

The future of the parliamentary office of science and technology : report, together with the proceedings of the Committee, minutes of evidence and appendices / Information Committee.

Contributors

Great Britain. Parliament. House of Commons. Information Committee.

Publication/Creation

London : Stationery Office, 2000.

Persistent URL

<https://wellcomecollection.org/works/zhwgybh9>



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

INFORMATION COMMITTEE

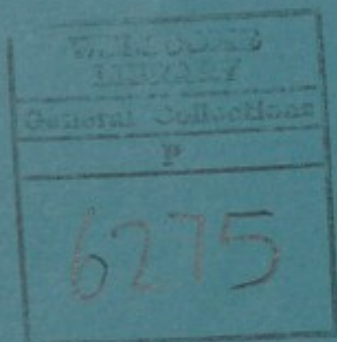
First Report

**THE FUTURE OF THE PARLIAMENTARY
OFFICE OF SCIENCE AND TECHNOLOGY**

Report, together with
the Proceedings of the Committee,
Minutes of Evidence and Appendices

*Ordered by The House of Commons to be printed
17 July 2000*

PUBLISHED BY AUTHORITY OF THE HOUSE OF COMMONS
LONDON: THE STATIONERY OFFICE LIMITED
£8.80



22501151721

INFORMATION COMMITTEE

INFORMATION SERVICE	
15 AUG 2000	
ACC. No.	NA Hou/c

First Report

**THE FUTURE OF THE PARLIAMENTARY
OFFICE OF SCIENCE AND TECHNOLOGY**

Report, together with
the Proceedings of the Committee,
Minutes of Evidence and Appendices

*Ordered by The House of Commons to be printed
17 July 2000*

PUBLISHED BY AUTHORITY OF THE HOUSE OF COMMONS
LONDON: THE STATIONERY OFFICE LIMITED

£8.80

The Information Committee

The Information Committee is appointed to consider the services provided by the House in regard to information. Its constitution and powers are set out in House of Commons Standing Order No. 142.

The Committee has a maximum of nine members, of whom the quorum for any formal proceedings is three. The members of the Committee are appointed by the House and unless discharged remain on the Committee until the next dissolution of Parliament. The present membership of the Committee is as follows:¹

Mr Richard Allan MP (*Liberal Democrat, Sheffield Hallam*)²
Mr Ian Bruce MP (*Conservative, Dorset South*)²
Mr Tim Collins CBE MP (*Conservative, Westmorland and Lonsdale*)³
Mr Michael Connarty MP (*Labour, Falkirk East*)²
Mr Neil Gerrard MP (*Labour, Walthamstow*)²
Mr Andrew Miller MP (*Labour, Ellesmere Port and Neston*)²
Mr Gwyn Prosser MP (*Labour, Dover*)⁴
Mr Philip Sawford MP (*Labour, Kettering*)²
Mr Ian Stewart MP (*Labour, Eccles*)⁵

On 27 April 1998, the Committee elected *Mr Richard Allan* as its Chairman.

The Committee has the power to require the submission of written evidence and documents, to examine witnesses, and to make Reports to the House.

The Committee may meet at any time (except when Parliament is prorogued or dissolved) and at any place within the United Kingdom. The Committee may meet concurrently with other committees established under Standing Order No. 142 or with the Finance and Services Committee, or with the Broadcasting Committee, or with any committee of the Lords on House of Lords Offices (or any sub-committee of that committee) for the purpose of deliberating, taking evidence or considering draft reports. The Committee may exchange documents and evidence with any of these committees, as well as with the House of Commons Commission.

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/commons/selcom/infohome.htm.

All correspondence should be addressed to The Clerk of the Information Committee, Committee Office, House of Commons, London SW1A 0AA. The telephone number for general inquiries is: 020 7219 3299; the Committee's e-mail address is: incom@parliament.uk.

¹ Mr John Owen Jones MP (*Lab/Co-op, Cardiff Central*) was appointed on 28 July 1997 and discharged on 14 December 1998; Mr John Whittingdale OBE MP (*Conservative, Maldon and Chelmsford East*) was appointed on 28 July 1997 and discharged on 9 November 1998; Mrs Sandra Osborne MP (*Labour, Ayr*) was appointed on 28 July 1997 and discharged on 14 February 2000.

² Appointed on 28 July 1997.

³ Appointed on 9 November 1998.

⁴ Appointed on 14 February 2000.

⁵ Appointed on 14 December 1998.

TABLE OF CONTENTS

	<i>Page</i>
REPORT	v
Introduction	v
The status of POST	v
The evidence received	v
The case for the permanent establishment of POST	vi
Science and technology in Parliament	vi
POST and the Libraries	vii
The benefits of permanency	vii
The status of POST—recommendation	viii
Governance	viii
The POST Board	viii
POST's position as part of the Clerk's Department	viii
POST's resources	ix
Publications and the website	ix
Staff	ix
The future role of POST	x
Select committees	x
On-line consultations	xi
Conclusion	xi
SUMMARY OF RECOMMENDATIONS	xii
MINUTES OF PROCEEDINGS RELATING TO THE REPORT	xiii
LIST OF WITNESSES	xiv
LIST OF MEMORANDA INCLUDED IN THE MINUTES OF EVIDENCE	xiv
LIST OF APPENDICES TO THE MINUTES OF EVIDENCE	xiv

TABLE OF CONTENTS

REPORT	1
Introduction	1
The role of POST	1
The evidence base	1
The case for the permanent establishment of POST	1
Science and technology in Parliament	1
POST and the Librarian	1
The benefits of permanent	1
The status of POST	1
Government	1
The POST Board	1
POST's position as part of the Clerk's Department	1
POST's resources	1
Publications and the website	1
Staff	1
The future role of POST	1
Select committees	1
On-line consultations	1
Conclusions and recommendations	1
SUMMARY OF RECOMMENDATIONS	1
MINUTES OF PROCEEDINGS RELATING TO THE REPORT	1
LIST OF WITNESSES	1
LIST OF MEMORANDA INCLUDED IN THE MINUTES OF EVIDENCE	1
LIST OF APPENDICES TO THE MINUTES OF EVIDENCE	1
APPENDIX A: THE CLERK'S DEPARTMENT	1
APPENDIX B: THE CLERK'S DEPARTMENT	1
APPENDIX C: THE CLERK'S DEPARTMENT	1
APPENDIX D: THE CLERK'S DEPARTMENT	1
APPENDIX E: THE CLERK'S DEPARTMENT	1
APPENDIX F: THE CLERK'S DEPARTMENT	1
APPENDIX G: THE CLERK'S DEPARTMENT	1
APPENDIX H: THE CLERK'S DEPARTMENT	1
APPENDIX I: THE CLERK'S DEPARTMENT	1
APPENDIX J: THE CLERK'S DEPARTMENT	1
APPENDIX K: THE CLERK'S DEPARTMENT	1
APPENDIX L: THE CLERK'S DEPARTMENT	1
APPENDIX M: THE CLERK'S DEPARTMENT	1
APPENDIX N: THE CLERK'S DEPARTMENT	1
APPENDIX O: THE CLERK'S DEPARTMENT	1
APPENDIX P: THE CLERK'S DEPARTMENT	1
APPENDIX Q: THE CLERK'S DEPARTMENT	1
APPENDIX R: THE CLERK'S DEPARTMENT	1
APPENDIX S: THE CLERK'S DEPARTMENT	1
APPENDIX T: THE CLERK'S DEPARTMENT	1
APPENDIX U: THE CLERK'S DEPARTMENT	1
APPENDIX V: THE CLERK'S DEPARTMENT	1
APPENDIX W: THE CLERK'S DEPARTMENT	1
APPENDIX X: THE CLERK'S DEPARTMENT	1
APPENDIX Y: THE CLERK'S DEPARTMENT	1
APPENDIX Z: THE CLERK'S DEPARTMENT	1

FIRST REPORT

The Information Committee has agreed to the following Report:—

THE FUTURE OF THE PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY

Introduction

1. This Committee and its predecessors have had a longstanding interest in the Parliamentary Office of Science and Technology (POST), reflecting our remit "*to consider the services provided for the House in regard to information*". One of the earliest acts of the newly-established Information Committee in 1991 was to inquire into whether POST, which was then funded by external bodies, should be incorporated into the Parliamentary structure. Its Report¹ recommended that POST should receive public funding for the period 1993–96. In 1995 the then Committee reconsidered the issue, and its Report² recommended that POST's parliamentary funding should continue until April 2001.

2. We agreed in May this year to initiate a further inquiry into the future of POST, mindful of the need to complete our deliberations well before next April. The POST Board recommended to us that POST should now be given permanent status within Parliament (and ongoing funding).³ The terms of reference of our investigation were, accordingly:

- (a) how POST has operated to date;
- (b) whether POST should be established on a permanent basis with parliamentary funding; and
- (c) [if so] how the role of POST might develop in the future.

3. We received memoranda from the POST Board⁴ and from the House of Commons Library.⁵ A number of submissions were also received from Chairmen of Select Committees, including the Science and Technology Committees of both Houses, and individual Members. These are reproduced as Appendices to the Minutes of Evidence. We also took oral evidence from the Chair and Vice-Chair of the POST Board, and the Director of POST. The Minutes of Evidence are included in this volume. We took care to ensure that the Library and Computers Sub-Committee of the House of Lords Offices Committee was kept informed about the progress of the inquiry.

The Status of POST

THE EVIDENCE RECEIVED

4. POST has a generally high reputation across the Parliamentary estate, on the basis of the evidence we received from Select Committee Chairmen and individual Members. The Chairman of the Science and Technology Committee of the House of Commons,⁶ for example, referred to POST's "*significant contribution to the work of Parliament*", continuing that "*POST provides Parliamentarians with an understanding of science and technology at the cutting edge which would otherwise be difficult to achieve.*" The Chairman of the House of Lords Science and Technology Committee was similarly positive.⁷ He referred to that Committee's recent Report *Science and Society*,⁸ which recommended that POST should maintain a watching brief on the development of public consultation and dialogue on science-related issues on behalf of

¹Information Committee, First Report, Session 1991–92, *The Parliamentary Office of Science and Technology*, HC (1991–92) 325, London: HMSO.

²Information Committee, First Report, Session 1994–95, *The Parliamentary Office of Science and Technology*, HC (1994–95) 578, London: HMSO.

³POST memorandum, paragraph 11.6, p. 17.

⁴POST memorandum, p. 11.

⁵Appendix 1, p. 26.

⁶Appendix 7, p. 29.

⁷Appendix 6, p. 28.

⁸House of Lords Science and Technology Committee, Third Report, Session 1999–2000, *Science and Society*, HL (1999–2000) 38, London: TSO.

parliamentarians.

5. Other Committees with a science based *locus standi* also spoke in glowing terms about POST's work. The Chairman of the Trade and Industry Committee referred to its output as "professional and well researched";⁹ the Chairman of the European Scrutiny Committee stated that "POST has been able to provide us with clear, comprehensible advice on the issues on which we have sought guidance, and it has contributed substantially to the effectiveness of the House's scrutiny process as a result."¹⁰ The Chairman of the Environmental Audit Committee concluded that "POST's operation to date has been to the great benefit of this committee at least".¹¹

6. We also received contributions from Committees which deal with science and technology matters less frequently. The Chairman of the Public Accounts Committee commented that POST Reports were "easily comprehensible and succinct";¹² the Chairman of the Northern Ireland Affairs Committee referred to "an excellent non-technical digest" POST had provided.¹³ The one more cautious note was struck by the Chairman of the Defence Committee although, in principle, he supported the continued funding of POST.¹⁴ The two submissions received from individual Members were both complimentary about POST's work.¹⁵

7. Overall, five of the substantive submissions we received agreed that POST should receive permanent funding,¹⁶ seven made no comment on that point (but were positive about POST's work)¹⁷ and one (from the Defence Committee) stated that "I am cautious about whether [POST] should become permanent — some element of contractual renewal may provide a useful incentive and retain flexibility."¹⁸

THE CASE FOR THE PERMANENT ESTABLISHMENT OF POST

Science and technology in Parliament

8. Scientific and technological issues have moved up the parliamentary agenda in recent years. The Chairman of the House of Commons Science and Technology Committee referred us to a recent article in *Nature*¹⁹ which noted, for example, that the percentage of relevant Parliamentary questions had risen from less than 1% in 1988–89 to around 6% in 1998–99. Teresa Gorman MP stated "You will not need me to tell you how many of the current political issues are science based, for example climate change, BSE and genetic engineering."²⁰ As the Chair of the POST Board stated when giving evidence to us, this trend is likely to continue.²¹

9. The point was made to us that, in this climate, the 'disestablishment' of POST would be a highly retrograde step.²² The POST Board stated that, conversely, its establishment as a permanent office would be a powerful way for Parliament to demonstrate its willingness and competence to handle the increasing scientific demands placed on it.²³

⁹ Appendix 4, p. 27.

¹⁰ Appendix 11, p. 31.

¹¹ Appendix 15, p. 32.

¹² Appendix 3, p. 27.

¹³ Appendix 14, p. 32.

¹⁴ Appendix 12, p. 31.

¹⁵ Appendix 13, p. 32, Appendix 16, p. 33.

¹⁶ House of Commons Science and Technology Committee, Appendix 7, p. 29; House of Lords Science and Technology Committee, Appendix 6, p. 28; Social Security Committee, Appendix 2, p. 27; Welsh Affairs Committee, Appendix 9, p. 31; and Tony McWalter MP, Appendix 16, p. 33.

¹⁷ Catering Committee, Appendix 8, p. 31; Environmental Audit Committee, Appendix 15, p. 32; European Scrutiny Committee, Appendix 11, p. 31; Northern Ireland Affairs Committee, Appendix 14, p. 32; Public Accounts Committee, Appendix 3, p. 27; Trade and Industry Committee, Appendix 4, p. 27; Teresa Gorman MP, Appendix 13, p. 32.

¹⁸ Appendix 12, p. 31.

¹⁹ 27 January 2000, Vol. 403, 6788. See also POST memorandum, Annex 7, p. 25.

²⁰ Appendix 13, p. 32.

²¹ Q2.

²² Appendix 7, p. 29 (House of Commons Science and Technology Committee)

²³ POST memorandum, paragraph 10.2, p. 17.

POST and the Libraries

10. The possibility of overlap between the work of POST and that of the Libraries of both Houses was "a recurring theme" in the then Information Committee's 1991-92 inquiry.²⁴ By Session 1994-95 the Committee was able to refer to the "close co-operation" which had developed, and concluded that this had "prevented overlap in the field of the short briefing notes produced by both organisations."²⁵

11. In the House of Commons Library's written evidence to this inquiry, the Librarian agreed with the POST Board that the arrangements to avoid duplication of effort were working satisfactorily. The memorandum also drew attention to the differences between the Library's way of working and that of POST:²⁶

"The Library's research service relies mainly on published material (increasingly from on-line sources). POST's use of unpublished material and its contacts with scientists elsewhere about work in progress make it very up to date but require that its papers are refereed by outside experts. The Library also aims to provide a range of views on specific issues, cited in the text, while POST aims for a consensus view."

It concluded that "there is room for both approaches".

12. Some of the other submissions we received made the same point. The Chairman of the Science and Technology Committee of the House of Commons, for example, referred to the activities of POST and the Science and Environment Section of the House of Commons Library as "complementary".²⁷ The Chairman of the Science and Technology Committee of the House of Lords, however, struck a more cautious note, referring to the possible benefits of bringing a permanently established POST within the Library structure.²⁸ Concerns about duplication of effort were also raised by the Chairman of the Defence Committee.²⁹

13. We note that the House of Commons Library stated that:³⁰

"Were POST to become more active, formal meetings [between the Director of POST and the Head of the Library's Science and Environment Section] would almost certainly have to become more frequent and consultation more systematic if duplication of effort and overlap are to continue to be avoided."

The benefits of permanency

14. We discussed at some length with the POST Board what benefits, operational or otherwise, would arise from it being given permanent status. These fell into the following categories:

- (a) better management of forward bids for expenditure and accommodation;³¹
- (b) savings of staff time arising from simpler forward-planning procedures;³² and
- (c) an improvement in staff morale.³³

In oral evidence to us, the Director of POST stated that "those are the sorts of things which make

²⁴Information Committee, First Report, Session 1991-92, *op cit*, paragraph 16.

²⁵Information Committee, First Report, Session 1994-95, *op cit*, paragraph 10.

²⁶Appendix 1, p. 26.

²⁷Appendix 7, p. 29.

²⁸Appendix 6, p. 28.

²⁹Appendix 12, p. 31.

³⁰Appendix 1, p. 26.

³¹Q5.

³²Q5.

³³Q3.

the day to day running of the office not insuperable but just more complicated than it needs to be."³⁴

The status of POST—recommendation

15. POST has been established as part of the Commons' Clerk's Department for over seven years. It has worked closely with Select Committees, individual Members, and the Libraries of both Houses. The evidence we received was positive about its work, and we find the practical advantages that would result from permanent status compelling. **We strongly recommend that POST be established on a permanent basis from 1 April 2001. It should maintain its close working relationship with the Libraries of both Houses and ensure that as activity levels increase the degree of co-ordination with the Libraries reflects this.**

Governance

THE POST BOARD

16. The POST Board comprises ten Members of the House of Commons, four Members of the House of Lords, four non-Parliamentary Members and three ex-officio Members—the Director of POST, a representative of the Clerk of the House of Commons and a representative of the Librarian of the House of Commons. It meets four or five times annually. The role of the Board is to decide priorities in POST's work programme, review all POST's publication drafts and examine general matters of policy.³⁵

17. POST is content with these arrangements, and stated in its memorandum:³⁶

"The existence and current structure of the Board provide POST with a unique identity and an independence. The Board provides an effective mechanism whereby POST can anticipate scientific and technological issues likely to be of concern to Parliamentarians, as well as to respond to issues of more general interest."

In our opinion, the POST Board provides valuable links with the scientific community. The non-Parliamentary members bring a welcome scientific detachment to its deliberations with a beneficial effect on the programme and priorities of POST. The Board's Parliamentary members, also with considerable scientific expertise, ensure an appropriate form of governance, given POST's unique position within Parliament. This Committee nominates two of the ten House of Commons members, which has proven useful to us and, we hope, POST in ensuring a degree of mutual understanding. **We recommend that the formula for appointing the POST Board and its operation remain unchanged.**

POST'S POSITION AS PART OF THE CLERK'S DEPARTMENT

18. The then Director of Finance and Administration suggested in 1991–92 that the POST core staff should *"for management purposes [be] located within the Clerk's Department"*.³⁷ The then Committee noted this, but agreed that it was an internal management decision that should be taken by the Board of Management.³⁸ POST was indeed located within the Department of the Clerk of the House, and its Director reports to the Clerk of Domestic Committees.³⁹ When giving oral evidence the Director of POST referred to its location within the Clerk's Department as *"the optimum arrangement"*.⁴⁰ He noted in particular the advantages arising from POST being in the same Department as select committee staff.

19. The concept of central support services for Select Committees featured in the Liaison

³⁴Q5.

³⁵POST memorandum, paragraph 2.1.2, p. 11.

³⁶POST memorandum, paragraph 11.4, p. 17.

³⁷Information Committee, First Report, Session 1991–92, *op cit*, paragraph 34.

³⁸Information Committee, First Report, Session 1991–92, *op cit*, paragraph 34.

³⁹POST memorandum, paragraph 2.3.1, p. 12.

⁴⁰Q6.

Committee's recent report *Shifting the Balance*.⁴¹ The Committee recommended the establishment of a central unit specialising in public expenditure and pre-legislative scrutiny, which would be based within the Clerk's Department. In this light, it would seem appropriate to keep POST, with its role as a 'scientific central unit', within the same Department.

20. We note the comments of the House of Lords Science and Technology Committee, that "*bringing POST within the Library structure might help to avoid duplicating resources and research.*"⁴² However, given the wider considerations we have mentioned, and the fact that the present arrangements have worked well, **we recommend that POST remains part of the Clerk's Department of the House of Commons.**

POST's resources

PUBLICATIONS AND THE WEBSITE

21. POST's hard copy output falls into two broad categories. The first is 'POSTnote briefings', which the Board describes as "*analyses of emerging or topical issues...typically two to eight pages long*".⁴³ Recent topics include Stem Cell Research⁴⁴ and Genetic Testing.⁴⁵ The second is its more detailed 'technology assessments', recent examples of which include *Early Years Learning*⁴⁶ and *Cleaning Up?—stimulating innovation in environmental technology*.⁴⁷ On the whole, we believe that the standard of POST publications are commendable, and this was borne out by the evidence we received. We also note that the simplicity of format of the POSTnotes means that they can be published extremely quickly.⁴⁸ **We do however think that there is scope for a review of the style of POST's publications. Modern technology means that more sophisticated desktop publishing techniques are available.**

22. POST has a homepage on the Parliamentary Intranet and the www.parliament.uk Internet site. The design and layout is similar to other parliamentary pages. All the POST notes and summaries of the long reports appear on the website shortly after, or even before, publication in hard copy form.⁴⁹ This is extremely useful. We were told by the Director that POST rarely uses press releases because its work is focussed on parliamentarians—this section of the website is therefore not so up to date.⁵⁰

23. As POST is, and should be seen to be, at the cutting edge of new technology, it is important that its website reflects this. There is a review underway of the design of the parliamentary site, which we would hope POST could contribute to, and benefit from. We also hope that there will be further 'e-reports' published in due course.⁵¹

STAFF

24. The level of staffing at POST has remained unchanged since 1993: the Director, three full time Scientific Advisers and a Secretary.⁵² The Scientific Advisers each cover a distinct subject area, currently environment/energy, health/biological sciences and physical sciences.⁵³ Various temporary posts are also available for graduates, postgraduates and doctoral students; the POST Board noted that "*There is never any shortage of high calibre applicants—take-up is limited*

⁴¹Liaison Committee, First Report, Session 1999–2000, *Shifting the Balance: Select Committees and the Executive*, HC (1999–2000) 300, London: TSO, paragraph 76.

⁴²Appendix 6, p. 28.

⁴³POST memorandum, paragraph 3.1.1, p. 12.

⁴⁴POSTnote June 2000.

⁴⁵POSTnote May 2000.

⁴⁶POST report June 2000.

⁴⁷POST report April 2000.

⁴⁸Q15.

⁴⁹Q15.

⁵⁰Q22.

⁵¹POST memorandum, paragraph 3.3.5, p. 13.

⁵²POST memorandum, paragraph 2.2.1, p. 12.

⁵³POST memorandum, Annex 3, p. 20.

only by the availability of workspace and computer facilities."⁵⁴ The Chair of the POST Board stated "I think [this work] does POST a lot of credit".⁵⁵ We agree.

25. In its submission to this inquiry, the POST Board made out a case for the appointment of two new junior advisers—one in the field of medicine and public health and the other in the field of information technology.⁵⁶ The Chair of the POST Board noted that the volume of POST's coverage of medical matters was currently very poor.⁵⁷ When giving oral evidence to us Lord Flowers FRS, Vice-Chair of the POST Board, stated that "a bit more staffing, not a lot, covering different subjects which they do not have at the moment would be of enormous value."⁵⁸

26. As the POST Board's memorandum notes,⁵⁹ the final decision over staffing will be taken by the House authorities. In our view, this increase in complement would be desirable, particularly in the two fields proposed by the Board. The case is strengthened by the increasing use Select Committees wish to make of POST, which we consider below.

27. Although matters of staffing are strictly for the House authorities, we note with approval the suggestion of the House of Commons Library that:⁶⁰

"If the additional posts ... were to be approved, there might be advantages for both the Library (especially the Science and Environment Section but possibly other research sections) and POST in exchanges of staff between the two organisations."

When giving oral evidence to us, the Director of POST recognised the positive benefits such exchanges might bring, and continued that in time a "three way interchange" could develop between POST, the Library and Select Committee staff.⁶¹ We think this deserves further investigation by the POST Board, the House of Commons Library and the Clerk's Department.

The future role of POST

SELECT COMMITTEES

28. The volume of work POST undertakes for Select Committees of both Houses "has increased substantially"⁶² and the submissions we received indicated that it was likely to grow further in the future. For example, the Chairman of the House of Commons Science and Technology Committee stated in his submission that:⁶³

"The way in which [POST] has fostered stronger relations with Select Committees over the current Parliament has been impressive, although I believe that there is still room for further improvement in this regard, especially with those Committees which do not see POST as a natural source of relevant expertise."

The Chair of the POST Board concurred with the latter point when giving oral evidence to us.⁶⁴

29. The Chairman of the Trade and Industry Committee hoped that, in the future, POST could have the resources to respond rapidly to Committees' requests for information;⁶⁵ the Chairman of the Public Accounts Committee stated he would like to see POST become "even more attuned

⁵⁴ POST memorandum, paragraph 9.4, p. 16.

⁵⁵ Q8.

⁵⁶ POST memorandum, paragraph 10.3, p. 17.

⁵⁷ Q7.

⁵⁸ Q18.

⁵⁹ POST memorandum, paragraph 11.7, p. 17.

⁶⁰ Appendix 1, p. 26.

⁶¹ Q9.

⁶² POST memorandum, paragraph 3.4.1, p. 13.

⁶³ Appendix 7, p. 29.

⁶⁴ Q7.

⁶⁵ Appendix 4, p. 27.

to the needs of individual departmental Select Committees"⁶⁶ Similar views were expressed by the Chairman of the Environmental Audit Committee, who stated that "It will come as no surprise that I, as a select committee chairman, would wish to see a closer alignment between the forward programmes of Select Committees and of POST and further specific support from the latter when required."⁶⁷

30. The Chair of the POST Board was keen to develop these relations, stating "I think POST should drive itself much more to the Select Committees."⁶⁸ He continued:⁶⁹

"I see Select Committees as a major component of this place in the scrutiny of the executive and as having much more power. I would like to see in their remit "if there is a scientific component, refer it to POST" as one of the priorities they must do before they make a move on any issue."

It seems to us that POST and Select Committees both wish to achieve closer and more active co-operation. We hope to see this develop. We recognise, however, that POST has to maintain its own balance between this part of its work and its *sui generis* publication process.⁷⁰ It would be unfortunate if one were to be expanded to the detriment of the other. This balance is something we will monitor closely in the future.

ON-LINE CONSULTATIONS

31. The House of Lords Science and Technology Committee's recent report *Science and Society*⁷¹ stated that:

"We look to POST to maintain a watching brief on the development of public consultation and dialogue on science-related issues, and to keep members of both Houses informed."

The Director of POST confirmed that this was a task the Office was happy to undertake, both through conducting consultations itself or (more importantly) acting as "a channel to make Parliament aware of exercises being carried out by other people."⁷²

32. Such consultations are clearly of considerable interest to parliamentarians, as they represent a new opportunity for democratic representatives to listen to their electorate and inform themselves on the issues of the day. This Committee recently conducted an on-line consultation in association with the Hansard Society about Members' use of information technology. We agree with the House of Lords Science and Technology Committee that POST is well placed to monitor developments in this area, which is of considerable interest to Members of both Houses.

Conclusion

33. As the Chair of the POST Board stated to us when giving oral evidence, "Science advances when people work together."⁷³ In developing links between Parliamentarians and the wider scientific community, and complementing the activities of the Libraries of both Houses, POST has proved a success. It is also active in encouraging co-operation with similar organisations internationally, and was a founder member of the European Parliamentary Technology Assessment Network.⁷⁴ We have already recommended that POST should be permanently established within the parliamentary structure. This Committee will maintain its interest in and co-operation with POST, and we accordingly recommend that the Board

⁶⁶ Appendix 3, p. 27.

⁶⁷ Appendix 15, p. 32.

⁶⁸ Q23.

⁶⁹ Q29.

⁷⁰ Q24.

⁷¹ House of Lords Science and Technology Committee, Third Report, Session 1999–2000, *op cit*.

⁷² Q25.

⁷³ Q9.

⁷⁴ POST memorandum, section 8, p. 16.

should produce an annual performance report for our consideration.

SUMMARY OF RECOMMENDATIONS

- (a) We strongly recommend that POST be established on a permanent basis from 1 April 2001 (paragraph 15).
- (b) It should maintain its close working relationship with the Libraries of both Houses and ensure that as activity levels increase the degree of co-ordination with the Libraries reflects this (paragraph 15).
- (c) We recommend that the formula for appointing the POST Board and its operation remain unchanged (paragraph 17).
- (d) We recommend that POST remains part of the Clerk's Department of the House of Commons (paragraph 20).
- (e) We think that there is scope for a review of the style of POST's publications. Modern technology means that more sophisticated desktop publishing techniques are available (paragraph 21).
- (f) As POST is, and should be seen to be, at the cutting edge of new technology, it is important that its website reflects this. There is a review underway of the design of the parliamentary site, which we would hope POST could contribute to, and benefit from. We also hope that there will be further 'e-reports' published in due course (paragraph 23).
- (g) Although matters of staffing are strictly for the House authorities, we note with approval the suggestion of the House of Commons Library that:

"If the additional posts ... were to be approved, there might be advantages for both the Library (especially the Science and Environment Section but possibly other research sections) and POST in exchanges of staff between the two organisations."

When giving oral evidence to us, the Director of POST recognised the positive benefits such exchanges might bring, and continued that in time a "three way interchange" could develop between POST, the Library and Select Committee staff. We think this deserves further investigation by the POST Board, the House of Commons Library and the Clerk's Department (paragraph 27).

- (h) It seems to us that POST and Select Committees both wish to achieve closer and more active co-operation. We hope to see this develop. We recognise, however, that POST has to maintain its own balance between this part of its work and its *sui generis* publication process. It would be unfortunate if one were to be expanded to the detriment of the other. This balance is something we will monitor closely in the future (paragraph 30).
- (i) We agree with the House of Lords Science and Technology Committee that POST is well placed to monitor developments in the area of on-line consultations, which is of considerable interest to Members of both Houses (paragraph 32).
- (j) We have already recommended that POST should be permanently established within the parliamentary structure. This Committee will maintain its interest in and co-operation with POST, and we accordingly recommend that the Board should produce an annual performance report for our consideration (paragraph 33).

MINUTES OF PROCEEDINGS RELATING TO THE REPORT

MONDAY 17 JULY 2000

Members present:

Mr Richard Allan (in the Chair)

Mr Ian Bruce
Mr Tim Collins
Mr Michael Connarty

Mr Neil Gerrard
Mr Andrew Miller
Mr Ian Stewart

* * * * *

The Committee deliberated.

Draft Report [The Future of the Parliamentary Office of Science and Technology], proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 33 read and agreed to.

Resolved, That the Report be the First Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

Ordered, That the provisions of Standing Order No. 134 (Select Committees (reports)) be applied to the Report.

Several papers were ordered to be appended to the Minutes of Evidence.

Ordered, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House.—(*The Chairman.*)

* * * * *

[Adjourned till Monday 30 October at half-past Four o'clock.]

LIST OF WITNESSES

Monday 3 July 2000

Dr Ian Gibson MP, Chair of the POST Board
 Lord Flowers FRS, Vice-Chair of the Board
 Professor David Cope, Director of POST

LIST OF MEMORANDA INCLUDED IN THE MINUTES OF EVIDENCE

Page

Memorandum submitted by the Board of the Parliamentary Office of Science and Technology	11
--	----

LIST OF APPENDICES TO THE MINUTES OF EVIDENCE

Memoranda submitted by:

<i>Appendix</i>	<i>Page</i>
1. House of Commons Library	26
2. Letter from the Chairman of the Social Security Committee	27
3. Letter from the Chairman of the Committee of Public Accounts	27
4. Letter from the Chairman of the Trade and Industry Committee	27
5. Letter from the Chairman of the Scottish Affairs Committee	28
6. Letter from the Chairman of the House of Lords Science and Technology Committee	28
7. Letter from the Chairman of the House of Commons Science and Technology Committee	29
8. Letter from the Chairman of the Catering Committee	31
9. Letter from the Chairman of the Welsh Affairs Committee	31
10. Letter from the Chairman of the Culture, Media and Sport Committee	31
11. Letter from the Chairman of the European Scrutiny Committee	31
12. Letter from the Chairman of the Defence Committee	31
13. Letter from Mrs Teresa Gorman MP	32
14. Letter from the Chairman of the Northern Ireland Affairs Committee	32
15. Letter from the Chairman of the Environmental Audit Committee	32
16. Letter from Tony McWalter MP	33

MINUTES OF EVIDENCE

TAKEN BEFORE THE INFORMATION COMMITTEE

MONDAY 3 JULY 2000

Members present:

Mr Richard Allan, in the Chair

Mr Tim Collins
Mr Andrew Miller

Mr Ian Stewart

Examination of Witnesses

DR IAN GIBSON, a Member of the House, Chair of POST Board, LORD FLOWERS FRS, a Member of the House of Lords, attending by leave of that House, Vice-Chair of POST Board, and PROFESSOR DAVID COPE, Director of POST, examined.

Chairman

1. If we are settled in, can I welcome you to the Committee today. We are a little light due to a strange combination of foreign visits and other responsibilities that Members have. Hopefully we will get everything on the record to contribute to the investigation and inquiry that we are carrying out at the moment. I do not know if you want to say a few opening remarks before we start in with the questions we have got.

(*Dr Gibson*) Obviously it is a pleasure to be here and we are really fortunate to be asked. As you know, we are a temporary organisation to some extent. We have worked very hard, I think everybody in the unit, to deliver, and it has been well received by many people who have spoken to me. So it is a good chance for us to elaborate our ideas and to be cross-questioned by you and perhaps develop new initiatives. Thank you.

Chairman: Thank you. I think Andrew Miller is going to start off.

Mr Miller

2. Gentlemen, as you know I was a member of the POST Board in the previous Parliament and party to the decision that brought you on to your current status from your previous status. What practical advantages would result from POST being established on a permanent basis?

(*Dr Gibson*) Could I say that I think it is quite clear now that science and technology have featured much more prominently, over the last few years anyway, in terms of major issues where Parliament has to make legislation and decisions. One thinks of BSE, one thinks of GMOs and informed information being given in a very neutral way, not on a party political basis, to MPs and Members of the House of Lords which informs debates, especially where there is a lot of technical jargon involved. It brings it down to a level that people in the Chamber can understand and that also means that the public too have access to these debates. I think that is going to continue. If one looks at the biological revolution heralded, of course, last week by the human genome project, and you have therapeutic cloning and Dolly's babies and all these things happening now in physics and

chemistry, and new discoveries coming along, I think there is going to be a need for that kind of informed information being given in the way that we have, I think, very brilliantly done in the past. That is due very much to a very brilliant staff, I think, who are very educated in science and who understand the issues and spend a lot of time going out from this place to talk to other scientists, both in this country and abroad, which I just think brings a lot of credit not just to POST but to Parliament, indeed, in the way it can have those informed debates.

Chairman

3. Following that up, in terms of the change in status, would your facilities be enhanced by being permanent rather than temporary? Would another five year renewal of your licence to operate, as it were, have disadvantages that permanency would not have?

(*Dr Gibson*) No. I think both would be tolerable in the sense that it is always good to have to justify existence. Nevertheless, given the argument that I have just put forward that science and technology are going to be around for a long time, that gives confidence to the staff and the people we can recruit into that unit who normally are younger people who require some kind of stability in their lives, not least mortgages and so on, which I think is something that as a Parliament we should be considering. The people we do employ to provide this kind of information should have some kind of stability in life rather than short term contracts because that does make you edgy if every few years, whether it be three years, one year or five years, you are edgy about whether or not you are going to be there in the next five years. I think given that science and information, getting it together does take time, you cannot just always run off reports on science and technology overnight, you do need to have a staff who have that confidence who can penetrate the journals and talk to people and that may take a year in some cases. It would be unfortunate if their morale was destroyed in any way by having an impermanency in their jobs. There are other models, of course, in other countries which I have not fully investigated but David Cope, of course, as Director, has, where it is now developing in other countries too. We exchange information

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Chairman Cont]

with sister organisations. You will know the United States did have a permanent organisation until party politics got in the way and that is why we are determined to make sure this is not a party political set up. It has to be seen as neutral. I think POST over the years has never ever hit the headlines and been accused of partisanship, not like some organisations, for example like the BBC who can never quite maintain that neutrality. It is a real compliment that an organisation like POST has maintained that over its years of existence. That takes a lot of doing I think.

(*Lord Flowers*) Could I add one point. As seen from the outside, POST's operations are very much operations in collaboration with the scientific community generally. That is where its information comes from, its information does not come from books and periodicals so much, it does come from that. It comes from talking to people and getting people in the laboratories and elsewhere throughout the country looking to see what they can contribute, what answers they can give to our questions and so on. The reputation of POST, the status of POST, has grown very considerably in the last few years due to that process. I think the outside world might find it rather difficult to understand why a body that had so established itself in their minds at any rate is not getting indefinite continuation at this time.

4. Just following on, at the beginning of that last contribution you mentioned the idea of reporting back and being scrutinised. If you were to be made permanent what suggestions would you have for your future reporting back if it is not to be through the cycle of renewal? If you got the permanency how then do you propose reporting back to the House on your activities?

(*Dr Gibson*) I will just say something and then pass it to David Cope, the Director. There is peer review of the documents which go out, not just within the structures of POST and its attendant board but in terms of the scientific community outside. One mistake in science relegates you to the third division for evermore, so peer review is absolutely essential. The facts you give out and interpretation of facts or so-called facts has got to be absolutely accurate. That is why the documentation is peer reviewed and there is an assessment.

5. Can I just clarify, I was thinking in terms of reporting back on value for money. The Library give us an annual performance review, other people do, rather than accuracy of the document.

(*Dr Gibson*) Sure.

(*Professor Cope*) Yes. Can I add my views on the previous question which relates to this. There are some quite definite administrative problems which arise from the current circumstances. I will give you two examples. At the moment, as you will know, there is a plan for the relocation of various facilities, including the entire Clerk's Department, which follows on from the new accommodation that has been developed in Portcullis House. There is uncertainty obviously about us because it is not known whether they will need to plan for our accommodation, that is unfortunate. The House of Commons operates on a three yearly staff planning cycle and, again, there is uncertainty. We have put in a bid to the management review team which has been

accepted for a modest expansion in staff but there is uncertainty again over that. I think those are the sorts of things which make the day to day running of the office not insuperable but just more complicated than it needs to be, it would be better if they were not something the Director had to address his or her attention to. As regards the form of scrutiny that exists were we to become permanent, at least in the short term, Chairman, I envisage that would be the same as would apply, say, to the operation of any particular Select Committee and the staff thereof. The scrutiny would come partly, of course, from the fact we have a Board which is analogous to the Members of the Select Committee and also from the operation of the normal review processes of the Clerk's Department in the House of Commons which we are attached to for administrative purposes.

Mr Collins

6. You have indicated that broadly speaking you are happy with the way POST is structured at the moment but some people have indicated they thought perhaps POST should be relocated permanently and clearly within the Department of the Library. Is that an approach that has any advantages?

(*Professor Cope*) This is a question that came up when POST was initially adopted officially by Parliament and came up at the second review. I think I observe several things. One, we have been within the Clerk's Department for nine years now and that arrangement seems to have operated quite satisfactorily; indeed it has operated quite warmly, if I can use those words, certainly in the two years I have been Director. That arrangement was chosen originally because it was felt to encourage the development of close liaison between POST and the Select Committees. There is a sort of caucus, if you like, or group of Select Committees that we interact with particularly strongly. You can probably guess which they are. We interact with a very wide range of Select Committees. As our Vice-Chairman, Lord Flowers, has already indicated, I think our work takes a different form from that of the service of the Library which is primarily directed towards the requirements of the individual Member and very often, of course, the interests which arise from his or her constituents. There is the additional fact, Chairman, that we are, of course, an institution in both Houses which is a very valuable thing to us and in a certain sense sends a very strong signal, very unusually, that we are such an institution. It is only, in a sense, for administrative purposes that we have to be attached to any one particular base and the most logical base, for the reasons I have said, has been the Clerk's Department. I think for all those reasons it has worked well, it has built up a very close relationship with a particular support function which occupies a fair proportion of our time, and I suspect in the future an increasing proportion. It signals, if you like, a particular analytical relationship, a symbiosis. It is, in fact, the optimum arrangement.

(*Lord Flowers*) Could I add a point to that. POST does, of course, work closely with the Libraries, both Libraries. Indeed, in some cases inquiries come in which POST does not attempt to answer and it is

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Collins Cont]

quite clear that it is better for the Library to answer because what is required is a literature search and that sort of thing. I could try to explain that POST's work is conducted in quite a different way. It is a way that involves close interaction with the scientific community at large in a working fashion. This is not something that a library normally does. I would say that POST's place inside the Library structure would not be right, although it certainly should have warm relations with the Library.

7. Thank you for that. Could I just put back to you a comment that was made to us by the Chairman of one of the Select Committees which I think is relevant to this. He said: "I do not feel that POST has marketed itself internally sufficiently aggressively so far, nor is it clear to me how the service it offers differs from that of the Library research division or complements it." The point that Chairman went on to make was that he and his Committee are not prime consumers of POST material, he freely acknowledged that, but do you not feel that maybe location within the Library is not the right answer to that problem? Do you not feel there is an issue that needs to be addressed on how the work of POST can be made more clearly evident to people who are Chairmen of important Select Committees so that they are not uncertain as to what you do, how it is different from what the Library does, and so to address this question of the internal market, which is a rather crude phrase but nonetheless I think we all understand what it means, and it is quite important that a senior Chairman of the Select Committee feels, as this one did, that perhaps this is an issue that needs to be addressed?

(Dr Gibson) I will start that off, if you like. I think that is a fair criticism. In answer to it, first of all, when you have got a temporary position in the House, as it were, then you do feel rather sensitive about pushing your luck too hard and marketing yourself too brilliantly. There is nothing to stop that happening and we have discussed it. I have urged the Director to do more of that but with this episode in POST's existence, coming up for assessment, we have held back from doing it. There is no doubt that we could do a lot more and push it, and many Select Committees come to us now, the problem is the staffing we have got only allows so much work. As far as I am concerned, I am quite a hard man really about assessing if they are working hard enough but they have an immense amount of work to do and if every Select Committee asked us to do something there would be a waiting time and we have not had to do that yet. There is a balance. If you want every Select Committee to be serviced then I think going with that there would need to be an increase in staff numbers. For example, I think POST is very poor at medicinal matters, as it were, we tend to be scientific and technological. There are many things happening in medicine, many new treatments, cancers, radiotherapies and this sort of thing, we try to address some of them but we do not make a big effort because we have not got the resources. If we had a staffer who was able to look at all the medicinal changes, and there are reams and reams of things coming out of websites all the time, we would be able, for example, to give a Select Committee like Health much more support. I am not sure which Select

Committee it was but we could do a lot more although going with that we need more support and service.

(Lord Flowers) Internal marketing, if I may say so, Chairman, can also be counterproductive if you overdo it. I well remember a few years ago, when we were making the case for the continuation of the Science and Technology Committee and its Sub-Committees, a number of Members of the House, not those associated with the Committee itself, saying "these scientists are always at it".

(Dr Gibson) I hope so.

Chairman

8. At what?

(Lord Flowers) Of course we were but you could be too aggressive and get people's backs up.

(Professor Cope) Could I add, Chairman, I do not know if I am at liberty to reveal which Select Committee that was but clearly it is an important one. It operates in an area where we actually have done a modest amount of work in the past but I would be the first to admit it is one where we ought to be doing more. It is an area in which it is particularly difficult to get expertise, partly because a lot of the expertise is classified, although we do have ways around that through the point our Chairman has made that we develop a close personal dialogue with researchers, but it is also an area where people can get very lucrative jobs outside, to be quite blunt. We do actually have a planned initiative to try to strengthen our capacity in that area collaborating with one of the external learned societies. It is not in the bag yet but I hope that we will have that fairly soon. I could well see in the next couple of years us doing a lot more work on topics such as theatre missile defence systems and so on. We would accept the criticism that we have not marketed ourselves to those particular interests, we recognise that and we are doing what we can within the resources we have got to try to strengthen our activity in that area. We planned it before I saw that comment by that particular Select Committee.

(Dr Gibson) Could I just add to that, we do have many younger people who want to come and work with us through the summer vacation who have just left university to gain experience. We do not pay for them as such. They will help produce a POST report. I have always argued, and the Director always thinks I am over the top on this, at public meetings that we could have three times the number of staff there and produce huge volumes of work for many people. That has been the limitation. We have had many, many young people come to us. We have three or four people every summer who come in and work and get experience, take the word out of POST, go back into their scientific technology committees or wherever they end up working and I think it does POST a lot of credit that they have had that experience. That is extra work on the current staff because they have to look after them and guide them and so on through parliamentary procedures. We do take on extra work to try to educate and help develop science outside the place. We could do that if Select Committees came to us but we would need some support of that nature. We do address it. We have a

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Chairman Cont]

report this summer coming out with somebody from the British Psychological Society who worked with us and developed a paper. That was an addition. That is because POST has a great name in the community and young scientists recognise it is a way of getting into the job market outside.

9. Let us accept for the time being Lord Flowers' comment that the nature of research that is undertaken is different from that which is undertaken in the Library, and I personally do accept that. Nevertheless, it is the case that there are some highly qualified scientific personnel in the Library. Would it not perhaps improve your resource problem if you were part of the Library and could perhaps in a different mode operate shared resources with the Library? If that is not the case how do you intend to develop and improve your co-ordination and co-operation with Libraries of both Houses? I say that as somebody who is very keen on seeing proper integrated services in a sensible management structure in this curious place.

(*Professor Cope*) Chairman, I think the answer to that, as I indicated before, is that this was something that in their wisdom the people who first discussed the creation of POST were alerted to. They set up a mechanism whereby the Library or the Librarian, through the Head of the Science and Environment Section of the Library, is represented on POST's Board. Beyond that your predecessors, of course, indicated that they wished there to be a very close interaction between the Department and POST to ensure that there was no duplication and to seek, as far as possible, complementarity. We have pursued that to the letter, as I think the evidence you have received indicates. There are regular meetings, and the Librarian's representative is a regular attendee at the POST Board meetings. I think the mechanism for ensuring there is no duplication is well in place and operating well. Could there be any added value, any complementarity to build on that, some positive interaction? Yes, there could be and, in fact, very recently I had some discussions with the Librarian about the idea of interchanging of staff. It struck me, coming as an outsider to this place rather late in my career perhaps, as slightly quaint, the extent to which there was this separation of function. I know the Library have exchanged staff on secondment into some Committee functions. It could be we will get a three way interchange. I think that will help to build both the relationship and the complementarity and also the recognition of the distinct functions of ourselves, the Committees and Clerks thereof and the Library function. I think we are well on our way to building on that.

(*Dr Gibson*) Can I just say in my experience here, fairly active in the scientific and technological field through various Committees, I am very, very much in favour of interaction between the different Committees and different sources. I would like to see them working together because science advances when people work together and—I use the word—spin off each other and share ideas, and that would be very welcome. I think it has been early days in the scientific and technological advance in this House. I think it has moved on in the last three years quite dramatically, the interest right across the scientific board. It is very, very apt and I think we are

examining new structures at the minute on how we can keep it going. Also, in terms of interaction between the two Houses, I think it is great we end up at the same conferences together from both Houses. There is a whole scientific mix in this place that needs some kind of unity to get it together.

Chairman**10. Lord Flowers?**

(*Lord Flowers*) I would not say that it would be impossible for POST to work in some sense as part of the Library, all things are possible if you try hard enough. The work is of a different nature, and I have tried to describe that already. It is in particular associated with the outside world, which in a sense the Library perhaps is not. This is particularly shown by the fact that we have a Board in charge of POST and the Board contains members from outside Parliament on it as well as Members from both Houses. I think that is a very important feature of POST which would have to be continued. How natural that would be within the Library, I am not at all sure.

Mr Stewart

11. In fact, Lord Flowers has just answered my question. I want to just extend that. My apologies for being late, Chairman. Lord Flowers, what you are actually saying is that the Board of POST is a social partnership, it is not a wholly parliamentarian led Board, is that right? You have external people.

(*Lord Flowers*) It has external members, yes.

12. I hear your rationale why that social partnership approach makes a difference in relation to the Library. Would it not also make a difference in relation to your being housed within the Clerk's Department? Would that not also be unique in itself? I am not saying by the way that I disagree, I am quite intrigued by a social partnership approach.

(*Lord Flowers*) I was a bit startled by the use of the phrase "social partnership". It is a few external members on a Board consisting otherwise of Members of both Houses. These external members have contacts with the outside scientific community. You asked whether it fits naturally within the Clerk's activities, yes, it does because I suppose they have grown used to it. I am not saying it would be impossible for the Library to do similarly. We have a system that is working very well now and if one is seriously proposing to change it into something where it does not fit naturally and might not for quite some years, I think harm might result. There are rude ways of putting it but if there is no need to make a change, why do so?

(*Dr Gibson*) There is another model, of course, that you may have considered, that is it is completely self-standing on its own. We have never thought of that because historically it has been a fight to keep it going, to build these relationships, to get people interested and that takes a lot of time. We have never ever thought that it should be self-standing because you would have to start thinking then about resourcing it and giving it space and how self-standing would it be without the contacts with other operations in a very complex environment in this

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Stewart Cont]

place. It is very good that it has relationships with somebody in this place because they keep us informed of what is happening in other quarters. It is initially how things happen around here for some of us, as you know, but there definitely has to be a contact with both the Library on that Board and external people and in the Clerk's office. We have them all there. They all come and they can all feed into the equation. I think we gain because of that.

13. Your clear view is that the Board's structure adds significant value to POST and that Board's structure sets in, if you like, an ethos within this which is slightly different from the Library or other departments?

(Lord Flowers) Yes, and there is another point which is that because of the great amount of work that POST does for the Select Committees, being closely associated with the staff of the Select Committees is positively useful.

(Dr Gibson) Also the external people will invite members of the Board or members of the staff of POST to give talks outside externally to august committees and so on. It has that kind of standing too. In a way it is like an academic department almost, it has that kind of excellence. I would like to put it in the research assessment exercise, it would score five stars, quite clearly, a few more publications.

(Professor Cope) Could I just observe. I think there is an analogy. Before I draw it though I would just like to put on the record the calibre, if you like, of these external advisers. We are talking here about the Chairman of the Royal Commission on Environmental Pollution, the President of the Royal Academy of Engineering, the Director of Research at the Imperial Cancer Research Fund, formerly people like the Rector of Imperial College. They are fairly significant movers and shakers in the field of science. If you like, they are like specialist advisers to a Select Committee writ large, and several have made that analogy. They are coming in, they are giving the benefit of their expertise, they are acting, as my colleagues have suggested, as our external eyes and ears which they do in a very active way. It is quite a unique arrangement within this place but it is, I think, a reflection of the unique interactive nature of science and technology at the cutting edge.

(Dr Gibson) May I also say that since I have been Chairman we have tried to make sure there are more women on the Board as well, particularly younger women who are working at the coal face, as it were, because they are very helpful in bringing up live issues straight from the bench, as it were, so we keep in touch with the real world—whatever that is—but it is certainly a world where science is moving and discoveries are being made, and we are being successful at that.

14. We touched on the resources issue, and that is something which we considered again when thinking about the inquiry, if we move on from governance and look at that. One of the issues that came up when we were thinking proactively, because it was not something that figured large in your submission but certainly came from Committee Members, was the issue about publications and the format of publications, not that there is dissatisfaction with what is coming out but really the Committee was

interested in whether anything could be added to them. If I could quote from another person who put a submission in to us who made extensive comments about POST's excellent work to date but said "There is also a role for POST to take the lead in Parliament embracing new technologies which can be exploited beneficially as it did with its recent on-line consultation on women in science", so there is clearly a recognition there, "but most of the POST output still circulates as black and white POST notes around Parliament". I would be interested to know whether you have any plans to enhance your publications?

(Dr Gibson) We are very ambitious, of course, and it may be much more aggressive than it is. As I said earlier, I would not want to put it on the staff who do all those other functions, that being the kind of person I am I would like to try to get away with. With other staff, yes. There are boundless things POST can still do from what we have learned from other parliaments and in the States, for example. If we are talking about an equivalent department in the States, as I remember it it had about 50 people in it at one time. If you have got 50 people working on science and technology, and that is not going to happen in our lifetimes, I am sure, there are amazing things you could be doing, you could publish really erudite papers in scientific journals and get them appraised and peer reviewed and published as well. You could not do that under the current structure that we have got. The current structure fits the scene at the minute but I think that scene will move on so fast and in four or five years' time POST will have to move ahead too and hopefully Parliament will realise it.

Mr Collins

15. Just talking about the moving on of the scene and also you talk about being at the cutting edge of relationships with the real world. It has been put to me, and this may be entirely outrageous because I have not checked myself, that the POST website includes sections for press releases and e-reports and the most recent dates from December 1998. Could you tell us about your plans to develop the website and how you see it going?

(Professor Cope) Chairman, that is nonsense. All the POST notes, the shorter A4 documents we publish, and summaries of our long reports are on our website and they go on within a matter of days, if not weeks. In fact, sometimes they go on the website before they are issued in printed form. December 1998, no, that person must have logged on to some backwater of cyberspace or gone into a black hole or something where time is reversed. Chairman, we are bound at the speed at which we can develop those electronic means of dissemination by two things. One is the willingness of parliamentarians themselves to embrace that, and it is something which I believe in your role in this Committee, Chairman, you will be only too familiar with, and until there is a significant majority who prefer to receive material in that form then we are bound to deliver in the old black and white and paper form. Black and white and paper because we make use of the Parliamentary Print Unit who give a very rapid and effective turn around of publication but they can only handle monochrome. If we were to go for more jazzy, glossy, colour based

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Collins Cont]

presentations it would delay the publication and lose the timeliness. There is a straightforward trade off in that respect. We are bound also, Chairman, by the speed at which the development of the entire parliamentary website is occurring within that, the Clerk's Department specifically. That said, you can take it that we are, as we have already alluded, exploring every possible use of new technologies, particularly Internet based technologies, to improve not just the delivery of our product but in order to actually make us more accessible and to get more information in. We have actually conducted two such on-line consultations now.

(*Dr Gibson*) Also, can I add that at our last Board meeting one of our researchers presented to us initial plans to develop our website pointing out how much time it would take for one person to do that and how that limited what could be put on. Our missions are curtailed by that kind of criteria. We are discussing furthering our website and putting other information on there. I do not know exactly how many hits there are on it but I know that newspapers use it a lot to get information and then reinterpret it.

(*Lord Flowers*) If POST rises to the challenge of the *Science in Society* report, which you have referred to yourself, this will mean that it will have to do something about being conversant with public consultation and public perception of scientific issues and so on. That is almost bound to require interactive Internet work, questionnaires or whatever with selected members of the public. I think that will quite rapidly develop the use of information technology.

16. Who does your IT work at the moment, the website and things, is it done by a department of the House?

(*Professor Cope*) It is done by our IT adviser primarily who is one of the three specialist advisers I have. She also has physical sciences more generally in her remit. In collaboration with the staff primarily of the Clerk's Department but also with the PCD more generally.

Mr Miller

17. Moving on to the question of staffing application that you have referred to House authorities, what real difference will that make to POST's work so far as we, the Members, are concerned? Can I just preface that by saying it is all very well for Dr Gibson as a previous Dean of a faculty to be measuring things by the number of erudite papers he gets into financial, sorry I mean science papers.

(*Dr Gibson*) Financial too!

18. But I am interested in the difference an increased staff complement is going to make to servicing the needs of Members of Parliament of both Houses?

(*Professor Cope*) To put it in a nutshell, Chairman, if you are reasonably satisfied with the calibre and the accessibility of the material that you receive now, then more staff will enable us to deliver more of that. In a sense there is no limit to what we could do. Issues which have a science and technological component to them are ubiquitous now. This is recognised in

virtually every profession. I heard one of the leading FCO diplomats saying that all their work now had some dimension of science and technology. Pensions policy, for example, will have a technological dimension to it about the possible means of delivery of pensions electronically and the proportion of the population of certain ages who are able to receive pensions in that way and so on and so forth. It is ubiquitous. There is no limit to what we could deliver except the number of staff we have to actually work. If we were to get the two new staff that initially we have made a bid for they would first of all work in the areas that our Chairman has already indicated where we are particularly limited on, which is health and medicine, and, secondly, in the area of information technology, the two main topics which have gone rocketing up the parliamentary agenda in the past ten years, as we have demonstrated. So you get more high-calibre material addressing specific issues of direct concern.

(*Lord Flowers*) God help me, I have been on the Select Committee for Science and Technology of the House of Lords for 20 years, with short intervals when I was not. In the old days we really did select subjects for study by the interest of the members present, and precious little else, and it was a question of licking your finger and sticking it up in the air as to which were the interesting topics. Now we are making much more use of POST to help us choose, out of the many subjects that have been proposed by ourselves and by other peers, and indeed from outside, to try to survey the various fields rather more definitely, and they help us enormously in choosing the subjects we shall eventually study and then of course they help us with the topics we have chosen. But POST does not have the staff to go into all these topics. It can only go into the ones that seem reasonably hot. I would very much welcome it if we had a few more staff to help with this sifting out process. This is just one example where a bit more staffing, not a lot, covering different subjects which they do not have at the moment would be of enormous value.

(*Dr Gibson*) At the POST Board we will have 20 or 30 subjects that people have put forward which are generally agreed to be big issues and are going to hit the headlines just down the line and we have got to sift them in terms of staff and have three or four of them picked out. It is not easy to decide that this is more important than astrology, or whatever it is. We try to pick out what the issues are going to be that will be helpful in debates in the Chamber so that means the parliamentarians there have got to be quick on their feet and see what is coming and where science is going to implode on the debate.

Chairman

19. What about the general resources that are available? You have talked about staffing as a separate issue in your paper. How do you broadly manage it within the overall POST budget and will you be looking at other increases? For example, if you have extra researchers presumably you will do extra publications and that budget would have to be uplifted?

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Chairman Cont]

(*Professor Cope*) Yes, Chairman, in the budgetary planning procedures we have indicated that certain heads of expenditure—as you say, the cost of printing publications, a modest increase in the amount of travel because the interface process, which my colleagues have talked about, does require people to get out and about to labs and research institutes and so on—will increase and that has all been taken care of and prorated in the financial estimates in the Clerk's Department.

(*Dr Gibson*) There is an international dimension too. I would insist that young researchers have the opportunity to advance their ideas in an international arena. It is nice that they get once or twice invited. Some actually win Winston Churchill Fellowships, which shows you the excellence, so it does not cost anything, but even so I would like to see a budget for sending every researcher to an international conference at least once every two years. That is what happened in the universities and it certainly gives them a feel for where they sit in the knowledge game and gives them an opportunity to show off their talents on an international stage if they give a talk, and they should not go without giving a talk. It is very, very important for the credibility not only of POST but of this Parliament that we have a service like that that is able to talk to scientists at their level as well as MPs at their GCSE level.

(*Lord Flowers*) And it does not cost much.

20. Can you do you that within existing budgets at the moment?

(*Professor Cope*) We do have a provision which primarily is taken up with the fact that twice a year there is an overseas meeting. As you may know, there is an association of the European equivalents of POST which are attached to most of the major European parliaments and to the European Parliament itself, the EU Parliament, and it is growing all the time and we participate in their meetings, the planning meeting and an open conference session, and then there is a small amount of modest activity. I would also like to point out, Chairman, that this external representation of Parliament, which is written into our original brief, is not primarily conducted through academic journals although we have had a paper in *Nature*. An example I have in front of me is a new issue of a fairly glossy journal on science parks and the whole concept of clusters and so on. That has an article written by one of my advisers and myself to emphasise the fact that POST is fully up to date with specific issues which are of concern to the wider scientific community.

Mr Miller

21. Yes, but you are publishing articles like that. Dr Gibson wants to send young researchers all over the world, which is very commendable especially given his background, but we are talking about a Parliament where the understanding of science is very limited. How is this Committee, if it supports your recommendation, going to convince Parliament that these are justified expenditures and necessary expenditures in the context of the work that is done for Parliament?

(*Professor Cope*) I think it is fairly simple to answer that question. To the extent that people go abroad, and I must emphasise it is not particularly great—

(*Dr Gibson*) It is not like MPs!

(*Professor Cope*) That is not for me to say, Chairman!

(*Dr Gibson*) I can say it!

(*Professor Cope*) They go to interact with our colleagues in sister organisations in other Parliaments to understand how they are operating. In some ways they are operating better than we are. In other ways they look to us as being one of the organisations of longer standing. Then that is brought back into the work that we do for this Parliament. To take a specific example, Dr Gibson has already alluded to the fact that one of our staff won a Winston Churchill Fellowship. He went abroad specifically to study how other such organisations are handling this important question of public participation and brought back that experience which is fed directly into the House of Lords' *Science and Society* Report, and it is acknowledged there, and he helped to organise their study missions to those specific countries. So all our work in that respect is focussed specifically on understanding how other Parliaments do it and if they do it better than we can, how we might emulate them. With regards to the publication of a journal like this, which is a spin-off from a piece of work we have done already and occupied a very, very trivial amount of our total time, our remit does require us to demonstrate that Parliament had the wisdom to believe that it needed our service in the first place and we feel that one way of doing that is to show that we have conducted a piece of work which is relevant to a growing area of interest about this, we have informed parliamentarians about that, and here is a precis of it so you, the wider world, can know what we have told parliamentarians.

(*Dr Gibson*) We also co-host conferences in the House here with other organisations on issues like brownfield sites where the input from using decontaminated land came from a report we did so we were able to bring in other people as well and communicate with parliamentarians. Whether they choose to come is up to them, but the information is there and it is definitely couched in a language they can understand. I think that was really the point you are making, the high-flying language has to be dumbed down, as it were, to a language that they can understand. I think our researchers are brilliant at that because they are writing reports in those terms for Members of Parliament. Then the information from how other countries do things feeds into these reports. There is one particular excellent report on how come the Americans got away with developing GMOs without much public backlash. One of our researchers produced a report which was exceptionally important for debates in the House in terms of the public's understanding of science.

(*Lord Flowers*) Part of the answer must be that we are working at the cutting edge of the topics we are trying to deal with. In order to do that you cannot do it as a desk job. You have to get out and about with the people who are actually doing these things. Going to the occasional meeting—

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Miller Cont]

(Dr Gibson) I do not want to give the impression that this is a daily or weekly thing; it is once every two years. All I am saying here is I think from my experience it should be more than that to bring that function to the House.

Chairman: Can we move on then to your future role. The Committee was quite interested in getting an idea from you as to how you intend to develop and, in particular, looking at the kinds of roles you have because there are many, many different roles. Tim?

Mr Collins

22. Can I very briefly return to one thing we talked about before just to put this point on record. I have had put in front of me a print-out from the Internet of today, 3 July, of the press release page. We are only talking about the press release page from the POST web site. It is clear from here that there are press releases, the most recent one is December 1998 and at the bottom of the press release page it says "last up-dated 19 November" 1999.

(Professor Cope) We do not automatically put out press releases for everything we do partly because, to put it bluntly, to take the point the previous questioner made, we focus our work very much on the requirements of parliamentarians and the press very often are not particularly interested, to be honest, because we are trying to point out areas of consensus where there are agreed views and it is not manna to the press, who are looking for discord and all the opposite. So we do not put a great deal of emphasis on press releases but if you go to the web site for the specific bread and butter of our work you will find that is totally up to date.

23. We have reached a consensus on that point. Moving on and developing a point Mr Miller was making, because I think this is quite important, in terms of the balance of what you see POST doing in the future, you say in your memorandum that you can, broadly speaking, put POST output into five categories: technology assessment; POSTnotes; work for Select Committees; seminars and other meetings organised for the benefit of parliamentarians; new forms of analysis and dissemination, such as Internet-based consultation procedures. Just developing Mr Miller's point for a moment, would not part of the answer to the perception (which I am sure he is right to identify) that POST needs to be very clearly focussed on servicing parliamentarians in order to justify public money put into it, to address within those five the highest of the five categories and priorities and should not that highest priority be the work with Select Committees? We have already quoted some of the comments from Chairmen of Select Committees. If I can throw two further comments at you. One Chairman said links between the Board and the Liaison Committee might be established. Another one said, "I would like to see POST become even more attuned to the needs of individual departmental Select Committees." Without questioning the importance of any of the other things you have talked about in terms of the way POST is regarded very highly within the broader scientific community and the quality of research work and recognition given in the process of peer

review, when we talked about this rather earlier in our session this afternoon, I do not want to caricature or distort what was being said but I detected a slight element of a feeling that perhaps servicing each individual Select Committee not only would require greater resources but perhaps might displace other work which you felt at the moment should be given a higher priority. Would it not help us all around to say while you will be doing other things that working with and for Select Committees would be amongst your highest priorities?

(Dr Gibson) Could I answer that as a member of the Science and Technology Select Committee? I would certainly like to think that that was going to happen and there would be more of that. You know how Select Committees can work. You have external advisers who drive what kind of information is needed, who the witnesses might be, and so on. I do not see POST's role as determining who the witnesses should be. To some extent we sit there ready to serve if the Select Committee asks and the Select Committee has many, many outlets for getting its information and does not always see POST as a way to get that particular information, but that is changing very rapidly because I think POST has now established itself as a professional organisation that can provide that. You talked earlier about aggressiveness. I think POST should drive itself much more to the Select Committees, as you said somebody had indicated would be a good thing to do.

24. When Select Committees start inquiries into virtually any topic under the sun—and we heard earlier that increasingly every topic under the sun has a scientific and technological dimension to it—you made the point that you may feel you need to wait until a Select Committee comes to you, a Select Committee will almost invariably put out a request to interested organisations for written or oral evidence. How frequently does POST feel it is within its bailiwick to respond? Do you respond intermittently? Do you respond most times? Do you feel you could respond more frequently? Could we get to a position where POST as a matter of course made a response?

(Dr Gibson) I think it is because of the sensitivity of POST and its nature that it has been rather less than proactive in certain areas because it is a temporary organisation in a way, it is feeling its way into the system. That is my personal feeling, that it is not an automatic thing that happens on the Science and Technology Committee. David may have another route without putting it in writing, that he talks to the clerk of the Select Committee. Does that happen, David?

(Professor Cope) Indeed, to be quite honest, Chairman, if a Select Committee had put out a call for evidence which contained a major component of a scientific or technological nature and we were not fully aware of that already and indeed had not had discussions with the clerk and maybe consulted about who they might appoint as specialist advisers, I would consider it a failing on our part. When I said science and technology was ubiquitous, there are elements of virtually any Select Committee's interest that will have a technological component, but it may not dominate. Certainly if there is a dominant theme,

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Collins Cont]

we will know about it. In the paper we submitted we indicated ways in which in every process of a Select Committee, as Lord Flowers has already indicated, from cogitating what it might do through to reviewing drafts of Select Committee reports, we have assisted Select Committees. As to the balance of our work between that and our own *sui generis* publication programme, that is a difficult one, to be quite honest, Mr Chairman. We are attracted by both functions. We have a remit to act in a proactive way and to try to identify those topics we believe will come on the parliamentary agenda before they do, no better example incidentally than GMOs which we got spot on well before the public and parliamentary interest developed. So we fulfil that through our own publication programme. It would be difficult for us to do that if we were working solely in that first stage responsive mode to a Select Committee or set of Select Committees, much as we enjoy doing the Select Committee work, and much as it is appreciated, as you have seen from the evidence. I like to think in the future we will maintain this balance that the Board has indicated in the paper. It will probably move to a certain degree towards doing more work with Select Committees but not exclusively so that we maintain our own *sui generis* publication process.

(Dr Gibson) In my experience in all the Select Committee inquiries we have done there has been a POST report already done. POST moves quicker than Select Committees and there is a continuity between individuals too. There is a plan in some of our heads that the organisations will be doing similar things because those are the big scientific issues that are coming up or just around the corner.

Chairman

25. Can I ask you about the *Science and Society* Report referred to earlier, and really the whole question of consultation. There seem to be two strands to that as well as a new area. One is the *Science and Society* Report which said, "We look at POST to maintain a watching brief on the development of public consultation and a dialogue on science-related issues and keep members of both Houses informed." They were also looking to expand your brief into public consultation where you have not previously been and we would be interested in your response to that. The other side of it is whether you do it pro-actively. I have already referred to the consultation you have done on women and science. It seems to me there are two potentially large areas of work, one you consult for Parliament and the other is you monitor others' consultation on behalf of Parliament. How do you feel about both those roles?

(Professor Cope) The two consultations that we have done so far, Chairman—the other one was in the context of the Data Protection Bill—have been related to particular pieces of work that our Board had identified and they have felt we should conduct and they were particularly well-suited to this form of on-line consultation. On the one hand, it was to get together a group of experts because it was a fairly erudite debate about the balance between privacy and information exchange. In the other case, it was a much more inclusive and outreaching exercise to try

and get to as many professional female, and male for that matter, scientists in this country as we possibly could. We got 250 responses which is pretty good going for this sort of thing. They lend themselves well to that and in the right future circumstances we might do that again, but I think the dominant role would be to act as a channel to make Parliament aware of exercises being carried out by other people.

26. Do you see yourselves as able to do that within the current resources of POST?

(Professor Cope) Yes, Chairman, because obviously it is something which has been growing over the past few years and we were doing anyway, to be quite frank. We have been involved in the advisory committee in both the two national consensus conferences and both of those occurred before the report came out.

Mr Miller

27. Just commenting on that if I may. It just seemed to me that one of those areas was not exactly in the mainstream of your remit, the Data Protection Act. It seems to me that that is hardly a matter of pure science and it was an "after the event" consultation anyway and post all the work that was done by the European Informatics Market and other groups within the House. I just question, first of all, how in your current planning process you manage to lock into that one. My second question then is thinking of the future. Given your comments about Select Committees, how do you see the Select Committees sitting as a priority in terms of your future planning process?

(Professor Cope) Chairman, the very first on-line consultation that we did was conducted primarily as an experiment to see how that sort of thing worked for us. You are correct on the timing, it was after the passage of the Bill and, incidentally, I should explain we have collaborated in all our exercises to date with the Hansard Society. We targeted it on the question related to the implementation of the Bill. As regards the balance, I think my view—and of course I am subject to the guidance of the Board here—is that at this stage it is difficult to say. We do not know how the overall thrust of Select Committees in the next Parliament will emerge. We do not know—somebody has already mentioned this—how the evolution of a concept of a support function through the Liaison Committee is going to be handled. So to some extent I think we have to wait and see and be as alert and responsive as we have been to date. I honestly think that the role with Select Committees will increase, particularly if that Liaison Committee recommendation comes to fruition. Although initially it may be concerned with the financial side, I think the concept of a central support function for Select Committees to improve the scrutiny function of this place will become very much a driving force that will influence us along with many other organisations.

28. Finally, there might be a secondary function in terms of other departments of the House. I know Dr Gibson and I would agree on this point, that the Catering Department took a fairly wild swipe at the whole issue of genetically modified organisms and so

3 July 2000]

DR IAN GIBSON MP, LORD FLOWERS FRS
AND PROFESSOR DAVID COPE

[Continued]

[Mr Miller Cont]

on. Do you see yourself as having a function in potentially advising other departments such as the Refreshment Department or PCD?

(Professor Cope) They did request our report on genetically modified foods before they reached—

29. And then ignored it.

(Professor Cope)—Before they reached their conclusion. That is not for me to comment on, Mr Chairman! We have acted as guinea pigs, I think our report makes it clear, to PCD in certain experiments with a view to computers and other information technology equipment within the House. As you can see, we are still here so as guinea pigs we have survived. I would not have thought that that would occupy, to be quite frank, a major part of our activity but we are there to assist. We have had discussion with the Parliamentary Broadcasting Unit about the implications of digital TV and so on. I think it is an element which might occupy five or ten per cent of our time focussing on the inward surfaces of this place and it can be fun as well sometimes, but I think primarily our role would be to service the more mainstream and central functions of this place.

(Dr Gibson) David is much, much quieter about the whole issue than I am. I see Select Committees as a major component of this place in the scrutiny of the executive and as having much more power. I would like to see in their remit "if there is a scientific component, refer it to POST" as one of the priorities they must do before they make a move on any issue. I would like even the Cabinet Office to do that. I do not know where government gets its information on science from but it makes some dreadful mistakes sometimes. POST has not made any mistakes so far and I would be very ambitious for POST to be given the right resourcing and asking for a commitment on the scientific issues involved, just as much as any advisory committee where people are being pulled off the street to sit in an advisory committee who do not have that feeling for Parliament and how the system works. I think POST is and will be very much part of the parliamentary system and could actually feed into the process not just by invitation but by right really. That is my ambition for POST.

Mr Collins

30. Perhaps I can throw in a final question from me. Gentlemen, you may have seen yesterday on *Breakfast with Frost* the British leader of our end of the human genome project saying that he believed the responsibility of scientists was to explore the frontiers of knowledge and it was the responsibility of politicians, democratically accountable, to decide how that knowledge should be employed. On the other hand, you may be aware of the exchange in the

Kim Stanley Robinson's novel, *Antarctica*, in which one character says to another that scientists rule the world rather than politicians because politicians do not understand what is going on and scientists tell them, all the scientific crises that are happening are those by which they should be judged and how the solutions should come up. Which do you think is closer to the truth?

(Dr Gibson) I think scientists can come over as arrogant sometimes and I think some of them did over the GMO debate. I remember well the scientists in Norwich who were doing the work saying, "There is no need for us to tell the public about it. It is good for them," and so on. That has back-fired on them and I think they have learnt some lessons. I think science is limited in what it can say in any public debate. It is not the total answer to everything but it can be a major component. There are political and socio-economic events just as important to feed into it and political decisions have to be made. Science in itself does not always provide the 100 per cent answer in the legislation and I think scientists have to be aware of that. They have got to feed in what they know and they have got to be non-arrogant enough to say, "There are things we do not know and we are going to stand up honestly and not prevaricate and say, 'We don't know the answer to this'," as in the GMO debate at the minute. "We have got to have the right to find out. You have got to give us the money to do it. It is your job to legislate on the basis of information we can give you, limited as it might be."

Chairman

31. If there are no further questions, I would thank you for coming here today and just say on behalf of the Committee here how much the Committee in general appreciates POST's work. I would like to thank yourselves and the staff of POST for all that you do to, hopefully, keep members of this place informed. I know other members feel the same way. We will to that end try and complete our report as quickly as possible, having heard very loudly your comments about not wishing to keep the uncertainty going any longer because of your staff responsibilities. Our aim is to finish it, subject to us achieving quorums at our meetings, by the summer recess. Certainly that is the intention and we will of course let you know if there is any slippage in that. Our intention is to get it done by the summer recess.

(Dr Gibson) Thank you and your Committee very much indeed for giving us a hearing and asking us really penetrating questions which we are very glad to have had the opportunity to answer. Thank you very much.

APPENDICES TO THE MINUTES OF EVIDENCE

Memorandum by the Board of the Parliamentary Office of Science and Technology (POST)

1. INTRODUCTION

1.1 1999 saw the 10th anniversary of the creation of the Parliamentary Office of Science and Technology (POST). POST began operating in 1989 as a demonstration project, constituted as a charitable foundation. Following an inquiry by the House of Commons Information Committee¹ during 1992, both Houses of Parliament decided to establish POST as an internal office of Parliament, funded from the Parliamentary vote, from 1 April 1993. A short chronology of POST's history is given in Annex 1.

1.2 Initially supported for a three year period, POST's operations were again reviewed by the Commons Information Committee towards the end of this period, in 1995². The Committee observed:

... we are of the opinion that Parliament will continue to need the benefit of expertise and advice on scientific and technological matters for the foreseeable future. We expect however that the Committee or one of its successors will wish to review how this important aspect of Parliamentary responsibility will be arranged, bearing in mind the perception in some quarters that Parliament has not been well-informed in this area in the past.

1.3 It went on to recommend that:

... the current funding arrangements for POST should continue until 31 March 2001 (ie five years from the expiry of the current funding arrangements) and should be reviewed by us or our successors towards the end of that period.

The Committee noted that it:

believes a further review of POST's operations would be of value before its permanent establishment is considered.

1.4 This memorandum sets out the suggestions of the Board of POST for consideration by the Information Committee should it wish to act on the proposal of its predecessor.

2. POST: GENERAL MANAGEMENT

2.1 *The Board*

2.1.1 Members of the House of Commons: 10, of which one is appointed by the House of Commons Science and Technology Select Committee, two by the House of Commons Information Committee and seven by the Whips.

Members of the House of Lords: four, increased from three in 1999 to reflect better the funding ratio for POST between the Commons and Lords. One member is appointed to represent the Lords Library and Computers Committee.

Non-Parliamentary Members: four, appointed by Parliamentary Members of the Board, drawing on recommendations put forward by the Associate Parliamentary Group, the Parliamentary and Scientific Committee.

Ex-officio Members: three, the Director of POST, a representative of the Clerk of the House of Commons and a representative of the Librarian of the House of Commons.

2.1.2 The Board, which meets four to five times annually, fulfils the following roles:

- deciding priorities in POST's work programme, drawing on suggestions from individual MPs and Peers, Board Members and the Director, discussed both at Board meetings and by consultations between the Chairman, Members and the Director, outside of Board meetings;
- reviewing all POST's publication drafts before they are supplied to Parliamentarians and others; and
- deciding general matters of policy.

2.1.3 The past and current membership of the Board is given in Annex 2.

¹ House of Commons, Session 1991-92. First Report of the Information Committee, The Parliamentary Office of Science and Technology, HC 235, HMSO.

² House of Commons, Session 1994-95. First Report of the Information Committee, The Parliamentary Office of Science and Technology, HC 578, HMSO.

2.2 Resources and Staffing

2.2.1 The level of staffing at POST remains the same as that when it was officially incorporated into Parliament in 1993; the Director, three full time Scientific Advisers (each responsible for a broad science and technology area) and a Secretary. Details of past and current staff and their responsibilities are given in Annex 3. POST augments its staff capacity by various secondment, "stagiere" and similar schemes, discussed in Section 9.

2.2.2 The running costs of POST are currently shared between the House of Commons and the House of Lords in the ratio 70:30. Actual expenditures incurred against budgets for the financial years 1998–9 and 1999/2000 are given in Table 2.1.

Table 2.1

POST: BUDGETS AND ACTUAL EXPENDITURE, FINANCIAL YEARS 1998–99 AND 1999–2000
(ROUNDED TO £00s)

Expenditure/(Income)	1998–99		1999–2000	
	Budget	Actual	Budget	Actual
Sales of publications to non-Parliamentarians	(9,000)	(11,900) ¹	(6,000)	(5,200)
Reimbursement from House of Lords	(46,000)	(41,500)	(61,800)	(58,000)
Salaries and related items	193,000	171,400 ²	185,700	177,600 ²
Consultancy	2,000	2,000	14,000 ³	14,100
UK Travel, subsistence and conferences	2,500	1,100	2,500	2,000
Overseas travel, subsistence and conferences	3,000	2,700	3,000	3,000
Printing of large reports	12,300	5,900 ⁴	12,300	— ⁴

Notes to table:

¹ Largely due to exceptional demand for reports on Genetically Modified Foods and on "Safer Eating".

² Shortfall against budget arises from extended period of staff shortage.

³ Budget under this heading increased to compensate for situation in note 2 above.

⁴ During these periods, production of large reports substituted by other activities not incurring external printing costs.

2.3 Organisational Responsibility

2.3.1 POST's organisational arrangements remain those established by the House of Commons Commission in December 1992. POST is located within the Department of the Clerk of the House. The Director reports to the Clerk of Domestic Committees.

2.3.2 Since February 1994, POST has been accommodated on the Parliamentary Estate, at 7 Millbank, occupying three rooms on the sixth and seventh floors. This location gives the office close access to the staff of Commons Select Committees, most of whom are also in the same building. It also provides the office with support facilities.

2.3.3 POST's offices are equipped with state-of-the-art computer facilities, linked to the Parliamentary network. Over the past two years, POST has collaborated with the Clerk's Department computer support service to test various computer support systems prior to their being installed more generally within the Department.

3. POST ACTIVITIES, 1996–2000

3.1 Introduction

3.1.1 POST's output can be classified into five broad categories:

- detailed "technology assessment";
- analyses of emerging or topical issues, called POSTnotes, typically two to eight pages long;
- a wide range of activities to assist Select Committees in both Houses;
- seminars and other meetings organised for the benefit of Parliamentarians;
- new forms of analysis and dissemination, such as internet-based consultation procedures.

3.2 *Priorities*

3.2.1 The 1994-95 Information Committee report made no specific recommendations regarding the balance of effort put into the activities listed in 3.1.1. The two last listed categories were not a feature of POST work at that time. More recently, POST has increased its effort devoted to such additional forms of diversification. To avoid any possibility of overlap between POST's shorter "note" type publications and the briefings produced by the House of Commons Library, there are regular discussions between the Director and the Library representatives on POST's Board (outside of Board meetings).

3.3 *POST Printed Publications*

3.3.1 A most important point to emphasise is that all POST publications are externally refereed by competent outside individuals and organisations prior to publication. They are also seen in draft by all Board members.

3.3.2 POST has continued to produce "POSTnote" briefings. As it noted at the time of the 1994-95 inquiry, these shorter format publications make its work more accessible to a wider range of individual members of both Houses. The longer technology assessments are of value to Parliamentarians with more specialised interests or, in some cases, to Committees in the course of an inquiry (see below). In fact, in response to a perceived need felt by the POST Board, within the last year POST has produced two page briefings (eg on synchrotrons). These have been intended to inform Parliamentarians as rapidly as possible about the factual background of scientific and technological issues with immediate policy relevance.

3.3.3 POST has also developed a policy, suggested by its Board, sometimes to "spin-off" shorter briefings during the course of a longer investigation, so that information on discrete components of the overall study can be made available to Parliamentarians as expeditiously as possible. Details of POST publications in the period since the last Information Committee report are given in Annex 4.

3.3.4 POST's longer reports are sold to non-Parliamentarians through the Parliamentary Bookshop. There is also a subscription service for receipt of all publications by external organisations. This produces a return that accrues to Parliament in general, not to POST. This has totalled £34,000 since the financial year 1996-97. POST publications are often quoted in external sources, such as the daily and specialist press, official government documents and academic papers.

3.3.5 As well as being published conventionally, all "POSTnotes" and summaries of longer reports (and increasingly, complete reports) are published on POST's web pages, which are an integral part of Parliament's web site. Some specialist documents are published only in electronic form on the web site.

3.4 *Work for Select Committees*

3.4.1 Work for Select Committees in both Houses has increased substantially, especially in recent years and contributes to parliamentary scrutiny of government. This work encompasses a wide range of Committees and is by no means restricted to the Science and Technology Committees that exist in both Houses, although obviously POST has a close relationship with these. The work is detailed in Annex 5 and falls into one or more categories:

- Discussions with Committee Members and staff regarding potential subjects for inquiry, sometimes with production of short analyses to assist Committees in determining whether to begin a particular inquiry.
- Production of technology assessments to provide a comprehensive factual base before a Committee begins an inquiry. Committees may refer to these in their call for evidence, to avoid receiving large amounts of material covering the same matter.
- Initial briefings (written and/or oral) to Committees as they begin an inquiry.
- Assistance in drawing up terms of reference/calls for evidence for inquiries.
- Advice to Members and staff on the selection of Specialist Advisers for an inquiry.
- Suggestions on whom to approach to give oral evidence.
- Assistance in framing questions for witnesses giving oral evidence.
- Assistance in assessing material submitted in response to calls for evidence.
- Conducting of specific pieces of work alongside, or in conjunction with, a Committee during the course of an inquiry.
- Examination of Committee draft reports to ensure their comprehensiveness and currency as regards scientific content.
- Membership of appointments boards for Committee Specialist Assistants.
- Miscellaneous requests for information and support.

3.4.2 In addition to the specific assistance detailed above, reports prepared by POST in the general context of its work have proved useful to Committees that have subsequently decided to investigate the same or a

related subject area. POST has regarded this as a demonstration of its effectiveness in acting as the "eyes and ears" of Parliament in the field of science, engineering medicine and technology, thereby ensuring that independent scientific material was available in advance of a subject rising up the Parliamentary agenda.

3.4.3 A distinctive example of this was the use of POST's report on Genetically Modified Foods by the House of Commons Catering Committee in determining House policy regarding these foodstuffs in Parliamentary refreshment facilities. This particular report was also consulted by several other Committees.

3.5 Parliamentary Seminars

3.5.1 In recent years, POST has also organised several meetings within, or close to, the Palace of Westminster. In the majority of cases, these have had as their subject either the results of a newly-produced report, or a matter on which the Office was working at the time. Others have concerned subjects that provide a wider context for the work of POST. Details of recent and forthcoming seminars are given in Annex 6.

3.6 New Forms of Consultation and Analysis

3.6.1 It is a measure of the pace of technological and policy change that the earlier Information Committee reports gave no consideration to the impact of new technologies on POST's work. The Board has encouraged the Office to explore the potential of such developments. This has been done in two main areas:

- use of the internet in extending POST's interaction with external sources of information;
- responding to the growing interest in "public consultation" procedures in science and technology policy.

3.6.2 To date, POST has conducted two internet exercises—an initial experiment on Data Protection Procedures in 1998³ and a full-scale exercise on Women in Science, Engineering and Technology in 1999⁴. The latter was run with the encouragement of the House of Lords Science and Technology Committee during the course of its recently-published inquiry into *Science and Society*⁵.

3.6.3 The Board has felt it desirable for POST to inform Parliament on the rapid development of interest in public consultation procedures in science and technology policy. This has been driven by various well-known examples of public concern in fields such as biotechnology and energy policy.

3.6.4 The identification of this area as one to which POST could usefully give some attention has very recently been endorsed by the House of Lords Select Committee on Science and Technology which, in its *Science and Society* report has made the following observation:

... we look to the Parliamentary Office of Science and Technology (POST) to maintain a watching brief on the development of public consultation and dialogue on science-related issues, and to keep members of both Houses of Parliament informed.

4. THE NATURE OF POST'S WORK

4.1 The 1994-95 Information Committee report⁶, in an observation quoted on page one of this note, acknowledged that there was at least a perception that Parliament has not been well-informed in the science and technology areas in the past. In the 10 years since POST was created, the amount of attention devoted by Parliament to science and technology issues has increased markedly. Recent research conducted at POST has attempted to quantify this and is appended to this report as Annex 7.

4.2 POST's founding remit is to clarify policy issues arising from the increasing role of science and technology in modern society that Parliamentarians have to address. Dealing with such matters presents difficulties in disentangling fact from opinion, in understanding the implications of complex technical information and concepts, and, in particular, in handling the uncertainty inherent in these issues. POST's Parliamentary founders saw a need for Parliament to be able to undertake impartial assessments of the scientific and technological background to these important issues.

4.3 Such "technology assessments" need to:

- Interpret, analyse and anticipate technological issues of interest to Parliament.
- Set out the facts and identify where agreements and disagreements exist on issues.
- Assure objectivity, and relevance to the Parliamentary process.
- Analyse the interactions between policy and the scientific and technological developments concerned.

³ *Data Protection—an online discussion* (published electronically on POST's web site)—report E-1, Dec 1998.

⁴ *Women in Science, Engineering and Technology—an online consultation*, POST 133, Jan 2000.

⁵ House of Lords Select Committee on *Science and Technology*, Session 1999-2000, 3rd Report, *Science and Society*, HL Paper 38, Feb. 2000.

⁶ House of Commons, Session 1994-95. *First Report of the Information Committee, The Parliamentary Office of Science and Technology*, HC 578, HMSO.

- Discuss potential options for Parliamentary action or encouragement and their ramifications
- Contribute to the effectiveness and credibility of the Parliamentary process by enabling legislators to be better informed.

These objectives permeate all POST's work, whether a short briefing or a longer report.

4.4 For the first three years of its existence, POST relied exclusively on funding, and also received close support, from the UK and wider science and engineering community. While the financial support provided has not been required after POST was incorporated into the Parliamentary system, the willingness to offer advice, information and expertise in addressing objectively issues in science and technology has not only continued but increased.

4.5 It is the Board's opinion that the objectives of POST's work can be achieved only by an independent office within Parliament under the direction of a Board. The Board provides guidance to the Office on issues of importance to Parliament as a whole and to Members individually, and enjoys excellent links with the science and engineering community. Any attempt to pursue these objectives from outside would reduce the service's relevance to Parliament and undermine the independence that stems from being an integral part of the legislature. On the other hand, to attempt analyses without the deep and active involvement of the science and engineering communities would reduce the benefits of access to the huge wealth of knowledge potentially available. Without permanent staff able to build up expertise, studies would lack the originality and insight which offer concise analysis in an age of informed overload.

5. WORKING WITH THE LIBRARIES

5.1 Some of the discussion at earlier Information Committee examinations of POST's output concerned the desire to avoid any duplication between its work and that of the Science and Environment Section of the House of Commons Library. As noted above, the head of this section is a member of POST's board, representing the Librarian. There is regular contact between the Library representative and the Director of POST.

5.2 There is now some eight years' experience in operating this liaison system. The Board of POST suggests that any risks of duplication of effort have thereby been completely avoided and that, provided the same level of liaison is maintained, this should remain the case for the foreseeable future.

5.3 Co-operation with the Libraries (including the House of Lords Library) also extends to them displaying stocks of all POST's shorter publications (POSTnotes, short reports and report summaries). In this way, Parliamentarians who are not on POST's regular mailing list may access the material. Over the years, this has caused a number of Parliamentarians to request to be placed on the regular list.

6. THE VALUE OF POST TO PARLIAMENT

6.1 POST's Board is constantly trying to assess the value that the office gives to Parliament. This also will be of prime interest to the Committee. This value can be measured in a number of ways.

6.2 From its original establishment, POST has not sought to provide its material routinely to all Parliamentarians but has offered them the opportunity actively to receive it. For example, after a general election, all MPs receive an invitation to request receipt of POST material, as do all victors of by-elections and all peers on appointment. As a result of these approaches, at present 214 MPs and 154⁷ peers are on POST's regular mailing list. This compares with 176 individuals from both Houses who were on the list at the time when POST was established in Parliament in 1993.

6.3 POST routinely scans Hansard for members who have signed relevant Early Day Motions or have put down Parliamentary Questions with a science and technology component. If the MP or peer concerned is not a regular subscriber to POST publications, he or she is provided with a copy of the relevant publication and invited to join the mailing list.

6.4 Members and peers sometimes also e-mail or write to POST, requesting advice or commenting on its service. With MPs, this often relates to a matter originating from a constituent.

6.5 Specific mention of POST material and activities also occurs in both Houses of Parliament, in debates, in Parliamentary Questions and in committee discussions and reports⁸. It is more difficult to measure where individual Parliamentarians have used POST material as background briefing or to inform constituents without directly communicating this to the office.

⁷ At the end of 1999, the number of peers receiving POST material dropped by 42 as a result of the disestablishment of the hereditary peerage.

⁸ See, for example, Hansard, 13/5/1999, cols 463-4 and 9/2/2000, col 254.

6.6 Another channel for assistance from POST to members of both Houses is through the various All Party and Parliamentary Associate Groups. Many have interests in scientific, technical and medical matters. POST participates in many of their activities, often providing copies of its publications, advice on speakers or other forms of information⁹.

7. POST AND THE WORLD OUTSIDE PARLIAMENT

7.1 POST's primary responsibility is to inform Parliamentarians about science and technology issues but it also makes its material available, on its web site and in printed form, to the wider world, including operating a subscription service. This helps to discharge another function that Parliament has placed on it—to demonstrate that Parliament has taken the initiative to create and use the service that POST provides to it.

7.2 To further this end, Board members and staff of POST make frequent public presentations, either about the specific work of POST, often set in the context of science and technology in Parliament more generally, or about specific subjects, frequently those which have been recently investigated by the Office. For instance, POST Board members and staff have contributed to the recent annual Science Week events.

7.3 Another way in which POST establishes an image of Parliamentary science and technology competence externally is through the numerous fact-finding missions to UK research establishments, industrial facilities, etc that are usually conducted in the course of a project.

8. THE SITUATION OVERSEAS

8.1 As Annex 1 indicates, it was awareness of overseas Parliamentary activity in setting up offices similar to POST that originally stimulated calls for the UK's Parliament to equip itself with such an office. Since then, the number of such offices has grown steadily. The precise arrangements by which these offices operate differ from country to country (for example, in two, it is the Parliamentary members of the office's Board themselves who carry out the research). The latest country to set up an office is Norway, last autumn. Other countries are: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands and Switzerland, while there is also an office attached to the European Parliament.

8.2 All these offices collaborate through the European Parliamentary Technology Assessment network—of which POST is a founding member. This encourages cooperation in various forms which feeds into POST's work.

8.3 In comparison with the situation in analogous countries (Denmark, France, Germany and the Netherlands), the staff size and resources of POST are considerably smaller, proportional to number of Parliamentarians served, or to GDP, than the offices in any of these countries.

8.4 Another aspect of international collaboration is that POST receives a considerable number of inward study missions from overseas Parliamentarians and scientists interested in its operations. In recent years, this has been particularly true with countries of the former Eastern European bloc and from East Asia.

9. "EXTERNAL ADDED VALUE"

9.1 We have already considered how POST increasingly has succeeded in involving the external science and engineering community, and other interested parties, in the process of preparing objective analyses for Parliament. This "adding of external value" remains an extremely important part of POST's function and enables it to manage a very high level of output and, at the same time, guarantees the independence of advice received.

9.2 For example, as mentioned, POST insists that all its publications are externally peer reviewed before publication. No payment is made for this service, yet it is extremely unusual for an external expert whom POST approaches as a referee to turn down its request, despite being rather time-consuming. POST has always interpreted this as a measure of the general goodwill extended to Parliament and of its own standing in the eyes of the science and technology community.

9.3 The support on which POST can draw extends beyond the general corpus of scientific and technological knowledge, valuable though this is. POST has been able to establish various cooperative schemes with external organisations such as learned societies and research councils. An example is an arrangement with the British Psychological Society, which every year offers a three-month fellowship to a doctoral student at a UK higher education research institute to work with POST. The current fellow is working on a study to assist the Commons Education sub-committee in an inquiry into Early Years Learning.

9.4 Beyond such formal arrangements, POST receives frequent requests to host volunteer interns, either at postgraduate or undergraduate level. There is never any shortage of high calibre applicants—take-up is

⁹ For example, POST recently briefed a delegation of members of the British American Parliamentary Group before they travelled to the USA to discuss food safety and other biotechnological issues with Congressional opposite numbers and administration staff. It has also assisted in the recent creation of two Parliamentary Groups—the Astronomy and Space Environment and Earth Sciences Groups.

limited only by the availability of workspace and computer facilities. The Personnel department covers the daily commuting costs of such volunteers under its work-experience scheme.

9.5 Another way that POST has been able to add external value is through external participation in Parliamentary seminars. This may go beyond provision of speakers to more material support. For example, the European Commission covered the travel costs of participants in POST's recent seminar on Technologies for Independence in Later Life, thereby ensuring widespread participation.

10. POST IN THE FUTURE

10.1 POST's Board is strongly of the opinion that the amount of attention that Parliament will need to devote to scientific and technological issues in the future is almost certain to increase. As noted, it has grown substantially in the past decade (during which POST's resources have remained static). The intensity of various contributory "drivers"—developments in information technology, biotechnology, medicine and the environment may well even increase. Consequently, the demand for POST's services will grow.

10.2 The Board also suggests that, as a corollary, the expectation that Parliament should demonstrate its competence to handle the legislative and regulatory consequences will also increase. The establishment of POST as a permanent office would be a powerful way of manifesting this, while its demise would send highly inappropriate signals to the scientific community and the public.

10.3 POST is subject to the planning horizons that operate through its incorporation within the Clerk's Department¹⁰. Accommodation space currently constrains expansion. With the reorganisation of the Parliamentary estate after the opening of Portcullis House, this constraint will be relaxed. POST's Board therefore proposes, should Parliamentary support be renewed for the period after March 2001, to seek a modest expansion of the established staff of the office. It is suggesting that two new junior advisers' post be created, one in the field of medicine and public health and the other in the field of information technology, to work under the existing advisers for these subjects.

10.4 POST will, of course, seek other ways to rise to the challenge of the growing impact of science and technology on the legislative and scrutinising roles of Parliament. An example would be direct electronic delivery of information to Parliamentarians.

11. CONCLUSIONS AND SUGGESTIONS

11.1 The Board concludes from the evidence above that POST has fully met the Information Committee's original specification for a science and technology assessment service to address issues of broad interest to Parliamentarians. Its deepening relations with the Select Committees of both Houses have added a new dimension to its services to Parliament.

11.2 The range of POST's activities has grown over the past five years, with no commensurate increase in the modest resources it receives from Parliament. This has been possible because POST has consolidated its close relationship with the external science and engineering community. That community appreciates the significance of POST's role in Parliament over the past decade.

11.3 Over the same time period, there has been a substantial increase in the amount of attention given, within and outside Parliament, to scientific and technological issues. All the indications are that this trend will continue, and may well accelerate, driven by the pace of innovation.

11.4 The existence and current structure of the Board provide POST with a unique identity and an independence. The Board provides an effective mechanism whereby POST can anticipate scientific and technological issues likely to be of concern to Parliamentarians, as well as to respond to issues of more general interest.

11.5 The Board sees as satisfactory the current administrative arrangements within the Clerk's Department. These facilitate complementary working with Select Committees, while at the same time offering the efficiency savings and support services of a larger department.

11.6 Given these circumstances, the Board suggests that, to permit longer term planning, it would now be appropriate to establish POST on the same basis as other services of the two Houses—as a permanent commitment, from 1 April 2001. The operation of the office would, of course, be subject to periodic review by the authorities of both Houses of Parliament, as with any other Parliamentary department.

11.7 The continuing rise in attention given to scientific and technological issues leads the Board to suggest, in due course, a modest expansion in the staffing resources of POST. Two new junior adviser positions should be considered by the appropriate Parliamentary authorities.

11.8 The Board suggests that the current administrative arrangements for POST should continue. This applies both to the linkage of POST to the Clerk's Department and the existence, composition and operation of the Board.

¹⁰ Even external added value sources may require ancillary support (eg computing facilities) from the Department.

A BRIEF HISTORY OF POST

Early 1980s. Rising awareness within the Parliamentary and Scientific Committee of the activities of offices of science and technology or technology assessment in other countries' legislatures.

1984-85. Investigation by MPs of the operation of overseas Parliamentary offices.

1985-86. Discussions within the Parliamentary and Scientific Committee lead to it supporting the establishment of a UK Parliamentary Office of Science and Technology.

1986. Delegation meets the Prime Minister, the Rt Hon. Margaret Thatcher MP to pursue the idea. The Prime Minister accepted the concept, recommending testing of the strength of support by seeking external funding from the scientific community.

1987-88. The Parliament and Scientific Committee decides to proceed with a "demonstration" project and, in July 1988, establishes a charity, the Parliamentary Science and Technology Information Foundation, to support the work.

Early 1989. Director recruited, starting work at POST in April 1989. Board determines overall working patterns of POST.

Summer 1989. Fund raising, including support from foundations and individual Parliamentarians. Scheme for short period secondments at no cost to POST arranged. Candidates come mostly from academia, research councils and government laboratories.

May 1990. Support by the Wellcome Trust allows the first additional scientific staff member to be appointed.

October 1990. Support by the Leverhulme Trust allows the second scientific staff member to be appointed.

1991. Co-operative Fellowship with the UK Centre for Economic and Environmental Development allows the third scientific staff member to be appointed.

March 1991. Initial consideration by the House of Commons Services Committee, which resolved to support the case for Parliamentary funding subject to the results of a questionnaire to MPs and peers.

July 1991. Questionnaire results showed a 4-1 vote in favour of Parliamentary funding of POST, on a return of 239 MPs and 200 Peers.

July 1991. House of Commons Services Committee re-affirms its support of Parliamentary funding of POST.

July 1991. House of Commons Commission notes the support for Parliamentary funding of POST and recommends that the matter be considered in detail by the newly created Information Committee.

Nov. 1991. Information Committee established and commences inquiry, taking both oral and written evidence.

March 1992. Information Committee reports recommending Parliamentary funding of POST for a three year period.

June 1992. House of Commons approves the Information Committee recommendations on POST.

October 1992. House of Lords agrees to support POST.

April 1993. POST established as internal body of Parliament, serving both Houses, administered by the Department of the Clerk of the House of Commons.

February 1994. POST moves to Parliamentary Estate, at 7 Millbank.

June 1995. House of Commons Information Committee considers the performance of POST since its establishment as a body of Parliament and recommends its continuation for at least another five years.

May 1997. General Election, followed by creation of new Board for POST.

April 1998. Second Director of POST appointed.

March 2000. House of Lords Science and Technology Select Committee recommends that POST should assume an additional role in informing Parliament about the development of public consultation and public communication procedures in the field of science and technology.

Annex 2

MEMBERS OF THE BOARD OF POST, JANUARY 1996 TO MARCH 2000

(Current members in bold)

OFFICERS

Chairman Dr Michael Clark FRSC, MP (Chair from Jul 93 to April 97, interim Chair Mar 97 to Jan 98, then as member of Board), **Dr Ian Gibson MP** (Mar 98 onward)

Vice-Chairman Mrs Anne Campbell MP (Vice-Chair from Jul 93 to April 97, interim Vice-Chair March 97 to Jan 98 then as member of Board), **Lord Flowers** (as Vice Chair, Mar 98 onward)

PARLIAMENTARY MEMBERS

House of Lords Lord Dainton FRS (until Dec 97), **The Earl of Erroll** (from Feb 2000), Lord Flowers FRS (member until Jan 98, then Vice Chair Mar 98 on), **Lord Oxburgh** (as Peer from Dec 99 on), Lord Phillips of Ellesmere MBE, FRS (Jan 98 to Nov 98), Lord Renfrew of Kaimsthorn (Jan 98 to Apr 98), Baroness Platt (until Jan 96), Earl of Selborne KBE FRS (from Mar 96 to Dec 97), **Lord Winston** (from Dec 98)

House of Commons **Richard Allan MP** (from Jan 1998), Dr Jeremy Bray MP (until Apr 97, did not stand May 97 Elec.), Mr Spencer Batiste MP (from Mar 95–Apr 97), **Mrs Anne Campbell MP** (from Apr 93 on, also as Vice Chair), **Dr Michael Clark FRSC MP** (from Apr 93 on, also as Chair), **Mr Michael Connarty MP** (from Jan 98 on), Mr Jim Cousins MP (until Apr 97 then interim to Jan 98), **Mr Paul Flynn MP** (from Jan 98), Mr Nigel Jones MP (Mar 94–Apr 97, then interim to Jan 98), **Dr Ashok Kumar MP** (from Jan 98), Mr Andrew Miller MP (until Apr 97, then interim to Jan 98), Sir Trevor Skeet MP (until Apr 97, did not stand May 97 Elec.), **Mrs Caroline Spelman MP** (from Jan 98 on), Dr Robert Spink MP (until Apr 97), **Dr Phyllis Starkey MP** (from Jan 98 on), **Mr Ian Taylor MBE MP** (from Jan 98 on), Mr Patrick Thompson MP (Jan 96–Apr 97, did not stand May 97 Elec.)

Non-Parliamentary Members Sir William Barlow FIMechE, FIEE, FREng (to Nov 99), **Prof. Sir Thomas Blundell FRS** (from Jan 98 on), Sir Roger Elliott FRS (until Dec 97), **Professor John Midwinter OBE, FRS, FREng**, Professor Sir Ronald Oxburgh, KBE, FRS (to Nov 99, then as Peer), **Sir David Davies CBE, FREng, FRS**

EX-OFFICIO MEMBERS

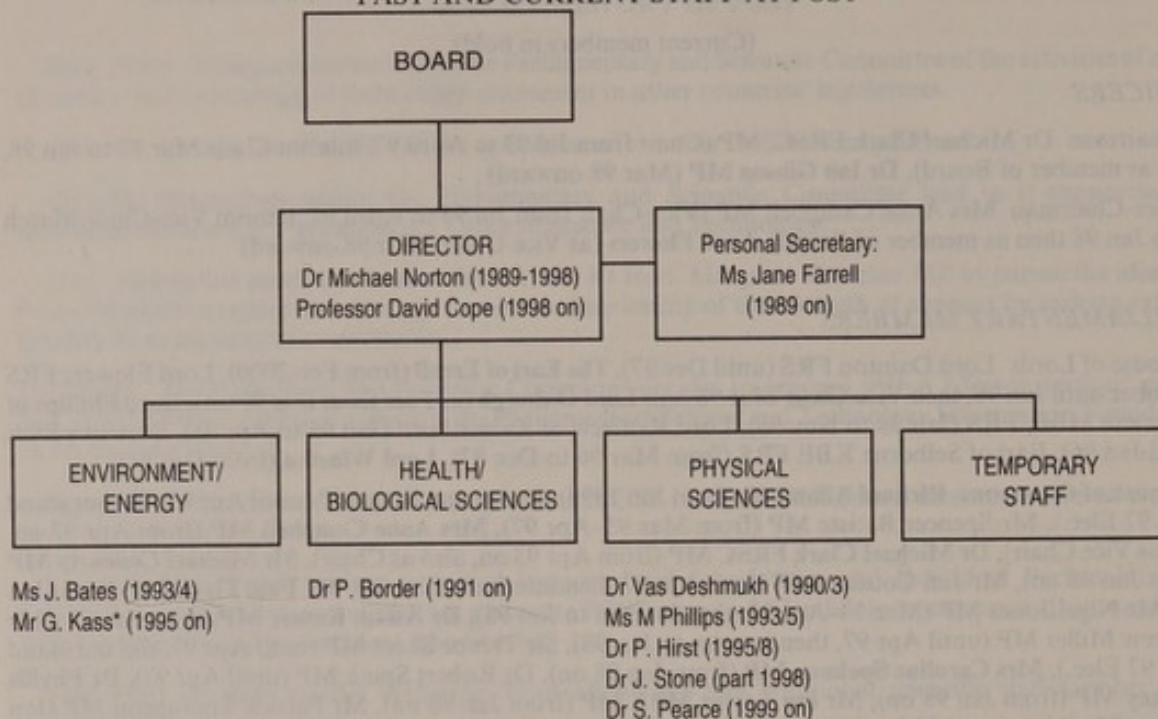
Director Dr Michael Norton (until Apr 98), **Prof. David Cope** (May 98 on)

Clerk of the House (represented by) Mr Robert Wilson (93–95) **Dr Malcolm Jack** (95 on)

Librarian of the House of Commons (represented by) **Mr Christopher Barclay** (93 on)

Annex 3

PAST AND CURRENT STAFF AT POST



*awarded 1999 Winston Churchill Memorial Trust/ Wolfson Foundation Fellowship
on international Parliamentary technology assessment

Annex 4

POST PUBLICATIONS, APRIL 1996 TO DATE

1996

Apr *BSE & CJD—Science, uncertainty and risk (12pp)* Analysed the potential risk of transmission of BSE from cattle to humans, and the emergence of the new variant of Creutzfeld-Jakob disease.

May *Common Illegal Drugs and their Effects (110pp)* Reviewed the proven and potential health impacts of the most common illegal drugs used in the UK, and how often and why they are taken, particularly amongst the young.

Jun *Impacts on Earth from Space* Examined the risk of terrestrial damage from space debris and the available safeguards.

Jun *Safety in Numbers?—risk assessment and environmental protection (60pp)* Looked at the science of risk assessment, the importance of public perception, and how different agencies in the UK government are applying risk assessment—not always consistently.

Jun *Fine Particles and Health (12pp)* Examined the evidence of a statistical link between the levels of particulate air pollution and mortality through respiratory and coronary disease.

Oct *The European Union and Research (73pp)* The Commission spends around £28 each year on R&D under a series of "Framework Programmes". In the context of discussions on FP V, reviewed the history and key policy issues involved.

Oct *Orimulsion and Power Stations* Examined pros and cons of proposals to import orimulsion and burn it at Pembroke power station.

Oct *BSE—cull policies and the disease (12pp)* Looked at the conclusions of research on the impact of different culling options, and the implications for the assessment of human health risk.

Nov *Making it in Miniature—nanotechnology, UK science, and its applications (44pp)* Nanotechnology underpins many areas of technological progress. Examined areas of its applications and at how well equipped the UK science base was to meet current and future challenges.

Nov *Psychological Evaluation and Gun Control (8pp)* Examined the limits of better psychological profiling for applicants for firearm certificates and other technical matters related to the issue of gun control.

Dec *Teaching Science and Maths (12pp)* With increasing numbers of science and maths teachers due to retire in the coming years, it has been proving impossible to fill many current training places. Examined the reasons for this and options to address the problem.

Nov *Computer Systems and the Millennium* Discussed what could be and was being done about the vulnerability of computers' systems to the millennium date change.

1997

Jan *Tunnel Vision?—the future role of tunnels in transport infrastructure (45pp)* Examined why tunnels are not used more, explored the contribution of technological advances and cost reduction, and considered how the advantages of tunnels are incorporated into project cost-benefit analyses.

Jan *Sustainable Development—theory and practice* Reported on perspectives from a meeting of TA agencies to five EU Parliaments, where the practical implementation of sustainable development and the comparative experiences of these Parliaments were discussed.

Feb *Treating Problem Behaviour in Children (8pp)* Ritalin was in the headlines as a means of calming disruptive young schoolchildren. Examined the science of its use and considered the justification of using medicine to treat behaviour.

Feb *Fraud and Computer Data Matching* The government announced plans to merge databases to combat fraud. Examined the technical basis and explored the privacy/Data Protection Act implications.

Feb *Fetal Awareness* Considered at what stage a developing fetus may become aware of its surroundings and feel pain.

Mar *Ecstasy—recent science* Covered recent developments on actual impacts on users.

Mar *Getting Opinion Polls Right* Looked at lessons learnt from the 1992 general election experience and at subsequent changes in practice.

June *Science Shaping the Future?—technology foresight and its impact (70pp)* The Technology Foresight Programme was a flagship of government science policy before May 1997. Comprised a detailed review of Foresight's impacts, and the future role it could play both in science policy and wider developments in society.

Jun *The Millennium Threat—an update* Updated a 1996 POSTnote on the extent to which government departments and industry in the UK were responding to the threat posed by the inability of some computer systems to handle dates correctly after year 2000.

Jun *Striking a Balance—the future of research dual support in higher education (65pp)* Infrastructure provision was considered incapable of supporting the amount of university research taking place. Examined the historic and current operation of the "dual-support system" and options for addressing the current situation against the background of the "Dearing Review".

July *Global Warming—meeting new targets* Looked at the new government target of reducing carbon dioxide emissions by 20 per cent by 2010, and at prevailing emission trends, and considered what might be done to bridge the expected gap.

July *Bacterial Food Poisoning* Gave an overview of current trends in microbiological food poisoning, and discussed the underlying reasons for them.

July *Ozone Layer Depletion and Health* Considered the extent of thinning of the ozone layer and its possible implications of human health.

Oct *BSE and CJD Update (8pp)* Brought together new understandings about the progress of the cattle cull, the demonstration that new variant CJD is BSE in humans, and the views on the possible future course of the epidemic, diagnosis and treatment.

Oct *Safer Eating—microbiological food poisoning and its prevention (80pp)* With microbiological food poisoning on the increase, this report looked at the underlying factors contributing to this—particularly the growth in serious cases due to bacteria such as E.coli O157. The possible contribution of farming practices, abattoir standards and the retail food chain was explored and the implications for the debate over the Food Standards Agency, and its remit, discussed.

Nov *Vitamin B6* Government proposals to place restrictions on the amount of high-dosage vitamin B6 supplements caused much parliamentary reaction. Explored the basis of the regulator's proposals on B6 and why these were challenged.

Nov *Radioactive Waste—where next? (100pp)* The UK's policy on final disposal of radioactive waste was sent back to "square one" when permission was denied for an underground laboratory at Sellafield. Looked at the regulatory requirements for a deep disposal site. Also discussed the implications for the regulatory system if the UK is to succeed in developing a radioactive waste management strategy in the future.

Dec *Gulf War Illness—dealing with the uncertainties (55pp)* Considerable uncertainty existed over the existence of, or causes of, a Gulf War syndrome. Reviewed the scientific evidence and how uncertainties involved interact with policy issues such as compensation.

1998

Jan *Hormone Mimicking Chemicals (8pp)* There were concerns about the possibility of falling human sperm counts, and hormone-related changes in wildlife, which may be due to the effects of certain chemicals. Described these "endocrine disrupters" and the research under way.

Jan *Health Risk and Mobile Phones* As mobile phones have become ever more popular, concerns have been raised over their safety and whether the radio frequencies used might cause cancer. Looked at the evidence.

Feb *Electronic Government—Information technologies and the citizen (100pp)* Examined the possible implications of new information technologies for the way in which government is conducted and its services delivered. Considered the re-organisation of departments, and the possible introduction of electronic communications within the UK and Scottish Parliaments and Welsh Assembly.

Feb *Chemical and Biological Weapons* Looked at Iraq's main remaining chemical and biological weapons, their ease of concealment and how they might react to bombing.

Mar *Electronic Road Charging* Considered current shortcomings of technologies for road pricing and how their improvement could increase the potential role of road charging in future transport policy.

Mar *Cannabis Update* Updated report 79.

April *Internet Commerce—threats and opportunities (8pp)* Examined growth in the Internet for business, encryption, regulation of content and services and potential economic effects.

May *Genetically Modified Foods—benefits and risks, regulation and public acceptance (55pp)* With the acreage under genetically modified crops increasing and GM foods poised to enter the marketplace, discussed a range of issues, including labelling of GM foods, and the environmental impact of changes in agriculture practice.

Jun *A Clean Licence?—graduated vehicle excise duty (8pp)* The March 1998 Budget included proposals for an environmentally-graduated Vehicle Excise Duty (VED) for cars. This fitted with the stated aims of successive governments to use "market mechanisms" to achieve environmental goals. Graduated VED was considered against other options to achieve these aims.

July *A Brown and Pleasant Land—household growth and brownfield sites (66pp)* Reviewed projections of household growth, summarised the data on brownfield site distribution and its potential for use, and set out issues and options for redevelopment of such sites.

July *Anti-HIV Drugs (8pp)* Outlines recent developments in anti-HIV drugs.

Oct *Health Claims and Foods (8pp)* Examined concerns over the ability of the current regulatory framework to cope with new food products for which health claims were being made—so called "functional foods".

Nov *Nuclear Fusion Update* Updated POSTNote 40 (1993). Examined international developments and economic uncertainty about the technology.

Dec *Living in the Greenhouse (59pp)* Reviewed likely effects of climate change in the UK and ways of adapting to them.

Dec *Organophosphates (8pp)* Concern has arisen regarding the potential adverse health effects on people (notably sheep farmers) exposed to low doses over long periods of time. Summarised the current state of research.

Dec *Data Protection—an online discussion* (Published electronically on POST's web site—report E-1) Reports on POST's first online discussion, conducted in collaboration with the Hansard Society. Intended to gather views from relevant stakeholders on the issues surrounding the Data Protection Bill and to explore the use of online discussion, in the context of POST's Feb 1998 report on Electronic Government.

1999

Feb *Meningitis* Outbreaks of meningitis led to Parliamentary concern and calls for a more widespread immunisation programme. Examined the causes of meningitis and the vaccines available.

Mar *Cystic Fibrosis* Summarised recent research into sequencing the human genome, holding out the promise of better understanding, diagnosis and treatment of a wide range of hereditary diseases, CF amongst others.

Mar *Non Food Crops (8pp)* Looked at developments in non-food crops, since POST report 23 "Alternatives in Agriculture" (1995). Covered crops grown for fuels, chemical feedstocks, general industrial purposes (eg fibre), and for cosmetics and pharmaceuticals, but excluded timber, foodstuffs for animal consumption and tobacco.

Apr *Near Earth Objects (16pp)* Recent advances in ground-based, satellite and theoretical astronomy have proved the Solar System's dynamism and complexity and that some of its minor members, called Near

Earth Objects may impact the Earth in the future. Set the results of recent surveys in context, and considered the risks of impacts and potential strategies to avert them.

May *Hormones in Beef (4pp)* EU policy prevents the import of beef treated with hormone growth promoters, which included that from the US and Canada, and this has caused a long-running trade dispute. Looked at the scientific basis of the EU policy and examined the options open to the EU in the light of the World Trade Organisation ruling that the ban violates international trade rules.

July *Marine Science & Technology (20pp)* There is a large potential market for products and services in the marine sector, and growing demand for research on coastal and oceanographic issues. Examined the sector's importance, the current organisation of research and development and strategies that can realise future opportunities.

Oct *GM Threshold for Non-GM Foods (4pp)* Even where manufacturers attempt to exclude GM ingredients from their products, some "accidental contamination" may occur. Reviewed the background to the European Commission's proposed labelling threshold—requiring labelling only where GM content exceeds 1 per cent.

Nov *The Sun and Space Weather (4pp)* Changes in solar activity can have adverse effects on human beings and human activities. This activity is cyclic, with the next peak expected in 2000. Described the factors influencing space weather and examined potential disruptive effects.

Dec *Health Concerns and the MMR Vaccine (4pp)* Examined recent studies that investigated possible health effects in infants receiving Measles, Mumps and Rubella (MMR) vaccine to establish if the vaccine is associated with intestinal complaints and/or behavioural disorders.

Dec *A New UK Synchrotron (4pp)* Synchrotrons are powerful X-ray sources used to probe the structures of materials at the atomic level, with a wide range of applications. The UK has a major Synchrotron Radiation Source at Daresbury in Cheshire. Examined the need for a new UK synchrotron.

2000

Jan *Women in Science, Engineering and Technology—an online consultation (20pp)* POST's second on-line consultation aimed at informing ongoing wider debate about the role of women in SET, and was also designed to test the effectiveness of an e-mail based on-line consultation. (A draft of this report was given in evidence to the House of Lords Science and Technology Committee inquiry into Science and Society.)

Feb *Technologies for Independence in Later Life (8pp)* In the UK, as in other countries, there is an increase in the proportion and total number of older people in the population due to declining birth and mortality rates. One important issue is that of maintaining autonomy and independent living for as long as possible. Explored the technologies currently available to meet the needs of older people, and analysed their accessibility to the end-user.

Mar *Water Efficiency in the Home (4pp)* A key aspect of government policy in managing water demand is to encourage the efficient use of water in the home. Examined techniques for increasing such efficiency.

Apr *Cleaning Up?—stimulating innovation in environmental technology (91pp)* Innovation is the key to success in many areas of technological activity, not least in improving environmental performance. Took the UK process industry and examined options for developing new products while at the same time improving environmental performance.

Apr *Mixed Oxide Nuclear Fuel (MOX) (8pp)* A full scale plant for production of MOX fuel at Sellafield awaits government approval to begin operation. Examined concerns developing during early 2000 about the falsification of data on MOX fuel fabrication and other aspects of the plant's operation.

May *The "Great GM Food Debate"—a survey of media coverage in the first half of 1999* Reports a content analysis of the coverage of genetically modified food issues by a wide selection of UK newspapers and also some broadcast media. Conducted in collaboration with the House of Lords Science and Technology Committee, as part of its inquiry into Science and Society.

May/June *Human Genome Research* Comprehensively examines the significant implications for medicine that will arise from the impending publication of the "draft" human genome. This will lead to a better understanding of how genes are involved in a range of common diseases. This will revolutionise the way that diseases are classified and diagnosed and eventually lead to the development of better treatments.

May/June *Early Years Learning* Research on the development of the brain is often cited by educational specialists arguing for certain early years educational practices. In the USA, educational policies are being evaluated in the light of this work. The report summarises research on brain and child development relevant to early years educational practice.

WORK FOR SELECT COMMITTEES, APRIL 1996 TO DATE

<i>Year</i>	<i>Committee</i>	<i>Item/briefing subject</i>
1996	HOC Sci. & Tech. Home Affairs HOL Sci. & Tech. Environment	16 page analysis of issues in particle physics and astronomy Input on ID card technology Input for their study on low-emission transport Advice on the implications of international trade on environmental standards
	Agriculture, Health, Foreign Affairs	POST report on BSE/CJD
	HOL Sci. and Tech., European Scrutiny	POST report on "The European Union and Research"
	HOC Sci. & Tech.	Report on the Natural Environment Research Council
1997	European Legislation	Review of the scientific basis of the EC's Green Paper on Noise
	European Scrutiny	Nuclear Safety in the former Soviet Union
	Trade and Industry	UK Clean Coal Technology Research
1998	HOL Sci. & Tech. Agriculture	Report on radioactive waste in conjunction with committee staff Presentation covering issues in food safety (in conjunction with the Library staff)
	HOC Sci. & Tech., European Legislation, Environment	Ad hoc advice was provided on a number of issues for these committees
	HOC Sci. & Tech.	POST report "Striking a Balance" relevant to inquiry into the Dearing Report on research funding
	Agriculture	POST report on Food Safety relevant to inquiry into the Foods Standards Agency
	HOC Sci. & Tech.	Long report on "Innovation from the Science & Engineering Base" specifically for this committee
	European Scrutiny	Briefing on European proposals on noise legislation
	Agriculture	Review of the committee's study on Vitamin B6—POST's comments incorporated into their final report
	European Scrutiny	Hazardous Waste Incineration EU Renewable Energy Strategy
	Environment, Transport & Regional Affairs	Redeveloping Brownfield Sites
	Environmental Audit	Energy Efficiency
	HOL Sci. & Tech.	Briefing on Illegal Drugs
1999	HOL Sci. & Tech.	Briefing on Non-Food Crops
	HOL Sci. & Tech.	Briefing in connection with their deliberations on Science and Society
	Northern Ireland Affairs	Short briefing interpreting some Meteorological Office data related to security of electricity supply in the Province
	Trade & Industry	Briefing on alternatives to the government's proposed "Climate Change Levy"
	HOL Sci. & Tech.	At the invitation of the committee the Director and Energy/Environment Adviser briefed members taking part in US and Danish study missions
	Environment, Transport & Regional Affairs	Greenhouse Gas Emissions Projections
	Agriculture	GM Threshold for non-GM Foods
	European Scrutiny	Ambient Air Pollution
	Trade & Industry	Reducing Greenhouse Gas Emissions
	HOL Sci. & Tech.	Evidence and report on "Women in Science" On-line Consultation (with Hansard Society)
	HOL Sci. & Tech.	POSTnote on "A New UK Synchrotron" (No. 132)
2000	European scrutiny	European Limits for Air Pollutants
	Environmental Audit	Domestic water efficiency
	Environment Transport & Regional Affairs	Biodiversity
	Trade & Industry	Advice on preparation of inquiry into UK Space Policy
	Trade & Industry	Mixed Oxide Nuclear Fuel
	Education sub-committee	Examination of research on brain and child development as input to its inquiry into Early Years Learning
	Information	Finding of overseas parliamentary specialists to participate in on-line inquiry into electronic information and Parliament, as well as POST's participation itself.

Annex 6

POST SEMINARS/COLLABORATIVE EVENTS

Date	Event
1998	A half day seminar for Parliamentarians to present the results of the POST report "A Brown and Pleasant Land—household growth and brownfield sites".
1999	Parliamentary seminar on "US Policy on Greenhouse Gas Emission Control", with guest speaker from the US Congressional Research Service. Collaboration with the Associate Parliamentary Astronomy and Space Environment Group to organise a discussion meeting on the subject "Near Earth Objects", linked with publication of the POST report on the subject.
2000	All day Joint Seminar with the European Commission Research Directorate on Independency in Later Life: What are the Research Priorities? Planned: Seminar to present POST report "Cleaning up?" on Environmental Technology in June 2000. Planned: Joint seminar with European Commission Research Directorate on proposed "European Research Area", in July 2000. Planned: Joint seminar with parliamentary mission from the Japanese Diet to discuss the role of legislators in science policy issues. (Postponed from May 2000 because of political uncertainty in Japan), in Autumn 2000.

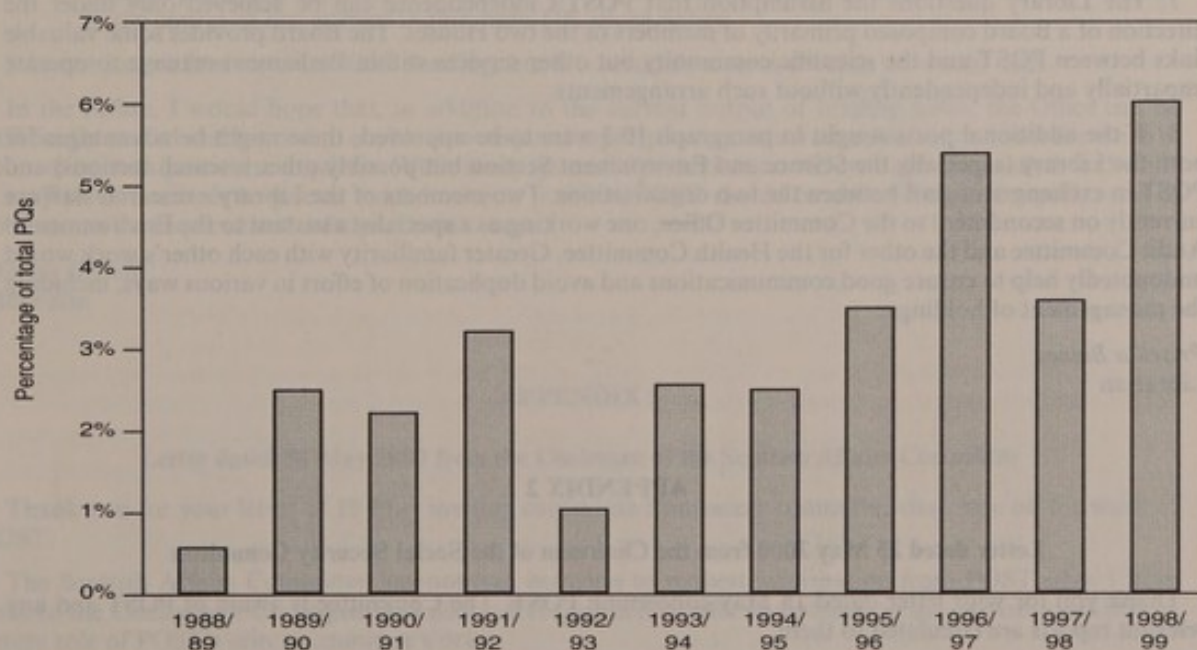
Annex 7

TRENDS IN THE NUMBER OF SCIENCE AND TECHNOLOGY-RELATED QUESTIONS ASKED IN PARLIAMENT OVER THE LAST TEN YEARS

The figure below is taken from research conducted at POST and reported in the leading science journal *Nature*¹¹. It draws on an analysis of 14,459 written, oral and supplementary Parliamentary Questions (PQs), in both Houses, asked over the past decade. PQs classified as related to science were normalised against total numbers of PQs in each session. The results show that the percentage of science and technology related questions has risen from less than 1 per cent in 1988–99 to about 6 per cent in 1998–99. The decline in this trend in the sessions 1992–93 and 1997–98 is attributed to these being election years, reflecting the change in focus of PQs as an election approached.

The main subject areas contributing to this rise in coverage are the life sciences and the environment. The research also examined trends in debates, Early Day Motions and Select Committee Activities.

Science in Parliament
(1989–1999)



¹¹ Science Moves to Centre Stage, A Padilla & I Gibson MP, *Nature*, 403, 357–359, 27 January 2000.

APPENDIX 1

Memorandum dated 5 June 2000 from the House of Commons Library

1. The Library welcomes this opportunity to comment on the paper submitted to the Information Committee by the Board of the Parliamentary Office of Science and Technology (POST). The Library shares POST's view of the importance of providing briefing for parliamentarians on scientific topics and believes that both organisations have a part to play in this.

2. As the paper describes in Part 5, there are long-standing arrangements between the Library's Science and Environment Section and POST for the regular exchange of information about proposed activities, especially publications, to avoid duplication of effort between the two operations. As part of these arrangements, the Librarian is represented on the POST Board by the Head of the Science and Environment Section. Informal contacts have also been maintained between the staff of POST and of the Library, especially the Science and Environment Section.

3. In general, the Library agrees with the POST Board's view in paragraph 5.2 that these arrangements have worked satisfactorily and duplication has been avoided. The Library nevertheless has some concerns about the implications of any future expansion of POST's activities. It is essential for the Library to retain specialist scientific expertise and the capability to prepare longer briefings when required, but a significant expansion on the part of POST would undoubtedly increase the risks of overlap and duplication.

4. Formal meetings between the Director of POST and the Head of the Library's Science and Environment Section, as described in paragraph 3.2.1 of the paper, have in practice been pretty irregular apart from the meetings of the POST Board, although there are more frequent informal exchanges on the telephone. Geography has undoubtedly played a part in this as the two organisations are accommodated at opposite ends of the Parliamentary Estate. Were POST to become more active, formal meetings would almost certainly have to become more frequent and consultation more systematic if duplication of effort and overlap are to continue to be avoided.

5. Paragraph 3.3.1 reflects some important differences between the Library's methods of working and those of POST. The Library's research service relies mainly on published material (increasingly from on-line sources). POST's use of unpublished material and its contacts with scientists elsewhere about work in progress make it very up to date but require that its papers are refereed by outside experts. The Library also aims to provide a range of views on specific issues, cited in the text, while POST aims for a consensus view. In its POSTNOTES, it does not give sources for all the views considered.

6. The Library believes that there is room for both approaches and it would in practice be impossible for the Library to allow for external refereeing within the research service's normal timescales. This applies both to the preparation of the majority of research papers and, *a fortiori*, to responding to Members' individual enquiries, which are often needed within very short deadlines. There is a great deal of evidence that Members value highly the Library's ability to respond to whatever deadlines may be imposed in a very wide range of subject areas. The Library would need to be sure that the efforts to avoid duplication did not result in the creation of "no-go" areas in particular subjects because external refereeing could not happen.

7. The Library questions the assumption that POST's independence can be achieved only under the direction of a Board composed primarily of members of the two Houses. The Board provides some valuable links between POST and the scientific community but other services within Parliament manage to operate impartially and independently without such arrangements.

8. If the additional posts sought in paragraph 10.3 were to be approved, there might be advantages for both the Library (especially the Science and Environment Section but possibly other research sections) and POST in exchanges of staff between the two organisations. Two members of the Library's research staff are currently on secondment to the Committee Office, one working as a specialist assistant to the Environmental Audit Committee and the other for the Health Committee. Greater familiarity with each other's work would undoubtedly help to ensure good communications and avoid duplication of effort in various ways, including the management of holdings.

Priscilla Baines
Librarian

APPENDIX 2

Letter dated 25 May 2000 from the Chairman of the Social Security Committee

Thank you for your letter dated 18 May concerning POST. The Committee is aware of POST and any relevant reports are circulated to them.

Although the Committee has not so far used POST's resources for research, if an appropriate issue arose we would certainly consider doing so.

Having been operational under House financing for some eight years, I believe that the time has come for POST to be established on a permanent basis, with parliamentary funding.

Archy Kirkwood
Chairman

APPENDIX 3

Letter dated 25 May 2000 from the Chairman of the Committee of Public Accounts

Many thanks for your letter of 18 May alerting me to your Committee's inquiry into the future of POST.

As someone with a close interest in scientific and technological issues, I have kept aware of the progress of the Office and have received its reports. They are easily comprehensible and succinct.

I am aware of the tenuous relationship under which POST operated before it was located within and directly funded by Parliament. The current situation must surely allow for better forward planning and more effective service for the House, its Select Committees and Members individually.

For the future, I would see the Office, within the Clerk of the House Department, becoming even more attuned to the needs of individual departmental select committees as well as maintaining a range of topical studies.

David Davis
Chairman

APPENDIX 4

Letter dated 25 May 2000 from the Chairman of the Trade and Industry Committee

Thank you for your letter dated 18 May about POST.

The Committee has made regular use of the services of POST, in various ways, and have found their output professional and well-researched. In the recent past, we have, for example:

- invited POST to contribute to our 1999 inquiry into the impact of the Climate Change Levy on industry, and together identified the experience of our European partners with energy taxes as the most useful area for advice. POST produced a useful paper which we printed as evidence. It helped the Committee in its November 1999 visit to Sweden and the Netherlands where these matters were discussed;
- used the Briefing Note produced on Mox in the course of its BNFL PPP inquiry, on which we published our Report on 25 May;
- used the particular expertise of a member of the POST staff to provide technical advice and expertise in the course of our current inquiry into UK space policy.

I do not have a firm view on POST funding: but it is certainly a service which we would miss.

In the future, I would hope that, in addition to the current output of briefing notes, the Office can be sufficiently staffed and funded to enable it to respond rapidly to requests from select committees for work in connection with particular inquiries. While some system of prioritisation will no doubt be needed, and while it is up to Committees to give as much notice as possible, POST should be able to respond rapidly, and to conform to the requirements of a particular case.

Martin O'Neill
Chairman

APPENDIX 5

Letter dated 30 May 2000 from the Chairman of the Scottish Affairs Committee

Thank you for your letter of 18 May inviting comments from select committee chairmen on the work of POST.

The Scottish Affairs Committee has not had occasion to request information from POST since I have chaired the Committee. Consequently I do not feel qualified to offer an opinion on the current operation or future role of POST's select committee work.

David Marshall
Chairman

APPENDIX 6

Letter dated June 2000 from the Chairman of the House of Lords Science and Technology Committee

RESPONSE TO COMMONS INFORMATION COMMITTEE INQUIRY INTO THE
PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY (POST)

HOW HAS POST OPERATED TO DATE?

Interaction between POST and the Science and Technology Committee of the House of Lords since the last review has developed considerably, and has taken a number of innovative forms. These are listed in the Annex below. In addition, staff of the Committee and POST staff enjoy good relations, and meet frequently on an informal basis to exchange ideas and to discuss work in progress here and elsewhere. Such discussions are particularly valuable when the Committee is exploring possible topics for future inquiry. For example, POST has recently provided assistance before and during the Committee's present inquiry into the Aircraft Cabin Environment, including helping to find an appropriate Specialist Adviser, assembling relevant literature and analysing background data to inform the inquiry. The Committee has always, however, respected POST's independence, and has never sought to direct its programme.

SHOULD POST BE ESTABLISHED ON A PERMANENT BASIS WITH PARLIAMENTARY FUNDING?

We say yes. POST has proved its worth, and should now be put on a permanent footing, subject of course to the right of the two Houses to redirect resources at any time as they see fit. Among other benefits, this would give its staff greater job security than they have enjoyed until now.

The question is bound to arise, whether a permanent POST should remain in its present unique position of a research unit serving both Houses and independent of other parliamentary research resources; or whether it should be absorbed within the traditional parliamentary structure, probably within the Commons Library Research Division.

We consider that there are two essential aspects of POST's operation that must be retained if any changes to its position within the Parliamentary estate are considered. First, POST's relationship with this House and its committees and members should remain unchanged. Second, the structure of a Board of parliamentarians and non-parliamentarians to oversee POST's work programme should be preserved.

Bringing POST within the Library structure might help to avoid duplicating resources and research, and to provide a solid framework for managing POST as a permanent unit. We imagine that in the first instance, maintaining POST's position and Board structure following such a repositioning would constitute challenges to the Library's arrangements. However, if the two conditions outlined above can be guaranteed with POST within the Library structure, it might provide a model for the future development of research resources to serve Parliament as a whole.

HOW MIGHT THE ROLE OF POST DEVELOP IN THE FUTURE?

We expressed a collective view on this question in our recent report *Science and Society* (February 2000): "We look to POST to maintain a watching brief on the development of public consultation and dialogue on science-related issues, and to keep members of both Houses informed. This may have implications for POST's resources, if at the same time POST is to maintain its excellent service of technical briefing, which is of great value to members of both Houses" (para 5.89).

Winston
Chairman

Annex

INTERACTIONS WITH POST 1995-2000

1. By informal agreement, one of the Lords seats on the POST Board is taken by the Chairman of the Committee or his nominee. (Another is nominated by the Library and Computers Sub-Committee.)
2. The Director of POST receives selected Committee papers, and has a standing invitation to attend meetings at which the Committee is to discuss future work. He has accompanied Committee members and staff on visits.
3. The Committee has used POST reports as starting points for inquiries (Nuclear Waste 1998, Non-Food Crops 1999).
4. The Committee's Specialist Assistant has contributed to writing a POST report which was intended to pave the way for a Committee inquiry (Nuclear Waste 1998).
5. A note by Committee staff, updating a previous POST report for the purposes of a Committee inquiry, has been published by POST as a Note (Non-Food Crops 1999).

6. POST has produced a Note updating a previous POST report, at the Committee's request (Cannabis 1998).

7. The Director of POST has given the Committee an informal briefing at the start of an inquiry (Information Superhighway 1995, Cannabis 1998, Non-Food Crops 1999).

8. The Committee and POST have co-funded a research project (Science and Society/Science in the Media 2000). The research fed into a Committee inquiry, and the results were published as a POST report.

9. POST has organised, through the Hansard Society, an Internet dialogue which was related, in both topic and process, to a Committee inquiry (Science & Society/Women in SET 2000). The findings were submitted as evidence to the Committee, and subsequently published by POST.

10. In 1999 a member of POST staff was of great assistance in organising Committee visits to the USA and Denmark. This he was able to do because his receipt of a Churchill Fellowship had enabled him to be based in these countries for a period of time before the Committee visited.

11. In 1994 (before the period under review, but noted here for completeness) a POST Westminster Fellow covered the post of Specialist Assistant to the Committee for three months while the postholder took maternity leave.

APPENDIX 7

Letter dated 3 June 2000 from the Chairman of the House of Commons Science and Technology Committee

Thank you for your letter of 18 May. I appreciate the opportunity to contribute to the Information Committee's inquiry into the future of the Parliamentary Office of Science and Technology (POST). I have been involved with POST since its inception in 1989, not just through my chairmanship of Select Committees, but also serving as the Chairman of the POST Board until the beginning of this Parliament. I remain a member of the Board.

You asked for comments on three issues in particular: how POST has operated to date, whether POST should be established on a permanent basis with Parliamentary funding, and, if so, how the role of POST might be developed in the future. I shall address each of these in turn.

POST has made a significant contribution to the work of Parliament in a number of ways. Both its short briefing notes and longer technology assessment reports provide an invaluable source of readily accessible, reliable and objective information on topical and strategic scientific matters for Parliamentarians and for their Parliamentary staff. In this way, POST's role is complementary to that of the Science and Environment branch of the Library; while the Library responds admirably to requests from individual members and prepares background papers based on a survey of information which is already in the public domain, POST is more proactive, identifying issues which are likely to become of interest and involving scientists and technologists in its peer review processes. This means POST provides Parliamentarians with an understanding of science and technology at the cutting edge which would otherwise be difficult to achieve.

In my experience there are three main ways in which POST assists Select Committees. The first is through the provision of initial background information when a committee is considering which inquiries it should undertake. Although Select Committees can appoint specialist advisers for particular inquiries, it would not be appropriate, nor efficient, for a Committee to appoint advisers before a firm decision to undertake a particular inquiry had been taken. For instance, on a number of occasions during the current Parliament, POST has assisted the staff of my Committee to prepare briefing papers which have outlined possible directions for inquiries, helping the Committee to decide whether or not a particular inquiry should be undertaken, or whether a particular issue should be included in the terms of reference for an inquiry. On occasion, the relevant member of POST staff has been invited to the Committee to either speak to the paper or provide more informal briefing. Their input, in whatever format, has always been beneficial.

The second stage where POST has been of great benefit to the Science and Technology Committee particularly is through assistance in the identification of suitable candidates to become specialist advisers on our inquiries. While it is difficult for a small Committee staff to maintain detailed knowledge of contacts across fields as broad as those typically covered by a single select committee, POST works constantly and closely with the scientific community. I would estimate that around 50 per cent of the advisers that the Science and Technology Committee has had during the current Parliament have been appointed following a recommendation from POST.

POST has also assisted through the provision of detailed briefing papers at the outset of an inquiry—I have in mind the extensive and useful paper that was produced to support the Science and Technology Committee's inquiry into Engineering and Physical Sciences Based Innovation which enabled the Committee to assimilate rapidly key facts and issues.

I should also like to comment on one further area where I believe POST has made a significant contribution to the work of the Science and Technology Committee. There is constant, day-to-day, contact between the staff of my Committee and those of POST which facilitates a sharing of knowledge and information which, although admittedly difficult to quantify, has been of benefit to both organisations. This has been particularly true since the two groups have been based at the same location within Millbank. I accept POST's contribution

to the work of Select Committees in this regard may be more applicable to those Committees with a strong scientific element in their work—and by that I do not just mean the Science and Technology Committees in both Houses, but also, for instance the Environmental Audit Committee, the Environment, Transport and Regional Affairs Committee or the Trade and Industry Committee (witness that Committee's current inquiry on space policy)—but it is no less an important consideration for that. One example of such links working to the benefit of all was the day-long seminar on Ageing that POST organised earlier this year. While the seminar resulted from a POST initiative, it was deliberately timed to co-incide with the start of a Science and Technology Committee inquiry looking specifically at Research into Ageing, allowing members of the Committee to participate in a timely seminar, while avoiding the possibility that experts in the field were consulted on the same issues at the same time by two parts of Parliament.

I firmly believe that POST should be established on a permanent basis with Parliamentary funding and be located within the Parliamentary estate. That science and technology issues have, over the last couple of decades or so, risen up both the political and Parliamentary agenda was admirably demonstrated in a paper recently published in *Nature* (27 January 2000, Vol 403; 6788), a copy of which I enclose.¹ It is, therefore, more important than ever that Parliamentarians have easy access to rational analysis of scientific and technical issues such as that which POST have provided. While I, as many others, am grateful to those who provided POST's funding in its early years, allowing it to establish credibility and prove its worth, Parliamentary funding provides POST with an enviable degree of independence. As I said in 1994 during the last review, "it makes the Parliamentary Office of Science and Technology far more Parliamentary and no less scientific or technological" (HC 578, 94–5Q1.) It means that POST is controlled by Members of Parliament and that it is more responsive to their needs. And, importantly, it conveys to POST a degree of credibility that would otherwise be unobtainable, easing its access to scientists, engineers and technologists at the highest level, which in turn improves the service it can provide to Parliament. Parliamentary funding for POST also makes a positive statement about the way in which science and technology is valued by Parliament, about the importance that Parliament places on science and technology policy issues, and about Parliament's recognition of the importance of science and technology in myriad policy areas. The "disestablishment" of POST now would be retrograde in the extreme, not to mention perverse in the face of the fact that many other national Parliaments have now established their own equivalents. Nor do I think that it is any longer necessary for POST to be subjected to periodic reviews of its status as a body of Parliament. POST has already proved its worth to Parliament and I believe that the benefits of regular review, important in the early days, are now outweighed by disadvantages—such as the significant distraction of POST from its core purpose which the reviews cause, not to mention the potential difficulties in recruiting and retaining key staff to an organisation whose future, even in the medium-term, is uncertain.

I am sure that POST, given permanent Parliamentary funding, will continue to service Parliament well and develop into an essential resource. The way in which it has fostered stronger relations with Select Committees over the current Parliament has been impressive, although I believe that there is still room for further improvement in this regard, especially with those Committees which do not see POST as a natural source of relevant expertise. A modest increase in POST staff could result in a disproportionately large benefit for the House, both in terms of increasing the breadth of expertise available and in increasing regularity of topical publications. There is also a role for POST to take the lead in Parliament in embracing new technologies which can be exploited beneficially—as it did with its recent on-line consultation on women in science.

Dr Michael Clark
Chairman

APPENDIX 8

Letter dated 6 June 2000 from the Chairman of the Catering Committee

Thank you for your letter of 18 May about POST.

The Catering Committee has not generally called upon the services of POST, although I gather that Members found its report on Genetically Modified Foods useful when considering House policy on the issue.

Dennis Turner
Chairman

APPENDIX 9

Letter dated 6 June 2000 from the Chairman of the Welsh Affairs Committee

Thank you for your letter of 18 May, which we discussed in Committee this morning.

It was agreed that I should write to let you know that, while, as a Committee, we have had little cause to make use of POST, as individual Members we have found it very helpful and would support a move to establish it on a permanent basis.

Martyn Jones
Chairman

¹ Not printed.

APPENDIX 10

Letter dated 7 June 2000 from the Chairman of the Culture, Media and Sport Committee

Thank you for your letter of 18 May inviting contributions to your inquiry into the future of the Parliamentary Office of Science and Technology.

Although there has been continuing liaison between POST and the staff of this Committee, the Culture, Media and Sport Committee has not received any formal assistance from POST. The Committee therefore does not feel able to provide a useful contribution to your inquiry.

Rt Hon Gerald Kaufman
Chairman

APPENDIX 11

Letter dated 7 June 2000 from the Chairman of the European Scrutiny Committee

Thank you for your letter seeking my views on the Parliamentary Office of Science and Technology.

POST has been extremely helpful to my Committee. In our consideration of European legislation we are frequently faced with very complex scientific and technical issues, ranging from such things as the setting of both environmentally appropriate and cost-effective emissions standards, to areas like how to reduce tyre noise while maintaining road safety. POST has been able to provide us with clear, comprehensible advice on the issues on which we have sought guidance, and it has contributed substantially to the effectiveness of the House's scrutiny process as a result.

I welcome the opportunity to put on record my Committee's appreciation of POST's work.

Jimmy Hood
Chairman

APPENDIX 12

Letter dated 8 June 2000 from the Chairman of the Defence Committee

My apologies for slightly missing your deadline for responses to your letter of 18 May about POST.

The Defence Committee has not made extensive direct use of POST in the past, although they did provide us with some briefing on Gulf War illnesses a couple of years ago.

In response to your three direct questions:

- (a) I do not feel POST has marketed itself internally sufficiently aggressively so far. Nor is it clear to me how the service it offers differs from that of the Library Research division, or complements it (see (c) below).
- (b) I would be loathe to lose any source of independent advice available to this severely under-resourced Parliament. I would therefore, in principle, support the continued funding of POST, though I am cautious about whether it should become permanent—some element of contractual renewal may provide a useful incentive and retain flexibility.
- (c) I think POST's future role should be rather more clearly defined. In particular, I wonder if it should be better integrated into the work of select committees in the House (though I realise it is shared with the Lords). Building on the recommendations of the Liaison Committee in its recent report, perhaps in addition to the proposed central "Estimates" unit we could develop POST into a central science and technology unit. Many Committees, my own included, have an occasional but not necessarily continuous need for advice in these areas.

I am not altogether clear how POST does at present operate, and the extent to which it commissions work externally. However, it is evident that much of the expertise in this area is inevitably highly-specialised. Should POST in the future become more of a commissioning agency for external researchers?

I hope these comments are helpful. I am afraid I write as someone who, as an individual, does not pay particular attention to matters which fall within POST's remit.

Bruce George
Chairman

APPENDIX 13**Letter dated 8 June 2000 from Mrs Teresa Gorman MP****re: POST**

I understand that the future role of this organisation is under review. I would like to see its advisory role expanded and its expertise made more use of within Parliament.

You will not need me to tell you how many of the current political issues are science based, for example climate change, BSE and genetic engineering. There are very few people in the House who are scientifically trained and while Ministerial advisers are available, these are often drawn from pressure groups with a particular axe to grind. Hence the importance of an in-House, independent body like POST.

I therefore strongly urge you to continue the work of POST but, much more importantly, to use their expertise across a wider range of objective advice. They could provide an invaluable safeguard when government is under overwhelming pressure to act precipitously.

APPENDIX 14**Letter dated 9 June 2000 from the Chairman of the Northern Ireland Affairs Committee**

Thank you for your letter of 18 May concerning the inquiry of the Information Committee into the work of the Parliamentary Office of Science and Technology (POST).

As you might expect, the Committee has made infrequent use of the services of POST as relatively few scientific and technological matters fall within its remit. However, for an inquiry last year, the Committee sought evidence from the Meteorological Office on the possibility that global warming might enhance the frequency of severe storms in Northern Ireland. It received a highly technical submission from the Hadley Centre for Climate Change (part of the Meteorological Office), of which, at the Committee's request, POST promptly prepared an excellent non-technical digest. The language of this formed the basis of the relevant paragraph in the Committee's report.

The Committee found it very useful to have the necessary expertise in-house.

Rt Hon Peter Brooke
Chairman

APPENDIX 15**Letter dated 12 June 2000 from the Chairman of the Environmental Audit Committee**

Thank you for your letter of 18 May concerning the role of the Parliamentary Office of Science and Technology. I apologise for stretching your deadline of 6 June.

I shall confine myself to relations between select committees and POST and the support that this Committee has received from the Office. My comments follow the structure of your questions and are set out in the enclosed annex.

I hope this is helpful.

John Horam
Chairman

Annex**THE CONTRIBUTION OF THE PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY
(POST) TO THE WORK OF SELECT COMMITTEES****Memorandum from the Chairman of the Environmental Audit Committee (EAC)****(a) POST's operation to date**

1. Overall POST's published notes and longer reports, where relevant to the EAC's remit, has been extremely helpful to the Committee, principally by informing briefing prepared by the Committee staff. Clearly scientific and technological issues feature strongly in the field of environmental protection and sustainable development and this is reflected in a rough count of POST's publications which reveals about 70 relevant documents out of a total of 160 or so since 1989. Clearly POST's programme reflects current concerns and issues as does the agenda of select committees and this happily has produced substantial congruity.

2. Of more specific value was a briefing produced by POST on energy efficiency at the request of the Committee in 1999. The procedure followed by the Office, of drafting, peer review (including input from departments) and then publication meant that the EAC was provided with a solid foundation for its inquiry into that subject.¹ With 10 or more select committees in the Commons alone which might be thought to have particular demands for briefing on scientific and technological issues—there are obviously limits to the amount of specific assistance that can be available to any one committee.

3. Additional channels for (perhaps less resource-intensive) support are: informal briefings by the Office for committee members on particular issues (although the EAC has not sought such as yet); and still more informal liaison between committee and POST staff which, in the case of the EAC, is on a more or less daily basis.

4. In conclusion POST's operation to date has been to the great benefit of this committee at least, through its general output, one specific project and on-going exchanges at staff level.

(b) *POST's Existence*

5. Without an alternative source of impartial, peer-reviewed briefing on complex scientific and technological issues which was specifically alive to the concerns of parliamentarians (on and off committees) it is difficult to imagine a convincing argument for the abolition of the Office. There are always options for structuring services (ie amalgamation with the Libraries of the two Houses) but something that has the focus, output and strategic direction of POST is sorely needed. The current organisation which serves both Commons and Lords seems eminently sensible.

(c) *POST's Future*

6. It will come as no surprise that I, as a select committee chairman, would wish to see a closer alignment between the forward programmes of select committees and of POST and further specific support from the latter when required. The Commons Liaison Committee recently recommended the creation of a central Committee Office unit with National Audit Office secondments for the better scrutiny of departmental estimates. There are similar arguments for developing POST's role in respect of the scientific and technological issues with which select committee members have to contend. Producing briefing, evaluating relevant memoranda submitted and maintaining a database of contacts and relevant research on-going in the wider academic community are examples of supportive activity which committees might find useful. Links between the Board and the Liaison Committee might be established (with similar arrangements for the Lords).

7. If the role of the Office is to expand in this way its resources would have to increase commensurately if its current responsiveness to the priorities of the House as a whole was not to be impaired.

APPENDIX 16

Letter from Tony McWalter MP

Although I have been able to attend meetings only occasionally, I felt I should submit to you how useful I have found the briefings and informational materials which your office makes available. I am horrified that the funding last only until March 2001, and I do wish to submit that it is vital that this function becomes consolidated and that it is regarded as integral to the functioning of Parliament.

On those occasions when I have been able to come to meetings I have found them of high quality and of considerable utility.

¹ See the Seventh Report from the Environmental Audit Committee, 1998–99, *Energy Efficiency*, HC159–1, paragraph 9 and HC 159–II, Appendices to the Minutes of Evidence, Appendix 1, pages 239–267.

[illegible]

9 780102 514001



Distributed by The Stationery Office Limited
and available from:

The Stationery Office

(Mail, telephone and fax orders only)

PO Box 29, Norwich NR3 1GN

General enquiries 0870 600 5522

Order through the Parliamentary Hotline *Lo-call* 0845 7 023474

Fax orders 0870 600 5533

Email book.orders@theso.co.uk

Internet <http://www.ukstate.com>

The Stationery Office Bookshops

123 Kingsway, London WC2B 6PQ

020 7242 6393 Fax 020 7242 6394

68-69 Bull Street, Birmingham B4 6AD

0121 236 9696 Fax 0121 236 9699

33 Wine Street, Bristol BS1 2BQ

0117 9264306 Fax 0117 9294515

9-21 Princess Street, Manchester M60 8AS

0161 834 7201 Fax 0161 833 0634

16 Arthur Street, Belfast BT1 4GD

028 9023 8451 Fax 028 9023 5401

The Stationery Office Oriel Bookshop

18-19 High Street, Cardiff CF1 2BZ

029 2039 5548 Fax 029 2038 4347

71 Lothian Road, Edinburgh EH3 9AZ

0870 606 5566 Fax 0870 606 5588

The Parliamentary Bookshop

12 Bridge Street, Parliament Square

London SW1A 2JX

Telephone orders 020 7219 3890

General enquiries 020 7219 3890

Fax orders 020 7219 3866

Accredited Agents

(See Yellow Pages)

and through good booksellers

© *Parliamentary Copyright House of Commons 2000*

Applications for reproduction should be made in writing to the Copyright Unit,

Her Majesty's Stationery Office, St Clements House, 2-16 Colegate, Norwich NR3 1BQ

- Fax 01603 723000

ISBN 0 10 251400 3