whole, and this is the essential reason for deploying British forces to the Central Region of NATO. The forward defence of the Alliance on land begins at the Inner German border. We therefore station troops in the Central Region so that they can contribute effectively to NATO's forward defence in time of need. If these forces were stationed elsewhere, we could not be sure that they would be able to reach their forward battle positions in time. If these forces were no longer committed to the Central Region and were diverted to other tasks, it could not be assumed that other allies would be able to commit forces to take their place.

314. Apart from these strategic and practical considerations, there are important political considerations which underlie our present posture. The significance to NATO of the concept of forward defence and the commitment to it of member countries was emphasised in Chapter 1. The continued presence of BFG is important not only to the Alliance's military strength but also

CONFIDENTIAL

to its political resolve and cohesion. It is therefore in NATO's interest and our own that British forces should remain in the Federal Republic of Germany in fulfilment of our obligations under the Treaty of Brussels. It must be recognised however that this is an expensive commitment and that the foreign exchange costs of maintaining BFG have greatly increased since it was first undertaken. This problem is discussed further in Chapter 8.

315. There are problems to be overcome if BAOR and RAF(G) are to be fully effective. The units of BAOR are under strength, which has necessitated the undermanning of some Chieftain tanks and the reduction of one company to cadre strength in many infantry battalions. In addition, some 3,000 men are deployed away from BAOR at any one time on short tours in Northern Ireland, though they can be returned very quickly. All this has imposed a degree of overstretch on some units and the RAF helicopters which support them, with adverse effects on training and readiness. The concept of having, below the divisional level, Task Force Headquarters actuated only in wartime (an idea introduced as a modification to the restructuring programme following the 1974 defence review) has proved unsatisfactory. We need to improve BAOR's anti-armour and air defence capabilities and to speed up the arrangements for the reinforcement of BAOR in an emergency.

CONFIDENTIAL

For the Royal Air Force we need to provide the aircraft, weapons and training needed to make up for the Warsaw Pact's advantage in numbers and steady improvement in quality. It will take time and scarce resources to solve all these problems.

316. The Government has made a start. Chapter 6 records the steps we are taking to overcome the manpower shortages created by the heavy loss of skilled and experienced Servicemen in recent years. Early this year we made a reduction of one major unit Northern Ireland, and this will bring some relief to BAOR. Task Force Headquarters are to be established permanently in peacetime.

Chapter 6 also describes the steps we have taken to improve the ability of the Territorial Army and of Regular Army Reservists to reinforce BAOR in an emergency, and the equipment programme is described in Chapter 7.

Exercises and Training

317. The men of BFG need to be fully trained and prepared to carry out their war roles at all times. All the training undertaken by the Services contributes to their readiness, and the extent of their worldwide exercise programme in 1979/80 can be seen in Figure 10, which shows both NATO and national exercises for all three Services. But a good deal of the training must be specifically dedicated to preparing our land

CONFIDENTIAL

and air forces for their role in a central European conflict. In particular it is important that Reservists and TA units should be exercised regularly in their wartime roles.

318. Exercise STEEL TRAP is a typical example of a major joint exercise held in 1979. The United Kingdom Mobile Force, together with its air support (see paragraph 352 below), practised one of its wartime roles by moving to support 1(BR) Corps. In all 9,766 men (6,648 regulars and 3,118 TA volunteers) were moved to the Federal Republic of Germany. STEEL TRAP was closely linked with the NATO Exercise COLD FIRE, which involved all the squadrons of RAF(G) and four squadrons from Britain. Major exercises of this sort are needed to test our ability to move reinforcements, including Reserve forces, to Europe, to use home-based units in harness with 1(BR) Corps, to co-ordinate land and air warfare and to work with our allies.

319. Another key element of the training of 1(BR) Corps is the battle group training at Suffield in Canada, which makes possible the live firing of all weapons. Between May and October 1979, seven battle groups from BAOR trained at Suffield for at least a month each. Exercising these units in Canada rather than in Europe is costly, but neither the Federal Republic of Germany nor the United Kingdom has adequate space and facilities for the live-firing training that the battle groups need.

CONFIDENTIAL

320. Because the Warsaw Pact's air forces out-number NATO's and because of its formidable air and ground based anti-aircraft defences, NATO must rely heavily on tactics and the quality of its airmen to ensure that its air forces can carry out their war roles. In this respect the Royal Air Force is second to none, as is shown by the high marks that RAF(G) consistently gains in NATO evaluations and competitions.

321. If our strike aircraft are to penetrate the Warsaw Pact defences to destroy reserves, fuel and stores depots, communications and airfields, they must fly very fast and very low. This requires great skill, intensive training and constant practice. Facilities for low flying in West Germany - where airspace is even more crowded than in Britain - are limited, so a good deal of the training for RAF(G) and other RAF squadrons has to be done elsewhere. For instance, last year RAF Vulcans, Buccaneers and Jaguars took part in major exercises in Canada and the United States that involved low level attacks against simulated targets "defended" by aircraft, electronic warfare measures and anti-aircraft missiles. For the future we hope to be able to negotiate the wider use of Goose Bay in Canada for Tornado low flying training at night or in bad weather. But much of the training must still take place in Britain. We try to minimise the hazards and disturbance. Aircraft must avoid densely populated areas, airfields, nuclear power stations, hospitals and many other places; they must fly higher and

CONFIDENTIAL

slower than they would in war. We restrict low flying at weekends and after dark as far as possible. Some inconvenience and risk still remains; but it must be set against the general balance of our forces' relations with the community (see Chapter 5). The plain fact is that this and other types of Armed Forces training must be carried out if the Services are to be prepared to do the job expected of them in war.

322. Considerable publicity was given in 1979 to RAF aircraft accidents, especially the tragic incident at Wisbech. Although the Royal Air Force had slightly more accidents in 1979 than in 1978 (26 as opposed to 24), the RAF accident rate in recent years has been the lowest in its post-war history. This improvement has moreover been achieved at a time when a higher proportion of RAF flying involves fast jet aircraft, often at low level. Of the 26 RAF accidents in 1979 only three are likely to prove on investigation to have been caused wholly or mainly by low flying as such. To put matters in perspective, in the years 1969-1978 10 civilian deaths are attributable to RAF aircraft accidents; in the same period 26,769 pedestrians were killed in road accidents. A list of all Service flying accidents involving loss or serious damage to aircraft in 1979 is at Annex D. Data on accident rates, published in Volume II of this statement, show a generally declining aircraft accident rate for all three Services. (Data for 1979 in Volume II may differ from those published previously as the categorisation of damage sometimes changes after detailed inspection.) In future the Ministry of Defence will publish information on the causes of all such accidents.

CONFIDENTIAL

EASTERN ATLANTIC AND CHANNEL

323. Unlike the Warsaw Pact with its largely internal lines of communication for reinforcement and resupply, the NATO allies are dependent on the free use of the sea. In a time of tension or war the transatlantic reinforcement of Europe would be crucial to Alliance strategy. A major allied naval and air effort would be needed to protect this operation and the continued shipment of essential supplies. Unless NATO can show itself capable of mounting and protecting this reinforcement, the military credibility and deterrent effect of allied forces stationed outside continental Europe would be compromised. Without a NATO presence in these sea areas, Warsaw Pact naval and air forces would be able to operate in the Eastern Atlantic and around our coasts unchallenged, both in peace and war. An effective Alliance presence in these areas is therefore essential to maintain the allies' confidence in the plans for mutual defence, and to prevent any weakening of the linkage between the European and the North American elements of the Alliance.

324. The recent growth in the size and capability of the Soviet navy has greatly increased the threat it can present to the West. In war, the reinforcements from North America would be most vulnerable to attack in the Eastern Atlantic and Channel areas, as they come within range of the operating

CONFIDENTIAL

bases of the Soviet Northern Fleet and its aircraft. It is in these waters that the Royal Navy - the largest NATO navy in Western Europe - makes its major contribution to the Alliance's maritime effort.

Composition of British Forces

325. As Figure 6 shows, a British officer - the Commander-in-Chief Fleet - holds the major NATO appointment of Commander-in-Chief Channel, and also that of Commander Eastern Atlantic under SACLANT. His headquarters at Northwood is co-located with that of the Flag Officer Submarines (who is NATO's submarine commander in the Eastern Atlantic) and that of Air Officer Commanding 18 (Maritime) Group RAF (who is the NATO commander for allied maritime air forces in the Channel and Eastern Atlantic). From Northwood, continuous contact is maintained with the ships and submarines of the Fleet, with RAF maritime aircraft and with our NATO allies.

326. The Royal Navy's forces are largely structured for anti-submarine warfare (ASW). At the same time, we also maintain significant anti-ship and anti-air capabilities to deal with the threats posed by the powerful surface ships of the Soviet Fleet and by

CONFIDENTIAL

aircraft of its naval and long-range air forces. In time of tension most of our surface vessels and all our submarines would be committed to the Alliance. This contribution would include:

- 4 Polaris submarines;
- more than 25 nuclear-powered and conventional submarines;
- some 65 destroyers and frigates, almost all armed with weapon-carrying helicopters;
- 4 squadrons of Sea King ASW helicopters, operating from the larger warships and Royal Fleet Auxiliaries, equipped with dipping sonar, sonobuoys, lightweight torpedoes and depth charges;
- some 30 Royal Fleet Auxiliaries providing essential afloat support.

327. With the arrival in service of the Sea Harrier this year (paragraph 718) the Royal Navy will also have fixed-wing aircraft embarked at sea. Shore-based air support, an essential factor in maritime operations, is provided by aircraft from No 1 Group, No 11 Group and No 18 Group of RAF Strike Command. It includes the following aircraft:

- 4 squadrons of Nimrod patrol aircraft operating primarily against submarines;
- 2 squadrons of Phantoms providing air cover (although more resources could be available for assignment to this task);

CONFIDENTIAL

- 2 squadrons of Buccaneers for attacking enemy surface ships;
- 1 squadron of Vulcans and Canberra aircraft for maritime reconnaissance.

The Role of British Forces

328. Britain is uniquely placed among the European allies to provide and support the forces needed by the Alliance in the important Eastern Atlantic and Channel areas. In time of tension or war we would supply the main weight of forces readily available in these areas. A vital task would be the deployment and protection of British and United States ballistic missile submarines. We would also have a major part to play in neutralising enemy submarines; in supporting NATO's Striking Fleet Atlantic; in the defence of reinforcement and resupply shipping and of amphibious operations; and in the seaward defence of the United Kingdom itself.

329. In peacetime, the Royal Navy provides a frigate or a destroyer for NATO's Standing Naval Force Atlantic and a mine countermeasures vessel for the Standing Naval Force Channel. With vessels from other allied navies, they contribute to a permanent NATO presence in those two areas.

330. While the first call on the Royal Navy in war would be in the Eastern Atlantic and Channel, units could be deployed elsewhere in the NATO area. Royal Navy vessels accordingly

CONFIDENTIAL

deploy in peacetime to the Mediterranean and occasionally to the Baltic. A frigate is normally allocated to the NATO On-Call Force in the Mediterranean when it is activated. The Royal Navy also has a worldwide role which is discussed in Chapter 4. Figure 11 gives an example of how the Royal Navy's vessels can and do deploy in and outside the NATO area, other than in home waters.

331. Forward defence at sea entails having the ability to engage enemy forces wherever they may be deployed. The co-ordinated efforts of surface ships, submarines and aircraft are needed, often in the form of Task Groups which provide a wide range of capabilities for use according to the needs of the situation. The exact composition and formation of a Task Group would depend on the kind of role for which it was established - direct support of convoys and ASW operations in support of NATO's Striking Fleet Atlantic are two examples. The elements from which a typical group might be made up are outlined in Figure 13.

332. The Royal Navy has substantial manpower problems. In the past few years it has lost some of its most able and

CONFIDENTIAL

experienced men. The steps being taken to counter this trend are described in Chapter 6. But in the meantime we have been obliged by the shortages of personnel in key areas to place one elderly helicopter cruiser (HMS Blake) and five of the older frigates in the Standby Squadron to ensure adequate manpower for new vessels coming into service. This should ease the immediate problems; the ships could be brought forward quickly for use in an emergency, when they would be manned by shore-based personnel.

333. NATO's Long-Term Defence Programme has called for more and better maritime forces. Because the limitations of resources, including manpower, give little scope for increasing numbers, the Royal Navy is placing priority on maintaining the quality of its ships, submarines and shipborne aircraft in the face of the improvement in the quality of the threat. The introduction of new ships, such as the Invincible class, operating Sea Kings and Sea Harriers, and new weapons, such as the Sting Ray torpedo and the Sub-Harpoon missile, will significantly enhance the fire power of the Royal Navy. The equipment programmes of the Royal Navy and the Royal Air Force to meet their tasks in the Eastern Atlantic and Channel are described in Chapter 7.

Exercises and Training

334. Effective operation of maritime forces is complex and demanding. To help maintain the necessary high standards, NATO holds frequent exercises. In 1979, for instance, a major maritime exercise, OCEAN SAFARI 79, was held to test the forces' readiness and to practise sea control operations and the reinforcement of Europe. More than 17,000 men, 70 warships and 200 aircraft from eight NATO nations took part. The British contribution included:

- HMS Hermes and HMS Blake;
- 11 destroyers and frigates;
- 2 nuclear-powered submarines;
- 2 conventional submarines;
- 7 support ships;
- aircraft from 12 RAF squadrons.

As usual, the Warsaw Pact took great interest in the exercise and observed it with warships, aircraft, intelligence gathering vessels and satellites. The full extent of the Royal Navy exercise programme can be seen in Figure 10, with the programmes of the other two Services.

THE HOME BASE

335. The direct defence of the United Kingdom home base is obviously vital not only to this country but also to our allies.

CONFIDENTIAL

In war it would provide a forward base for operations in the Atlantic, a main base for operations in the Channel and North Sea and a rear base for operations on the Continent. Our ports and airfields provide important operational bases and would be key assembly, transit and launching points for the reinforcement of NATO's forces on the Continent, which would involve moving well over a million men and their equipment from North America. As explained above, in the Eastern Atlantic and Channel areas the main responsibility for ensuring their protection would fall to British forces. The sea routes used by our Polaris submarines, other warships and re-supply shipping, together with ports and anchorages, would need to be kept free of enemy submarines and mines. At the same time installations vital to

operations on the Continent and in the Atlantic would have to be protected from attack by sabotage groups and aircraft.

336. The main elements of the military home defence organisation shown in Figure 14. The remainder of this section looks in more detail at its tasks and problems under three headings: air defence, maritime defence and United Kingdom land forces.

Air Defence

337. Any Warsaw Pact conventional attack on Western Europe would probably include heavy air attacks with conventional

CONFIDENTIAL

weapons against the United Kingdom, with one of the aims being to prevent NATO bringing forward vital reserves and reinforcements. Besides providing aircraft for NATO operations in Europe and in the Atlantic, RAF Strike Command would have to defend Britain from such air attack, being directly responsible to SACEUR for the United Kingdom Air Defence Region.

es,
es
e
338. Warning of air attack would be provided by the United Kingdom air defence ground environment, which gathers information from a chain of powerful radars, from airborne early warning (AEW) Shackleton aircraft and from other NATO facilities. This information is fed to Sector Operations Centres. With air refuelling support from Victor tankers and with AEW intercept information from Shackletons, the Phantoms and Lightnings can intercept attacking aircraft several hundred miles from the coast. Bloodhound and Rapier surface-to-air missiles provide a further line of air defence. (See Figure 15).

339. The Royal Air Force must also monitor the airspace surrounding Britain in peacetime. Soviet military aircraft regularly penetrate the region (but not our territorial airspace) on intelligence gathering, training and transit flights. These movements are watched and the aircraft intercepted by Phantoms or Lightnings held on quick-reaction alert. We do not choose to intercept every such aircraft, but on average during 1979 four a week were intercepted and identified.

CONFIDENTIAL

340. We regularly hold exercises to test our air defences. The largest in 1979 was exercise HIGHWOOD, in which the Royal Navy and Royal Air Force jointly practised operations in the United Kingdom Air Defence Region. It involved aircraft of 24 squadrons, 20 warships and 8 support vessels, and, as usual, was closely monitored by the Soviet Union.

341. But this is another area in which there is room for improvement. Over the last two decades the effort devoted to the air defence of Britain has been sharply reduced. This derived from strategic concepts which reasoned that we could not realistically hope to defend ourselves against a strategic nuclear strike, that hostilities in Europe would escalate to nuclear warfare almost immediately and that the need to defend against conventional air attack could accordingly be largely discounted. Now that the strategic situation has changed we must do what we can to improve our air defences, especially since the Warsaw Pact has dramatically improved its capability for conventional air attack.

342. Plans are in hand for improvements. Our fighters are being fitted with more effective missiles. Airborne and ground radar systems for detecting hostile aircraft and directing our own fighters are being modernised. We look forward to a major strengthening of these defences with the introduction of the Tornado F2 interceptor in the mid-1980s.

CONFIDENTIAL

343. The Government would like to do more, and has taken certain action already. A few weeks after coming into office we decided to form an additional Lightning squadron, to arm a number of Hawk training aircraft with the AIM 9L air-to-air missile and to improve the missile control system of the Phantom. Further measures are being studied. [Very recently we were able to announce a programme to extend the capability of the Sky Flash air-to-air missile in order to take full advantage of the powerful radar of the Tornado F2.] It must be recognised that modern fighters are costly to buy and operate, and they need highly skilled manpower; other claims on defence funds and manpower limit what is possible. Nevertheless we attach a high priority to the air defences of the United Kingdom and shall continue to seek improvements.

Maritime Defence

344. The Commander-in-Chief Naval Home Command is responsible for the seaward defence of the home base, which includes the Clyde submarine base and other naval bases and ports which would be used for the reinforcement and re-supply of Europe. The Naval Home Command is also responsible for the organisation of the Port Headquarters and the Naval Control of Shipping organisation which would direct the movement of merchant shipping. Mine warfare and anti-submarine operations in the United Kingdom's waters are the responsibility of the Commander-in-Chief Fleet.

CONFIDENTIAL

345. Over the next few years the Royal Navy's mine warfare capability will be modernised and strengthened with the introduction of the new Hunt class vessels, which have the dual role of mine-hunting and mine-sweeping. We intend to order a new class of mine-sweeping trawlers and we are looking at the possibilities of using hovercraft in the mine counter-measures support role. We are also planning to modernise our mines and to develop new types for defensive and protective mining.

346. The Royal Marines assist in guarding key naval installations and in maintaining a quick reaction force for the defence of offshore installations (see Chapter 5). In particular, the formation of a Royal Marines Security Company (see paragraph 515) will significantly enhance the capability of the Royal Marines for these tasks.

347. The Royal Naval Reserve (RNR) would play an important part in maritime defence. It currently mans six mine counter-measures vessels, and will in due course man the new mine-sweeping trawlers. RNR personnel train to man the Maritime Headquarters and the Naval Control of Shipping organisation in tension or war and to provide other support for the Royal Navy. Royal Auxiliary Air Forces personnel are also involved in manning the Maritime Headquarters. An RNR(Air) branch will be formed this year and will have the twofold role of augmenting front-line squadrons and increasing the pool of expertise for the Fleet Air Arm in war. The Royal Naval Auxiliary Service would help to man the Port Headquarters and also provides valuable local support to Royal Navy units.

CONFIDENTIAL

United Kingdom Land Forces

348. The Headquarters of the United Kingdom Land Forces commands the nine Army districts shown in Figure 14 ; HQ Northern Ireland is under the direct command of the Ministry of Defence. The Army Districts command varying numbers of Regular Army and TA units and those Field Forces based in the United Kingdom in peace. In time of tension or war, many of these units would be deployed to the Continent. Almost all the remaining forces would carry out home defence tasks in the United Kingdom. These would include protecting defence and other installations against sabotage or attack.

The whole of the 8th Field Force, with both Regular and TA units, is maintained for home defence.

349. Home defence would place heavy demands on the Army, particularly before the completion of mobilisation provides the TA and other Reservists earmarked for home defence. We are considering what increase from the pool of uncommitted Reserve manpower we would need to supplement the forces assigned to this task and what improvements in equipment the TA needs to fulfil this role.

SPECIALIST REINFORCEMENT FORCES

350. In addition to the contributions to NATO's forces already mentioned, the United Kingdom provides SACEUR and SACLANT with

CONFIDENTIAL

highly trained and well equipped forces as part of NATO's specialist reinforcements. These forces can be deployed to various parts of Alliance territory.

351. Politically, NATO's mobile forces reinforce NATO's cohesion by demonstrating the willingness of other NATO nations to come to the aid of a member. Militarily, they strengthen NATO's ability to respond flexibly to aggression, especially on the flanks of NATO, and so make a valuable contribution to deterrence. Given their political and military importance, we believe it right that Britain should continue to contribute to them. Although some of its individual components are not large, the British contribution provides a diversity and flexibility of capability and allocation which no other European NATO member is in a position to match.

352. Forces for SACEUR

a. Allied Command Europe Mobile Force (AMF). The AMF is a multinational force of land and air elements, ready to move at very short notice to a threatened flank region. The British Army contributes some 1,800 men, consisting of an infantry battalion group, a logistic support battalion and other combat and support troops.

CONFIDENTIAL

The Royal Air Force contributes a squadron of Harriers to the air element and Puma helicopters to support the land force.

b. United Kingdom Mobile Force (UKMF). The land element of UKMF consists of the 6th Field Force and its logistic support group. It consists of about 13,500 Regular and TA soldiers and includes one parachute battalion. The air element consists of a squadron of Puma helicopters and a squadron of Jaguars.

c. SACEUR's Strategic Reserve Air (SSR(A)). The SSR(A) is made up of British and United States squadrons which can be deployed to any region of ACE. We contribute three Jaguar squadrons and one Harrier squadron. One of the Jaguar squadrons and the Harrier squadron also have alternative uses with the UKMF and AMF respectively.

d. Individual Unit Reinforcements. Britain provides other specialist reinforcements to various regions of ACE. These consist of:

- Special Air Service units;
- One squadron of Buccaneers and one of Canberra reconnaissance aircraft for deployment to the Northern Region;

CONFIDENTIAL

- One squadron of Canberras for deployment to the Southern Region;
- One squadron of Vulcan Maritime reconnaissance aircraft tasked to the Northern Region.

353. Forces for SACLANT. The combined United Kingdom/Netherlands amphibious force is assigned to SACLANT. Its deployment options include the reinforcement of Norway, Denmark and the Atlantic Islands. It consists of:

- a brigade headquarters;
- four Royal Marines Commandos;
- an amphibious combat group of the Royal Netherlands Marine Corps;
- amphibious shipping;
- combat, helicopter and logistic support.

The landing element numbers about 7,000. A large proportion of the force (a brigade group of three units with full support) is specially trained to operate on skis throughout the Arctic winter. Oversnow vehicles for this role are stockpiled in North Norway. This collaborative force is another notable demonstration of Alliance co-operation and commitment to forward defence.

354. The British elements of all these forces are normally stationed in the United Kingdom in peacetime, but they

CONFIDENTIAL

regularly exercise in the regions to which they might be deployed. In 1979 the UKMF exercised in the Southern Region for the first time on Exercise DISPLAY DETERMINATION. NATO's ability to deploy quick reaction forces to the Northern Flank will be tested in March this year on Exercise ANORAK EXPRESS 80 and in August on Exercise TEAMWORK 80. In ANORAK EXPRESS the AMP with its British element will deploy, and the United Kingdom/Netherlands Amphibious Force will also take part as the culmination of their annual three months of arctic training in Norway. In TEAMWORK 80 the United Kingdom/Netherlands Amphibious Force will be augmented for the first time by a substantial proportion of the Royal Marines Reserves.

WIDER DEFENCE INTERESTS

401. The United Kingdom's defence resources must be concentrated on our key NATO tasks, but our defence policy should also be designed to help protect, wherever possible, our own and more general Western interests over a wider area, including those outside the NATO area.

402. The United Kingdom still has national defence commitments further afield, including the defence of dependent territories. Paragraphs 412-422 below show how we meet these commitments. The Government will continue to devote the resources needed to meet those commitments as long as they remain. In common with our NATO allies, we also have wider interests outside the NATO area which we cannot afford to neglect. We depend on the developing world for many raw materials. The security of our trade routes is therefore of vital importance to our economy and we have a substantial practical interest in the stability of the countries with whom we trade.

403. Increasing interdependence between the nations of the world will not of itself produce stability in international relations. The incidence of both internal and external armed conflicts has not diminished in recent years. Whatever their origins, these conflicts present the Soviet Union and its allies with opportunities to advance their own and to reduce

CONFIDENTIAL

Western influence in important areas such as the Middle East, Southern Africa, the Caribbean and the Far East.

404. The Soviet Union has an increasing capability, aided by its Warsaw Pact and Cuban allies, to intervene in the Third World. Soviet ability and willingness to exploit regional instability could have serious consequences for the West if allowed to grow unchecked. The Soviet Union's actions are governed in part by its assessment of the West's reaction and we can expect the Soviet leadership to recognise and exploit any indecision, mistakes and weaknesses. The Government will continue to play a full part in firm collective Western responses to Soviet encroachments.

405. A major indicator of the growing Soviet interest in the global projection of their power has been the development of the Soviet navy. Figure 16 compares the number of Soviet naval port visits in 1968 with the number in 1978 - more than a threefold increase. This powerful fleet is becoming increasingly effective in supporting Soviet political initiatives in peace and is growing in military effectiveness for war. The Soviet air force has also increased its transport power, and thus its capability to move forces very quickly to points of tension. In recent months, the use of Soviet air and land forces in the invasion of Afghanistan has been a particularly dramatic illustration of the Soviet Union's willingness and ability to intervene without the least justification in the affairs of a sovereign country in pursuit of its own interests.

406. How should the West respond to the global threat to its interests? The best answer is to try to remove the sources of

CONFIDENTIAL

regional instability which create opportunities for outside intervention. In some circumstances, military measures will not be appropriate at all; in others, they may form only one component of the total response. Diplomacy, development aid and trade policies will usually have a greater contribution to make. The Soviet Union and its allies do not match the West in providing economic aid to the Third World, and Soviet, Warsaw Pact and Cuban military assistance has often proved unpopular with its recipients.

407. Nonetheless many forms of defence assistance can and should play a part in the support of friendly nations. The Government believes that the United Kingdom should make full use of these possibilities where resources allow. Thus we shall continue to train members of Commonwealth or foreign armed forces both in the United Kingdom and by sending personnel on loan to foreign Governments. In 1978/79 over 6,000 from non-NATO countries were trained in Ministry of Defence establishments, and there were almost 600 British personnel serving on loan outside the NATO area. Advisory visits and sales of defence equipment can also make a useful contribution to our support of nations who might otherwise turn away from the West for assistance. We shall continue to foster close defence relations with those non-NATO countries, members of the Commonwealth and others, who seek our assistance and value the expertise of our Services.

CONFIDENTIAL

408. Over and above this, the West must make it clear to the Soviet Union and its allies that it is capable of protecting essential interests by military means should the need arise. That task cannot and should not be left to the United States alone. Of our European partners, France has major defence commitments in Africa and elsewhere, and retains permanent forces in the Indian and Pacific Oceans. Vessels of the Federal German, Italian and Dutch navies undertake occasional deployments beyond the NATO area. Belgium provides training assistance to Zaire. All such activities help to protect Western interests worldwide.

409. Against this background, the Government believes that the Services should also be able to operate effectively outside the NATO area, without diminishing our central commitment to the Alliance. British forces will therefore continue to deploy and exercise outside the NATO area from time to time. Moreover, certain improvements in the Services' worldwide capability are being considered.

These include the provision of extra transport aircraft; of additional afloat support; a logistic stockpile; and improvements to the manpower and equipment of the Headquarters of 8th Field Force, the Home Defence formation, which would also be capable if necessary of undertaking worldwide tasks. From April this year one parachute battalion will always be available to provide a parachute capability at seven days notice.

CONFIDENTIAL

410. Such improvements can be achieved at relatively modest cost, yet they give the Services significantly more flexibility to undertake tasks outside the NATO area. What is needed is the ability for all three Services to combine in providing a force of appropriate size and capability as may be necessary.

411. We hope that NATO as a whole will increasingly recognise the global nature of the Soviet challenge; and that Alliance members who are, like the United Kingdom, able and willing where necessary to counter that challenge will consult before doing so and, where appropriate, act together. We shall give the strongest encouragement to such recognition and consultation within the Alliance.

DEPLOYMENTS

Cyprus

412. British forces are deployed in Cyprus both in the Sovereign Base Areas and as part of the British contribution to the United Nations Force in Cyprus (UNFICYP).

413. The Sovereign Base Areas. When the independent Republic of Cyprus was established in 1960

two small areas on the south coast of the island remained under the sovereignty of the United Kingdom. These two bases - one at Akrotiri, which has a major airfield, and one at Dhekelia - allow us to keep a

CONFIDENTIAL

military presence in the Eastern Mediterranean; to maintain important radar and communications facilities; and to assist United Nations (UN) peacekeeping operations by providing logistic support to all the contingents of UNFICYP and some logistic help to the UN Interim Force in Lebanon (UNIFIL). Armies of up to battalion strength from the United Kingdom and BAOR use the excellent facilities in Cyprus for training. The Royal Air Force operates and defends the Akrotiri airfield, and operates Whirlwind helicopters for general support and for search and rescue. RAF Akrotiri serves as a base for armament practice by fighter aircraft from the United Kingdom and RAF Germany; there were ten such deployments to Cyprus during 1979. The strategic importance of Cyprus and the usefulness of the airfield have been vividly demonstrated during the past year when Akrotiri was used as a base for evacuating people from Iran and as a staging point for moving the monitoring force to Southern Rhodesia.

414. UNFICYP. UNFICYP, of which the British contingent is the largest component, is deployed to keep the peace on the line between the Greek Cypriot and Turkish Cypriot zones. The extra costs of deploying the British force with UNFICYP rather than in the United Kingdom are met by the Foreign and Commonwealth Office, which shares with the UN the costs of providing logistic support for the other UNFICYP contingents.

415. Our contribution to UNFICYP and the help we have given to UNIFIL demonstrate the Government's commitment to the peace-keeping role of the United Nations. We shall continue to give

CONFIDENTIAL

full support to current and future UN peacekeeping operations, subject to national commitments and exigencies.

Gibraltar

416. There has been a British military presence in Gibraltar since the eighteenth century. Our forces are stationed there both for its security and because of its strategic position at the Western entry to the Mediterranean, which makes it an important asset and base for NATO as a whole.

417. A Royal Navy destroyer or frigate is always held on call to assist in the defence of Gibraltar. Some 650 Royal Navy personnel man the naval base and help run the dockyard. The Army provides a garrison of some 790 officers and men, of which the resident infantry battalion represents the major part. The airfield, used by both civil and military aircraft, is operated by the Royal Air Force. There are no resident operational aircraft, but there are regular deployments for exercises and training, and in wartime the airfield could accommodate NATO aircraft. The Royal Air Force also provides a search and rescue service. Some 1,900 civilians are employed in support of the Services in Gibraltar; 1,350 of them are employed in the dockyard.

Belize

418. British forces are stationed in the dependent territory of Belize to deter any aggression by Guatemala in pursuit of its claim to Belizean territory, which arises from a differing interpretation of an 1859 treaty under which

CONFIDENTIAL

Guatemala recognised the existing border.

The Belize garrison includes infantry units, Harrier, Puma and Gazelle aircraft and an RAF Regiment Rapier detachment to defend the airfield. There are also armoured reconnaissance, artillery, air defence, engineer and communications units. A Royal Navy warship, supported by a Royal Fleet Auxiliary, is deployed to the Caribbean and Western Atlantic as the Belize guardship. It can take up station in Belizean waters at short notice.

The Falkland Islands

419. The Falkland Islands, which are a dependent territory, are claimed by Argentina. A solution to this dispute acceptable to the people of the Islands has yet to be found. A detachment of Royal Marines is permanently stationed there. The ice patrol ship HMS Endurance supports the garrison and other Royal Navy vessels visit the Islands from time to time.

Hong Kong

420. Units of all three Services are stationed in Hong Kong. The garrison demonstrates Britain's commitment to preserve the colony's territorial integrity and security. The resident forces consist of:

- four infantry battalions (three of them Gurkha units);
- a Gurkha engineer field squadron;

CONFIDENTIAL

- a squadron of Army Scout helicopters;
- five RN patrol craft;
- a squadron of RAF Wessex helicopters.

421. Following a large increase in illegal immigration from China, the resident forces were temporarily reinforced in mid-1979 to assist the civil authorities. The reinforcements consisted of:

- one infantry battalion from the United Kingdom (subsequently relieved by a Royal Marines Commando);
- two Gurkha companies;
- three Army Scout helicopters;
- two RN Sea Kings.

Two hovercraft, a fast patrol boat, raiding craft and a Royal Marines small boat team arrived later. The reinforcement operation demonstrated our willingness and ability to reinforce Hong Kong in an emergency. It was also a notable demonstration of the Services' flexibility and ability to undertake a rapid reinforcement. The infantry and Sea Kings were later withdrawn following a large drop in illegal immigration, but it was decided to send an infantry battalion from Britain and Gurkha companies from Brunei to Hong Kong early this year following another increase in illegal immigration.

Brunei

422. A Gurkha battalion paid for by the Government of Brunei will continue to be stationed there until 1983. The United Kingdom will then relinquish its responsibility for Brunei's external affairs and its consultative commitment to Brunei's defence. Brunei also provides facilities for several company-size exercises a year for the Hong Kong garrison, and home-based units take part in jungle training courses there.

EXERCISES AND TRAINING

423. Exercises outside the European NATO theatre add to the flexibility of the Service's annual training cycle. They help to maintain links with Commonwealth and other nations, to demonstrate the United Kingdom's continued interest and support and to offset the shortage of suitable training areas in Europe. Army training in Canada (paragraph 319) and air defence training in Cyprus (paragraph 413) are examples. "Out of theatre" training also offers specialist facilities such as mountaineering, parachuting, diving and jungle training, in particular climatic conditions and terrain. The map at Figure 10 shows the extent of the Services training programme outside the NATO area.

424. Roughly once a year, a Royal Navy task group undertakes a

CONFIDENTIAL

deployment outside NATO waters, visiting ports and exercising with the naval forces of friendly nations. In May 1979 a group consisting of a destroyer, five frigates and three Royal Fleet Auxiliaries sailed for a seven month deployment to the Far East. A nuclear submarine joined in the initial Mediterranean phase of the deployment, during which the group took part in the NATO exercise DAWN PATROL. The group spent some three months in Australian waters, exercising with the Australian and New Zealand Navies. Figure 17 traces the passage of this deployment, showing the ports visited and the main exercises undertaken. During 1980 another group will undertake a seven month deployment through the Suez Canal to North East Asia [, including a visit to China] .

CONFIDENTIAL

RHODESIA

425. [Following the successful conclusion of the Lancaster House Conference last December, a liaison, advisory and monitoring organisation of British and other Commonwealth Service officers and men was rapidly deployed to Southern Rhodesia. The "monitoring force" has had a major part to play in the arrangements which the British Government has made for Rhodesia's transition to independence. The circumstances are unique.

426. The organisation is headed by a British Major-General, who acts as Military Adviser to the Governor, chairs the Ceasefire Commission and commands the monitoring force. He has at his disposal some 1,400 officers and men, specially selected from the armed forces of Britain, Australia, New Zealand, Kenya and Fiji. The United States Air Force helped the Royal Air Force to airlift the force to Rhodesia.

427. The role of the military monitors has been to observe and report on the operation of the ceasefire, in accordance with the agreement reached at Lancaster House. To help them in their task, the monitors are equipped with Puma, Gazelle and Scout helicopters, a large number of vehicles and an independent, secure radio network. A number of RAF Hercules aircraft have also been deployed to Rhodesia. The monitors have no "intervention" capability or role, and they are therefore armed only for self-protection.

428. The tasks that the monitors face are daunting ones. Operating in small groups, widely dispersed and in difficult conditions, they have displayed ingenuity and courage of a high

CONFIDENTIAL

degree. Their success provides a further example of the flexibility and resource of the British Services and of their Commonwealth partners. Once Rhodesia becomes independent, the task of the monitoring organisation will be over and it will return home.]

RELIEF OPERATIONS

429. The Services have a long tradition of providing valuable assistance overseas by helping in humanitarian aid, disaster relief and rescue operations. Royal Navy vessels and helicopters, Army units and Royal Air Force transport aircraft all participate in these activities. In the past year, for example, the Services have provided emergency humanitarian aid in Jamaica, Nicaragua, Sudan, Kampuchea, Dominica and elsewhere; some of these operations are described in more detail below.

430. Nicaragua. At the request of the International Committee of the Red Cross, a Royal Air Force Hercules last year helped to transport relief supplies to Nicaragua. Between 15-30 July it flew 19 sorties to Managua, carrying over 220 tons of freight. On 18 July at Managua, the crew prevented an attempt by an armed crowd to hijack the aircraft.

431. Dominica. In August 1979, HMS Fife was diverted to Dominica, with RFA Cherryleaf in support, to help restore normality to the island after the devastation caused by Hurricane David. HMS Fife arrived immediately after the

CONFIDENTIAL

hurricane had passed and for several days was the sole means of communicating with the outside world. The crew immediately set about clearing roads, restoring the water supply and repairing the hospital, while the ship's helicopter flew medical and other stores to outlying areas. Subsequently, the Royal Air Force flew supplies to Barbados for onward transmission to Dominica to help the relief work, and a unit of Royal Engineers helped by rebuilding roads, schools and other services.

432. Kampuchea. Again at the request of the International Committee of the Red Cross, the Royal Air Force deployed a Hercules to Bangkok for five weeks to airlift essential relief supplies into Kampuchea. It began operations in October and flew 34 sorties to Phnom Penh, carrying some 500 tons of freight. This consisted mainly of heavy lorries and Landrovers as well as food and medical supplies.

433. Iran. During the unrest in Iran in early 1979, the Royal Air Force and Royal Navy evacuated some 1,200 people, mostly British nationals. As soon as it became clear that evacuation might be necessary, Hercules aircraft were deployed to Bahrein and from there evacuated people from three different Iranian centres. At the height of the operation, one VC10 and three Hercules were also deployed to Akrotiri in Cyprus and evacuated 650 people from Tehran. Smaller numbers were evacuated by survey vessels operating in the Gulf.

CONFIDENTIAL

434. Other Aid. There were also numerous less dramatic instances of Service aid in 1979. For instance, HMS Gurkha was diverted to offer help to St Vincent after the island's volcano erupted; Royal Engineers built bridges in Kenya, supervised the construction of roads and buildings in St Vincent, the Falkland Islands and Gambia, improved the water supply on St Helena and helped improve the electricity supply on Tuvalu.

CONFIDENTIAL

5

THE SERVICES AND THE COMMUNITY

501. 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 give vital help to the civil community and can be used to deal with specific emergencies. The most familiar example of the contribution the Services make in this area is their engagement in the struggle against terrorism in Northern Ireland. This task is discussed below. Beyond this, however, the Armed Forces offer the community a more extensive range of services and support than is generally recognised.

NORTHERN IRELAND

502. The work of the Services in Northern Ireland, so important to the Government's aim of defeating terrorism and restoring normal policing, is dangerous, hard and often tedious. Much of their work in support of the Royal Ulster Constabulary

1

CONFIDENTIAL

CONFIDENTIAL

(RUC) is necessarily spent on routine patrolling, as often in city streets as in open countryside, on checkpoints and on static guard and observation duties. Great responsibility devolves upon junior NCOs and on individual soldiers. These duties, particularly searches of people and their vehicles, demand high levels of concentration, tact and sensitivity towards the community. All this has to be conducted under constant threat of terrorist violence.

503. The Provisional IRA still constitutes the main threat to security, and its policy of ruthless murder was aimed primarily at members of the Security Forces during 1979. In the latter part of the year more sectarian attacks, including some from "loyalist" extremists, have been evident. Forty-eight Service personnel were killed in 1979, more than in any year since 1973. Ten members of the Ulster Defence Regiment (UDR) were amongst those who died. The tragic events at Warrenpoint on 27 August, when 18 soldiers died in remote control bomb attacks, alone caused more Army deaths than those in each of the last four years. On the other hand, civilian casualties at S1 are broadly in line with those of the last two years. Thanks to undramatic and painstaking gathering of evidence and the high level of co-operation between all parts of the Security Forces, 670 people were charged in 1979 with terrorist offences and 869 were convicted of terrorist crimes. Taking terrorists out of circulation through the

CONFIDENTIAL

processes of the law remains the Security Forces' chief weapon in their fight against terrorism.

504. The [] awards for gallantry in Northern Ireland made to members of the Armed Services in 1979 offer further testimony to the continuing courage and tenacity with which they have carried out their duties. A particularly hazardous task is carried out by the small number of Ammunition Technical Officers (ATOs) and their teams, who have the task of dealing with terrorist explosive devices. In 1979 the number of incidents, both shootings and bombings, remained at much the same level as in 1978, but the amount of explosive used increased significantly. ^{Seven hundred and fifty-nine} / incidents involving explosives were recorded. One of these, at Kinawley Police Station in March, used about 1,000 lbs of explosive, the largest single device since 1969. During the year the ATO teams disarmed 142 devices and 6,500 lbs of explosive were recovered, mostly from live devices. Since 1969 17 members of these teams have been killed in the course of their duties, 2 of them this year, and during 1979 [details of decorations] were awarded for this work.

505. The appointment of Sir Maurice Oldfield as Security Co-ordinator was announced at the beginning of October last year. His task is to assist the Secretary of State for Northern Ireland in improving the co-ordination and effectiveness of the fight against terrorism in accordance with the

CONFIDENTIAL

Government's security objectives. Discussions with the Irish Government led to agreement on a number of measures designed to make more effective the efforts of both Governments to stamp out terrorism.

506. The Army force level remained at 13 major units of the combat arms, of which 6 were resident, throughout 1979; a total of 40 units served in the Province during the year, including one Royal Marines Commando in the infantry role.

The
Royal Navy and the Royal Air Force also contribute to operations in Northern Ireland by offshore patrolling and air support. The UDR provides immediate military support for the RUC in eleven Police Divisions. Recruitment to implement the build-up of the permanent cadre approved last year is going well. Sixteen full-time platoons are now operational. The total strength at 1 January 1980, including both full-time and part-time members, was [], of whom [] were women. We hope for an early end to the emergency in Northern Ireland, with a consequent reduction in Service commitments.

OTHER ACTIVITIES

507. The more familiar ways in which the Services put their skills and training at the disposal of the civil community include search and rescue, bomb disposal, protection of

CONFIDENTIAL

offshore resources and emergency assistance after natural disasters such as floods or blizzards. Other services needed primarily for defence purposes also make an impact on civil life, such as hydrography and the Meteorological Office. These activities are discussed in more detail below.

508. In return for these and other direct contributions they make to the safety and well-being of the community, the Services have to ask for tolerance and understanding of necessary military activities which affect people's everyday lives in less popular ways. For example, they ask people to accept that access to some countryside is restricted or denied because it is needed for training or as a firing range. They ask that those affected by low flying training, the need for which is discussed in Chapter 3, should accept the inconvenience and risks in the interests of creating and maintaining essential military skills which contribute to ensuring the security of the whole community.

509. The Services are themselves part of the general community, and not in some way separate from it. Their integration with their local community is not always easy, because many Service personnel are required by their job to move often, and because some bases are in remote areas. But wherever they are stationed, the Services take a notable part in local events and charities and in contributing to the local community.

CONFIDENTIAL

Bomb Disposal

510. In the last year bomb disposal teams have responded to over [] requests for assistance from police in Britain. The most serious incident was the spate of letter bombs in Birmingham during June 1979.

Military Aid to the Civil Authorities

511. Throughout the year the three Services have participated in a variety of projects in aid of the civil community. These have ranged from relief operations during bad weather to the demolition of old buildings and the loan of individual volunteers to community projects. The tasks draw on the expertise and specialised equipment available from Service sources to the benefit of the civil community, and also provide valuable training for the Servicemen.

512. The Services' major contribution to an emergency ambulance service during the ambulance drivers' dispute which ended in April 1979 demonstrated their flexibility in adapting to unfamiliar roles. The decision to deploy Servicemen was taken only as a last resort, to maintain the life of the community.

Protection of Offshore Resources

513. Both the Royal Navy and the Royal Air Force play an important part in fishery protection. The Fishery Protection Squadron of the Royal Navy consists of the Offshore Division w

CONFIDENTIAL

five Island class offshore patrol vessels and the Coastal Division with eight Ton class mine countermeasures vessels [and the fast patrol boat HMS Tenacity]. Two additional vessels of the Island class are also deployed from other naval duties as necessary. Reconnaissance flights are made regularly by RAF Nimrod patrol aircraft and RN Sea Devons. The main task is to monitor fishing in Britain's extended fisheries limits and to enforce fisheries legislation by examining catch, gear and nets to ensure that they are lawful. In 1979 the Royal Navy boarded [] British and foreign fishing vessels.

514. The RAF Nimrods based at Kinloss and St Mawgan have an important part to play in fishery protection, since it is only by aerial surveillance that the vast area of the United Kingdom Fishery Zone can be fully covered. They maintain close contact with fishery protection vessels in the area so that they can direct them towards any vessels suspected of illegal fishing. This combination of air and sea resources led to 24 convictions being obtained in 1979 for a variety of offences by fishing vessels of various nationalities.

515. As well as meeting their fishery protection tasks, the Island class vessels and the Nimrod aircraft keep watch over our offshore energy installations. These forces, together with other units of the Armed Forces, are available to respond to any offshore incident. Contingency plans for responding to emergencies are tested regularly in

CONFIDENTIAL

offshore exercises. On 1 May 1980 a new Royal Marines unit will be formed and be available to react to incidents on offshore oil and gas installations. The air patrols also seek and report oil spillage and slicks, and ships and aircraft are often called on to investigate or deter infringements of safety zones around offshore installations.

516. Some of the running costs for the Services' offshore protection activities are met by other Government Departments.

Search and Rescue

517. Both the Royal Navy and the Royal Air Force maintain helicopters for short-range search and rescue (SAR) operations. Similarly, RAF Nimrod maritime patrol aircraft are on permanent standby for incidents within the United Kingdom Search and Rescue Region, which extends 1,000 miles into the Atlantic. Other Service resources (RN ships, RAF aircraft, marine craft and mountain rescue teams) are available to help if needed. The permanent SAR facilities are provided primarily for military operations, but most peacetime work is on civilian rescue missions. The SAR helicopter squadrons of the two Services, which are stationed at thirteen bases, carried out [1,319] missions during 1979, and rescued [1,040] people.

518. The most notable example of SAR by the Services in 1979 was the part they played in the Fastnet Race rescue operations

CONFIDENTIAL

alongside the other rescue services, such as the Lifeboat Service. A storm of exceptional ferocity caught 303 yachts scattered across the South West approaches. Sixteen helicopters flew 212 hours on 71 life saving missions. Over three days, RAF Nimrods flew a total of 110 hours in search of yachts and crews, and six RN vessels also took part. Although 15 lives were lost, 139 survivors from 24 abandoned yachts were rescued altogether during an operation extending over 20,000 square miles.

Hydrography

519. The primary task of the Royal Navy's hydrographic fleet is to conduct surveys to meet defence requirements by providing charts and oceanographic information

for the Royal Navy and our NATO allies.

But the hydrographic fleet also carries out civil hydrographic tasks. The waters around the United Kingdom are increasingly used by very large deep-draught merchant vessels which need detailed and up-to-date charts if they are to operate safely.

520. In addition to producing charts and oceanographic information based on its own surveys, the Hydrographer's Department also uses data from other sources in producing its worldwide series of charts which meet a large proportion of the total world demand.

Meteorology

521. The Meteorological Office makes, collects and distributes weather observations, prepares forecasts, provides meteorological advice and undertakes research. The basic activities are organised centrally for the benefit of all users, but specialised support is provided for the Armed Forces, civil aviation, shipping, agriculture, energy and other industries, including the offshore energy industry. The general public are served through the news media and through Weather Centres in major cities. About one third of the cost of the Office is covered by payments from non-defence users.

CONFIDENTIAL

6

PERSONNEL

601. Our defence capability depends on the quality and commitment of the men and women of the Armed Forces and of the civilian staffs working with them.

SERVICE PERSONNEL

602. The Government believes that the men and women in the Armed Forces have been under-valued in recent years. Their pay was allowed to fall well below the proper levels. They were called on to relieve the community of the worst effects of industrial action, while the importance of their own work was not properly acknowledged. It is a tribute to the esteem in which society holds the Forces that, despite all this, so many young men and women were still prepared to serve with the colours; it is a tribute too to their courage, loyalty and endurance that the morale of the Services survived so well in recent years. Our volunteer Forces are a priceless national asset.

603. Full details of the recruitment, outflow and strengths of the Services are given in Volume II of this statement.

Manpower Shortages

604. In 1977 and 1978 increasing numbers of experienced and

1

CONFIDENTIAL

CONFIDENTIAL

well qualified officers and Servicemen chose to leave prematurely. The Services could ill afford to lose them, especially as new equipment is technically sophisticated and the procedures and tactics to exploit it are more complex than ever before. It will take many years to replace them, however many new recruits are enlisted.

605. A prime cause was dissatisfaction with pay, but this was not all. The shortage, especially of skilled personnel, had meant that the remaining manpower resources had to be increasingly overstretched, which in turn had increased the turbulence in the lives of Service personnel and their families. Units were already required to meet commitments, in Northern Ireland, Belize and Cyprus, which had been expected to cease, or at least reduce in scale. On top of this, they had been called upon to maintain essential services in three successive winters of industrial disruption. Re-organisation and the introduction of new equipment had made additional demands. For many this meant harder work, longer hours, more frequent and less predictable movement and increased family separation. These factors inevitably played a part in individual decisions to leave the Services.

606. On taking office last May we found that the total strength of the Armed Forces, excluding Gurkhas and other personnel recruited overseas, was 313,816. The total of trained Service personnel was 283,620, which was well below

CONFIDENTIAL

the current requirement at that time. The shortfall was greater than it had been at any time since 1970.

Pay

607. The Government acted at once. Before and during the election campaign we had promised to restore the Services' pay to full comparability with that of their civilian counterparts. We did this immediately, and at the same time undertook to maintain it thereafter at these levels. In so doing we accepted the concept of the "Military Salary" under which Service personnel are paid the proper rate for the job, and in turn pay a fair price for the food and accommodation provided for them. We also accepted that the Armed Forces Pay Review Body (AFPRB) should continue its independent work of assessing and recommending what levels of pay are appropriate and what charges would be fair.

608. In recent years the Military Salary concept has been criticised by the Services. We believe this criticism was understandable but misplaced. It was brought about because Government national counter-inflation measures interfered with comparability. Pay was set by reference to arbitrary norms, not by reference to comparable outside earnings. As a result, Service pay needed to be increased by an average of 32% to bring it up to comparable civilian levels. We will allow the concept of the Military Salary based on the AFPRB recommendations to operate as it was intended,

CONFIDENTIAL

and we believe that the Services should have every confidence in it. The Government believes that this provides the best means of fulfilling the objective, which is to ensure that the Services receive a fair reward and one that is sufficient to attract and retain people of the high quality needed.

Recruiting

609. Recruiting in 1979/80 was generally good, and improved after the pay award. Between April and October the level was some 16% higher than in the same period in 1978. An intake of nearly 49,000 can be expected in 1979/80. This compares with some 43,400 in the preceding year, but is still short of the number required. Retention of personnel is also of great importance, and the Government's moves on pay have had an early impact in reducing the number of applications to retire prematurely. This is an encouraging sign but there is no certainty that the effect will be permanent. It underlines the need to keep pay and conditions of service under careful review.

610. The general picture, however, masks shortages in some grades and specialisations. We intend therefore to keep up our present recruiting effort, and to deal selectively with particular shortages. Plans are in hand to re-organise the recruiting network in some areas on a tri-Service basis.

611. The maximum requirement for trained personnel in the mid-1980s will be 20,000 greater than the present trained

CONFIDENTIAL

strength. To close the gap will require a sustained improvement in both recruiting and retention over the next four to five years. Recruitment will be more difficult from 1982 onwards because there will be a declining number of young men entering the 16-19 age-range from which the Services normally recruit. The Services currently recruit some 8½% of men entering this age group but will need to recruit about 11½% by the end of the 1980s. This will be a formidable task.

612. Failure could undermine our ability to carry out major defence tasks. The Government must therefore make the best use of existing resources and exploit additional sources of manpower, including the Reserves, to the full.

Other Conditions of Service

613. Proper levels of pay, though essential, are not by themselves enough. We must also plan to create conditions of service which will retain our trained personnel and attract the recruits needed. The way of life of the Services must continue to take account of developments in civilian life, not only in the pattern of financial rewards, but also reflecting changing social trends and aspirations. There will always be certain constraints on life in a disciplined service and we must as far as possible reconcile the legitimate interests both of the Services and of the individual.

614. Housing is, after pay, probably the most important factor in the willingness of Servicemen to make a career in the Armed Forces. Some 52% of Servicemen and 77% of officers are married. Of those who are married, a quarter of Servicemen and two thirds of officers own a home. Although for

CONFIDENTIAL

operational reasons the three Services adopt different attitudes towards the housing of married personnel, no Service can ignore their increasing and understandable desire for home ownership. Nevertheless, home ownership is difficult to reconcile with the demands of Service life, especially in the Army and the Royal Air Force. We are looking at possible schemes which will help Service personnel to buy their own homes and at the same time make it easier for them to accept the regular moving and travelling that the entails. In addition we are planning to introduce a scheme which will enable Service personnel to purchase surplus married quarters at a discount in line with the arrangements proposed under the new Housing Bill.

The AFPRB will be re-examining the basis of married quarter charges this year to ensure that they are calculated in as fair a manner as possible, bearing in mind the standstill of recent years.

615. Social, recreational and welfare facilities will also be important factors bearing on the willingness of Servicemen in future to live on base, whether in single or married accommodation. We shall try to preserve the unique qualities of mess and club life for those who want them, to provide up-to-date living conditions and to satisfy a growing demand for privacy and independence. Barrack modernisation is a continuing process.

CONFIDENTIAL

The Reserves

616. Chapter 3 emphasised the vital role that our Reserves would play in supporting the regular forces should the need arise. In a time of manpower shortage, the Reserves are even more important. We have implemented a series of measures since coming into office to improve recruiting and retention of volunteer reservists and to improve their military capability. We increased bounties, made plans to issue better equipment and launched a major recruiting drive. These measures have already had a favourable impact on manpower trends in the volunteer reserves.

617. The Royal Navy is planning closer co-operation between the regular Service and the Royal Naval Reserve (RNR). The RNR will man the new mine-sweeping trawlers when they are

CONFIDENTIAL

commissioned, and a reserve branch to the Fleet Air Arm is to be set up (see paragraph 347).

618. The volunteer element of the Army reserve force is now known once again as the Territorial Army (TA). Equipment issued to TA units in the last year includes the Fox armoured car, the Light Gun and the Blowpipe air defence missile. We have set in hand an examination of TA equipment scales with a view to identifying areas for improvement.

619. We have also announced an Individual Reinforcement Plan designed to speed the mobilisation of the regular Army Reservists who would, in emergency, supplement the regular forces and the TA. The new arrangements require individual Reservists to keep their uniform and some equipment at home, and to report once a year to a local unit so that their fitness, availability, uniform and equipment can be checked. An annual taxable reporting grant of £100 and travelling expenses will be paid. On mobilisation they will report to a local centre dedicated to the reinforcement of a specific formation. This new scheme will halve the time needed to mobilise the Reservists concerned.

620. The RAF Volunteer Reserve and Royal Auxiliary Air Force — play an important role in support of the Royal Air Force. In July 1979 three Royal Auxiliary Air Force Regiment squadrons were formed to assist in the defence of airfields in the United Kingdom. Recruitment to these new

CONFIDENTIAL

squadrons is being assisted considerably by the increased rates of training bounty announced during 1979.

Cadet Forces

621. The importance of the Cadet Forces and the need to develop the interest of young people between 11-18 in the Forces has grown with the need to increase recruitment to the regular forces. Large numbers of Sea Cadets are now joining the Royal Navy and Merchant Navy. The same is true for recruitment to the Army from the Army Cadet Force, but the expanded interest shown by young boys has not been reflected in the recruitment of Army Cadet Force officers, where there is still undermanning. To broaden the base of recruitment, an experimental scheme has been started permitting girls to join a selected number of Army Cadet Force detachments in schools. The Air Training Corps and RAF Sections of the Combined Cadet Force continue to provide a valuable source of high quality recruits for the Royal Air Force. The Venture self-launching glider is now in operation at a number of air cadets gliding schools and is proving to be of substantial benefit.

THE WOMEN'S SERVICES

622. The increasing importance of the reserve forces is to some extent a product of the shortage of regular manpower. This in turn has underlined the need to look more closely at

CONFIDENTIAL

alternative resources. Prominent amongst these are the Women's Services, which now total some 12,700 excluding the nursing element. They work in the Services throughout the world in a variety of ways, for the greater part in support roles such as the supply and communications fields. As a result there are few activities of the Services in which they are not involved; for instance, the force sent to Southern Rhodesia included some members of the Women's Royal Army Corps (WRAC). However, integration has stopped short of employing women in combat roles, sending the Women's Royal Naval Service (WRNS) to sea or using the Women's Royal Air Force (WRAF) as combat aircrew.

623. The Women's Services not only provide a valuable addition to the Services but have the advantage that in general they face fewer recruiting problems. In the past one major obstacle to their wider employment has been that their length of service is on average only half that for men; hence the investment in training them is more costly. However, the average span of women's service is increasing and, in parallel, the case for giving Service women more expensive forms of training becomes more convincing. This is likely to put pressure on the training organisations and thus the scope for immediate increases in the size of the Women's Services is limited. But there is every prospect that a phased increase is practicable.

CONFIDENTIAL

624. Some changes are already planned. The Royal Navy is planning to employ WRNS officers in a wider range of specialisations and to assign WRNS ratings to shore wireless and electronic maintenance posts. Earlier this year the Army authorised a further 570 posts to be filled by the WRAC in place of men, and has proposals to increase the size of the WRAC by 25% in the next five years. The Royal Air Force already employs women in a wide range of jobs and plans to use them more in future.

The Arming of Women

625. If, however, we are to be able to make the fullest use of women in the Services, we must reconsider and perhaps revise our traditional attitude to allowing them to bear arms. Although women went into uniform to support the Armed Forces during both World Wars, they were not employed on the type of duties for which the carriage of arms was necessary. The Women's Services are however now established on a regular footing, and we are looking to them to play an increasing part in the work of our Armed Forces. Moreover, in the Armed Forces of an increasing number of countries - including Belgium, Canada, Denmark, France and the Netherlands - women are now being trained in the use of firearms for self-defence, or for certain limited base defence tasks in an emergency. So far, we in this country have made no similar move. As a result, for example, employment opportunities

CONFIDENTIAL

for members of the WRAC cannot be widened forward of the Corps rear boundary in BAOR, and members of the WRAF cannot be detailed for certain guard duties in an emergency which would permit much greater flexibility in the use of RAF personnel.

626. Although the Geneva Conventions make no distinction between men and women, so that both sexes (other than those engaged on medical duties) must already be considered to be "combatant", the Government believes that for the present there can be no question of members of the Women's Services engaging in combat or being armed for any duties other than in exercises, emergency or war. Within this general limitation, however, we are considering how far it would now be desirable to go. If arming women with personal weapons at all is acceptable, questions which must be resolved include whether it should be limited, as in some countries, to self-defence or whether, as in others, it might be extended to a base defence role; whether arming should be voluntary or compulsory; and whether reserved rights should be offered to existing members of the Women's Services.

627. Although the Government sees no reason of principle to distinguish between any of the Women's Services in a matter of this kind, the practical involvement of the WRNS is unlikely to be immediate. Male Royal Navy personnel carry arms only rarely (when, for example, they form part of a ship's or

CONFIDENTIAL

establishment's security patrol). It follows that wider employment of WRNS is not critically dependent on arming them. As a quite separate question, the Royal Navy is examining the scope for employing WRNS on operational duties, short of combat, to relieve manpower shortages and improve their career opportunities.

CIVILIAN PERSONNEL

628. The Ministry of Defence's civilian staff provide an essential contribution to the defence effort both in Britain and worldwide. The all-volunteer Armed Forces cannot function effectively, and in some respects cannot function at all, without the supporting civilian staffs. Civilians, often working directly alongside their Service colleagues, are involved in all aspects of defence activity. They contribute to defence policy making; manage equipment projects; direct research and development programmes; train Servicemen in many essential skills; and provide the craft skills needed in the Royal Ordnance Factories to produce military equipment, in the Royal Dockyards to repair and refit the Royal Navy's ships and submarines, and in the Research and Development establishments to which we look to match and counter Soviet technological advances. On the operational side civilian staff help to maintain the Army's fighting vehicles and RAF operational aircraft, run the meteorological services on which all three Services rely and man the Royal Fleet

CONFIDENTIAL

Auxiliaries which supply the Royal Navy at sea in peace and war.

629. It is often not appreciated how wide is the range of skills demanded of the Ministry of Defence's civilian staff. A total of [277,000] civilians are employed at present. Of these, 37,000 are locally engaged overseas. The remainder - the 240,000 UK-based staff - represent nearly one third of the Civil Service, but they do not match the popular image of Whitehall bureaucrats. About half of them, including highly skilled craftsmen, are in the industrial grades and are mainly deployed in the Dockyards, Royal Ordnance Factories, supply depots, aircraft maintenance units, workshops and so on. Scientists, engineers, technologists and other specialists, such as teachers, computer processing staff, policemen and communications experts, make up a further quarter; these are the staff who provide the high technical input to the research and development and equipment programmes, help to run key computer installations, teach Service children overseas, guard Ministry of Defence establishments and maintain and operate crucial worldwide communications networks. Figure 18 illustrates the wide spread of jobs, and shows that no more than 4% of Ministry of Defence civilians are employed in the administrative and executive grades.

630. Since coming into office last year, we have been much impressed by the commitment of the civilian defence staffs and by how closely they identify with the role of the Armed Forces. Despite the dissatisfaction and discontent which had

CONFIDENTIAL

built up over a long period preceding last year's pay settlement, civilians in the Ministry of Defence continued to demonstrate a very considerable degree of commitment to the support of the Armed Forces. The Government recognises that the loyalty and high morale of the Ministry's civilian staffs are no less important than those of the Services and will do all that it can to ensure that relations do not again sink to the level of last year, with the enormous strains which this imposed upon the loyalty of the civilian staff.

Civilian Numbers

631. Continuing pressure on the defence budget has for many years forced upon the Department the need for the closest control of staff numbers, both Service and civilian. Between 1964 (when the unified Ministry of Defence was formed) and 1979 civilian staff numbers, excluding the ROFs, were reduced by 150,000. Ministry of Defence Headquarters numbers, Service and civilian, are expected to have fallen by about 13.5% between 1 April 1974 and 1 April 1980, and further reductions are planned. The fall in Headquarters numbers included a cut between 1974 and 1979 in senior Civil Servant numbers (Under Secretaries and above) from 126 to 112. This was a sizeable reduction by any standards, but no organisation as large as the Ministry of Defence can ever be satisfied that it has precisely the right number of staff with just the right skills in all the places where they are needed. The organisation must be flexible and able to respond to changing needs; staffing levels and recruitment targets must be closely monitored and controlled; and there is a need to ask critically whether it is right for

CONFIDENTIAL

Civil Servants to be carrying out all their present functions or whether some of them could and should be contracted out.

632. When the Government took office it had to take immediate action to control cash limits in the wake of the substantial pay settlements of 1979. Accordingly a recruiting ban was imposed from May to August 1979 throughout the Civil Service aimed at reducing wage-related expenditure by 3%. The ban applied to the Ministry of Defence as to all other departments. However, to ensure that essential defence work was not undermined, exemptions from the ban were granted for a number of key grades, such as professional engineers, scientists, ADP specialists, craftsmen, police and security staff.

633. The ban did not of itself cut back numbers sufficiently and further selective recruiting restraints had to be imposed for the remainder of the year. As a result the provision for UK-based civilian numbers will have been reduced by some 6,700 in the year ending 31 March 1980 and the target will have been met; the provision for ROF numbers will also have fallen by about 1,600 over the same period. Together these represent a reduction of rather more than 3%. The estimates for 1980/81 provide for the 3% reduction to be continued and efforts will be made to correct the uneven incidence of the reductions which inevitably occurred in different parts of the Department. Action is also being taken to rationalise the cutback by ensuring that resources and tasks are matched, and by identifying

CONFIDENTIAL

the work to be given up or modified where this is necessary.

630. Soon after it was elected the Government launched a radical review of Civil Service activities aimed at identifying possible savings from improved efficiency and from the curtailment or elimination of functions. All departments were asked to identify options for achieving these aims. When the Ministry of Defence had completed this exercise, the Government took the view that a reduction of 7,500 by 1982 (on top of the similar saving to be made as a result of the recruiting restraint) was the maximum commitment which could be made, in advance of detailed studies of certain major areas of activity, without harming the defence effort. Three short term studies were commissioned - contract cleaning and catering, quality assurance and bill paying - and three longer term ones - the Royal Dockyards, research and development and supply management. Chapter 8 describes the studies in more detail.

635. The three short term studies have been completed and implementation of the recommendations will achieve the bulk of the 7,500 saving and provide as good a service, and in some cases a better one, at lower cost. [Any balance required will however be found by implementing a number of smaller measures identified earlier.]

The three longer term studies are also examining whether savings can be made, whether work is being carried out in the most economical and

CONFIDENTIAL

cost effective way and whether the balance of in-house and contract work is right. No manpower targets have been set for these studies because the imposition of arbitrary targets is not a sensible way to proceed. There will however be a continuing search for economy in the use of manpower, both Service and civilian, during the coming years to ensure that the high skill and professionalism of the staff who work for the Ministry of Defence are used in an efficient and fully productive way.

Recruitment

636. It follows from this that there is, and will continue to be, a need for men and women of high calibre to support and assist the Armed Forces. The high average age of important elements of our civilian staff, which will produce a high level of retirement over the next few years, will place even greater emphasis on the need to recruit and keep good people. As with Servicemen, the Ministry of Defence has for some time been experiencing serious problems in recruiting and retaining certain types of staff with the right qualities in sufficient numbers. This has been particularly true in the fields of electronics, avionics and computer technology, where the difficulty in recruiting and retaining specialist staff imposes significant restraints on the defence equipment programme. The production of weapons, ammunition and other essential equipment is affected by the national shortage of qualified

CONFIDENTIAL

craftsmen which is felt particularly in areas where there is keen competition from private industry. Establishments such as the Royal Dockyards, where craft grades constitute more than half of the industrial work-force, are affected very severely. There is a national shortage of experienced computer programmers and systems analysts, from which the Ministry of Defence is not immune. Nor can enough qualified accountants be recruited and retained. [In Scotland we cannot compete with the high rates offered by the oil companies and in central London the recruitment and retention of staff is difficult in the face of the more attractive pay and fringe benefits offered by other employers and because of the high cost of commuting.]

637. One way of tackling this problem is from the demand end by ensuring that work within the Department is carried out in the most economical way and that the Ministry of Defence does not do work which can more sensibly be carried out elsewhere. This is under examination, but it is equally important to tackle the supply end, and this too is being done. The Ministry of Defence operates schemes to sponsor undergraduate engineers and to encourage promising craftsmen who have completed their apprenticeships to undertake training to degree level. Teams from the Royal Dockyards have travelled round the country to try to recruit craftsmen. Potential management accountants and computer specialists are selected from among our executive and clerical staff and trained

CONFIDENTIAL

in-house. Suitable craftsmen are promoted into the professional and technical grades. There is a considerable gap to be made good but it is hoped that these measures, [together with the recent pay settlement(s),] will help to close it.

638. There are also internal measures which can be and are being taken. In middle and senior grades staff will be kept in their specialisation and in specific jobs for longer tours of duty so that the Department can make the most of their experience and expertise. Continued efforts will be made to develop "home-grown" specialists in such key areas of civilian employment as contracts, management accounting, financial and personnel management. Apprentices are needed in large numbers to maintain the strength of our technical organisations in the future; they are the craftsmen of a few years hence. The Ministry of Defence has an annual intake of some 2,300 apprentices and currently has 8,000 men and women under training. Apprentices, like other key grades, were exempted from the recruiting restraints.

639. The Ministry of Defence, as employer of [] staff performing management tasks, must reflect the increasing specialisation seen in the commercial and industrial world, and accept that very few people can perform in a wide range of jobs with equal effectiveness. It is to this end that the Department began in 1979 to base the career development of

CONFIDENTIAL

its [11,000] executive staff on five specialised functions -
AR&P, Finance, Personnel Management, Procurement and Supply
Management. The next step is to extend this to more senior
grades. Increased professionalism also requires much effort
to be devoted to training which is closely job oriented.
Over 7,000 civilians attended central or external courses
during the year and many more attended courses in line
management areas as part of a training pattern
which is constantly being updated. Greater interchange
between staff in the Ministry of Defence and industry,
especially defence contractors, will also benefit both sides
as a result of the exchanges of ideas and approaches. It is
intended to encourage such interchange much more in future.

Pay

640. Ministry of Defence civilians are part of the Civil
Service, the pay of which has long been based primarily on
the principle of fair comparison with staffs employed outside
the Civil Service on broadly comparable work. The pay
research procedures mean following the market, not leading it.
The present basis of comparability for determining Civil
Service pay was laid down 25 years ago in the report of the
Priestley Commission. Some factors which then led people to
join the Civil Service may no longer apply, and there may now
be a much more direct connection between recruitment and rates
of pay. The Government found when it took office that for a

CONFIDENTIAL

number of reasons the pay and conditions of service which the Ministry was able to offer were in some key areas insufficient to attract and retain all the staff needed for defence programmes. For $3\frac{1}{2}$ of the 4 years following the 1975 Civil Service pay settlements further pay increases were kept strictly within the limits allowed by the last Government's pay policy. By the time of the 1979 settlements Civil Service pay had fallen well behind that of comparable outside employers. The return to comparable rates for 1979 has been approved and the last stage will be met for the industrial Civil Service on 1 April 1980. The outside rates meanwhile will have themselves moved on during this period. A further pay research exercise for non-industrial is nearing completion and one for industrials will shortly get under way.

641. The Ministry does a great deal to train people for certain specialisations (ADP, engineering, craftsmen) only to find too often that they leave for outside employment. Possible ways to redress this situation are under constant study. For industrial employees a national structure of basic pay and conditions is supplemented by productivity and incentive schemes applied to particular localities. Additional schemes have been introduced, and others brought up to date. [Important negotiations are going on for a new dockyard efficiency scheme for the four Royal Dockyards in Britain.] More generally the search is continuing for ways of giving

CONFIDENTIAL

more authority to the major line managers, with a matching financial responsibility.

Industrial Relations

642. Because of the importance of civilian staff to the Ministry of Defence and to national security, it is essential now to maintain a climate in which industrial relations are based on mutual respect and goodwill rather than suspicion.

643. In a Ministry employing such a large number of staff performing a vast range of tasks, good relationships between people with different backgrounds doing different types of work and between civilians and Service personnel are vital to successful management. Open and effective communications and genuine consultation with and between staff at all levels throughout the organisation play an essential role. To provide more effective means for this, important changes in the consultative arrangements for bringing non-industrial staff and management together have been introduced since the middle of 1978. Two new top level Whitley Council Committees have been set up to deal with major matters of organisation policy and personnel management. The Whitley Committee for the Procurement Executive has been re-organised and a new Headquarters London Whitley Committee is being set up to fill a gap in the coverage of the consultative machinery. The Whitley Committee arrangements at Army District and Naval Base levels are also under review jointly with the Departmental

CONFIDENTIAL

Staff Side. We have also changed the civilian management organisation to bring together the management of pay for both industrial and non-industrial staff and the management of other aspects of industrial relations and conditions of service.

CONFIDENTIAL

7

EQUIPMENT

701. The defence procurement programme is a vast and long-term undertaking. The largest projects can cost well over a billion pounds and take ten years or longer to develop. Introduction into service may be spread over five or more years with a service life of fifteen years or more thereafter. Decisions taken today must take account of the threat to NATO and the United Kingdom which is likely to arise in the 1990s and beyond, and they must try to foresee and exploit the advanced technologies of the next decade in responding to that threat. Equipment must be designed to allow for further improvements during its life as technology develops.

702. The need for a new item of defence equipment may reflect a variety of influences: existing equipment is obsolescent or no longer in production; intelligence has identified a new threat; research offers new solutions; technological advances can be exploited; new proposals by industry or equipments planned by our allies may offer significant operational advantages. Each equipment project typically goes through a number of stages - feasibility study, project definition, full development and production. At appropriate stages, high level committees assess both the operational justification

1

CONFIDENTIAL

CONFIDENTIAL

and the characteristics of a proposed equipment, and examine the technological, budgetary and resource implications. They consider how best to procure the equipment: through a national project, collaboration with allies or purchase from abroad. They also review projects if at any time there is a significant increase in the real cost, in the time needed to complete the work or if other circumstances, such as the threat, should change markedly. They consider whether the requirement is still valid and examine any problems that may have arisen, before recommending whether the project should continue.

703. Against this general background, the equipment budget, the more significant projects and important elements of procurement policy are discussed in this chapter.

THE EQUIPMENT BUDGET

704. Expenditure on equipment in 1980/81 is planned to be £[] million and will absorb []% of the defence budget. This compares with 1979/80 forecast expenditure at the same price level of £[] million, which represented 41% of the 1979/80 defence budget.

705. When personnel and other costs are added in, total procurement expenditure for 1980/81 is estimated at £[] million. £[] million will be for research and

CONFIDENTIAL

development (compared with £[] million forecast for 1979/80) and £[] million for production, (£[] million for 1979/80). Figure 19 shows the main divisions of the procurement programme and an analysis of the production element.

THE EQUIPMENT PROGRAMME

706. The sections that follow describe the main elements of the planned equipment programme in the principal fields of warfare. Where one equipment contributes to more than one capability, it is described under its primary function.

Land Warfare

707. The Warsaw Pact's ability to conduct offensive operations on land is growing, with more and better equipment. The main emphasis is on mobility, firepower, armoured protection and night-fighting capability. Large numbers of sophisticated modern tanks and armoured personnel carriers are in service with the Soviet Army and even better tanks are being developed. A Warsaw Pact attack on NATO territory in central Europe would be spearheaded by concentrated armoured thrusts with powerful air support. Tank and infantry formations would be supported by heavy concentrations of artillery and engineer equipments designed to speed forward progress. Air support would include several hundred advanced helicopter gunships.

CONFIDENTIAL

Furthermore Soviet forces could make intensive use of electronic warfare and have large stocks of chemical munitions.

7c9. To counter this threat NATO needs a wide range of weapon systems which can defeat armour at all ranges, as well as artillery and air defence. Efficient systems for command and control; the ability to redeploy forces as the battle develops and to match the Warsaw Pact's night-fighting capability; electronic warfare equipment; reconnaissance and target acquisition systems; and secure logistic support are also essential. The United Kingdom is making improvements in all these areas.

7c9. Armour and Anti-Armour

a. Chieftain now has an improved fire control system coming into service to increase the possibility of a first time hit against a moving target. Modifications are being introduced to improve the reliability of the engine and an improved armour piercing round will be introduced in the next few years.

b. Future Tank Plans. Future tank requirements are receiving particular attention in the light of current assessments of the Warsaw Pact tank threat, while project definition studies of a new main battle tank for the longer term are continuing.

CONFIDENTIAL

c. Anti-Tank Guided Weapons (ATGW). By the end of 1980 all the mechanised battalions of BAOR will be equipped with the Milan medium-range ATGW. The future night sight for Milan has been selected and is being developed for adoption by France, the Federal Republic of Germany and the United Kingdom. A night/all-weather sight is shortly to be introduced for the Swingfire ATGW. The American TOW long-range ATGW will be fitted to the Lynx helicopter in the early 1980s to form a formidable anti-tank system. Preliminary studies have started on the next generation of ATGW in collaboration with France and the Federal Republic of Germany.

d. Light Anti-Armour Weapon (LAW). This man-portable short-range unguided weapon is being developed in Britain to replace the Carl Gustav recoilless anti-tank gun and the M72 rocket in the early 1980s. It is being developed to meet the requirement of the independent European Programme Group for such a weapon, and will be available for adoption by other NATO countries.

710. Artillery and Associated Equipment

a. FH 70 and SP 70. The FH 70 towed howitzer is entering service and has been deployed to its first regiment. It was developed jointly by the United Kingdom and the Federal Republic of Germany, with financial participation by Italy. The same

CONFIDENTIAL

three partners are now developing a self-propelled version (SP 70), which will enter service in the late 1980s.

b. Multiple Launch Rocket System (MLRS). In 1979 the United Kingdom, United States, France and the Federal Republic of Germany signed a Memorandum of Understanding for the co-operative procurement of MLRS. It will consist of a tracked self-propelled armoured rocket launcher carrying 12 rockets and is designed for depth fire against important targets behind the immediate combat zone. It is planned to enter service with the British Army in the mid-1980s.

c. Supervisor. An unmanned miniature helicopter system has been under study and project definition for some years to meet the Army's requirement for medium range surveillance and target acquisition. This project has now been cancelled in the light of a reassessment of the development needed and its cost. Alternative means of meeting the Army's requirement are being studied.

711. Infantry Equipment

a. Mechanised Combat Vehicle (MCV). Part of the present fleet of armoured personnel carriers is due to be replaced in the mid-1980s. Development has begun in the United Kingdom of a vehicle (MCV 80) to fit this requirement. However, the United States is also developing an Infantry

CONFIDENTIAL

Fighting Vehicle which may meet the requirement, and we are monitoring the progress of this project as a possible alternative to MCV 80.

b. Small Arms. NATO will announce this year the result of trials to select a new standard calibre for future personal weapons. British weapons of this calibre will become available in the mid 1980s.

712. Low Level Air Defence. Substantial improvements are planned in the low-level air defence systems in service with the Army and the Royal Air Force. Full development is under way of a programme to incorporate the latest micro-processor technology into the Rapier missile system, while project definition work has begun on further possible improvements. A tracked version of Rapier is being evaluated for the Army. Similar programmes are being considered to improve the effectiveness of the Blowpipe man-portable missile.

713. Chemical Warfare Defensive Equipment. We are developing new equipment to improve our defences against chemical attack. This includes excellent new protective suits and respirators which should greatly reduce the strain which present equipment places on fighting Servicemen. We are also developing a new

CONFIDENTIAL

automatic nerve agent detector (NAIAD) and a chemical agent monitor (CAM) which will indicate when it is safe to dispense with protective measures.

714. Air Support

a. Hercules. Work has begun on lengthening the fuselages of RAF Hercules transport aircraft. This will increase their troop- and freight-carrying capacity and is equivalent to adding new aircraft to the present fleet, without the need for additional crews, ground support and so on. It is therefore a very cost-effective way of improving the capacity of our air transport force.

b. Helicopters. The Royal Air Force helicopter force is to be improved and reorganised and two squadrons of Chinooks will be provided in the Army support role. Thirty-three of these helicopters are being produced in the United States with British avionics and the first should enter service by the end of the year. They will provide a much needed increase in lift capability over that of the Wessex helicopters which they are replacing.

CONFIDENTIAL

Air Operations in Support of Land Warfare

715. In any attack on NATO, the Warsaw Pact would mount very powerful air operations against NATO defences and other important targets. Warsaw Pact forces have acquired newer variants of tactical aircraft for ground attack, air defence and reconnaissance, and are likely to introduce still more effective aircraft in the next ten years. In the event of conflict in the Central Region, the task of the Royal Air Force and of other allied air forces will be to thwart the attack from the air; to assist the Army by attacking enemy ground forces, especially tanks; and to carry the battle to the enemy by striking his airfields, bases and supply areas, by disrupting his communications and by inhibiting the deployment of second echelon armies.

a. Tornado GR1. The keystone of the programme is the all-weather Tornado GR1 which will replace the Vulcan, Buccaneer and Canberra. It is now in full production and 146 have so far been ordered for the Royal Air Force out of a total planned order of 220. The first production aircraft will enter service with the Royal Air Force later this year. The Tornado GR1 is being produced jointly by the United Kingdom, the Federal Republic of Germany and Italy. It combines a wide range of capabilities: strike, attack, reconnaissance and

CONFIDENTIAL

interdiction of supply lines and communications. It will also serve in the maritime strike/attack role.

b. Jaguar. Improvements to the Jaguar's weapon aiming system are in hand. Together with other planned improvements, they will enhance the aircraft's performance in the offensive support role.

c. Future Tactical Combat Aircraft (TCA). We are discussing the possibilities for a collaborative Tactical Combat Aircraft project with other European countries. It had originally been envisaged that such an aircraft would, for the Royal Air Force, replace both the Jaguar and the Harrier in about 1990. Studies have however shown that it would not be practicable at reasonable cost to meet the full range of performance requirements by a single aircraft.

d. Harrier. We plan to improve the Harrier to enable it to remain in service to the end of the century. Consideration is being given to whether the AV8B aircraft being developed for the US Marine Corps or the GR Mark 5 currently being designed by British Aerospace could meet the requirement for this improved Harrier.

CONFIDENTIAL

e. Air-to-Ground Weapons. Project definition has begun on an advanced anti-armour weapon to enter service in the mid 1980s. It will be carried by the Tornado GR1, Harrier, Jaguar and, in due course, the TCA. The United Kingdom, in co-operation with the United States, is continuing to develop an advanced airfield attack weapon.

Land Based Air Defence

716. The Soviet Union has large numbers of aircraft capable of attacking the United Kingdom, including Fencer fighter bombers and increasing numbers of Backfire bombers. Using extensive electronic countermeasures, they can attack over a wide range of heights and speeds with various free-fall and stand-off weapons. Throughout the 1980s, their ability to protect themselves and to launch longer-range weapons is likely to improve. The Royal Air Force must defend United Kingdom airspace and the vital sea and air reinforcement routes against this threat.

a. Tornado F2. The Tornado F2 is the air defence version of the Tornado which is being developed for the Royal Air Force. It will be capable of long-range interception, sustained combat air patrol and rapid interception from ground alert. Its principal armament will be Sky Flash and AIM 9L air-to-air missiles; it will also be fitted with

CONFIDENTIAL

an internal gun. The first flight of the Tornado F2 development aircraft took place in October last year. Production aircraft will enter service in the mid-1980s.

b. Lightning. An additional squadron of Lightning interceptors will be formed in the early 1980s.

c. Phantom. The Phantom's missile control system is to be improved. This programme will begin later this year.

d. Hawk. A substantial number of the Hawk jet trainer aircraft will be modified to carry the AIM 9L air-to-air missile. They will supplement the specialist fighter and ground-based missile defences. It is planned to buy additional Hawks to meet the growing demand for pilot training on fast jet aircraft. A proportion of these will be able to carry the AIM 9L.

e. Air-to-Air Missiles. The Sky Flash medium-range missile is now in service. [Full development has started on an improved version to be fitted to the Tornado F2.]

CONFIDENTIAL

A European consortium, which includes the United Kingdom, is producing the American-designed AIM 9L short-range missile. The AIM 9L is expected to enter service with the Royal Navy later this year and with the Royal Air Force in 1981. We are discussing possible collaborative arrangements for the development of the next generation of air-to-air missiles with the Federal Republic of Germany, France and the United States.

f. Tanker Fleet. Nine VC10 aircraft are being converted into air-to-air refuelling tankers and will enter service in the next few years to supplement the existing Victor K2 tankers.

717. Besides aircraft and weapons, an air defence system must have early warning, good command and control facilities and ground-based anti-aircraft missiles.

a. Nimrod Airborne Early Warning (AEW).

Development and trials of the Nimrod AEW aircraft and its systems are continuing. Initial radar trials on a Comet aircraft have been completed successfully and further trials with development aircraft will take place later this year. The eleven Nimrod AEW aircraft in the programme will form the British contribution to the NATO AEW mixed force.

CONFIDENTIAL

b. United Kingdom Air Defence Ground Environment (UKADGE). UKADGE is a network of operations centres, communications systems and surveillance radars. It acts as the command and control system for our air defence forces using information from these radars, from AEW forces and from the continental radar network. The UKADGE facilities are being extensively improved in a programme that is to be completed in the mid-1980s.

c. Bloodhound Replacement. We are participating in preliminary studies with the Federal Republic of Germany and France on the possibility of a collaborative system to meet the long-term requirement for a new medium-range surface-to-air missile. For the United Kingdom this would replace Bloodhound.

d. Airfield Survival Measures. A programme is under way to harden airfield facilities, including aircraft shelters, and to tone down runways and buildings in order to make airfields more difficult for the enemy to locate and attack.

Maritime Air Warfare

718. The navies of the Warsaw Pact and the land-based Soviet Naval Air Force pose an increasing threat to NATO's surface ships and submarines. Soviet forces possess a wide

CONFIDENTIAL

range of missiles. Their aircraft can attack in large numbers at subsonic and supersonic speeds and from low or high altitude, and the Soviet air-to-surface missile capability will improve, particularly with the build up of the Backfire bomber force. To combat this we need to deploy several effective layers of defence. Air defence fighters oppose enemy aircraft before they can accurately engage our ships. Naval vessels are equipped with area air defence missiles, which destroy enemy missiles before they get close to their objective, and point defence missiles, which destroy missiles that have nearly reached their objective.

a. Sea Harrier. Initial deliveries of the Sea Harrier have now been made and the aircraft is undergoing intensive flying trials. The first front line squadron will be formed at the end of March and is planned to embark in HMS Hermes on completion of her forthcoming refit; squadrons will also be available for the new anti-submarine carriers. All these vessels will be fitted with a "ski jump" launching ramp to enable the Sea Harrier to carry more weapons or fuel.

b. Type 42 Destroyers. The primary role of the Type 42 guided-missile destroyer is air defence, though it is effective in other roles as well.

CONFIDENTIAL

Six Type 42s are now in service. The seventh is due to be accepted into service this year, and seven more have been ordered.

c. Air Defence Missiles. The Type 42 is equipped with the Sea Dart medium-range area defence guided missile system which is also to be fitted in the new anti-submarine cruisers. Substantial improvements are planned for the system. The Sea Wolf point defence missile system is coming into service in Type 22 and Leander class frigates.

Anti-Submarine Warfare

719. The Soviet nuclear-powered submarine fleet, already large, will grow during the 1980s. These submarines deploy a variety of weapons, from ballistic missiles to anti-ship cruise missiles and torpedoes. They dive deep and travel fast. The primary role for our maritime forces in the Eastern Atlantic is to combat them.

a. Anti-Submarine Carriers. The new class of ASW carriers will operate Sea King helicopters and Sea Harrier aircraft. They will also provide command and control for groups of ASW forces and area air defence with the Sea Dart. The first of the class, HMS Invincible, has been undergoing sea

CONFIDENTIAL

trials before acceptance by the Royal Navy this year. All three cruisers will be in service by the mid-1980s. The third, HMS Ark Royal, will incorporate certain improvements, including a more steeply angled "ski-jump" ramp and better command facilities, ASW capability and point defence measures.

b. Nuclear-Powered Fleet Submarines (SSN). The SSN is one of the Royal Navy's primary ASW vehicles. The eleventh, HMS Spartan, has entered service. The sixth and last of the Swiftsure class, HMS Splendid, is due to be accepted towards the end of the year. Three submarines of the new Trafalgar class have been ordered, and we plan to order another this year.

c. Patrol Submarines. Feasibility studies have begun for a new conventionally-powered patrol submarine to replace the present Oberon class.

d. Type 22 Frigates. The first two ships of this new class of ASW frigate, HMS Broadsword and HMS Battleaxe, have now been accepted into service. They carry Lynx helicopters and have improved detection equipment. Orders have been placed for the fifth and sixth vessels, and further orders are planned.

CONFIDENTIAL

e. Anti-Submarine Helicopters. Project definition on a successor to Sea King should be completed this year. We are examining the prospects of undertaking full development in collaboration with Italy.

f. Nimrod Maritime Reconnaissance (MR) Aircraft. The first Nimrod converted to Mk 2 standard was delivered to the Royal Air Force last August and the programme is to be completed during the next few years.

720. Anti-Submarine Weapons and Equipment

a. Lightweight Torpedo. The programme to develop the Sting Ray lightweight torpedo is making good progress, and an initial batch of production weapons has been authorised. Sting Ray will be our main anti-submarine weapon of the future. It will incorporate new techniques, particularly in the way it homes on to its target. Sting Ray will be launched from ships, Nimrod aircraft and helicopters. Once the development programme is completed, re-equipment with Sting Ray will continue throughout the 1980s.

b. Heavyweight Torpedo. Feasibility studies for a successor to the submarine-launched Tigerfish

CONFIDENTIAL

torpedo have been completed and the results are being considered.

c. Sonars. Existing sonars are being improved and three new types of equipment have entered full development in the last year.

721. Seabed Operations. An order has been placed for a Seabed Operations Vessel which will be equipped to locate, inspect and recover objects on the seabed. It will act as a sophisticated diving platform for the deployment of a Saturated Diving System, which allows divers to work at depths under pressure for extended periods. The ship will considerably enhance the Royal Navy's capability for seabed and diving operations.

Anti-Surface Ship Warfare

722. One of the most striking features of the Soviet military scene since World War II has been the growth of its surface fleet. Further improvements in the 1980s are expected to include the introduction of more Kiev class aircraft carriers, more missile-armed ships, new amphibious units and improved means of replenishment away from base. This fleet can menace NATO's sea lines of communication, and in war would pose a very powerful threat, particularly in the Norwegian and North Sea and the Eastern Atlantic. For the Royal Navy and Royal Air

CONFIDENTIAL

Force, the main response is the anti-ship guided weapon, launched from submarines, surface ships, aircraft and helicopters.

a. Sub-Harpoon. This American system will be the main anti-ship armament of our nuclear-powered fleet submarines and will enter service in the next few years.

b. Exocet. The fleet's anti-ship capability is being improved by fitting Exocet to more Leander class frigates.

c. Sea Skua. This anti-ship missile, which will be carried by the Royal Navy's Lynx helicopters, is undergoing development firings. It will now enter service next year.

d. Sea Eagle. Previously known as the P3T, the Sea Eagle is now under full development. It is an anti-ship sea-skimming missile to replace the Martel. It will have a greater range and resistance to electronic countermeasures than the Martel, and will be able to operate in all weathers, day and night. It will be carried by the Sea Harrier, the Buccaneer and the Tornado GR1, and should enter service in the mid-1980s.

CONFIDENTIAL

e. NATO Anti-Surface Ship Missile. The United Kingdom, with other NATO countries, is considering the results of joint feasibility studies for a new generation of anti-ship missiles for the 1990s. The countries concerned have agreed to extend this phase to allow further studies to be carried out by industry. 7

Mine Warfare

723. The Soviet Union has very large stocks of naval mines which could be laid by submarines, ships or aircraft. The shallow waters around North-West Europe are especially vulnerable to this kind of warfare. To safeguard our ability to deploy our ships and submarines in wartime, and to ensure that sea-borne reinforcements from North America can reach Europe safely, we must improve our mine-hunting and mine-sweeping capability. These waters are also suitable for defensive minefields to counter enemy submarines and we therefore need to improve our mine-laying capability.

a. Mine Countermeasures Vessels (MCMV). The first of the Hunt class of MCMV, HMS Brecon, has entered service with the Royal Navy and the second, HMS Ledbury, has been launched. Three more vessels are on order and more will be ordered shortly. For the Hunt class ships new industrial techniques have been employed to create a glass-reinforced

CONFIDENTIAL

plastic hull with a low magnetic signature.
These vessels both hunt and sweep mines.

b. Minesweepers Medium (MSMs). In addition to the Hunt class, the Royal Navy is planning to buy a class of MSMs (previously known as EDATS trawlers) for delivery over the next two to three years.

c. Mine-Laying. We are considering means of improving our mine-laying capability, including the possibility of converting one or more County class destroyers for mine-laying.

Fleet Support Systems

724. [Orders will be placed this year for the construction of two support tankers.]

Amphibious Operations

725. We provide Royal Marine amphibious forces to reinforce the Northern Flank of NATO in Norway and the Atlantic Islands. For this task, we need amphibious equipment to deploy the forces in time.

a. Amphibious Lift. The Royal Fleet Auxiliary Bacchus has been retained to support amphibious operations. [Detailed work on the plans to convert

CONFIDENTIAL

RFA Tarbatness has revealed that the cost would be much higher than originally expected. In view of this vessel's short remaining life conversion was no longer considered cost-effective, although she could be retained without conversion to support amphibious operations. 7

b. Helicopters. The first Sea King Mk 4 helicopters are undergoing trials in Arctic conditions. Fifteen have been ordered to improve the Royal Marines' operational capability.

c. Landing Craft. We expect to place an order later this year for the first batch of new landing craft to be delivered next year. They will replace the current fleet, which is nearing the end of its life.

Offshore Protection

726. The United Kingdom must be able to protect its valuable offshore resources of oil, gas and fish. The Royal Navy and Royal Air Force, with its Nimrod MR aircraft, patrol our offshore waters.

a. Island Class Patrol Vessels. The last two Island class vessels have now been accepted into service and, among other tasks, will be used as necessary to help the Ton class vessels patrol the coastal zone.

CONFIDENTIAL

b. New Offshore Patrol Vessels [to be completed]

c. Hydrofoil. The Boeing Jetfoil, named HMS Speedy, will be delivered to the Royal Navy this year. It will be evaluated in various roles including offshore protection.

Electronic Warfare

727. In any future hostilities the attacking and defending forces would both make great use of electronic aspects of warfare.

Electronic Warfare (EW)

embraces electronic warfare support measures (EWSM), electronic countermeasures (ECM) and electronic counter-countermeasures (ECCM). EWSM provide a source of electronic information for the complex tracking and target acquisition elements of modern guided weapons and communications systems. These are vulnerable to enemy ECM, such as jamming, chaff and infra-red decoys. ECCM facilities can reduce their vulnerability. EW will be a very important aspect of any future sea, air and land battles. NATO's Long-Term Defence Programme (LTDP) calls for improvement in all these areas.

728. We plan to fit electronic self-protection equipment to the Jaguar, Harrier, and Tornado GR1; development of some of this equipment is nearly complete. The Nimrod MR Mk 2 and AEW aircraft will be fitted with EWSM, and a new EWSM system for passive surveillance is being installed in the Royal Navy's

CONFIDENTIAL

Lynx helicopters. A new radar jammer and improved EWSM systems are due in service this year on some frigates. We are taking part in NATO co-operative EW projects, particularly the Sea Gnat anti-missile decoy system, with a view to deploying it later in the 1980s. A procurement programme to re-equip the EW units in 1(BR) Corps with new EWSM and ECM systems is under way.

Communications, Command and Control

729. Commanders at all levels need to cope with the increasing complexity and speed of modern warfare as well as the diversity, longer range and greater destructive powers of modern weapons. To enable them to do so they need up-to-date communication, command and control techniques. Greater use is being made of satellite communications and automated data processing.

These will provide military commanders at the strategic and tactical levels with immediate information and will enable them to deploy their forces rapidly to the best advantage. At the same time equipments must be protected from enemy counter-measures.

- a. Communications. Satellite communications terminals (SCOT 1) are now in service with the Royal Navy's principal ships. Under a new programme these terminals are to be improved. Additional terminals to the new standard will be procured so that all warships of frigate size and above will

CONFIDENTIAL

have a satellite communications system by the mid-1980s. The Army is to replace its present tactical trunk communications system in BAOR with the new Ptarmigan system in the next few years. Ptarmigan will be the first such system in NATO to meet agreed interoperability standards. A modern computer-controlled telecommunications system is being initiated for the Royal Air Force. Ground-to-air and air-to-air communications are being modernised and made ECM resistant.

b. Command and Control. Better computer-assisted command and weapon control systems are being developed for ships of frigate size and above. The programme to install a new centralised command, control and information system at the Fleet Headquarters at Northwood continues. Full development has begun of a computer-assisted command and control system called Wavell which will be deployed to tactical formation headquarters in BAOR in the mid-1980s. Project definition is proceeding for a complementary Battlefield Artillery Target Engagement System (BATES) which will help the Army make the best use of its artillery in the 1980s. We are planning a new automated command and control system to serve RAF Strike Command's NATO and

CONFIDENTIAL

national responsibilities. It will be linked to other NATO command centres. There is also an urgent need for a new NATO-wide "Identification Friend or Foe" (IFF) system for aircraft. We are participating in NATO studies which will lead to the adoption of such a system from the mid-1980s onwards.

EQUIPMENT COSTS

730. During the past year, several projects have completed project definition and have proceeded into full development. This is a critical point in a project. An acceptable means of meeting the operational requirement has been agreed, the development programme has been planned and costed and the form of the ultimate production item can be defined with confidence. When a project enters full development a firm commitment is made to devote to it substantial industrial resources.

731. The new full development programmes (including those where new contracts were concluded, even though development began earlier) are listed in the table below. A broad cost estimate is given for the complete development and production programme as it is now foreseen. The cost will often be spread over ten years or more.

CONFIDENTIAL

<u>Programme Costs</u>	
Project	Estimated Cost
Sting Ray lightweight torpedo	£920 million
Sea Eagle air-to-surface anti-ship missile	£350 million
Rapier ground-based air defence missile - improvement programme for the mid-1980s	£320 million
New sonars for surface ships and submarines	£170 million
Improvement and fitting of SCOT satellite communications terminals	£90 million
[Sky Flash air-to-air missile improvements programme]	£75 million]
Wavell ADP system for command and control of Army tactical operations	£55 million
Avionics improvements for Jaguar aircraft	£50 million

732. In any single year orders are placed for a very wide range of new defence equipment, varying from a ship, the total value of which may be over £100 million, to items that may only cost a few pounds each. Examples of the unit costs of defence orders placed during the past year are shown in the table below

<u>Examples of Unit Costs.</u>	
Equipment	Unit Cost
Nuclear-powered fleet submarine*	£140 million
Type 42 guided missile destroyer*	£85 million
Seabed Operations Vessel*	£80 million
Tornado GR1 aircraft	£9.8 million

CONFIDENTIAL

Integrated Communications Systems for ships	£2 million
Puma Mk 1 helicopter	£1.6 million
4-tonne vehicles (various types)	£12-18,000
Landrovers (various types)	£5,500-9,500
Milan anti-tank missile	£7,000
155mm illuminating ammunition shell for FH 70	£450
155mm smoke ammunition shell for FH 70	£340

*Note - the costs quoted are inclusive of weapons systems and equipments to be fitted in the ship.

DEFENCE PROCUREMENT AND INDUSTRY

733. The job of developing and producing equipment to meet the needs of the Services is shared between the Government's own research and development (R & D) establishments and industry, whether in the public or private sector. The extensive capabilities they offer help the Services to define the technical characteristics of the equipment they need, to choose between alternative solutions and to test and accept equipment. They enable Britain to develop national projects or contribute to collaborative ones to meet defence needs in a cost-effective way.

734. Much of the £[] million to be spent on equipment in the coming financial year falls to important high technology industries. For instance, over 20% of the output of the

CONFIDENTIAL

electronics industry in 1978/79 was taken by the Ministry of Defence and over 60% of work in the aerospace industry is for defence purposes.

735. The defence equipment programme sustains about 200,000 job opportunities within the major defence industries, and about the same number again are sustained indirectly elsewhere in industry. By providing most of the equipment the Services need from our national resources and through collaboration, we keep to the minimum the proportion we buy from abroad. Sales of British defence equipment abroad contribute to the balance of payments and generate further returns for the nation on the capital invested in research and development.

736. The ability to develop and produce arms is thus an important national asset. It ensures supply; it enables British Service requirements to be met in an appropriate and timely way; it provides domestic employment; it can be paid for in our own currency; it enables us to collaborate, where that is our preferred course; and it offers the prospect of securing foreign exchange through sales. Above all, because of its contribution to our defence, it helps maintain our national security. The Government intends therefore to give full support to British industry in providing these benefits. In return, we look to industry to develop and produce equipment of the desired quality, in the quantities required and at the time expected, in a cost-effective way.

CONFIDENTIAL

COLLABORATION

739. In recent years Britain has to an increasing extent collaborated with other countries in the development of major new weapon systems. Overheads and risks are sometimes too great for us to carry alone because our production needs are small. By collaborating with others who have similar requirements we can share the burdens. We now have in service or in prospect a generation of major systems (Tornado and Jaguar aircraft, Martel missiles, Anglo/French helicopters, FH 70 and SP 70 howitzers) which have been developed bilaterally with France or trilaterally with the Federal Republic of Germany and Italy. In each case the decision to enter into a collaborative project has been taken following an examination of alternative courses, such as a wholly national project or the adoption of some other country's equipment either by direct purchase or for manufacture under licence. Some 75% of our equipment budget is spent on national contracts placed with British industry, about 15% as our share of collaborative projects, and 10% on contracts placed overseas. Only a small percentage of our procurement expenditure does not contribute directly to the British economy.

739. The general arguments in favour of collaboration have been reinforced by the need seen in the Alliance for increased standardisation and interoperability of equipment. The United Kingdom's response to this has been to intensify efforts to

CONFIDENTIAL

identify collaborative prospects. By jointly financing and developing new systems, we can reduce the numbers of different types of equipment and the extent of duplicated development in the Alliance. At the same time we must ensure that British industry retains a sufficient share of development work on national and collaborative projects to maintain its basic capability. Standardisation, if that were the only consideration, could be most simply achieved by adopting American equipment. Certain requirements can indeed be met by buying equipment from abroad and we shall continue to do so when appropriate. But the Government considers that it is important to retain in Europe, where we offer major expertise, a development capability for modern weapon systems, and we intend to strengthen European equipment co-operation. Studies on several major future weapon systems are being pursued collaboratively.

739. We are working closely with our European allies in the independent European Programme Group to identify projects on which we can work together. It is now more widely accepted in the United States that it is necessary to maintain a European defence industrial capability and to develop a more balanced relationship in defence equipment trade across the Atlantic. The present United States Administration has encouraged hopes that European equipments will be adopted by United States forces. Such decisions and more transatlantic co-operation in develop-

CONFIDENTIAL

new equipments are certainly needed if NATO is to reduce duplication of development effort, increase standardisation and give real meaning to the concept of the "two-way street". Transatlantic co-operation is beginning to bear fruit.

European countries are participating with the United States in the MLRS project , and the United States is participating in the British development of an airfield attack weapon .

740. The process of analysis and consultation must begin early in a collaborative project. If it does not, there is little chance of the participating nations reaching agreement in time on all the military, industrial and economic factors. The discussions must begin well before the equipment is needed in service, and also before national development plans become too firm to be altered. The United Kingdom strongly supports the groups within NATO which examine the possibilities of equipment co-operation. We also support efforts to improve planning procedures so that potential impediments to collaboration are identified early and tackled resolutely.

741. Nevertheless, the decision to collaborate on even an apparently simple piece of equipment can involve substantial complications and constraints. The operational requirements and planned dates for introducing the equipment into service of the different national Service staffs are unlikely to match exactly. Compromise will often be necessary if an acceptable joint programme is to be negotiated. The work

CONFIDENTIAL

and cost sharing aspects may present difficulties. Collaboration will almost certainly increase the total cost of the project because all national requirements must be accommodated and the various elements of the project may, for national reasons, not be divided out in the most cost-effective way. But with more countries to share the burden, the cost to each participant should still be cheaper than that of a purely national project. It must be recognised frankly that national interests and capabilities differ. After the most exhaustive efforts it may still prove impossible to agree on a division of work that matches each nation's industrial objectives or its potential investment in the project. Moreover, we must judge the benefits of collaboration even more severely in projects where large numbers of an equipment with low development costs are needed. The economic and industrial advantages of collaboration are then less evident, though the operational advantages of standardisation and common logistics must still be weighed. Finally, national development avoids the potential restrictions that could apply to third-party sales when development is undertaken with a partner.

742. Collaboration is not an end in itself. Individual procurement decisions must be judged against our primary objective of getting the equipment the Services need at the right time and at the right price. But where the conditions are right, the Government will continue to seek collaboration.

CONFIDENTIAL

Successful collaboration offers long-term political, technical and military advantages which it is in our interests and those of our partners to secure.

RESEARCH

743. A vigorous research effort is fundamental to equipment procurement. It provides the information needed for decisions about future equipment requirements and how to meet them, and it underpins the design and development of equipment. The research programme therefore aims to cover a wide spectrum of science and technology relevant to defence and to stimulate a flow of new ideas.

744. In 1980/81 the research programme is expected to cost about £7 million. This includes work done within the Government's own Research and Development (R & D) establishments, in industry and in the universities. The programme covers a wide range, from work on new composite materials for high performance aircraft to devices for improving the ability of divers to perform difficult tasks at great depths. The programme consists mainly of applied research, but greater emphasis is now being placed upon the longer-term innovative and experimental work needed to develop new technological capabilities. In addition, studies and assessments are made to help the Services formulate specific staff targets and operational requirements. The Ministry of Defence also manages research programmes for other

CONFIDENTIAL

Government Departments on repayment, where military and civil technologies gain mutual benefit from common programmes or require the same expensive capital facilities. Examples include work on civil aircraft, air traffic control, non-military space, marine navigation and shipping control.

745. The work in each major area of the research programme is reviewed regularly with the Services and other customers concerned. Every year a senior committee reviews the balance of the programme as a whole to ensure that it fully reflects the priorities of the Services. Independent advice on the research programme is obtained from the universities and industry.

746. The research staffs regularly consult, collaborate and exchange information with our allies, so that together we can use scarce resources more economically, share knowledge and identify promising areas of research. For example, a number of NATO countries recently co-operated in a programme to measure infra-red propagation under various geographical and climatic conditions in Europe. The information gained and shared will be of value in designing new equipments and predicting their performance.

747. The R & D establishments work very closely with defence industry. Research staffs circulate reports of their work widely through industry and new ideas from the establishments are transferred rapidly to industry through research contracts.

CONFIDENTIAL

Firms make extensive use of the facilities available at R & D establishments. But the results of defence research may be of much wider value. For example, work at the Royal Signals and Radar Establishment, Malvern, on liquid crystals (which won the Queen's Award for Technological Achievement in 1979) has yielded improved materials employed in electronic displays and now very widely found in consumer goods such as calculators and watches, while work at the Chemical Defence Establishment, Porton Down, on charcoal filters has been applied in medical and other fields.

748. As part of the Government's search for economy and efficiency a major study is being made of the functions of the defence R & D establishments. It will consider whether more work could or should be undertaken by industry and the universities, taking account of defence, financial and manpower considerations.

DEFENCE SALES

749. The Government encourages the sale of defence equipment overseas where this is compatible with the United Kingdom's political, strategic, security and economic interests. There are substantial benefits to be derived from defence sales. They help maintain a viable defence industry and a sound technological base; they facilitate longer production runs, economies of scale and reductions in the unit cost of equipment

CONFIDENTIAL

for our own forces; they sustain some 75,000 direct job opportunities in British industry; they help improve the balance of payments; and they support political and defence relations with customer countries. Other countries, including those in the Third World, attach considerable importance to the freedom to acquire arms to protect their independence and to exercise the right of self-defence embodied in Article 51 of the United Nations Charter. In the absence of agreed multilateral measures restricting arms transfers, we would not wish to deny to others a right which we claim for ourselves. But our general approach also reflects a policy of responsible restraint. We examine each case on its merits. There may be military or political difficulties, human rights and arms control issues or broader security interests which argue against particular sales, and we give such considerations full weight.

750. Defence sales cover a wide range of applications and associated services, including air defence, communications and radar systems, technical assistance and infrastructure projects. Recent major achievements include substantial air defence and communications projects, and the sale of Jaguar, Hawk and Lynx. Sales of defence equipment [and associated services] are expected to amount to some £[] million in 1980/81.

THE GOVERNMENT'S DEFENCE INDUSTRIES

Royal Ordnance Factories

751. The Royal Ordnance Factories (ROFs) constitute a large manufacturing enterprise operating under a Trading Fund. They supply a large proportion of the equipment needed by our Armed Forces, producing ammunition, armoured vehicles, guns, small arms and engineer equipment. Over half of the ROF output by value is for export and this excellent performance is expected to continue. The ROFs are becoming more involved in collaborative projects and more effort is being put into design and development to complement the productive capacity.

752. The ROFs suffered a setback in 1979 with the cancellation of the Iranian order for some 1,200 tanks. This caused some redundancies at ROF Leeds but the situation has now stabilised. With a recent overseas order for main battle tanks and other orders in prospect, the future of Leeds is now secure. The factory will therefore have the capacity to meet new British Army manufacturing requirements.

Royal Dockyards

753. The five Royal Dockyards at Devonport, Portsmouth, Chatham, Rosyth and Gibraltar together constitute the largest industrial enterprise within central government. In them is concentrated most of the nation's capacity for repairing and

CONFIDENTIAL

refitting its warships. They are thus an important national industry and vital to the nation's defence.

754. During the past year there has been continuing and widespread dissatisfaction among the workforce over pay, leading to severe industrial disputes, loss of labour as workers seek more highly-paid employment elsewhere, consequential imbalances in the mix of skills available, rising overheads and a serious loss of output. An increasing proportion of the workload is being put out to contract with commercial yards, both those of British Shipbuilders and those in the private sector. But the ability of these yards to handle the specialised work of refitting warships (as distinct from building warships or building and repairing merchant ships) is limited. It has consequently been necessary to consider how best to reduce the Royal Navy's demands for the repair and refitting of its warships so as to bring these demands into better balance with the available capacity.

755. The Government has therefore set in hand a study of the role, organisation and structure of the Royal Dockyards in the United Kingdom to consider how best they might be organised to meet the requirements of the Royal Navy in the 1980s and 1990s. The final report of the study is to be submitted by 1 April this year.

CONFIDENTIAL

8

THE DEFENCE BUDGET

801. The Defence Budget Estimates for 1980/81 total £[] million. equivalent to the planning total of £8,065 million at 1979 Survey prices. This represents an increase of 3% in real terms compared with expected outturn for 1979/80. The Government is currently considering the levels of defence budget provision for 1981/82 and the two following years.

802. Figure 20 breaks down the Estimates total by major categories of expenditure. Figure 21 analyses defence resources (expenditure, Service and Civilian manpower) by major programmes. (A more detailed analysis and other tables related to the defence budget are given in Volume II of this statement). Figure 22 compares the defence spending of most NATO countries in 1979 in terms of total expenditure, expenditure as a proportion of gross domestic product (GDP) and per capita expenditure.

803. Soon after taking office we declared our support for the NATO aim of annual increases in defence spending in the region of 3% in real terms up to 1986. This declaration was not made lightly. Taken together with our economic strategy of

1

CONFIDENTIAL

CONFIDENTIAL

reducing public expenditure for the time being, it logically entails a switch of resources from civil programmes to defence. This involves difficult choices in relation not only to the civil programmes themselves but also to our wider objectives of securing a better balance between public and private spending and investment. We look forward to the day when economic growth together with genuine detente make possible a reduction in the defence share of our national wealth. But that time is not yet. The military dangers facing the Alliance that have been described in this statement are such that we must make adequate provision for deterrence and defence, even in these difficult economic times.

804. The starting point for our defence budget decisions is the military contribution which we believe it right for this country to make. Of necessity this is based on continuity as well as innovation. The gestation period for a major weapons system far exceeds the life of a Parliament. The requirement for the Tornado aircraft was approved by Ministers in the late 1960s; the first squadron is expected to enter operational service in the early 1980s. The Services' manpower commitments are similarly long-term; the career engagement offered to a Serviceman is for 22 years (though the initial commitment on his side is of course a great deal less), and for a career officer is 16 or even 37 years. It follows that a high proportion of the annual defence budgets for the remainder of

CONFIDENTIAL

the present Parliament will be devoted to paying for commitments entered into by previous administrations.

805. Figure 23 illustrates this in respect of that part of the equipment procurement programme (some 60%) which is devoted to major projects. It shows how typically in "Year 1", the year immediately ahead, over 90% represents expenditure on projects to which the Department is effectively committed by past decisions to enter full development or embark on production to meet the requirements of the Services. This proportion decreases as one looks further ahead, and by Year 7 for example is of the order of 60%. The deployment of the balance of 40% at that point can thus be influenced by decisions that are yet to be taken on bringing new projects firmly into the procurement programme. It is possible to increase the relatively low proportion of spending in the earlier years which is amenable to new decisions, but only at the cost of changes in existing full development and production programmes. The lesson this teaches is that defence cannot be turned on and off like a tap; reasonable continuity of policy and funding is essential. We recognise the military value of many projects begun or continued by our predecessors, and an important part of our task will be to bring them to fruition as quickly as possible.

806. The defence programme cannot be insulated from all change, but our aim is to restore its momentum and expand it

CONFIDENTIAL

in the ways we have described. This will mean increased defence spending. But we shall not feel obliged to adhere slavishly to a particular growth path, nor shall we consider it a failure of policy if we modify our spending plans in either direction from year to year as new information becomes available. If we can achieve our objectives more cheaply, that is to the good, and we shall bring a vigorous management approach to bear to secure economies in areas of spending which do not lie at the heart of the programme.

Foreign Exchange Costs of Defence

807. As Table [] of Volume II of this statement shows, net invisible expenditure overseas on defence account is expected to amount to [£] million next year. As always, by far the largest single item is local defence expenditure in the Federal Republic of Germany - in effect, the stationing costs of the British Forces in Germany (BFG) - amounting to [£] million in sterling terms, though by definition it is spent in Deutschemark (DM). This consists of the DM element of pay and allowances for British Service and civilian personnel stationed there, the pay of locally engaged civilians, works, hirings and land costs incurred locally and various other charges incurred in DM, offset by local receipts, mainly for NAAFI trading.

CONFIDENTIAL

808. The [£] million total needs to be seen in perspective. It represents the initial impact on the balance of payments and therefore ignores such offsetting factors as the imports to Britain which would occur if the forces were in the United Kingdom, and the exports which do occur because they are in the Federal Republic. Nevertheless the rising trend of the stationing costs of BFG is disturbing. Over the last 20 years they have increased by $3\frac{1}{2}\%$ a year on average in real terms, that is over and above the rise in defence prices generally. By the same token the extra cost of BFG to the defence budget has risen sharply in real terms.

809. From 1980/81 the United Kingdom must meet these costs unaided, since the Anglo-German offset agreement of 1977 (Cmd 6970) expires this year. The absence of offset payments in future and the rising cost of BFG will limit our ability to improve the fighting effectiveness of BAQR and RAF Germany as we would like. We shall however take what steps we can to reduce our stationing costs in Germany by administrative means consistent with military efficiency.

The Search for Savings

810. The Government is committed to making the best possible use of the taxpayer's money. The Ministry of Defence, as a major spending department, must play a full part in the pursuit of efficiency and savings. In any large organisation there is

CONFIDENTIAL

always room for streamlining and there has to be a constant programme of evaluation to identify savings and to divert them to other areas where they can be put to better use. The resources available for defence are limited and we cannot afford to waste them. At the same time the Ministry will consult its employees about changes which involve loss of jobs and will implement them in a way which will cause the minimum disruption.

811. The way in which the programme of review is expected to contribute to savings in civilian numbers is described in Chapter 6 (paragraphs 634-5). The main studies are:

a. Contract Cleaning and Catering. This study was set up to examine whether money and manpower could be saved by putting more of the work of cleaning and catering in Ministry of Defence establishments out to contract. Following an initial study completed last October, detailed work is now being done at local level directed towards adopting contract cleaning wherever it makes sense to do so. This work is being concentrated in the first instance on the 80 units or establishments which employ the most cleaners. The financial case for adopting contract catering is less compelling but a number of areas are being examined to see whether there is scope for changing the present arrangements.

CONFIDENTIAL

- b. Bill Paying. The study is examining how the procedures for paying suppliers may be further streamlined over the next few years to yield additional economies.
- c. Quality Assurance. The Ministry maintains its own quality assurance staff. This study (now completed) considered whether it would be possible to transfer more of this work from the Ministry to industry, while maintaining essential safety standards. It was found possible to recommend measures placing still more reliance on contractors and these will result in worthwhile staff savings.
- d. Research and Development Establishments. This study is covered in paragraph 74§.
- e. Royal Dockyards. This study is covered in paragraph 75§.
- f. Supply Management. The Ministry maintains its own organisations to deal with the holding, issuing and transport of food, clothing, accommodation stores, petrol and oil, non-warlike vehicles and their spares for the Armed Forces. This study is looking at the cost effectiveness and security and operational implications of extending the use of outside organisations for this work.

CONFIDENTIAL

812. The Department is also conducting studies under the direction of Sir Derek Rayner, who has been appointed by the Prime Minister to advise on improving efficiency and cutting out waste in central Government. The first of these studies (into the arrangements for supplying food to the Armed Forces) is being used as a model for four further studies during 1980 in which one member of the Department will study a selected area for 90 days to see whether there are administrative or other weaknesses calling for deeper scrutiny. The areas selected for study in 1980 are childrens' secondary education overseas, inspection and audit, the claims commission and assisted travel schemes.

813. Immediately on taking office the Government reviewed the previous administration's programme of Civil Service dispersal. The inclusion in the programme of posts from such places as Harrogate, Didcot and Bath was not justified, and the total cost was excessive. Following our pledge to cut the Civil Service and reduce public expenditure we decided to reduce the programme significantly. In the Ministry of Defence, plans to disperse 4,250 posts to Cardiff were cancelled. The number of London posts scheduled to be dispersed to Glasgow was increased to 1,400, and this move to purpose-built accommodation in central Glasgow will be completed by the mid-1980s. Plans to disperse Ministry of Defence posts from the provinces to Glasgow were cancelled.

CONFIDENTIAL

814. The Ministry is contributing to the Government's aim to reduce the public sector's consumption of oil by 5%. However, savings must not prejudice essential operations and training. We are also exploring ways of pruning further the defence estate.

815. The NATO Long-Term Defence Programme (LTDP) has emphasised the importance of greater efficiency in the equipment and logistics areas. Efforts are being made to improve holdings of materiel required for logistic support and thus enhance the Alliance's staying power in war.

816. Each Service remains responsible for its own support organisation. This is the most efficient way to meet operational needs. Nevertheless, strenuous efforts have been made to identify areas where logistic support can be more closely co-ordinated; much has been achieved and large savings made. The search for further savings continues although the opportunities are fewer.

817. There is clearly scope however for co-operation between NATO countries in the fields of equipment and logistics. Equipment collaboration (see Chapter 7) can offer savings in research, development and production costs, and can also contribute to co-operation in follow-on support and in training. More generally, the LTDP has led to a reappraisal of logistic support arrangements. Responsibility for such support rests

CONFIDENTIAL

primarily with each nation, acting in conjunction with those nations in whose territories the forces will be moving and operating. Greater attention is now being given to the co-ordination of logistic plans. We are examining within NATO the degree of emergency logistic support which could be provided from the resources of one nation for the forces of another. Some progress has been made, but much more remains to be done.

CONFIDENTIAL

In Conclusion

1. This Statement on the Defence Estimates is the Government's first since taking office. In it we have attempted to present fully and clearly the facts and major issues on defence as we perceive them. We hope this presentation will provide a basis for the informed public debate about defence which we believe necessary to the success of our defence policy. The defence effort requires not only financial and practical support but also the full understanding of the community which it serves.

2. We have described in this statement the potential threats to the security of the United Kingdom which our defence policy is designed to avert. Events in Afghanistan warn us that these threats are real, not imaginary. The decade ahead will be a testing one for the Western democracies in many ways and we must lay stable foundations for the defence of the nation through those years. On all these grounds, we believe that the case for the priority we have proposed giving to defence has been demonstrated.

CONFIDENTIAL

STRENGTH OF THE FLEET

Table 1. Ships of the Royal Navy

Ships at Serials 1 to 10 and three of the coastal minehunters at serial 11 are assigned to NATO. The remaining ships are under national control though available for the support of NATO operations.

Serial	Type/Class	No	Operational, preparing for service or engaged in trials or training	No	Undergoing long refit or conversion, on standby etc.
1	Submarines				
	Polaris	3	<u>Repulse</u> , <u>Resolution</u> , <u>Revenge</u>	1	<u>Renown</u>
	Fleet	10	<u>Churchill</u> , <u>Conqueror</u> , <u>Courageous</u> , <u>Dreadnought</u> , <u>Sceptre</u> , <u>Sovereign</u> , <u>Spartan</u> , <u>Splendid</u> *, <u>Superb</u> , <u>Valiant</u>	2	<u>Swiftsure</u> , <u>Warspite</u>
	Oberon Class	9	<u>Ocelot</u> , <u>Odin</u> , <u>Olympus</u> , <u>Onslaught</u> , <u>Onyx</u> , <u>Opportune</u> , <u>Osiris</u> , <u>Otter</u> , <u>Otus</u>	4	<u>Oberon</u> , <u>Opossum</u> , <u>Oracle</u> , <u>Orpheus</u>
	Porpoise Class	2	<u>Porpoise</u> , <u>Sealion</u>	1	<u>Walrus</u>
2	ASW Carrier	1	<u>Invincible</u> *		
3	ASW/Commando Carriers	2	<u>Bulwark</u> , <u>Hermes</u>		
4	Assault Ships	1	<u>Intrepid</u>	1	<u>Fearless</u>
5	Helicopter Cruisers			1	<u>Blake</u>
6	Guided-Missile Destroyers				
	County Class	3	<u>Antrim</u> , <u>London</u> , <u>Norfolk</u>	3	<u>Fife</u> , <u>Glamorgan</u> , <u>Kent</u>
	Type 82	1	<u>Bristol</u>		
	Type 42	8	<u>Birmingham</u> , <u>Cardiff</u> , <u>Coventry</u> , <u>Exeter</u> *, <u>Glasgow</u> , <u>Newcastle</u> , <u>Sheffield</u>		

Serial	Type/Class	No	Operational, preparing for service or engaged in trials or training	No	Undergoing long refit or conversion or on standby
7	General Purpose Frigates				
	Leander	21	<u>Achilles</u> , <u>Ajax</u> , <u>Apollo</u> , <u>Arethusa</u> , <u>Argonaut</u> , <u>Ariadne</u> , <u>Aurora</u> , <u>Bacchante</u> , <u>Cleopatra</u> , <u>Danae</u> , <u>Dido</u> , <u>Diomede</u> , <u>Euryalus</u> , <u>Galatea</u> , <u>Juno</u> , <u>Leander</u> , <u>Minerva</u> , <u>Naiad</u> , <u>Phoebe</u> , <u>Scylla</u> , <u>Sirius</u>	5	<u>Andromeda</u> , <u>Charybdis</u> , <u>Hermione</u> , <u>Jupiter</u> , <u>Penelope</u>
	Tribal Class	2	<u>Ashanti</u> , <u>Eskimo</u>	5	<u>Gurkha</u> , <u>Nubian</u> , <u>Tarapur</u> , <u>Zulu</u>
	Rothesay Class	5	<u>Berwick</u> , <u>Brighton</u> , <u>Falmouth</u> , <u>Lowestoft</u> , <u>Rhyl</u>	3	<u>Plymouth</u> , <u>Rothesay</u> , <u>Yarmouth</u>
	Type 21	8	<u>Active</u> , <u>Alacrity</u> , <u>Amazon</u> , <u>Ambuscade</u> , <u>Antelope</u> , <u>Ardent</u> , <u>Arrow</u> , <u>Avenger</u>		
	Type 22	2	<u>Battleaxe</u> , <u>Broadsword</u>		
8	Anti-Aircraft Frigates				
	Type 41			1	<u>Lynx</u>
	Type 61			1	<u>Lincoln</u>
9	Anti-Submarine Frigates				
	Type 12	1	<u>Torquay</u>		
10	Offshore Patrol Vessels	7	<u>Alderney</u> , <u>Anglesey</u> , <u>Guernsey</u> , <u>Jersey</u> , <u>Lindisfarne</u> , <u>Orkney</u> , <u>Shetland</u>		
11	MCMVs				
	Coastal Minesweepers/ Minehunters				
	Ton Class	29	<u>Alfriston</u> , <u>Bickington</u> , <u>Bildeston</u> , <u>Bossington</u> , <u>Brereton</u> , <u>Brinton</u>	2	<u>Kedleston</u> , <u>Walkerton</u>

Type/Class	No	Operational, preparing for service or engaged in trials or training	No	Undergoing long refit or conversion, on standby etc.
		<u>Bronington, Crichton, Crofton, Cuxton, Gavington, Glasserton, Hodgston, Hubberston, Iveston, Kellington, Kirkliston, Laleston, Lewiston, Maxton, Nurton, Pollington, Shavington, Sheraton, Soberton, Stubbington, Upton, Wilton, Wotton</u>		
Hunt Class	2	<u>Brecon</u>		
Inshore Minesweepers	5	<u>Aveley</u> , <u>Dittisham</u> , <u>Flinthant</u> , <u>Isis</u> , <u>Thornham</u>		
Patrol Craft				
Fast Patrol Boats/Patrol Craft	7	<u>Alert, Cygnet, Kingfisher, Pederal, Sandpiper, Tenacity, Vigilant</u>		
Coastal Patrol Craft	5	<u>Beachampton, Monkton, Wasperton, Wolverton, Yarnton</u>		
Seaward Defence Boats	2	<u>Dee +, Droxford +</u>		
Support Ships				
Fleet Maintenance Ship			1	<u>Triumph</u>
Submarine Tender	1	<u>Wakeful</u>		
MCM Support Ship	1	<u>Abdiel</u>		
Royal Yacht/Hospital Ship	1	<u>Britannia</u>		
Training Ships				
Trials Ship	1	<u>Londonderry+</u>		
Fast Target	3	<u>Cutlass, Sabre, Scimitar</u>		

Serial	Type/Class	No	Operational, preparing for service or engaged in trials or training	No	Undergoing long refit or conversion or on standby
16	Ice Patrol Ship	1	<u>Endurance</u>		
17	Survey Ships	13	<u>Beagle, Bulldog, Echo, Egeria, Enterprise, Fawn, Fox, Hecate, Hecla, Herald, Hydra, Waterwitch, Woodlark</u>		
18	Jetfoil	1	<u>Speedy+</u>		

NOTES:

(i) This table includes ships due for completion or disposal during the course of 1980/81 and the numbers of each type are not therefore an accurate indication of the ships available at any one time.

(ii) Ships marked * will be under construction on 1 April 1980 and are planned to enter service during 1980/81.

(iii) Ships marked + are engaged wholly or partially on trials or training.

(iv) Ships approved during 1979/80 for disposal: Devonshire, Reclaim, Repton, Salisbury, Shoulton, Tiger.

(v) No ships have been disposed of by sale during 1979/80.

Table 2. Ships of the Royal Fleet Auxiliary Service 1980/81

Type	No	Operational, preparing for service or engaged on trials	No	Refit
Fleet Tankers, Large	5	<u>Olna</u> , <u>Olwen</u> , <u>Olmeda</u> , <u>Tidespring</u> , <u>Tidepool</u>		
Fleet Tankers, Small	4	<u>Black Rover</u> , <u>Blue Rover</u> , <u>Green Rover</u> , <u>Grey Rover</u>	1	<u>Gold Rover</u>
Support Tankers	3	<u>Appleleaf</u> , <u>Brambleleaf</u> , <u>Pearleaf</u>	1	<u>Plumleaf</u>
Coastal Tankers			1	<u>Eddyfirth</u>
Fleet Replenishment Ships	3	<u>Fort Austin</u> , <u>Regent</u> , <u>Resource</u>	1	<u>Fort Grange</u>
Armament Support Ships	1	<u>Resurgent</u>		
Stores Support Ships	2	<u>Lyness</u> , <u>Stromness</u>		
Store Carriers	1	<u>Bacchus</u>		
Helicopter Support Ship	1	<u>Engadine</u>		
Landing Ships Logistic	5	<u>Sir Bedivere</u> , <u>Sir Galahad</u> , <u>Sir Geraint</u> , <u>Sir Lancelot</u> , <u>Sir Tristram</u>	1	<u>Sir Percivale</u>

RFAs approved for disposal during 1979-80:

Cherryleaf - off charter

Resurgent - disposal by sale

[Tarbatness - disposal by sale]

Table 3. Naval Aircraft

Type	Role	Deployment	No. of Sqns	No. of Flts
FIXED WING				
Sea Harrier	FRS	HMS <u>Hermes</u>	1	
Sea Harrier	Aircrew Training	RNAS Yeovilton	1	
HELICOPTERS				
Sea King Mk 2	ASW	HMS <u>Hermes</u>	1	
Sea King Mk 2	ASW	HMS <u>Bulwark</u>	1	
Sea King Mk 2	ASW	HMS <u>Invincible</u>	1	
Sea King Mk 2 (i)	ASW	RFAs	1	
Sea King Mk 2	ASW	HMS <u>Gannet</u> (Prestwick)	1	
Sea King Mk 2 (ii)	Aircrew Training	RNAS Culdrose	1	
Lynx Mk 2	ASW	Leander Class and Type 21 and Type 22 frigates and Type 42 destroyers		18
Lynx Mk 2	Aircrew Training	RNAS Yeovilton	1	
Wasp	ASW	Leander, Rothesay and Tribal Class and Type 21 frigates		25
Wasp (ii)	Aircrew Training	RNAS Portland	1	
Wessex Mk 3	ASW	County Class destroyers		3
Wessex Mk 3	Aircrew Training	RNAS Portland	$\frac{1}{2}$	
Wessex Mk 3 (ii)	Aircrew Training	RNAS Portland	$\frac{1}{2}$	
Wessex Mk 5 (iii)	Commando Assault	RNAS Yeovilton	2	
Wessex Mk 5 (ii)	Aircrew Training	RNAS Yeovilton	1	
Wessex Mk 5 (ii)	Aircrew/SAR Training	RNAS Culdrose	1	
Wessex Mk 5 (ii)	Fleet requirements	RNAS Portland	1	
Sea King Mk 4 (iii)	Commando Assault	RNAS Yeovilton		1

NOTES:

- (i) Aircraft of this squadron will be deployed in single and multi flights as required.
- (ii) All aircraft are assigned to NATO accept those marked (ii) which are earmarked to NATO.
- (iii) Available to embark in HMS Hermes or HMS Bulwark as required.

Abbreviations

- ASW - Anti-submarine warfare
- FRS - Fighter, reconnaissance and strike aircraft
- RFA - Royal Fleet Auxiliary
- RNAS - Royal Naval Air Station

Table 4. Royal Marines Commando Forces

Serial	Type	No.
1	Headquarters Brigade Headquarters RM	1
2	Commando Units RM Commandos	4
3	Artillery Commando Regiment RA	1
4	Engineers Commando Squadron RE Commando Squadron RE (Volunteer) ...	1 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 Squadron RMR	1 1

ANNEX B

STRENGTH OF THE ARMY

Major Combat Headquarters and Combat Arm Numbers(i)

	Regular Army				TA
	BAOR	Berlin	UK	Elsewhere	UK
<u>Headquarters</u>					
Corps Headquarters	1				
Secured Divisional Headquarters	4				
Artillery Divisional Headquarters	1				
Field Force Headquarters	1	1	3	1	
<u>Infantry</u>					
Secured Regiments	8		2		
Secured Reconnaissance Regiments	5		4		2
<u>Artillery (ii)</u>					
Field Regiments (Incl one Commando Regt)	9		5		2
Heavy Regiments	1				
Assault Regiments	1				
Light Weapon Regiments			1		
Anti-Tank Regiments (iii)	1				
Defence Regiments	2		1		3
Training Regiments	1				
<u>Engineers</u>					
Secured Division Engineer Regiments	4				
Secured Engineer Regiments	1				
Light Engineer Regiments			4		7
Amphibious Engineer Regiments	1				
<u>Armoured</u>					
Armoured Regiments	15	3	30(iv)	3	38(v)

	Regular Army			
	BAOR	Berlin	UK	Elsewhere
Gurkha Battalions			1	4
<u>Special Air Service</u> Regiments			1	
<u>Army Air Corps (vi)</u> Regiments	5		1	
<u>Honourable Artillery Company</u> Regiments				

NOTES:

(i) Normal deployment locations as at 1 April 1980 are shown; no account is taken of temporary or emergency deployments.

(ii) Artillery unit equipments consist of:

Field Regiments - depending on role, varying combinations of 105mm Light and Self-propelled (SP) guns, 155mm guns, and 8 inch SP Howitzers.

Heavy Regiments - 175mm SP guns.

Missile Regiments - Lance.

Guided Weapon Regiments - Swingfire and Blowpipe.

Anti-Tank Regiments - Swingfire.

Air Defence Regiments - Rapier and Blowpipe.

(iii) The Anti-Tank Regiment consists of four independent anti-tank batteries, one allotted to each Armoured Division.

(iv) Includes Composite Infantry Demonstration Battalion.

(v) Includes three Yeomanry regiments in the Infantry role.

(vi) Aircraft types are:

Beaver
Alouette
Scout
Lynx
Gazelle.

ANNEX C

STRENGTH OF THE ROYAL AIR FORCE

Front Line Units (i)

Role	Aircraft or Equipment	UK	RAFPG
Strike/Attack	Vulcan B2	9 Squadron	
		35 Squadron	
		44 Squadron	
		50 Squadron	
		101 Squadron	
	617 Squadron		
	Buccaneer	12 Squadron	15 Squadron
		208 Squadron	16 Squadron
		216 Squadron	
	Jaguar		14 Squadron
		17 Squadron	
		31 Squadron	
		20 Squadron	
Ground Support	Harrier	1 Squadron	3 Squadron
			4 Squadron
	Jaguar	54 Squadron	
		6 Squadron	
Maritime Patrol	Nimrod	120 Squadron	
		206 Squadron	
		201 Squadron	
		42 Squadron	

4	Reconnaissance	Canberra PR9 Canberra PR7 Vulcan SR2 Jaguar	39 Squadron 13 Squadron 27 Squadron 41 Squadron	2 Squadron
5	Air Defence	Lightning Phantom FGR Phantom FGL Bloodhound Rapier	5 Squadron (ii) 11 Squadron (ii) 43 Squadron 29 Squadron 56 Squadron (ii) 111 Squadron (ii) 23 Squadron (ii) 85 Squadron (ii) 27 Squadron RAF Regiment(ii) 48 Squadron RAF Regiment(ii)	19 Squadron (ii) 92 Squadron (ii) 25 Squadron (ii) 37 Squadron RAF Regiment(ii) 16 Squadron RAF Regiment(ii) 26 Squadron RAF Regiment(ii) 63 Squadron RAF Regiment(ii)
6	Airborne Early Warning	Shackleton	8 Squadron	
7	Air Transport	VC10 Hercules Wessex Helicopters Puma Helicopters	10 Squadron 24 Squadron 30 Squadron 47 Squadron 70 Squadron 72 Squadron 33 Squadron 230 Squadron	18 Squadron
8	Tanker	Victor K2	55 Squadron 57 Squadron	
9	Search & Rescue	Sea King Helicopters Whirlwind/ Wessex Helicopters	202 Squadron 22 Squadron	
10	Ground Defence	RAF Regiment	2 Squadron RAF Regiment 58 Squadron RAF Regiment 15 Squadron RAF Regiment 51 Squadron RAF Regiment	1 Squadron RAF Regiment

Royal Auxiliary Air Force Regiment	2623 (East Anglian) Squadron R Aux AF Regiment 2622 (Highland) Squadron R Aux AF Regiment 2503 (County of Lincoln) Squadron R Aux AF Regiment	
--	--	--

Notes

(i) Normal deployment locations as at 1 Jan 1980 are shown; no account has been taken of temporary or emergency redeployments. All front-line aircraft, together with certain training aircraft, are assigned to NATO or available in support of NATO operations.

(ii) Squadrons marked (ii) are part of NATO's Command Forces.

(iii) Additional deployments (outside NATO) are: one squadron of Chinook helicopters and one RAF Regiment Squadron in Cyprus; one squadron of Wessex helicopters in Hong Kong; and a detachment of 4 Harriers, 4 Puma helicopters and a Rapier air defence unit in Belize.

ACCIDENTS INVOLVING LOSS OR SERIOUS DAMAGE TO AIRCRAFT
OF THE THREE SERVICES - 1 JANUARY 1979 TO 1 JANUARY 1980.

Date	Aircraft	Parent Service	Service Casualties		Civilian Casualties	
			Killed	Serious Injury	Killed	Serious Injury
3 Feb	Wasp	RN				
6 Feb	Gazelle	ARMY				
8 Feb	Scout	ARMY				
12 Feb	Gazelle	ARMY				
28 Feb	Phantom	RAF		1		
6 Mar	Wessex	RN	3			
14 Mar	Hunter	RAF				
25 Mar	Jaguar	RAF		1		
28 Mar	Jet Provost	RAF				
19 Apr	Wessex	RAF				
12 May	Gnat	RAF		1		
25 May	Gazelle	ARMY				
23 May	Lightning	RAF		1		
6 Jun	Harrier	RAF		1		
7 Jun	Beaver	ARMY				
12 Jun	Harrier	RAF				
22 Jun	Jaguar	RAF	2			
3 Jul	Jet Provost	RAF	1			
3 Jul	Hunter	RAF				
6 Jul	Lynx	ARMY	2			
6 Jul	Hunter	RAF				
12 Jul	Buccaneer	RAF	2			
16 Jul	Jaguar	RAF		1		
18 Jul	Harrier	RAF	1			
6 Aug	Gazelle	ARMY				

Date	Aircraft	Parent Service	Service Casualties		Civilian Casualties	
			Killed	Serious Injury	Killed	Serious Injury
17 Aug	Lightning	RAF				
24 Aug	Gazelle	ARMY	2	1		
1 Sep	Gazelle	ARMY				
18 Sep	Lightning	RAF		1		
21 Sep	Harriers (2)	RAF			3	
4 Oct	Harrier	RAF		1		
9 Oct	Sea King	RN				
1 Nov	Scout	ARMY				
8 Nov	Harrier	RAF				
16 Nov	Bulldog	RAF				
23 Nov	Jaguar	RAF	1			
28 Nov	Harrier	RAF				
10 Dec	Jaguar (2)	RAF	1	1		
27 Dec	Puma	RAF	3			

DEFENCE EXPENDITURE WITH INDUSTRY

UK-based MOD contractors paid £5 million or more by
MOD for equipment, 1978/79

Over £100 million

British Aerospace Aircraft Group
British Aerospace Dynamics Group
British Shipbuilders
General Electric Co Ltd
Rolls-Royce Ltd
Royal Ordnance Factories

£50-£100 million

British Leyland Ltd
Ferranti Ltd
The Plessey Co Ltd
Westland Aircraft Ltd

£25-£50 million

Dowty Group Ltd
EMI Ltd
Hunting Associated Industries Ltd
Lucas Industries Ltd
Racal Electronics Ltd
Sperry Rand Ltd

£10-£25 million

British Electric Traction Co Ltd
Marshall of Cambridge (Engineering) Ltd
Philips Electrical & Associated Industries Ltd
Pilkington Bros Ltd
Short Bros Ltd
Smiths Industries Ltd
UK Atomic Energy Authority
Vickers Ltd

£5-£10 million

British & Commonwealth Shipping Co Ltd

Chloride Group Ltd
Clarke Chapman Ltd
Courtaulds Ltd
Decca Ltd
Dunlop Holdings Ltd
Fodens Ltd
Gresham Lion Ltd
Guest Keen & Nettlefolds Ltd

Hawker Siddeley Group Ltd
Imperial Group Ltd
Mullard Ltd
Rank Organisation Ltd
Rolls-Royce Motor Holdings Ltd
Standard Telephones & Cables Ltd
The Singer Co (UK) Ltd
Thorn Electrical Industries Ltd
Vauxhall Motors Ltd
Weir Group Ltd



NATO
Aligned
Countries



Warsaw Pact
Aligned
Countries



Others

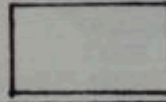
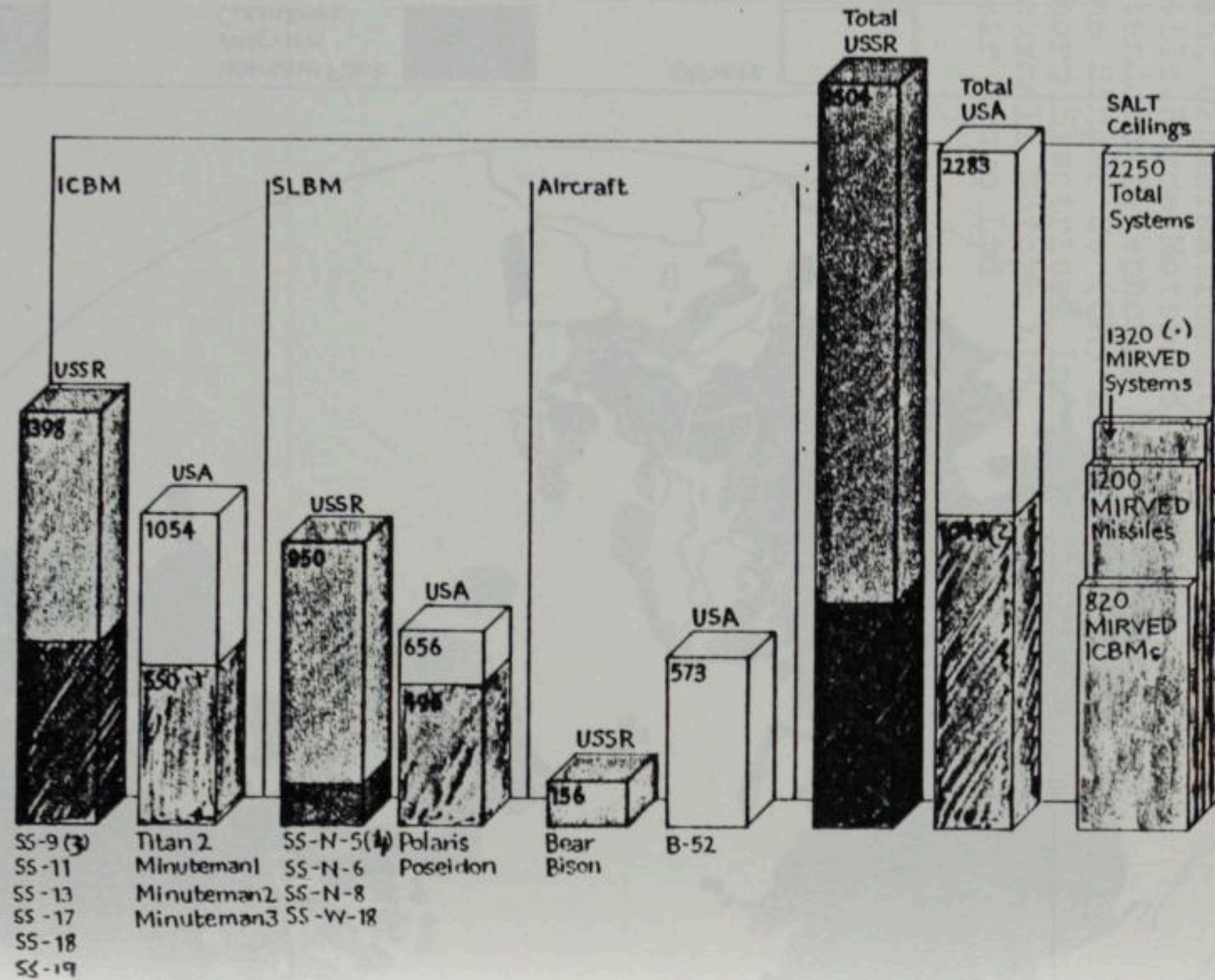


Figure 2. The Strategic Nuclear Balance



- Notes
- (1) Includes heavy bombers equipped for cruise missiles capable of a range in excess of 600 kilometres.
 - (2) Includes 3 heavy bombers equipped for cruise missiles capable of a range in excess of 600 kilometres.
 - (3) May have been fully deactivated by end-1979.
 - (4) Includes SS-N-18 on strategic submarines only - total class submarines.

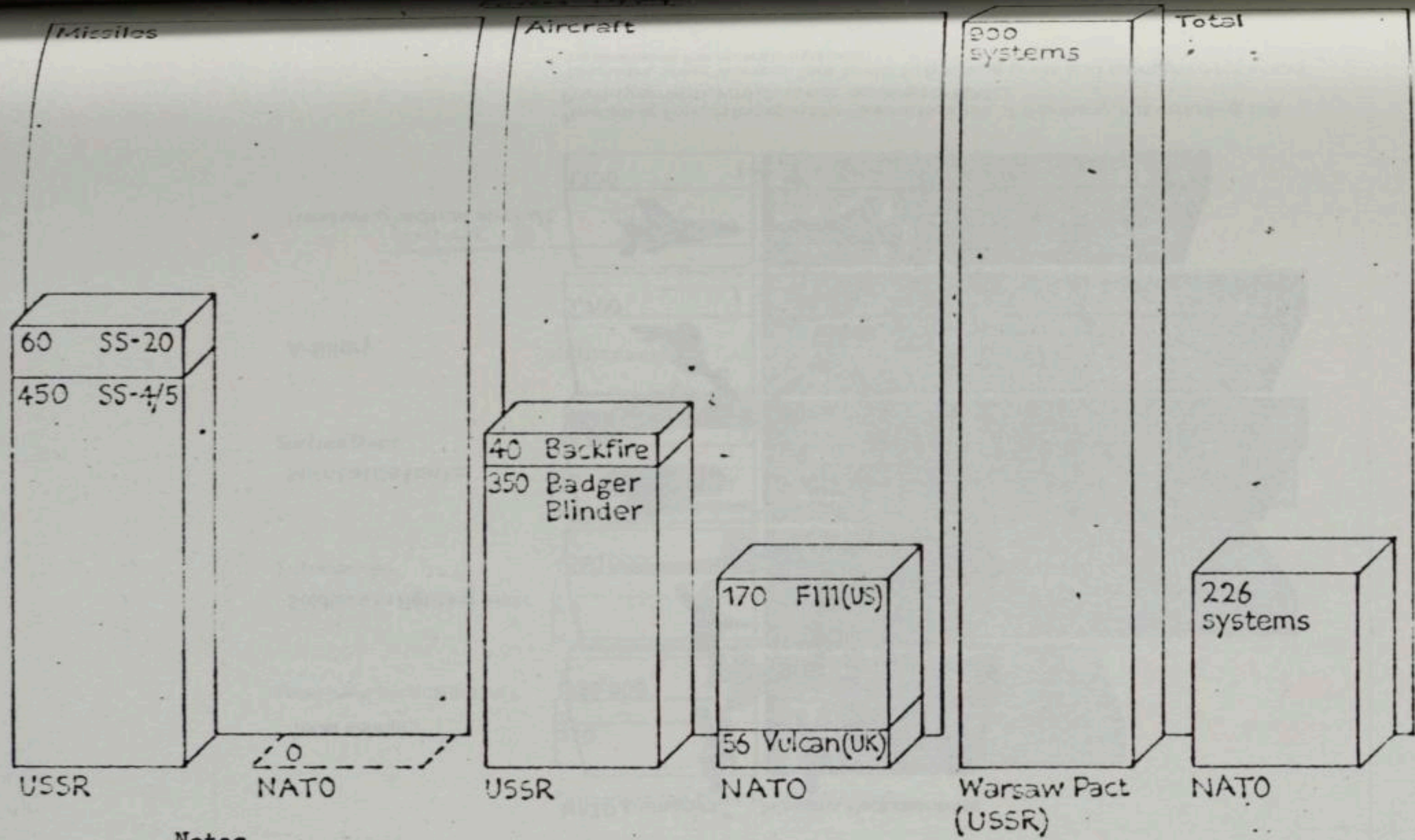
CONFIDENTIAL

CONFIDENTIAL

Missiles	Aircraft	900 systems	Total
----------	----------	-------------	-------

Notes (1) Includes heavy bombers equipped for cruise missiles (category 1)
 (2) Includes 3 heavy bombers equipped for cruise missiles (category 1)
 (3) May have been fully deactivated by end-1979
 (4) Excludes strategic systems which are held on class submarines

CONFIDENTIAL

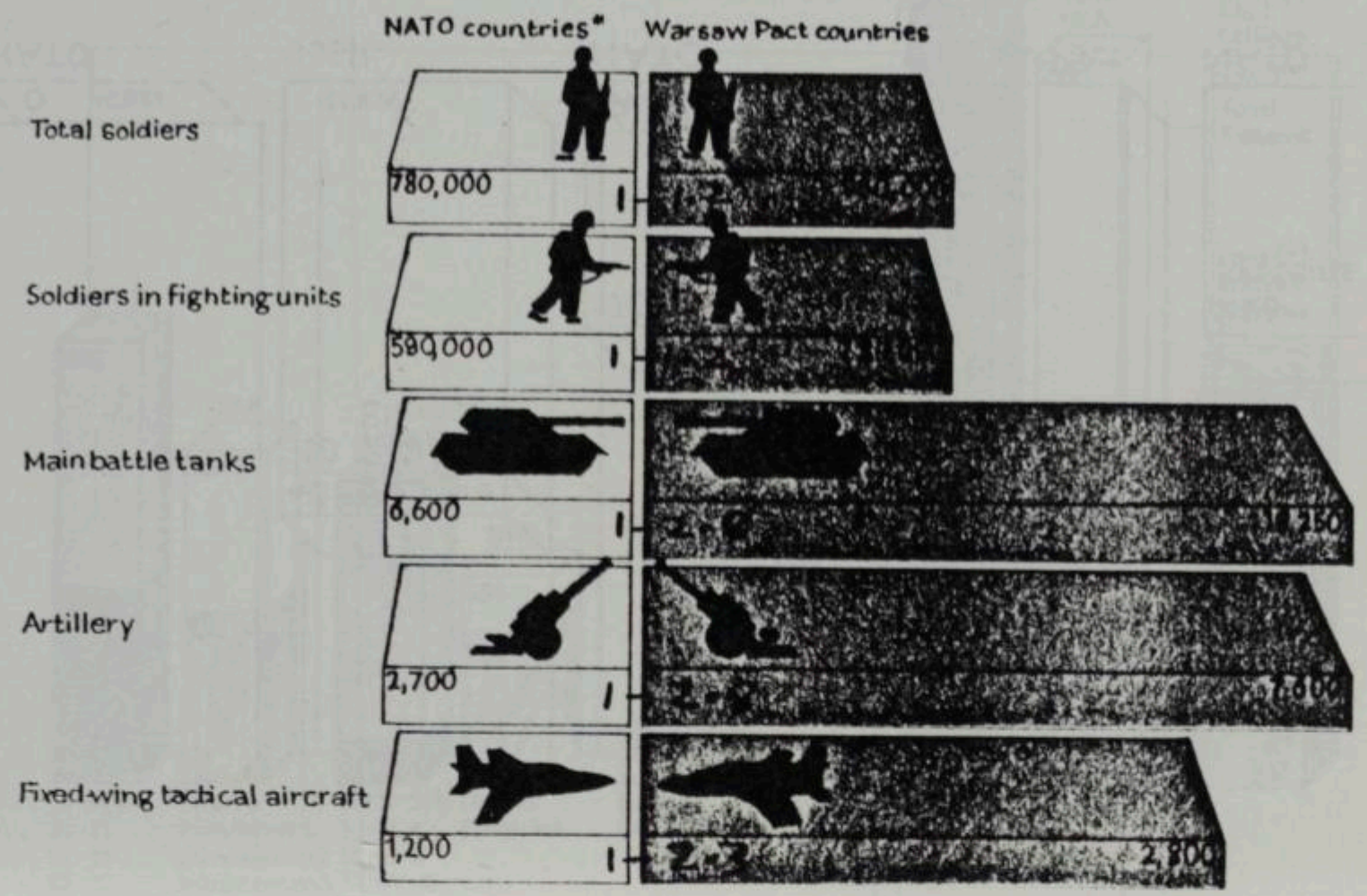


CONFIDENTIAL

Notes

- (1) The balance excludes all central strategic nuclear systems of the type covered by SALT II.
- (2) The balance includes all Soviet land-based theatre systems which can be unambiguously reach targets in Western Europe from their normal bases in the Soviet Union.
- (3) The balance includes all NATO land-based theatre systems which can unambiguously reach targets in the Soviet Union from their normal bases in Europe.
- (4) The balance excludes 250 Badger, Blinder and Backfire of the Soviet Naval Air Force which could be used against land targets from their normal bases in the Soviet Union, and 24 A-6 aircraft with US 6th fleet which have a marginal land attack capability against the Soviet Union.
- (5) The balance excludes French nuclear forces which are not part of NATO's integrated military structure.

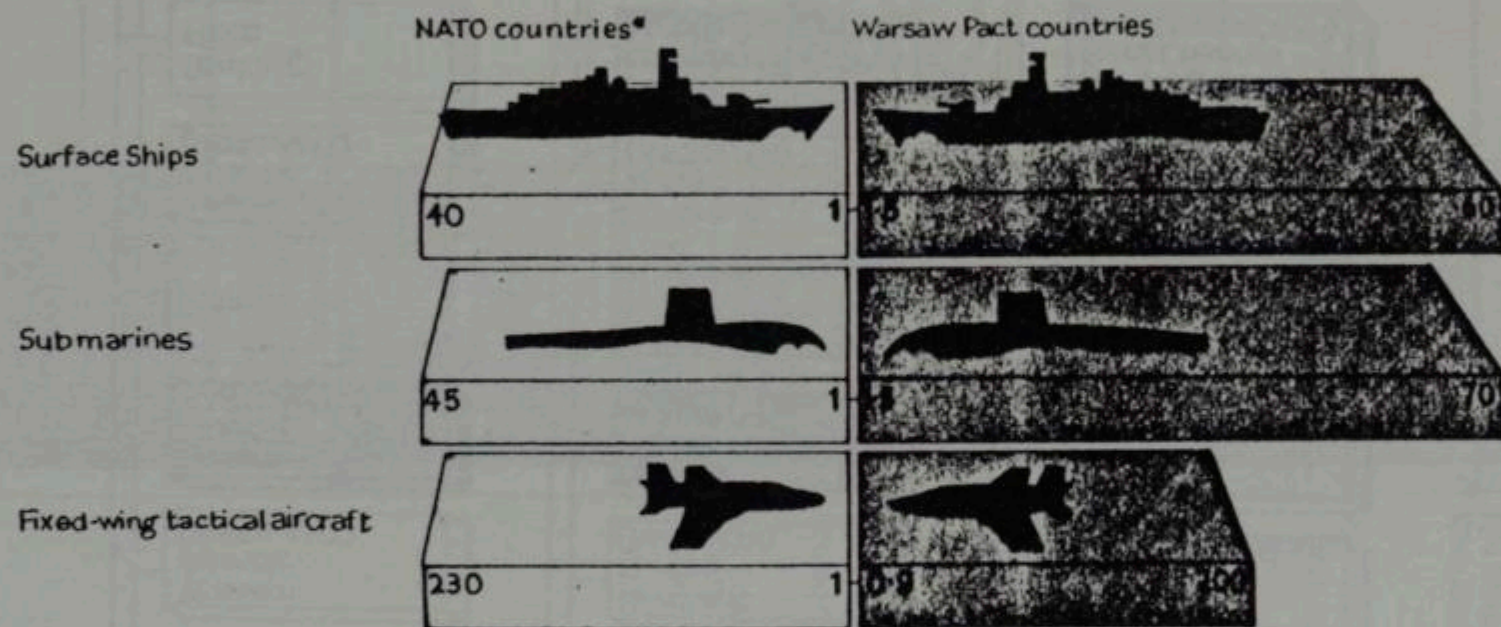
Figure 4, The Current Balance of Forces in Central Europe



*Including French forces in the Federal Republic of Germany, but excluding the Berlin garrison, which is not declared to NATO.
 † Includes some Warsaw Pact tanks in training units and storage which would be available for operational use.

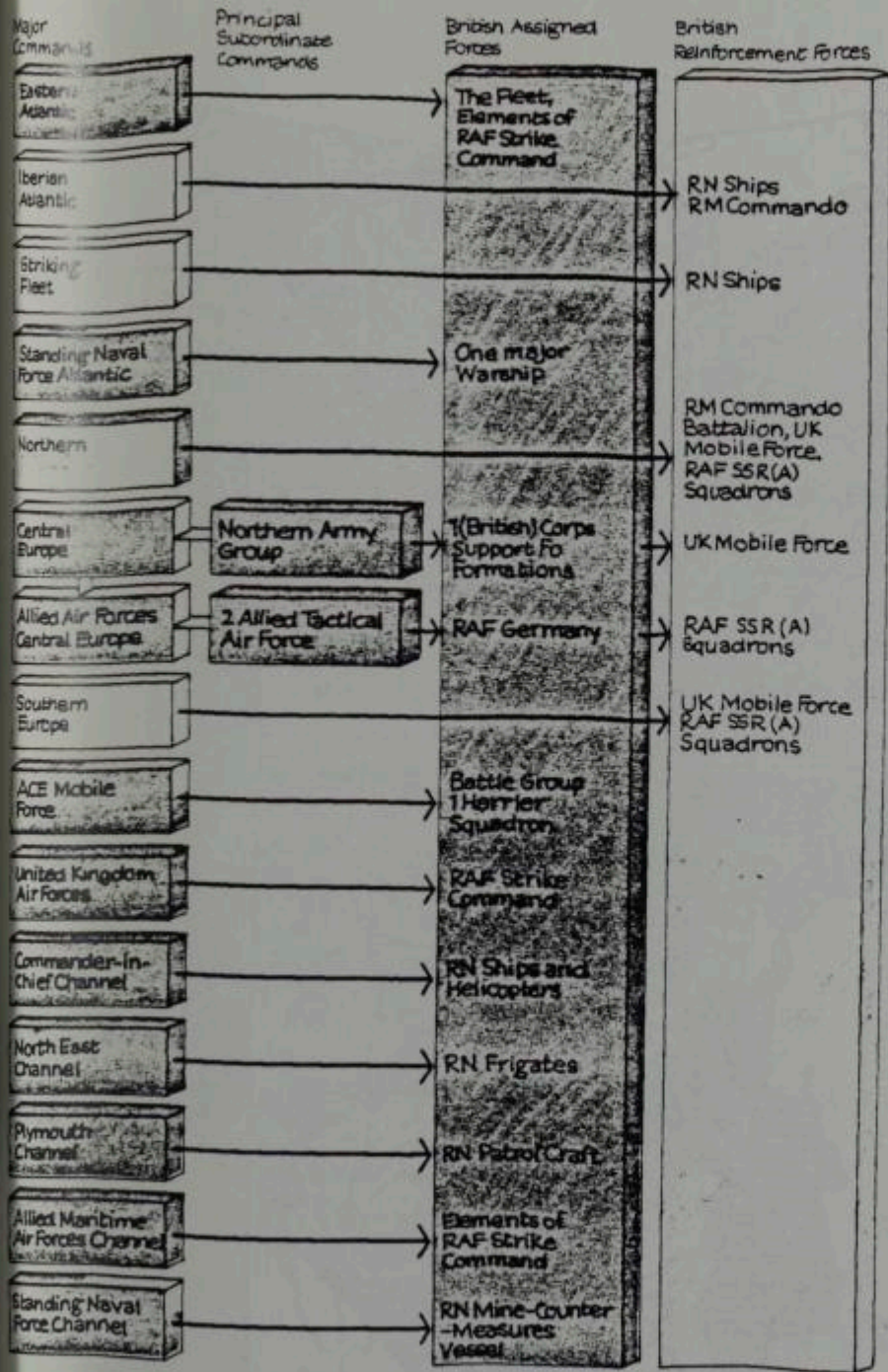
be available for operational use

Figure 5. The Current Balance of Forces in the Eastern Atlantic



*Including the French Atlantic Fleet

Figure 7. The British Contribution to NATO Commands



- Notes
1. The UK Mobile Force and the RAF squadrons that form part of SACEUR's Strategic Reserve Air - SSR(A) - could be deployed to any of the areas shown.
 2. This figure is not fully comprehensive. It does not include all units or all deployment options. The RAF Air Transport Force, for example, would be assigned to SACEUR.

Draft - not yet corrected.

Figure 8. NATO Command Areas.

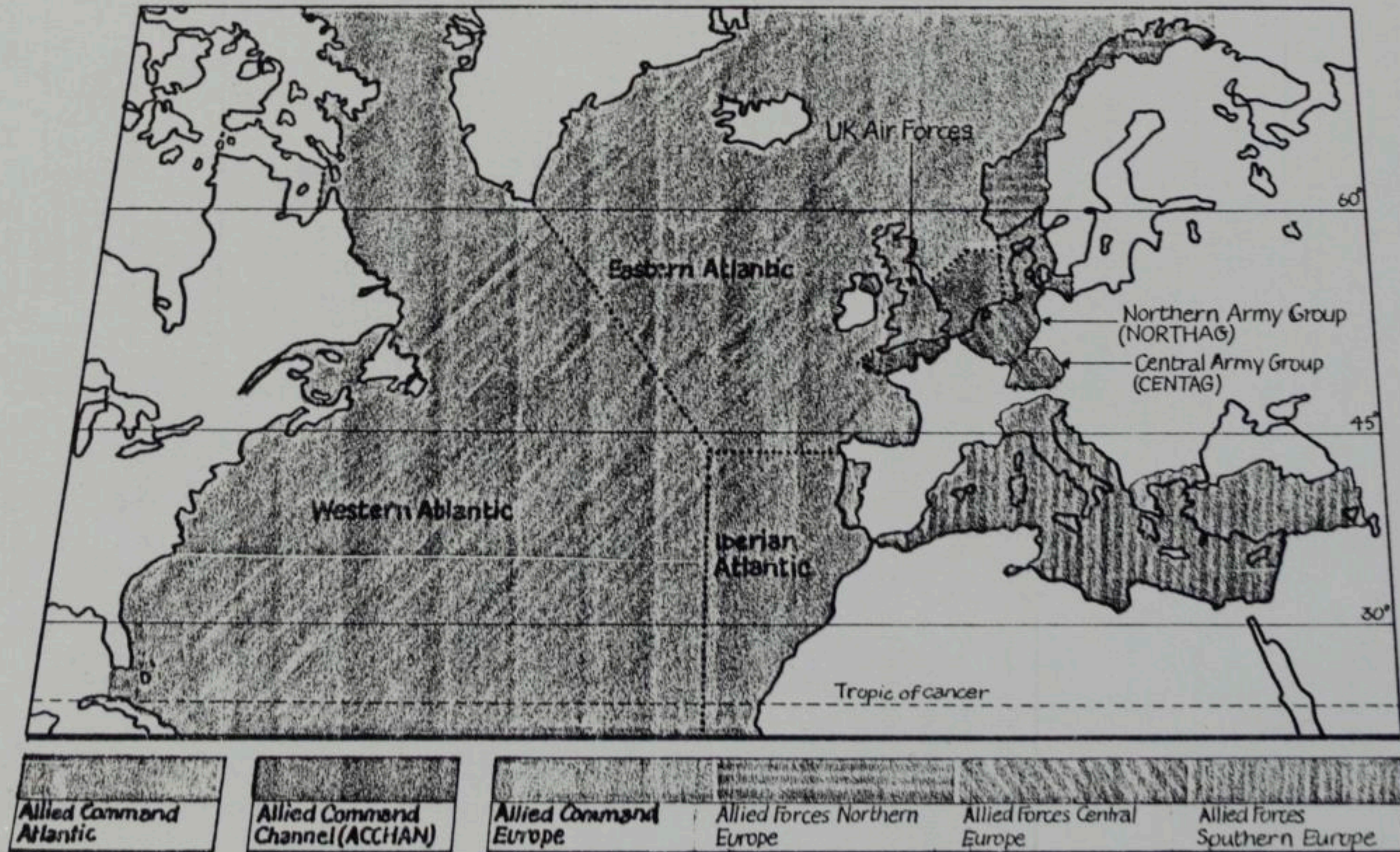
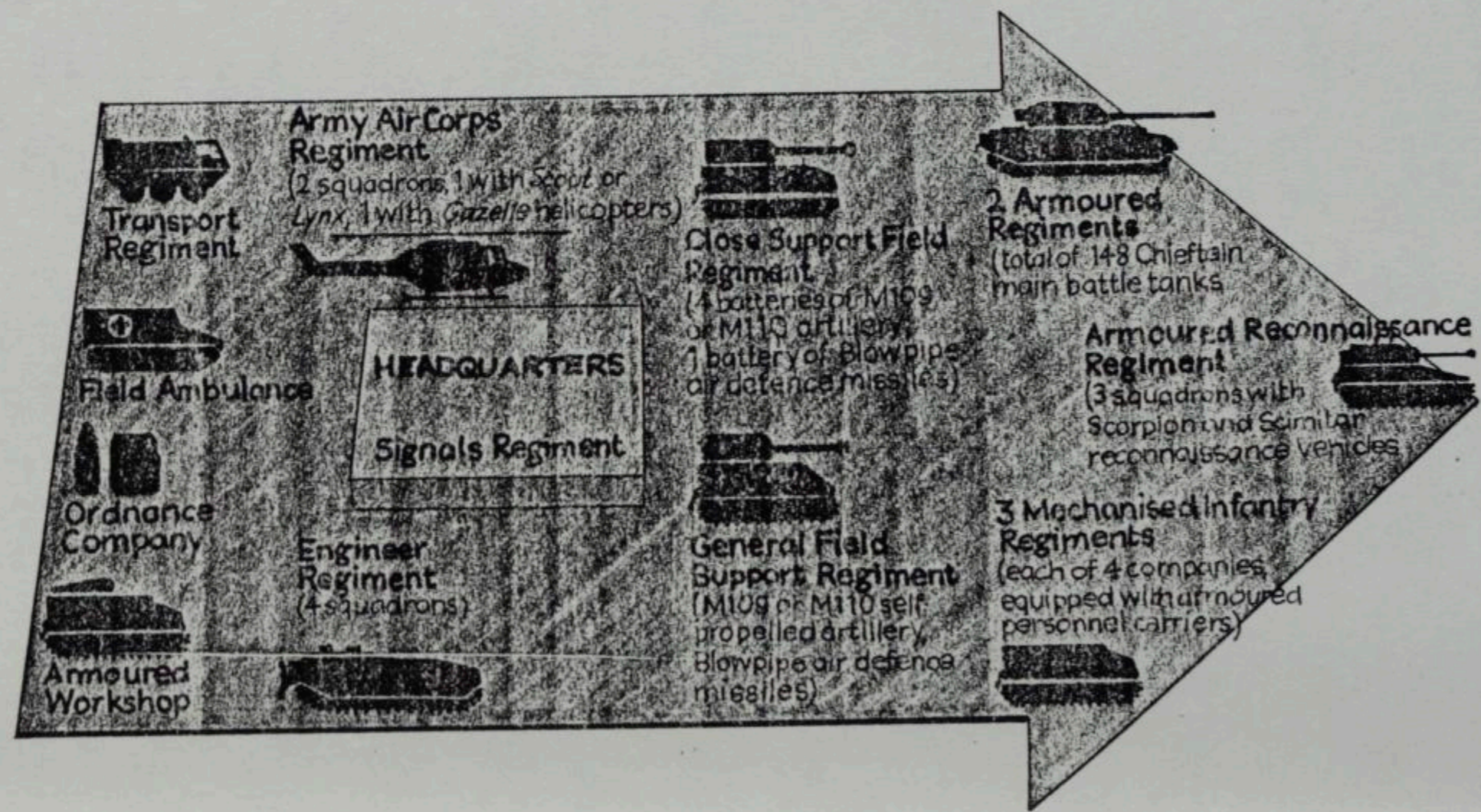


Figure 9. Elements of a BAOR Armoured Division

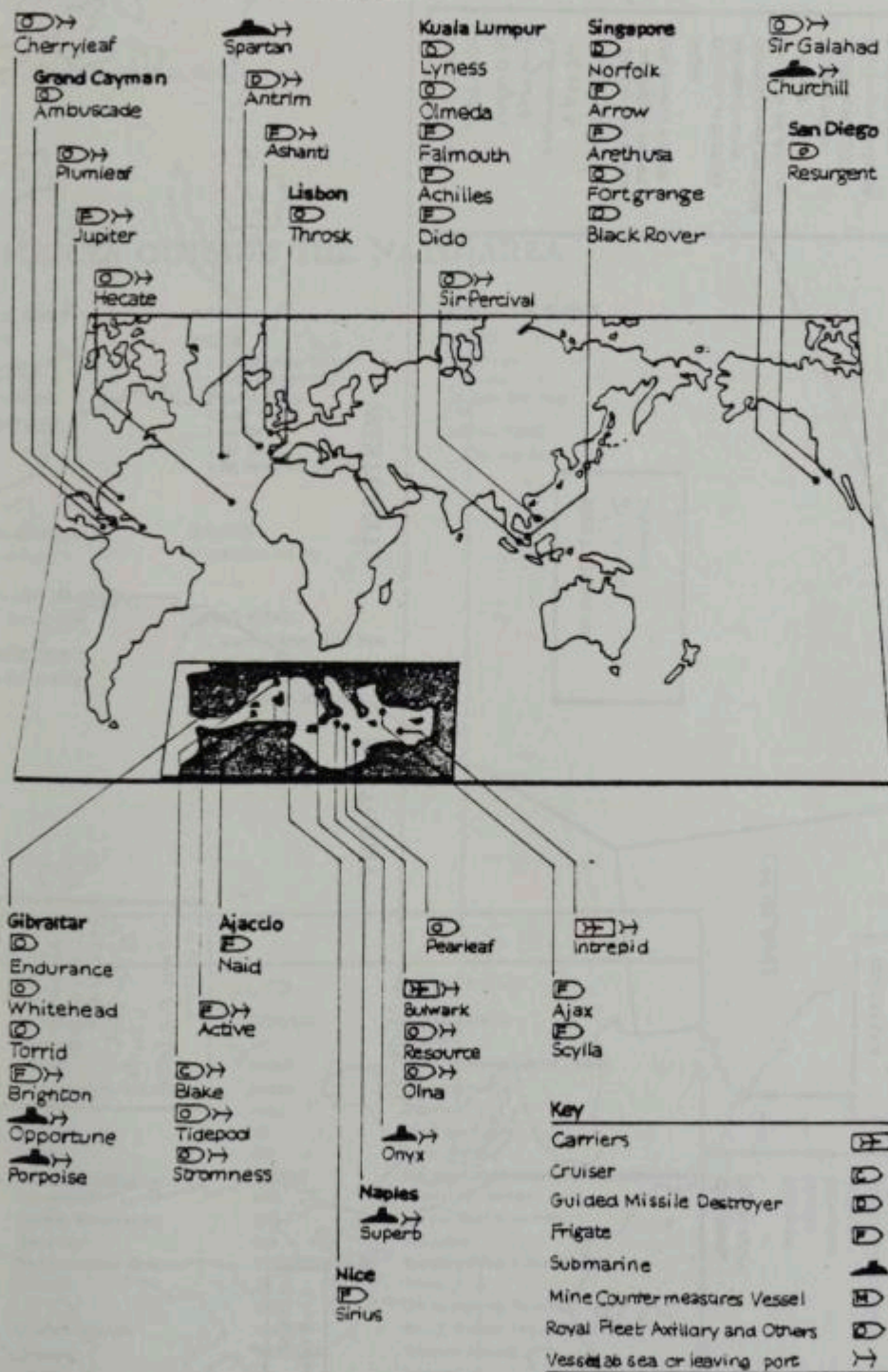


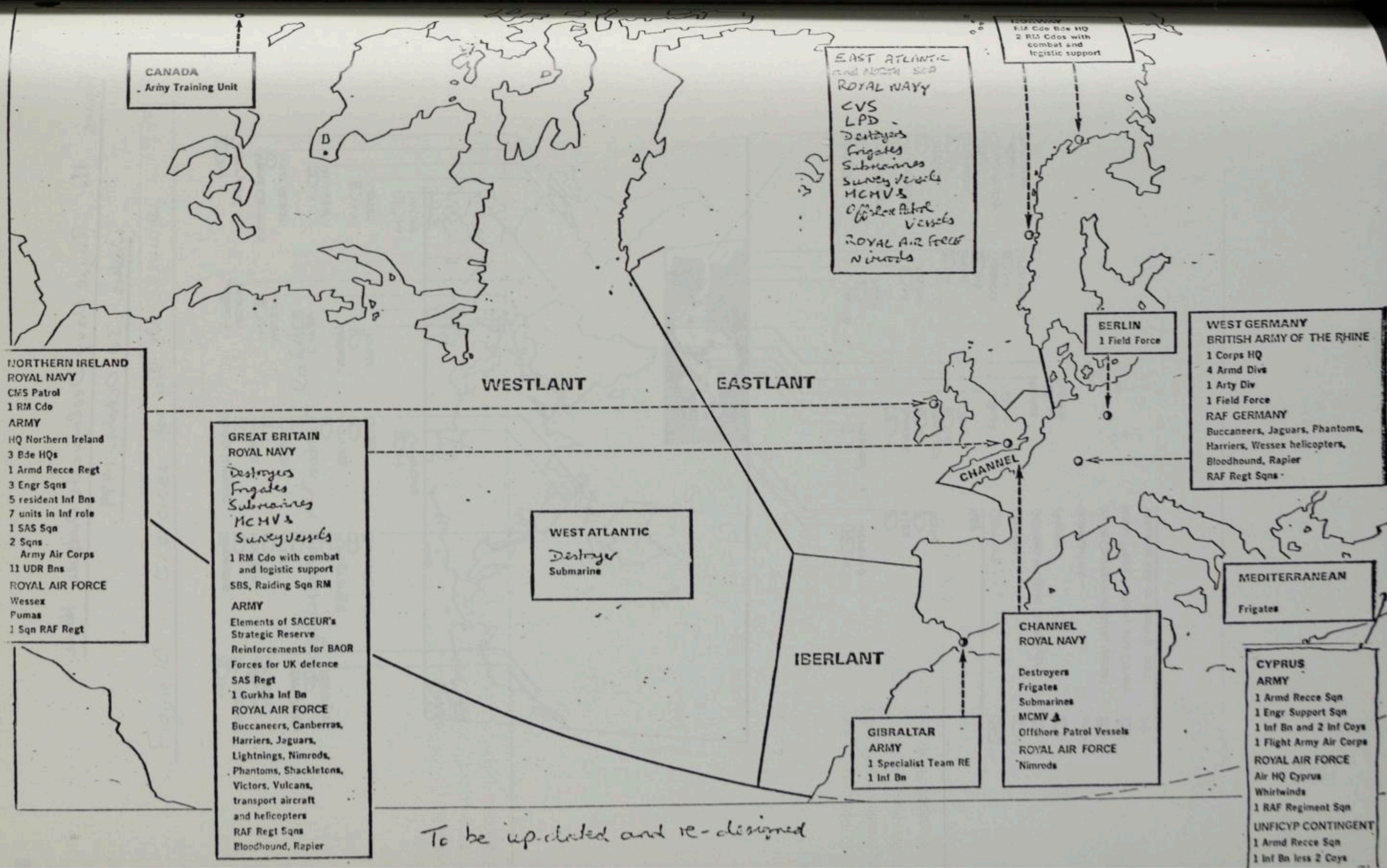
Draft - not yet corrected.

Figure 10 - Exercises for all the Services - 1979.

Diagram not yet available.

Figure 11. Royal Navy Deployments Outside Home Waters, 30 October 1979.





To be up-dated and re-designed

Figure 12 (continued).

FORCES OUTSIDE THE NATO AREA

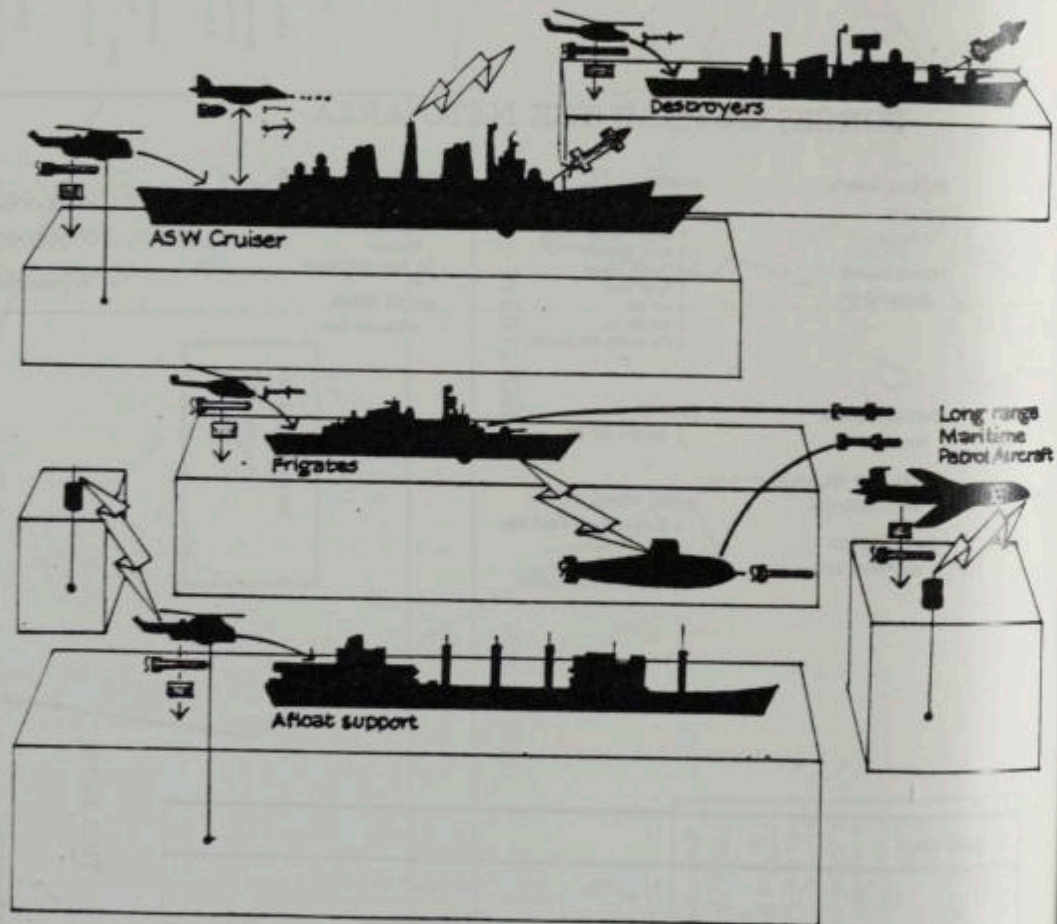
ROYAL NAVY	ARMY	ROYAL AIR FORCE
BELIZE	BELIZE	BELIZE
Frigate	1 Armd Recce Troop	Harriers
HONG KONG	1 Arty Battery	Pumas
Patrol Craft	1 Lt AD Troop	1/2 Sqn RAF Regt
	1 Engr Sqn	HONG KONG
	1 Inf Bn	1 Wessex Sqn
	1 Inf Bn (-)	
	1 Flt Army Air Corps	
DIEGO GARCIA	BRUNEI	
Naval Party	1 Gurkha Inf Bn	
FALKLAND ISLANDS	HONG KONG	
RM Detachment	1 Gurkha Engr Field Sqn	
ANTARCTICA	1 UK Inf Bn	
Ice Patrol Ship	3 Gurkha Inf Bns	
	1 Sqn Army Air Corps	

LEGEND			
AD	Air Defence	LPD	Assault Ship
Armd	Armoured	IBERLANT	Iberian Atlantic
Arty	Artillery	Inf	infantry
BAOR	British Army of the Rhine	MCMV	Mine Countermeasures Vessel
Bde	Brigade	Recce	Reconnaissance
Bn	Battalion	Regt	Regiment
Bty	Battery	RE	Royal Engineers
CCH	Helicopter Cruiser	RM	Royal Marines
Cde	Commando	SACEUR	Supreme Allied Commander Europe
CMS	Coastal Minesweeper	SAS	Special Air Service
Coy	Company	SBS	Special Boat Squadron
CVS	Anti-Submarine Carrier	Sqn	Squadron
Div	Division	STANAVFORCHAN	Standing Naval Force Channel
EASTLANT	Eastern Atlantic	To	Troop
Engr	Engineer	UDR	Ulster Defence Regiment
Flt	Flight	UNFICYP	United Nations Force in Cyprus
		WESTLANT	Western Atlantic
		(-)	Incomplete

To be up-dated and re-designed

EAST ATLANTIC
 1 Flt Cde Bde HQ
 2 Flt Cdes with
 logistic support

Figure 13. Components of a Royal Navy Task Group



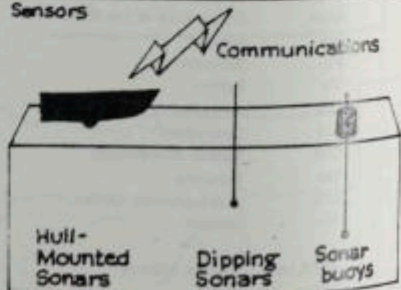
Aircraft

- Large Anti Submarine Helicopters
- Weapon Carrying Helicopters
- Vertical/Short Take off and Landing Aircraft

Weapons

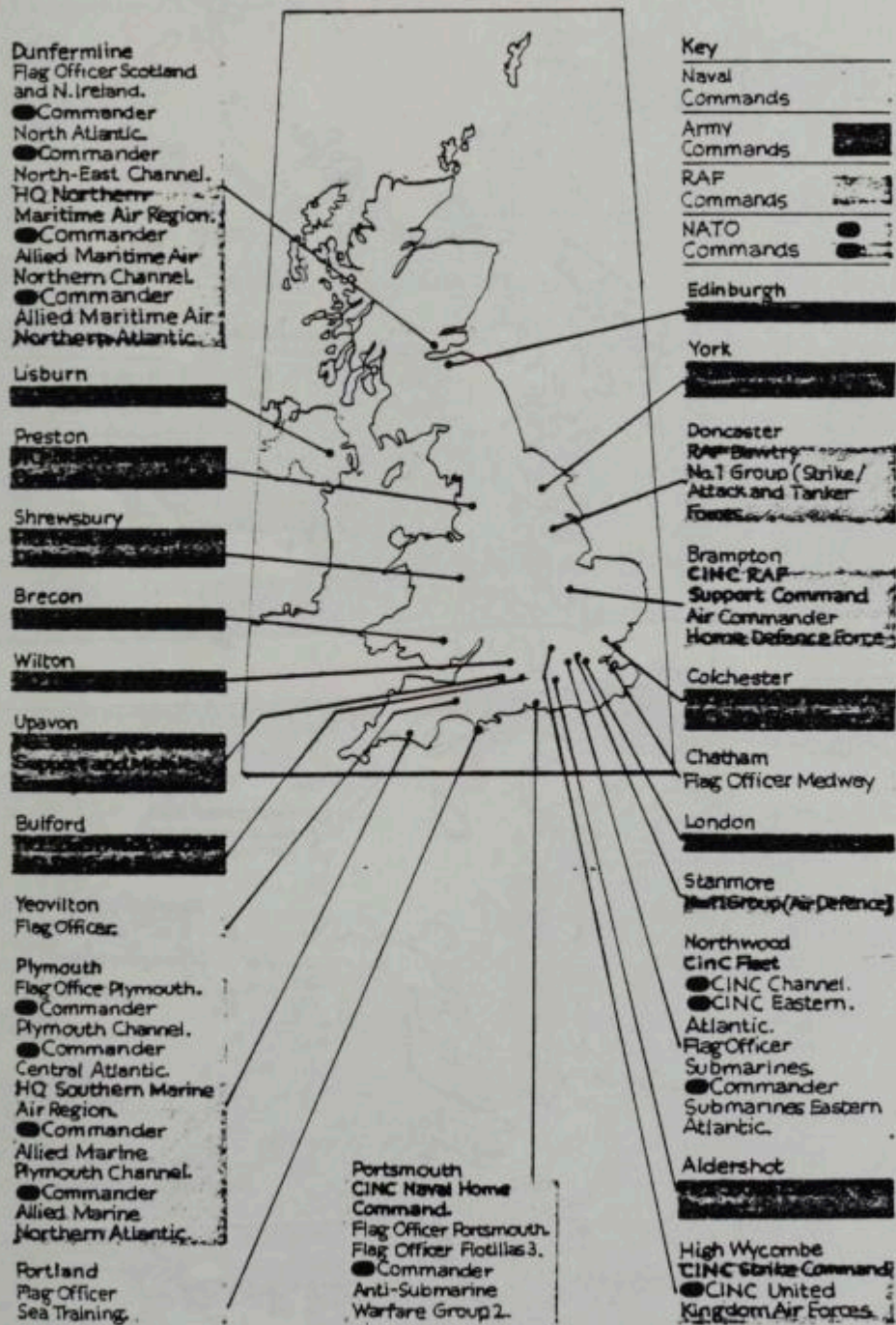
- Bombs
- Rockets
- Cannons
- Air to Air Missiles
- Depth Charges
- Torpedoes
- Anti surface Ship Missiles
- Missiles
- Surface to Air Missiles

Sensors



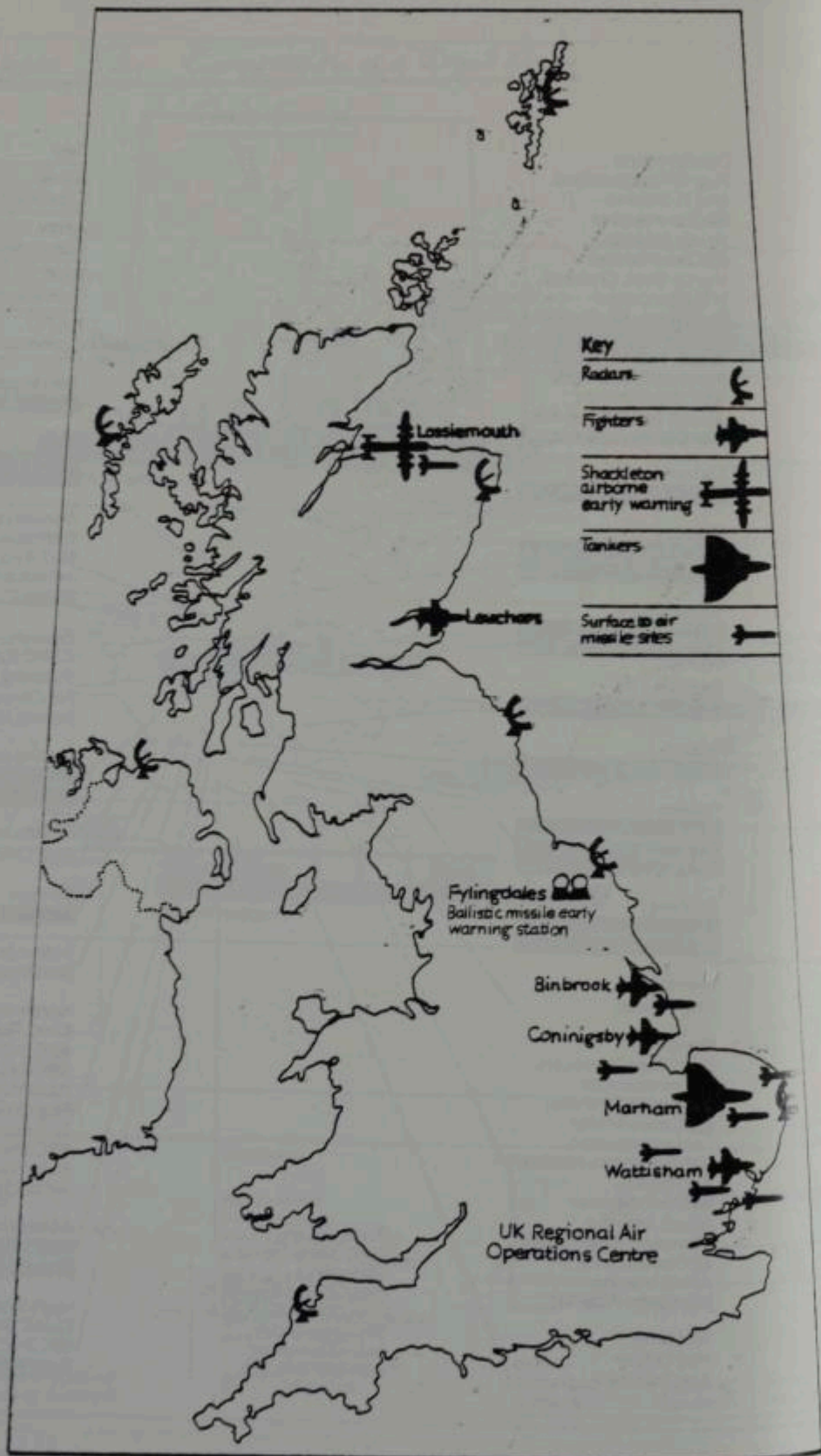
Draft - not yet corrected

Figure 14. The UK NATO and National Commands



Draft - not yet corrected

Figure 15. UK Air Defence



Draft - not yet corrected.

Figure 16. Soviet Naval Port Visits 1968/1978

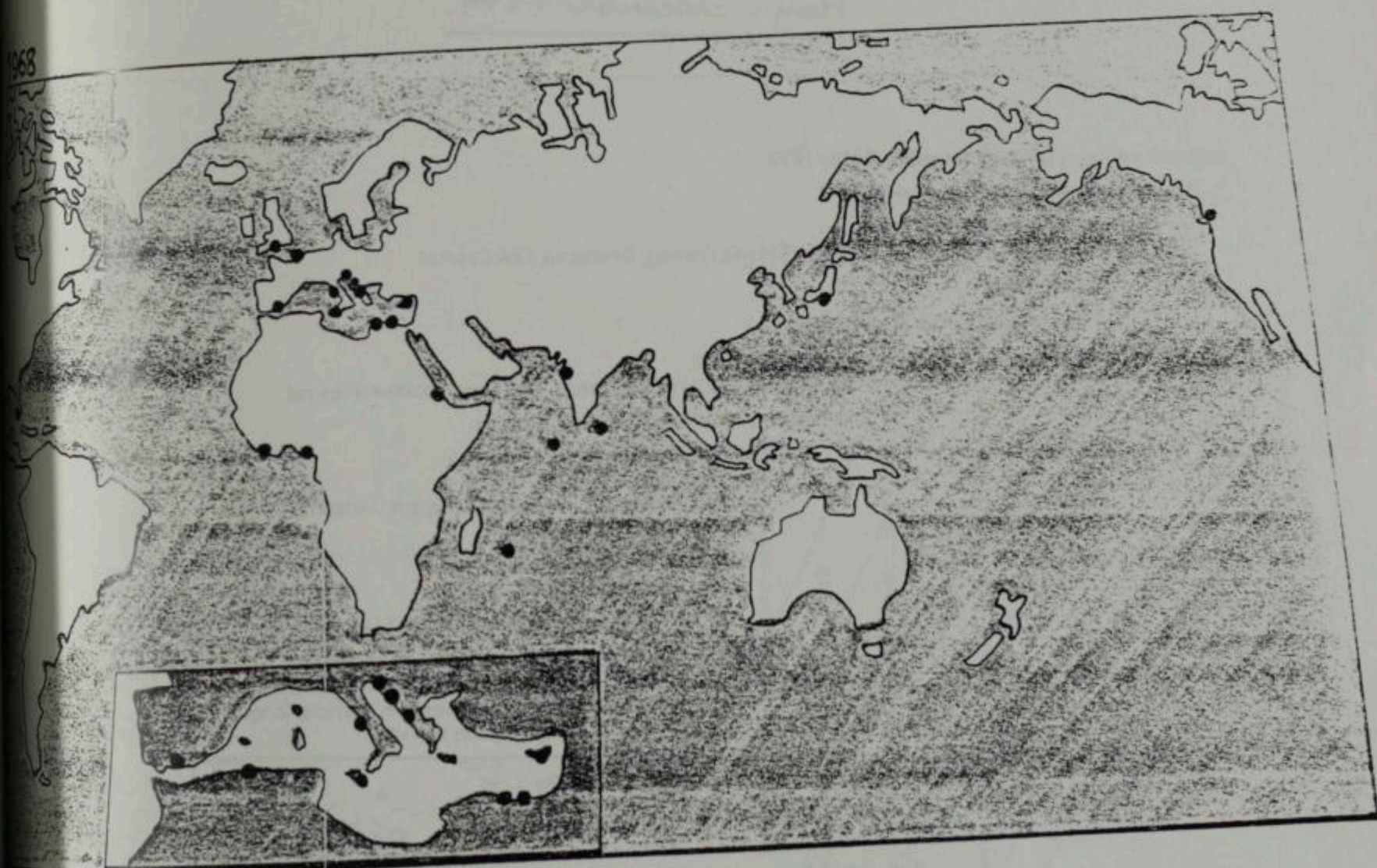
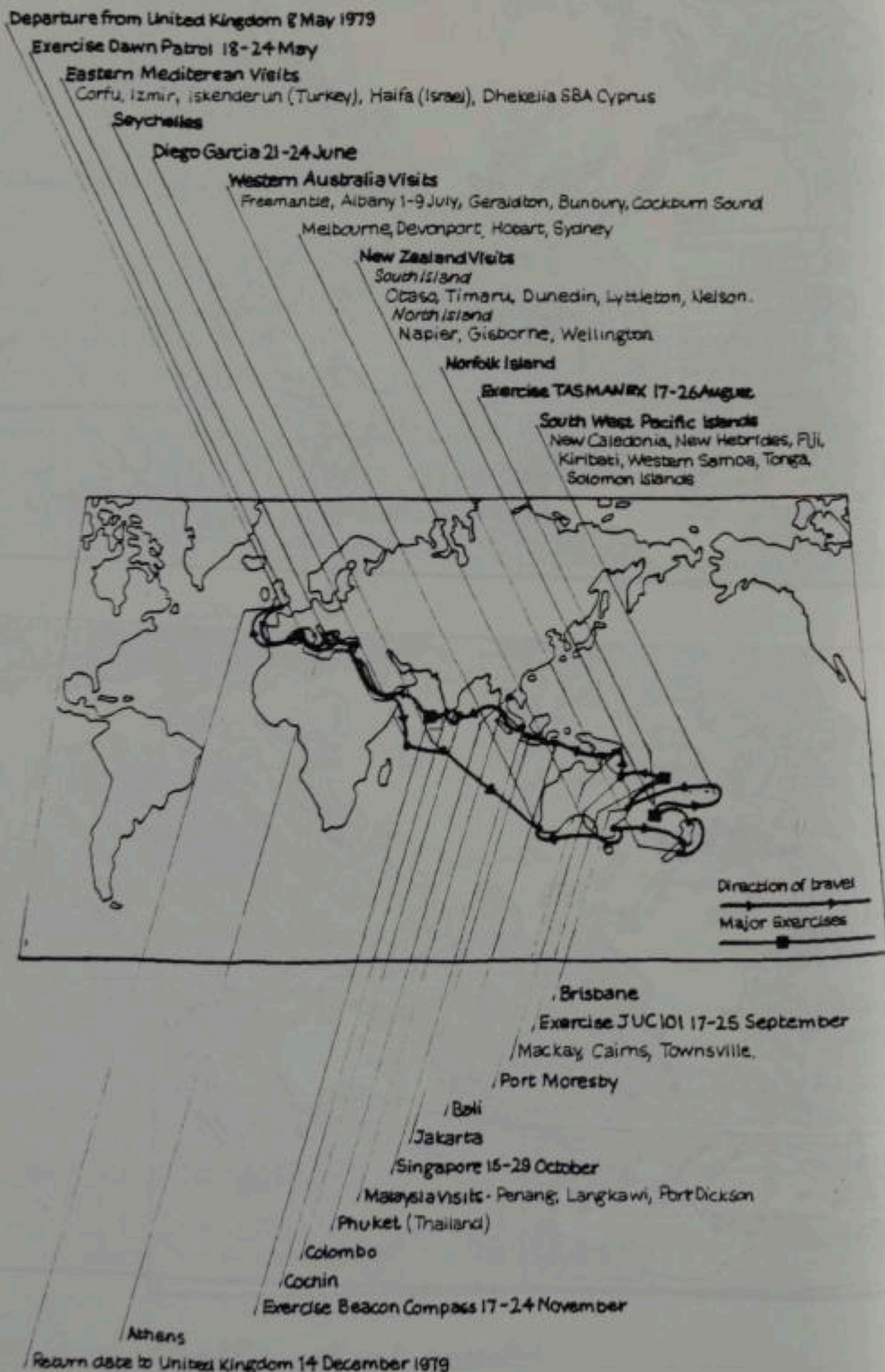


Figure 17. Royal Navy Group Deployment
May - December 1979



Draft - not yet corrected.

Figure 18. Attribution of Civilian Staff by Grade or Skill
 (Includes staff of the Royal Ordnance Factories).

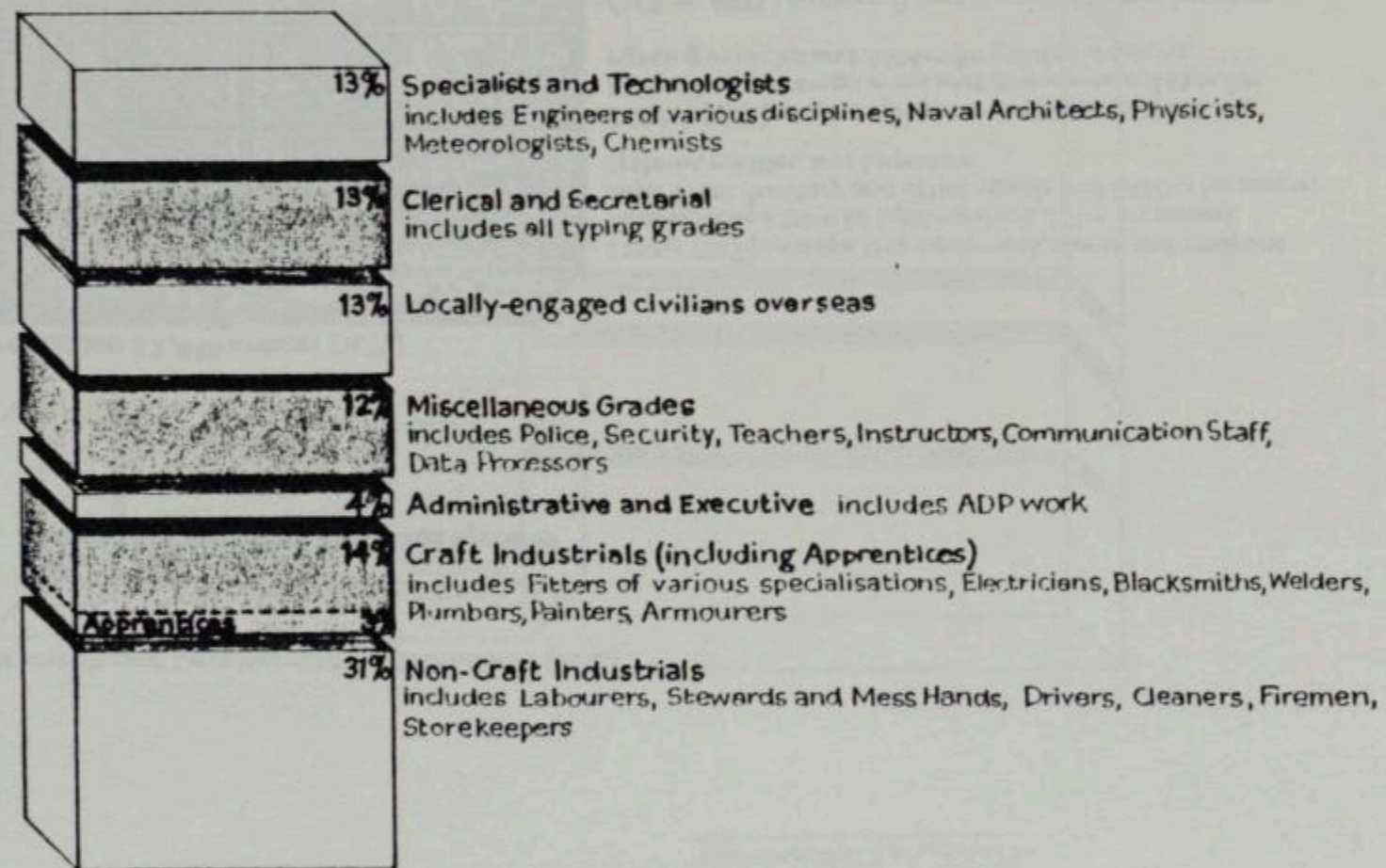
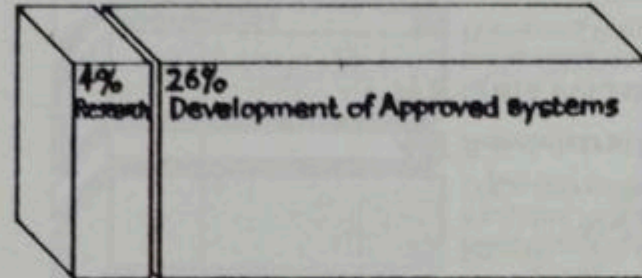
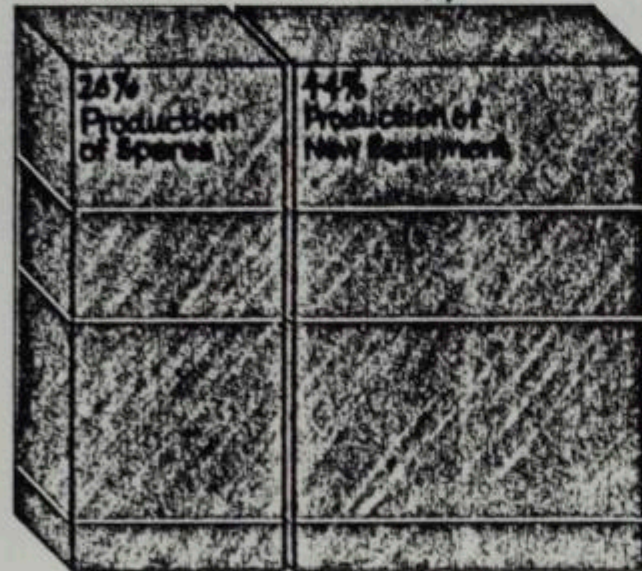


Figure 19 Main Divisions of the Procurement Programme 1980/81

Research and Development £1,160million (20%)



Production £2,686 million (70%)



£757m (28%) on ships, ship equipment, stores and weapons - this includes £261m for fighting ships, £51m for support, Royal Fleet Auxillary and other vessels and £280m for weapon systems, missiles, and torpedoes.

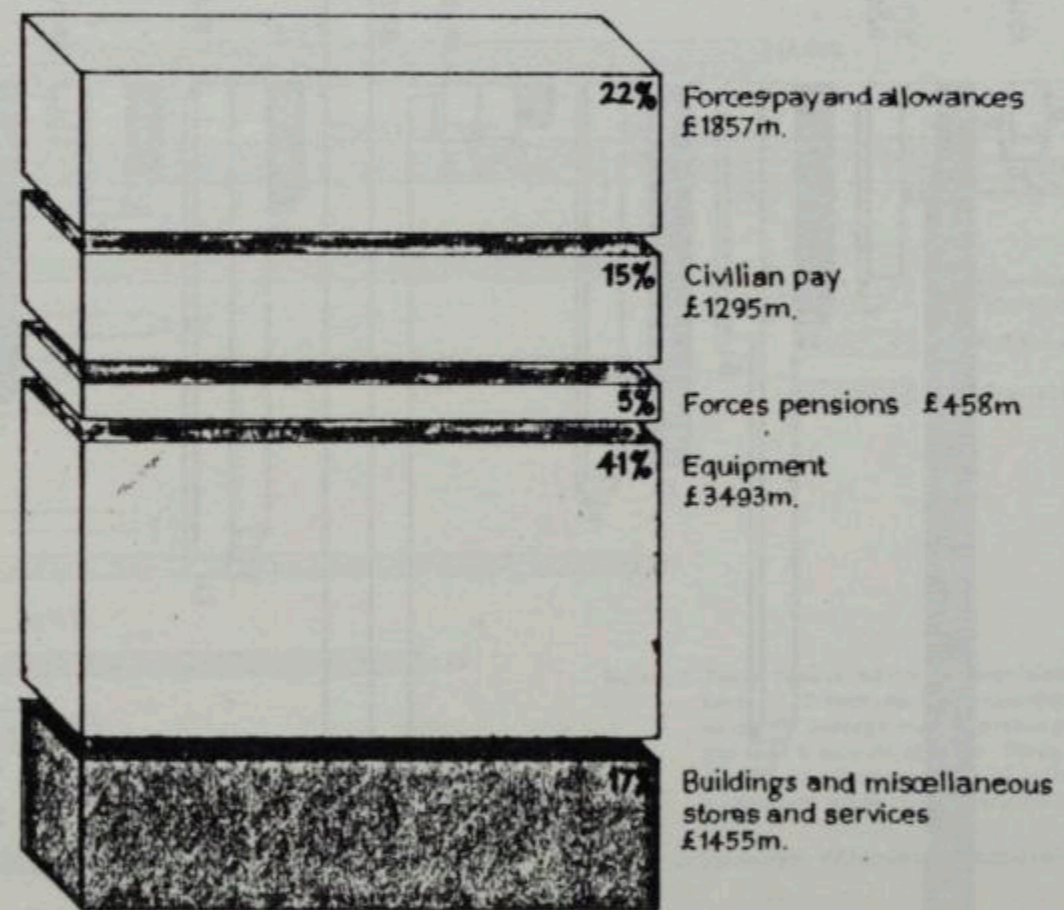
£592m (22%) on land systems and vehicles - this includes £125m for guns small arms and ammunition, £63m for fighting vehicles and £104m for guided weapons.

£1,085m (40%) on aircraft and aircraft engines, together with associated equipment and weapons - this includes £748m for fixed-wing aircraft, £193m for helicopters and £93m for air launched weapons

£252m (10%) on general support

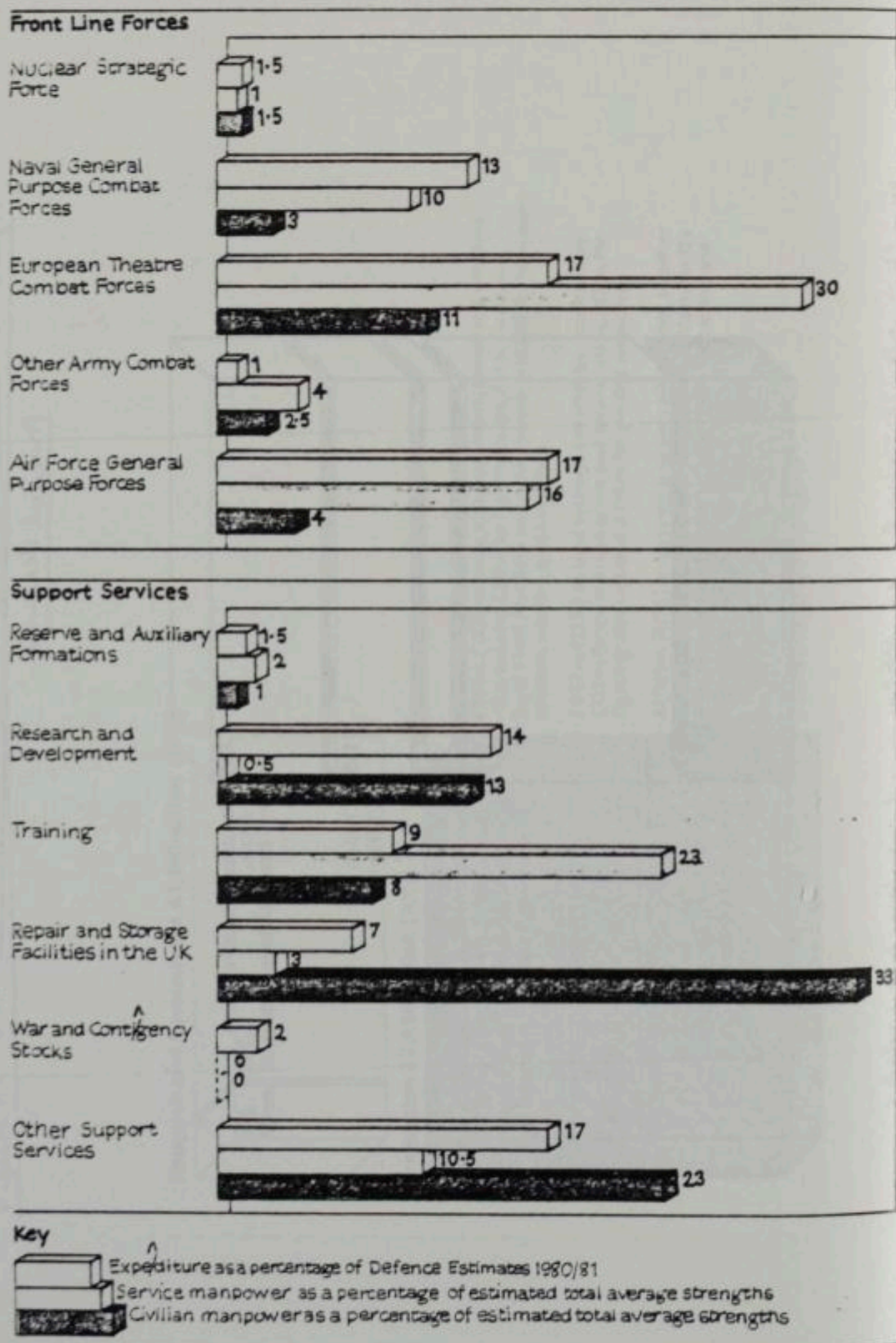
Draft - All figures and percentages to be updated to 1980/81 figures
Diagram to be re-designed.

Figure - 20. Division of the Defence Budget (1980/81) by the
Principal Headings



Draft - using 1979/80 figures. All figures and percentages to be updated.

Figure 2.1. Analysis of Defence Resources (1980/81) by Major Programmes



Draft - based on 1979/80 figures. All percentages to be updated.

Figure 22

Draft, based on 1978 figures. To be updated and re-drawn.

Comparisons: NATO Countries 1979.

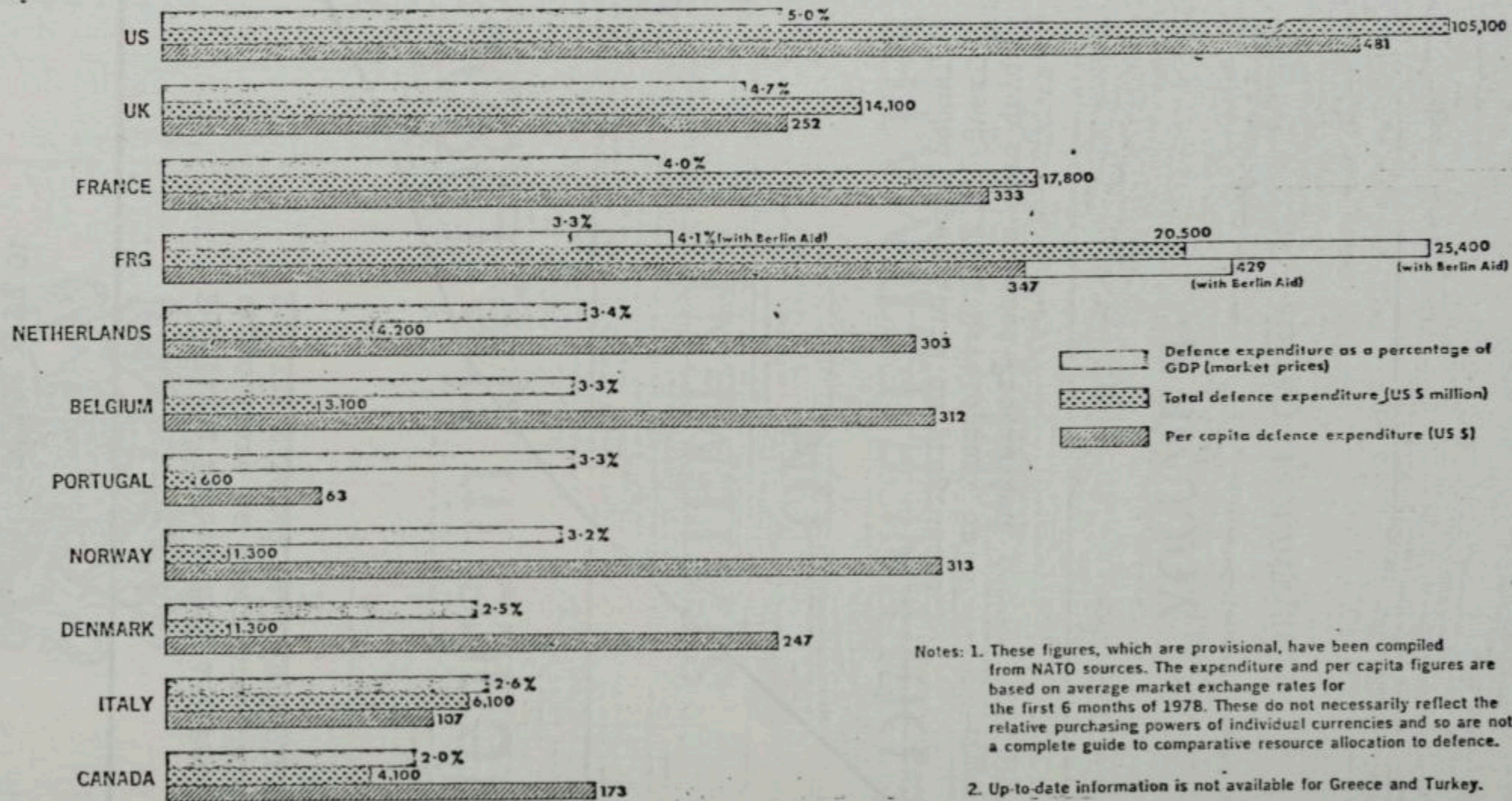


Figure 23.

DEVELOPMENT AND PRODUCTION RESOURCES IN THE MAJOR PROJECT

AREA OF THE EQUIPMENT PROGRAMME AS FORSEEN OVER A FORWARD

10 YEAR PERIOD

DRAFT

%

100

90

80

70

60

50

40

30

20

10

Year

1

2

3

4

5

6

7

8

9

10

Envisaged Development and Production expenditure on programmes which have not yet entered Full-Development

Planned expenditure on programmes already in Full Development or which have entered Production



Resources programmed for future equipment projects on which firm procurement decisions (Full Development and Production) are yet to be made.



Resources earmarked by past decisions to develop and produce

CONFIDENTIAL



Defence in the 1980s

STATEMENT ON THE DEFENCE ESTIMATES 1980

VOLUME II

DEFENCE STATISTICS

LONDON

HER MAJESTY'S STATIONERY OFFICE

STATEMENT ON THE DEFENCE ESTIMATES 1980

VOLUME II

DEFENCE STATISTICS

CONTENTS

	<i>Page</i>
Introduction: Notes to be used in conjunction with the tables ...	7
Section 1 The Armed Forces	
Table 1.1 Formation of the Armed Forces: front line units ...	17
1.2 Functional analysis of Service personnel ...	18
Section 2 Finance and trade	
Table 2.1 Principal headings of the Defence budget ...	19
2.2 Defence budget: comparison of Cmnd. 7746 expenditure plans with previous plans and with the 1980/81 Estimates ...	20
2.3 Defence budget and related expenditure ...	20
2.4 Functional analysis of the Defence budget ...	21
2.5 Industrial analysis of expenditure ...	22
2.6 Defence balance of payments: invisible transactions	23
2.7 Exports of Defence equipment ...	24
2.8 Imports of Defence equipment ...	24
Section 3 Equipment	
Table 3.1 Equipment procurement expenditure ...	25
3.2 Defence research and development expenditure ...	26
3.3 Defence research and development expenditure: net cost to the Defence budget ...	26
3.4 Defence production expenditure ...	27
3.5 Her Majesty's Dockyards ...	28
3.6 Royal Ordnance Factories ...	29
Section 4 Service personnel	
Table 4.1 Strengths of UK Service personnel: Regular Forces	30
4.2 Strengths of trained UK Service personnel ...	31
4.3 Strengths of the Reserves and Auxiliary Forces ...	32
4.4 Strengths of locally entered Service personnel ...	33
4.5 Strengths of cadet forces ...	33

4.6	Recruitment of UK Service personnel	34
4.7	Recruitment of UK male officers	35
4.8	Recruitment of UK servicemen	35
4.9	Outflow of UK Service personnel: from each Service	36
4.10	Outflow of UK Service personnel: categories of exit	37
4.11	Service pensioners	38
4.12	Service pay: indices and illustrative rates of military salary	38

Section 5

Civilian staff

Table 5.1	Strengths of staff employed in the Ministry of Defence	39
5.2	Functional analysis of civilian staff	40
5.3	Deployment of UK-based civilian staff	41
5.4	Strengths in standard regions	42
5.5	Strengths of staff employed overseas	43
5.6	Strengths of occupational groups or classes of non-industrial staff	43
5.7	Recruitment and losses of occupational groups or classes of non-industrial staff	44
5.8	Civilian apprentices: type of establishment ...	45
5.9	Civilian apprentices: standard regions	45

Section 6

Health, education and accommodation of the Services

Table 6.1	Service hospitals and inpatients	46
6.2	Strengths of uniformed medical staff	46
6.3	Sickness of UK Service personnel: selected diagnoses	47
6.4	Deaths of UK Service personnel	48
6.5	Service aircraft: accidents, rates and casualties ...	49
6.6	Service married accommodation	50
6.7	House ownership by Service personnel	51
6.8	Service Children's Education Authority Schools ...	52
6.9	"Social" expenditure included in the Defence budget	52
6.10	Land and foreshore holdings: location	53
6.11	Land and foreshore holdings: types of use	54

Section 7

Defence services, and the civilian community

Table 7.1	Armed forces and security in Northern Ireland ...	55
7.2	Search and rescue operations at home	56
7.3	Service aid in industrial disputes	56

	<i>Page</i>
7.4 Expenditure on offshore tasks included in the Defence budget	57
7.5 Fishery protection	57
7.6 Selected qualifications obtained under Service sponsorship	58
7.7 Outflow of trained Service personnel: skill or trade	59
7.8 Hydrographic services	60
7.9 Meteorological Office: finance	61
7.10 Meteorological Office: activities	61

Bibliography

INTRODUCTION

Section 1—The Armed Forces

Formation of the Armed Forces (Table 1.1). This table 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.

Functional analysis of Service personnel (Table 1.2). The average strengths provided for in the annual Estimates are analysed by the function performed.

Section 2—Finance and trade

The tables in this section are particularly relevant to Chapter 8 of Volume I. The meanings of certain financial terms are given in the glossary on page 15 below.

Principal headings of Defence budget (Table 2.1). The expenditure on personnel, service and civilian, on equipment, by system, and on works, buildings and miscellaneous stores are shown for the outturn of earlier years and the estimated provision for the current and forthcoming years.

Defence budget and related expenditure (Table 2.3). The amounts in the Defence budget, consisting of the sums for which the Secretary of State for Defence is responsible together with those spent by the Department of the Environment on his behalf, have to be modified to arrive at the NATO and National Accounts definitions of Defence expenditure. The additional items include common supporting services from other departments listed under the titles of table 2 of the *Supply Estimates, Class 1*.

Functional analysis of the Defence budget (Table 2.4). Data on the estimated cost of the main Defence functions financed from the Defence budget are shown entirely in terms of Estimates.

Industrial analysis of Defence expenditure (Table 2.5). Taking account of the commodity groups involved this table gives an estimated analysis of most of the direct Defence expenditure with UK industry. The expenditure covered broadly corresponds to the defence budget less the pay element, general administrative expenses and some local payments. Each individual contract let is allocated to a particular industry, as defined in the *Standard Industrial Classification* (1968), according to the nature of the goods or services to be supplied. All payments against that 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.

Defence balance of payments: invisible transactions (Table 2.6). This table shows the identifiable incidence on the balance of payments of our forces stationed overseas, of our contributions to international defence organisations and of other military services. It also shows receipts, including payments by the US Government to the UK Government in respect of forces stationed in the UK. 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, including the reduction in imports to the UK and the generation of exports from the UK which result from the stationing of forces overseas. Data are given for the outturn in earlier years and the estimated provision for forthcoming year.

Other transactions affecting the balance of payments include Government purchases and sales of military equipment. Forecasts of these transactions are made, but they are unadjusted and cannot be used to estimate their incidence on the balance of payments, as follows:

	£ million	
	1979-80	1980-81
Military equipment purchases	(326)	xxx
Military equipment sales	(319)	xxx

In addition estimates are made of non-governmental transactions related to defence. Official payments by the US Forces in the United Kingdom to UK firms and agencies other than central government plus private expenditure by US personnel are expected to amount to about £190 million in 1980-81.

Exports and imports of Defence equipment (Tables 2.7 and 2.8). Some exports and imports of Defence equipment can be identified through the *Customs and Excise Tariff*. In addition to the equipment categories analysed in the tables there are substantial sales abroad of other military equipment items, including aero engines, spares for aircraft and engines and some electronic devices, which cannot be distinguished from similar goods for civil purposes in the available Customs records. Within this aerospace group the military element is believed to have accounted for £415m in 1977, excluding the export of aircraft parts in connection with collaborative projects. Recent revisions to the *Tariff* enable some military communications and radar equipment to be identified and data are given for these for 1978. The destination and origin of this identified external trade is given in broad regional groupings also.

Section 3—Equipment

The tables in this section are particularly relevant to Chapter 7 of Volume I.

Equipment procurement expenditure (Table 3.1). This table summarises the costs of equipment procurement. Procurement includes the costs of material and repairs purchased but excludes the intra-mural costs of maintenance, which cannot easily be identified. The first part of the table separates the costs of the equipment programme from the associated costs of managing this programme which cover pay of MOD personnel and other administrative costs. The second part of the table subdivides the same total cost into Research and Development and production expenditure.

Research and Development (Tables 3.2 and 3.3). Defence Research and Development is carried out both in MOD R&D establishments and extramurally by industry and universities. Civil aerospace programmes and other civil research work are also undertaken and managed by the Ministry of Defence under agency arrangements. Table 3.2 gives details of the gross Defence expenditure on Research and Development i.e. total money disbursed by MOD before offsetting receipts and the way in which it was spent. It differs from the similar data on Defence expenditure given in table 4 of *Research and development: expenditure and employment*, published periodically by the Central Statistical Office (CSO) in their *Studies in official statistics* series in that it includes payments to Civil Votes and Central Government funds as part of gross Defence expenditure. Non-defence work carried out by MOD on repayment terms on behalf of private industry is excluded. Table 3.3 gives details of the net cost of defence R&D to public funds, i.e. gross expenditure less receipts which are mainly for work done on a repayment basis. The analysis is similar to that for the Estimates of Defence R&D given in Table 7 of the *Memorandum by the Chief Secretary to the Treasury*, which covers the Estimates.

Production expenditure (Table 3.4). The main items of equipment production expenditure are presented in a form similar to that used in the *Appropriation Accounts* and *Supply Estimates*.

Her Majesty's Dockyards (Table 3.5). Production cost figures are shown for the Home dockyards (Chatham, Devonport, Portsmouth and Rosyth) and Gibraltar combined employing an analysis similar to that used in Statement 3 of the *Dockyard Production Accounts*. Figures are also given for the numbers of vessels refitted and the average numbers of employees.

Royal Ordnance Factories (Table 3.6). The Royal Ordnance Factories' task is to meet the munitions requirements of the Services and undertake approved work of a defence nature for Commonwealth and other friendly Governments. Commercial work is undertaken to assist in maintaining essential defence capacity. From 1 July 1974, the operation of the ROFs has been financed by means of a Trading Fund though the organisation remains under the control of the Secretary of State for Defence and its employees are Civil Servants.

Section 4—Service personnel

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

The tables show the numbers of personnel of the Regular Forces and of the Reserves and Auxiliary Forces. The Regular Forces consist entirely of volunteers, both male and female, who are serving on a whole-time basis. They comprise both UK Service personnel and locally entered personnel. UK Service personnel are normally recruited in the United Kingdom for service world wide. Locally entered personnel are recruited outside the United Kingdom to serve in special formations with special conditions of service. In some cases they may also be restricted as to the areas in which they are required to serve. Troops of the Brigade of Gurkhas now form the bulk of locally entered personnel.

The Regular Forces are supported by the Reserves and Auxiliary Forces. The Reserves comprise both Regular Reserves and Volunteer Reserves. The Regular Reserves consist of former members of the Regular Forces who have a liability for service in the Reserve. The 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. The liability to call out of the Reserves and Auxiliary Forces varies according to their role.

All three Services run cadet forces for young people. Additionally, the Combined Cadet Force, which is maintained in certain schools where education continues to age 17 or above, may have specific sections for individual Services.

In some tables, the figures shown for officers include candidates for commissioned service who are required to complete successfully a period of training before they are appointed to commissions. Some will have entered direct from civil life, and others will have been selected from the ranks.

The figures shown for females comprise members of the Nursing Services and the Women's Services. Certain professionally qualified female officers are not commissioned in the Women's Services but in the branch or corps that is appropriate to their qualifications. These officers, of whom there were 00 at 1 January 1980 serving in the medical, dental, veterinary and legal specializations, are included in the numbers of male officers.

Strengths of UK Service personnel (Table 4.1). The numbers of UK Service personnel in the Regular Forces include those undergoing initial training.

Strengths of trained UK Service personnel (Table 4.2). The numbers shown are of UK Service personnel who have completed the initial training necessary to fit them to carry out their assigned tasks.

Strengths of the Reserves and Auxiliary Forces (Table 4.3). This table includes the numbers of the Ulster Defence Regiment. The Territorial Army was formerly known as the Territorial and Army Volunteer Reserve.

Strengths of locally entered Service personnel (Table 4.4). The RAF personnel shown in this table were all serving in Malta, from which British forces withdrew in 1979.

Strengths of cadet forces (Table 4.5). The numbers shown for each Service include those in the appropriate Service component of the Combined Cadet Force.

Recruitment of UK Service personnel (Table 4.6). This table shows the numbers of UK Service personnel who have joined the Regular Forces from civil life. As explained above, some of those shown to have entered as officers will not have been commissioned without first successfully completing a period of training.

Recruitment of UK male officers (Table 4.7). This table shows the numbers of male officers who entered the Services from civil life in each entry category. Pre-cadets are Army officer candidates who undertake a short period of service as soldiers before 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 before being appointed to commissions. In the Royal Navy and Royal Marines the category shown as "officer cadets" comprises midshipmen, acting sub-lieutenants and acting second lieutenants. 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.

Recruitment of UK servicemen (Table 4.8). This table shows the numbers of servicemen recruited in each of the main categories.

Outflow of UK Service personnel (Table 4.9). The numbers comprise all those UK Service personnel who left the Regular forces, whatever the reason. Some personnel have a liability for Reserve service. In order to include all losses to the Services, the numbers who died are also included.

Outflow of UK Service personnel—Categories of exit (Table 4.10). The All Services totals given in Table 4.9 are sub-divided to show the cause of leaving. The category shown as "officers designate" comprises the "pre-cadets" and "officer cadets" shown in Table 4.7. The numbers shown as "Premature release at own request", for both officers and servicemen, relate only to trained personnel. The Services differ from one another in their engagement structures and in their arrangements for granting premature release. Consequently, the categories of exit included in "Premature release at own request" for servicemen are not the same for each Service, but they all represent premature voluntary wastage from the Services.

Service pensioners (Table 4.11). This table shows the number of recipients of Service retired pay (officers) and pensions (servicemen) and invaliding and attributable retired pay and pension. The figures for the latest year are further analysed both by age of recipient and date of commencement of pension.

Service pay (Table 4.12). The table gives information on the levels of Service pay relating to the dates in question. The Armed Forces Pay Review Body (AFPRB) reports annually recommending rates of pay for all Services ranks up to Brigadier or equivalent. The AFPRB recommendations were fully implemented in May 1979 taking effect from 1 April 1979. The index numbers of military salary are based on April 1975 = 100, which was the previous date at which fully up to date rates of pay were implemented. Illustrative annual rates of pay for all ranks up to Brigadier are also shown. 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 their commitment to serve.

Section 5—Civilian staff

The tables in this section are particularly relevant to Chapter 6 of Volume I. The responsibilities of the Ministry of Defence have not remained constant over the period of the tables and consequently there have been a number of transfers of staff between the Ministry of Defence and other bodies and Departments. The tables show only the staff within the Ministry of Defence as constituted at each date shown and the figures for successive years are therefore not always comparable. In these tables part time staff are counted as half. In some cases the figures shown do not add precisely to the totals shown because of rounding.

Strengths of staff employed in the Ministry of Defence (Table 5.1). The numbers shown in this table exclude staff at the Royal Ordnance Factories whose costs are borne on a Trading Fund. UK-based civilian staff are those recruited in The UK even though in some cases they may be serving overseas. Locally engaged staff are those recruited overseas.

Functional analysis of civilian staff (Table 5.2). All MOD civilian staff (UK-based and locally engaged, industrial and non-industrial), except those at the Royal Ordnance Factories, are included in this table in terms of average annual Estimates provision.

Deployment of UK-based civilian staff (Table 5.3). Both industrial and non-industrial staff, except those at the Royal Ordnance Factories, are included in this table which gives the actual numbers in each of the organisations making up the Ministry of Defence.

Strengths in Standard regions (Table 5.4). All staff in the UK, except those at the Royal Ordnance Factories, are included.

Strengths of staff employed overseas (Table 5.5). Staff shown as employed in the Federal Republic of Germany include those in support of The British Army of the Rhine (BAOR) and Royal Air Force Germany (RAFG) in contiguous countries e.g. Belgium.

Strengths of occupational groups or classes of non-industrial staff (Table 5.6). This table covers all UK-based non-industrial staff including those at the Royal Ordnance Factories.

Recruitment and losses of occupational groups or classes of non-industrial staff (Table 5.7). In this table the numbers shown for recruitment are those entering the MOD from outside the UK Civil Service, and for losses those leaving the MOD and the UK Civil Service. The net gains or losses for individual groups in this table do not explain entirely the year to year changes in the corresponding group strength shown in table 5.6 as transfers between groups, transfers from industrial grades and transfers to and from other government departments are excluded from this table.

Civilian apprentices (Tables 5.8 and 5.9) The figures shown comprise both craft and technician apprentices.

Section 6—Health, education and accommodation of the Services

Health (Tables 6.1 and 6.2). The Services operate a number of hospitals in this country and in areas abroad where there is a significant British military presence. These hospitals take as patients members of all three Services and their dependants. In addition the hospitals in the United Kingdom take other civilian patients under arrangements agreed with the National Health Service. Medical support is also supplied by Service medical staff at individual units, ships and stations.

Sickness (Table 6.3). The number of cases of sickness and injury affecting UK Service personnel for all Services combined is given in this table according to principal diagnosis or cause of injury. It should be noted that, whereas the Royal Navy and Royal Air Force content is for all cases of off-duty sickness lasting 2 days or more terminating in the year, that for the Army covers only those cases admitted to hospitals or medical units. Sickness at Army unit level, at home or on leave, is not included.

Deaths (Table 6.4). This table presents information on the deaths of all Regular UK Service personnel on and off duty. There is sometimes a delay in the statistical reporting of deaths, especially those occurring overseas, and the latest figures are liable to be altered slightly. The classifications of deaths in recent years is also subject to revision as a result of, for example, a delayed inquest verdict.

Military aircraft accidents (Table 6.5). The total number of accidents involving Service aircraft, and the accident rates per 10,000 flying hours, where the accident resulted in loss of, or serious damage to, the aircraft involved. Figures are also given for the number of casualties, both killed and seriously injured. Information relating to aircraft accidents of the three Services in 1979 is given in Annex D of Volume I.

Service married accommodation (Table 6.6). Accommodation is 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. Service married quarters are available to Ministry of Defence civilians serving abroad.

House ownership by Service personnel (Table 6.7). The figures on house ownership by married male personnel in this table derive from the results of the *Armed Forces Accommodation and Family Education surveys*. The 1978 survey, for which the report is not yet published, covered accommodation only. The 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 size of the sample has been between 11,000 and 14,000.

Service Children's Education Authority schools (Table 6.8). The Service Children's Education Authority (SCEA) administer primary and secondary schools in overseas Military commands for the children of serving personnel. Enrolment in SCEA schools also includes children of MOD and other UK Civil Service employees serving overseas. The total number of Service children attending schools of all kinds, based on replies to sample surveys, was estimated to be 173,800 in 1977.

"Social" expenditure included in the Defence budget (Table 6.9). Services are provided for members of the Armed Forces and their families *i.e.* education, married accommodation, medical services. UK-based civilians serving overseas also

benefit from these services. The figures shown in this table for education give the estimated cost of the Service Children's Education Authority schools and exclude contributions towards the cost of educating Service children in other schools. The costs of married accommodation and medical services are net of rents payable for quarters and repayments for civilian patients not entitled to treatment in Service hospitals respectively. The cost of Service pensions paid out, 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.

Land (Tables 6.10 and 6.11). All land and foreshore held by the Ministry of Defence is included. Nearly half the total of land owned or leased by the Ministry of Defence is used for grazing and other agricultural purposes.

Section 7—Defence services, and the civilian community

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

There are three kinds of Service activity in relation to civilians viz:

- a. in support of the civil power, where the forces are employed in a fighting capacity;
- b. in support of other departments (e.g. the Home Office in connection with fire-fighting);
- c. in support of the Civil community (e.g. search and rescue operations).

Armed Forces and security in Northern Ireland (Table 7.1). Annual figures of the Regular Forces in Northern Ireland are given 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. This includes Royal Marine commandos in the infantry role. Figures are also given of the number of deaths of members of the Regular Forces and Ulster Defence Regiment resulting from violence attributable to terrorist activity in the province.

Search and rescue (Table 7.2). This table covers incidents in which Rescue Co-ordinating Centres (RCCs) in the UK co-ordinated search and rescue (SAR) action 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). In addition to SAR action co-ordinated by RCCs, all units of the Armed Forces provide assistance in appropriate circumstances as do the civilian rescue services and individuals. Central records of such occasional ad hoc assistance are not kept and consequently the details are not reflected in this table.

Expenditure on offshore tasks (Table 7.4). The cost of the Royal Navy and Royal Air Force units engaged in offshore tasks on a regular basis falls on the Defence budget. Some of the costs shown are recoverable from other Government Departments.

Fishery protection (Table 7.5). The data in this table relates to activities by the Royal Navy Fishery Protection Squadron carried out on behalf of and financed by the Fishery departments. Routine boardings of vessels to ensure compliance with United Kingdom fishery protection legislation are included.

Qualifications (Table 7.6). As a result of training and assistance given by the Services to their personnel, formal qualifications are often obtained. Those given in this table are illustrative of the wider range involved.

University Cadetships are awarded to undergraduates before or during their degree courses. Medical Cadetships are usually awarded only in the final years of training. Service personnel are also sponsored at universities and a number of degree courses are run at the Service educational establishments, at 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.

Much of the training given to Service personnel results in the acquisition of skills valuable in later civilian life and in some cases formal qualifications are obtained of which Heavy Goods Vehicle (HGV) licences are one example. The table records passes of tests for all classes of heavy goods vehicles.

Outflow of trained Service personnel; skill or trade (Table 7.7). This table shows the numbers of personnel leaving the Services who possessed 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. Some of those leaving do not follow in civil life the trade or occupation that they practised in the Services. Some acquire through the Further Education Schemes various new qualifications not directly connected with their Service trade or occupation but useful for their resettlement, whilst a large number take advantage of the facilities available for pre-release resettlement training, to learn new skills, renew former skills or convert their Service skills for the civilian environment.

Hydrographic services (Table 7.8). The Hydrographer of the Navy is the national authority responsible for hydrographic and oceanographic surveys and nautical charting. The vessels of the British Survey Fleet are manned by the Royal Navy and they are deployed for the most part in United Kingdom and North Atlantic waters. The Admiralty chart series comprises some 3,400 basic charts and 600 latticed versions covering nearly the whole world. They are constantly updated by weekly Notices to Mariners. Although a few other countries also provide charts in their national series, none provides the comprehensive coverage of the British Admiralty series which meets about 60% of the world requirements.

Meteorological Office (Tables 7.9 and 7.10). The Meteorological Office is the State Meteorological Service and forms part of the Air Force Department of the Ministry of Defence. It is responsible for the provision of meteorological services to the Royal Air Force and the Army, the organisation of meteorological observations and for research in meteorology and geophysics. Work is also undertaken for other Government departments.

Some free services are provided to the general public through the press and other media. More specialised services are provided on a repayment basis, principally for Civil aviation and industry.

Except for the common services provided by other Government departments as part of their normal functions, *i.e.* accommodation, stationery and office machinery, the cost of the Meteorological Office is borne by the Defence budget. Outturn data on Meteorological Office expenditure has to be partially estimated since some of it is not distinguishable from other similar Defence expenditure.

GLOSSARY

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.

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 and are otherwise referred to as forecast outturn prices.

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.

Outturn 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 over a 5-year period undertaken by the Government.

Survey prices are the prices used in the Public Expenditure Survey. For purchases of goods and services (including pay) they are the prices ruling in the Autumn preceding the Survey year i.e. the 1979 Survey prices are those of Autumn 1978. For transfer payments e.g. pensions and benefits they are the average price level for the current year i.e. the 1979 Survey prices are those of 1979-80.

Symbols

- nil or negligible
- .. not available

Sources

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

Formation of the Armed Forces front line units

1 April

TABLE 1.1

	Unit (1)	1975	1976	1977	1978	1979	1980 (6)
Royal Navy (2)							
Aircraft carriers	Vessels	1	1	1	1	—	—
ASW carriers/commando/assault ships	Vessels	4	2	2	3	3	3
Cruisers/destroyers	Vessels	12	9	10	12	11	10
Frigates	Vessels	47	46	40	43	42	39
Submarines	Vessels	24	22	24	24	22	23
Mine counter-measure	Vessels	40	37	34	35	35	35
Patrol	Vessels	10	13	15	19	19	21
Fixed wing aircraft...							
...	Squadrons	3	3	3	3	—	2
...	Flights	1	1	1	1	—	—
Helicopters							
...	Squadrons	13	12	12	12	13	14
...	Flights	39	40	41	47	49	46
Army(3)							
Royal Armoured Corps	Regiments	19	19	19	19	19	19
Royal Artillery	Regiments	26	26	21	22	22	22
Royal Engineers	Regiments	13	13	10	10	9	10
Infantry (4)	Battalions	55	55	55	55	56	56
Special Air Service... ..	Regiments	1	1	1	1	1	1
Army Air Corps (5)	Regiments	..	..	6	6	6	6
Royal Air Force (3)							
Strike/attack	Squadrons	13	13	14	14	14	15
Ground support	Squadrons	6	6	5	5	5	5
Air defence	Squadrons	9	9	9	9	9	9
Maritime patrol	Squadrons	5	5	5	4	4	4
Reconnaissance	Squadrons	5	5	5	5	5	5
Airborne early warning	Squadrons	1	1	1	1	1	1
Transport (7)	Squadrons	18	11	10	10	10	10
Tankers	Squadrons	3	3	2	2	2	2
Search and rescue	Squadrons	3	3	3	3	3	3
Surface to air missiles	Squadrons	6	7	7	7	7	8
Ground defence	Squadrons	6	5	5	5	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) Excludes vessels undergoing long refit, conversion, or on stand-by, etc.
- (3) Regular forces only.
- (4) Includes Gurkhas.
- (5) Prior to 1977 the Army Air Corps was not organised in regiments.
- (6) Forecast figures.
- (7) Includes helicopters.

Functional analysis of Service personnel (1)

TABLE 1.2

thousands

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Total Service manpower	346.4	340.4	337.1	332.5	330.0	330.2
Nuclear strategic force (Polaris)	2.6	2.8	2.8	2.8	2.5	2.5
Navy general purpose combat forces	34.3	32.7	32.7	32.4	32.2	30.4
Aircraft/ASW carriers	1.7	1.7	1.7	2.5	2.8	1.9
Amphibious forces	5.9	4.8	4.4	3.9	5.0	4.6
Submarines	2.6	2.5	2.6	2.5	2.5	2.7
Cruisers	1.4	1.4	1.4	1.4	1.3	1.0
Destroyers/frigates	16.0	15.1	15.1	14.9	14.0	13.0
Mine counter-measures	1.1	1.0	1.1	1.1	1.1	1.1
Other ships	1.6	1.6	1.8	1.7	1.7	1.8
Aircraft	2.0	2.3	2.4	2.5	1.9	2.2
Fleet headquarters ... ..	..	0.7	0.7	0.7	0.9	1.1
Overseas shore establishments	2.0	1.6	1.5	1.2	1.0	1.0
European theatre ground forces	100.7	103.1	102.6	101.8	98.4	95.2
British Army of the Rhine	54.9	54.7	55.8	57.0	58.0	55.0
Berlin	3.0	3.1	3.1	3.1	3.1	3.1
Home forces	42.8	45.3	43.7	41.7	37.3	37.1
Other Army combat forces	17.7	14.2	14.1	14.1	14.4	14.9
Mediterranean	4.5	4.3	4.1	4.1	4.1	4.2
Hong Kong and other Far East	12.6	9.3	9.2	8.8	8.8	9.0
Other areas	0.6	0.6	0.8	1.2	1.5	1.7
Air Force general purpose forces	61.4	56.6	54.7	53.7	53.8	54.6
Air defence	3.4	3.7	3.6	3.8	3.6	3.9
Offensive support	1.2	1.1	1.2	1.3	1.1	1.1
Strike/attack/reconnaissance	4.4	4.9	4.8	4.8	4.8	5.1
Maritime aircraft	1.9	1.8	1.7	1.5	1.5	1.6
Transport aircraft	4.3	3.3	2.9	2.9	2.9	3.3
Tanker aircraft	0.6	0.6	0.4	0.4	0.4	0.4
Other aircraft	2.5	2.5	2.6	2.8	3.0	3.3
Operational stations	19.5	18.8	18.2	17.9	18.8	18.1
Headquarters	3.3	2.8	2.8	2.7	2.7	2.7
General support	20.3	17.1	16.5	15.6	15.0	15.1
Reserve and Auxiliary formations	2.5	2.6	2.6	2.5	2.5	2.8
Navy	0.3	0.3	0.3	0.3	0.3	0.3
Army	1.9	2.0	2.0	1.9	1.9	2.2
Air Force	0.3	0.3	0.3	0.3	0.3	0.3
Research and development (2)	1.5	1.4	1.3	1.3	1.3	1.4
Ship construction and underwater warfare	0.2	0.2	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	0.3	0.3	0.3	0.2
Guided weapons	0.1	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	0.5	0.4	0.4	0.4	0.4	0.6
Training	70.4	72.6	73.8	71.6	76.2	78.8
Service colleges	4.2	4.2	4.3	4.1	3.9	4.3
Navy	23.0	22.8	22.9	22.8	23.2	22.3
Army	29.8	31.7	32.6	30.6	31.9	34.2
Air Force	13.4	13.9	14.0	14.1	17.2	18.0
Repair and associated facilities in UK	10.4	9.5	9.6	9.9	9.7	9.8
Naval dockyards	0.1	0.1	0.1	0.1	0.1	0.1
Repair and maintenance	6.1	5.8	5.9	6.2	6.3	6.5
Storage and supply	3.8	3.3	3.3	3.3	3.1	3.0
Quality assurance	0.4	0.3	0.3	0.3	0.2	0.2
Other support functions	45.4	44.9	42.9	42.4	39.0	39.8
Whitehall organisation	2.9	2.8	2.7	2.6	2.8	2.7
Local administration communications etc. in UK	18.8	18.6	17.8	18.1	16.9	18.0
Family and personnel services in UK	7.3	7.4	6.9	6.7	6.4	6.6
Other support services	16.4	16.1	15.5	15.0	12.9	12.5

(1) The above are the average strengths provided for in the Estimates and include locally entered personnel.

(2) In 1975-76, of the 1.5 thousand shown, 0.5 thousand are also included in the relevant combat forces or support programmes.

Defence budget: comparison of Cmnd. 7746 expenditure plans with previous plans and with the 1980/81 Estimates
at 1979 Survey prices

TABLE 2.2 £ million

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
1977 Public Expenditure Survey (Cmnd. 7049) (1)	7,687	7,930	8,204	8,223		
1978 Public Expenditure Survey (Cmnd. 7439) (1)		7,920	8,180	8,223	8,231	
1979 Public Expenditure Survey (Cmnd. 7746) (2)			8,066	..	..	..

- (1) These figures have been adjusted to reflect the transfer of Administrative Computer costs to the Defence budget.
(2) £8,056m is the Defence budget figure corresponding to the Defence Programme figure of £8,062m for 1980-81 shown in Cmnd. 7746. The £4m difference represents the planned net repayment by the Royal Ordnance Factories to the National Loans Fund. To arrive at the Defence budget at 1980-81 forecast outturn prices it is necessary to make adjustments as follows:

	£m
Defence budget target at 1979 Survey prices	8,066
Cost of HMSO supplies and services not included in the PESC target	25
Pay and price additions (covering known inflation from Autumn 1978 to Autumn 1979 (£000m) and forecast inflation from Autumn 1979 to the date on which the provision will actually be spent (£000m))	—
Defence budget at 1980-81 forecast outturn prices	—

(This total includes provision on Defence Votes of £000m plus other voted expenditure attributed to the Defence budget (£000m).)

Defence budget and related expenditure

Estimates at Estimates prices (1)

TABLE 2.3 £ million

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Defence budget	4,547.5	5,632.4	6,328.9	6,918.8	8,557.7	
Military aid to overseas countries	1.6	1.9	2.4	2.3	13.6	
Supporting services (2)						
Accommodation (maintenance and rental)	38.8	37.5	36.5	47.8	41.9	
Stationery and printing(3)	24.6	33.0	29.6	28.7	32.7	
Home publicity	4.2	3.6	3.8	4.7	8.6	
Civil superannuation	81.1	96.7	116.7	153.9	181.5	
Computers and telecommunications(3)	9.4	7.3	13.1	14.7	14.4	
Rates	36.4	48.7	49.9	58.7	64.3	
Services by Exchequer and Audit, etc....	3.1	2.9	3.2	3.3	3.7	
Less cost of						
Meteorological services in Defence budget	-16.8	-22.0	-20.5	-24.0	-28.9	
Other adjustments	4.7	-2.2	-5.2	-5.2	-4.2	
Defence expenditure (NATO definition) (4)	4,734.6	5,839.8	6,558.4	7,203.7	8,885.3	
US military aircraft loan (net) (5)	-21.7	-7.8	—	—	—	
Accounting adjustments	3.7	39.2	15.7	9.1	—	
Defence expenditure (National income definition)	4,716.6	5,871.2	6,574.1	7,212.8	8,885.3	

- (1) The Estimates prices for the years 1975-76 to 1978-79 are the prices ruling in the preceding Autumns, those for 1979-80 and 1980-81 are the prices expected to be ruling during the year in question.
(2) These are the defence portion of services performed by certain Government Departments for Government generally.
(3) These items are included in the Defence budget after 1979-80.
(4) The Defence budget figures have to be adjusted as shown to meet the standard NATO definition of defence expenditure. From 1979-80, the standard NATO definition has been changed slightly to agree with the National Accounts definition.
(5) Drawings under the Military Aircraft (Loans) Act, 1966 for the purchase of US military aircraft.

Functional analysis of the Defence budget

Estimates at Estimates prices (1)

TABLE 2.4

£ million

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Total expenditure	4,548	5,632	6,329	6,919	8,558	
Nuclear strategic force (Polaris)	58	78	96	93	126	
Navy general purpose combat forces	632	726	843	1,017	1,131	
Aircraft/ASW carriers	8	14	15	26	23	
Amphibious forces	29	30	29	28	36	
Submarines	115	112	130	155	197	
Cruisers	39	45	63	92	89	
Destroyers/frigates	268	280	319	402	418	
Mine counter-measures	19	29	41	52	50	
Other ships	85	109	116	126	159	
Aircraft	39	68	92	102	108	
Fleet headquarters ... ..	..	3	5	6	13	
Overseas shore establishments	30	36	33	28	38	
European theatre ground forces	826	985	1,091	1,251	1,496	
British Army of the Rhine	584	700	779	905	1,079	
Berlin	14	18	22	18	20	
Home forces	228	267	290	328	397	
Other Army combat forces	88	64	70	74	81	
Mediterranean	36	39	44	43	50	
Hong Kong and other Far East	49	20	18	20	17	
Other areas	3	5	8	11	14	
Air Force general purpose forces	874	906	1,034	1,107	1,462	
Air defence	78	112	160	128	145	
Offensive support... ..	64	51	52	61	63	
Strike/attack/reconnaissance	269	234	280	335	458	
Maritime aircraft	49	48	50	50	64	
Transport aircraft... ..	69	69	65	82	135	
Tanker aircraft	19	19	17	15	26	
Civil charter	1	9	5	7	11	
Other aircraft	40	39	65	69	103	
Operational stations	119	135	148	158	221	
Headquarters	22	29	30	33	41	
General support	144	161	162	169	197	
Reserve and Auxiliary formations	79	91	105	122	148	
Navy	4	5	6	6	8	
Army	68	78	91	107	130	
Air Force	7	8	8	9	10	
Research and development (2)	554	699	823	872	1,151	
Ship construction and underwater warfare	54	73	79	81	249	
Ordnance and other Army	44	58	62	67	92	
Military aircraft	184	258	319	332	439	
Guided weapons	74	74	98	105	124	
Other electronics... ..	89	97	107	126	163	
Other research and development	109	139	158	161	184	
Training	417	484	565	604	777	
Service colleges	31	34	38	38	48	
Navy	120	151	170	183	149	
Army	174	186	236	263	312	
Air Force	92	113	121	120	168	
Repair and associated facilities in UK	340	409	447	449	590	
Naval dockyards	51	73	87	87	91	
Repair and maintenance	93	114	122	115	177	
Storage and supply	146	163	179	188	247	
Quality assurance	50	59	59	59	75	
War and contingency stocks	108	116	108	178	160	
Navy	26	33	39	44	56	
Army	51	56	29	79	61	
Air Force	31	27	40	55	43	
Other support functions	875	1,067	1,139	1,255	1,481	
Whitehall organisation	90	108	111	103	130	
Local administration communications etc. in UK	292	368	394	452	535	
Meteorological services	17	22	21	24	29	
Family and personnel services in UK	136	137	122	125	163	
Service pensions	233	299	345	397	458	
Other support services	107	133	146	154	166	
Miscellaneous expenditure and receipts	-32	7	8	-103	-45	

(1) The Estimates for 1975-76 to 1978-79 are given at the prices ruling in the preceding Autumn. Those for 1979-80 and 1980-81 are at the prices expected to be ruling during the year in question.

(2) In 1975-76, of the £554m shown, £271m is also included in the relevant combat forces or support programme.

**Industrial analysis of Defence expenditure (1): estimated allocation
by commodity group**
at current prices

TABLE 2.5

£ million

	1976-77	1977-78	1978-79
Total		2,959.5	3,315.5
Food		74.2	77.7
Solid fuels		4.7	4.7
Petroleum products		262.7	239.1
Chemicals, including explosives		89.0	29.7
Metal manufacture		7.2	8.2
Ordnance and small arms		243.7	297.2
Other mechanical engineering		78.1	98.8
Instrument engineering		69.7	92.2
Radio and electronic components		43.0	56.5
Radio, radar and electronic capital goods		360.9	429.4
Other electrical engineering		94.1	115.3
Shipbuilding and marine engineering		303.1	354.2
Aerospace equipment		950.9	1,088.5
Other vehicles		96.7	92.4
Metal goods not elsewhere specified		15.8	14.4
Textiles and clothing		44.3	52.9
Other manufacturing industry		26.9	40.3
Gas, electricity and water supply		69.7	80.4
Professional and scientific services		25.5	34.9
Other industries and services (including unallocated)		99.3	108.7

(1) Expenditure other than pay and allowances, general administrative expenses (amounting to some £500m in 1978-79) and other local payments (amounting to some £86m in 1978-79). General administrative expenses include conveyance of personnel and stores, telecommunications and stationery. Payments overseas are excluded but Sterling expenditure in respect of collaborative projects is included as are MOD payments in respect of Defence sales. Receipts of appropriations-in-aid have not been allocated to industry. VAT where applicable has been subtracted from the payments made.

Defence balance of payments: invisible transactions (1)

TABLE 2.6

£ million

Exports	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Total debits	726	815	811	832	997	
Total military services	712	796	789	809	966	
Local defence expenditure	585	670	673	769	813	
of which:						
Germany	405	513	527	619	661	
Other NATO areas	30	34	39	41	49	
Mediterranean	66	68	70	77	67	
Gulf	4	3	1	1	1	
Far East	60	33	17	10	12	
Other areas	20	19	19	21	23	
Other military services (2)	127	126	116	125	153	
Transfers—contributions to international defence organisations	14	19	22	23	31	
Total credits	74	64	78	166	130	
Receipts from US forces	24	28	47	51	66	
Other receipts (3)	50	36	31	115	64	
Net balance (— = debit)	-652	-751	-733	-751	-867	

- (1) Outturn and Estimates are given at outturn and forecast outturn prices respectively.
- (2) Including contributions to infrastructure projects (net) and payments for R & D levies. Receipts for R & D levies, etc., are entered as "other receipts".
- (3) Includes offset receipts from the Federal Republic of Germany (*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*).

Imports of Defence equipment (1)

£ million

	1974	1975	1976	1977	1978
Land equipment	2.4	2.5	2.3	2.7	2.1
Aircraft	—	—	—	1.8	—
Naval equipment	—	—	—	2.0	—
Other equipment	—	—	—	—	—
Total	2.4	2.5	2.3	4.5	2.1
Land equipment	23.1	21.6	21.3	22.2	22.2
Aircraft	1.0	1.3	1.4	2.4	14.2
Naval equipment	—	—	—	—	—
Other equipment	—	—	—	—	—
Total	24.1	22.9	22.7	24.6	36.4
Land equipment	—	—	—	—	—
Aircraft	—	—	—	—	—
Naval equipment	—	—	—	—	—
Other equipment	—	—	—	—	—
Total	—	—	—	—	—

(1) Includes equipment which can be identified through the Customs and Excise Tariff Code. Such items are usually imported from the United States and other major defence goods are included.

Exports of Defence equipment (1)

TABLE 2.7

£ million

	1974	1975	1976	1977	1978
Armoured fighting vehicles and parts	53.1	42.5	50.4	51.7	61.4
Combat aircraft including helicopters (2)	38.8	43.2	42.3	48.3	15.4
Military non-combat aircraft ... ..	..	..	..	15.1	44.2
Warships including air cushion vehicles	36.3	42.3	36.5	123.0	38.8
Guns, small arms and parts	7.3	14.8	18.6	31.9	35.5
Guided weapons and missiles	11.1	12.8	17.7	26.6	24.1
Ammunition	32.4	42.8	52.8	59.0	97.3
Radio communication and radar apparatus ... ..	..	..	..	..	55.5
Optical equipment and training simulators ... ..	..	..	..	..	20.0
Total identified Defence equipment	179.0	198.4	218.3	355.6	392.2
of which:					
NATO countries and other W Europe	66.3	52.2	43.6	47.5	77.5
Middle East and N African countries	73.6	90.6	128.0	161.8	201.8
Sub-Saharan Africa	5.4	5.2	12.2	10.4	17.9
Latin America and Caribbean	18.8	30.1	22.8	117.2	48.8
Asia and Far East	14.9	20.3	11.7	18.7	46.2

(1) Categories of equipment which can be identified through the Customs and Excise Tariff only. Such items as aircraft engines and parts not distinguishable from similar civilian goods are excluded.

(2) Newly constructed only.

Source: Her Majesty's Customs and Excise.

Imports of Defence equipment (1)

TABLE 2.8

£ million

	1974	1975	1976	1977	1978
Armoured fighting vehicles and parts	2.8	5.0	6.2	6.7	7.1
Combat aircraft including helicopters (2)	—	—	—	0.9	—
Military non-combat aircraft ... ..	..	..	..	—	—
Warships including air cushion vehicles	—	—	—	—	0.4
Guns, small arms and parts	8.6	6.4	11.9	16.0	19.0
Guided weapons and missiles	23.1	25.4	21.9	22.8	40.8
Ammunition	4.0	13.6	25.4	20.4	14.6
Radio communication and radar apparatus ... ..	..	..	..	..	4.9
Optical equipment and training simulators ... ..	..	..	..	..	2.2
Total identified Defence equipment	38.5	50.4	65.4	66.8	89.0
of which:					
NATO countries and other W Europe ... ..	..	45.9	56.3	64.4	82.1
Middle East and N African countries ... ..	..	0.4	0.3	0.9	2.2
Sub-Saharan Africa ... ..	..	—	0.2	—	0.2
Latin America and Caribbean ... ..	..	0.3	1.8	—	0.5
Asia and Far East ... ..	..	3.8	6.8	1.5	4.0

(1) Categories of equipment which can be identified through the Customs and Excise Tariff only. Such items as aircraft engines and parts not distinguishable from similar civilian goods are excluded.

(2) Newly constructed only.

Source: Her Majesty's Customs and Excise.

Equipment procurement expenditure (1)

TABLE 3.1

£ million

	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Procurement expenditure: total	2,064.4	2,430.1	2,863.4		3,846.4	
Equipment	1,792.0	2,138.0	2,565.0	2,984.2	3,492.9	
Associated costs	272.4	292.1	298.4		353.5	
Procurement expenditure: total	2,064.4	2,430.1	2,863.4		3,846.4	
Research and development	667.1	760.1	879.5		1,160.5	
Production and repair	1,397.3	1,670.0	1,983.9	2,274.9	2,685.9	
Sea systems	440.3	590.4	672.0	877.9	1,009.7	
Development	61.4	64.9	78.6	127.2	150.3	
Production and repair	378.9	525.5	593.4	750.7	859.4	
Land systems	413.1	485.9	611.8	600.9	685.1	
Development	46.2	49.4	62.9	80.2	92.7	
Production and repair	366.9	436.5	549.5	520.7	592.4	
Air systems	752.2	844.4	1,010.4	1,214.1	1,445.2	
Development	216.9	249.8	290.0	329.7	359.8	
Production and repair	535.3	594.6	720.4	884.4	1,085.4	
General support	458.8	509.4	569.1		706.4	
Research and development	342.6	396.0	448.0		557.7	
Production	116.2	113.4	121.1	119.1	148.7	

(1) This table is derived from the Appropriation Accounts and the Supply Estimates. The expenditure is net of Appropriations-in-aid. Outturn and Estimates are given at outturn and forecast outturn prices respectively.

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

£ million

	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Production and repair	100.0	100.0	100.0		100.0	
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Production and repair	100.0	100.0	100.0		100.0	
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Research and development	1,100.0	1,200.0	1,300.0		1,400.0	
Production and repair	100.0	100.0	100.0		100.0	

Defence research and development expenditure (1)

TABLE 3.2

£ million

	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Gross expenditure: total	688.6	793.1	942.7			
Scientific intra-mural R & D	252.3	279.5	302.7			
Current:						
Salaries and wages	158.2	170.5	175.2			
Materials and equipment	60.9	66.6	77.8			
Other	10.4	12.0	13.1			
Capital:						
Land and buildings	9.1	10.9	14.2			
Plant and equipment	13.7	19.5	22.4			
Scientific extra-mural R & D	436.0	513.2	639.7			
Other Votes and central government funds ...	11.0	9.0	7.2			
Universities and further educational establishments	2.4	3.5	3.1			
Private industry and public corporations ...	369.7	433.0	554.9			
Other	0.3	0.3	0.1			
Overseas	52.6	67.4	74.4			
Social Science R & D	0.3	0.4	0.3			

(1) Total money disbursed by MOD for Defence R & D before offsetting receipts. Excludes civil work carried out by MOD on repayment terms. Outturn and Estimates are given at outturn and forecast outturn prices respectively.

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

TABLE 3.3

£ million

	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Net cost: total	667.1	760.1	879.5		1,160.5	
Pay, etc.	147.3	157.4	159.5			
Royal Navy personnel	2.6	3.0	3.1		3.8	
Army personnel	2.2	2.5	2.1		3.3	
Royal Air Force personnel	2.8	3.1	3.1		3.9	
Civilian staff (2)	139.7	147.8	151.2		176.4	
Stores, supplies and miscellaneous services	2.4	2.6	2.7		8.2	
Procurement Executive R & D						
Administration and common services (3) ...	172.4	213.9	257.2	282.7	323.9	
Sea systems development	61.4	64.9	78.6		150.3	
Land systems development	46.2	49.4	62.9		92.7	
Air systems development	216.9	249.8	290.0		359.8	
Accommodation services	20.5	22.1	28.6	28.4		

(1) Outturn and Estimates are given at outturn and forecast outturn prices respectively.

(2) Includes the cost of Procurement Executive Staff.

(3) Includes the cost of Research and Development establishments.

Defence production expenditure (1)

TABLE 3.4

£ million

	Outturn				Estimate	
	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Gross expenditure: total	1,637.5	1,965.5	2,297.6	2,673.8	3,190.4	
Sea systems	401.3	590.4	671.1	823.7	945.1	
if which:						
Ships hulls and machinery	141.7	196.9	230.2	289.3	318.3	
Weapon systems, etc.	151.5	213.2	181.2	249.8	283.7	
Ship equipment and support services	108.1	118.1	186.6	202.4	239.6	
Dockyard services (2) ... ..	..	62.2	73.1	82.2	103.5	
Land systems	464.0	577.8	689.5	703.7	794.9	
if which:						
Guns, small arms and CD stores	19.7	29.8	42.6	45.8	52.0	
Ammunition, mines and explosives	93.1	150.6	225.8	179.3	213.5	
Fighting vehicles	152.2	74.1	73.4	94.6	88.5	
Load carrying vehicles... ..		93.6	90.8	104.9	114.5	
Engineering equipment	29.1	39.0	37.4	31.3	49.2	
Guided weapons, electronic equipment and instruments	149.1	169.3	193.0	217.5	249.0	
Plant and machinery	20.8	0.6	0.9	0.5	0.9	
Other stores		20.8	25.6	29.8	27.3	
Air systems	639.2	663.8	796.7	1,004.2	1,275.9	
if which:						
Aircraft, aero-engines and aircraft equipment	534.2	549.6	654.6	809.4	986.5	
Guided weapons and electronic equipment	81.6	104.7	142.1	194.8	289.4	
Military aircraft loan—repayment and interest	23.4	9.5	—	—	—	
General support (3)	133.0	133.5	140.3	142.2	174.5	
Appropriations-in-aid: total (4)	240.2	295.5	313.2	398.9	504.5	
Sea systems	22.4	64.9	77.7	73.0	85.7	
Land systems	97.2	141.3	140.5	183.0	202.5	
Air systems	103.9	69.2	76.3	119.8	190.5	
General support	16.8	20.1	19.2	23.1	25.8	
Net expenditure: total	1,397.3	1,670.0	1,984.4	2,274.9	2,685.9	
Sea systems	378.9	525.5	593.4	750.7	859.4	
Land systems	366.8	436.5	549.0	520.7	592.4	
Air systems	535.3	594.6	720.4	884.4	1,085.4	
General support	116.2	113.4	121.1	119.1	148.7	

(1) This table is based on the Appropriation Accounts and the Supply Estimates. Outturn and Estimates are given at outturn and forecast outturn prices respectively.

(2) Figures for the Dockyard services for 1975-76 were included under other votes.

(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.

Her Majesty's Dockyards

TABLE 3.5

£ million

	1974-75	1975-76	1976-77	1977-78	1978-79
Production costs: total	184.2	228.4	293.9	346.1	391.1
Costs: type of work					
Ship repairs and alterations	139.9	172.0	227.4	270.0	311.0
Major refits (1)	74.8	88.4	108.2	132.0	175.6
Normal refits (2)	59.0	75.1	101.4	127.1	122.7
Other shipwork (3)	6.1	8.5	17.8	10.9	12.7
Ship construction	1.9	2.0	2.9	4.3	3.2
Manufacture and repair for stock	15.3	19.0	23.6	28.4	29.2
Fleet bases and shore establishments	20.0	23.8	27.3	32.8	34.6
Repayment work	1.4	5.3	4.4	0.9	1.1
Manufacture for capital account	5.7	6.3	8.3	9.7	12.0
Costs: type					
Labour	43.5	54.4	59.7	67.2	68.7
Material	27.9	33.7	51.1	74.0	87.4
Dockyard services	13.8	18.5	21.6	26.3	29.4
Contract services	2.7	4.4	7.2	7.7	7.4
Dockyard overheads (4)	74.2	96.4	115.4	132.9	145.9
Other MOD costs	22.1	21.0	38.9	38.0	52.3
Equipment	16.6	14.5	30.0	30.2	41.8
Design, etc.	5.5	6.5	8.9	7.8	10.5
Major refits completed: total (numbers) ...	13	12	5	11	9
of which:					
Submarines	4	3	3	2	2
Destroyers	—	2	—	—	—
Frigates	3	4	—	3	1
Mine counter-measure vessels	6	1	1	3	4
Others	—	2	1	3	2
Normal refits completed: total (numbers) ...	59	66	53	42	37
of which:					
Royal Navy vessels:					
Aircraft carriers	1	—	1	1	—
Commando/assault vessels	2	—	1	—	1
Submarines	3	2	1	1	3
Cruisers/destroyers	2	1	3	2	1
Frigates	9	11	8	8	5
Mine counter-measure vessels	13	12	12	11	10
Patrol vessels	2	4	3	3	4
Others	5	8	13	9	7
Royal Fleet Auxiliary vessels	3	2	—	2	—
Dockyard marine services vessels	19	26	11	5	6
Average number of employees	35,990	35,570	35,440	34,900	34,180

(1) A major refit of a ship comprises defect and planned maintenance work, together with modification and modernisation to bring the ship up to standard, usually by incorporating the latest weapons and equipment. Refits of all nuclear powered submarines are included.

(2) A normal refit of a ship comprises defect and planned maintenance work together with a limited amount of alterations. Routine intermediate dockings are also included under this heading.

(3) Other shipwork comprises essential unprogrammed defects and emergency repairs, and other minor work such as de-equipping prior to disposal and preparing for placing in reserve.

(4) Dockyard overheads include support to production (e.g., cleaners and messengers), apprentice training, administration, and upkeep and depreciation of dockyard machinery, buildings and general works.

Royal Ordnance Factories

TABLE 3.6

£ million

	1974-75	1975-76	1976-77	1977-78	1978-79
Sales: total	103.2	149.1	211.0	263.2	284.0
Sales: destination					
United Kingdom	57.5	79.2	102.3	123.4	132.9
Overseas	45.7	69.9	108.7	139.8	151.1
Sales: final product					
Ammunition	52.8	86.5	136.4	149.1	157.9
Vehicles	20.4	23.3	27.4	53.1	49.8
Guns and small arms	9.1	19.5	24.4	34.2	31.3
Electronics and guided weapon components	2.3	3.6	5.6	8.0	14.2
Chemicals and explosives	1.3	3.6	4.1	5.5	5.4
Engineers' equipment	0.8	1.6	3.7	3.0	10.1
Experimental and development work	6.0	6.4	6.9	7.1	8.3
Other work	10.5	4.6	2.5	3.2	7.0
Sales: customer					
Ministry of Defence: total	53.5	74.4	94.1	111.6	117.9
Sea systems	4.7	6.8	7.5	7.7	6.2
Land systems	38.0	56.7	77.3	87.9	90.9
Air systems	5.6	6.0	5.3	10.4	12.3
Common services	5.2	4.9	4.0	5.6	8.5
Overseas customers	41.3	62.7	91.4	117.9	91.9
Commercial work: total	8.4	12.0	25.5	33.7	74.2
Home	4.0	4.8	8.2	11.8	15.0
Export	4.4	7.2	17.3	21.9	59.2
Operating results (1)					
Surplus on operations (2)	4.9	13.9	34.3	38.6	32.7
Interest receivable	-4.3	-2.9	3.3	1.4	5.5
Surplus after interest	0.6	11.0	37.6	40.0	38.2
of which:					
Dividend payable to the Consolidated Fund	0.5	5.6	5.3	8.5	11.5
Transferred to general reserve	-0.9	3.0	28.7	27.3	22.1
Transferred to additional depreciation reserve	1.0	2.4	3.6	4.2	4.6
Average number of employees	18,550	20,556	22,535	23,169	23,235
Value added per employee £	3,562	4,504	5,927	6,435	6,604

(1) From 1 July 1974, the operations of the ROFs have been financed by means of a Trading Fund.

(2) Includes in 1978-79 an extraordinary item of £1.5m arising from premature repayment of part of the originating debt from the National Loans Fund.

Strengths of UK Service personnel: Regular Forces

TABLE 4.1

thousands

	Actual					Estimate	
	1 April				1 January	1 April	
	1976	1977	1978	1979	1980	1980	1981
All Services: total	336.6	330.5	320.7	315.0			
Male	321.8	316.0	306.1	299.7			
Officers	43.4	42.1	40.7	39.8			
Servicemen	278.4	273.9	265.4	259.9			
Female	14.8	14.5	14.6	15.3			
Officers	1.9	1.9	1.9	1.9			
Servicewomen	12.9	12.6	12.7	13.4			
Royal Navy and Royal Marines ...	76.1	76.2	75.2	72.5			
Male	72.2	72.2	71.2	68.7			
Officers	9.9	9.8	9.6	9.6			
Servicemen	63.3	62.4	61.6	59.1			
Female	3.9	4.0	4.0	3.8			
Officers	0.5	0.5	0.4	0.4			
Servicewomen	3.4	3.5	3.6	3.4			
Army	169.8	167.3	160.8	156.2			
Male	163.9	161.6	155.1	150.4			
Officers	17.6	17.3	16.8	16.3			
Servicemen	146.3	144.2	138.3	134.1			
Female	5.9	5.8	5.7	5.8			
Officers	0.9	0.9	0.9	0.9			
Servicewomen	5.0	4.9	4.9	4.9			
Royal Air Force	90.7	86.9	84.6	86.3			
Male	85.7	82.2	79.7	80.7			
Officers	15.9	15.0	14.3	14.0			
Servicemen	69.8	67.2	65.5	66.7			
Female	5.0	4.8	4.9	5.6			
Officers	0.6	0.6	0.6	0.6			
Servicewomen	4.5	4.1	4.3	5.0			

Strengths of trained UK Service personnel

TABLE 4.2

thousands

	Actual				Estimate		
	1 April				1 January	1 April	
	1976	1977	1978	1979	1980	1980	1981
All Services: total	305.4	300.7	291.0	284.1			
Male	292.0	287.3	277.7	270.4			
Officers	40.3	38.3	37.2	36.3			
Servicemen	251.7	249.0	240.6	234.2			
Female	13.4	13.4	13.2	13.6			
Officers	1.8	1.8	1.8	1.8			
Servicewomen	11.6	11.6	11.4	11.9			
Royal Navy and Royal Marines ...	68.6	68.9	68.7	65.8			
Male	65.0	65.2	64.9	62.3			
Officers	8.7	8.4	8.3	8.2			
Servicemen	56.4	56.9	56.6	54.1			
Female	3.6	3.7	3.7	3.5			
Officers	0.4	0.4	0.5	0.5			
Servicewomen	3.1	3.3	3.3	3.1			
Army	151.2	150.1	143.3	138.6			
Male	146.0	145.0	138.2	133.5			
Officers	16.9	16.2	15.8	15.3			
Servicemen	129.0	128.7	122.4	118.2			
Female	5.2	5.2	5.1	5.1			
Officers	0.8	0.8	0.8	0.8			
Servicewomen	4.4	4.4	4.4	4.3			
Royal Air Force	85.6	81.7	79.0	79.7			
Male	81.0	77.2	74.7	74.7			
Officers	14.7	13.8	13.1	12.7			
Servicemen	66.3	63.4	61.5	62.0			
Female	4.6	4.5	4.4	5.0			
Officers	0.6	0.5	0.6	0.5			
Servicewomen	4.0	3.9	3.8	4.5			

Strengths of the Reserve and Auxiliary Forces

TABLE 4.3

thousands

	1 April				1 January
	1976	1977	1978	1979	1980
All Services					
Regular Reserves:					
Male	166.2	173.2	176.0	184.6	
Female	1.8	1.7	1.6	1.5	
Volunteer Reserves and Auxiliary Forces:					
Male	66.1	70.1	69.6	67.9	
Female	4.5	5.1	5.7	5.6	
Royal Navy and Royal Marines					
Regular Reserves:					
Male	27.6	30.2	28.6	30.7	
Female	0.1	0.1	0.1	0.1	
Volunteer Reserves and Auxiliary Forces:					
Male	5.9	5.5	5.5	5.3	
Female	0.9	0.9	0.8	0.9	
Army					
Regular Reserves:					
Male	106.4	110.3	117.7	126.1	
Female	0.9	0.9	0.8	0.8	
Volunteer Reserves and Auxiliary Forces:					
Territorial Army:					
Male	53.0	57.4	56.7	55.5	
Female	2.9	3.5	3.9	3.9	
Ulster Defence Regiment:					
Male	7.1	7.0	7.2	6.9	
Female	0.6	0.6	0.7	0.7	
Royal Air Force					
Regular Reserve:					
Male	32.3	32.7	29.7	27.8	
Female	0.8	0.7	0.7	0.6	
Volunteer Reserve and Auxiliary Forces:					
Male	0.2	0.2	0.2	0.2	
Female	0.1	0.1	0.1	0.1	

Strengths of locally entered Service personnel

TABLE 4.4

thousands

	1 April				1 January
	1976	1977	1978	1979	1980
All Services: total	9.1	8.5	8.4	8.4	—
Royal Navy	0.7	0.5	0.4	0.3	—
Army	8.0	7.8	7.8	8.1	—
of which Gurkhas	6.9	6.7	6.7	7.0	—
Royal Air Force	0.4	0.3	0.2	—	—

Strengths of cadet forces

TABLE 4.5

thousands

	1 April				1 January
	1976	1977	1978	1979	1980
All Services					
Male	138.9	141.2	141.6	139.3	—
Female	—	0.4	0.6	0.6	—
Royal Navy cadets					
Male	26.6	25.1	24.9	23.8	—
Female	—	0.1	0.1	0.1	—
Army cadets					
Male	69.8	72.5	73.1	72.2	—
Female	—	0.2	0.4	0.4	—
Royal Air Force cadets					
Male	42.6	43.6	43.6	43.3	—
Female	—	0.1	0.2	0.2	—

Recruitment of UK Service personnel

TABLE 4.6

number

	Financial Year				1 April-31 December	
	1975-76	1976-77	1977-78	1978-79	1978	1979
All Services: total	46,906	40,244	38,237	43,366	32,906	
Male	41,686	36,390	34,188	38,774	29,611	
Officers	1,882	2,007	1,957	2,110	1,438	
Servicemen	39,804	34,383	32,231	36,664	28,173	
Female	5,220	3,854	4,049	4,592	3,295	
Officers	253	320	297	280	192	
Servicewomen	4,967	3,534	3,752	4,312	3,103	
Royal Navy and Royal Marines	10,064	9,124	8,070	8,073	6,200	
Male	8,886	8,167	7,172	7,260	5,596	
Officers	534	531	535	584	417	
Servicemen	8,352	7,636	6,637	6,676	5,179	
Female	1,178	957	898	813	604	
Officers	35	34	42	27	25	
Servicewomen	1,143	923	856	786	579	
Army	29,591	24,088	22,550	25,254	19,617	
Male	27,238	22,344	20,868	23,528	18,406	
Officers	1,096	1,003	1,020	1,021	681	
Servicemen	26,142	21,341	19,848	22,507	17,725	
Female	2,353	1,744	1,682	1,726	1,211	
Officers	145	134	149	156	103	
Servicewomen	2,208	1,610	1,533	1,570	1,108	
Royal Air Force	7,251	7,032	7,617	10,039	7,089	
Male	5,562	5,879	6,148	7,986	5,609	
Officers	252	473	402	505	340	
Servicemen	5,310	5,406	5,746	7,481	5,269	
Female	1,689	1,153	1,469	2,053	1,480	
Officers	73	152	106	97	64	
Servicewomen	1,616	1,001	1,363	1,956	1,416	

Recruitment of UK male officers

TABLE 4.7

number

	Financial Year				1 April-31 December	
	1975-76	1976-77	1977-78	1978-79	1978	1979
	All Services: total...	1,882	2,007	1,957	2,110	1,438
Pre-cadets	555	500	505	523	345	
Officer cadets	675	840	799	856	562	
University cadets	320	273	238	255	206	
Specialists, graduates and other direct commission entrants	332	394	415	476	325	
Royal Navy and Royal Marines	534	531	535	584	417	
Officer cadets	321	320	345	374	263	
University cadets	101	95	83	101	78	
Specialists, graduates and other direct commission entrants	112	116	107	109	76	
Army	1,096	1,003	1,020	1,021	681	
Pre-cadets	555	500	505	523	345	
Officer cadets	282	297	274	243	138	
University cadets	110	75	64	65	58	
Specialists, graduates and other direct commission entrants	149	131	177	190	140	
Royal Air Force	252	473	402	505	340	
Officer cadets	72	223	180	239	161	
University cadets	109	103	91	89	70	
Specialists, graduates and other direct commission entrants	71	147	131	177	109	

Recruitment of UK servicemen

TABLE 4.8

number

	Financial Year				1 April-31 December	
	1975-76	1976-77	1977-78	1978-79	1978	1979
	All Services: total...	39,804	34,383	32,231	36,664	28,173
Royal Navy and Royal Marines	8,352	7,636	6,637	6,676	5,179	
Adults(1)	2,214	1,972	1,752	1,957	1,241	
Apprentices	483	588	515	516	362	
Juniors(2)	5,655	5,076	4,370	4,203	3,576	
Army	26,142	21,341	19,848	22,507	17,725	
Adults(1)	12,272	9,208	9,299	9,496	6,818	
Young Soldiers(3)	4,207	3,456	2,336	4,389	3,230	
Apprentices	1,659	1,672	1,640	1,562	1,364	
Juniors (4)	8,004	7,005	6,573	7,060	6,313	
Royal Air Force	5,310	5,406	5,746	7,481	5,269	
Adults(1)	2,649	2,916	2,957	3,575	2,372	
Young Airmen (2)	2,407	2,310	2,537	3,675	2,666	
Apprentices	254	180	252	231	231	

(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.

Outflow of UK Service personnel: from each Service

TABLE 4.9

number

	Financial Year				1 April-31 December	
	1975-76	1976-77	1977-78	1978-79	1978	1979
	All Services: total...	48,530	46,412	48,002	49,306	36,894
Male ...	43,656	42,215	44,096	45,369	33,911	
Officers ...	3,862	3,865	3,894	3,596	2,821	
Servicemen ...	39,794	38,350	40,202	41,773	31,090	
Female ...	4,874	4,197	3,906	3,937	2,983	
Officers ...	417	361	337	299	218	
Servicewomen ...	4,457	3,836	3,569	3,638	2,765	
Royal Navy and Royal Marines ...	10,173	9,025	9,046	11,151	8,335	
Male ...	9,182	8,128	8,184	10,176	7,590	
Officers ...	727	775	855	777	591	
Servicemen ...	8,455	7,353	7,329	9,399	6,999	
Female ...	991	897	862	975	745	
Officers ...	77	66	76	66	44	
Servicewomen ...	914	831	786	909	701	
Army ...	26,797	26,610	29,072	29,807	22,236	
Male ...	24,643	24,749	27,343	28,162	21,012	
Officers ...	1,541	1,591	1,799	1,847	1,475	
Servicemen ...	23,102	23,158	25,544	26,315	19,537	
Female ...	2,154	1,861	1,729	1,645	1,224	
Officers ...	199	164	155	130	97	
Servicewomen ...	1,955	1,697	1,574	1,515	1,127	
Royal Air Force ...	11,560	10,777	9,884	8,348	6,323	
Male ...	9,831	9,338	8,569	7,031	5,309	
Officers ...	1,594	1,499	1,240	972	755	
Servicemen ...	8,237	7,839	7,329	6,059	4,554	
Female ...	1,729	1,439	1,315	1,317	1,014	
Officers ...	141	131	106	103	77	
Servicewomen ...	1,588	1,308	1,209	1,214	937	

Outflow of UK Service personnel: categories of exit

TABLE 4.10

number

	Financial Year				April-December	
	1975-76	1976-77	1977-78	1978-79	1978	1979
Total	48,530	46,412	48,002	49,306	36,894	
Male officers: total	3,862	3,865	3,894	3,596	2,821	
Commissioned officers	3,386	3,393	3,339	3,083	2,438	
Time and age expiries or exercise of right at option point	1,389	1,266	1,182	1,023	750	
Premature release at own request	1,259	1,179	1,368	1,444	1,196	
Redundancies	322	535	386	287	229	
Medical reasons and deaths	180	174	167	145	112	
Other reasons	236	239	236	184	151	
Officers designate... ..	476	472	555	513	383	
At own request	96	105	144	167	116	
Medical reasons and deaths	10	6	10	10	8	
Other reasons	370	361	401	336	259	
Servicemen: total... ..	39,794	38,350	40,202	41,773	31,090	
Before completion of 6 months service	10,193	8,903	8,445	10,574	7,296	
By exercise of right	6,414	5,614	5,725	7,410	4,965	
Unsatisfactory, for disciplinary or other reasons	3,414	2,958	2,481	2,881	2,122	
Medical reasons and deaths	354	321	229	270	206	
Compassionate release	11	12	10	3	3	
After completion of 6 months service	29,601	29,447	31,757	31,199	23,794	
Time and age expiries or exercise of right at option point	16,058	15,272	15,096	13,783	10,120	
Premature release at own request	7,723	7,209	8,840	10,720	8,331	
Redundancies	709	1,243	1,843	1,364	1,267	
Unsatisfactory, for disciplinary or other reasons	3,165	3,785	3,874	3,327	2,539	
Medical reasons and deaths	1,645	1,655	1,714	1,586	1,221	
Compassionate release	301	283	390	419	316	
Female officers: total	417	361	337	299	218	
Time and age expiries or exercise of right at option point	229	183	183	140	94	
At own request	174	153	130	145	113	
Medical reasons and deaths	8	13	3	6	6	
Other reasons	6	12	21	8	5	
Servicewomen: total	4,457	3,836	3,569	3,638	2,765	
Time and age expiries or exercise of right at option point	777	312	250	166	136	
By exercise of right to give 18 months notice	157	312	373	489	344	
At own request	1,117	854	737	738	592	
Marriage, pregnancy	1,927	1,905	1,859	1,730	1,296	
Unsatisfactory, for disciplinary or other reasons	399	378	275	431	329	
Medical reasons and deaths	56	59	54	70	56	
Compassionate release	24	16	21	14	12	

- (1) The figures of "Premature release at own request", for both officers and servicemen, relate only to trained personnel.
- (2) "Officers designate" are candidates for commissioned service who are required to undertake a period of training before being appointed to a commission. As the figures for female officers designate are small, they have been included in the figures for female officers.
- (3) The Services differ in their engagement structures and in their arrangements for premature release. Consequently, the categories included in the numbers of servicemen shown as "Premature release at own request" are not the same for each Service, but they are the categories that represent premature voluntary wastage from each Service.

Service pensioners (1)

TABLE 4.11

number

	Total		Officers			Servicemen/women		
	Male	Female	Total	Male	Female	Total	Male	Female
At 1 January								
1975	213,265	..	..	56,983	..	..	156,282	..
1976	214,823	..	..	56,226	..	..	158,597	..
At 1 April								
1977	212,718	2,092	57,600	56,475	1,125	157,210	156,243	967
1978	216,500	2,131	58,520	57,378	1,142	160,111	159,122	989
1979	216,853	2,134	58,968	57,824	1,144	160,019	159,029	990
of which:								
age								
under 40	7,881	65	699	688	11	7,247	7,193	54
40-49	48,245	194	7,191	7,093	98	41,248	41,152	96
50-59	59,734	729	18,072	17,746	326	42,391	41,988	403
60-69	57,558	791	20,167	19,718	449	38,182	37,840	342
70-79	35,007	282	10,351	10,162	189	24,938	24,845	93
80 and over	8,428	73	2,488	2,417	71	6,013	6,011	2
of which:								
commenced								
pre 1945	17,021	18	1,536	1,518	18	15,503	15,503	—
1945-55	38,982	95	10,856	10,769	87	28,221	28,213	8
1956-61	36,782	268	12,574	12,349	225	24,476	24,433	43
1962-69	49,876	1,016	15,539	15,087	452	35,353	34,789	564
1970-	74,192	737	18,463	18,101	362	56,466	56,091	375

(1) Comprises recipients of Service retired pay (officers) and pensions (servicemen) and invaliding and attributable retired pay and pension but not purely Disability Pensions.

Service pay: Indices and illustrative rates of Military Salary (1)

1 April

TABLE 4.12

	1975	1976	1977	1978	1979
Military Salary index (April 1975 = 100)					
All ranks (2)	100.0	110.0	115.3	130.1	173.7
Officers (up to Brigadier)	100.0	105.9	109.8	123.3	163.5
Other ranks (Sergeant and above)	100.0	108.4	113.8	129.2	175.7
Other ranks (up to Corporal)	100.0	112.6	118.4	133.4	176.7
Illustrative annual rates of Military Salary (in terms of Army ranks) (3)					
Brigadier	10,001	10,001	10,209	11,545	15,251
Colonel (after 4 years in the rank)	8,599	8,599	8,807	10,063	13,502
Lieutenant-Colonel (after 4 years in the rank)	7,099	7,413	7,621	8,581	11,500
Major (after 4 years in the rank)	5,599	5,913	6,121	6,877	9,249
Captain (after 3 years in the rank)	4,449	4,763	4,971	5,548	7,250
Lieutenant (after 2 years in the rank)	3,500	3,814	4,004	4,457	5,677
Second Lieutenant	2,675	2,989	3,139	3,478	4,352
Warrant Officer I (class 1, band 6, scale C) (after 18 years) (4)	4,442	4,756	4,964	5,636	7,631
Warrant Officer II (class 1, band 6, scale C) (after 18 years) (4)	4,256	4,570	4,778	5,413	7,324
Staff Sergeants (class 1, band 5, scale C) (after 18 years) (4)	3,836	4,150	4,358	4,891	6,555
Sergeants (class 1, band 5, scale C) (after 12 years) (5) ...	3,577	3,891	4,084	4,599	6,182
Corporal (class 1, band 2, scale C)	3,205	3,519	3,694	4,183	5,662
Lance Corporal (class 1, band 1, scale C)	2,643	2,957	3,103	3,497	4,670
Private (class 2, band 1, scale C)	2,245	2,559	2,686	2,993	3,894

(1) All forms of additional pay, e.g. flying pay, diving pay, parachute pay are excluded since they are not in payment to the majority of Service personnel.

(2) The index covers adult male UK Service personnel whose pay is recommended by the AFPRB. In the weighting, based on paid strengths at April 1977, 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. For an explanation of classes, bands and scales, see the Introduction.

(4) Includes £219 length of service increment.

(5) Includes £128 length of service increment.

Strengths of staff employed in the Ministry of Defence (1)
1 April

TABLE 5.1

number

	Actual					Estimate
	1975	1976	1977	1978	1979	1980
MOD Civilian staff: total	297,650	289,104	278,110	267,507	262,901	255,623
UK based (2)						
United Kingdom:						
Non-industrial	119,994	119,135	114,997	111,391	109,838	107,168
Industrial	120,853	118,374	114,186	109,558	108,488	104,832
Overseas:						
Non-industrial	5,325	5,600	5,459	5,164	4,920	4,897
Industrial	1,428	1,438	1,263	1,393	1,451	1,488
Locally engaged (2)						
Non-industrial	14,583	12,681	11,930	11,483	11,152	10,876
Industrial	35,467	31,876	30,275	28,518	27,052	26,362

(1) This table does not include staff at the Royal Ordnance Factories.

(2) 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.

Functional analysis of civilian staff

TABLE 5.2

thousands

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Total civilian staff (2)	295.6	289.4	278.8	266.8	263.3	255.5
Nuclear strategic force (Polaris)	3.8	4.1	4.2	4.1	4.4	4.5
Navy general purpose combat force	10.9	9.9	9.3	8.4	8.2	8.1
Amphibious forces	0.3	0.3	0.2	—	—	—
Other ships	6.3	5.9	5.5	5.5	5.5	5.4
Aircraft	—	0.1	0.1	0.1	0.1	0.1
Fleet headquarters	—	0.1	0.1	0.1	0.2	0.2
Overseas shore establishments	4.3	3.5	3.4	2.7	2.4	2.4
European theatre ground forces (British Army of the Rhine)	30.3	30.1	29.2	28.2	27.7	26.9
Other Army combat forces	10.0	7.4	7.2	6.9	6.8	6.6
Mediterranean	3.7	3.3	3.4	3.1	2.9	2.6
Hong Kong and other Far East	6.2	4.0	3.7	3.7	3.7	3.8
Other areas	0.1	0.1	0.1	0.1	0.2	0.2
Air Force general purpose forces	14.5	12.7	12.1	11.6	11.4	11.0
Air defence	0.1	0.2	0.1	0.1	0.1	0.1
Other aircraft	0.3	0.3	0.2	0.3	0.3	0.3
Operational stations	6.7	5.4	5.2	5.1	5.1	4.9
Headquarters	1.1	1.0	1.0	1.1	1.0	0.9
General support	6.3	5.8	5.6	5.0	4.9	4.8
Reserve and Auxiliary formations	3.6	3.6	3.6	3.6	3.5	3.3
Navy	0.2	0.2	0.2	0.2	0.2	0.2
Army	2.9	2.9	2.9	2.9	2.8	2.6
Air Force	0.5	0.5	0.5	0.5	0.5	0.5
Research and Development (3)	38.1	36.7	35.2	33.7	33.2	32.0
Ship construction and underwater warfare	3.2	3.3	3.0	3.1	3.5	3.4
Ordnance and other army	5.6	5.4	5.2	5.0	4.8	3.9
Military aircraft	6.7	7.1	7.0	6.8	6.5	6.5
Guided weapons	3.2	3.1	3.1	3.0	2.5	2.9
Other electronics	4.2	4.4	4.0	3.7	4.3	4.7
Other research and development	15.2	13.4	12.9	12.1	11.6	10.6
Training	22.3	21.6	21.1	20.5	21.0	20.8
Service colleges	3.6	3.5	3.5	3.3	3.3	3.3
Navy	4.5	4.1	4.0	3.9	4.0	3.8
Army	10.9	11.0	10.6	10.5	10.9	10.9
Air Force	3.3	3.0	3.0	2.8	2.8	2.8
Repair and associated facilities in UK	98.4	97.5	93.5	88.3	87.2	84.9
Naval dockyards	33.7	34.6	34.5	34.2	33.8	32.8
Repair and maintenance	18.3	18.6	17.3	15.6	15.7	15.8
Storage and supply	34.0	32.6	31.1	28.9	28.3	27.2
Quality assurance	12.4	11.7	10.6	9.6	9.4	9.1
Other support functions	68.7	65.8	63.4	61.5	59.9	57.4
Whitehall organisations	16.5	14.0	13.0	12.2	12.4	11.6
Local administration communications, etc., in UK	32.0	30.7	30.4	30.2	29.0	28.1
Meteorological services	3.6	3.5	3.4	3.3	3.2	3.1
Family and personnel services in UK	11.4	11.6	11.2	10.6	10.5	9.8
Service pensions	0.2	0.2	0.2	0.2	0.2	0.2
Other support services	5.0	5.8	5.2	5.0	4.6	4.6

(1) The above are the average strengths of industrial and non-industrial staff provided for in the Estimates.

(2) Locally engaged staff are included but Civilians employed in the Royal Ordnance Factories and Department of Environment staff directly employed on Defence work are excluded.

(3) In 1975-76, of the 38.1 thousand shown 5.0 thousand are also included in the relevant combat forces or support programmes.

Deployment of UK-based civilian staff (1)

1 April

TABLE 5.3

number

	1975	1976	1977	1978	1979
Ministry of Defence: total	247,600	244,547	235,905	227,506	224,697
Headquarters					
Centre	6,708	6,584	6,280	6,540	6,169
Navy	798	822	749	736	679
Army	1,028	1,006	884	845	692
Air	1,202	1,156	1,075	902	850
Procurement Executive	6,538	6,406	6,010	5,067	4,773
Maintenance, repair, storage and supply organisations					
Centre	641	649	587	550	505
Navy	59,159	59,791	59,039	59,033	58,571
Army	30,383	29,641	28,603	27,850	27,676
Air	11,683	11,275	10,460	8,484	7,682
Command and support services (2)					
Centre	17,136	17,705	16,707	15,338	14,855
Navy	10,823	10,710	10,636	10,540	10,650
Army	33,620	32,884	31,621	30,436	30,362
Air	15,444	14,967	14,440	14,331	15,114
Procurement Executive (3)	49,066	47,627	45,622	43,742	43,030
Meteorological services	3,371	3,324	3,192	3,112	3,089

(1) This table includes UK based staff serving overseas but does not include staff at the Royal Ordnance Factories.

(2) Including medical, educational and training establishments.

(3) Including research and development establishments.

Strengths in standard regions

1 January

TABLE 5.4

number

	1977	1978 (2)	1979
United Kingdom: total	231,678	220,949	219,046
Non-Industrial	116,065	111,391	110,066
Industrial	115,613	109,558	108,980
North	4,365	4,300	4,138
Non-Industrial	1,887	1,927	1,769
Industrial	2,478	2,373	2,369
Yorkshire and Humberside	7,378	7,721	7,749
Non-Industrial	4,080	4,362	4,349
Industrial	3,298	3,359	3,400
East Midlands	8,370	7,978	7,959
Non-Industrial	3,109	3,014	2,988
Industrial	5,261	4,964	4,971
East Anglia	2,814	2,842	2,950
Non-Industrial	1,245	1,292	1,381
Industrial	1,569	1,550	1,569
South-East	106,573	100,501	98,488
Non-Industrial	59,815	56,418	54,996
Industrial	46,758	44,083	43,492
South-West	53,253	52,155	52,126
Non-Industrial	25,751	25,402	25,566
Industrial	27,502	26,753	26,560
West Midlands	11,673	11,311	11,171
Non-Industrial	5,440	5,486	5,351
Industrial	6,233	5,825	5,820
North-West	4,165	3,666	3,891
Non-Industrial	3,073	2,667	2,914
Industrial	1,092	999	977
Wales	7,600	7,554	7,659
Non-Industrial	2,940	2,854	2,895
Industrial	4,660	4,700	4,764
Scotland	19,954	19,557	19,610
Non-Industrial	7,068	6,854	6,850
Industrial	12,886	12,703	12,760
Northern Ireland	5,533	3,364	3,305
Non-Industrial	1,657	1,115	1,007
Industrial	3,876	2,249	2,298

(1) This table does not include staff at the Royal Ordnance Factories.

(2) At 1 April.

Strengths of staff employed overseas

1 April

TABLE 5.5

number

	1975	1976	1977	1978	1979
Federal Republic of Germany					
UK based... ..	2,512	2,496	2,498	2,387	2,301
Locally engaged	30,150	29,499	27,981	26,800	26,875
Continental Europe other than FRG (1)					
UK based... ..	..	..	88	76	84
Locally engaged ... ..	..	..	865	826	792
Near East and Gulf					
UK based... ..	935	870	815	786	678
Locally engaged	10,467	8,751	7,938	7,130	5,574
Far East					
UK based... ..	332	524	443	403	410
Locally engaged	7,920	4,612	4,181	4,107	3,983
Other areas (2)					
UK based... ..	2,974	3,148	2,878	2,905	2,898
Locally engaged	1,514	1,696	1,242	1,140	981

(1) In 1975 and 1976, included with Federal Republic of Germany.

(2) Including duty afloat and the Royal Fleet Auxiliary.

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

1 April

TABLE 5.6

number

	1975	1976	1977	1978	1979
Total	130,230	130,063	125,886	122,235	120,643
Administrative, executive and clerical	47,573	46,986	44,560	43,156	42,823
Secretarial	7,281	7,196	7,005	6,750	6,635
Supervisory	5,089	4,920	4,841	4,718	4,693
Professional and technological	26,605	27,583	27,222	26,672	26,622
Science... ..	11,507	11,529	11,157	10,785	10,652
Cartographic and hydrographic	1,002	1,055	1,085	1,146	1,152
Retired officers	1,896	1,949	1,903	1,914	1,922
Police	4,151	4,437	4,207	4,037	3,834
Education	2,742	2,738	2,772	2,640	2,510
Medical	979	974	956	922	930
Others	21,405	20,696	20,178	19,495	18,870

(1) This table covers all Non-Industrial staff employed within the Ministry of Defence, including those working at the Royal Ordnance Factories.

Recruitment and losses of occupational groups or classes
of non-industrial staff (1)

TABLE 5.7

number

		1975-76	1976-77	1977-78	1978-79
Total:					
Recruitment	... ..	9,910	6,528	8,272	9,787
Losses	... ..	10,481	11,057	12,462	12,666
Administrative, executive and clerical:					
Recruitment	... ..	4,349	2,899	4,102	5,060
Losses	... ..	4,771	4,837	5,250	5,779
Secretarial:					
Recruitment	... ..	1,224	729	860	994
Losses	... ..	1,098	906	1,031	1,095
Supervisory:					
Recruitment	... ..	91	54	66	70
Losses	... ..	331	382	426	376
Professional and technological:					
Recruitment	... ..	809	256	140	206
Losses	... ..	1,001	1,252	1,616	1,390
Science:					
Recruitment	... ..	614	242	282	677
Losses	... ..	524	539	676	786
Cartographic and Hydrographic:					
Recruitment	... ..	119	81	135	112
Losses	... ..	62	65	76	110
Retired officers:					
Recruitment	... ..	15	68	227	235
Losses	... ..	142	177	230	203
Police:					
Recruitment	... ..	605	179	264	246
Losses	... ..	329	368	475	420
Educational:					
Recruitment	... ..	421	403	251	256
Losses	... ..	301	337	369	394
Medical:					
Recruitment	... ..	196	175	165	188
Losses	... ..	196	179	210	174
Others:					
Recruitment	... ..	1,467	1,442	1,780	1,743
Losses	... ..	1,726	2,015	2,103	1,939

(1) The recruitment figures do not include transfers from the Civil Service Industrial grades within the Ministry of Defence. Transfer between the classes shown are also excluded. This table covers all Non-industrial staff employed within the Ministry of Defence, including those working at the Royal Ordnance Factories.

Civilian apprentices: type of Establishment
1 April

TABLE 5.8

	number				
	1975	1976	1977	1978	1979
Total	6,354	6,975	7,327	7,541	7,776
Royal Dockyards	2,793	3,139	3,493	3,521	3,547
Stores and maintenance establishments:					
Navy	173	232	259	399	445
Army	737	826	748	714	701
Air Force... ..	280	283	257	218	240
Research and Development establishments ...	1,129	1,143	1,149	1,221	1,269
Royal Ordnance Factories	696	779	891	962	1,012
Other establishments	546	573	530	506	562

Civilian apprentices: standard regions
1 April

TABLE 5.9

	number				Total
	Royal Ordnance Factories		Other MOD organisations		
	Male	Female	Male	Female	
North	1,288	1,234	280	510	65
Yorkshire and Humberside	281	191	280	221	291
East Midlands	328	327	141	204	458
East Anglia	42	111	413	240	—
South East	295	264	371	364	3,306
South West	23	10	30	31	1,658
West Midlands	182	161	171	172	124
North West	112	118	10	112	384
Wales	2,238	2,272	2,171	2,264	374
Scotland	297	40	281	448	1,079
Northern Ireland	1,652	1,272	1,663	1,118	37

HEALTH, EDUCATION, AND ACCOMMODATION

CONFIDENTIAL

Service hospitals and in-patients

TABLE 6.1

	1975	1976	1977	1978	1979
Average number of beds					
United Kingdom: total	2,757	2,798	2,555	2,352	2,297
Royal Navy	615	615	615	598	574
Army	1,348	1,354	1,117	1,020	989
Royal Air Force	794	829	823	734	734
Overseas: total	1,637	1,432	1,422	1,351	1,243
Royal Navy	152	135	133	88	65
Army	1,185	1,033	1,025	999	914
Royal Air Force	300	264	264	264	264
Number of in-patients admissions (thousands)					
United Kingdom: total	78.2	77.7	73.2	68.3	72.3
Service personnel	32.2	31.9	30.5	28.4	27.4
Service dependants	19.7	18.8	15.8	14.5	14.4
Others	26.3	27.0	26.9	25.4	30.5
Overseas: total	47.9	45.3	45.5	43.5	42.1
Service personnel	13.8	13.8	12.8	12.6	12.4
Service dependants	26.4	25.3	24.7	23.3	20.8
Others	7.6	6.2	8.0	7.6	8.9

Strengths of uniformed medical staff (1)

TABLE 6.2

number

	1 April				1 January
	1976	1977	1978	1979	1980
Qualified doctors: total	1,288	1,254	1,243	1,181	
Royal Navy	291	283	286	282	
Army	550	539	544	504	
Royal Air Force	447	432	413	395	
Qualified dentists: total	392	384	371	366	
Royal Navy	93	93	90	91	
Army	180	181	171	172	
Royal Air Force	119	110	110	103	
Female nursing services: total (2)	2,654	2,772	2,719	2,666	
QARNNS (3)	597	607	581	648	
QARANC (4)	1,406	1,483	1,463	1,318	
PMRAFNS (5)	651	682	675	700	
Medical and dental support staff: total	6,156	5,991	5,870	5,963	
Royal Navy	1,223	1,245	1,243	1,451	
Army	3,188	3,158	3,108	3,002	
Royal Air Force	1,745	1,588	1,519	1,510	

(1) Includes staff employed at units (including ships) and in hospitals.

(2) Comprises trained personnel and personnel undertaking "on-the-job" training and held against established posts.

(3) Queen Alexandra's Royal Naval Nursing Service.

(4) Queen Alexandra's Royal Army Nursing Corps.

(5) Princess Mary's Royal Air Force Nursing Service.

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

TABLE 6.3

number

	Code numbers (2)		1974	1975	1976	1977	1978
Average strength		male	327,204	319,959	318,539	311,670	303,507
		female	14,401	14,500	14,601	14,482	14,760
All causes	000-999	male	60,078	56,848	60,827	51,292	53,749
		female	5,103	5,067	5,621	4,652	5,215
All diseases	000-796	male	46,278	43,107	47,090	37,985	41,378
		female	4,626	4,575	5,058	4,138	4,731
Infective and parasitic diseases ...	000-136	male	4,744	4,610	5,118	4,302	4,912
		female	454	470	618	453	482
Neoplasms	140-239	male	689	579	688	585	519
		female	71	77	85	87	94
Endocrine, nutritional and metabolic diseases	240-279	male	524	506	491	436	357
		female	38	28	29	39	41
Diseases of blood and blood forming organs	280-289	male	108	112	100	98	100
		female	12	16	27	17	14
Mental disorders	290-315	male	1,945	1,620	1,549	1,333	1,179
		female	200	193	149	131	128
Diseases of the nervous system and sense organs	320-389	male	1,516	1,345	1,324	1,181	1,167
		female	107	112	120	71	88
Diseases of the circulatory system...	390-458	male	2,123	1,888	2,829	1,774	1,733
		female	64	59	61	54	42
Diseases of the respiratory system	460-519	male	13,706	12,611	15,482	10,175	13,384
		female	1,384	1,420	1,803	1,098	1,663
Diseases of the digestive system ...	520-577	male	7,249	6,718	6,614	5,952	5,651
		female	642	635	594	606	626
Diseases of the genito-urinary system	580-629	male	1,820	1,778	1,723	1,595	1,602
		female	504	476	419	411	396
Complications of pregnancy, child-birth and the puerperium	630-678	female	117	111	120	143	158
Diseases of skin and subcutaneous tissue	680-709	male	2,564	2,320	2,368	2,223	2,133
		female	169	136	156	117	138
Diseases of the musculoskeletal system	710-738	male	5,239	5,142	5,169	5,115	5,240
		female	339	330	353	394	394
Congenital anomalies	740-759	male	319	309	258	270	309
		female	40	33	37	40	32
Symptoms and ill-defined conditions	780-796	male	3,732	3,569	3,377	2,946	3,092
		female	485	479	487	477	435
All injuries	800-999	male	11,322	11,047	10,971	10,664	9,725
		female	409	420	472	448	383
Training and exercise injuries (3) ...		male	508	537	533	516	513
		female	2	6	11	2	16
Road traffic accident injuries (3) ...		male	1,919	1,674	1,784	1,717	1,554
		female	66	57	54	57	65
Aircraft accident injuries (3) ...		male	118	138	129	111	107
		female	3	4	3	6	2
Other injuries (3)		male	8,777	8,698	8,525	8,320	7,551
		female	338	353	404	383	300
Supplementary classifications(4)...	Y00-Y89	male	2,478	2,694	2,766	2,643	2,646
		female	68	72	91	66	101

(1) Based upon spells of off-duty sickness lasting 2 days or more terminating during the year, excluding for the Army, sickness not requiring admission to a medical unit. Includes all cases whether occurring on or off duty.

(2) Code numbers refer to the Eighth Revision (1967) of the *International Statistical Classification of Diseases, Injuries and Causes of Death*.

(3) Where an injury could be classified under more than one cause (e.g. aircraft crash during an exercise) then the injury is shown under the first listed cause (i.e. in the example "Training and exercise").

(4) Used where no classifiable diagnosis is reported or where the person is not sick, e.g. admissions for investigation, preventive measures or elective surgery.

HEALTH, EDUCATION AND ACCOMMODATION

CONFIDENTIAL

Deaths of UK Service personnel (1)

TABLE 6.4

number

	1975	1976	1977	1978	1979
All Services					
All causes	422	413	412	393	386
Male	414	405	404	387	379
Female	8	8	8	6	7
All diseases	179	169	165	125	126
Neoplasms	74	54	62	43	52
Ischaemic heart disease	64	62	57	38	41
Other heart diseases	5	7	6	10	9
Cerebrovascular disease	11	14	12	9	5
Other diseases	25	32	28	25	19
All injuries	243	244	247	268	260
Road traffic injuries	116	119	142	135	132
Other injuries	127	125	105	133	128
Royal Navy and Royal Marines					
All causes	62	67	91	61	74
All diseases	25	27	32	18	24
Neoplasms	12	10	11	11	12
Ischaemic heart disease	10	7	10	3	6
Other heart diseases	—	3	4	2	1
Cerebrovascular disease	1	3	1	1	1
Other diseases	2	4	6	1	4
All injuries	37	40	59	43	50
Road traffic injuries	24	22	32	20	32
Other injuries	13	18	27	23	18
Army					
All causes	246	236	233	232	216
All diseases	97	87	82	62	62
Neoplasms	33	19	29	17	21
Ischaemic heart disease	33	36	27	20	24
Other heart diseases	4	3	2	6	7
Cerebrovascular disease	6	9	8	4	3
Other diseases	21	20	16	15	7
All injuries	149	149	151	170	154
Road traffic injuries	66	76	86	90	67
Other injuries	83	73	65	80	87
Royal Air Force					
All causes	114	110	88	100	96
All diseases	57	55	51	45	40
Neoplasms	29	25	22	15	19
Ischaemic heart disease	21	19	20	15	11
Other heart diseases	1	1	—	2	1
Cerebrovascular disease	4	2	3	4	1
Other diseases	2	8	6	9	8
All injuries	57	55	37	55	56
Road traffic injuries	26	21	24	25	33
Other injuries	31	34	13	30	23

(1) Regular Service personnel only. For average strengths see table 6.3. Includes all deaths whether occurring on or off duty.

Service aircraft: accidents, rates and casualties

TABLE 6.5

	1975	1976	1977	1978	1979
Number of accidents					
All Services: total ...	44	39	28	39	39
Helicopters ...	23	11	11	14	
Fixed wing ...	21	28	17	25	
Royal Navy ...	9	9	8	8	
Helicopters ...	9	7	7	6	
Fixed wing ...	—	2	1	2	
Army ...	10	3	4	7	
Helicopters ...	10	3	3	6	
Fixed wing ...	—	—	1	1	
Royal Air Force ...	25	27	16	24	
Helicopters ...	4	1	1	2	
Fixed wing ...	21	26	15	22	
Rates per 10,000 flying hours					
Royal Navy ...	1.00	1.00	0.88	1.03	
Helicopters ...	1.54	1.22	1.13	0.95	
Fixed wing ...	—	0.62	0.34	0.73	
Army ...	1.00	0.29	0.39	0.69	
Helicopters ...	1.11	0.31	0.32	0.65	
Fixed wing ...	—	—	1.31	1.26	
Royal Air Force ...	0.49	0.58	0.34	0.51	
Helicopters ...	0.70	0.18	0.18	0.35	
Fixed wing ...	0.47	0.64	0.36	0.53	
Casualties					
Killed: total ...	19	25	14	33	
Royal Navy personnel ...	2	1	4	3	
Army personnel ...	1	4	1	7	
Royal Air Force personnel ...	15	20 (1)	6	23 (2)	
Civilians ...	1	—	3	—	
Seriously injured: total ...	7	6	12	17	
Royal Navy personnel ...	—	1	1	2	
Army personnel ...	—	—	1	4	
Royal Air Force personnel ...	4	5	10	10	
Civilians ...	3	—	—	1	

(1) Includes 1 US exchange officer.

(2) Includes 1 US exchange officer, and 1 Ecuadorian Air Force student.

Service married accommodation

15 January (1)

TABLE 6.6

number

	1975	1976	1977	1978	1979
United Kingdom: total	102,568	102,219	98,570	97,956	95,384
Royal Navy:					
Permanent holdings	15,620	16,010	16,249	16,283	15,914
Unfurnished hirings	45	20	20	20	20
Furnished hirings	1,200	850	574	297	191
Army:					
Permanent holdings (2)	43,148	44,363	45,096	45,547	44,691
Furnished hirings	2,426	2,038	1,505	573	263
Royal Air Force:					
Permanent holdings (3)	38,854	37,809	34,405	34,850	34,141
Unfurnished hirings	126	96	96	74	6
Furnished hirings	1,149	1,033	625	312	158
Overseas: total	47,297	47,214	47,626	47,307	46,750
Royal Navy:					
Permanent holdings	1,102	825	791	867	666
Hirings	732	703	522	121	18
Army:					
Permanent holdings	16,513	15,502	16,019	16,101	16,067
Multiple hirings in BAOR	14,670	16,383	16,467	16,699	17,346
Other hirings	4,458	4,211	3,917	3,757	3,217
Royal Air Force:					
Permanent holdings	5,205	4,742	4,740	4,519	4,420
Unfurnished hirings in RAFG (4)	3,213	3,658	4,065	4,291	4,332
Other hirings	881	610	506	356	86
Tri-service hirings	523	580	599	596	598

(1) Prior to 1977 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. In 1975 includes mobile accommodation.

(3) Includes mobile accommodation.

(4) Includes multiple hirings.

House ownership by Service personnel (1)

TABLE 6.7

	September-October			October- November
	1970	1973	1977	1978
Estimated number of house owners (2)				
All ranks: total	45,590	55,000	55,180	54,830
Royal Navy	20,670	21,090	20,780	20,710
Army	10,950	14,130	15,050	15,520
Royal Air Force	13,970	19,780	19,350	18,600
Officers	14,690	19,890	19,780	19,990
Royal Navy	5,400	6,020	5,920	5,850
Army	4,090	6,070	6,820	6,860
Royal Air Force	5,200	7,800	7,040	7,280
Servicemen	30,900	35,110	35,400	34,840
Royal Navy	15,270	15,070	14,860	14,860
Army	6,860	8,060	8,230	8,660
Royal Air Force	8,770	11,980	12,310	11,320
Percentage of personnel owning their own houses (2)				
All ranks: total	21.7	26.4	30.9	32.7
Royal Navy	44.9	49.9	57.4	59.6
Army	12.2	14.9	17.2	18.9
Royal Air Force	18.9	27.7	35.5	36.3
Officers	39.5	54.2	61.5	65.8
Royal Navy	68.9	79.8	83.4	85.3
Army	29.5	44.8	53.5	57.2
Royal Air Force	33.7	49.9	57.0	63.1
Servicemen	17.9	20.5	24.2	25.3
Royal Navy	39.9	43.4	51.0	53.3
Army	9.0	9.9	11.0	12.4
Royal Air Force	15.0	21.5	29.2	28.5

(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 maisonnette but to exclude caravan or mobile home.

(2) Married male personnel only.

Service Children's Education Authority Schools

TABLE 6.8

number

	1975	1976	1977	1978	1979
Pupils in SCEA schools—enrolment in Autumn term					
All schools: total	42,675	41,121	39,188	36,266	34,479
Infants and Juniors	31,448	29,885	28,635	26,595	25,151
BAOR and NW Europe	25,102	24,709	24,105	22,696	21,128
Elsewhere overseas	6,346	5,176	4,530	3,899	4,023
Secondary	11,227	11,236	10,553	9,671	9,328
BAOR and NW Europe	9,063	9,237	8,774	8,410	8,006
Elsewhere overseas	2,164	1,999	1,779	1,261	1,322
Teachers in SCEA schools: total	2,539	2,475	2,405	2,206	2,092
BAOR and NW Europe	2,004	2,023	1,987	1,868	1,745
Elsewhere overseas	535	452	418	338	347

"Social" expenditure included in the Defence budget

Estimates at Estimates prices (1)

TABLE 6.9

£ million

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Total expenditure	493	570	633	697	830	
Education (2)	63	70	86	94	114	
Married accommodation	112	93	85	79	108	
Medical services	85	108	117	127	150	
Service pensions (3)	233	299	345	397	458	

(1) The Estimates prices for the years 1975-76 to 1978-79 are the prices ruling in the preceding Autumns, those for 1979-80 and 1980-81 are the prices expected to be ruling during the year in question.

(2) Largely education of Service children.

(3) Expenditure on Service pensions is included above as a "Social" payment because it does not relate to the current defence effort; civil superannuation is not provided for in the Defence budget.

Land and foreshore holdings: location (1)

1 April

TABLE 6.10

thousand acres

	1975	1976	1977	1978	1979
United Kingdom					
Land: Freehold	557.0	554.1	551.4	548.9	546.6
Leasehold	38.2	29.5	29.4	29.5	29.5
Foreshore: Freehold	31.7	32.6	32.6	32.6	32.8
Leasehold	13.2	12.0	12.2	12.2	12.2
Rights	66.8	72.9	74.9	75.3	77.3
England					
Land: Freehold	454.9	451.8	449.4	447.2	446.3
Leasehold	28.4	19.8	19.9	19.8	19.8
Foreshore: Freehold	27.0	26.0	26.0	26.0	26.0
Leasehold	12.6	11.4	11.4	11.4	11.5
Rights	57.2	63.2	64.5	65.5	67.4
Wales					
Land: Freehold	50.6	50.9	50.8	50.8	50.3
Leasehold	1.7	1.7	1.7	1.7	1.7
Foreshore: Freehold	2.6	2.6	2.6	2.6	2.6
Leasehold	—	—	—	—	—
Rights	2.6	3.0	3.0	3.0	3.0
Scotland					
Land: Freehold	45.5	45.4	45.4	45.1	44.3
Leasehold	6.5	6.4	6.4	6.1	6.1
Foreshore: Freehold	1.7	3.6	3.6	3.6	3.8
Leasehold	0.5	0.5	0.5	0.5	0.4
Rights	6.8	6.5	6.5	6.5	6.6
Northern Ireland					
Land: Freehold	6.0	6.0	5.8	5.8	5.7
Leasehold	1.6	1.6	1.4	1.9	1.9
Foreshore: Freehold	0.4	0.4	0.4	0.4	0.4
Leasehold	0.1	0.1	0.3	0.3	0.3
Rights	0.2	0.2	0.9	0.3	0.3
Defence land (freehold and leasehold) used for agricultural purposes					
Used for grazing only	152.4	149.6	153.0	148.6	151.1
Full agricultural use	122.0	127.9	124.2	127.2	127.0
Total	274.4	277.5	277.2	275.8	278.1
<i>of which:</i>					
England	210.8	214.5	213.0	212.6	216.5
Wales	37.0	37.3	37.7	37.7	37.2
Scotland	24.5	23.7	24.4	23.6	21.9
Northern Ireland	2.1	2.0	2.1	1.9	2.5

(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: in 1979 about 21,000 acres were awaiting disposal by the Property Services Agency. MOD office buildings, which are held by the Department of the Environment as part of the Civil Estate, are excluded.

Land and foreshore holdings: type of use

1 April 1979

TABLE 6.11

thousand acres

	Land				Foreshore		
	Freehold	Leasehold	Rights		Freehold	Leasehold	Rights (1)
			Permanent	Licence			
Total	546.6	29.5	8.6	67.8	32.8	12.2	0.9
Royal Navy ...	28.3	6.5	1.0	32.9	2.1	—	—
Airfields, etc.	3.6	0.3	—	0.1	—	—	—
Naval bases	2.4	—	—	—	0.3	—	—
Training areas, ranges and camps	4.4	5.8	0.2	32.8	0.2	—	—
Barracks and camps, etc. ...	3.5	0.1	0.4	—	—	—	—
Storage and supply depots ...	8.4	0.1	0.1	—	0.5	—	—
Radio and W/T stations	4.0	—	0.2	—	—	—	—
Miscellaneous	2.0	0.1	0.1	—	1.2	—	—
Army	365.1	10.5	4.2	29.1	3.9	0.8	0.9
Airfields, etc.	1.1	—	0.1	—	—	—	—
Training areas, ranges and camps	326.4	9.6	3.7	29.1	3.7	0.8	0.9
Barracks and camps, etc. ...	22.0	0.7	0.3	—	0.2	—	—
Storage and supply depots ...	12.5	—	—	—	—	—	—
Radio and W/T stations	0.7	—	—	—	—	—	—
Miscellaneous	2.4	0.2	0.1	—	—	—	—
Royal Air Force	100.0	11.4	2.3	3.8	0.5	9.4	—
Airfields, etc.	70.0	0.1	1.9	0.4	0.4	—	—
Training areas, ranges and camps	8.1	10.1	—	3.0	—	9.4	—
Barracks and camps, etc. ...	2.7	0.1	0.1	—	—	—	—
Storage and supply depots ...	7.4	0.2	0.1	—	—	—	—
Radio and W/T stations	9.6	0.9	0.1	0.5	—	—	—
Miscellaneous	2.0	—	0.2	—	—	—	—
Research establishments, etc. ...	53.3	1.2	1.1	2.0	26.4	1.9	—

(1) All rights over foreshore in 1979 were under licences.

Armed forces and security in Northern Ireland

TABLE 7.1

number (except where otherwise stated)

	1975	1976	1977	1978	1979	1980
Regular Army (1)						
Force level at 1 April (3):						
Major units of the combat arms (2)	15	15	14	13	13	13
of which:						
Resident units	5	5	5	5	6	6
Roulement units	10	10	9	8	7	7
Total units which served in the province during the year	50	53	47	41	40	..
Ulster Defence Regiment at 1 April (3)						
Full time: total	1,406	1,528	1,669	2,192	2,469	
Males	1,394	1,510	1,639	2,113	2,346	
Females	12	18	30	79	123	
Part-time: total	6,285	6,137	5,962	5,670	5,154	
Males	5,708	5,547	5,355	5,039	4,556	
Females	577	590	607	631	597	
Deaths						
Regular Service personnel	14	14	15	14	38	
Ulster Defence Regiment	6	15	14	7	10	
Security						
Bombs neutralised	236	426	169	178	143	
Weight of explosives (lbs):						
Neutralised	11,159	16,252	2,188	5,860	4,430	
In explosions (estimated)	13,753	17,596	2,839	5,443	11,180	
Finds:						
Explosives (lbs)	11,565	21,714	3,809	2,108	1,966	
Firearms	825	837	590	400	301	
Ammunition	73,604	70,306	52,091	43,511	46,280	
Persons charged with serious security-type offences	1,197	1,276	1,308	843	670	

(1) Includes Royal Marine commandos in the infantry role.

(2) Excludes temporary deployments.

(3) In 1980 at 1 January.

Search and rescue operations at home

TABLE 7.2

number

	1975	1976	1977	1978	1979
Incidents: total (1) ...	1,245	1,316	1,206	1,373	
Royal Navy ...	274	295	277	401	
Royal Air Force ...	976	1,030	952	940	
Call outs (2)					
of Helicopters: total (3) ...	1,345	1,535	1,206	1,317	
Royal Navy (3) ...	319	324	312	404	
Royal Air Force (3) ...	1,026	1,211	894	913	
of Other aircraft: total ...	49	58	67	113	
Royal Navy ...	1	—	3	—	
Royal Air Force ...	48	58	64	113	
of Marine craft (Royal Air Force only) ...	4	7	7	11	
of Mountain rescue teams (Royal Air Force only)	49	45	47	60	
Persons assisted: total (4) ...	732	659	735	1,092	
by Helicopters: total ...	712	648	713	1,003	
Royal Navy ...	161	179	185	292	
Royal Air Force ...	551	469	528	711	
by Marine craft ...	—	—	3	8	
by Mountain rescue teams ...	20	11	19	81	

(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) Prior to 1977 these figures are estimated numbers of journeys based on the reported flying hours and the average flight length.

(4) 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.

Service aid in industrial disputes

TABLE 7.3

	Service personnel on standby (1) (estimated man weeks)	Service personnel deployed		
		Period (weeks)	Number	Total effort (estimated man weeks)
1977-78:				
All disputes ...	20,000			
of which:				
Firemen ...		9	20,000	180,000
1978-79:				
All disputes ...	150,000			
of which:				
Oil tanker drivers (2) ...		1	350	350
Ambulance drivers ...		4	300	1,200

(1) Personnel on standby are at 72 hours notice to deploy, or less. The shorter the notice becomes the greater the domestic disruption.

(2) During this dispute, Service personnel were deployed only in Northern Ireland.

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

Estimates at Estimates prices (2)

TABLE 7.4

£ million

	1978-79	1979-80	1980-81
Total expenditure on offshore tasks	15.97	21.80	
Offshore protection			
Fishery protection and the protection of oil and gas installations:			
RN Fishery Protection Squadron—Offshore Division (3) ...	2.01	2.80	
RAF Nimrod aircraft (3)	3.26	4.00	
Fishery protection only:			
RN Fishery Protection Squadron—Coastal Division (4) ...	4.34	5.60	
RN Sea Devon aircraft	0.09	0.10	
Headquarters of Captain Fishery Protection	0.11	0.20	
Traffic Separation Scheme—Dover Straits Patrol (5)			
HM Ships	0.29	—	
RN Sea Devon aircraft	0.05	0.10	
Hydrographic surveys of home waters	5.82	9.00	

(1) Being the estimates of the running costs of Royal Navy and Royal Air Force units engaged in offshore tasks on a regular basis (rather than in response to ad hoc requirements).

(2) The Estimates prices for the year 1978-79 were the prices ruling in the preceding Autumn, i.e. 1977, those for 1979-80 and 1980-81 are the prices expected for the year in question.

(3) Costs recoverable from Department of Energy, Department of Agriculture and Fisheries for Scotland and Ministry of Agriculture, Fisheries and Food.

(4) Includes £0.75 million capital expenditure in 1978-79, and £0.7 million in 1979-80.

(5) Department of Trade contributes towards these costs. HM ships are no longer employed on a regular basis for this purpose.

Fishery protection (1)

TABLE 7.5

number

	1977	1978	1979 (2)
Vessels boarded (3): total	1,702	1,637	1,557
of which in sea areas as defined by the International Council for the Exploration of the Sea:			
IV (North Sea)	904	783	745
Vb (Faroes)	5	14	6
VI (West of Scotland/Rockall)			
VII (Irish Sea/Celtic Sea/Bristol Channel/Western Approaches/Channel)	793	840	806
Convictions arising from RN boardings	22	20	24

(1) This table relates to activities of the Coastal and Offshore Divisions of the RN Fishery Protection Squadron operating within the total UK fishing limits.

(2) Provisional. Signals received late by the MAFF Sea Fisheries Inspectorate could result in additions to these figures.

(3) Other boardings are carried out by vessels of the Department of Agriculture and Fisheries for Scotland.

Source: Ministry of Agriculture, Fisheries and Food.

Selected qualifications obtained under Service sponsorship

TABLE 7.6

number

	1974	1975	1976	1977	1978
Degrees (1)					
Postgraduate degrees: total	126	127	121	113	115
Royal Navy and Royal Marines	14	7	10	18	22
Army	97	103	95	78	74
Royal Air Force	15	17	16	17	19
Medical and dental degrees: total	96	80	112	145	124
Royal Navy and Royal Marines	27	12	35	22	22
Army	39	39	40	73	81
Royal Air Force	30	29	37	50	21
Other first degrees: total	341	357	361	378	376
Royal Navy and Royal Marines	88	105	135	112	130
Army	125	98	102	171	165
Royal Air Force	128	154	124	95	81
Higher National Certificates: total (2) ...	34	20	19	29	19
Royal Navy and Royal Marines	7	6	3	11	5
Army (6)	27	14	16	18	14
Royal Air Force	—	—	—	—	—
Ordinary National Certificates: total (2) ...	488	434	326	439	444
Royal Navy and Royal Marines	391	240	229	218	232
Army (6)	41	40	30	35	37
Royal Air Force	56	154	67	186	175
General Certificate of Education (2)					
Certificates awarded: total (3) (4)	5,223	4,524	4,324	3,466	3,023
Royal Navy and Royal Marines	1,424	1,569	1,689	1,414	1,183
Army	908	783	670	542	534
Royal Air Force	2,891	2,172	1,965	1,510	1,306
Advanced level passes: total (3)	92	58	59	49	29
Royal Navy and Royal Marines	16	8	4	8	8
Army	29	16	23	17	4
Royal Air Force	47	34	32	24	17
Ordinary level passes: total (3) (4)	6,254	5,261	4,898	4,016	3,347
Royal Navy and Royal Marines	1,669	1,778	1,799	1,657	1,268
Army	1,096	965	859	650	600
Royal Air Force	3,489	2,518	2,240	1,709	1,479
City and Guilds of London Institute					
Operator certificates: total (2)	1,644	701	859	3,265	1,503
Royal Navy and Royal Marines	1,285	351	420	2,878	1,058
Army (6)	359	350	439	387	327
Royal Air Force	—	—	—	—	118
Craft certificates: total (2) ... ..	..	1,727	2,584	2,141	2,499
Royal Navy and Royal Marines	293	243	309	319	172
Army (6)	752	548	971	685	784
Royal Air Force ... ..	..	936	1,304	1,137	1,543
Technician certificates: total (2) ... ..	..	766	903	1,018	850
Royal Navy and Royal Marines	247	306	299	251	159
Army (6)	411	333	339	314	361
Royal Air Force ... ..	..	127	265	453	330
Technician Education Council					
Higher certificates/diplomas: total (2) ... ..	—	—	—	..	..
Royal Navy and Royal Marines ... ..	—	—	—	..	..
Army (6)	—	—	—	10	5
Royal Air Force	—	—	—	—	—
Certificates/diplomas: total (2)	—	—	—	..	144
Royal Navy and Royal Marines ... ..	—	—	—	..	..
Army (6) ... ..	—	—	—	..	..
Royal Air Force	—	—	—	..	192
Heavy Goods Vehicle driving test passes:					
total (5)	9,780	8,771	8,792	8,389	9,463
Royal Navy and Royal Marines	173	162	199	152	44
Army	8,644	7,771	7,570	7,411	8,310
Royal Air Force	963	838	1,023	826	1,109

(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) Excluding Ordinary level passes gained in Advanced level examinations.

(4) From 1975, excludes Ordinary level grades D and below.

(5) All heavy goods vehicle classes combined.

(6) Army data are incomplete for these qualifications.

Outflow of trained Service personnel: skill or trade

TABLE 7.7

number

	1978-79
Engineering:	
Mechanical	4,023
Electrical	2,856
Civil	990
Administration and personnel management (1)	188
Accounting and secretarial	1,953
Supply and stores	1,576
Catering	1,889
Communications (2)	2,537
Mechanical transport (3)	4,181
Aviation (4)	1,313
Education (5)	272
Medical and dental (6)	1,451
Security and fire services	915

(1) Including officers of the rank of Captain RN and above, and equivalent ranks in the other Services, who are not included in other categories.

(2) Comprising all personnel trained in the control and operation of communication systems.

(3) Comprising all personnel trained in the operation of wheeled and tracked vehicles.

(4) Comprising flying and ground control personnel.

(5) Including Physical Education, but excluding instructors in skills covered by other categories.

(6) Comprising doctors, dentists, nurses and supporting staff.

Hydrographic services

TABLE 7.8

number

	1974	1975	1976	1977	1978
Surveying vessels					
Ocean	4	4	4	4	4
Coastal	4	4	4	4	4
Inshore	5	5	5	5	5
Charts and publications produced					
New charts: total ... ..	..	189	212	203	207
Navigational	127	129	112	114	122
Lattice ... ..	..	42	82	69	54
Miscellaneous ... ..	..	18	18	20	31
New editions of charts: total ... ..	..	174	193	250	289
Navigational	93	119	173	175	183
Lattice ... ..	..	39	7	63	78
Miscellaneous ... ..	..	16	13	12	28
Corrections to plates (minor)	4,862	5,179	6,444	5,853	5,723
Notices to Mariners	2,748	2,829	2,959	3,239	3,376
Block corrections to charts	150	135	160	145	156
Radio Navigational Warnings	1,308	1,263	1,270	1,142	917
Revised volumes:					
Sailing Directions (a series of 75 books)	3	6	9	3	2
Lights list (a series of 12 books)	8	10	9	9	8
Admiralty list of radio signals (6 volumes)	3	6	6	4	6
Tide tables (3 volumes)	3	3	3	3	3
Supplements to Sailing Directions	53	51	49	44	40
Sales and issues (1) (thousands)					
Charts printed	3,300	3,890	3,879	4,280	3,455
Charts sold	2,803	2,892	3,064	3,296	2,570
Charts issued to government departments	580	584	584	607	627
Books sold (2)	319	436	606	599	506

(1) The figures given for 1974 relate to the financial year ending 31 March 1975. The other figures are for calendar years.

(2) Supplements to Sailing Directions are not included in the 1974 figures.

Meteorological Office: Finance (1)

TABLE 7.9

£ million

	Estimated Outturn			Estimate	
	1976-77	1977-78	1978-79	1979-80	1980-81
Expenditure (2)	28.30	29.00	33.60	37.33	
Receipts	8.60	9.50	11.02	13.00	
Civil Aviation Authority (3)	7.00	7.80	9.42	10.82	
Gas and Electricity Boards	0.12	0.14	0.14	0.17	
Oil industry	0.60	0.50	0.40	0.46	
Automatic Telephone Weather Service ...	0.08	0.08	0.14	0.22	
General public and local authorities	0.34	0.09	0.10	0.11	
Commerce and industry		0.27	0.36	0.41	
Others		0.62	0.46	0.81	
Net expenditure (2)	19.70	19.50	22.58	24.33	
apportioned to:					
Defence	13.50	13.80	16.00	17.73	
Civil—free service to the public	4.40	4.40	5.10	5.60	
Civil—on repayment net of recoveries made	1.80	1.30	1.48	1.00	

(1) Because of changes in accounting methods, comparable figures prior to 1976-77 cannot be given.

(2) These figures combine actual expenditure, where known, and the original Estimates where Meteorological Office expenditure cannot be distinguished from that of other establishments. Works and Allied Services expenditure is excluded.

(3) Adjusted annually for recoveries in arrears from CAA.

Meteorological Office: Activities

TABLE 7.10

thousands

	1974-75	1975-76	1976-77	1977-78	1978-79
For aviation					
Meteorological briefings in UK	353	361	362	360	374
forecasts in UK	1,738	1,811	1,868	1,956	2,131
Other than for aviation					
Forecast enquiries answered	1,851	1,847	1,897	2,051	2,222
Automatic Telephone Weather Service—calls made	16,426	16,764	16,914	21,531	28,992
Climatological enquiries	20	24	27	30	34
Local radio stations for which Meteorological Office staff broadcast forecasts (numbers) (1) ...	12	13	12	16	18

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

BIBLIOGRAPHY

Additional information may be found in the following publications:

Armed Forces Pay Review Body reports

- Fourth 1975 Cmnd 6063
- Fifth 1976 Cmnd 6470
- Sixth 1977 Cmnd 6801
- Seventh 1978 Cmnd 7177
- Eighth 1979 HMSO, 17 April 1979

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

Appropriation Accounts: Class I Defence in vol 1: Classes I-III

- 1975-76 HC 91 25 January 1977
- 1976-77 HC 136 10 January 1978
- 1977-78 HC 137 15 January 1979
- 1978-79 HC January 1980

Civil Service Statistics, HMSO; annual

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

The Government's Expenditure plans 1980-81 Cmnd 7746

Guide to the Classification for Overseas Trade Statistics 1979; 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

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

Report of the Armed Forces Accommodation and Family Education survey 1970; 1973 (out of print); 1977; obtainable from Ministry of Defence (Stats S4), Tavis House, Tavistock Square, London WC1H 9NL. The results of the 1978 Armed Forces Accommodation Survey will be published shortly.

Research and Development: expenditure and employment; Studies in Official Statistics No. 27, HMSO; 1976

Royal Ordnance Factories—Trading Fund accounts; 1977-78 HC 688 1 August 1978

Standard Industrial Classification; Revised 1968, HMSO

Supply Estimates, Class I Defence 1979-80 HC 212 20 February 1979

Supply Estimates, Class I Defence 1980-81

Supply Estimates, Memorandum by the Chief Secretary to the Treasury

INSIDE BACK COVER



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 publications and further information and advice on them can be obtained from the Departments concerned.

Enquiries about statistics in this publication should be made to the Ministry of Defence, Statistics Secretariat, Northumberland House, Northumberland Avenue, London WC2N 5BP.