

CHAPTER 15

Conclusions

15.1. Our terms of reference (see paragraph 1.1) require us to investigate and report whether, subject to three considerations, the Authority could improve its efficiency and thereby reduce its costs in supplying navigation and air traffic control services to civil aircraft. We are also asked whether in relation to any of the matters we are to investigate the Authority is pursuing a course of conduct which operates against the public interest.

15.2. In Chapters 5 to 14 we have noted our findings in connection with various aspects of the Authority's provision through NATS of what we have generally referred to as ATC. Before we summarise in this chapter the conclusions we draw from these findings there are two important points we wish to make.

15.3. First, the conclusions of an investigation such as this inevitably concentrate on areas of possible improvement. It would, however, be less than just if we did not also report that we were impressed by what appeared to us to be the very high standard of ATC provided through NATS; by the evident dedication of staff at every level to the maintenance of a safe and expeditious service; and by their pride in the reputation that the Authority has for providing one of the best ATC services in the world. Even those who gave evidence to us and who were critical of other aspects of the Authority, almost without exception prefaced their remarks by paying tribute to the professional excellence of the Authority's ATC services. We are glad to place this on record.

15.4. Secondly, the Authority has a statutory responsibility (under the Civil Aviation Act 1982 and the Ministerial Directions of 1976—see paragraph 2.1) to provide ATC in collaboration with MOD through the joint organisation NATS. We are precluded by our terms of reference from enquiring into the military aspects of ATC and so we do not offer any judgment on the advantages or disadvantages of a joint ATC service as such. We do, however, record our doubts as to whether the relationship between the Authority and its constituent NATS which results from this arrangement is best calculated to promote efficiency and cost saving. The Controller of NATS reports equally to MOD and to the Authority, which can thus by definition exercise only partial control over the joint organisation.

15.5. Our doubts are reinforced by two further considerations:

- (a) NATS was well established before the Authority existed. Despite its lack of legal personality and for all that it is not mentioned in our terms of reference, NATS is in practice a separate and largely autonomous organisation with its own corporate identity and with an impressive expertise in its special discipline.

(b) The large majority of the Authority's staff is in NATS, the income and costs of which arise from operations which constitute by far the greater part of the Authority's activities. Yet, paradoxically, it is scarcely possible for the Authority to evaluate NATS judgment in technical matters, due to their highly specialised nature, without expensive duplication of resources. At the same time conventional financial disciplines are undermined by the position of the Authority, through NATS, as a virtual monopoly supplier with freedom to adjust charges to meet a required rate of return on capital.

15.6. These factors combine to limit the degree of influence and control over NATS exerted in practice by the Authority, which nevertheless retains statutory responsibility for the supply of ATC. It seems to us that the Board of the Authority has not subjected the policy and performance of NATS to regular and fundamental review. To that extent therefore the Authority has, up to now, failed to play as important and effective a part in the supply of ATC through NATS as we believe was envisaged by Parliament when it passed the Civil Aviation Acts and by the Secretaries of State for Trade and for Defence when they gave the Ministerial Directions. Many of the conclusions we now go on to summarise, and the remedies we propose, should be seen against this background.

15.7.

Summary of conclusions

	<i>Remedy Number</i>		<i>Paragraph Number</i>
Financial framework		<p>ATS operating costs increased from £84 million in 1977-78 to £161 million in 1982-83, a rise of 92 per cent compared with an increase of 74 per cent in the RPI. Over the same period staff costs rose by 110 per cent, representing 59 per cent of ATS costs in 1982-83. The Authority's pay awards are linked to those of the civil service and part of the increase in staff costs was said to represent a 'catching-up exercise'.</p>	5.68
		<p>Superannuation costs rose over the same period from £5 million to £17 million, which the Authority was able to recover through increased charges to users. In April 1980 the Authority increased its contribution from 15 per cent of salaries and wages to 25 per cent. The rate of employee contribution has remained at 7.5 per cent, in accordance with the Trust Deed, since its commencement in 1975.</p>	5.69
1.		<p>Prior to the financial year 1983-84 the Authority set itself a target rate of return on capital employed of 5 per cent after interest on an historic cost basis, for all activities other than for United Kingdom airspace air traffic services and Scottish aerodromes. 'This target was introduced to put a ceiling on profitability rather than to encourage it.' In 1982-83 the Authority achieved a rate of return of 15.8 per cent. The rate of return on capital employed, as a sole measure of financial perform-</p>	

ance, is not an effective means of cost control, because of the relative ease with which the Authority can recover cost increases through higher charges.

5.70

The Authority has a comprehensive system of identifying operating costs by nature and location, based upon cost centres. NATS has about 250 cost centres, one-quarter of which account for 80 per cent of its operating costs. The total of each cost centre is allocated to one or more activities. The Authority's method of cost allocation is designed to avoid cross-subsidisation; but the cost recovery procedure leads to more emphasis on the establishment and forecasting of costs than on their control.

5.71

The Authority's budget setting system is incremental, a 'bottom up' procedure based on manning estimates from each budget holder, who has only limited scope to influence expenditure once the budget is set. A comparison of ATS operating costs with budget for the period 1977-78 to 1982-83 shows that although costs were 2.7 per cent less than budget, they still increased faster than the RPI. Cost control could be improved by firmer direction from the top.

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2. **There should be more effective financial control of NATS exercised by the Board of the Authority, accompanied by the appointment to the NMC of a member with financial responsibility.**

5.73

3. **The Authority should make internal audit an independent function and enlarge its role to include management and efficiency audits. The internal auditor should report to an Audit Committee of the Board, composed of the Chairman and non-executive members.**

5.74

4. **The Authority is financed mainly by borrowings, which were £118 million at March 1983. The cost of borrowings in 1982-83 was £19 million. Debtors at March 1983 amounted to £61 million, of which Eurocontrol accounted for £42 million. The Authority should continue to keep its credit control and borrowing policy under review with the aim of containing borrowings and interest charges.**

5.75

5. **The income of United Kingdom airspace air traffic services, about £126 million in 1982-83, is received mainly in US dollars and is subject to foreign exchange fluctuations. The Authority should keep its methods of currency management under constant review.**

5.76

The Authority does not have a separate annual capital expenditure budget. The first year of the capital expenditure programme, contained in the corporate plan, serves as the budget. There has been an underspending of capital expenditure in each of the six years to 1982-83, representing an average annual shortfall of about 20 per cent.

5.77

	<i>Remedy Number</i>		<i>Paragraph Number</i>
Charges to airlines and costs	6.	The Authority receives payment in respect of all Euro-control charges made to aircraft for the use of United Kingdom airspace. The Authority should consider with non-NATS airports whether there is a practicable way in which such airports could be reimbursed for the en route services they give to over-flying aircraft on demand.	6.34
	7.	The Authority has not followed the requirements of the White Paper (Cmnd 7131) to examine the structure of prices and its relation to the structure of costs, particularly those influenced by the peaks of demand. The Authority should carry out such an examination and implement any change in charges which this may suggest.	6.35
	8.	En route charges are only partially related to the costs involved. The weight element in the formula is not related to costs incurred, while the distance element provides only a rough proxy for them. An examination of the structure of the Shanwick and North Sea helicopter charges should be carried out. A pricing structure for airport ATS based on weight is also unrelated to costs; nor will weight-based charges properly reflect ability to pay. No cost basis exists for short haul rebates, while out-of-hours surcharges are unlikely to reflect fully the extra costs incurred. The Authority regards the BAA London airports and their airport ATS as an integrated system. In view of the uncertainty over the future of Stansted we do not comment on the existing common ATS rate.	6.36
The supply of airport ATS		Evidence from some non-NATS airports suggests that the private sector can provide airport ATS at lower cost than can the Authority. In general, non-NATS airports tend to employ fewer engineering staff and to have a lower ratios of ATCOs to ATCAs.	7.78
		The provision of ATS by the Authority at BAA airports is not subject to periodic review, nor to the test of what an alternative supplier would charge; nor is there a formal mechanism for exerting financial discipline upon the Authority.	7.79
		The financial protocols under which ATS is supplied to municipal airports impose little short-term financial discipline on the Authority.	7.80
	9.	Long-term financial discipline depends on the freedom of other suppliers of ATS to tender at airports currently supplied by the Authority. However, the Authority's present system for charging for ATS regulation appears to discriminate against non-NATS airports and thus to inhibit competition. The Authority should examine its allocation of costs for this service and discuss with users a common method of charging to recover costs.	7.81
Planning and appraisal of investment		In 1973 the Authority was instructed by DTI to carry out investment appraisals in the manner appropriate to public sector bodies. This instruction has not been consistently applied.	8.111

The three case studies we have looked at show deficiencies in investment appraisal and a lack of financial awareness and central direction.

- (a) In the case of the radar replacement programme there was no OR or general coverage requirement, nor was it part of a formal radar replacement plan for the United Kingdom. There was no study of the possibility of modernising two radars; and minimum action plans were rejected on insufficient evidence, although the rejected plan for Gatwick was later adopted. There was neither a detailed consideration of alternatives nor a quantification of benefits and no dcf calculations were presented to the CPB. The consequences of the change from dual to single aerial configuration were not fully assessed nor adequately reflected in the submission to the department.
- (b) The LATCC development plan is a combination of several projects. It is not clear that proper consideration was given to their interdependence, nor was the distinction between capital and revenue maintained consistently. The full costs, both capital and revenue, were not included in the estimates. Separate submissions were not made to the CPB for Stages 2 and 3 as was intended, because Government approval was obtained for the whole project. There was no consideration of a low cost minimum action plan. The CPB received no dcf calculation of the development plan. Forecasts of traffic growth were out of date and the implications of revised forecasts were not made clear.
- (c) In 1979 a change in MOD requirements in Northern Ireland prompted the Authority to seek better radar cover at a lower cost elsewhere. Alternative sites were considered but no financial appraisal of them was made. The dcf prepared for Tírée made an apparently strong financial case for its selection, but the comparison of costs with Northern Ireland was distorted by the treatment of overheads. DOT's scrutiny did not identify this lack of comparability. These shortcomings meant that an adequate appraisal of the move was not carried out.

8.112

10.

An examination of the current major projects reveals that in general the Authority has not calculated a net present value by comparing the discounted benefits with the discounted costs. Thus projects are not ranked by financial criteria but on operational grounds, so it is not possible to judge whether the Authority's investment as a whole represents the best use of the national resources committed to it. **The role of the NFB in the appraisal of investment projects should be strengthened. This could be one of the responsibilities of the new financial member suggested in Chapter 5.**

8.113

Deficiencies exist in the following specific areas of investment appraisal:

11. (a) There is no definition of a 'project'. NFB should ensure that interdependent projects are always considered together for the purposes of investment appraisal.
12. (b) Alternative options should be properly investigated and costed and put before the approving authority.
13. (c) All investment appraisals should include a calculation of the discounted value of benefits compared with the discounted value of the costs of all options. The Authority should devote more resources to developing the methodology for this.
14. (d) The degree of imprecision in Board papers on investment appraisals is not made clear to the Board. Thorough sensitivity analyses should be carried out in all investment appraisals. 8.114
15. The Authority's procedures for the allocation of contingency funds should be formalised and made explicit. 8.115
16. When transfers between the capital and revenue costs of a project occur the function of the approving authority becomes unclear. In project appraisals the full costs, both capital and revenue, should be presented to the approving authority. 8.116
17. Projects are submitted to the Board at a very early stage and there is no provision for them to be re-submitted when proposals can be more firmly justified. Significant variations in the total cost of projects and in the costs of their component parts should be re-submitted to the approving authority. 8.117
18. Although post-investment monitoring is included in the terms of reference of the CEC and in the Authority's guidance paper on investment appraisal, it has not carried out any such monitoring for NATS projects. The Authority should implement a system of post-investment monitoring to verify the accuracy of the assumptions used at the appraisal stage, in order to improve its appraisals of future projects. 8.118
- Corporate planning and operational control
19. In a number of areas the Authority is monitoring possible long-term developments, but these activities are dispersed within the NATS directorates and there is no procedure for co-ordinating them so as to produce a structured set of long-term options. 9.117
- The Authority has not adopted a long-term strategy against which to judge the relevance of these activities or of its research programme. The Authority should set up a group to co-ordinate long-term activities and advise the Board on policies. While a proposed policy may require international agreement, the Authority should develop a long-term view from which to derive a coherent medium-term plan. 9.118

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- Since the Authority first introduced a corporate plan in 1977 little development has taken place in planning procedures, in which there are weaknesses which should be corrected. 9.119
- The Board does not issue any guidance in the form of a preferred strategy and medium-term targets to start the planning process; it does not have a formal cost reduction programme and sets no medium-term cost reduction targets. 9.120
20. Planning activities associated with the corporate plan and the budget are largely separate, not integrated, and take place in an inappropriate sequence. The planning system should be integrated so that investment proposals can be examined within the framework of the corporate plan, in which the influence of capital investment on the cost structure and service quality is made evident. The production of the budget should be synchronised with the plan and derived in detail from its first year. 9.121
21. The field organisation should be closely involved in the planning process, and in the commercial judgment of balancing costs against service, long-term against short-term cost, and the generation of income. 9.122
- Planning procedures do not provide for testing alternative strategies or tactics, or the sensitivity of assumptions upon which the preferred plan is based. There is no procedure for improving planning by monitoring the outturn against the plan beyond the first year. 9.123
22. The Authority should review its medium-term planning system to correct the weaknesses discussed above. 9.124
- A formal planning procedure would ensure that common services resources were deployed and used to maximum advantage; benefit might, for example, be obtained from the co-location of TEE, ATCEU, CATC and CTE. 9.125
- NATS operational planning procedures ensure a high level of safety and generally give a good service to operators. 9.126
23. A strategy should be devised in the near future for replacement of the 9020D computer, for implementation before maintenance difficulties with the present system inhibit operations. 9.127
- As a result of its history the Authority has a number of independent management information systems. 9.128
- A central non-operational computing facility should have been developed much earlier, but this is now effectively managed, with a procedure for the production and monitoring of a forward programme of work. 9.129

<i>Remedy Number</i>		<i>Paragraph Number</i>
	There is insufficient information produced to assist managers in medium-term planning and in monitoring performance.	9.130
24.	The Authority should review its need for management information, especially for planning and monitoring performance and the formation of long-term strategy. The Authority should formulate a development plan for an integrated MIS, with common data bases accessible to all functions and compatible with the proposed distributed computing and information network. The review should lead to a procedure for priorities for computing projects based on relative cost/benefits to the Authority as a whole.	9.131
	The Authority has not yet adopted a form of output measure from which the cost of services provided may be monitored.	9.132
25.	A measure of unit cost and an indication of a feasible level of improvement are essential for target setting. Work on international comparisons should permit the setting of cost targets within the power of management to achieve. Use of 'equivalent sector handlings' might provide a basis for comparing unit cost trends between different activities. The Authority should develop these concepts and devise a sampling procedure to measure 'equivalent sector loads'. It should work towards setting feasible unit cost reduction targets incorporated as a cost reduction programme in the corporate plan.	9.133
Manpower and industrial relations	There is scope for improving the efficient use of the NATS workforce.	10.70
	We were particularly concerned about the factors which prevent ATC staff being rostered for the equivalent of the normal working week in the Authority. There is room for improvement in respect of rostering systems and related elements in complementing formulae (ATC and Tels); and in the use of on-call working to replace shiftworking (Tels). We have noted other areas where present practices should be critically appraised.	10.71
	We have not been able to quantify any manpower savings which might flow from such improvements, because of a lack of data on the effects of existing arrangements.	10.72
	The Authority should collect and analyse data on existing practices, hours worked, absences and the utilisation of time that staff are at work. This information should be considered together with appropriate medical evidence and with research findings on the capacity of the ATC system. The underlying assumptions of the present manning arrangement, such as those discussed by the Radley Committee, should be re-examined.	10.73
	Most of the factors that stand in the way of the Authority's improving the efficiency of its use of manpower are enshrined in collective agreements. The Authority is considering a number of changes, but those proposed	

<i>Remedy Number</i>		<i>Paragraph Number</i>
	so far have been unfavourably received by the unions. This is because much of what is being challenged is derived from the Radley Report, the agreed procedures for negotiation and consultation and the assurances given on the civil service link at the time of the establishment of the Authority.	10.74
	We support the Authority's desire to improve its utilisation of manpower. Acquisition of relevant data would make it better placed to propose new manning or rostering arrangements which would not prejudice air traffic safety or economy. Full use should be made by both sides of the consultative machinery, particularly in matters affecting manpower planning.	10.75
27	The Authority and the unions should enter into discussions and negotiations on the better utilisation of manpower, and an acceptable alternative to the remuneration structure created by the civil service link. We urge both sides not to occupy positions which make successful negotiation impossible.	10.76
Project management	In project performance time overrun has proved a greater problem than cost overrun, particularly on larger projects. On average, forecast expenditure on the larger projects exceeds that originally estimated by 7 per cent in real terms, based upon the final specification of each project.	11.49
28	Most of the delays occur before work starts, particularly when a large number of interrelated systems are involved. Better estimates are needed of the time required to plan projects and to draw up specifications. The Authority has identified the need for a new project management system. Its introduction is long overdue.	11.50
	There are early indications that the proposed project management procedures are proving effective.	11.51
29	Implementation of the proposed feasibility and project definition phases in the correct sequence and with realistic time and cost estimates would do much to rectify the problems of time overrun. When necessary an assessment should be made of the degree of uncertainty involved.	11.52
30.	In order to increase the project manager's control over his projects, the line directorates should provide him with estimates of the staff time they are willing to commit within the quoted timescales. Sections which are part of these directorates should report actual time spent monthly to the systems manager, who should report grand totals to the project manager.	11.54
31.	As the costs of externally purchased engineering and other technical services are charged to projects, those provided internally should be included in the project manager's budget. If these could with advantage be purchased outside, he should, with the agreement of the NMC, be free so to obtain them.	11.55

<i>Remedy Number</i>		<i>Paragraph Number</i>
	It is incompatible with proper project management control that significant contracts can be let without the projects manager seeing the tender documentation and agreeing the contract. DG Tels' instructions on this subject should be carried out and they should be extended to ensure the involvement of the project manager in the settling of the terms of major contracts.	11.57
32.		
33.	One person should be appointed as the technical authority for a project and the respects in which he reports to the project manager should be set out unambiguously.	11.60
34.	The Authority told us that it has a ten-month programme for implementing the new project management procedures. There should be no significant deviation from these procedures, or from the new management structure and every effort should be made to keep to this programme.	11.62
Tels equipment and its maintenance	35. The Authority should set up a QA function independent of other management functions. Quality should be introduced early in the proposed definition stage.	12.78
	36. NATS should measure the work loaded on sections of the area maintenance units, so that output can be measured against either a standard or a target. The utilisation of the workforce in terms of effective time should also be measured and reported regularly.	12.80
	37. Quality inspections should be carried out after equipment has been installed and at regular intervals thereafter. Inspection of NATS and non-NATS telecommunications equipment should become part of the proposed QA function. This might also take over responsibility for the RMS and other appropriate inspection and technical regulating functions.	12.81
	38. The Authority should review its policies and methods for equipment replacement and introduce life cycle costing.	12.82
	39. The involvement of DTels(F) in decisions on replacing equipment is essential for a greater awareness by Tels line directorates of potential savings in maintenance costs; as these increase with time more attention should be paid to them in the selection of new equipment. Equipment to be replaced should be detailed in a draft operational plan giving timescales, locations and changes in manning levels. Components of this plan should be contributed by chief officers at stations and by headquarters Tels directorates. The plan should be issued in its final form as part of the Authority's corporate plan.	12.83
	40. NATS should measure ineffective time spent by maintenance engineers.	12.84
	41. The introduction of equipment which is monitored remotely should be hastened. This would help towards the elimination of shiftworking by Tels staff.	12.85

Remedy Number		Paragraph Number	
42.	Production control procedures should be established at TEE and estimates of future workload in man-hours prepared and loaded on sections by months ahead. Standard or target times should be assessed and utilisation of the workforce measured against them.	12.86	
43.	There should be a radical re-examination of work done at TEE and ATCEU to establish how present underutilisation can be overcome and to eliminate duplication between them.	12.87	
44.	Consideration should be given to whether more work, now done at TEE and at ATCEU, to make equipment site effective could not be more economically carried out by suppliers and be incorporated in purchase contracts as a supplier responsibility.	12.88	
Research and development	The NATS R & D budget is small having regard to the complexity of ATC operations and to the high level of technology involved.	13.27	
	Too little of the R & D expenditure is devoted to the longer term. With rapid advances in technology there is a great need for a critical analysis of the contribution to be made to the future effectiveness of the system by its various elements. Consideration should be given to placing greater emphasis on future system concepts, perhaps entrusting industry with more work on shorter-term problems.	13.28	
	45.		
	46.	The Chief Scientist should be given greater control of the Authority's R & D budget and programme so that he could formulate a balanced programme responding to proposals from NATS directorates and other sponsors.	13.29
47.	It would assist in the selection of programme items, and in the assessment of costs and benefits to the Authority and to other users, to create a broad model of United Kingdom ATC system. Such a model would also provide a basis for the examination of options in the use of United Kingdom airspace.	13.30	
48.	We believe that any further reductions in RSRE staff could have serious consequences for the Authority and for aircraft operators.	13.31	
Quality of service	The Civil Aviation Acts and Ministerial Directions provide no guidelines for setting levels of service. NATS uses a risk model to evaluate safety. In terms of the economic component of ATC, standards have been adopted only with respect to delays at Heathrow and Gatwick at busy periods. Safety standards are monitored routinely and delays at these two airports are measured annually. Other areas of service are monitored only by <i>ad hoc</i> studies.	14.42	
	NATS achieves a high level of safety. Management and ATCOs are also conscious of the influence of ATC procedures on operators' costs. Benefits to operators		

are difficult to assess because of the lack of routine monitoring. Many users are concerned about the level of charges, but have little information on the cost of alternative service levels, with which to make value judgments.

14.43

49. **The Authority should develop measures and a regular sampling procedure for monitoring the level of service provided. Planning procedures should include investigation of costs of alternative levels of service and of benefits to be expected from different levels of investment. If different levels of service could be introduced without affecting safety, information on the related costs should be made available to users, so that consultation may take place on the level of service to be provided.**

14.44

15.8. Our terms of reference require us to report whether the Authority could improve its efficiency and thereby reduce its costs. Our conclusion is that there are a number of measures by which the Authority could improve its efficiency, consistently with the proper performance of international obligations and with the maintenance of a high level of safety; and these measures would also lead (although perhaps not immediately) to reduction of the Authority's costs. These measures are set out in the list of remedies which we have proposed above. In reaching this conclusion we have had regard, as required by the terms of reference, to the effect which would be produced on the standard of service provided to the air transport industry and on that industry's costs.

15.9. The terms of reference require us to consider the efficiency and the costs of the Authority with particular reference to six topics. These topics and the remedies proposed by us particularly relevant to each of them are as follows:

- (a) Its internal cost control system and method of allocating costs between different cost centres (remedies 1, 2, 3, 4, 5, 7, 8, 9 and 25).
- (b) Its use of manpower, including adjustments to reflect fluctuations in traffic volume or other changes in circumstances (remedies 26, 27, 36, 40, 41, 42, 43 and 44).
- (c) The effect or probable effect of recent or planned introduction of more modern equipment on its staffing levels (remedies 39,40 and 41).
- (d) Its planning and appraisal of new investment (remedies 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22).
- (e) Its management, supervision and control of investment projects (remedies 28, 29, 30, 31, 32, 33 and 34).
- (f) The scale of its provision of equipment and its management of the maintenance of equipment, including its arrangements for ensuring continuity of essential services (remedies 35, 36, 37, 38, 39, 40, 41, 48 and 49).

15.10. In some of these areas we found that the Authority has taken, or is planning to take, steps which should improve its efficiency and thereby reduce its costs. In the body of our report we noted, for example, the recent decision by the Board of the Authority to reduce staff numbers and to introduce more productive rostering arrangements (see paragraphs 10.22 and 10.24); the improved credit control procedures achieved with Eurocontrol (see paragraph 5.5); the more positive role recently adopted by NATS Finance Branch (see paragraph 8.27); and the new project management procedures now being implemented (see paragraph 11.51).

15.11. We are not able to quantify the benefits which would accrue if our proposed remedies were to be adopted. It is our judgment however, that of the topics mentioned in the terms of reference, the Authority should in the first place concentrate its attention upon the use of manpower. Control of costs, the planning and appraisal and the management of investment are three other topics offering particular scope for improvement.

The public interest

15.12. Finally, the terms of reference require us to consider whether, in relation to any of the matters we are to investigate, including in particular the six topics, the Authority is pursuing a course of conduct which operates against the public interest. It is in the public interest that every public body should operate with maximum efficiency and at minimum cost; and it may be logical to conclude that a significant failure to do so is against the public interest. Certainly this would be the case where the standard of service provided was poor. In the case of the Authority, however, it has to be recognised that it has set out to achieve—and we believe has achieved—standards of safety and service to match any in the world; which is a cause for satisfaction both to the Authority and to the general public. It would not, on the other hand, be in the public interest if these standards were being achieved regardless of cost. We did not find that the Authority is acting regardless of cost but, in relation to every one of the six topics, we have pointed out areas for improving efficiency with resulting reductions in cost and we believe these need immediate attention. The Authority already has in hand several measures which should produce improvement in some of the areas of which we have been critical and we believe that our proposed remedies will be heeded. While not wishing to minimise the importance of our proposals, in all these circumstances we do not conclude that the Authority is pursuing a course of conduct which operates against the public interest.

J G LE QUESNE (*Chairman*)

P H DEAN

H H HUNT

L A MILLS

B C OWENS

J S SADLER

N E D BURTON (*Secretary*)

1 August 1983