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the department for Enterprise

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I cc. Secretary of State.

The next meeting of MISC 128 is due to discuss a paper on the privatisation of the television and radio transmission systems. The maintenance and operation of the systems accounts for the great majority of the staff in the engineering departments of both the BBC and the IBA. Whatever final decisions are made about the transmission systems, it seems clear that the BBC will retain its other engineering activities, including R&D at least until its Charter expires in 1996.

Decisions do have to be made, however, about the future of the IBA's engineering and R&D.

... The attached paper examines the problem and details various options. It is based on discussions our officials have had in MISC 129. The paper concludes that the ITC should be allowed a small core of engineering staff, of perhaps up to ten professionals, no larger than is needed to allow the ITC to meet its statutory duties. I recommend that the ITC should have no "in house" R&D, within certain strict limits. The paper concludes that the IBA's Experiment and Development (E&D) Department, responsible for the IBA's current R&D, should be privatised as soon as legislation allows. On balance, I also judge that there is not a strong enough case for giving the independent E&D Department any short term guarantees of work or income, as suggested by the IBA. Such guarantees can often run longer than originally intended and only put off the day on which the organisation must fend for itself in the commercial world.

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I hope that my recommendations can be cleared in correspondence but if necessary we can of course discuss them at the next meeting of the Committee, scheduled for 21 June.

In view of the uncertainty that our proposals on transmission have stimulated among the staff of the IBA's Engineering Department, and to allow the management the greatest time in which to prepare for privatisation, I would strongly favour an early announcement of our decisions about engineering and R&D. If possible, I think it should be made at the same time as that on transmission. I would be grateful therefore for your comments and those of colleagues before we meet on Wednesday 21 June.

I am copying this letter to the Prime Minister, other MISC 128 colleagues and Sir Robin Butler.

Yours ever.

Peter Lilley

(Approved by the Secretary of State and signed in his absence).

the Enterprise Initiative

INDEPENDENT BROADCASTING ENGINEERING AND R&D

The paper examines the future of the following functions, at present all undertaken by the IBA:

a) engineering (except transmission);

b) research and development; and

c) representation on international standards committees.

Background

2 The IBA's present responsibilities for planning and operating the transmission system have led them to have a major engineering division of some 500 people. The great majority of these are involved in running the transmission system and can be expected to move to the privatised transmission company that will take over the IBA's present functions in this area. In addition, the IBA's Experiment and Development (E&D) Department, responsible for applied R&D in support of the transmission system, has a further 80 staff. Additional resources are devoted to network and frequency planning. The BBC also has a team of engineers responsible for its transmission system, a Research Department of about 230 staff and a much smaller Design and Equipment Department responsible for shorter term development.

3 Under the White Paper proposals, the ITC would lose the IBA's responsibility for operating the transmission system and, consistent with the ITC's role as a "light touch" licensing body, the Government's aim should be to reduce the ITC's engineering and technology staff and activities to the minimum consistent with its functions. The following functions proposed

for the ITC in the White Paper will require some technical input:

a) to supervise the transmission arrangements for independent services, in order to ensure conformity with international obligations and the observance of technical specifications designed to limit interference; and

b) to determine...the nature and pattern of franchises for local television programme services whether delivered by cable, MVDS or both.

There could also be limited technical/engineering knowledge needed in determining the geographical structure of Channel 3, the use of the night hours and the advertisement of any future DBS licences.

Engineering

4 It seems likely that, whatever the final decisions over the exact form of the ITC, it will have responsibilities related to the transmission of programmes and the organisation of the LDO map which will require up to date knowledge of spectrum management and techniques of service planning. As technologies develop (eg HDTV, EDTV, greater use of sidebands) the ITC will also need access to independent technical advice to support its planning decisions.

5 One option would be to deny the ITC any access to in-house technical advice. They would have to buy in such advice either on a case-by-case basis or possibly with an on-going contract with some private sector organisation. It seems unlikely, however, that such an extreme position would prove cost effective. However much of the technical advice came from outside, the ITC would need some senior staff who were familiar with the technical side of broadcasting, if only to know what

questions to ask and of whom and to interpret the answers.

6 In response to the White Paper, the IBA have recommended that the ITC should have a small core of engineering staff and the ability to commission or second-in spectrum management and other skills from outside (perhaps from a separate independent broadcasting engineering unit). The IBA maintain this would be consistent with the idea of the ITC as a light touch body and would also ensure that those responsible for engineering advice worked in a dynamic engineering environment rather than run the risk of losing touch with developments in a regulatory body.

7 The IBA propose a structure for the ITC (Annex A) with branches responsible for frequency planning; transmission and telecoms; and standards, technology and R&D. It is not clear, however, that even this much structure will be required. Frequency planning will be needed in planning the MVDS map and, to a lesser extent, in the maps for Channels 3 and 5 and DBS where much work has already been done. The workload will be variable and this strengthens the case for such expertise to be bought in, as suggested by the IBA. Such an approach would be consistent with the Price Waterhouse report. The case for involvement in transmission and telecommunications will depend on the regulatory regime for transmission and the role played in it by OFTEL, but it is unlikely that the ITC will need much expertise in transmission beyond that related to interference and international obligations and even those duties would be exercised in collaboration with Radiocommunications Division of DTI where appropriate. The case for a technology and R&D branch depends on any future R&D responsibility of the ITC which is considered separately below. The perceived role of the Technical Facilities Unit is unclear although, if it is simply an office support unit to assist the ITC to view programmes, then it seems reasonable.

8 In conclusion, there is a case for a minimum level of engineering knowledge within the ITC but it is doubtful whether

it needs even to be as large as envisaged by the IBA. In particular, there seems only a very limited role in transmission and telecommunications. The final size will need to depend on the precise extent of the ITC's responsibilities and the ITC's initial budget. The Government could use the budget process as a means of setting a precise limit to the size of the engineering department. We would recommend, however, that provided it did not include more than about ten engineers then its exact size and form should be left to the ITC to decide in the light of their eventual responsibilities under the new legislation and their own priorities.

Research and Development

9 The IBA argue that the ITC will need the ability to commission long term R&D work in order to have the necessary expertise to respond quickly and authoratively to proposals from licensees and others relating to innovations in transmission technology. Long term R&D would also help the ITC lead in chosen areas of national and international standards making, as the voice of independent broadcasting. The IBA draws parallels with OFTEL's responsibility for promoting research into the development and use of new techniques and argues that the ITC should have a similar responsibility, which it should discharge by managing and funding a long term R&D programme.

10 The IBA recognise, however, that there is little case for having the R&D facility "in house" and propose that the present IBA E&D Department, along with the small R&D departments in Thames, Granada and Scottish, should be brought together as an independent body and privatised. This "unit" would earn its income from customers such as the ITC, ITC franchisees and the transmission companies. The IBA warn, however, that the short term viability of such a body in the uncertain times around 1991/3 is questionable and are seeking some guaranteed work and a temporary "home" for the unit prior to full privatisation in the mid-1990s.

11 This presents us with two main policy questions:

a) what should the ITC's role be in broadcasting R&D; and

b) is the preservation of the R&D expertise currently within the IBA important enough to justify special arrangements being made in the short term to help preserve it as a unit?

12 In planning how to license new services and how to incorporate technological advances into existing services, the ITC will need to have access to impartial R&D. A general ability to commission R&D may, however, run the risk of allowing the ITC to devote significant resources to this area. This would be inconsistent with the idea of a light touch licensing body. The DTI therefore recommends that the level of R&D should be controlled by restricting its scope to being of direct relevance to the ITC's statutory duties.

13 It would be possible to go further than this and set specific criteria against which any work could be scrutinised either in the PES round, if the ITC is to be controlled in this way, or through formal Government approval of an R&D programme. It is questionable, however, as to whether Government should be so closely involved or that such scrutiny would be worthwhile if the R&D has in any event to be of direct relevance to the ITC's statutory duties. The main determinant of the level of R&D commissioned will be the size of the ITC's budget which will be determined by the Government, either through the PES system or by means of an annual report.

14 Whatever arrangements are finally agreed, there should be a move from R&D funded by the IBA/ITC to R&D funded by industry direct. The ITC should be encouraged to look to private sector funding for any R&D work as far as is consistent with obtaining

impartial advice to support the execution of its duties. This could increasingly involve international collaboration. This should help maximise the relevence of the work to the industry. The reduction in IBA/ITC R&D and the other changes in broadcasting over the next few years will produce a new climate to which companies will need time to accustom themselves. To help a private sector R&D presence to emerge in this new regime, the ITC should also be given the general duty to promote and encourage those active in the industry to do R&D.

15 Turning to question 11(b), the IBA's E&D Department has played an important role in developing (mainly transmission) technology to the benefit of UK broadcasters and their customers and has on occasion had such developments accepted across the world. The Department's achievements have included early work on teletext, the first digital converter of US TV signals to UK standards and the development of the MAC transmission standard. The MAC standard has now been adopted as the European standard and is compulsory for all high powered satellite broadcasting in Europe although its place in the UK market remains uncertain given the further delays to the BSB launch and the position of its competitor Sky which uses a PAL standard. The work at the IBA has tended to complement that done by the BBC and the rivalry between the two organisations has acted as a stimulus to both.

16 There is an argument that such R&D facilities are a scarce national resource and that positive efforts should be made to preserve them. In the case of broadcasting there may in any event be a market failure when the IBA is wound up and the major independent TV franchises are reallocated. The market for broadcasting R&D is restricted by the issuing of IBA/ITC licences and, immediately post-1993, new entrants may take some time to assimilate the knowledge and experience from running a business necessary to make longer term decisions on R&D. In the interim they may ignore R&D in favour of shorter term goals. This could also be true of the new transmission company/companies.

17 There are various ways in which any short term problem could be overcome. Thus, to take the example of market failure post-1993, the licences of the transmission companies, and perhaps also certain ITC licensees such as for Channels 3 and 5, could contain an obligation to undertake R&D into new broadcasting techniques or one of the transmission companies could be obliged to buy the E&D Department as well. Price Waterhouse suggested that a separate authority or trade association, funded by Government or by an industry levy, should be established to undertake R&D. Other obligations might also be considered. But it is not clear that there is a sufficiently strong case, in terms of either the value of the E&D Department as a national resource or the possible market failure, to justify the imposition of any rigid obligations. Nonetheless, a general obligation on the transmission companies to undertake R&D but which left the level to each company to determine could be envisaged. This parallels a provision in the cellular radio licences which has helped stimulate the right climate for commercial R&D.

18 If the Department is worth preserving then it should be able to pay its own way by selling its services to potential customers whether they be the ITC, ITC licensees, the transmission companies or any other company or organisation that is prepared to pay for the services. Rather than protecting the Department from the market by guaranteeing it a home, even if only into the mid 1990s as suggested by the IBA, or a workload, they should be permitted and encouraged as soon as possible to compete for contracts in the market. A guaranteed "home" or workload always runs the risk of continuing for longer than originally planned and a continuing responsibility for the Department would be contrary to the ITC's role as a licensing body.

19 We therefore recommend that the ITC should not retain any in-house R&D capability. As far as present legislation allows, the IBA should work towards privatisation without delay. They

should be encouraged to maximise the level of commissions they receive from outside, consistent with their current responsibilities, and generally compete in the market place as much as possible. In practice, however, the present vires of the IBA are unlikely to allow a privatisation before the IBA is dissolved and we recommend that powers be included in the Bill to enable the assets of the E&D Department to be vested temporarily in the Secretary of State for the Home Department with a view to their being sold as quickly as possible. This would not be a temporary home in the manner proposed by the IBA but rather a necessary administrative arrangement to enable the E&D Department to be sold off or, failing that, wound up. If any interest were expressed in some form of management buyout then this should be encouraged. But if this and other options, notably a trade sale, fail then the E&D Department should be disbanded. There should be no temporary home into the mid-1990s and no guaranteed future workload.

Representation at international standards committees, etc.

20 The IBA currently represents the UK's independent broadcasting sector in many national and international technical standards committees. The BBC tend also to be represented. Who, if anyone, should take over the IBA's role? The IBA's contribution is valued by the DTI who see it playing a complementary role to that of the BBC. We do not consider that the BBC could represent the interests of independent broadcasting as well as a separate representative and would support a continuing role either for the ITC or another representative body (perhaps the R&D "unit" proposed elsewhere by the IBA).

21 This is, however, a comparatively small part of the IBA's functions and should not be allowed to "wag the dog" of our overall policy towards engineering matters. The core of ITC engineers could continue in this role for the more "policy" related committees so far as their exposure to the latest

technological developments allowed them. Representation on the detailed technical committees could then be provided by the independent R&D unit, if it establishes itself, or from an agreed representative direct from the industry. The exact arrangements would have to await the outcome for engineering and R&D.

Summary

22 The paper recommends that:

a) the ITC should be allowed to retain a small core of engineering staff with the final numbers and organisation being left to the ITC in the light of the precise extent of its statutory responsibilities, its budget and priorities but unlikely to include more than ten engineers (para 8);

b) the ITC should have no "in house" R&D facility (paras 10, 19);

c) the ITC should be given the power to commission R&D provided it is directly relevant to its own responsibilities, on a joint funding basis with industry where possible (paras 12, 14);

d) the level of R&D commissioned by the ITC should be subject to Government scrutiny of the budget, either through PES or otherwise (para 13);

e) the ITC should be given the duty to promote R&D into new broadcasting techniques by industry (para 14);

f) the IBA should encourage the E&D Department to become more market orientated with a view to it

being privatised as soon as possible. If this cannot be achieved then the Department should be disbanded (paras 18, 19);

g) the assets of the IBA's E&D Department should be vested temporarily in the Home Secretary on the dissolution of the IBA with a view to their being sold immediately thereafter or, failing a sale, wound up (para 19);

h) no particular arrangements should be made at this stage for independent broadcasting representation on standards and other committees but ITC staff should be allowed to undertake this role as and when appropriate (para 21).

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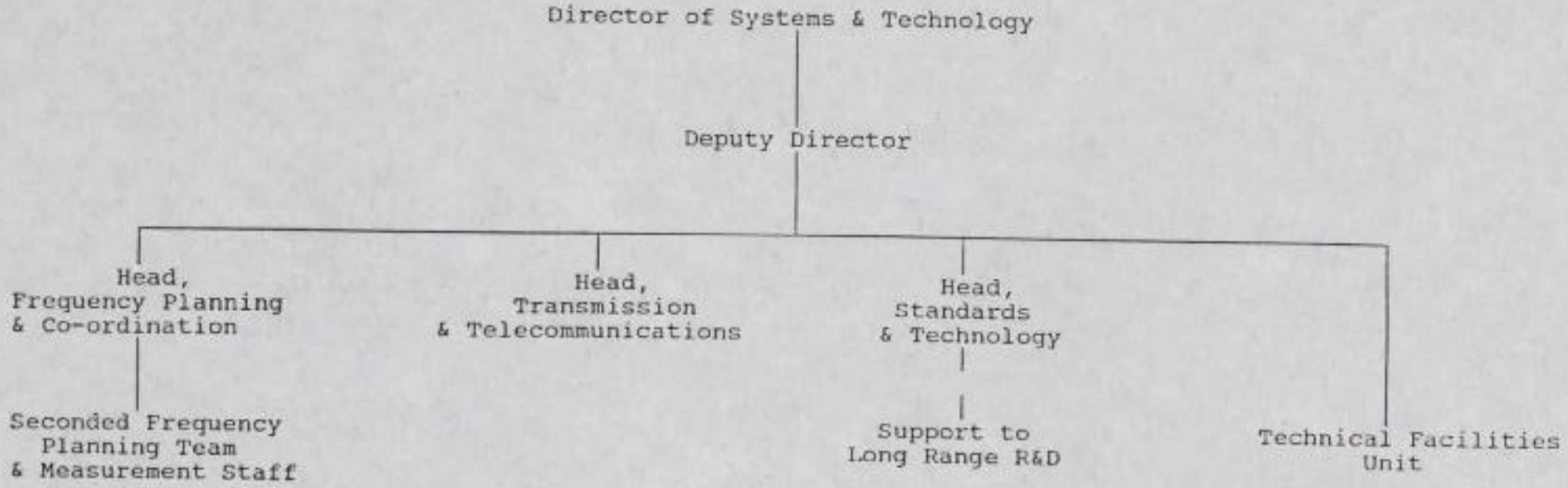

Function: Planning ITV and C5 map MVDS, and DBS frequency coordination; monitoring coverage, liaison with DTI, CAA, etc.

Function: Award of transmission service contracts and monitoring of performance; liaison with OFTEL.

Function: Technical standards matters, promotion of R&D and administration of long-range R&D budget; representation of ITC on EBU, CCIR, BSI and DTI committees.

Function: Support to internal ITC activities - meetings, videotape recordings, etc.

Annex A