



COLONY AND PROTECTORATE OF KENYA

SESSIONAL PAPER

No. 4 of 1957/58

BROADCASTING DEVELOPMENT

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INDEX

	PAGE
PART I.—Introduction	1
PART II.—The Kenya Broadcasting Commission	2
PART III.—The Report of the Kenya Broadcasting Commission, 1954, and subsequent developments	4
PART IV.—The Government's proposals for broadcasting development ..	7
PART V.—Organization and Control	10
PART VI.—Commercial Broadcasting	14
PART VII.—Cost of new proposals	16
PART VIII.—Method of transmission	20
PART IX.—Miscellaneous	22
Wired broadcasting	22
Forces Broadcasting Station	23
Wireless licences	23
Staff and organization	24
Schools broadcasts	25
News service	26
Acknowledgments	27

APPENDICES—"A" and "B".

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PART I—INTRODUCTION

The purpose of this Sessional Paper is to set out the Government's plans for the future of broadcasting in Kenya: the paper describes the current organization of broadcasting; the steps that need to be taken so that an improved and expanded service may be brought into operation to replace and supplement the existing arrangements; the scheme which it is proposed to adopt; and the major technical, administrative and financial implications of that scheme.

Existing Services

2. At present, broadcasting in English, primarily for Europeans, and in Hindustani and some Gujarati, for Asians, is carried out by Messrs. Cable and Wireless Limited under an agreement which is due to expire on the 30th September, 1959. The company operates the following transmitters:—

NAIROBI

Short wave: 6 kW.	}	English Programme.
Medium wave: 5 kW.		
Short wave: 3 kW.	}	Asian Programme.
Medium wave: 2 kW.		

With these transmitters the company provides a service which can be heard in the vicinity of Nairobi on medium wave and in most parts of the Colony on short wave. The hours of transmission are:—

		<i>English</i>		<i>Asian</i>
Monday	{	6.30 a.m. to 8.00 a.m.	{	1.00 p.m. to 2.00 p.m.
to		1.00 p.m. to 2.10 p.m.		6.45 p.m. to 10.00 p.m.
Saturday	{	6.00 p.m. to 11.00 p.m.	{	
Sunday	{	10.00 a.m. to 2.10 p.m.	{	10.00 a.m. to 2.00 p.m.
		6.00 p.m. to 10.10 p.m.		6.45 p.m. to 10.00 p.m.

3. Broadcasting to Africans is undertaken by the Government through the African Broadcasting Service of the Department of Information, as follows:—

NAIROBI

One 6 kW. short wave transmitter.	}	National programme in English and Swahili and Regional in Kamba.
One ½ kW. medium wave transmitter.		

MOMBASA

One ½ kW. short wave transmitter.	}	Regional programme in Arabic and Ki-Mvita with Swahili programmes for up-country Africans in Mombasa; it is also the intention, if staff and finance permit, to introduce vernacular broadcasts. The station broadcasts for six hours on week-days and an hour longer on Sundays.
One ½ kW. medium wave transmitter.		

KISUMU

One $\frac{1}{2}$ kW. short wave transmitter.	}	Regional programme in Nyanza and Rift Valley vernaculars for approximately five hours a day.
One $\frac{1}{2}$ kW. medium wave transmitter.		

NYERI

One $\frac{1}{2}$ kW. short wave transmitter.	}	Regional programme in Kikuyu for approximately six hours a day.
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4. Broadcasting in Kenya was first undertaken, under agreement with the Government, in August, 1928, by the British East African Broadcasting Company. In 1931 this agreement was superseded by a similar arrangement with Messrs. Imperial and International Communications Limited; the agreement with that company, as recently renewed and modified, now continues with their successors Messrs. Cable and Wireless Limited. The company operate a world-wide telecommunication network and broadcasting is only a minor part of their function; indeed, Kenya is the only country in which the company still provide a broadcasting service. Nevertheless the service they make available is a well-established and valued part of the life of the Colony and has provided entertainment and information throughout the country's most formative years.

5. It is not possible to give precise details of the cost of the Cable and Wireless European and Asian services; it can, however, be said that if these services were to be continued beyond 1959 considerable increases in the company's capital and recurrent expenditure on broadcasting would be inevitable. The revenue to operate the service is derived from licence fees and from a limited amount of commercial broadcasting of the kind known as "spot advertising". After deduction of the Sh. 2/50 retained by the Postmaster-General for collection charges, the revenue from licences at the general rate of Sh. 30 per receiver has recently amounted to about £32,000 per annum. No specific figures are available of the revenue derived from the spot advertising, but it is understood that a sum of the order of £10,000 is involved.

6. The annual cost of the African Broadcasting Service, as reflected in the revised Colony Estimates, is approximately £59,000. This charge is met entirely from Colony revenue.

7. It is the Government's intention to establish a broadcasting service to replace that now supplied by Messrs. Cable and Wireless Limited, and to bring the new service into operation as from the date of the expiry of the agreement with the company on 30th September, 1959. The achievement of this aim will involve arrangements for the transmission of a programme in the English language and a programme in Asian languages primarily intended for the Asian community; and for the integration of the African Broadcasting Service into the overall scheme.

PART II—THE KENYA BROADCASTING COMMISSION

8. The original agreement with Messrs. Cable and Wireless was due to end in September, 1956. The beginning of the Emergency in 1952 made it necessary to defer the start of the detailed planning required for the continuation of broad-

casting after the expiry of the agreement, and it was not until 1953 that it was found possible to give the matter the careful study it required. The result was that early in 1954 arrangements were made for a Commission to be appointed to advise on broadcasting development. The Commission consisted of:—

The late Mr. J. Grenfell-Williams, Head of the Colonial Service of the British Broadcasting Corporation.

Mr. R. W. P. Cockburn, Head of the External Broadcasting Administration of the British Broadcasting Corporation.

Mr. W. A. Roberts, a Senior Broadcasting Engineer of the British Broadcasting Corporation.

It was joined in Kenya by a local member—Lieutenant-Colonel C. V. Merritt, O.B.E.

9. The Commission's terms of reference were:—

"To advise the Kenya Government on the ways and means of developing broadcasting and on the measures required, with an estimate of their cost."

These terms of reference were amplified in a letter addressed by the then Acting Chief Secretary to the Chairman of the Commission in which the Commission was asked to make recommendations on the following matters:—

- "(a) What authority should control broadcasting in Kenya: its composition, status and powers, and the tenure and conditions of office of its members.
- (b) What, in your opinion, would be the most suitable broadcasting service for Kenya: its cost and methods of financing it.
- (c) The desirability and practicability of regional broadcasting, with particular reference to cost.
- (d) The desirability or otherwise of commercial broadcasting.
- (e) The types and cost of the technical equipment necessary to give maximum coverage throughout Kenya.
- (f) The number, duties, qualifications, grading and training of staff required.
- (g) The place of wired broadcasting within the broadcasting service; and other possible methods of encouraging listening.
- (h) Hours of transmission."

10. The Commission set about collecting evidence, and after establishing its headquarters in Nairobi, and holding meetings there, visited Mombasa, Nakuru, Kisumu, Mbale in North Nyanza, Fort Hall, Nyeri and Thika. They met at these places men and women who gave their views, sometimes as private individuals, sometimes as leaders of the African, Asian, European and Arab communities, or as representatives of various bodies, religious, educational, commercial, social and political. The Commission also had talks with many members of the Legislative Council, officers of the Administration, chiefs and members of African district councils. By the end of their tour they had obtained a serviceable cross-section of opinion in the country.

PART III—THE REPORT OF THE KENYA BROADCASTING COMMISSION, 1954, AND SUBSEQUENT DEVELOPMENTS

11. The Report of the Kenya Broadcasting Commission was issued in June, 1954, with a note to the effect that it had not yet been considered by the Government.

Transmissions Recommended by the Commission

12. The Commission recommended the installation of 18 transmitters to provide six programmes from three studio centres. The details are:—

NATIONAL ENGLISH

- 10 kW. short wave at Nairobi.
- 10 kW. medium wave relay at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Kisumu.
- $\frac{1}{2}$ kW. medium wave relay at Mombasa.

NATIONAL ASIAN

- 10 kW. short wave at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Kisumu.
- $\frac{1}{2}$ kW. medium wave relay at Mombasa.

NATIONAL AFRICAN

- 10 kW. short wave at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Kisumu.
- $\frac{1}{2}$ kW. medium wave relay at Mombasa.

NAIROBI REGIONAL

- 5 kW. short wave at Nairobi.
- $\frac{1}{2}$ kW. medium wave relay at Nairobi.

KISUMU REGIONAL

- 5 kW. short wave at Kisumu.
- $\frac{1}{2}$ kW. medium wave relay at Kisumu.

MOMBASA REGIONAL

- 5 kW. short wave at Mombasa.
- $\frac{1}{2}$ kW. medium wave relay at Mombasa.

The studio centres were to be at Nairobi, Kisumu and Mombasa.

13. A relay transmission consists of receiving a programme either direct on a receiving set or by line or by V.H.F.* link, and rebroadcasting it through a relay transmitter; for example the $\frac{1}{2}$ kW. medium wave relay at Kisumu would receive the National short wave programme from Nairobi and put it out on the medium wave for the immediate environs of Kisumu.

* *Note.*—The initials V.H.F. stand for Very High Frequency.

14. The Commission felt that the transmissions recommended by them would cover the following areas:—

- (i) Subject to the natural vagaries inescapable in a short wave broadcasting system, the three National short wave programmes would be heard all over the Colony; the use of special aerial arrangements would ensure that the signal would be at its best in the more densely populated southern parts of the Colony.
- (ii) Listeners in Nairobi, Kisumu and Mombasa would be able to hear the National programme on reliable medium wave relay transmissions. Reception on the fringes of those areas would, at some seasons, be subject to atmospheric noises; listeners would, however, have the alternative of listening to the short-wave transmissions direct.
- (iii) The Regional programmes would cover on short wave the whole of the areas surrounding the regional centres; in addition, listeners close to those centres would receive the programme by medium wave relay. The effect would be that the whole of the coast area would be covered from Mombasa and the whole of Nyanza Province, with parts of the Rift Valley Province round Kitale and Eldoret, from Kisumu; the Nairobi Regional programme would cover most of the Central Province and part of the Rift Valley and Southern Provinces.

Capital Cost

15. The capital cost of the Kenya Broadcasting Commission's scheme, including broadcasting studios and contingency items, was estimated at £440,000 and the recurrent costs at £210,000. It was expected that help would be forthcoming from Colonial Development and Welfare Funds but it was known that such help was unlikely to exceed £200,000 and that it would not, in any case, be available until 1957; it was also understood that the provision of Colonial Development and Welfare Funds would be dependent upon a contribution of not less than £100,000 being made by the Kenya Government. The total amount, therefore, which could be expected to be available was in the region of £300,000.

16. The Kenya Government was unable to contemplate the very heavy capital contribution which it would be required to make in order to bring the expected Colonial Development and Welfare grant up to the £440,000 estimated by the Commission as being the probable capital cost of their proposals. Furthermore, building and equipment costs were rising, and even in the short interval between the Commission's deliberations and the submission of their report, there had been a substantial increase in the capital costs of the scheme. In addition, a number of items on the recurrent side appeared to have been underestimated; these were, notably, the estimated cost of Post Office landlines to link the Nairobi programmes with the coastal and up-country stations, and the provision of a news service.

In these circumstances it was clear that the whole scheme would need to be re-examined so that reductions could be made.

Extension of Agreement with Cable and Wireless

17. It was also apparent that even if finance and the requisite technical staff were available it would not be possible, in view of the delivery dates of the transmitter equipment, to bring any new scheme into operation by the expiry date of the Cable and Wireless agreement. Negotiations were accordingly opened with the company with a view to the extension of the existing agreement for a further period of three years from September, 1956. These negotiations were successfully concluded and, as has been indicated earlier in this Paper, the agreement will remain in operation until September, 1959.

Further Examination of the Commission's Proposals

18. The British Broadcasting Corporation was again approached and, at the request of the Government, a review of the Commission's scheme was undertaken by two of the members of the Commission, Messrs. Roberts and Cockburn. By eliminating some of the regional services, the officers making the review were able to suggest two alternative modifications, each of which would bring about substantial reductions in capital cost. But, bearing in mind that the cost of equipment had risen since the original report had been prepared, and that the costs of certain of its recommendations had been underestimated in the first instance, the total for the modified schemes still appeared to be greater than the Colony could afford. At the same time, for reasons which will be mentioned later when the expansion of African broadcasting is discussed, it was considered undesirable that the regional services should be abandoned. A local re-examination of all the proposals was therefore made by the technical officers of the Department of Information with the help of the Postmaster-General's specialist staff.

Details of the Broadcasting Commission's recommendations and of the two alternative modifications suggested by Messrs. Roberts and Cockburn are summarized in Appendix A to this Paper; for easy comparison, a summary of the Government's present proposals, as set out later in the Paper, is also shown.

Interim Extensions to the African Broadcasting Service

19. During the years 1954 and 1955 the Government also undertook a reorganization of the African Broadcasting Service. The improvements and extensions which were made were intended to be of an interim nature only, and were designed and sited in such a way as to be capable of integration into any major scheme that might subsequently be developed.

To meet the demands of the expansion of the Cable and Wireless organization, which was then taking place, and to bring about the desired extension of the African Broadcasting Service, it was found necessary to purchase and install two new transmitters to replace the system whereby transmitters were rented in Nairobi from the company for the African broadcasts. The sum of £16,000 was provided from the Colonial Development and Welfare Fund for this purpose; by arrangement with Messrs. Cable and Wireless Limited the sets are sited at Kabete and operated by the company's staff.

With regard to the regional installations, a 250 watt short wave transmitter was set up at Nyeri, a 500 watt short wave transmitter at Mombasa and a 500 watt short wave transmitter at Kisumu; the two latter transmitters were supported by medium wave transmitters of the same power.

Arrangements were also made for improved sound-proofing and ventilation of the old Nairobi studios; the ventilation equipment used was subsequently transferred to the present studios.

The table which follows gives details of the transmitters, the date of installation and the approximate cost, including essential spares and freight charges:—

<i>Date</i>	<i>Transmitter</i>	<i>Centre</i>	<i>Cost</i> £
1954	½ kW. short wave	Nyeri	300
1955	6 kW. short wave	Nairobi	13,000
1955	½ kW. medium wave	Nairobi	1,900
1956 (Dec.) ..	½ kW. short wave	Mombasa	1,700
1957	½ kW. medium wave	Mombasa	2,100
1957	½ kW. short wave	Kisumu	1,700
1957	½ kW. medium wave	Kisumu	2,100

1957 Visit of British Broadcasting Corporation Engineer.

20. The early appointment of a Chief Broadcasting Engineer had been recommended by the Kenya Broadcasting Commission, and once the various schemes referred to in paragraph 18 of this paper had been completed (March, 1956) it became a matter of some importance that the services of a suitably qualified officer should be available for the purpose of examining the schemes and of making the necessary preliminary arrangements for the technical installations needed for a comprehensive Kenya Broadcasting Service. But in spite of the ready co-operation of the British Broadcasting Corporation, and intensive inquiries in the United Kingdom and elsewhere over a period of 18 months, there has been an embarrassing delay in the recruitment of an engineer. In the event, a Chief Broadcasting Engineer was not finally appointed until February, 1958; he has undertaken a short period of study in the United Kingdom to acquaint himself with developments in various fields with which he will be concerned and is due to arrive in the Colony early in April.

21. The difficulties experienced in recruiting this officer, and the absence of an appropriately qualified person locally who could devote himself to the technical analysis of the schemes which was required, again made it necessary for interim action to be taken. Early in 1957, in response to the concern expressed by the Government, arrangements were made through the British Broadcasting Corporation for Mr. D. B. Weigall, a senior engineer of the Corporation, to visit Kenya for a short period to examine the various suggested modifications to the Kenya Broadcasting Commission's proposals, and to produce a definitive scheme limiting capital expenditure to approximately £300,000. This Sessional Paper is largely based on the recommendations made by Mr. Weigall in the report which was submitted by him to the Government in July, 1957. It will be noted from the succeeding parts of this Paper that the tentative proposals which were set out in Sessional Paper No. 77 of 1956/57 (the Development Programme), although adhered to in principle, have been somewhat varied in detail.

PART IV—THE GOVERNMENT'S PROPOSALS FOR BROADCASTING DEVELOPMENT

22. In the succeeding paragraphs of this part of the Paper are set out the Government's proposals for the transmitting system which will be required to carry the new Kenya Broadcasting Service.

23. As has been indicated earlier in the Paper, the Government's proposals are based on modifications of the recommendations of the Kenya Broadcasting Commission as further modified by the report made by Mr. Weigall of the British Broadcasting Corporation in July, 1957. Immediately following the acceptance by the Government of the technical recommendations contained in Mr. Weigall's report, it was decided to place orders for the transmitting and other technical equipment which would be required. It will be noted that the decisions which have been taken by the Government are in accordance with the general scheme for a broadcasting service set out in Sessional Paper No. 77 of 1956/57 and agreed by the Legislative Council; they are concerned with the number, size and type of transmitters, the various studio appliances needed, and the points at which this equipment should be established; in taking these decisions the Government was at pains not to commit itself in any matter of principle concerning the administration or functioning of a broadcasting organization for the Colony. The delivery dates of most of the equipment ordered ranged from one year to eighteen months and it will be recognized that if there was to be the least prospect of a proper continuation of broadcasting after the 30th September, 1959, it was imperative that there should be no delay in placing the orders.

Transmissions

24. The new broadcasting scheme will not in its first phase result in the transmission of any additional programmes. The following programmes, all of which were recommended by the Kenya Broadcasting Commission and which are already in operation, will continue:—

Nairobi, English language National Service; short wave and medium wave.

Nairobi, Asian languages National Service; short wave and medium wave.

Nairobi, African National Service; short wave and medium wave.

Kisumu, African Regional Service; short wave and medium wave.

Mombasa, Arab and African Regional Service; short wave and medium wave.

The Nyeri African short-wave service will be replaced by an African Regional Service, on short wave and medium wave, transmitted from Nairobi.

Transmitters

25. These programmes are at present carried on transmitters of strengths varying from $\frac{1}{2}$ kW. to 6 kW. and are radiated by means of aerial systems whose efficiency is not, in most cases, above average. Subject to the replacement of the Nyeri station referred to above, it is proposed to maintain the existing transmissions but to improve their quality and range by the use of more powerful broadcasting equipment and of more efficient aerial arrays. The twelve transmissions which will be in operation will involve the use of an equal number of medium-power transmitters, plus nine other minor transmitters which will be used as standbys. On the short-wave system it is also the intention to operate these low-power sets on alternative frequencies which may, at certain times of the day and night, and in certain areas, provide improved reception. The transmissions will be as follows:—

NAIROBI

Short Wave

National English	..	..	..	10 kW. + ($\frac{1}{2}$ to 1) kW.
National Asian	..	..	..	6 kW. + ($\frac{1}{2}$ to 1) kW.
National African	..	..	..	10 kW. + ($\frac{1}{2}$ to 1) kW.
Regional African	..	..	..	6 kW. + $\frac{1}{2}$ kW.

Medium Wave

National English	..	..	..	10 kW.
National Asian	..	..	..	5 kW.
National African	..	..	..	2 kW.
Regional African	..	..	..	10 kW.
Standby	..	..	..	$\frac{1}{2}$ kW.

MOMBASA REGIONAL

Short Wave	..	..	..	5 kW. + $\frac{1}{2}$ kW.
Medium Wave	..	..	..	5 kW. + $\frac{1}{2}$ kW.

KISUMU REGIONAL

Short Wave	..	..	..	5 kW. + $\frac{1}{2}$ kW.
Medium Wave	..	..	..	5 kW. + $\frac{1}{2}$ kW.

26. The only major difference between the services now planned and those recommended in the report of the Kenya Broadcasting Commission is that, for reasons of economy, the proposal that the two National short-wave programmes, in English and in Asian languages, should be relayed to Regional stations at Mombasa and Kisumu has had to be abandoned. Parts of the African National programme will be relayed to Mombasa and Kisumu and will be re-radiated from the Regional stations; but the service provided in this way will be in substitution for the Regional programme and not an alternative to it. The relay will be effected by direct re-broadcasting and not by land-line or V.H.F. link.

27. It is intended that the transmitters now in use for the African Broadcasting Service should be incorporated into the new scheme, and that certain of the transmitters at present owned and operated by Messrs. Cable and Wireless Limited should be purchased from the Company. The following new transmitters, together with the necessary ancillary equipment, are required:—

<i>Medium Wave</i>	<i>Short Wave</i>
Two 10 kW.	Two 10 kW.
Two 5 kW.	Two 5 kW.
	Three $\frac{1}{2}$ kW.

Nairobi Transmitting Station

28. After a thorough examination of possible sites, made with due regard to available finance, and the completion of the necessary conductivity tests, a suitable site eleven miles from the City along the Mombasa road has been purchased. It is approximately 60 acres in extent. A sum of £35,000 has been allocated for the cost of the land and for the construction of the transmitter building.

Kisumu Regional Broadcasting Station

29. The temporary $\frac{1}{2}$ kW. station which was set up in Kisumu in 1956 was established on a site where buildings of a former Radio Direction-finding station were available. It was recognized at the time that, in order to be fully efficient, the service would require better accommodation; and arrangements have now been made to move the transmitters to a permanent site within the Municipality, the use of which for a transmitting station has been approved by the Kisumu local authority and by the town planning advisers. It is also the intention to move the studios from their present temporary accommodation to rented quarters in some more central position in the town. The link between the studio and transmitter will initially be by land-line and subsequently, it is expected, by V.H.F.

Mombasa Regional Broadcasting Station

30. By arrangement with the Naval Authorities, the present Mombasa African Broadcasting Service transmitters are accommodated in a Kenya Government building on the naval wireless station site at Changamwe. It has been agreed that, should the station be moved, as is possible, to another site, accommodation will be offered on that site for the Mombasa transmitters. An improved transmitter building and a new aerial system are to be erected in due course. The Mombasa studios are accommodated in a rented building in the centre of the town and it is not expected that there will be any major change; a sum of £3,500 has, however, been set aside for development. The studios and the transmitters are linked by V.H.F.; this arrangement will be continued on any new site.

31. Briefly, the technical recommendations of the Kenya Broadcasting Commission report were based on the idea of a general coverage by high-frequency transmitters using vertical incidence radiation and supplemented on an increasing scale by medium-frequency transmitters. Programme distribution to the medium-

frequency transmitters was to be by means of Post Office circuits both in Nairobi itself and to link Nairobi with Kisumu and Mombasa; in this way the three national programmes could be radiated on medium wave from all three centres. The total cost of renting these Post Office circuits was expected to be of the order of £5,000 per annum; subsequent investigation, however, indicated that the cost for such a service would not be less than £50,000 per annum—a recurrent charge of a size which, in the present difficult financial circumstances, is not acceptable.

Relays and Station-Studio Links

32. An alternative system of relay links is that of V.H.F. It would be possible, using this method, to extend the programmes east and west by means of a relatively small number of V.H.F. stations. The recurrent cost of operating these V.H.F. links would be less than that of renting Post Office circuits and there would be other substantial advantages in the adoption of such a method. Unfortunately, the capital cost of the V.H.F. linking stations (all of which would need to be duplicated), including provision for roads and for the security of the installations, would be too great to allow the project to be contemplated at this stage. An unduplicated system would be less expensive, but a breakdown at any of the stations would mean a complete interruption of the programme; even if this risk were accepted, the cost would still be too high to be acceptable in the present circumstances. It should be recognized that a V.H.F. linking system would merely make the programmes available at certain predetermined points, and that it would still be necessary for medium-frequency stations to be set up at those points to broadcast the programmes on medium wave.

It has been decided, therefore, not to attempt to relay any of the National services from Mombasa or Kisumu, other than the very limited re-broadcasting referred to in paragraph 26 above.

33. The installation of a short-range V.H.F. link designed to operate between studio and transmitter does not present the same difficulties either technically or financially; such a link is already in use at Mombasa and it is proposed to establish similar links in Nairobi and in Kisumu.

34. The question of broadcasting by the V.H.F. method is further examined in Part VIII of this Paper.

PART V—ORGANIZATION AND CONTROL

35. It is the responsibility of the Government to ensure that, within the finance available, a broadcasting service is set up which will provide a balanced programme of entertainment, information and education. The Government accepts the view expressed by the Kenya Broadcasting Commission, in paragraph 15 of its report, that the two major requirements which need to be fulfilled if Kenya is to have the kind of broadcasting service which will play a proper part in the development of the Colony are—

- (i) that the service should be completely integrated, that is, that all broadcasting should fall under the control of one broadcasting organization;
- (ii) that such a broadcasting organization should be equipped with the necessary technical facilities and provided with adequate staff and funds to carry out its work.

36. It is of particular importance that the Government should be able to ensure that the programmes offered to the public are of the highest possible standard and are suitable both in content and in presentation. In addition the Government must be in a position to make certain that peak-listening hours are available for those broadcasts which are of the greatest interest and value to the public.

37. This responsibility is a heavy one. The importance of the part that broadcasting has to play in the educational, political and social development of the Colony cannot be over-emphasized. Reliable factual information must be provided upon which sound judgements can be based: news must be presented and interpreted with restraint and impartiality so that a reputation for accuracy and fairness may be established: educational programmes must be so designed that current events can be assessed and understood against a wide background of the past and of contemporary world affairs; and entertainment must not be entirely anodyne—part of it at least must aim at heightening perception and at opening a way, however slight, into the world of imagination and the arts.

38. With regard to organization, administration and control, there are (apart from the commercial operation of broadcasting, a matter which will be dealt with in a subsequent paragraph of this part of the Paper), two main courses open to the Government: the service can be run as a Government department in the same way as the present African Broadcasting Service or an independent corporation can be established.

39. The Kenya Broadcasting Commission expressed the view that the most appropriate and effective body to have control of broadcasting in Kenya would be an independent public corporation; they accepted, however, that it might not be possible to move to such an arrangement immediately, and suggested that, as an interim measure, there should be set up a Kenya Broadcasting Service responsible for all broadcasting in Kenya. The service would fall under the authority of a Minister who would be answerable for broadcasting in the Legislative Council: the Minister would, however, have no direct control over the day-to-day business of the service, his authority being exercised through a Chairman and a Board of Governors.

40. The Chairman and the Board of Governors would be nominated by the Governor, but thereafter the Central Government would have no say, except in emergency, over either the policy of the organization or the content of its programmes. It would be the responsibility of the Board to devise and maintain programme policy and to ensure that programmes broadcast were in the national interest. In addition (subject to the approval of the annual estimates by the Government) the Board would control the finances of the service, and be responsible for the appointment of senior staff. A Director of Broadcasting appointed by the Board of Governors would be in sole charge of the operation of the service. He would be answerable to the Board for all matters involving policy, but day-to-day decisions as to the content and standard of programmes would rest with him.

41. Broadly speaking the aim would be to make the organization as fully independent as possible, whilst at the same time preserving the ultimate right of the Government to intervene where some overriding issue of policy was involved. In Britain, under the British Broadcasting Corporation, and in other territories of the Commonwealth such as the Federation of Rhodesia and Nyasaland, where a corporation has been established, similar powers have been reserved. As far as responsibility to the Legislature is concerned, opportunities for discussion and criticism would arise when any financial matters or annual reports and accounts were presented to the House; in addition, there would, of course, be the accepted methods of seeking information by means of question and by means of specific motions. But, as in the United Kingdom, matters arising from the day-to-day running of the service and relating to programmes and organization would not normally fall to be discussed:

42. Conditions in Kenya are naturally not the same as in Britain or indeed as in the Federation, but the systems existing in those countries can serve as a useful guide in the consideration of our own proposals for broadcasting. The point to be emphasized is that the safeguards with which the Government arms itself are usually such as would only be used in times of great emergency. In the Federation, for example, the Broadcasting Bill recently published provides that the Governor-General may, in a public emergency or in the interest of public safety or tranquillity, arrange for the Government to take over all broadcasting stations and to control all broadcasting services. The only other provisions for direct action by the Government are that the Minister responsible may direct that a statement of public importance shall be broadcast (whereupon the corporation is at liberty to say that it has been so directed); and that the Minister may require the corporation to comply with the provisions of the broadcasting laws if it appears that they are failing to do so. In Britain, similar reserve powers exist and the Government also has the right to veto any broadcast; nevertheless in spite of the perilous situations in which Great Britain has found herself in the past thirty years it has never been necessary for this power to be invoked.

43. If the broadcasting service were to be run as a part of the Government, a department dealing exclusively with broadcasting would be required to be set up under a Director of Broadcasting; it would be responsible for the administration of the service, for the production and presentation of programmes and for all the engineering aspects of the scheme. This new department would not be part of the Information Department organization nor would it come under the control of the Director of Information; it would be a separate department within the Portfolio of the Minister of the Government responsible for Information, and the intention would be to arrange by administrative action for a number of Advisory Committees to be established to advise the Director of Broadcasting on general matters and on specific subjects such as religious and schools broadcasting.

44. Under such a system the Minister concerned would be directly responsible to the Legislature not only for matters relating to policy and development but also for administration and for matters arising from the day-to-day operation of the service. This factor clearly constitutes a disadvantage to a Government-run service, for broadcasting is generally of such public concern and so largely a matter of opinion and taste that the Minister would be likely to find himself needlessly harassed by queries. On the other hand the African Broadcasting Service has been successfully operated for some years without such a situation arising, and provided that the Department of Broadcasting is competently run there would appear to be no reason why the European and Asian broadcasts should cause much greater concern than have the African programmes.

45. The whole question of commercial broadcasting will be dealt with in a subsequent part of this Paper. All that need be said in relation to the present issue is that there can be no question of fully commercial operation of the service. The reason is that the capital cost of the scheme has been found from public funds, one-third locally and two-thirds from the Colonial Development and Welfare Fund, and that for any commercial concern to operate a public asset of this nature for its own profits would be unacceptable both to this Government and to Her Majesty's Government in the United Kingdom. It should be made clear that this decision does not exclude the possibility of some expansion in the field of commercial broadcasting, nor does it completely exclude the possibility of a commercial company being permitted to operate a separate service at some date in the future.

46. After an examination of the relative advantages and disadvantages of the possible methods of organizing and controlling the new broadcasting service the Government accepts the view of the Kenya Broadcasting Commission that an independent public corporation should be established; in view, however, of the factors which are set out in the following paragraph the Government is of the opinion that initially a department of Government should be set up to operate the service.

47. The reasons which have led the Government to conclude that, at any rate for the first years of the new broadcasting service, there should be direct Government control are these:—

(a) Within 18 months a completely new English and Asian language broadcasting service must be established, and the present African Broadcasting Service must be integrated into the new organization. The necessary transmitting and studio equipment has been, or is in the process of being ordered; but even assuming the most optimistic delivery times it will strain the resources of the Government to be ready to begin the new service by 1st October, 1959. To the problem of equipment and organization must be added that of construction of buildings, notably the Nairobi transmitter station and the Nairobi Studio Centre; even allowing a minimum time for the normal building procedures it is clear that the period available is alarmingly short. Whether the system adopted is that of immediate Government control for an initial period or that of direction from the outset by an independent corporation, it will be necessary during the next 12 months to recruit and establish a considerable proportion of the staff necessary to undertake the administrative, programme and engineering functions of the organization. The delay experienced in obtaining a Chief Broadcasting Engineer reflects the state of the market in all technical fields in the United Kingdom, the source from which most of the staff would have to be obtained; and it is not improbable that similar difficulties will be encountered in securing the services of the senior technicians required for the engineering branch. In addition there will be a need to recruit and to give some supplementary training to junior technical staff.

It is felt that for the Government, when faced with these very real problems, to impose upon itself the burden of the administrative and legal measures which would be a necessary preliminary to the establishment of a new independent corporation would be most unwise. The recruitment of new staff, the absorption in the new Government department of the present Cable and Wireless Broadcasting staff, and the transfer to it of those members of the Information Department who are now employed with the African Broadcasting Services will present complications enough; it would not be practicable in the midst of this exercise to attempt to create a corporation, to work out a full range of staff terms for initial engagement, for transfer and for secondment, and to recruit and establish the staff needed.

(b) It is the responsibility of the Government to ensure that the corporation, when the time is ripe for it to be established, should be of the kind best suited to the Colony's needs. For a variety of reasons exact parallels of organizations such as the British Broadcasting Corporation or the corporation recently established in the Federation of Rhodesia and Nyasaland would be unlikely to be suited to the special circumstances of Kenya. It is the intention of the Government, in the initial period during which the broadcasting service is run as a Government department, to determine what model of independent corporation would be best for local conditions.

(c) In reaching the decision that for an initial period the control of broadcasting should be a direct Government responsibility the Government has been influenced not only by the factors set out above but by a number of subsidiary considerations. There will, for instance, be an opportunity for the various technical difficulties and setbacks which will inevitably arise to be tackled within the Government machine; experience will be gained in the composition and balance of programmes; and it will be possible for a firmer estimate to be made of the revenues likely to accrue from advertising as well as from licence fees. In addition, it will be possible for those persons who at a later date may wish to serve on the governing body of the corporation to gain experience on one of the committees which it is intended to set up to advise the Director of Broadcasting.

With regard to the general question of the initial arrangements for the organization and control of broadcasting and to the changes which it may be found desirable to bring about after the introductory period, it is the intention of the Government to preserve the greatest possible flexibility both as to the duration of the proposed Government system of control and as to the structure and constitution of whatever body it may be decided to establish to take over from the Government.

PART VI—COMMERCIAL BROADCASTING

48. It must be accepted that, at any rate for many years to come, the revenue derived from licence fees will not of itself be sufficient to provide broadcasting of a high standard. This revenue will need to be supplemented both by a substantial Government subvention and by such other forms of additional revenue as may offer themselves. The only considerable revenue likely to be available other than that from licence fees will be from commercial broadcasting. It is therefore appropriate to examine this matter now before proceeding to an exposition of the estimates of capital and recurrent costs of the scheme.

49. The Kenya Broadcasting Commission, in paragraph 41 of its Report, referred to the two main forms of commercial broadcasting in the following terms:—

(i) SPONSORED BROADCASTING

In this form the advertiser, or sponsor, buys time on the air from the broadcasting organization. This time is then filled by a programme supplied either by the broadcasting organization or by some outside agency. The programme normally contains at the beginning and at the end, and often within the programme itself, matter advertising the sponsor's product. The broadcasting organization usually has a general control in such matters as decency and taste but, if it is to be successful, the times the organization sells to sponsors must be filled with programmes which satisfy the sponsors and fulfil their primary objective, namely to sell the sponsor's goods.

(ii) SPOT ADVERTISING

In this form of commercial broadcasting the advertisers buy short periods of time in the gaps between programmes. The programmes themselves remain under the sole responsibility of the broadcasting authority. A form of spot advertising is at present in operation in Kenya.

The Commission went on to make specific recommendations concerning the part which should be played by commercial broadcasting in the proposed Kenya Service.

50. Generally, the views of the Government are in accord with those expressed by the Kenya Broadcasting Commission in paragraphs 42-51 of the report: in particular it agrees that full-scale sponsored commercial broadcasting would not be in the best interests of Kenya now or during the next few years. Nevertheless, it is recognized that the matter must be looked at in the context of the present financial position of the Colony. The Government has therefore considered to what extent use might be made of commercial broadcasting within the framework of the following policy limits:—

- (a) that at present there should be no competition between commercial and public service broadcasting interests; and
- (b) that all public service broadcasting should be integrated within one organization.

51. The broadcasting systems in use throughout the world range from non-commercial operation by the Government or by some independent authority, to fully commercial ownership and operation; but there are few countries where commercial broadcasting is not undertaken in some form or another. There are many prejudices against such broadcasting, based largely on the idea that certain types of commercial programme tend to lower standards of listening taste and on the fact that commercial organizations are naturally anxious to operate during the best listening times. There may, nevertheless, be substantial advantages in the authorization of a limited amount of commercial broadcasting with suitable safeguards; and an examination of the whole question with particular reference to colonial territories has recently been undertaken by the Government.

52. Experience in the Dominions and in colonial territories has shown that a dual system of commercial broadcasting and public service broadcasting is never wholly satisfactory, and that when reliance has been placed entirely on a service provided by some commercial organization the colonial government concerned has frequently had to insist upon a certain amount of time being placed unreservedly at its disposal for government broadcasts over the company's system. But this arrangement, however willing the co-operation of the company may be, has often proved to be disadvantageous. Not only has the government concerned been compelled to recruit and train their own staff to produce programmes but there have been many difficulties about the use of studios; and in some cases it has been necessary for separate studios to be built from public funds to meet the needs of a very limited amount of public service broadcasting.

53. The system which operates in Fiji does not, however, appear to be subject to these disadvantages. In Fiji, as in Kenya, the problem is to provide an adequate broadcasting service in a large, mainly undeveloped territory occupied by a society of at least three different races. All broadcasting in that territory is undertaken by a broadcasting commission, a statutory body appointed by the Governor with an unofficial chairman and a majority of unofficial members. Commercial advertising is accepted in each of the three languages and provides approximately half the revenue for the running costs of the service; the balance is made up by means of a Government grant-in-aid. The commercial activities of the Commission are reported to be most successful; not only do local firms make use of the facilities offered but annual contracts are taken out by many firms in New Zealand, Australia and Great Britain. Both spot announcements and sponsored programmes are allowed, but the Commission strictly regulates the amount of advertising and the times at which it may take place; it also controls the style and content of the advertisements and reserves the right to refuse any programme from the sponsors. Specific periods during the day and evening are kept free of advertising to allow the broadcasting of informative and educative programmes, talks, news, weather reports, etc.

In a recent annual report the Fiji Broadcasting Commission wrote:—

“We regard reasonably controlled commercial radio advertising in the Colony as socially useful. We all exist ultimately by the sanction of commerce and we cannot pretend to be superior to its inevitable operations. But we emphasize that the carrying of radio advertising, while reducing costs must, to some extent, result in lower broadcasting standards, and that thereby we deny ourselves much that is good . . .”

The Government considers that the Fiji practice appropriately modified to suit local conditions could usefully be adopted in Kenya.

54. In considering this issue, the Government has had regard to the question whether commercial broadcasting should extend to the African programmes. Having given the matter much careful thought, the Government feels that it is no longer possible or necessary to attempt to protect Africans from the enticements of the advertiser; advertisements are already directed at the African through the Press, the cinema and the hoarding and there seems to be no logical reason why he should be afforded special protection against the spoken word. But in allowing commercial broadcasting on the African programmes, the Government would propose to adopt criteria, in relation to the products to be advertised and the style and content of the advertisements themselves, different from those applied to the English and Asian programmes.

55. The policy set out in this Part is based on the circumstances of the present and of the immediately foreseeable future; it may well be that when the time comes for the Government to relinquish direct control and to hand over to an independent authority the conditions of that day will suggest some modification of the views on commercial broadcasting expressed in this Sessional Paper.

PART VII—COST OF NEW PROPOSALS

Capital Cost

56. The present scheme is regarded as the minimum necessary to provide an effective start towards a full scale broadcasting system. The Government in its current development programme has allocated large sums to agriculture, education, internal security, etc., and although the importance of broadcasting is not underestimated there is a limit to the amount of money which can be spared for it. The total capital cost of the scheme is estimated at £351,000 of which the Kenya Government will contribute one-third, i.e. £117,000, in the 1957/60 Development Programme; the balance of £234,000 has been found from the Central Colonial Development and Welfare allocation for broadcasting.

With regard to the capital estimates as a whole and the references to them elsewhere in this Paper, it is emphasized that while the total figure will not be exceeded, individual allocations within that total must be regarded as flexible. A good deal of equipment remains to be ordered and prices are liable to fluctuation; this consideration also applies to equipment already ordered. Similarly, building and other estimates may vary substantially over the next 18 months, the period during which it is intended to bring the broadcasting scheme into operation.

Details of the capital expenditure proposed are:—

NAIROBI TRANSMITTING STATION							£	£
Plant	..	..	..	..	..	107,500		
Building and Site	..	..	..	..	..	35,000	142,500	
							<hr/>	
NAIROBI STUDIO CENTRE								
Plant	..	..	..	..	..	46,000		
Building	..	..	..	..	..	70,000	116,000	
							<hr/>	

KISUMU TRANSMITTING STATION								
Plant	..	..	..	..	..	..	28,800	
Building	..	..	..	..	..	..	6,700	35,500
							<hr/>	
KISUMU STUDIO AND LINK								
Plant	..	..	..	..	..	..	1,700	
Building	..	..	..	..	..	..	1,000	2,700
							<hr/>	
MOMBASA TRANSMITTING STATION								
Plant	..	..	..	..	..	..	22,000	
Building	..	..	..	..	..	..	1,000	23,000
							<hr/>	
MOMBASA STUDIO	..	..	..	..	..	..		3,500
INITIAL RECORD LIBRARIES	..	..	..	..	..	..		4,000
VEHICLES	..	..	..	..	..	..		6,000
							<hr/>	
								333,200
CONTINGENCIES	..	..	..	..	..	..		17,800
							<hr/>	
TOTAL:								£351,000
							<hr/>	

57. It will be seen that no provision has been made for a Nairobi Receiving Station to receive British Broadcasting Corporation programmes for re-broadcasting. It is proposed that an arrangement should be concluded with Messrs. Cable and Wireless Limited for the use of their receiving facilities.

58. The plant includes transmitters and associated equipment and aerials, and studio equipment as appropriate; it also covers the necessary linking facilities between the studio and the transmitter stations. These linkings will normally be carried out by means of V.H.F. links and Post Office land-lines.

59. Apart from the Nairobi transmitting station, to which reference has already been made earlier in this Paper, the heaviest single item of capital expenditure is in relation to the Nairobi Studio Centre.

The Kenya Broadcasting Commission proposed that the Nairobi Studio Centre should be built on a minimum scale but planned for extension in phases. It was to include, initially, the essential studios and associated services and some 20 offices. A proportion only of the studio staff would have been accommodated in the building but even so the cost was estimated to be £75,000. Since then the African Broadcasting Service has acquired suitable studios and offices which for the time being will continue to be used for the Nairobi African Regional programme. The three remaining programmes to be radiated from Nairobi (the National English Language Service, the National Asian Language Service and the National African Service) will, however, have to be operated from the new studio centre; and in order that this may be effectively done an essential minimum of studio accommodation is required. It is proposed that there should be three studio suites of two studios each, with ancillaries, and one large studio, together with the offices and waiting rooms which are immediately necessary for the requirements of the studios. £70,000 has been set aside for this purpose.

60. A survey of the possible situations for the Nairobi studio centre has been made and a site close to the National Theatre has been selected. It is easy of access: there is sufficient room for expansion: suitable office accommodation can be rented nearby; and the vicinity of the National Theatre, which is set aside as a centre devoted to the arts, seems appropriate to broadcasting. It has been ascertained that with the use of a suitable mast there should be no technical difficulty in linking the studio building by V.H.F. with the transmitter site on the Mombasa road.

Recurrent Costs

61. The Kenya Broadcasting Commission's proposals involved an eventual annual recurrent expenditure of £210,000. The conclusion reached by Mr. Weigall was that the general rise in salaries and other recurrent costs since 1954 means that, without any substantial departure from the services and establishments recommended in their report, provision should now be made for an annual expenditure of £245,000.

62. The Government has examined the proposals made in Mr. Weigall's report and, whilst recognizing that they are not lavish and that expenditure of over £245,000 per annum may eventually be necessary, has nevertheless felt that in the present financial circumstances of the Colony it is essential that every possible economy should be made; it has accordingly introduced cuts amounting to some £36,000 per annum. A comparison between the proposals of the Kenya Broadcasting Commission, Mr. Weigall and the Government is set out below:—

	<i>K.B.C.</i>	<i>Mr. Weigall</i>	<i>Govt.</i>
	£	£	£
PERSONAL EMOLUMENTS			
Programme and Administration ..	80,000	105,000	89,000
Engineering and Technical	65,000	62,000	53,000
OTHER CHARGES	65,000	78,000	67,000
	<u>£210,000</u>	<u>£245,000</u>	<u>£209,000</u>

A guide to the pattern of detailed expenditure which the Government has in mind is set out in Appendix B. The details in this appendix are not, of course, immutable and will be subject to normal Treasury and Ministerial scrutiny before being presented to Legislative Council in the form of an estimate, at the appropriate time.

63. Expenditure on many of the recurrent heads will be phased, and the full impact of the heavy total of recurrent costs will not therefore be felt immediately. In reading the table of estimated annual expenditure for the next four years it must be borne in mind that the scheme is a new one and that the Government has little previous experience by which to be guided; the figure should therefore be treated with some reserve.

<i>Year</i>	<i>Additional Recurrent Expenditure</i>	<i>Total Recurrent Expenditure</i>
	£	£
1958/59	36,000	95,000
1959/60	66,000	125,000
1960/61	128,000	187,000
1961/62	150,000	209,000

The difference of £59,000 between "Additional Recurrent Expenditure" and "Total Recurrent Expenditure" is the present annual cost of the African Broadcasting Service of the Information Department. This charge, which is now carried by the Information Department, will under the new arrangements be met from the votes of the Department of Broadcasting, and a corresponding decrease in expenditure will be reflected in the estimates of the former Department.

64. In addition to the reductions in the initial recurrent costs shown in paragraph 62, the Government intends to seek ways of increasing broadcasting revenue in order to reduce the size of the subvention which will have to be found from public funds.

65. The primary source of revenue for a public service broadcasting system must be licence fees. In 1956, 26,515 licences were issued; the total sum realized from these licences was £32,635. There is no doubt that the listening public has been somewhat lax in meeting its obligations in this respect, and that with greater co-operation and more effective methods of collection the revenue from licence fees could by 1961/62 be raised to £50,000. This matter is dealt with in more detail in a subsequent paragraph.

66. The present secondary source of revenue—"spot advertising"—is estimated to be capable of yielding some £10,000 per annum in the first year. A similar figure was given by the Kenya Broadcasting Commission in its assessment of the potential initial income which could be derived by this means. Judging by experience in neighbouring territories, it should be possible to increase this figure to £15,000 by the year 1961/62.

67. A tentative forecast of revenue and expenditure in 1961/1962 is:—

	£	£
Estimated recurrent expenditure, 1961/62		209,000
Estimated licence revenue, 1961/62	50,000	
Estimated spot advertising revenue, 1961/62	15,000	
Present cost of African Broadcasting Service	59,000	124,000
Estimated net additional recurrent expenditure, 1961/62		85,000

If plans for increased licence collection and the extension of "spot advertising" can be put into operation sufficiently early the annual expenditure figures over the period 1959-62 should be approximately as follows:—

<i>Year</i>	<i>Estimated additional expenditure</i>	<i>Revenue from Licence Fees</i>	<i>Revenue from advertising</i>	<i>Net additional expenditure</i>
	£	£	£	£
1959/60	66,000	40,000	12,000	14,000
1960/61	128,000	45,000	13,000	70,000
1961/62	150,000	50,000	15,000	85,000

68. As has been indicated earlier in this Paper, the Government also intends to keep the way clear for possible extensions of commercial broadcasting. The first step in this direction, after the increase in spot advertising, would be the introduction of a limited number of selected sponsored programmes. Provided no unforeseen difficulties arose, the number of such programmes would subsequently be increased; but it would be necessary for the Government to be

mindful of the special need in this territory for public service broadcasting as opposed to broadcasting solely as a means of popular entertainment, and the Government would not propose to introduce or to extend the use of sponsored broadcasting to the detriment of its acknowledged responsibility in this connexion. In other parts of the world there has been a tendency for the sponsors of commercial programmes to achieve a position in which, by virtue of the fact that they provide a considerable proportion of the revenues for broadcasting, they can demand the use of peak broadcasting hours for the transmission of sponsored programmes. The Government feels it necessary to make it clear that, should such a situation develop in Kenya, the Government would have to take steps to resist it, even to the extent of providing Colony funds to fill the revenue gap, or of curtailing the service provided.

69. Apart from the economies and the measures for increasing revenue which have been set out in the preceding paragraphs, it will be the duty of the Director of Broadcasting to examine the position further and to keep it constantly under review with the object of making the broadcasting service as self-supporting as possible. It will be his particular care to study the staff position against his background of broadcasting experience, and to satisfy himself that the numbers engaged are the absolute minimum compatible with the operation of an efficient service.

PART VIII—METHOD OF TRANSMISSION

70. After examining, in paragraphs 81-84 of its report, the advantages and disadvantages of various methods of broadcasting, the Kenya Broadcasting Commission reached the following conclusion:—

“The outcome of the discussion contained in the preceding paragraphs has been to indicate that V.H.F. transmission is not applicable at present; short-wave transmission will be necessary to provide basic coverage of the whole of Kenya, including its regional areas; and medium-wave transmission should be initially and increasingly used as a supplement to cover the more important areas of the country.”

71. With regard to V.H.F. broadcasting, the Commission expressed the view that the possible use of this method in Kenya's Broadcasting Service should remain an open topic for re-examination at a later date. Such broadcasts should not be confused with V.H.F. beamed transmissions which are used for conveying programmes for subsequent re-transmission on short wave or medium wave; beamed transmissions of this sort are links only, and are a substitute for a Post Office land-line rather than for a medium-wave or short-wave broadcasting service.

72. In a highly developed and thickly populated country of fairly flat terrain the V.H.F. system of broadcasting has everything to commend it. It is not affected by atmospheric conditions or by the geological nature of the ground over which the wave travels, and reception is therefore of high quality. Its frequencies lie outside the overcrowded bands of the short-wave system and there is virtually no likelihood of interference from stations working on an adjacent wavelength; nor does it suffer from the intrusive background noises so often found in broadcasts on the medium wave-band. With regard to V.H.F. transmitters, power consumption is light, transmitter units are small and compact and there is little variation in the strength of the signal over the full 24 hour cycle.

73. In view of these advantages, V.H.F. broadcasting is particularly suitable in countries such as the United Kingdom and America. In conditions such as those found in Kenya, however, the disadvantages of the V.H.F. method, although

of little weight in Great Britain, assume such proportions that the adoption of the system becomes impracticable. First, a V.H.F. signal cannot be received on a set designed for short-wave and medium-wave broadcasting; if therefore the V.H.F. system were introduced every listener would require either an expensive adaptation to his existing set or a new set especially designed for V.H.F. Secondly, although V.H.F. transmitters are cheap and effective these advantages are offset by the shortness of their range—it does not much exceed visual limits and the signal is blanketed by hills—and by the number of stations that are in consequence required. To broadcast, for instance, from Nairobi to Kisumu would need at least two relay stations, and from Nairobi to Mombasa at least three. This requirement does not in itself sound excessive; but it must be borne in mind that once intermediate relays are introduced the hazard from mechanical faults becomes doubled or trebled; and it would be necessary in order to reduce this risk to an acceptable level to duplicate all relay stations. Thirdly, although the V.H.F. system may compete with medium-wave transmissions for the provision of a good signal over a small area it does not pretend to be suitable for a widely scattered population. It may, perhaps, in the future replace medium-wave broadcasting; it can never be more than a supplement to short-wave broadcasting.

74. To these considerations must be added other complicating factors. In order to take advantage of their maximum range V.H.F. stations have to be sited on high points; such points are usually difficult of access, and the cost of making roads and providing power supplies is correspondingly high. Living accommodation for staff also presents a problem, especially when broadcasting hours are taken into account; at the same time the security of the installations needs to be considered and the measures which would have to be taken would inevitably prove expensive.

75. The cost would be approximately as follows:—

	<i>One Programme £</i>	<i>Three Programmes £</i>
<i>Main Transmitting Station at Nairobi (including cost of survey)</i>	50,000	100,000
<i>Additional cost of:—</i>		
<i>Extension to Kisumu with 2 Relay stations ..</i>	66,000	135,000
<i>Extension to Mombasa with 3 Relay stations ..</i>	99,000	205,000
<i>Broadcasting stations at Kisumu and Mombasa ..</i>	70,000	120,000
	<u>£285,000</u>	<u>£560,000</u>

It is clear that to attempt to cover even the main urban centres of the country by V.H.F. broadcasts is not to be contemplated at the present time.

76. Apart from V.H.F. transmission there are, broadly speaking, two other methods which can be used; they are, transmission by short wave and transmission by medium wave; both have been considered in some detail in the technical chapter of the Kenya Broadcasting Commission's Report. Briefly, short-wave transmission using aerials designed to provide vertical incidence radiation is the only means of covering a large area economically; but the service that can be offered by this method is subject to noise interference and fading, sometimes accompanied by distortion. The first two of these faults can be reduced by increasing the power radiated; but however much this is done some degree of fading will be inevitable at certain times and distances. The extent to which the shortcomings of the transmission affect the listener is largely dependent upon the

kind of programme being listened to; talks and discussions may be fully intelligible, and the symphonies of Shostokovich may be reproduced without substantial detriment, but under the same conditions the music of Delius and Debussy might be materially distorted. Generally a service on short wave will be sufficient to keep listeners fully in touch with affairs and, provided programmes are suitably selected, will offer a large range of entertainment. It cannot be relied upon to satisfy the lover of classical music or the devotee of high fidelity electronic reproduction; nevertheless it effectively fulfils its primary function of providing wide and economic coverage, and is suited to most forms of entertainment and information.

77. Medium-wave broadcasting is characterized by service areas which are much smaller than those obtained from short-wave transmitters of comparable power. But within the service area of a medium-wave transmitter, reception is altogether more satisfactory than on short-wave. The principal disadvantages of medium-wave transmission are, first, that because the service area is smaller, coverage of a wide area is very costly; and, secondly, that interference from natural electrical disturbances is, in tropical areas, very pronounced, resulting in a further restriction of the service area at some seasons.

78. The obvious solution is for national services in selected areas to be improved by the provision of supplementary medium-wave stations; and it is the policy of the Government that this should be done. But however desirable these extensions may be they cannot on grounds of cost be contemplated at the present time. The establishment of a complete new station with a transmitter of $\frac{1}{2}$ kW. power for one programme only would cost £10,000 and to this sum would require to be added the cost of distributing the actual programme from the studio to the transmitter.

79. Bearing in mind the necessity to cover both the remoter areas and the more thickly populated regions of the country, the Government is confident that the proposals now put forward provide the best broadcasting service that can be devised within the limits of the money available. The short-wave transmissions will be heard throughout the Colony and the medium-wave transmissions will provide a reliable signal within 20-25 miles of the small transmitters and 35-50 miles of the larger transmitters; in favourable circumstances the medium-wave programmes should be audible at greater distances.

80. Reference has been made to the congestion of the short-wave frequencies. For technical reasons the thousands of stations throughout the world operating on short wave are limited to certain wave bands at different periods of the day and night. By international agreement each of these stations is required to confine itself to one or more specifically authorized frequencies on which to broadcast; allocations are made by a controlling body in Geneva. The allocation of frequencies, particularly on the wave bands available for transmissions in the tropics must inevitably take some time and action has already been put in train to secure the frequencies necessary for the new Kenya service.

PART IX—MISCELLANEOUS

Wired Broadcasting

81. In wired broadcasting it is usual for a master receiver set to be installed at some convenient centre and for the programme to be carried by line to loudspeaker points in the homes of the listeners. At present, there are only three wired broadcasting installations in the Colony; one, consisting of approximately 200 loudspeaker points, in the Ziwani African Location of Nairobi; another in the Railway Locations; and a third, of some 40 points, in Nakuru. The Government considers that the extension of wired broadcasting is to be encouraged, but that, as recommended by the Kenya Broadcasting Commission,

it should normally be regarded as the proper function of local authorities or of private concerns. The participation of private enterprise in this field is welcomed; but in considering proposals, the Government would almost certainly make the stipulation that the wired broadcasting systems should not radiate programmes other than those supplied by the proposed Kenya Broadcasting Service.

Forces Broadcasting Service

82. The Forces Broadcasting Station provides a service which, although primarily intended for members of Her Majesty's Forces serving in the Colony, is listened to by a large section of the local population. It is the policy of Her Majesty's Government that servicemen overseas should be provided with as many as possible of the facilities which they would enjoy if they were in the United Kingdom: and it is for this reason that in spite of the exclusive rights granted to Messrs. Cable and Wireless Limited under their licence, the Forces Broadcasting Service is permitted to radiate programmes in the Colony. There can be no doubt that the programmes of the Forces Broadcasting Station are a valuable supplement to those of the Cable and Wireless Service and that they have done much to meet the wider needs of the listening public; in view, however, of the special purpose of the station and the fact that its continued functioning is dependent upon factors not under the control of the Kenya Government it is considered that its operation need not be taken specifically into account in connexion with the development of broadcasting as set out in this Paper.

Wireless Licences

83. The types of licence in force for wireless receiving sets are laid down in the East African Radio Communication Regulations, 1956, made under the East African Posts and Telecommunications Act. A table showing these licences, and the fees leviable in Kenya on each, is given below.

<i>Type of Licence</i>	<i>Description of Licence</i>	<i>Annual Fee</i>
Broadcast Receiving Licence.	A licence to install and use receiving apparatus for receiving programmes transmitted by authorized broadcasting stations ..	Sh. 30
Broadcast Relay Station Licence.	A licence authorizing the reception and relaying by wire to subscribers of programmes received from authorized broadcasting stations	Sh. 30
Broadcast Relay Station Speaker Point.	A licence authorizing the rediffusion of programmes received by a broadcast relay station	Sh. 5
Hotel or Club Licence.	A licence to install a broadcast receiver in a hotel or club for use of the residents or members ..	Sh. 100
Mobile Broadcast Receiving Licence.	A licence to install and use a broadcast receiver in a vehicle or other mobile object	Sh. 30
Radio Press Reception Licence.	A licence for authorized persons to receive radio press messages from stations transmitting multi-destination radio press messages ..	Sh. 30

84. By far the bulk of revenue from these licences is derived from sets in domestic use which fall under the category "broadcast receiving licence". A licence of this type is issued to a person, authorizing him to use a wireless set. In practice, a person is allowed to use a number of sets in his household, provided they are generally for the enjoyment of himself and his family; but separate licences must be taken out for sets in vehicles. There is also provision, based on another part of the Regulations, for a reduced fee of Sh. 5 for Africans who have been granted an appropriate certificate signed by the district commissioner of their area. Licence fees are collected by the Postmaster-General's administration. Sh. 2/50 out of every Sh. 30 licence and Sh. 2 out of every Sh. 5 licence are retained by the administration as collection charges, and the balance is paid to Messrs. Cable and Wireless Limited for the running of their broadcasting service.

85. Over the period 1951-1957 some 75,000 sets were imported into Kenya, but the number of new licences taken out during that time barely exceeded 9,000, an increase from 18,000 to 27,000 approximately. On this basis and allowing for a number of sets having gone out of commission, it seems reasonable to suppose that in 1957 there may have been up to 30,000 sets in the Colony which were not licensed. Assuming, that some 10,000 of these would have qualified for the reduced domestic licence fee of Sh. 5 and that the remainder would be charged at Sh. 30, the potential increase in licence revenue would amount to approximately £30,000. It is clear, therefore, that there is room for a substantial increase in licence revenue.

86. A campaign, organized by the Posts and Telecommunications Administration, to increase collection has been in progress for several months and has recently been intensified. Results have so far been good; in the month of February this year some 4,000 more licences were issued than for the same month last year. A vital requirement of the new broadcasting service is the maximum collection of revenue, of which licence fees are the main source, and the Government will work in close collaboration with the Postmaster-General with the object of bringing about the fullest possible collection of fees.

87. Consideration has also been given to the possibility of legislation to place on traders the onus of reporting details of wireless sets sold; and it may be found desirable to enact legislation on these lines. There is, however, no intention of introducing such arrangements without the fullest discussion with the trade and other bodies likely to be affected.

Staff and Organization

88. Details of the staff required to operate the integrated service are set out in Appendix B. The general structure proposed is that the Director of Broadcasting will have under him three main sections; one administrative, a second dealing with programmes and a third with engineering.

89. The Controller of Administration will be responsible for personnel and financial matters, transport, stores and accounts; one of his most important duties will be the organization of the revenue-earning activities of the broadcasting service, and for this reason it is proposed that the Advertising Manager should be included in this section.

90. The section under the Head of Programmes would be organized according to the type of programme; that is to say, the national English language, the national Asian languages and national African programmes. The Mombasa and Kisumu regional programmes will constitute separate sub-sections; but, for administrative convenience, the Nairobi African regional programme will be connected with the sub-section dealing with the national African programme.

91. The section under the Chief Broadcasting Engineer will be grouped in the following main categories: studio engineering, transmitter engineering and workshops and training. As in the Programme Section there will be separate regional arrangements.

92. It is proposed to take over such broadcasting staff of Cable and Wireless Limited as would be prepared to accept the terms and conditions offered by the Government. A statement has already been made in the Legislative Council to the effect that the terms would be no less advantageous than those which the broadcasting staff were enjoying with the company.

93. The Government intends to consult with the Director as soon as he is appointed with a view to establishing a general advisory committee to assist him in framing programme policy. Responsibility for the day-to-day running of the service and for the details of the programme content will, within the limits of agreed policy, lie with the Director.

94. As the need arises, other committees, on such matters as religious and schools broadcasting will also be appointed. They will meet as often as may be necessary.

95. The general advisory committee will in essence be the precursor of the Board of the corporation which it is proposed should be established at a later date to control broadcasting.

Schools Broadcasts

96. The Government recognizes the important part that schools broadcasting can play in the general educational system of the Colony; and proposes that as soon as the present difficult position relating to finance and staff permits a detailed examination should be made to see how this somewhat specialized field can best be developed.

97. The three major requirements of a schools broadcasting system can be described as programmes, reception and teaching.

98. Educational programmes designed for broadcasting are inevitably expensive. They must be specially drawn up to relate to the authorized school curricula; they must be adapted both to the requirements of broadcasting technique and to the teaching capacity of the schools at which they are aimed; they must be prepared well in advance and must be supplemented by the literature, posters, maps, diagrams, etc., which are essential if the broadcast is to have an effective impact in the schoolroom. The preparation of an educational programme designed to play a specific part in a school course would therefore require the full-time services of a number of officers of the Education Department; and at the present time when there is an acute shortage of funds for ordinary school requirements, and when it is difficult to find the education officers needed to fill all the teaching and administrative posts in the various schools of the Colony, the introduction of a comprehensive educational broadcasting service would entail the diversion of money and staff from more essential services.

99. With regard to the question of reception, the provision of suitable receivers would not present much difficulty as far as the secondary schools are concerned; European and Asian primary schools would be rather less easy to supply, but there seems to be no reason why arrangements should not be made for a suitable service of maintenance, repair and replacement. The cost of equipping African primary and intermediate schools would, however, be substantial. Relatively few of the schools are in urban areas, and apart from the problems of damage arising from inexpert handling, maintenance both of the

sets and the batteries would be extremely costly. These difficulties are not, of course, insurmountable, and it might be possible for local authorities to maintain, repair and replace sets used for educational broadcasting. Nevertheless the question of cost remains, and it is a matter for argument whether the balance of advantage would lie with providing such a service or with spending the money on other educational needs.

100. The interpretation of educational programmes in the schoolroom demands a special technique, and in order that the schoolteachers concerned might be in a position to extract the greatest possible benefit from these lessons, it would be necessary for them to undergo some kind of a training course. Unfortunately the resources of the Education Department are at present so stretched that it seems unlikely that it would be possible to withdraw more than a proportion of the total number of teachers needed from their present duties in order to give them the necessary training.

101. In the light of these considerations, the Government intends to approach schools broadcasting in three stages; first, to make use of simple educational broadcasts not related to specific school curricula, then to introduce a pilot scheme covering one or two subjects in the ordinary school syllabus, and finally to draw up, in consultation with an advisory committee, as comprehensive a plan of school broadcasting as the financial and staff position will permit.

News Service

102. The report of the Kenya Broadcasting Commission recommended the establishment of a separate news service as part of the broadcasting organization. On examination of their proposals, it became clear that the provision for such a service had been underestimated.

103. The Government is in agreement with the view of the Commission that one of the most important functions of a public service broadcast system is to provide an accurate and objective news service and that, ideally, the broadcasting organization should make the best possible arrangement for collecting news and should be solely responsible for the preparation of its bulletins. Such an objective will be expensive to achieve, and it seems unlikely that in the initial stages of the new service the Government could hope to do more than maintain the arrangements for news under which Cable and Wireless Limited now operate, or at best purchase a news service from the *East African Standard*.

104. The present arrangements consist of the relaying of the B.B.C. news and a local news bulletin supplied by the *East African Standard*. The local news bulletin is of great value; it is, however, a document of which the copyright is held by the *East African Standard* and is not therefore available for editorial treatment. The advantage of the purchase of a news service would be that news items could then be presented in a way best suited to the service over which they were to be transmitted.

105. It is proposed that news broadcasts, whether based on a news bulletin or a news service, should be supplemented by items of local news gathered by the news staff of the Department of Broadcasting or through the Department of Information.

106. As a first step towards the establishment of a Department of Broadcasting news service, the Government proposes that a small news staff of eight persons should be established.

Acknowledgments

107. The Government wishes to acknowledge its debt to Messrs. Cable and Wireless Limited for the broadcast service which the company has provided for so many years and for their ready co-operation in extending the terms of their broadcasting agreement to 30th September, 1959; and to the British Broadcasting Corporation for their help, not only in providing senior members of their staff for the Kenya Broadcasting Commission in 1954, but subsequently in allowing the Government to call upon the corporation for any advice that was required. It is in addition particularly grateful to the British Broadcasting Corporation for sending Mr. Weigall, one of their senior engineers, to prepare the present scheme; and for their continuing help in the provision of staff, including the Chief Broadcasting Engineer. The Government also wishes to thank the Postmaster-General and his technical staff for their advice and assistance and to pay tribute to the technical officers of the Department of Information for their share in the preparation of the broadcasting scheme.

Office of the Chief Secretary,
Nairobi.

10th March, 1958.

RECOMMENDATIONS OF THE KENYA BROADCASTING COMMISSION AND MODIFICATIONS, COMPARED WITH
GOVERNMENT PROPOSALS

Column (1)—Scheme 1: Messrs. Roberts and Cockburn of the B.B.C.

Column (2)—Scheme 2: Messrs. Roberts and Cockburn of the B.B.C.

Column (3)—Current Government proposals.

KENYA BROADCASTING COMMISSION	(1)	(2)	(3)
<p>ORGANIZATION— (a) Broadcasting to be controlled by a single independent Public Corporation.</p> <p>(b) As an interim arrangement only, broadcasting to be controlled by a Kenya Broadcasting Service run by a Chairman and Board of Governors, with general control exercised by a Minister of the Government.</p> <p>(c) Voluntary Advisory bodies to be set up to advise the Chairman and Board of Governors.</p>	<p>(a) No change recommended.</p> <p>(b) No change recommended.</p> <p>(c) No change recommended.</p>	<p>(a) No change recommended.</p> <p>(b) No change recommended.</p> <p>(c) No change recommended.</p>	<p>(a) Government to control broadcasting direct for an initial period, through a Department of Broadcasting. After that period, broadcasting to be controlled by a single independent Public Corporation.</p> <p>(b) See proposals under (a) above.</p> <p>(c) Advisory Committees to advise the Director of Broadcasting.</p>

RECOMMENDATIONS OF THE KENYA BROADCASTING COMMISSION AND MODIFICATIONS, COMPARED WITH GOVERNMENT PROPOSALS—(Contd.)

KENYA BROADCASTING COMMISSION	(1)	(2)	(3)
ORGANIZATION—(Contd.)			
(d) The executive head of the Corporation to be styled "Director of Broadcasting". On the technical side there should be a Chief Engineer. In the first instance both these appointments to be made by the Government, but subsequently by the Board.	(d) No change recommended.	(d) No change recommended.	(d) No change recommended once the Corporation is established.
PROGRAMMES FROM NAIROBI—			
(a) National Service in English.	(a) No change recommended.	(a) No change recommended.	(a) No change recommended.
(b) National Service in Hindustani and Gujerati with some English.	(b) No change recommended.	(b) No change recommended.	(b) No change recommended.
(c) National Service in Swahili, with some English.	(c) No change recommended.	(c) No change recommended.	(c) No change recommended.
(d) Regional service in Kikuyu and Kamba.	(d) No change recommended.	(d) No change recommended.	(d) No change recommended.
TRANSMITTERS AND INSTALLATIONS			
(a) For the short wave transmission of the three National services from Nairobi, three short wave transmitters:— English Service—One 10 kW. Asian Service —One 10 kW. African Service—One 10 kW.	(a) No change recommended.	(a) No change recommended.	(a) English Service—One 10 kW. Asian Service —One 6 kW. African Service—One 10 kW.
(b) For the short wave transmission of the Regional services (at Nairobi, Kisumu and Mombasa) three short wave transmitters:—			

RECOMMENDATIONS OF THE KENYA BROADCASTING COMMISSION AND NOTIFICATIONS, COMPARED WITH GOVERNMENT PROPOSALS—(Contd.)

KENYA BROADCASTING COMMISSION	(1)	(2)	(3)
<p>TRANSMITTERS AND INSTALLATIONS —(Contd.)</p> <p>Nairobi regional—One 5 kW. (Kikuyu and Kamba).</p> <p>Kisumu regional—One 5 kW. (Luo, Luluhya, etc.). Mombasa regional—One 5 kW. (Swahili and Arabic).</p> <p>(c) For the medium wave transmission of the National services, three medium wave transmitters:—</p> <p><i>Nairobi</i>— English Service—One 10 kW. Asian Service —One $\frac{1}{2}$ kW. African Service—One $\frac{1}{2}$ kW.</p> <p><i>Kisumu</i>— English Service—One $\frac{1}{2}$ kW. Asian Service —One $\frac{1}{2}$ kW. African Service—One $\frac{1}{2}$ kW.</p> <p><i>Mombasa</i>— English Service—One $\frac{1}{2}$ kW. Asian Service —One $\frac{1}{2}$ kW. African Service—One $\frac{1}{2}$ kW.</p> <p>(d) For the medium wave transmission of the Regional services, three medium wave transmitters:—</p> <p>Nairobi—One $\frac{1}{2}$ kW. (Kikuyu and Kamba).</p>	<p>(b) Nairobi regional—One 5 kW. transmitter with aerial system modified to give as wide a coverage as possible.</p> <p>Kisumu and Mombasa schemes abandoned.</p> <p>(c) <i>Nairobi</i>— No change.</p> <p><i>Kisumu</i>— Abandoned.</p> <p><i>Mombasa</i>— Abandoned.</p> <p>(d) Nairobi—One $\frac{1}{2}$ kW.</p>	<p>(b) Nairobi regional—One 5 kW. short wave transmitter with aerial system modified to give as wide a coverage as possible.</p> <p>Kisumu and Mombasa schemes abandoned.</p> <p>(c) <i>Nairobi</i>— No change.</p> <p><i>Kisumu</i>— Abandoned.</p> <p><i>Mombasa</i>— Abandoned.</p> <p>(d) Nairobi—One $\frac{1}{2}$ kW.</p>	<p>(b) Nairobi regional—One 10 kW.</p> <p>Kisumu regional—One 5 kW. Mombasa regional—One 5 kW.</p> <p>(c) <i>Nairobi</i>— English—One 10 kW. Asian—One 5 kW. African—One 2 kW.</p> <p><i>Kisumu</i>— Deferred for the time being.</p> <p><i>Mombasa</i>— Deferred for the time being.</p> <p>(d) Nairobi—One 10 kW. (Kikuyu and Kamba).</p>

RECOMMENDATIONS OF THE KENYA BROADCASTING COMMISSION AND NOTIFICATION, COMPARED WITH GOVERNMENT PROPOSALS—(Contd.)

KENYA BROADCASTING COMMISSION	(1)	(2)	(3)
TRANSMITTERS AND INSTALLATIONS —(Contd.)			
Kisumu—One ½ kW. (Luo and Luluhya, etc.).	Kisumu abandoned.	Kisumu—One ½ kW.	Kisumu—One 5 kW. (Luo and Luluhya, etc.).
Mombasa—One ½ kW. (Swahili and Arabic).	Mombasa abandoned.	Mombasa abandoned.	Mombasa—One 5 kW. (Arabic, KiMvita and Swahili).
(e) Studio Centres at:— Nairobi. Kisumu. Mombasa.	(e) Studio Centre at:— Nairobi. Kisumu—abandoned. Mombasa—abandoned.	(e) Studio Centres at:— Kisumu (though less elaborate than that recommended by the K.B.C.). Mombasa abandoned.	(e) Studio Centre at:— Nairobi and improvements to Mombasa and Kisumu studios already in existence.
FINANCE—			
(a) <i>Costs:</i>			
Capital £ 440,000	(a) Capital £ 285,000	(a) Capital £ 300,000	(a) Capital £ 351,000
Recurrent per annum 210,000	Recurrent per annum 173,000	Recurrent per annum 180,000	Recurrent per annum 209,000
(b) <i>Receipts</i> (annual):			
Licences (within a few years) .. 40,000	(b) Licences (within a few years) .. 40,000	(b) Licences (within a few years) .. 40,000	(b) Licences (within a few years) .. 50,000
Spot Advertising .. 10,000	Spot Advertising .. 10,000	Spot Advertising .. 10,000	Spot Advertising .. 15,000
<u>£50,000</u>	<u>£50,000</u>	<u>£50,000</u>	<u>£65,000</u>
Royalties not taken into account.	Royalties not taken into account.	Royalties not taken into account.	Royalties not taken into account.
MISCELLANEOUS—			
(a) Spot advertising on a limited basis to continue. No other form of commercial broadcasting to be introduced.	(a) No change recommended.	(a) No change recommended.	(a) Spot advertising to continue. Other forms of commercial broadcasting will be considered.
(b) Wired broadcasting to be encouraged.	(b) No change recommended.	(b) No change recommended.	(b) No change recommended.

ESTIMATED MODIFIED RECURRENT COSTS

DETAILS OF BROADCASTING STAFF AND OTHER CHARGES

PERSONAL EMOLUMENTS

Serial	No. of Staff	Designation	Amount	
			£	£
Direction and Administration				
1	1	Director	2,700	
2	1	Controller of Administration	2,300	
3	1	Advertising Manager (C2-1)	1,600	
4	1	Accountant, Grade II (B3-2)	1,020	
5	1	Technical Storekeeper (C3-2)	960	
6	10	Executive Staff (seven C5-4; three C6-5) ..	6,100	
7	25	Clerical, Typing and Analogous Staff (five E1-C(W)6; 20 E Scale)	8,485	
8	13	Drivers (one E4; 12 E6-5)	1,439	
9	52	Subordinate Staff	3,156	
Total Direction and Administration ..				27,760
Programmes				
10	1	Head of Programmes	2,300	
11	3	Programme Organizers (C2-1)	3,320	
12	2	Regional Organizers (C2-1)	2,210	
13	8	News Staff (one C2-1; two C4-3; two C6-5; three E2-1)	5,255	
14	4	Senior Producers (C3-2)	3,840	
15	7	Producers (C4-3)	5,770	
16	50	Programme and Executive Staff (four C4-3; five C5-4; four C6-5; 37 E2-1)	25,375	
17	21	Clerical, Typing and Analogous Staff (six E1-C(W)6; 14 E Scale)	7,950	
Total Programmes				56,020
Engineering*				
18	1	Chief Engineer	2,300	
19	3	Engineers (A Scale)	4,700	
20	20	Technical Officers (C3-2; C4-3 and C6-5) ..	20,000	
21	33	Other Technicians (E Scale)	20,000	
22	9	Clerical, Typing and Analogous Staff (two E1-C(W)6; seven E Scale)	3,000	
	267	Total Engineering		50,000
<i>Carried forward</i> .. £				133,780

*NOTE 1.—Serials 20, 21 and 22 are approximate and liable to variation, but the total for engineering will remain at approximately £50,000.

ESTIMATED MODIFIED RECURRENT COSTS—(Contd.)

Serial	No. of Staff	Designation	Amount	
			£	£
		<i>Brought forward</i> .. £		133,780
23	..	Contract Gratuities, Acting and Other Allowances		3,220
		†TOTAL PERSONAL EMOLUMENTS .. £		137,000
		†NOTE 2.—Since most calculations take no account of appointments made other than at the minimum of the scale, a more accurate picture is given by increasing the total by £5,000, to		142,000
		OTHER CHARGES		
		Non-engineering		
		Programme Charges	24,500	
		Travelling Expenses	6,000	
		Postal Services	2,000	
		Electricity, Water and Conservancy	1,000	
		Incidental Expenses and Office Equipment ..	600	
		Uniforms	200	
		Total Non-engineering		34,300
		Engineering		
		Power Charges	12,600	
		Valves	5,500	
		Tapes and Discs	4,000	
		Cable and Wireless Receiving Charges ..	500	
		Line Rentals	2,000	
		Vehicle Maintenance	1,500	
		Plant Maintenance	2,000	
		Aerial Maintenance	400	
		General Plant and Miscellaneous	4,200	
		Total Engineering		32,700
		TOTAL OTHER CHARGES		67,000
		Add TOTAL ADJUSTED PERSONAL EMOLUMENTS (See note 2 above)		142,000
		TOTAL BROADCASTING RECURRENT .. £		209,000