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15th December, 1960.

CABINET

HOME DEFENCE POLICY

NOTE BY THE SECRETARY OF THE CABINET

The attached report on home defence policy was prepared by a Committee of officials in pursuance of a direction by the Prime Minister. The report has been examined by the Home Defence Committee and is submitted for consideration by the Cabinet.

2. Part III of the report attempts to assess the extent to which inadequacy of home defence preparations may impair the effectiveness of the deterrent policy in a time of international tension. The officials who prepared the report were unable to reach unanimous agreement on this question: the arguments on either side are set out in paragraphs 16 to 21 of the report. The Home Defence Committee, equally, are unable to present an agreed recommendation to Ministers on it. They are however agreed upon the importance of keeping the existing structure of Civil Defence in being, at least for the present; and they accept the view of the Home Office and other Departments mainly concerned that for this purpose home defence measures must be sustained at a level which will secure the continuing support and interest of the local authorities and voluntary agencies through which Civil Defence must be operated. They also accept the view of the Departments concerned that, in order to achieve this, it will be necessary to incur over the next few years additional expenditure of the order of £4 millions a year, as recommended in the attached report.

3. Part VI of the report discusses a number of other home defence measures which do not involve immediate expenditure. The Home Defence Committee considered that one of these—the question whether plans should be made for a limited evacuation of priority classes—should be brought specifically to the Cabinet's attention in connexion with the more general issues raised in the report. On this a separate memorandum is being circulated by the Ministers concerned. The remaining measures discussed in Part VI of the report might be examined further by the Ministerial Committee on Civil Defence, in the light of the conclusions reached by the Cabinet on the main issues.

(Signed) **NORMAN BROOK.**

*Cabinet Office, S.W.1,
15th December, 1960.*

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REVIEW
OF
HOME DEFENCE POLICY

REPORT BY OFFICIALS

December 1960

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HOME DEFENCE POLICY

REPORT BY OFFICIALS

TABLE OF CONTENTS

<i>Section</i>		<i>Paragraphs</i>
I.	INTRODUCTION	1-5
II.	NATURE OF THE THREAT TO THE UNITED KINGDOM	6-11
III.	PURPOSES OF HOME DEFENCE	12-21
	Government control	12-13
	Technical military value of home defence preparations	14-15
	The place of home defence in the deterrent policy	16
	Minority view	17-18
	Majority view	19-21
IV.	POSSIBLE FUTURE PROGRAMMES	22-30
	Programme X	26
	Programme Y	27
	Expenditure not in either programme	28
	Main items of expenditure, 1960-62	29-30
V.	MAIN ITEMS OF EXPENDITURE UNDER ALTERNATIVE PROGRAMMES	31-94
	(a) Government control	32-49
	Premises	32-38
	Communications	39-47
	British Broadcasting Corporation	48-49
	(b) Food	50-52
	(c) Water supplies	53-55
	(d) Fuel and power	56-67
	Electricity	56-58
	Gas	59-61
	Petroleum	62-66
	Coal	67
	(e) Transport	68-75
	Ports	68-69
	Railways	70-72
	Road transport	73-75
	(f) Medical services	76-80
	(g) Civil defence organisation	81-90
	Administrative and training costs	81-82
	Grants to local authorities	83-85
	Miscellaneous expenditure	86-87
	Fire Service equipment	88-90
	(h) Warning and monitoring organisation	91-94
VI.	OTHER MEASURES	95-142
	A. Evacuation	96-105
	B. Shelter	106-116
	C. Industry	117-121
	D. Civil Defence Corps and Auxiliary Fire Service	122-134
	Functions and organisation	122-126
	Bounty scheme	127-134
	E. Consultation with other Governments	135-136
	F. Manning of Government headquarters	137-138
	G. Accommodation	139-140
	H. Use of money	141-142
VII.	THE CHOICE	143-150
VIII.	CONCLUSIONS	151-158
	APPENDIX A	
	Assessment of weight and effects of nuclear attack	
	APPENDIX B	
	Programme X	
	APPENDIX C	
	Programme Y	

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HOME DEFENCE POLICY

I.—INTRODUCTION

The Home Defence Review Committee was established in February 1960, with the approval of the Prime Minister, to review home defence policy having regard to the nuclear deterrent and the latest assessment of the possibility and nature of a nuclear attack on this country during the next ten years.

2. The following is a brief historical background to the establishment of the Committee. The civil defence organisation was disbanded at the end of the war, and was revived at the time of the Berlin crisis of 1948. Following the invention of the hydrogen bomb the Strath Committee was established to consider the defence implications of fall-out. It reported in 1955, and recommended substantial expenditure in order to provide reasonable protection for the general public against nuclear attack and measures for their continued survival after attack. The Defence Committee (D.C. (55) 1st Meeting) endorsed the recommendations as a basis for the revision of home defence planning, subject to Ministerial approval of detailed schemes.

3. Various measures designed to reduce the casualties from a nuclear attack were authorised; but the stockpiling of food, the safeguarding of water supplies and the provision of other facilities on the scale then considered necessary for the continued survival of those who outlived the attack was not undertaken because of the cost. The home defence budget was progressively reduced from £70 millions in 1955-56 (which was not fully spent) to £18.5 millions in 1958-59. In 1958 the Defence Committee considered a memorandum by the Prime Minister (D. (58) 36) suggesting that the possible courses for future home defence policy were to reduce preparations to those which contributed directly to the efficient operation of the nuclear retaliatory forces; to provide for survival measures after attack, either in addition to or in place of current preparations; or to continue the current programme at about the existing level of expenditure. The Defence Committee considered (D. (58) 18th Meeting) that additional expenditure for survival measures after attack, though desirable, could not be contemplated at that time. They accepted the "illogicality" of home defence policy, at least temporarily, on the basis that its main purpose was to maintain the morale of the population rather than to provide effectively against nuclear attack. They agreed that the main emphasis of the programme should be on measures which gave a positive and visible indication of the Government's support for the voluntary civil defence services, and that home defence expenditure should continue at about the then current level (£18.5 millions annually).

4. However, the view that the policy was illogical inhibited the Government from giving any comprehensive explanation of their attitude towards home defence, and encouraged the persistence of doubts, particularly among those concerned with it outside the Government service, about the validity of the measures that were in progress.

5. An increase in the home defence estimate for 1960-61 to £19.5 millions was endorsed by Ministers on the understanding that a review of policy would take place during 1960.

II.—NATURE OF THE THREAT TO THE UNITED KINGDOM

6. Before the value of home defence can be assessed, whether from the technical military point of view or as an ingredient of the deterrent policy or as an aid to survival in the event of war, it is necessary to examine briefly the nature of the threat.

7. Even if there remains a possibility of a limited war in Europe, it seems improbable that there could be a physical threat to the United Kingdom except in the event of a threat of global war. Provided that the West can maintain a credible deterrent, the Soviet Union is unlikely deliberately to resort to global war.

However, the possibility of global war arising through miscalculation of either political or military factors cannot be ignored; and the threat of global war, which the policy of the deterrent is designed to withstand, will be invoked by the Soviet Union to a greater or lesser degree so long as the political tensions of the cold war remain.

8. The threat, for us, is the ability of the Soviet Union to devastate this country with a nuclear attack, at present launched primarily by manned bombers. Intelligence derived solely from information of a technical nature and without taking into account political assessments might to-day give us no warning of Soviet preparations to attack the West, but in the most favourable circumstances warning could be as much as a day or two. There would be about ninety minutes warning of the moment of a Soviet attack on the United Kingdom by present-day bombers, but if ballistic missiles were used now there could be no warning. By 1963 the threat could be entirely from ballistic missiles, but bomber attacks would be likely to supplement the initial missile attacks. By this time the strategic warning is likely to be less than at present. With the completion of the Ballistic Missile Early Warning System (B.M.E.W.S.) there would be warning of the moment of attack, which might be as little as three minutes or as much as twelve minutes. Warning of attack on North America would be unlikely to increase the warning obtained by the United Kingdom.

9. Home defence preparations must to some extent be geared to these warning periods. But since the major risk of war is likely to come, not through a calculated Soviet intention to initiate global war but from some miscalculation, it is likely that nuclear attack would be preceded by a period of political tension. Such a period might be short or long, but at some time during it the Government might have to consider what precautions, including home defence measures, should be taken. Home defence preparations made in peace would not commit the Government in a period of tension, but would enable them to take precautions if they thought fit at the time. The political advantages (both at home and abroad) of being seen to be taking such measures would have to be weighed against the possibility of their being regarded as provocative in the situation then prevailing.

10. For illustrative purposes Appendix A contains assessments of the weight and pattern of two possible plans of attack on the United Kingdom and their effects. Any such assessments must necessarily be speculative, but there is no doubt that the Soviet Union could effectively knock the United Kingdom out of a war involving the Western Alliance. If nuclear bases and cities were attacked on the scale assessed, and there were no general evacuation or provision of shelter, there might be over twenty million deaths (thirteen million from fall-out) and four million other serious casualties. Four to five million casualties might be avoided if a scheme for evacuating six million people had been carried out; and millions more might be avoided if it had been possible to provide adequate shelter from fall-out. There would probably be sufficient food for survivors, though there would be serious distribution problems; water, power and transport would probably suffice for survival purposes if certain precautions had been taken. All these assessments could be substantially altered by variations in the weight and pattern of the attack, the amount of warning and the wind and weather conditions prevailing, as well as by the home defence preparations made in advance. It would be useless to try to relate home defence planning to a particular scale or type of attack, but any attack should clearly be assumed to cause widespread destruction and casualties.

11. The Committee have not examined the possible consequences of chemical or biological attack. The advice available to them was that the use of either against the United Kingdom was unlikely.

III.—PURPOSES OF HOME DEFENCE

Government control

12. The Committee are unanimous that there is one type of home defence measure which must be maintained, whatever view is taken of other measures—namely, preparations for carrying on the government of the country (including the provision of emergency headquarters for the central Government and of a regional organisation, together with their essential communications). They consider that any Government must fulfil the duty of providing, so far as it can, for the maintenance of a framework of administration in all circumstances.

13. There is not the same unanimity about the value of other home defence measures, which are considered in the following paragraphs in relation to their technical military value and to their part in the deterrent policy.

Technical military value of home defence preparations

14. The deterrent policy is based on plans to ensure that, if the Soviet struck, a nuclear counter-attack from this country would be practicable. Home defence measures in the United Kingdom do not affect the technical ability of Western forces to launch nuclear weapons against the Soviet. Nor would they complicate the Soviet task of inflicting an unacceptable level of damage on the United Kingdom; the position would be somewhat different in large countries such as the United States and the Soviet Union, where space for dispersal and economic resources are sufficient to permit the taking of home defence measures of such a nature as slightly to complicate the task of attacking forces.

15. Thus, the home defence preparations which we could take would not affect the maintenance of nuclear equipoise between the West and the Soviet bloc.

The place of home defence in the deterrent policy

16. The assumption is that this country is unlikely to use strategic nuclear forces except in retaliation against an enemy attack. The main aim of defence policy is to make it clear that such retaliation can be and will be carried out. The effectiveness of this policy depends in part on the ability of the Government to retain the general support of public opinion in withstanding threats of nuclear attack by making it clear to the enemy that any such attack would incur certain nuclear retaliation. In normal times the deterrent policy may not be seriously questioned by the majority of people, and the Soviet leaders will be influenced primarily by the balance of military strengths and not necessarily by their assessment of the determination of the West to use nuclear forces. But in a period of tension, when the West might take a stand involving the risk of global war, the Soviet Union would judge the determination of the United Kingdom, not simply by our military strength or by any particular home defence measures, but also by the support which the Government commanded for the deterrent policy in general. Against this background, opinion on the Committee varied widely as to the need for home defence measures other than provision for the maintenance of Government control.

Minority view

17. One view is that, since the basic aim of Western defence policy is to prevent war, our preparations should be directed to increasing the possibility and encouraging the belief, both at home and abroad, that the deterrent will succeed in this aim. Our limited resources are therefore better spent on maintaining an effective military deterrent to war in all its forms than on insurance against an event as unlikely as global war. Home defence preparations, on any scale that we can afford, are futile against the actual threat. If there is only a short period of warning, it may be impossible to carry out any substantial measures before attack, and any measures which can be taken would have little or no effect on morale. Even if there were time to take full precautions before attack and the necessary advance preparations had been made in peace, the casualties could not be reduced below about eleven millions, even on the least pessimistic of the assumptions in Appendix A. Such preparations as we could afford would have an appreciably smaller effect. In any event the public have for a long time been aware that there is no means of providing adequate protection against the consequences of an attack with nuclear weapons, and the vast majority of people appear to have accepted the deterrent policy as the best means to avoid the ultimate choice between surrender and global war. In a time of tension the number of the undecided will be marginal; they are unlikely to be influenced by home defence measures on any scale that we can afford; and whatever the attitude of this minority it will not influence the action of the Government or the Soviet judgment of the resolution of the Government. Indeed, the greater the effort applied to home defence measures in time of tension or before, the more the impression may be spread that the Government does not really believe in the effectiveness of its deterrent policy.

18. However, those who take this view recognise that it would be politically impracticable to carry it to its logical conclusion by abandoning home defence

measures entirely at the present time. They consider therefore that expenditure on home defence preparations should be severely restricted. It would include some provision for carrying on the Government of the country (see paragraph 12), but it would exclude measures designed solely to increase the number of survivors of a nuclear attack. The public should be encouraged to accept that the best defence and hope of survival lies in resolute support of the deterrent policy.

Majority view

19. Most members of the Committee hold the view that there will always be a great number of people who, in a period of tension involving a risk of nuclear attack, will increasingly question the Government's deterrent policy, unless they can be assured that some home defence preparations have been made against its possible failure. The longer the period of tension lasted, the more important it would be for the Government to be seen to have at its disposal measures designed to reassure the public in this way, and the more opportunity there would be to carry out the measures planned. By steadying public opinion such measures could well strengthen the Government's hand at a vital time. In this case the maintenance of public support of Government policies based on the retaliatory deterrent in a period of tension becomes the primary object of home defence preparations. Those who hold this view regard the taking of home defence measures as an integral part of the deterrent policy, and not merely as something which must be accepted because of the political difficulty of abandoning home defence. It is relevant that this view is gaining hold among other members of NATO, who might well doubt our ability to pursue a deterrent policy in a time of tension if we were significantly to reduce our home defence preparations.

20. Some of the Committee who hold the majority view also think that as long as there is a risk of war, whether from miscalculation or through some unforeseen change in the situation of nuclear equipoise between East and West, the Government has a duty to take measures to mitigate the consequences to the civil population if global war occurs. Although the maintenance of public support of Government policies in a period of tension would still be the primary object of home defence preparations, there are some measures which would greatly improve the prospects of survival after attack, even though their value for sustaining public morale before attack may not be conclusive. In practice these measures of insurance are largely the same as those required to rally public opinion.

21. Whatever precautions are taken, the casualties and devastation resulting from a nuclear attack would be on an unprecedented scale, and the public could not expect to have anything like the same degree of protection as in the last war. The education of the public in the limitations of home defence measures and in understanding the deterrent is essential to any future home defence programme. But if such measures as are undertaken are to succeed in maintaining public morale, they must be of such a nature as to appear reasonable to local authorities and others concerned with home defence, and indeed to the general public.

IV.—POSSIBLE FUTURE PROGRAMMES

22. The following paragraphs deal with the application of these points of view to future planning and expenditure. Possible programmes are first examined in terms of expenditure (Sections IV and V). Section VI is concerned with certain questions of policy where financial considerations are not decisive, at least in the next financial year.

23. In the current year 1960-61 we are spending about £19.5 millions on home defence, including Post Office capital expenditure on defence measures. This Post Office expenditure, which is estimated for the current year at about £4 millions, has been excluded from the figures used in the remainder of the report, which, in respect of communications services, show only the rental payments to the Post Office which would be paid in connexion with defence by civil Departments. For purposes of comparison, therefore, current expenditure is taken to be £15.5 millions

in 1960-61. All figures exclude administrative costs in Government Departments, since these are not normally shown in the home defence budget.

24. If the minority view referred to in paragraphs 17 and 18—namely, that home defence preparations have little real value—were accepted, it would follow that certain additional expenditure might be incurred in completing measures to enable the government of the country to carry on during a period of tension and after attack; but that, for the rest, no additional expenditure should be incurred, and that instead every opportunity should be taken to reduce expenditure as and when this proved politically or otherwise possible.

25. This view is not expounded in detail in the rest of the report, since most of the Committee think that home defence measures serve a useful purpose in support of the deterrent policy. At the same time they do not believe that the present programme is satisfactory as it stands. They have therefore considered two possible courses—

- (a) *Programme X*, which involves some increase in expenditure, the object being to provide a coherent and publicly defensible policy;
- (b) *Programme Y*, which contemplates expenditure being kept as near as possible to its present level despite the consequent inadequacies.

Programme X

26. To suggest large increases over the present figure of £15.5 millions would be unrealistic. There is no prospect of going back to the position of say five years ago, when the home defence budget was about £70 millions and contemplated substantial increases in, for example, food and medical stockpiles. *Programme X*, which covers a five-year period, is intended to show the most economical programme which could be presented as a reasonably consistent and logical one and would be likely to command confidence among local authorities and others concerned with home defence, and through them the general public. This programme is set out in some detail at Appendix B. It involves a total cost of about £19 millions in 1961-62. The total would rise to £20.2 millions in 1962-63 and £20.4 millions in 1963-64. It would drop significantly during the following two years, and the average for the five years would be about £19.6 millions.

Programme Y

27. *Programme Y*, covering the same five-year period, is that recommended if Ministers should decide that any substantial increase over the current rate of expenditure cannot be afforded. Unless there is to be a major change of policy, some increase in expenditure in 1961-62 is unavoidable. For one thing, Ministers have already approved certain proposals, including the Carrier system for warning purposes, which are bound to mean more expenditure next year. Furthermore, the present programme is in some respects ill-balanced, and it seems to the Committee that a start should be made towards filling the more serious gaps in it. Because of existing commitments there is little room for redeployment of effort next year within a programme on broadly the present scale; but over the next five years the balance of such a programme could be improved, although inadequacies would remain. *Programme Y* (details of which are given at Appendix C) involves expenditure of £16.4 millions in 1961-62 and in 1962-63 and smaller sums for the following three years. The average for the five years would be about £16.2 millions.

Expenditure not in either Programme

28. If it were decided to make a survey of accommodation for shelter purposes (see Section VI B) and to institute a bounty for the Civil Defence Corps, the Auxiliary Fire Service and possibly the National Hospital Service Reserve (see Section VI D) there would be an increase in the total cost of whatever programme is adopted of about £1 million in 1962-63, rising to £1.5 millions by 1965-66.

Main items of expenditure, 1960-62

29. The table in paragraph 30 sets out the main heads of current expenditure and gives the figures for 1960-61 and comparable figures under *Programmes X* and *Y* for 1961-62. In Section V the main items and the comparative effects of *Programmes X* and *Y* upon them are considered in more detail.

30. The figures are as follows:

	1960-61	Programme X 1961-62	Programme Y 1961-62
	£ millions	£ millions	£ millions
(a) <i>Government control organisation—</i>			
Premises	0.584	0.789	0.496
Communications... ..	0.129	0.660	0.385
Broadcasting	0.111	0.147	0.120
(b) <i>Food—</i>			
Stockpile	2.310	2.310	2.310
Ration documents	—	0.050	0.050
Equipment, &c.	0.163	0.110	0.105
(c) <i>Water supplies</i>	0.019	0.250	0.200
(d) <i>Fuel and power—</i>			
Electricity... ..	—	0.025	—
Gas	0.010	0.195	0.010
Petroleum	0.770	1.060	0.690
(e) <i>Transport—</i>			
Emergency ports	0.170	0.290	0.200
Railways	—	0.125	—
Vehicle requisition forms	—	0.001	0.001
(f) <i>Medical services—</i>			
Training	0.103	0.150	0.100
Emergency home nursing scheme	—	0.030	0.030
Medical stockpile	0.220	0.350	0.235
(g) <i>Civil defence organisation—</i>			
Administrative and training costs (including schools)	2.593	2.740	2.740
Grants to local authorities	5.032	5.285	5.185
Miscellaneous civil defence expenditure (including radio instruments, wireless, training vehicles, grants to W.V.S. and research)	1.291	1.349	1.309
Fire Service equipment	0.368	1.000	0.450
(h) <i>Warning and monitoring</i>	1.270	2.021	1.704
(i) <i>Board of Trade stockpile</i>	0.690	0.450	0.450
(j) <i>Miscellaneous</i>	0.096	0.100	0.100
	15.929	19.487	16.870
Less Appropriations-in-Aid	0.503	0.500	0.500
	15.426	18.987	16.370

V.—MAIN ITEMS OF EXPENDITURE UNDER ALTERNATIVE PROGRAMMES

31. The main heads of expenditure are discussed below.

(a) Government Control

Premises

32. The present plans envisage an underground emergency headquarters for the central Government; extensive devolution to ten regional commissioners in England and Wales and a Scottish headquarters; and a system of subordinate controls within each region, consisting of sub-regions and groups, areas and sub-areas. Scotland would have three zones under the Scottish headquarters, each with its groups, areas and sub-areas. In the following paragraphs references to regions should be read as including zones in Scotland.

33. The emergency underground headquarters for the central Government is due for completion in 1961-62.

34. Except where use can be made of existing purpose-built protective accommodation, the plan is to improvise the other headquarters by strengthening accommodation in existing buildings so as to provide some protection against fall-out.

35. A start has been made with the regional headquarters. It will cost about £1 million to complete them. Each regional headquarters is planned to accommodate about 450 staff. Additional staff may be needed, but will have to be housed elsewhere in support offices. A start has also been made on the sub-regional headquarters: the programme is likely to cost about £0.3 million.

36. The other headquarters are provided by local authorities with a 75 per cent. Exchequer grant. A start has been made with a small programme for group and area controls. The minimum programme likely to be at all acceptable to local authorities, which would include provision for some sub-areas, would involve grants of about £3.7 millions.

37. Under *Programme X* the regional and sub-regional headquarters would be completed in 1965. The programme for group, area and certain sub-area controls would be completed in 1968.

38. Under *Programme Y* the regional headquarters would be completed in 1968 and the sub-regional headquarters in 1971. The programme for group, area and certain sub-area controls would last until 1980.

Communications

39. The exercise of control after a nuclear attack would depend to a great extent on the availability of communications. These should be considered under two broad heads, namely Post Office communications and stand-by point to point wireless.

40. *Post Office communications.*—The Post Office network is designed to meet the needs of the country as a whole, and individual routes carry many circuits. The whole Government control organisation, apart only from links between area headquarters and sub-area headquarters, is planned to be provided with communications which will, so far as possible, avoid the large cities by dispersal of circuits over a variety of routes, and be independent of public supplies of power. These emergency communications with the necessary equipment will, broadly speaking, be provided *pari passu* with the provision of premises. Communications between area and sub-area headquarters will depend on the normal telephone system.

41. The installation of communications at the central Government headquarters will be completed in 1961. The rental of these facilities for the civil Departments will amount to £0.285 millions a year. This figure has been included in both *Programmes X* and *Y*.

42. Rentals payable by civil Departments for communications required for the remainder of the control organisation will, when completed, amount to £1.25 millions a year. *Programme X* provides for these facilities to be installed down to and including sub-regions and groups by 1966, and for the facilities from sub-regions and groups to areas by 1969. The corresponding dates under *Programme Y* are 1972 and 1981, but links between regional headquarters and regional support offices would be installed by 1969.

43. *Point-to-point single channel stand-by wireless.* The Post Office communications system (which itself includes a "backbone" multi-channel radio system) cannot be guaranteed to withstand a full-scale nuclear attack. The following proposals therefore provide for stand-by point-to-point wireless links within the control organisation.

44. Such a link between the central Government headquarters and regional headquarters would provide a valuable insurance and would, at the very least, enable the central Government to confirm whether or not regional headquarters were functioning after an attack. The provision of an Army wireless link between Headquarters United Kingdom Land Forces at the central Government headquarters and Divisional/District Commanders at regional headquarters is understood to be under consideration. If it were established, it should suffice for this purpose. Because of the probable disposition of units Service wireless cannot be assumed to be available for civil controls below regional level.

45. The interruption of Post Office communications from regional headquarters down to and including area headquarters would seriously impair the ability of the Government to exercise control. Although plans provide for some degree of alternative routing, there is a strong case for supplementing them with stand-by point-to-point wireless on a minimum scale. The cost would be about £0.5 millions.

46. Post Office communications from area headquarters to controls below would depend on the normal local telephone lines. Since these would be particularly vulnerable, it has long been planned that they should be supplemented by wireless provided by the Home Departments. The cost of such wireless links would be about £0.63 million.

47. *Programme X* provides for stand-by wireless links between area and sub-area headquarters to be completed in 1966 and for such links to be established between areas and higher controls up to regional headquarters by 1969. *Programme Y* makes no provision for wireless for these purposes. Neither programme provides for a civil link between the central Government headquarters and regions, since the establishment of an Army link, if agreed, would suffice for civil purposes (see paragraph 44 above).

British Broadcasting Corporation

48. The British Broadcasting Corporation have made plans to maintain sound broadcasting in war even if electricity supplies are interrupted. They provide for a national broadcasting service and transmissions in each civil defence region. Work on this essential service started in 1959.

49. *Programme X* contemplates completion of the work by 1966. Under *Programme Y* the completion date would be 1969.

(b) Food

50. Annual expenditure on the food stockpile (including storage charges) is at present £2.31 millions. This stockpile should be just about enough to provide a spartan diet for the survivors of attack, if adequate arrangements are made for controlling the supply and distribution of home-produced food and for procuring, shipping, landing and distributing food from abroad with as little interruption as possible.

51. Most of the preparatory work for the distribution of food would be lost unless there were ration documents available to enable supplies to be controlled. The printing of ration books, which could not be kept secret, might arouse public concern about the risk of war; but on the other hand, it would be difficult to enlist the co-operation of those concerned in preparing an emergency food scheme if it were known that it was not proposed to print ration books by any particular date. The cost of printing would be about £0.2 million.

52. Both *Programmes X* and *Y* include the maintenance of the food stockpile at the present rate of expenditure, the printing of ration books by 1965 and the provision of equipment for emergency feeding arrangements and food monitoring.

(c) Water Supplies

53. Some emergency equipment for pumping and carting water has been acquired (to a value of £1.25 millions), but since 1958 no expenditure on fresh capital items has been authorised. The item of £19,000 in the 1960-61 programme is for maintenance and training.

54. The Committee have concluded that, with the interruptions to distribution which would occur under the scale and pattern of attack now assumed, a programme suggested some years ago for softening plant to remove dissolved fall-out from reservoir water (estimated at £18 millions) should be abandoned. This would mean that the population dependent on reservoirs, like the remaining two-thirds of the country, would have to rely on emergency equipment and manipulation of supplies from other sources.

55. It seems to the Committee that some additional provision should be made for water supplies in war. Their proposals for both *Programmes X* and *Y* reflect

this view, although a detailed scheme would have to be worked out after a survey and consultation with water undertakings. *Programme X* provides for £0.25 million in 1961-62, £0.5 million in 1962-63 and £0.75 million in the succeeding years. *Programme Y* provides for £0.2 million in 1961-62 and £0.25 million in each of the following years.

(d) Fuel and Power

Electricity

56. The provision of stand-by generating equipment will often be the only practical means of ensuring electricity supplies for essential purposes immediately after attack. Expenditure on stand-by generators is included under the items for which the generators are needed, and is not shown separately.

57. The national grid supplies might take days or, in heavily damaged areas, months to restore. Discussions with the industry about electricity in war are proceeding, and in due course may lead to proposals for additional expenditure.

58. In the meanwhile *Programme X* includes a token figure for a 50 per cent. Government grant of £25,000 in 1961-62 and £50,000 a year thereafter towards measures to facilitate the restoration of supplies. This figure has been included because of the importance of electricity supplies, but its size cannot be related to the magnitude of the task of restoration. No provision is made under *Programme Y*.

Gas

59. About £0.4 million (of which £0.2 million fell on the Exchequer) has been spent on defence measures for the gas industry, largely for the purchase of equipment needed to restore production and repair breaks in the distribution system after attack. Gas is important for certain survival purposes, such as food processing.

60. Supply prospects after attack would be improved by further expenditure of about £0.6 million on equipment and about £1.35 millions for shelter against fall-out for employees required to remain at work in an emergency. The Exchequer would bear 50 per cent. of the cost.

61. *Programme X* would permit the completion of this scheme by 1966. Nothing would be done under *Programme Y*.

Petroleum

62. The Government has built over a thousand miles of pipeline and two million tons of protected storage as an emergency addition to the commercial oil facilities which are heavily concentrated in the big ports and cities. The present value of the Government system and the associated stocks is over £50 millions, and the annual upkeep about £0.6 million. Plans are being prepared to secure the more effective control and operation of the system in nuclear war. These include the provision of fall-out protection and stand-by pumps at key operating centres at a cost of about £0.5 million.

63. There would be serious problems of distribution of motor fuel immediately after attack. Stocks already distributed, for example, at petrol stations, would probably last only for a few days. The surest solution would be for essential services to build up their own stocks, but a cheaper remedy would be for the Ministry of Power to supplement their bulk reserves by laying in distributed stocks of, say, 50,000 tons, which, if they survived the attack, would be about a week's supply for essential services. These stocks could be bought for about £0.75 million, and stored and maintained relatively cheaply in surplus Air Ministry depots in various parts of the country.

64. The desirability of printing fuel authorisation forms in peace to control the issue of motor fuel after attack is under consideration. Printing would cost about £10,000.

65. *Programme X* would permit the completion of the control and protective measures for the Government's emergency oil system and the purchase of a distributed reserve of motor fuel by 1963, and the printing of fuel authorisation forms by 1962.

66. *Programme Y* would permit the completion of the control and protective measures by 1968, but no provision would be made for a distributed reserve of motor fuel or for the printing of fuel authorisation forms.

Coal

67. War planning for the coal industry is concerned mainly with the organisational problems of distribution after attack. No Government expenditure is foreseen at present, but the possibility of minor expenditure in due course cannot be precluded.

(e) Transport

Ports

68. Plans have been made to receive shipping in war at the smaller ports and at anchorages, and about £8 millions has so far been spent, mainly on equipment. The re-supply of this country with food and other essentials after attack is vital to survival. Good progress has been made with the emergency ports scheme, which would cost £1.8 millions to complete.

69. Under *Programme X* final completion of the emergency ports scheme would be achieved by 1969 at an average annual capital expenditure of £0.2 million. Under *Programme Y* capital expenditure would continue at the current rate of about £0.1 million a year and the scheme would not be finally completed until 1980.

Railways

70. Up to 1956 about £2.6 millions had been spent to help the railways to function after attack (including £1.4 millions on London Transport railways). One permanent emergency train control centre and five mobile centres and telephone exchanges were completed. Nothing has been spent since.

71. Although a nuclear attack might leave much of the railway system intact, it might destroy a number of main terminals and control and communications centres. A complete alternative system of control cannot be contemplated, but additional mobile and static control and communications centres would help to ensure the distribution of supplies of essential food and other materials. The total expenditure would be about £0.5 million.

72. Under *Programme X* this plan for alternative control and communications centres would be completed by 1965. No provision is made under *Programme Y*.

Road transport

73. The wartime organisation for controlling and providing road transport has been planned on a regional basis, and would make the maximum use of the existing structure of the industry, from which controllers would be appointed at all levels. No capital expenditure is involved.

74. Many vehicles would have to be requisitioned during the precautionary period for the Army and the civil defence services. The advance printing and distribution of requisitioning forms would be essential. The cost of printing would be about £1,000.

75. Under both *Programmes X* and *Y* the printing of requisitioning forms would be completed by 1962.

(f) Medical Services

76. Plans for the expansion of hospital services and their redeployment from densely populated areas can presumably proceed. Little expenditure is involved in planning, and redeployment is not dependent on having an evacuation scheme for the general public.

77. A scheme which the Ministry of Health worked out some time ago to educate members of the public in first aid and emergency home nursing would, if now implemented, provide a valuable addition to the casualty services at a cost of about £30,000 a year, depending on the response.

78. The existing home defence stockpile of medical supplies and hospital equipment, which is worth about £16 millions, is inadequate in content and distribution, and a worthwhile improvement could be made at a modest cost.

79. *Programme X* provides for expenditure of about £0.15 million a year on training and training equipment for forward medical aid, the introduction of the emergency home nursing scheme at an annual cost of about £30,000 and an improvement in the medical stockpile, on which expenditure would run at £0.35 million a year.

80. Under *Programme Y* expenditure on training for forward medical aid would continue at the current rate of about £0.1 million a year. The emergency home nursing scheme would be introduced, but annual expenditure of £0.235 million on the medical stockpile would permit only marginal improvements in it.

(g) Civil Defence Organisation

Administrative and training costs

81. These amount during the current year 1960-61 to £2.593 millions. This sum includes the costs of the Ministry of Works in providing various training schools, stores and depots; the salaries of the Home Office civil defence regional organisation; and the cost of running the Civil Defence Staff College and training schools.

82. *Programmes X* and *Y* both envisage keeping expenditure as near to its present level as possible.

Grants to local authorities

83. These amount this year to £5.032 millions, and therefore account for a considerable proportion of the total expenditure on civil defence. Grants cover a variety of items, but most of the expenditure is in respect of the Civil Defence Corps. Grants are paid by the Home Departments, the Health Departments and the Ministries of Agriculture and Housing for the maintenance and training of the Corps, including equipment, uniforms and local authority training and storage premises.

84. *Programme X* proposes for next year an additional £0.15 million primarily to take account of increasing costs, particularly of staff, and an additional £0.1 million for further equipment for the ambulance and first aid section of the Civil Defence Corps, especially ambulances. *Programme Y* makes provision for the first of these items only.

85. No provision is made under either programme for the payment of a bounty for the Civil Defence Corps, but if this proposal were accepted, additional cost would be incurred in 1962-63 and later years (see Section VI D).

Miscellaneous expenditure

86. This covers a wide variety of expenditure, including provision of radiac instruments, wireless, training vehicles, grants to the Women's Voluntary Service and research. The total expenditure this year under these various headings is £1.291 millions.

87. *Programme X* envisages an increase next year to £1.349 millions. The increase is accounted for mainly by provision for operational wireless for the Civil Defence Corps, training vehicles and equipment. Under *Programme Y* expenditure next year would be £1.309 millions.

Fire Service equipment

88. This year about £0.368 million is being spent on providing training equipment (£0.25 million) and stockpiling emergency supplies of six-inch hose (£0.118 million).

89. In 1952-54 expenditure on operational equipment ran at about £6 millions a year. A good stock of emergency pumps was accumulated, but the programme was cut short in 1956, and little provision has been made for emergency piping or for water storage. Plans have now been developed for storing water in pits excavated in an emergency by bulldozers and lined with polythene sheeting. The

main requirement is for a stockpile of this sheeting, together with more hose and polythene piping.

90. *Programme X* provides an additional £0.63 million a year for stockpiling emergency equipment. *Programme Y* provides an additional £80,000 a year for this purpose. Neither programme includes expenditure on a bounty or on annual camp payments for the Auxiliary Fire Service. These are discussed in Section VI D.

(h) Warning and Monitoring Organisation

91. The present civil warning system could be brought into operation at about forty-eight hours' notice, and could give warning of a manned bomber attack to the bulk of the population. It is inadequate, however, because it does not provide siren cover over country districts, and it has become too slow with the increase of aircraft speeds and the threat of ballistic missiles. A system known as Carrier is being introduced to give warning to selected points within seconds of the detection of an attack. It will be linked in due course with the Ballistic Missile Early Warning Station at Fylingdales. The estimated capital cost of the Carrier scheme is about £3 millions. In addition there will be continuing charges for maintenance and rental. The annual cost falling on the home defence budget over the next five years for all these purposes would average £0.66 million under *Programme X* and £0.47 million under *Programme Y*.

92. The Royal Observer Corps are trained to monitor and report fall-out, but there is no provision for warning the public against fall-out. Twenty-eight of the thirty-one group headquarters and 1,200 out of about 1,950 posts will be built or under construction by 1961. The total cost of completing the building programme and completing the provision of radiac instruments for the Royal Observer Corps is about £1.6 millions.

93. *Programmes X* and *Y* permit the completion of the building programme by 1963 and the upkeep of the existing warning system. *Programme X* provides for the completion of Carrier and for warning cover (against both attack and fall-out) throughout the country by 1964. *Programme Y* provides for the completion of Carrier by 1968 and for country-wide warning cover by 1969.

94. Both programmes depend on the use of Post Office communications for passing fall-out information after attack. Further consideration is being given to methods of transmission where line communications are particularly vulnerable, and to the possibility of operating all sirens in the country from a central point by remote control. No immediate expenditure is proposed, but the possibility of future expenditure cannot be precluded.

VI.—OTHER MEASURES

95. The following paragraphs deal with measures which raise questions of policy not necessarily involving significant expenditure, at least in the next financial year. These are—

- A.—Evacuation
- B.—Shelter
- C.—Industry
- D.—Review of the Civil Defence Corps and the Auxiliary Fire Service
- E.—Consultation with other governments
- F.—Manning of Government headquarters
- G.—Register of premises
- H.—Use of money

Except for shelter, on which the Departments concerned propose to make a further submission to Ministers in due course, the Committee consider that the measures recommended should be implemented under either *Programme X* or *Programme Y*.

A.—Evacuation

96. The last published statement of Government policy was given in the 1956 Defence White Paper, which said that the Government had approved in principle a scheme for evacuating some twelve million people in the priority classes (children,

adolescents, expectant mothers and the aged and infirm) from the major cities to the less thickly populated areas.

97. The assumption later adopted that our deterrent bases, mainly in the Eastern part of England, would be a first priority for attack in a thermo-nuclear war invalidated this scheme. Early in 1959 an outline alternative scheme was prepared providing for the movement of some six million persons in the priority classes from reduced areas within a smaller number of cities to places in the West and the South-East of the country. This revised scheme was considered by Ministers on several occasions, but no decision was reached.

98. Conflicting considerations arise in deciding evacuation policy. The bulk of the population must clearly be urged to stay put in a period of tension, just as industry should be encouraged to keep going for as long as possible up to the time of attack (Section VI C). But there are the following points in favour of planning a voluntary scheme of evacuation for selected priority classes—

- (a) Evacuation would be more likely to save lives than any other civil defence measure (in the absence of specially provided shelters) by reducing the density of the population in the most thickly populated areas, where casualties from attack would be very great. Without a scheme the Government would have practically nothing to offer the inhabitants of our largest cities as a means of reducing the number of casualties in a nuclear attack.
- (b) Civil defence planning assumes that a major task in war would be to bring help to the stricken cities. For that purpose it has been planned to station mobile units of the civil defence, fire and police forces outside the cities and to locate all government headquarters down to civil defence area headquarters away from likely targets. Plans have also been made to move from the cities staff and resources needed for the wartime operation of services such as shipping and ports, hospitals, railways and oil distribution. It is hardly consistent to make no plans for the removal of women and children if they wanted to go.
- (c) An evacuation scheme could not be improvised at short notice. The freedom of manoeuvre of any future Government in a period of tension might well be restricted if no official scheme were ready to put into operation should the Government consider it necessary.
- (d) An announcement that we were abandoning evacuation would be an innovation in NATO civil emergency planning. At home it would be likely to lead to demands for an expensive shelter programme.

99. On the other hand there are these considerations—

- (i) The loss of the Eastern half of the country as a reception area necessarily limits the number and size of evacuation areas. Thus, the six-million scheme proposes no evacuation from the areas in which the deterrent bases are situated; and a number of cities which were heavily attacked during the last war (*e.g.*, Plymouth) are also excluded. Some of the areas to be evacuated are small in relation to the destructive power of thermo-nuclear weapons (being in fact those of an earlier evacuation scheme related to atom bomb attack). Moreover they adjoin thickly populated areas where no plans for evacuation are contemplated.
- (ii) Although the six-million scheme would provide for people to be moved from high risk areas, use would still have to be made for reception purposes of areas which are near possible targets or which might in some circumstances be subjected to heavy fall-out.
- (iii) People who stayed at home would have food in their own houses. If they were evacuated, a heavy burden would suddenly be thrown on the food supply arrangements in the reception areas. There would be serious difficulties in adjusting supplies quickly.
- (iv) Families would be split at a time when they might wish to stay together, and movement of some of the priority classes (particularly women of working age) might tend to disrupt the day-to-day life of the country. To move and house six million people would be bound to cause much confusion.

100. One imponderable factor is the extent to which an official evacuation scheme, if put into operation, would increase or decrease the risks of unorganised panic evacuation on a scale which might bring the life of the country to a standstill. On the one hand, it can be argued that these risks would be increased if the Government showed that they recognised that some parts of the country were safer than others, by themselves putting an official evacuation scheme into operation. On the other hand, if there were such a scheme, the Government of the day could appeal to the public sense of duty, state that there was no room in the reception areas for unofficial evacuees and give a warning about the risks from fall-out for people caught in the open; and it might be that their appeal for non-priority classes to stay put would in these circumstances meet with a considerable response.

101. Planning an evacuation scheme would not be expensive; it would primarily involve the time and effort of central and local government servants and transport officials. One question to be settled would be whether expenditure (estimated at about £40,000 and included in *Programme X*) should be incurred in the advance printing of billeting allowance books.

102. The Government runs the risk of criticism whether it has an evacuation scheme or not. If there is a scheme, it may be criticised for its inadequacy; if there is no scheme, the Government may be accused of imprudence or irresponsibility. But it would be difficult to postpone for very much longer the announcement of a decision one way or the other. As pointed out above, the 1956 Defence White Paper stated that the Government had approved a scheme in principle. Earlier this year it was explained in Parliament that this proposal was being reviewed in the light of the latest strategic appreciation; interest in Parliament continues, and there is also pressure from local authorities and others who are greatly concerned with evacuation policy for the results of this further review to be announced.

103. On balance, the Committee consider that it is desirable to plan an evacuation scheme, and to announce that this is being done. If, however, the Government decide against evacuation, it would be desirable for them to say so publicly.

104. If there is to be a scheme, it should be voluntary, and hence the numbers who would take advantage of it cannot be foreseen. However, it seems reasonable to plan for the evacuation of some six million people, generally on the lines of the outline scheme prepared in 1959. That scheme was based on earlier assessments of the weight and nature of the attack, and its details would need to be reconsidered in the light of the latest assessments. By limiting the priority classes to children up to school-leaving age and mothers of such children and expectant mothers (that is, leaving out some 800,000 adolescents, aged and infirm) it would be possible to have either more, or somewhat larger, evacuation areas. The difficulties referred to at paragraph 99 (i) would not be eliminated, but on the whole this would seem to be a desirable modification.

105. The Committee therefore recommend that the preparation of an evacuation scheme generally along the lines of the six-million scheme should be approved in principle and an announcement made.

B.—Shelter

106. Paragraph 117 of the 1956 White Paper on Defence said—

“... Full protection within a few miles of the ground burst of a megaton weapon is impracticable. Outside this range protection against blast and heat could be obtained from shelters similar to those used in the last war. The danger of fall-out, however, necessitates shelters which can be occupied for periods of forty-eight hours or more. An ordinary brick dwelling house with nine-inch walls used to the best advantage reduces gamma radiation by a factor of about twenty times. Further protection could be obtained by thickening the existing walls and ceilings of roofs of houses. To give a high degree of immunity, the ideal would be a shelter below the surface of the ground, preferably inside the house. . . .”

The White Paper went on to say, however, that “to provide this degree of protection on a country-wide scale would not be feasible”.

107. This paragraph of the White Paper still holds good, except that with the scale of attack now assumed, the likely intensity and area of fall-out would generally necessitate a longer occupation of the best available accommodation.

108. Denmark, Holland, Norway, Sweden and Switzerland have been building shelters for some years. Russia is said to have been providing strengthened basements under multi-storey buildings since 1952. There is much discussion in Germany and the United States about shelter provision. If the United States embarked on a large shelter programme, it might lead to a revival of interest in the subject in this country.

109. Much shelter still exists from the last war, but the amount is steadily decreasing, and a good deal of it would be unsuitable for prolonged occupation. There is at present useful shelter for only a very small proportion of the population.

110. If purpose-built shelters or specially strengthened basements were available in cities for protection against blast and heat, they would be likely to save many lives outside the area of complete destruction. But to provide such protection for a substantial proportion of city dwellers would be beyond our resources. The Committee do not think it would be practicable to stipulate that basements in all new frame-built structures should be strengthened, since this would provide shelter on only a small scale (and for the most part in the middle of the likely target areas), would almost certainly mean that the whole cost would have to be met by the Exchequer, would be likely to lead to demands for shelter elsewhere and would probably need legislation. The Committee are therefore unable to recommend any special provision at the present time for protection against blast and heat.

111. Shelter against fall-out could secure a large reduction in casualties. In the estimated attack referred to in Section II the number of deaths from fall-out might be reduced from thirteen millions to less than one million if measures had been taken in advance to improve the protection of buildings, if sufficient provisions had been laid in for a two weeks' stay, if the public had been warned of the approach of fall-out and if those concerned remained continuously in their refuge for up to two weeks and then spent not more than fifteen hours in getting clear of the fall-out area.

112. Sample surveys have been carried out in a number of local authority areas of the protective factors against fall-out provided by houses and by larger buildings which could be used as communal fall-out shelters. These sample surveys show that the position varies greatly from area to area, and suggest that, if the maximum reduction of casualties were to be achieved, it would be necessary to carry out a detailed survey of each area and to make a careful plan for the use of communal shelters by those whose homes provided a low standard of protection.

113. If a nation-wide survey were decided on, local authorities would need temporary additional assistance. It would also be necessary to consider what other measures might be necessary in peacetime—for example, whether anything should be done in the way of stockpiling containers for water in buildings earmarked as suitable for use as communal shelters. Experience gained from the sample surveys suggests that the cost of a nation-wide survey over a period of years might well amount to £2-3 millions, of which 75 per cent. would fall to be met by way of Exchequer grant.

114. A number of unresolved questions remain. To give some examples—how is the use of buildings for communal shelters to be fitted in with plans for evacuation and care of the homeless? At what stage is it to be assumed that the movement to communal shelters would take place? What are to be the assumptions about the protective factor for houses below which families would be advised to leave their homes? What plans are to be made for the use of industrial premises? Would physical work be put in hand in peacetime, and what would be the order of the cost? Further examination of these and other difficult problems is needed before any suggestions can be put to Ministers that local authorities generally should be asked to survey their areas in detail.

115. In view of what is being done about shelters in other countries, and in view of the size of the contribution which shelters might make towards the saving of lives, the Committee think it right that this examination should take

place; but for the present Ministers are asked only to note that these studies are contemplated and that a further submission will be made to them in due course.

116. Whatever was done by the Government and by local authorities, much would depend in the end on the public's improvising fall-out protection in their own homes. The Committee think that the necessary guidance to the public on how to do this should be prepared in greater detail than is at present available, so that at a time of emergency it would be ready and could be given publicly and could indeed be made available in the meantime if members of the public asked for it.

C.—Industry

117. Although some of the larger industrial concerns have formed civil defence units in response to Government requests, there is no general policy for the conduct of industry in a period of tension preceding nuclear attack or in the survival period afterwards. Industrial organisations taking part in civil defence preparations have frequently sought guidance on the role of industry in home defence planning.

118. In a period of tension the execution of such measures as mobilisation or evacuation would cause difficulties for industry, but it is important for the maintenance of the economy and of public morale at such a time that industry should keep going to the best of its ability for as long as possible up to the moment of attack. The Government of the day would have to encourage industry to do this, but the task would be simplified if industry were given guidance on these lines in peacetime.

119. After an attack there could be no hope of maintaining the normal economy of the country. Industry and the public generally will probably realise this, particularly if measures are taken to educate them in the realities of nuclear warfare. Nevertheless it would be essential to take early steps to maintain or restore certain basic industries and services (for example, food, water, power and communications), and the Committee recommend that some expenditure should be incurred on these in peace. Various measures for these industries have been mentioned in Section V, but further consultations will be necessary in the case of some industries, for example, electricity.

120. Other industries, for example, building, textiles, chemicals and engineering, would be needed in the restoration period; but expenditure could not be contemplated in peace on physical preparations for their restoration after attack, which would depend on the maximum improvisation with the resources available at the time. It is, however, important to identify in advance the key industries likely to be needed at various stages after attack, in order to give regional commissioners guidance in the allocation of resources and manpower. Consultations with industry would be necessary for this purpose. Apart from the basic survival industries, notably food and water, industrial organisations should be told that the main task is to plan a control organisation which could improvise the best use of available resources after attack.

121. The Committee therefore recommend that an approach should be made to industry on the following lines—

- (a) Industrial production and other forms of work should continue as far as possible in the period after the institution of preparatory home defence measures up to the time of attack.
- (b) During the period immediately after attack first efforts should be directed to restoring those services essential to the maintenance of life.
- (c) Production in other industries essential to the early stages of the restoration period should be resumed as soon as possible by the maximum improvisation with the resources available at the time.
- (d) The co-operation of industry is needed in peacetime—
 - (i) to assist in the identification of essential undertakings; and
 - (ii) to examine what measures might be taken in peace to assist speedier restoration of production in these industries after attack, with maximum improvisation with resources available at the time.

D.—Civil Defence Corps and Auxiliary Fire Service

Functions and organisation

122. The Civil Defence Corps, although planned as a national body, consists of a number of local divisions recruited, trained and equipped by county, county borough and large burgh councils. Its 350,000 members are divided into five sections—headquarters, wardens, ambulance and first aid, welfare, and rescue.

123. The Corps is supplemented by industrial civil defence units raised by managements of the larger firms, and consisting at present of about 200,000 volunteers.

124. The purpose of the Civil Defence Corps is to provide trained civilian man-power to man the lower levels in the control system, to supply the higher levels of control with information, to guide and instruct the public and to care for the vast number of survivors likely to be injured, homeless and destitute. These are functions which cannot be fully discharged by any other body at present in being. The police would be reinforced in war by special constables, but even so would be fully committed in their primary duty of maintaining law and order, and would indeed themselves need support for this purpose from the armed forces. A large part of the Service man-power which would be made available to support home defence would come from the Territorial Army. Of the planned strength of 186,000 for the Territorial Army at least 100,000 would be available to support the civil power. They would assist the police; and there would be innumerable tasks that could be performed by disciplined bodies of men working under their own officers. But the Territorial Army is not so organised as to be able to replace the civil defence services, since some areas of the country have no Service units; units would in any event be likely to be used away from their peacetime stations, and would lack the local knowledge which, for example, wardens and civil defence headquarters must have; and the advantages of a disciplined force would disappear if the force were widely dispersed into small groups. A flourishing and efficient Corps could play an important part in maintaining public morale in a period of tension and in mitigating the effects of an attack.

125. There is a strong case for maintaining a Civil Defence Corps, but the Home Departments envisage the need for a review of the Corps as it exists at present, since of a paper strength of 350,000, probably not more than 150,000 have undertaken serious training, and only a small proportion are of high enough quality to be capable of holding posts of responsibility. There is clearly scope here for considering some tightening up of training requirements.

126. The Committee recommend that in the light of their review of home defence policy the functions and organisation of the Civil Defence Corps should be examined in the general context of the man-power resources likely to be available for home defence in war. Such an examination could best be carried out under the aegis of the Civil Defence Committees, and should include the Auxiliary Fire Service.

Bounty scheme

127. Proposals have been put to the Committee for the payment of a bounty, on Territorial Army lines, to members of the Civil Defence Corps.

128. If there were to be such a scheme it would be necessary to put strict conditions on it. It would be restricted to members who gave an undertaking to serve full time in war—an undertaking which is not at present required from members. It might also be provided, for example, that the bounty would be paid only when a suitable training test had been passed; that enlistment would be for a fixed period of years, during which a minimum amount of training would have to be carried out; and that volunteers would then pass into a reserve, where they would do only refresher training but would still be liable for call-up.

129. The cost of a bounty scheme would depend on the number of those prepared to accept the necessary obligations and able to pass the necessary test. The Home Office consider that 50,000 initially would be a good start. If this number qualified, and the bounty were £20 a year for senior officers, £15 for junior officers and £10 for other ranks, and half these rates for reservists, the initial cost

would be of the order of £0.75 million in a full year. If the total number qualifying for a bounty eventually rose to 200,000, the total expenditure involved would be some £2 millions.

130. The main argument for a bounty is that it would be a visible and impressive symbol of the Government's belief in the value of civil defence. It would boost the morale of the Corps. It would in particular remove the grievance that members of the Corps have no treatment in conditions of service comparable with the Territorial Army, with whom they associate increasingly in exercises and training. The introduction of a bounty scheme should make it easier to carry through a reorganisation designed to improve the standards and efficiency of the Corps as a whole, and in particular to provide a *corps d'élite*—a nucleus of well-trained men and women who could act as leaders if war came.

131. It is argued on the other hand that a tightening up of training requirements and the imposition of an obligation to serve full time in war would probably make little practical difference to the situation if war came, and that a bounty scheme would therefore not be worthwhile. It is also pointed out that it is difficult to estimate the cost, though it might be possible to limit the numbers qualifying for payments. If the scheme attracted a widespread response, the cost might exceed present forecasts; and the concession of a bounty to a non-military organisation might well lead to demands from other voluntary bodies for similar treatment.

132. Any bounty scheme would clearly have to be extended to the Auxiliary Fire Service. About 16,000 men have volunteered for it, but more are needed, especially as the Royal Air Force reservists who were trained for fire service in war between 1954 and 1958 are a dwindling body. If 10,000 men (including some new volunteers) qualified for a bounty, the cost would be about £0.15 million a year. There would moreover be a strong case for paying a proportion of volunteers to attend camp at the Home Office schools provided originally for the Royal Air Force reservists. (No comparable expenditure would arise in respect of the Civil Defence Corps.) The cost of camp payments in the first year would be about £50,000. If the scheme proved successful, the cost of bounty and camp payments might in time amount to £0.4 million a year.

133. The payment of bounties to the Civil Defence Corps and the Auxiliary Fire Service might prompt a demand to extend bounties to the National Hospital Service Reserve, although the circumstances are not quite the same as in the Civil Defence Corps. If, however, this had to be conceded, the annual cost might be £50,000. The Home Office think that there would be good grounds for resisting any other application, in particular from industrial civil defence.

134. The Committee recommend that the proposed review of the Civil Defence Corps and the Auxiliary Fire Service should include consideration of the desirability of a bounty scheme.

E.—Consultation with other Governments

135. Planning in certain fields, such as shipping and oil, involves consultation with other Governments under the auspices of NATO. On the initiative of the Americans, Germans and Dutch the place of civil emergency planning in NATO defence arrangements is now under consideration, and it has been suggested that the present NATO structure should be revised in order to give the same prominence to civil emergency planning as to military planning on the grounds that it forms an integral part of the deterrent. It seems right that we should continue to play our part in NATO civil emergency planning, though we might try to temper the pace to suit ourselves.

136. Although the planned NATO Central Supplies Agency would advise member countries on supply problems in war and co-ordinate demands where necessary, the United Kingdom should try to make arrangements for the procurement of food in war from overseas. The Committee recommend that we should consult the Governments of the countries to which we should chiefly look for supplies, particularly within the Commonwealth.

F.—Manning of Government Headquarters

137. Headquarters down to sub-region would be staffed mainly from the Civil Service and the armed forces. Staff are being earmarked for the central Government but not for lower formations. The headquarters will not function efficiently in war unless some common-user staff have been trained beforehand, especially for communications and intelligence duties. Voluntary training has been undertaken for regional and sub-regional headquarters, but so far the voluntary system has proved generally unsatisfactory and no training has been done for the central Government headquarters.

138. The detailing of staff for training or the offer of greater inducements to encourage volunteers would both present difficulties, and the Committee think that greater efforts should be made to obtain volunteers by traditional means, at least initially.

G.—Accommodation

139. The Government and local authorities would need to take over many premises in an emergency for such purposes as emergency hospitals, sheltering and feeding the homeless and establishing bases for operational forces. The register which was started in 1949 for such premises is out of date, and the Committee recommend that it should be reviewed in the light of current assumptions about the nature of an attack and home defence measures.

140. Local education authorities have not yet been told of the decision of the Ministerial Committee on Civil Defence (C.D. (59) 2nd Meeting, Item 1) that at least day schools and the non-residential parts of boarding school premises should be assumed in planning to be available for home defence purposes in a precautionary period. The Committee recommend that the authorities concerned should now be told that educational premises should be regarded as generally available for home defence purposes in an emergency.

H.—Use of Money

141. No planning has been done to determine how supplies of money or other medium of exchange should be maintained after attack. As far as possible the use of money should continue, but there are serious practical difficulties about establishing reserves of notes and coins. Other monetary problems could also be considered without involving immediate expenditure.

142. The Committee recommend that the Treasury and the Bank of England should discuss these problems on an informal basis as a preliminary to consideration by the interested Departments.

VII.—THE CHOICE

143. Those members of the Committee who do not take the minority view described in paragraphs 17 and 18 of this report consider that the broad choice before Ministers is between affording some increase in expenditure on the scale indicated in *Programme X*, and restraining expenditure as near as possible to the present level, as indicated in *Programme Y*. The choice depends on balancing the burden of the additional expenditure under *Programme X* against the advantages which it would provide in the form of a coherent and publicly defensible policy.

144. The effect of the choice of programme on the public and on those concerned with home defence is important, since the Committee consider that home defence has reached a point where it needs re-energising, if it is not to decline. Apart from some increasingly perfunctory references in the annual Defence White Paper, there has for some years been no comprehensive public statement by the Government of its attitude to home defence; and many people have tended to conclude that the Government has lost faith in the practicability of this country's surviving a nuclear attack. It has become increasingly difficult to maintain the enthusiasm of the civil defence services. Plans for maintaining the government organisation below the central Government are still at a rudimentary stage, the warning and monitoring system is inadequate, little has been done to safeguard water supplies after attack and there are obvious deficiencies in planning in such fields as evacuation and shelter.

145. The paragraphs that follow illustrate the consequences of the choice between *Programmes X* and *Y* by summarising their effects on the measures involving expenditure described in Section V, and by examining their implications for the handling of the policy issues discussed in Section VI.

146. As the analysis in Section V shows, *Programme Y* would enable a start to be made on filling some of the gaps in the present programme. In particular it makes some provision for subordinate headquarters and for Post Office communications in the control organisation; for resuming the purchase of emergency equipment for water supplies; for a scheme for instructing the public in first-aid and emergency home nursing; for printing food ration books; and for extending the warning system so as eventually to provide warning of attack and fall-out over the whole country. Over the five-year period, as existing commitments were worked through and there was increasing scope for redeployment, it would be possible to secure a better balanced programme within broadly the present figure of expenditure.

147. But the analysis in Section V shows the very considerable defects of *Programme Y* as compared with *Programme X*—

- (a) (i) Under *Programme Y* the regional headquarters would not be completed until 1968 and the subregional headquarters not until 1971. The subordinate controls would not be ready for twenty years. There would be no wireless backing from region down to ~~sub~~-area. This means that the ability of the central Government to exercise authority from emergency headquarters, on which considerable sums have already been spent, would be severely restricted for a long time and would even then depend on communications which would be very vulnerable.
- (ii) *Programme X*, on the other hand, would enable the regional and sub-regional headquarters to be completed by 1965, and the programme for subordinate controls to be completed by 1968. Wireless links would be provided from regional headquarters down to sub-area by 1969.
- (iii) Also, under *Programme Y* the essential broadcasting services would not be completed before 1969, whereas under *Programme X* they would be completed by 1966.
- (b) (i) Although *Programme Y* includes some provision for drinking water supplies, the amount is so modest that it would take many years before even a minimum programme could be achieved. Similar considerations apply to fire-fighting equipment.
- (ii) *Programme X* would enable some worthwhile provision to be made in both these important matters.
- (c) (i) The Ballistic Missile Early Warning Station at Fylingdales will be able to give warning of attack by ballistic missiles in 1963. Under *Programme Y* this warning could not be transmitted to the whole population until five years after the Station had come into operation; and it would not be possible to give public warning of attack and warning against fall-out over the whole country until 1969.
- (ii) *Programme X* would enable the Fylingdales warning to be given to the whole population by 1964. It would also enable warnings against fall-out to be given by the same year.
- (d) *Programme Y* would not permit the final completion of the ports emergency scheme before 1980. Under *Programme X* the scheme would be completed by 1969.
- (e) Further respects in which *Programme X* differs from *Programme Y* are as follows. It would enable operational wireless to be provided for the Civil Defence Corps. It would enable additional equipment to be provided for the ambulance and first-aid sections, and some improvement to be made in the content and distribution of the medical stockpile. It would also permit some improvement to be made in the emergency railway control organisation.

148. It is the view of a majority of the Committee that *Programme X* is the minimum needed to provide a coherent and publicly defensible policy; and that if Ministers accepted this programme, it would then be open to them, if they felt it appropriate, to make a comprehensive statement about home defence policy. If, on the other hand, the decision should be in favour of *Programme Y*, the Committee do not consider that Ministers would be in a good position to volunteer a comprehensive statement of policy, having regard to the deficiencies of this programme to which attention is drawn above. Nor do they consider that a programme on this scale would be sufficient to counter the present lack of interest among local authorities and others concerned in home defence planning.

149. The action to be taken on the policy issues discussed in Section VI also has to be considered against this background. The recommendations made by the Committee on these issues would in general be a good deal easier to carry out if Ministers decided on *Programme X*, and if some general statement of policy were made.

150. For example, the Committee have explained why they think that in any event some statement on evacuation policy cannot be deferred for long; but, unless the Government were in a position to make a comprehensive statement on home defence policy, the announcement that an evacuation scheme was to be prepared could well lead to embarrassing questions about other aspects of home defence. A number of other proposals—the suggested approach to industry about policy in the precautionary period and after attack; guidance to local authorities about the use of schools and other premises in an emergency; our role in NATO home defence planning; the attraction of volunteers to man the control organisation—could best be carried out in the context of a publicly known and coherent Government policy on home defence. Furthermore, such a policy would provide the most convenient basis on which to deal with the printing of food ration books and the introduction of the emergency home nursing scheme, both of which it is recommended should be carried out whichever programme is adopted. The proposed reviews of the Civil Defence Corps and of shelter policy would not immediately raise the question of public presentation, but they might well involve consultation with local authorities and others outside Government circles.

VIII.—CONCLUSIONS

151. The Committee all believe that some provision should be made for carrying on the government of the country in nuclear war, and that the provision of emergency headquarters for the central Government and of a regional organisation should be completed.

152. There is a minority view that other home defence preparations have no place in our defence policy, since we could not afford to undertake preparations on a scale that would influence the public's attitude to the deterrent policy in a period of tension, still less provide adequate protection against attack. Those who hold this view consider that our limited resources are best spent on maintaining an effective deterrent, but they nevertheless recognise that it would be politically impracticable to abandon home defence entirely at the present time. They consider that expenditure for this purpose should be severely restricted, and progressively reduced as this becomes politically possible.

153. The view of the majority of the Committee is that home defence preparations are an integral part of the deterrent policy, primarily because of their potential value in steadying public opinion in support of this policy in a period of tension. Some of the Committee also think that the Government has a duty to take measures to mitigate the consequences to the civil population in global war, and that home defence preparations are justified in order to increase the chances of survival if a war were to come. In practice, measures which would be justified on this latter ground are largely the same as those which would be of value on the former ground, namely to steady public opinion in a period of tension.

154. The Committee have considered two possible programmes of expenditure in relation to the majority view. If expenditure were held broadly at its present level over the next five years, on the lines of *Programme Y*, some improvements could

be made in home defence preparations; but these would still suffer from serious limitations. The Government could not show that they had a coherent and reasonable home defence policy; it would be difficult to give a positive lead in home defence or to make a comprehensive statement of policy; and little could be done to remedy the present lack of interest among local authorities and others concerned in home defence planning.

155. These difficulties would be reduced if some moderate increase in home defence expenditure could be allowed, on the lines of *Programme X*. This would permit significant improvements within a reasonable time.

156. Whichever programme is adopted, there are certain other measures, which would not involve significant expenditure, at least during 1961-62, which the majority of the Committee consider should be taken. They recommend that—

- (a) The planning of an evacuation scheme for about six million people in priority classes should be authorised and announced (paragraph 105).
- (b) The possibility of using existing accommodation as shelter against fall-out, and the question of a national survey for this purpose, should be studied by the Departments concerned (paragraphs 113-115).
- (c) An approach should be made to industry about their part in home defence preparations (paragraph 121).
- (d) The functions and organisation of the Civil Defence Corps and the Auxiliary Fire Service should be reviewed by officials, in the light of the man-power resources likely to be available for home defence in war, and this review should include consideration of the desirability of a bounty scheme (paragraphs 126 and 134).
- (e) We should continue to play our part in NATO civil emergency planning, bearing in mind on the one hand the importance which some of our allies attach to such planning, and on the other hand the limitations on the resources which we can make available for it (paragraph 135).
- (f) Consultations with the Governments of the countries to which we should chiefly look for food supplies in war, particularly within the Commonwealth, should be authorised (paragraph 136).
- (g) Plans should be pursued for the manning of the government control organisation based, at least initially, on voluntary recruitment (paragraph 138).
- (h) The register of premises to be taken over for defence purposes in an emergency should be reviewed in the light of current assumptions and policy and the authorities concerned should be told that educational premises should be regarded as generally available for home defence purposes in an emergency (paragraphs 139-140).
- (i) The Treasury should be authorised to discuss monetary problems arising out of home defence policy with the Bank of England, as a preliminary to planning by the Departments concerned (paragraph 142).

157. For the most part the measures recommended in the previous paragraph would be considerably easier to carry out under *Programme X* than under *Programme Y*, since *Programme X* would provide a coherent framework for them.

158. A majority of the Committee consider that a coherent and publicly defensible policy for home defence is now needed, and that the minimum programme of expenditure required to achieve this is that proposed under *Programme X*; and they recommend that this programme should be adopted.

December, 1960.

APPENDIX A

ASSESSMENT OF WEIGHT AND EFFECTS OF NUCLEAR ATTACK

Weight of attack

1. A Soviet attack would aim to put this country out of the war by the use of nuclear weapons. The Soviet already have the ability to do this as part of a general attack on the West, and by 1963 they could do so by using missiles alone.

2. They would probably give first priority to our nuclear bomber bases and offensive missile sites. There are now about seventy of these targets, and under present defence policy they are likely to remain (in roughly their present number and distribution) the primary targets for an enemy attack at least until the later 1960s. The error of missiles successfully fired will probably not exceed $\frac{1}{2}$ -1 mile, but in order to have a reasonable assurance of success the Soviet Union might well initially launch two weapons against each military target, and might make follow-up attacks. For maximum effect the Soviet would probably use ground-burst 3-megaton weapons. An initial attack on this scale would not, comparatively speaking, cause a great number of casualties from blast and heat, but with present home defence preparations fall-out would account for millions of deaths, the number depending largely on the wind direction at the time of attack. In addition, the Soviet Union, in order to ensure the elimination of this country from the struggle, would probably also attack centres of population, the seat of government and major ports, and two 3-megaton weapons might be launched on London and one on each of say fifteen other large centres of population. On these assumptions the initial onslaught on bases and centres of population would consist of not less than one hundred and fifty 3-megaton weapons directed largely at the Eastern half of England and the Midlands, but with isolated targets on the West Coast and in Scotland.

3. Towards the end of the 1960s the number of military targets in this country would decrease, if there were by then few or no identifiable deterrent bases in the United Kingdom. In that case the Soviet Union would no doubt concentrate their attack against cities. In order to have a reasonable assurance of success, the Soviet Union might launch six 3-megaton weapons on London and one each on perhaps twenty other centres of population. Although it is difficult to be specific, it seems likely that a much smaller attack might well suffice to put this country out of the war, but it seems only prudent to assume that the Soviet would want to make sure.

4. Any assessment of enemy plans must be speculative; but the Soviet Union has the ability to launch a crippling attack against both military and civil targets in this country simultaneously with a general attack on the West, and it is therefore necessary to consider the worst that might happen.

5. It seems unlikely that the Soviet would plan to use either chemical or biological warfare against targets in the United Kingdom.

Effects of attack

6. The effects of a nuclear attack on this country would depend on the weight of weapons used, the choice of targets, the protection provided for the population, *e.g.*, by means of evacuation or shelter, and the prevailing weather conditions, and in particular the wind direction and strength. Any estimate of the effects of a nuclear attack is inevitably somewhat arbitrary. The wind direction alone could greatly alter the picture. The following paragraphs illustrate what might happen with the most common Westerly wind.

7. If nuclear deterrent bases and cities were attacked on the scale envisaged in paragraph 2, then in the absence of general evacuation or shelter for the population, the casualties from all causes, including fall-out, might amount to over 20 millions killed and about 4 millions seriously injured or sick. If the attack were confined to twenty-one cities, then on the same assumptions about 12 million people would be killed and over 4 million would be injured or sick.

8. If a scheme for evacuating say 6 million people from centres of population had been successfully carried out, the number killed in either of the assumed patterns of attack might be reduced by about 4 million and the seriously injured by about $\frac{1}{2}$ -1 million.

9. Out of the estimated total of over 20 million deaths resulting from an attack on bases and cities no less than 13 millions would be caused by fall-out. Many of these casualties could be avoided if it were economically and physically practicable to provide shelter against fall-out: in the best case the reduction might be as much as 12 million.

10. On the assumptions adopted fall-out would be most widespread in the Midlands and the Eastern half of England, but other areas might be affected, depending on the targets selected. In the areas worst affected by fall-out various services, vehicles and stores of food and fuel might be intact, but they would be inaccessible, perhaps for a considerable time. In the rest of the country there would be gross over-crowding resulting from movement of people from the cities before attack, whether or not there were an official evacuation scheme, and the arrival after attack of the injured and homeless. The life of the country would be severely disrupted, and resources of food, water, transport, fuel and other supplies would have to be carefully husbanded. Distribution of resources would be a major problem. There might be sufficient food to provide survivors, on average, with an adequate but spartan diet; but the distribution difficulties might leave some areas very short of food. Emergency feeding would have to be improvised on a large scale. Water supplies, power and fuel resources and transport would probably suffice for essential needs, if certain minimum precautions had been taken. Given adequate labour and two or three days' warning of attack, the emergency ports system could probably handle most imports on a scale required for survival, although there would be difficulty over bulk cargoes of grain. For a considerable time after attack telephones and telegraph services could be maintained at only about 5 per cent. of their normal capacity, and would have to be reserved for essential purposes. The armed forces would probably have to help the surviving police forces to maintain law and order. The effects of attacks on the scale discussed above and the prospects of survival after attack could be affected by the home defence measures taken in peace.

APPENDIX B
PROGRAMME X

Item	Estimated expenditure 1960-61 £ millions	1961-62 £ millions	1962-63 £ millions	1963-64 £ millions	1964-65 £ millions	1965-66 £ millions	Year of completion	Remarks	
I. GOVERNMENT CONTROL ORGANISATION									
<i>A.—Premises</i>									
Emergency Government headquarters	0.266	0.041	—	—	—	—	1962	<p><i>Note.</i>—All figures where appropriate include provision for Scotland.</p> <p>(i) Phasing of expenditure and date of completion of the programme will depend on the acquisition of suitable sites.</p> <p>(ii) This programme would provide for the adaptation of existing buildings as local authority control centres in groups, areas and selected sub-areas. The availability of suitable premises is likely to vary considerably in the various regions and at this stage it is not possible to say that further expenditure will not ultimately be required.</p> <p>(iii) It has not been possible to estimate the additional maintenance expenditure which may be incurred in 1962-63 and subsequent years on buildings adapted as local authority control centres. The sums shown therefore (which include £0.178 million for the maintenance of emergency Government headquarters) make no provision for this item.</p> <p>(iv) Communications rentals are calculated on the basis of the progress which would be made in the preparation of premises if expenditure were incurred as at 1 A above.</p> <p>(v) The figures shown under this item do not include that part of the total rentals paid by the Ministry of Defence and the Service Departments.</p> <p>(vi) Not shown in 1960-61 Estimates.</p> <p>(vii) Estimated ultimate annual rental.</p> <p>(viii) No firm estimate of expenditure under this head is possible at this stage. These figures include only token provision for communications with public utilities, the oil industry and railway emergency control centres.</p> <p>(ix) Total rental of £0.39 million not incurred before 1968-69.</p>	
Regional headquarters	0.075	0.200	0.350	0.290	0.125	—	1965		
Sub-regional headquarters(i) ...	0.025	0.050	0.060	0.095	0.095	—	1965		
Group, area and sub-area(ii) ...	0.097	0.300	0.550	0.550	0.550	0.600	1968		
Maintenance	0.121	0.198(iii)	0.205(iii)	0.220(iii)	0.230(iii)	0.230(iii)			
<i>B.—Communications(iv)</i>									
(i) G.P.O. system									
Emergency Government headquarters(v)	0.071(vi)	0.285	0.285	0.285	0.285	0.285			
Regions, sub-regions, groups ...	0.058	0.140	0.380	0.490	0.610	0.666(vii)			
Regional support offices(viii) From sub-region and group to area and below	—	—	0.025	0.075	0.150	0.200(vii)			
	—	0.020	0.075	0.130	0.185	0.240(ix)			
(ii) Wireless									
Region-sub-region-group-area ...	—	0.070	0.070	0.060	0.060	0.060	1969		
Area and below	—	0.125	0.125	0.125	0.125	0.125	1966		
Annual maintenance	—	0.020	0.040	0.060	0.075	0.095			
<i>C.—Broadcasting</i>									
	0.111	0.147	0.208	0.339	0.290	0.061	1966		

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27

PROGRAMME X (continued)

Item	Estimated expenditure 1960-61 £ millions	1961-62 £ millions	1962-63 £ millions	1963-64 £ millions	1964-65 £ millions	1965-66 £ millions	Year of completion	Remarks	
2. EVACUATION									
Printing of billeting documents ...	—	—	—	0.040	—	—	1964	(x) The estimated cost of the wartime requirement is £0.5 million.	
3. FOOD									
(a) Stockpile, storage and maintenance	2.310	2.310	2.310	2.310	2.310	2.310		(xi) The total cost of measures to safeguard water and electricity supplies can be estimated only after survey and consultation with the industries. No year of completion can therefore be shown.	
(b) Ration documents	Nil	0.050	0.050	0.050	0.050	—	1965		
(c) Training in emergency feeding techniques	0.165	0.185	0.185	0.185	0.185	0.185			
(d) Equipment									
(1) Maintenance of emergency equipment	0.052	0.060	0.060	0.060	0.060	0.060			
(2) Purchase of food monitoring equipment for training(x) ...	0.020	0.020	0.020	0.020	0.020	0.020		(xii) Government grant only. The industry provide an equivalent amount.	
(e) Miscellaneous	0.091	0.030	0.030	0.030	0.030	0.030			
4. WATER SUPPLIES	0.019	0.250	0.500	0.750	0.750	0.750	(xi)		
5. FUEL AND POWER SUPPLIES									
(a) Electricity	—	0.025(xii)	0.050(xii)	0.050(xii)	0.050(xii)	0.050(xii)	(xi)		
(b) Gas									
(1) New measures to ensure continuity of supplies	—	0.185(xii)	0.185(xii)	0.185(xii)	0.185(xii)	0.185(xii)	1966		
(2) Maintenance	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)			

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(c) Petroleum							
(i) Improvements and maintenance at existing installations	0.770	0.730(xiii)	0.800(xiii)	0.800(xiii)	0.800(xiii)	0.800(xiii)	
(ii) Purchase of reserve stockpile and maintenance	—	0.320	0.320	0.320	0.070	0.070	1963
(iii) Authorisation forms	—	0.010	—	—	—	—	1962
6. TRANSPORT—							
(a) Ports—							
(i) Completion of scheme(xiv)	0.100	0.190	0.230	0.230	0.230	0.230	1969
(ii) Maintenance	0.070	0.100(xv)	0.100(xv)	0.100(xv)	0.100(xv)	0.100(xv)	
(b) Railways—							
Emergency train control centres	—	0.125	0.125	0.125	0.125	—	1965
(r) Road transport—							
Printing of vehicle requisition forms	—	0.001	—	—	—	—	1962
7. MEDICAL SERVICES—							
(a) Training and provision of training equipment	0.103	0.150	0.150	0.150	0.150	0.150	
(b) Emergency home nursing training scheme(xvi)	—	0.030	0.030	0.030	0.030	0.030	
(c) Medical stockpile maintenance and improvement	0.220	0.350	0.350	0.350	0.350	0.350	
8. CIVIL DEFENCE ORGANISATION							
(a) General							
(i) Administrative and training costs including schools	2.593	2.740	2.800	2.675	2.660	2.660	
(ii) Grants to local authorities for administration and training of A.F.S. and C.D. Corps	4.283	4.400	4.500	4.600	4.700	4.800	
(iii) Grants to local authorities for Welfare Section of C.D. Corps	0.227	0.250	0.260	0.270	0.280	0.290	

(xiii) These figures are net. The expenditure is greatly reduced by As.-in-A from commercial use. Should these fall below expectations, some increase would be required.

(xiv) Expenditure to date on this scheme is about £8 millions.

(xv) The gross maintenance cost is approximately £0.16 million a year of which £0.09 million in 1960-61 is offset by hire of equipment. The average receipts from hire in future years is assumed to be £0.06 million a year. This may vary from year to year. The net maintenance figure for all years subsequent to 1960-61 is assumed to be £0.1 million.

(xvi) Expenditure under this heading may vary with public response to the scheme.

PROGRAMME X (continued)

Item	Estimated expenditure 1960-61 £ millions	1961-62 £ millions	1962-63 £ millions	1963-64 £ millions	1964-65 £ millions	1965-66 £ millions	Year of completion	Remarks
(iv) Grants to local authorities for training, and equipment for Ambulance and First Aid Section, C.D. Corps	0.357	0.450	0.450	0.450	0.450	0.450		(xvii) This programme provides for all civil defence services including police and fire, and it may prove to be insufficient; expenditure in later years would then have to be considered.
(b) Civil Defence Corps								
(i) Stockpile of radiac instruments (xvii)	0.557	0.500	0.500	0.500	0.500	—	1965	(xviii) In this programme, training wireless could be maintained at its present level from stocks acquired under items 1 B (ii) and 8 (b) (ii).
(ii) Operational wireless	—	0.100	0.100	0.100	0.100	0.100	1966	(xix) This programme, on which £2.25 millions has already been spent, would be substantially completed during 1961-62.
(iii) Training wireless(xviii)	0.080	—	—	—	—	—		
(iv) Training vehicles and equipment and uniforms	0.255	0.350	0.350	0.350	0.350	0.350		
(v) Emergency clothing (W.V.S.)... ..	0.019	0.019	0.019	0.019	0.019	0.019		
(vi) Miscellaneous (grants to W.V.S. and voluntary societies, research and development, &c.)	0.380	0.380	0.380	0.380	0.380	0.380		(xx) It has been agreed in principle that capital expenditure by the Post Office which in this programme is phased over three years should be repaid by the Home Departments over ten years and that payments should include the cost of maintaining the system. The figures shown are the estimated Home Departments' repayments in the years 1961-62—1965-66, plus rental for the network to link carrier to the B.M.E.W.S. There will continue to be a charge for maintenance after the capital has been repaid.
(c) Warning and monitoring organisation								
(i) Protection of R.O.C. posts and group headquarters	0.910	1.072	0.500	0.030	—	—	1963(xix)	
(ii) Maintenance of R.O.C. posts and group headquarters	0.010	0.014	0.025	0.032	0.038	0.038		
(iii) Upkeep of siren system, communications of warning system and accommodation at sectors... ..	0.320	0.410	0.420	0.430	0.440	0.450		
(iv) Warning system								
(a) Carrier								
(i) Equipment and maintenance (xx)	0.030	0.155	0.390	0.570	0.570	0.570		
(ii) Installation charges	—	0.270	0.420	0.360	—	—	1964	

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(b) Provision of hand-operated sirens and maroons	—	0·100	0·230	0·240	—	—
(d) Fire Service						
(i) Stockpile of fire-fighting equipment	0·120	0·750	0·750	0·750	0·750	0·750
(ii) Training equipment ...	0·248	0·250	0·250	0·250	0·250	0·250
9. OTHER ITEMS						
Maintaining Board of Trade stockpile	0·690	0·450	0·350	0·250	0·200	0·100
Miscellaneous	0·096	0·100	0·100	0·100	0·100	0·100
Totals	15·929	19·487	20·672	20·870	20·072	19·199
Less Appropriations-in-Aid ...	0·503	0·500	0·500	0·500	0·500	0·500
Net Totals(xxi)	15·426	18·987	20·172	20·370	19·572	18·699

1964

1975

(xxi) Post Office capital expenditure, which is estimated for the current year at about £4 millions, has been excluded from these tables. The tables, however, include rentals in respect of communications services which would be paid to the Post Office by civil Departments in connexion with defence.

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APPENDIX C
PROGRAMME Y

Item	Estimated expenditure 1960-61 £ millions	1961-62 £ millions	1962-63 £ millions	1963-64 £ millions	1964-65 £ millions	1965-66 £ millions	Year of completion	Remarks
1. GOVERNMENT CONTROL ORGANISATION								
<i>A.—Premises</i>								
Emergency Government headquarters	0.266	0.041	—	—	—	—	1962	<p><i>Note.</i>—All figures where appropriate include provision for Scotland.</p> <p>(i) This programme would provide for the adaptation of existing buildings as local authority control centres in groups, areas and sub-areas. The availability of suitable premises is likely to vary considerably in the various regions and at this stage it is not possible to say that further expenditure will not ultimately be required.</p> <p>(ii) It has not been possible to estimate the additional maintenance expenditure which may be incurred in 1962-63 and subsequent years on buildings adapted as local authority control centres. The sums shown therefore (which include £0.178 million for the maintenance of emergency Government headquarters) make no provision for this item.</p> <p>(iii) Communications rentals are calculated on the basis of the progress which would be made in the preparation of premises if expenditure were incurred as under 1 A above.</p> <p>(iv) This figure does not include that part of the total rental which is to be paid by the Ministry of Defence and the Service Departments (£0.265 million.)</p> <p>(v) Not shown in 1960-61 Estimates.</p> <p>(vi) Ultimate annual rental of £0.666 million would be reached in 1972.</p> <p>(vii) Ultimate annual rental of about £0.200 million might be reached in 1969. No firm estimate however of expenditure under this head is possible at this stage. These figures include only token provision for communications with public utilities, the oil industry and railway emergency control centres.</p> <p>(viii) Ultimate annual rental of £0.39 million would be reached in 1981.</p> <p>(ix) Expenditure under this heading (£0.040 million) may have to be considered.</p>
Regional headquarters	0.075	0.130	0.130	0.130	0.130	0.130	1968	
Sub-regional headquarters	0.025	0.030	0.030	0.030	0.030	0.030	1971	
Group, area and sub-area(i)	0.097	0.100	0.200	0.200	0.200	0.200	1980	
Maintenance	0.121	0.195(ii)	0.200(ii)	0.200(ii)	0.200(ii)	0.200(ii)		
<i>B.—Communications(iii)</i>								
G.P.O. system								
Emergency Government headquarters (iv)	0.071(v)	0.285	0.285	0.285	0.285	0.285		
Regions, sub-regions, groups	0.058	0.090	0.155	0.220	0.280	0.345(vi)		
Regional support offices	—	—	0.025	0.075	0.125	0.175(vii)		
From sub-region and group to area and below	—	0.010	0.030	0.050	0.070	0.090(viii)		
<i>C.—Broadcasting</i>	0.111	0.120	0.120	0.120	0.120	0.120	1969	
2. EVACUATION								
Printing of billeting documents(ix) ...	—	—	—	—	—	—		

TOP SECRET

TOP SECRET

3. Food						
(a) Stockpile, storage and maintenance	2.310	2.310	2.310	2.310	2.310	2.310
(b) Ration documents	Nil	0.050	0.050	0.050	0.050	—
(c) Training in emergency feeding techniques	0.165	0.185	0.185	0.185	0.185	0.185
(d) Equipment						
(1) Maintenance of emergency equipment	0.052	0.055	0.055	0.055	0.055	0.055
(2) Purchase of food monitoring equipment for training(x) ...	0.020	0.020	0.020	0.020	0.020	0.020
(e) Miscellaneous	0.091	0.030	0.030	0.030	0.030	0.030
4. WATER SUPPLIES	0.019	0.200	0.250	0.250	0.250	0.250
5. FUEL AND POWER SUPPLIES						
(a) Gas						
(1) New measures to ensure continuity of supplies	—	—	—	—	—	—
(2) Maintenance	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)	0.010(xii)
(b) Petroleum						
Improvements and maintenance at existing installations	0.770	0.690(xiii)	0.700(xiii)	0.700(xiii)	0.700(xiii)	0.700(xiii)
6. TRANSPORT						
(a) Ports						
(i) Completion of scheme(xiv) ...	0.100	0.100	0.100(xv)	0.100(xv)	0.100(xv)	0.100(xv)
(ii) Maintenance(xvi)	0.070	0.100	0.100	0.100	0.100	0.100
(b) Road transport						
Printing of vehicle requisition forms	—	0.001	—	—	—	—

1965

(x) The estimated cost of the wartime requirement is £0.5 million.

(xi) The total cost of measures to safeguard water supplies can be estimated only after survey and consultation with the industry. No year of completion can therefore be shown.

(xii) Government grant only. The industry provide an equivalent amount.

(xiii) These figures are net. The expenditure is greatly reduced by As.-in-A from commercial use. Should these fall below expectations, some increase would be required.

(xiv) Expenditure to date on this scheme is about £8 millions.

(xv) Certain projects might involve capital expenditure higher than £0.100 million in some years after 1961-62.

(xvi) The gross maintenance cost is approximately £0.16 million a year of which £0.09 million in 1960-61 is offset by hire of equipment. The average receipts from hire in future years is assumed to be £0.06 million a year. This may vary from year to year. The net maintenance figure for all years subsequent to 1960-61 is assumed to be £0.1 million.

(xi)

1980

1962

PROGRAMME Y (continued)

Item	Estimated expenditure 1960-61 £ millions	1961-62 £ millions	1962-63 £ millions	1963-64 £ millions	1964-65 £ millions	1965-66 £ millions	Year of completion	Remarks	
7. MEDICAL SERVICES									
(a) Training and provision of training equipment	0.103	0.100	0.100	0.100	0.100	0.100		(xvii) Expenditure under this heading may vary with public response to the scheme.	
(b) Emergency home nursing training scheme(xvii)	—	0.030	0.030	0.030	0.030	0.030			
(c) Medical stockpile—maintenance and improvement	0.220	0.235	0.235	0.235	0.235	0.235			
8. CIVIL DEFENCE ORGANISATION									
(a) General									
(i) Administrative and training costs including schools	2.593	2.740	2.800	2.675	2.660	2.660		(xviii) This programme provides for all civil defence services including police and fire and it may prove to be insufficient; expenditure in later years would then have to be considered.	
(ii) Grants to local authorities for administration and training of A.F.S. and C.D. Corps ...	4.283	4.400	4.500	4.600	4.700	4.800			
(iii) Grants to local authorities for Welfare Section of C.D. Corps	0.227	0.250	0.260	0.270	0.280	0.290			
(iv) Grants to local authorities for training and equipment for Ambulance and First Aid Section, C.D. Corps	0.357	0.350	0.350	0.350	0.350	0.350			
(b) Civil Defence Corps									
(i) Stockpile of radiac instruments (xviii)	0.557	0.500	0.500	0.500	0.500	—	1966		
(ii) Training wireless	0.080	0.080	0.080	0.080	0.080	0.080			
(iii) Training vehicles and equipment and uniforms	0.255	0.330	0.330	0.330	0.330	0.330			
(iv) Emergency clothing (W.V.S.) ...	0.019	0.019	0.019	0.019	0.019	0.019			
(v) Miscellaneous (grants to W.V.S. and voluntary societies, research and development, &c.)	0.380	0.380	0.380	0.380	0.380	0.380			

TOP SECRET

TOP SECRET

(c) Warning and monitoring organisation							
(i) Protection of R.O.C. posts and group headquarters	0.910	0.900	0.575	0.130	—	—	1963
(ii) Maintenance of R.O.C. posts and group headquarters	0.010	0.014	0.025	0.032	0.038	0.038	
(iii) Upkeep of siren system, communications for warning system and accommodation at sectors	0.320	0.400	0.420	0.430	0.440	0.450	
(iv) Warning system							
(a) Carrier							
(i) Equipment and maintenance(xix)	0.030	0.155	0.240	0.310	0.380	0.450	
(ii) Installation charges	—	0.200	0.150	0.150	0.150	0.150	1968
(b) Provision of hand-operated sirens and maroons	—	0.035	0.080	0.080	0.080	0.080	1969
(d) Fire Service							
(i) Stockpile of fire-fighting equipment	0.120	0.200	0.200	0.200	0.200	0.200	
(ii) Training equipment	0.248	0.250	0.250	0.250	0.250	0.250	
9. OTHER ITEMS							
Maintaining Board of Trade stockpile	0.690	0.450	0.350	0.250	0.200	0.100	
Miscellaneous	0.096	0.100	0.100	0.100	0.100	0.100	
Totals	15.929	16.870	16.959	16.621	16.752	16.427	
Less Appropriations-in-Aid	0.503	0.500	0.500	0.500	0.500	0.500	
Net Totals(xx)	15.426	16.370	16.459	16.121	16.252	15.927	

(xix) It has been agreed in principle that capital expenditure by the Post Office which in this programme is raised over seven years should be repaid by the Home Departments over ten years and that payments should include the cost of maintaining the system. The figures shown are the estimated Home Departments repayments in the years 1961-62—1965-66, plus rental for the network to link carrier to the BMEWS. They will rise to £0.570 million in 1967-68. After the capital has been repaid, there will continue to be a charge for maintenance.

(xx) Post Office capital expenditure, which is estimated for the current year at about £4 millions, has been excluded from these tables. The tables, however, include rentals in respect of communications services which would be paid to the Post Office by civil Departments in connexion with defence.