PREM 19/2012

2/30

PART 3

MT

CONFIDENTIAL FILING

SPACE POLICY

AEROSPACE

PART 1: JUNE 1970

PART 3: JULY 1987

PREM 19/2012

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
~~16.7.87~~		~~16.2.88~~					
~~21.7.87~~		~~25.2.88~~					
~~23.7.87~~		~~10.3.88~~					
~~19.8.87~~		~~18.3.88~~					
~~15.9.87~~		~~14.4.88~~					
~~5.10.87~~		~~18.4.88~~					
~~12.10.87~~		~~21.7.88~~					
~~20.10.87~~		~~22.7.88~~					
~~23.10.87~~		~~28.7.88~~					
23.10.87		~~16.8.88~~					
~~26.10.87~~		~~26.9.88~~	PA				
~~27.10.87~~		22.11.88	PA				
~~29.10.87~~		PT 3 ENDS					
~~5.11.87~~							
~~11.11.87~~							
~~12.11.87~~							
~~1.2.88~~							
~~3/2/88~~							
~~5/2/88~~							
~~8/2/88~~							
9.2.88							
~~10.2.88~~							

PART 3 ends:-

FCO to DTI. 22.11.88

PART 4. begins:-

J. RICHARDS to COP. (Qa. 0801) 33.89.

RESTRICTED

cc/PC

Foreign and Commonwealth Office

London SW1A 2AH

22 November 1988

CDP
23/xi

Dear Neil

The Foreign Secretary has received a letter from Sir Geoffrey Pattie MP about a proposal for a privately funded British astronaut to fly on a Soviet mission to the MIR Space Station in the spring of 1991. Sir Geoffrey Pattie has copied this letter to Lord Young and to Mr Younger but I enclose a copy for your ease of reference.

We assume that your department will be coordinating the government's view of this proposal. Meanwhile, the Foreign Secretary proposes to send a non-committal reply to Sir Geoffrey Pattie along the lines of the enclosed draft. I should be grateful for your early views on this text.

I am copying this letter to Charles Powell at No 10 who will wish to be aware of this proposal, and also to Brian Hawtin in the Ministry of Defence.

Yours ever

(R N Peirce)
Private Secretary

Neil Thornton Esq

PS/Department of Trade & Industry

RESTRICTED

DS[illegible]1 (Revised Sept 85)

DRAFT: minute/letter/teleletter/despatch/note

TYPE: Draft/Final 1 +

FROM:
Secretary of State

DEPARTMENT: TEL. NO:

BUILDING: ROOM NO:

Reference

Your Reference

SECURITY CLASSIFICATION

Top Secret
Secret
Confidential
Restricted
Unclassified

PRIVACY MARKING

..... In Confidence

CAVEAT .....

Enclosures flag(s) .....

TO:

The Rt Hon Sir Geoffrey Pattie MP
House of Commons
LONDON SWIA OAA

Copies to:

SUBJECT:

Thank you for your letter of 14 November about the proposal that a British astronaut should fly on a Soviet mission to the MIR Space Station, funded by private sponsorship in the UK.

As you know, the government is keen to find private sector funding for Space. I was interested to know about this imaginative proposal. It was good of you to write.

From The Rt. Hon. Sir Geoffrey Pattie, M.P.

House of Commons,
LONDON, SW1A 0AA
Secretary 01-219 4055

(1) Ack.
(2) Soviet Dept. for appropriate action/drafting reply

VCPS
PS/Mr Waldegrave
PS/Lord Glenarthur
Mr Ratford
Mr Slater

The Rt Hon. Sir Geoffrey Howe QC MP
Foreign Secretary
Foreign Office
Whitehall
SW1A 2AH

Mr Hollamby
You agreed to take this on.
Russell Dixon told.
Thanks V. Evan
16/11

14 November 1988

SEND
Mr Teasdale
PR
Russell Dixon
APS
15/11

Dear Geoffrey

I have been informed that a proposal is being developed which will involve a British astronaut flying on a Soviet mission to the Mir space station in the Spring of 1991. You will be pleased to know that, while the promoters would welcome at least the tacit support of Her Majesty's Government, no public money whatsoever is required. The deal will be a straight commercial purchase of a slot from Glavkosmos and the money will be raised by spnsorship in the UK.

The proposal has been developed thus far by Jardine Mathieson. The sponsorship experts are satisfied that they will be able to raise the necessary sums, representing two per cent of the sponsorship market, now that a group of ITV companies have committed themselves to the appropriate amount of television coverage.

The project will include the selection and training of the astronaut and the flight to the Mir space station for a ten day visit and return. The intention is also to have scientific experiments taking advantage of the microgravity on the space station and medical experiments relating to weightlessness in space.

I understand that your officials have been kept informed of these developments but I thought you might welcome having the matter drawn to your attention lest it might be raised by the Soviet side in future discussions.

Because of their shared interest in space activity, I am sending copies of this letter to George Younger and David Young.

Yours ever

Geoffrey

AGROSPACE: Space Policy PT3

CCPS

1. Mr. Powell - to see
2. CF - p.c.

BRCG
26/9

FCS/88/163

SECRETARY OF STATE FOR TRADE & INDUSTRY

Intergovernmental Agreement on the Space Station

1. Thank you for your letter of 16 August asking me to put arrangements in hand for the signing by the UK of this Agreement.

2. As you may be aware, signature will now take place at the State Department on 29 September. Although President Reagan will not attend, enough of our European partners will be represented at ministerial level to justify our doing the same. I have therefore asked Simon Glenarthur, who was already due to fly to the South Pacific via Los Angeles on 1 October, to sign the Agreement for the UK.

3. A programme of bilateral calls is being arranged by the Embassy, including a call on Derwinski, Simon Glenarthur's opposite number at the State Department and Congressman Roe, Chairman of the Science Space and Technology Committee. Briefing is being put together with BNSC and with interested departments (we are of course aware that Robert Atkins will be discussing space issues in greater depth with the Americans during his visit to Washington at the end of October).

4. I understand that BNSC are also planning to send a representative to Washington for the Signing Ceremony and that he will participate in those calls which cover space matters.

/5.

5. As regards the problem of extraterritoriality to which you refer, I understand that your officials have concluded that this it not an obstacle to signature. Simon Glenarthur will therefore limit himself to making the point orally with Derwinski that our acceptance of the relevant article of the Intergovernmental Agreement does not imply acceptance by us that export controls should apply outside the national territory.

6. Copies of this minute go to the Prime Minister, the Chancellor of the Exchequer, the Home Secretary, the Secretary of State for Defence, the Secretary of State for Education and Science, and the Lord President of the Council and Leader of the House of Commons.

Geoff Parker

pp (GEOFFREY HOWE)

(approved by the Foreign Secretary and signed in his absence abroad).

Foreign and Commonwealth Office
26 September 1988

AGROSPACE : Space PT3

dti

the department for Enterprise

The Rt. Hon. Lord Young of Graffham
Secretary of State for Trade and Industry

The Rt Hon Sir Geoffrey Howe QC MP
Secretary of State for Foreign and
Commonwealth Affairs
Foreign and Commonwealth Office
Downing Street
LONDON
SW1A 2AL

Department of
Trade and Industry

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01-215 7877

Telex 8811074/5 DTHQ G
Fax 01-222 2629

Direct line 215 5422
Our ref PS5BGU
Your ref
Date 16 August 1988

Dear Geoffrey,

INTERGOVERNMENTAL AGREEMENT ON SPACE STATION CO-OPERATION

I should be glad if you could agree to put arrangements in hand for the signing by the UK of this Agreement. This relates to the manned Space Station programme on which President Reagan offered co-operation to Western Europe, Canada and Japan at the London Economic Summit in 1984. Negotiations on an Intergovernmental Agreement between the States co-operating in the project have reached the point where a signing ceremony is planned in Washington around 23 September. We understand that the Americans are proposing that this should be in the White House in the presence of the President with the signature for the United States by Secretary of State Schultz.

The UK will be a participant in the Space Station endeavour through our membership of the European Space Agency's Columbus programme. The main long term benefit of the Agreement will come from access for UK industry and space scientists to the Space Station facilities. No financial obligations will directly arise for the UK from signature of the Agreement - these will only be created by the programme we enter in the European Space Agency and no new ones are involved for the present. If and when they do arise, they will be optional ones which we can chose to enter or not, and at whatever level we judge right.

the Enterprise initiative

dti

the department for Enterprise

We have been glad to have the very full assistance of the Foreign Office, including particularly your legal advisors, in the drafting of the Agreement and also of an Interim Arrangement which will be signed at the same time to cover immediate co-operation matters. The other member states of the European Space Agency apart from Switzerland and Sweden, who have concerns over potential defence use of the Space Station, will also be signing the Agreement, as will Canada and Japan.

The Agreement will need to be ratified in due course and we have been alerted to a possible need for consequential legislation on matters to do with criminal jurisdiction and property rights, but this will be relevant only in the utilisation phase of the Space Station after 1997 so we have some time in hand to see to what should be minor legislation.

The negotiations on the Agreement did not succeed in removing all our objections to Article 19 dealing wtih the exchange of goods and data and familiar problems on extraterritoriality have persisted. Our officials are discussing what needs to be done here to register the UK position and your people will be in the picture on this.

Copies of this letter go to the Prime Minister, the Chancellor of the Exchequer, the Home Secretary, the Secretary of State for Defence, the Secretary of State for Education and Science, and the Lord President of the Council and Leader of the House of Commons.

Yours ever,

David

the Enterprise initiative

dti

the department for Enterprise

cc PS

NBPM

The Rt. Hon. Lord Young of Graffham
Secretary of State for Trade and Industry

The Rt Hon John Major MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
LONDON SW1

Department of Trade and Industry

1-19 Victoria Street
London SW1H 0ET

Switchboard
01-215 7877

Telex 8811074/5 DTHQ G
Fax 01-222 2629

Direct line 215 5422
Our ref DW2ANS
Your ref
Date 16 August 1988

Dear John,

SPACE

Your office wrote to Kenneth Clarke on 28 July about the Draft Memorandum to the House of Lords Select Committee on Science and Technology.

I can assure you that the figure of £130 million quoted in the draft is, of course, without prejudice to PES discussions and is, indeed, a deliberately prudent figure. As you know, I am seeking some small increases for space in the current PES round and my letter of 25 May sets out the reasons. No doubt we shall be able to discuss these in the forthcoming meetings. Ministers have, of course, repeatedly said that they intend to maintain expenditure on space at about its present level.

Yours ever,
Norman

the Enterprise initiative

Aerospace - Space Policy Pr 3

005/2986

ESPU

NBPM
PRUG
28/7

Treasury Chambers, Parliament Street, SW1P 3AG

Rosalind Cole
Private Secretary
to the Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

28 July 1988

Dear Rosalind,

SPACE

The Chief Secretary has seen the Draft Memorandum to the House of Lords Select Committee enclosed with your letter to Paul Gray of 21 July. He notes the reference in paragraph 18 to the increased level of spending on space and has asked me to stress that this is, of course, without prejudice to the forthcoming PES discussions on the DTI space bid. Subject to that point he has no comments but is content , as MOD have requested, for the second sentence of paragraph 26 dealing with the Meteorological Office to be deleted.

I am sending copies of this letter to the Private Secretaries to members of E(ST) as well as to Trevor Woolley and John Fairclough.

Yours sincerely,

Jill Rutter

JILL RUTTER
Private Secretary

AEROSPACE: SPACE POLICY

PT 3

CUBG

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

26 July, 1988.

Dear Neil,

SPACE: FUTURE ROLE OF BNSC

The Prime Minister has seen Mr. Clarke's further minute of 25 July.

I should be grateful if you and copy recipients would ensure that this letter is seen only by named individuals with a clear operational interest.

In the light of his further comments, the Prime Minister is prepared to agree that the existing structure of the BNSC should continue for a period. But she continues to have serious doubts about the case for a separate structure, and its level of staffing, and she therefore wishes these arrangements, including the separate location, to be rigorously reviewed in twelve months time.

I am sending copies of this letter to the Private Secretaries to members of E(ST), and to Trevor Woolley and John Fairclough (Cabinet Office).

Yours,
Paul

Paul Gray

Neil Thornton, Esq.,
Department of Trade and Industry.

cc PU.

ELIZABETH HOUSE
YORK ROAD
LONDON SE1 7PH
01-934 9000

NBPM
RRC6
26/7

The Rt.Hon Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry
Department of Trade and Industry
1-19 Victoria Street
LONDON SW1H OET

28/7/88

Dear Ken,

SPACE:

(i) FUTURE ROLE OF THE BNSC
(ii) RESPONSE TO THE HOUSE OF LORDS SELECT COMMITTEE

Thank you for ~~sending~~ WITH PM me a copy of your minute to the Prime Minister of ~~21~~ July with your recommendations on the future role of the BNSC. I have also seen your proposed draft response to the House of Lords Select Committee.

I agree with the conclusions of your minute and confirm that my Department, mainly through SERC and NERC but also when appropriate directly, stands ready to join with the other partners in making the Centre work effectively in its inter-Departmental co-ordinating role. I believe that there is useful progress to be made here and welcome the clearer terms of reference for the Centre and its Director General which you propose.

I am also broadly content with the reply to the House of Lords Select Committee.

I am sending copies of this minute to the Prime Minister and to members of E(ST), also to Sir Robin Butler and John Fairclough.

Yours
Kenneth

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dti

the department for Enterprise

To:

PRIME MINISTER

From:

KENNETH CLARKE

25 July 1988

SPACE: FUTURE ROLE OF BNSC

Prime Minister

An instant appeal from N. Clarke against the view you reached over the weekend. I think there is some persuasive force in these points. Content now to accept the continuation of BNSC subject to review in 12 months?

RAC 6 25/7

But why do they need 30 people at Millbank?

However this is now for Tony Newton to pursue vigorously. Will he write proceed subject to rigorous review including location in 12 months. MT

I have seen your Private Secretary's letter of 25 July. I thought I should write to you personally to set out more fully my reasons for recommending that we should maintain the existing structure of BNSC rather than bring it fully within the DTI.

2. We have, as you know, now taken all of the major decisions for the present on new space programmes. There will only be a very modest increase in expenditure compared to previous plans. We have nevertheless secured a leading role on a significant element of the Columbus Space Station, the Polar Platform. We have managed to head off, in my view with some success, the more grandiose and very expensive proposals that were being put forward at one time including Ariane, Hermes and HOTOL. Until the dust has settled on

LS1ACF

these decisions, it would be a mistake in my opinion to run into more controversy and conflict with the "space lobby" on what is a relatively minor issue of organisational structure.

3. In my minute to you of 21 July I explained that I had considered the option of abolishing the BNSC. My main reason for rejecting it was, frankly, presentational but it can carry out a sensible role in maintaining co-ordination across different Government Departments. BNSC is now carrying out this task far more effectively than before, although there is still room for improvement. What I have been able to do is to appoint an Under Secretary from the DTI as the new Director General who reports back in to this Department. I am therefore able to exercise full control over BNSC's activities. This is a far cry from the position I inherited where there was a Director General appointed from outside, at Deputy Secretary level, who felt quite free on occasion to brief and speak in public against the Government's policies.

4. Merely bringing BNSC within the DTI would not produce administrative savings. Indeed, there would be a risk that other Departments would become suspicious of DTI running policy on what they saw as their own space interests and would try to replicate within their Departments the necessary level of policy advice. This would clearly be wasteful.

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dti

the department for Enterprise

5. I therefore feel that we should keep BNSC in its present form, at least for a year or two more. The bulk of our expenditure will continue to be through ESA. We must continue to try to negotiate the most advantageous contracts for UK industry that can be provided from within our subscription to ESA programmes. Not only our critics, but also other ESA members, would try to use abolition of BNSC to reopen the question of whether we were genuinely committed to space. This would clearly prejudice our attempts to win contracts for UK companies against their competitors in other ESA countries. I did of course also only announce the appointment of the new Director General of the BNSC a few weeks ago. This appointment would now look very odd if we were effectively to abolish BNSC as a separate organisation.

6. I hope in the light of the above you will reconsider your decision.

Peter Smith

PP KC

(Approved by the Chancellor and signed in his absence)

LS1ACF

File

SRWBOM
cc BG

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

25 July 1988

Dear Peter,

SPACE

The Prime Minister was grateful for your Secretary of State's minute of 21 July about the future role of BNSC; she has also seen the draft memorandum in response to the House of Lords Select Committee attached to Rosalind Cole's letter of the same date.

I should be grateful if you and copy recipients would ensure that this letter is seen only by named individuals with a clear operational interest.

The Prime Minister is not persuaded by the proposal to retain the present structure of BNSC. She recognises that there is an administrative task connected with the Government's continued space activity. But she thinks that it would be a logical consequence of decisions already made and announced for the work now carried out by the BNSC to be absorbed within the DTI.

As a consequence, the Prime Minister has noted that it will be necessary to amend paragraphs 11-12 of the draft memorandum to the House of Lords Select Committee. She is, however, content with the rest of that draft, and in particular welcomes the strong statement in paragraph 7 about industry's role.

I am copying this letter to the Private Secretaries to members of E(ST), Trevor Woolley and John Fairclough (Cabinet Office).

Yours,
Paul

(PAUL GRAY)

Peter Smith, Esq.,
Office of the Chancellor of the Duchy of Lancaster.

CONFIDENTIAL

SR

NBPM at this stage

PRCG
28/7

CONFIDENTIAL

W0733

PRIME MINISTER

25 July 1988

SPACE: FUTURE ROLE OF BNSC

WITH PM?

In his minute to you of ~~21 July~~, the Chancellor at the Duchy acknowledges the awkwardness of his preferred solution. I remain doubtful, as I have explained to his officials, that it is right to maintain the existing structure of the BNSC.

2. The heart of the matter, it seems to me, is that BNSC in its present form does have a degree of separate identity and that this makes it inherently difficult for it to take policy responsibility where the resources implications are matters for the contributing Departments. I would therefore favour slimming down the BNSC and give it the job simply of managing national projects and working with ESA on agreed programmes. Policy responsibility for any new programmes and for overall direction should then be located firmly in the spending Departments. I believe this would bring DTI practice into line with that in the other Departments. For example it is clearly a policy matter for SERC and DES whether there should be increases in ESA funding on space science, an issue on which there will continue to be pressure applied.

3. I recognise that my solution is not completely tidy either. It will not always be easy to separate the discussion with ESA on existing programmes from that on new ones. Nevertheless, I believe the risks are less significant than leaving BNSC as a halfway house, neither wholly separate nor entirely integrated.

4. I am copy this minute to members of E(ST) and to Sir Robin Butler.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

PRIME MINISTER 22 July 1988

FUTURE ROLE OF BNSC: DRAFT REPONSE TO HoL REPORT

Kenneth Clarke's recommendation to retain the present structure of BNSC is the line of least resistance which panders directly to all the special interest groups.

BNSC, with its headquarters in Millbank, employing 30 staff, is responsible for some 200 employees and contractors throughout the UK at organisations such as the Remote Sensing Centre at Farnborough. The newly appointed Director General of BNSC was a DTI Under Secretary in Birmingham and Clarke's proposal is for him to continue the office previously held by Roy Gibson. The reporting line to the DTI is vague without clearly defined policy responsibility.

It was for this reason that BSNC under Gibson was able to lobby so vociferously against Government policy last year! You may recall that they presented a space plan which called for enormous expenditures based on exhortation about the importance of Britain's keeping up with the Joneses. It was only after they were sent back to do a properly costed set of alternatives, and then sent back again to keep within their previously agreed funding levels, that real efforts were made to push industry into financing space activity directly. BNSC had been completely captivated by the French argument for grandiose 'man in space' projects rather than concentrating where success had already been demonstrated in communication satellites and remote sensing.

The DTI proposals therefore should not be supported as they stand. The proposal to leave BNSC with policy responsibility outside the DTI but without its own separate budget simply perpetuates a bureaucratic eunuch with powers to confuse. Our continued national programme and membership of certain ESA programmes gives Government a project management responsibility. The BNSC team should fulfil this

responsibility and also coordinate the activities of other Government departments with a space interest. But this would be done more effectively within the DTI and not as some pseudo-independent quango. BNSC was set up with all the internal structure to become one of Government's great spenders (cf. the old UKAEA). Fortunately this scheme was nipped in the bud last year and to perpetuate its existing structure would be anachronistic.

Recommendations

1. Recognise that there is an administrative task connected with Government's continued space activity and that an efficient machine within the DTI is necessary to carry this out.

2. Question the need to continue employing 30 people at Millbank under a downgraded 'Director General' but with policy responsibility for British space involvement.

3. Reject the DTI case that to disband BNSC now will send embarrassing political signals. The disbanding of BNSC is simply the logical consequence of decisions already made and announced.

4. Reject the argument that the activities of several Government Departments cannot be coordinated within one of them. The Foreign Office and the Treasury do this all the time. Why not the DTI for space?

5. The draft response to HoL is good with a strong statement in Paragraph 7 about industry's role. Paragraph 12, however, would need amendment if the BNSC function were curtailed as described above.

GEORGE GUISE

SW2AHN

PRIME MINISTER

SPACE

Kenneth Clarke has sent in two papers seeking comments by Monday:

(1) a draft Government response to the House of Lords Select Committee

(2) a separate minute detailing his proposals for the future role of the British National Space Centre (BNSC). This approach is summarised in paragraph 12 of the response to the House of Lords.

George Guise's separate minute strongly criticises the proposed approach on the BNSC. Mr. Clarke's recommendation is to retain its present structure. George argues that the BNSC should now be absorbed within the DTI and not continue as a "pseudo-independent quango". If George's alternative approach was adopted, paragraph 12 of the response to the House of Lords would need to be changed.

Content to accept Kenneth Clarke's proposed retention of the status quo for BNSC?

Or

Propose that BNSC should be subsumed within DTI as advocated by George Guise? I agree with George. The BNSC seems to me an expensive and duplicated piece of bureaucracy

PREC.

(PAUL GRAY)
22 July 1988

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Paul Gray Esq
Private Secretary to the
Prime Minister
10 Downing Street
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Telex 8811074/5 DTHQ G
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Direct line 215 5147
Our ref
Your ref
Date 21 July 1988

Dear Paul

SPACE

We are required to respond to the Second Report of the House of Lords Select Committee on Science and Technology on UK Space Policy, before the summer recess.

I attach a draft memorandum, which the Chancellor of the Duchy of Lancaster proposes to forward to the Chairman of the Select Committee as the Government's response. Departments have already been consulted at official level on the content of the memorandum, and I am now circulating the draft for Ministerial approval.

I should be grateful if you and copy addressees could consult Ministers quickly so that we can issue the memorandum before the summer recess. I should like any comments to be with me by close on 25 July.

I am sending copies of this letter to Private Secretaries to members of E(ST) as well as to Trevor Wooley and John Fairclough.

Yours
Rosalind Cole

ROSALIND COLE
PRIVATE SECRETARY

JY2ACK

GOVERNMENT RESPONSE TO THE SECOND REPORT OF THE HOUSE OF LORDS' SELECT COMMITTEE ON SCIENCE AND TECHNOLOGY ON UNITED KINGDOM SPACE POLICY: 1987-88 SESSION

1. The Government are grateful to the House of Lords' Select Committee on Science and Technology for their comprehensive and considered review of United Kingdom space policy and to the participants in the debate on the motion moved by the Chairman of the committee in the House of Lords on 30 March. Since returning to office last year, the Government have re-appraised United Kingdom's civil space activities. The Committee's report has been most helpful in this work.

2. The Select Committee's report called for a clear statement of Government policy on civil space. This is set out at paragraphs 3-12 below. Paragraphs 13-23 respond to those of the main recommendations not covered elsewhere.

UK Space Policy

(Recommendations/Conclusions:- 6.1,6.2,6.3,6.6,6.7,6.8,6.9, 6.10,6.11,6.12,6.16,6.23,6.27,6.28,6.30,6.31)

3. In its civil space activites the Government will seek to encourage industry and the scientific community to exploit

opportunities in space based on a realistic appraisal of costs and of scientific, technological, commercial and other benefits that may be secured. Space activities cannot occupy a privileged place in the Government's public expenditure plans. Space projects will be examined as rigorously as scientific research and R&D proposals from other industrial sectors. Subject to this appraisal and the quality of proposed projects that emerge, the Government expect to maintain expenditure on civil space at broadly the existing level which, since our entry in to the Columbus space station programme, has increased to approximately £130m per annum.

4. Space activities are well suited to international collaboration, by their nature as well as because of their cost. The Government will therefore continue to carry out a major part of its civil space activities on a collaborative basis, in particular through the European Space Agency (ESA). At the same time, international collaboration inevitably brings some additional administrative costs. We shall work with our European partners to ensure that, by good management, these costs are kept to a minimum.

5. At the same time, the Government recognise the importance of encouraging a national programme which will allow British companies to develop the technologies and expertise to enable them to exploit successfully UK investment in ESA programmes.

6. So long as ESA's science programmes maintain satisfactory standards of management, they should continue to provide the foundation of the United Kingdom's space science activities, complemented by a few targeted national or bilateral projects, within available resources.

7. The main focus of the United Kingdom's space activities over the last decade and more has been space communications. This concentration of effort has been well-judged in that a substantial market has developed in which British companies compete successfully. The Government have, however, concluded that the time has come when decisions can, and should, be made predominantly on a commercial basis by companies operating in the now largely established market, and that there should be a decisive switch of Government efforts and resources to other fields.

8. There is a large measure of agreement that the next area of space activity likely to yield substantial industrial and commercial benefits is earth observation.

9. The United Kingdom is already participating in ESA's ERS-1 satellite project. The Government have also decided to participate in ESA's Columbus programme, concentrating on the

polar platform element of that programme. This will give the United Kingdom a substantial role in developing the means of acquiring earth observation data.

10. In addition, the Government are setting up an Earth Observation Data Centre at the National Remote Sensing complex at the Royal Aerospace Establishment, Farnborough. This is intended to provide a catalyst for the progressive development of a new service industry, operating on a global scale, that uses data obtained from space as its raw material. To be successful, the Data Centre will need a strongly commercial orientation. The Government hope that industry will quickly assume operational and financial responsibility for the Data Centre, as a major element in the full commercialisation of earth observation.

11. The Government recognise that many of the benefits that will result from earth observation from space are dependent on applications development and demonstration. The BNSC will work with industry and users to maximise the benefits that will accrue from the investments made in data acquisition and processing. The UK will continue to support the acquisition from space of observations required for operational meteorology particularly through the European consortium Eumetsat.

12. The United Kingdom civil space programme will continue to be implemented through the British National Space Centre. The role of the Centre will be to carry through the programmes and projects on which the Government has embarked, and to advise Government on new programme proposals as they arise. The Centre will act as a focus for the civil space interests of the Department of Trade and Industry, the Ministry of Defence, the Foreign and Commonwealth Office and the Department of Education and Science (through the Science and Engineering Research Council and the Natural Environment Research Council). Responsibility for funding will remain with the constituent Departments according to their particular responsibilities, but the Centre will provide overall coherence and significant added value because of the links which can be developed between individual programmes on the one hand and advances in associated sectors of science and technology on the other. The BNSC partners have appointed a new Director General from within the Department of Trade and Industry. He will report to the Chancellor of the Duchy of Lancaster who has lead responsibility for Government space policy. The Chancellor of the Duchy has asked the Director-General to concentrate on co-ordinating UK civil space policy so as to secure both value for money and, by the cost effective use of resources, the maximum scientific, technological and commercial benefits to the UK. The Centre will develop a wide range of contacts with industry and commerce so that the interests of the business community, particularly

users, can be properly reflected in UK civil space activity. The Centre will be looking for ways to encourage greater private sector participation in relevant space programmes.

13. These decisions produce a coherent civil space programme. They provide a clear sense of direction for the United Kingdom's space activities for the medium term, and a sound and realistic basis for industry and the scientific community in the United Kingdom to respond to the challenges and opportunities of space.

OTHER RECOMMENDATIONS

RADARSAT

(Recommendations/Conclusions:- 6.4)

14. The Government will continue to pursue bilateral collaboration in space activities where justified. Having opted to seek a leading role in the Columbus polar platform, the Government decided not to join in RADARSAT development. While RADARSAT is a good project, it is essentially a one-instrument project on a smaller scale than the Columbus polar platform and would not have offered as good a base for commercial exploitation.

ESA/Non-ESA Expenditure

(Recommendations/Conclusions:- 6.3,6.15,6.19)

15. The Government recognise the need to strike a balance between expenditure on national space programmes and on ESA programmes. The Government's aim is to look for the optimum combination of ESA, national, and multilateral and bilateral programmes. For science, ESA's mandatory programme will take priority for the foreseeable future. In other areas the balance will change over time but the Government will consult industry and users closely about the right balance to secure the UK's industrial and commercial objectives. The achievement of the best value for the money spent will depend in large measure on successful partnership between industry and Government on R&D activities.

BNSC's Space Plan

(Recommendations/Conclusions:- 6.5)

16. The Space Plan formed part of the background to the Government's recent review of civil space policy. It was provided as confidential advice to Ministers and, as such, will not be published.

Man in Space, Hermes, Ariane 5

(Recommendations/Conclusions:- 6.9,6.10,6.13)

17. The Government agree with the Select Committee's view that the development of a European capability to put man in space would at present be "an expensive and hazardous diversion" and that the United Kingdom should not in consequence participate in Hermes. At the ESA Council Meeting at The Hague in November 1987 the Government accordingly announced their decision not to take part in Hermes. Subsequently the Government also decided not to join the ESA Ariane 5 development programme in view of the risks associated with man-rating and the inadequate commercial returns likely to be realised on the Government's investment at the level proposed.

Funding

(Recommendations/Conclusions:- 6.17,6.18,6.19)

18. The Government will continue to play its part in space exploration. This does not mean that the UK will be a leading participant in all aspects of space exploration. The Government will continue to pursue a selective policy, seeking to ensure that the UK gets good value for the money it spends. Planned Government expenditure now stands at approximately £130m per

annum. This reflects an increase of approximately £10m per annum compared to previous years, mainly as a result of our having entered in to the Columbus space station programme. The Government agree that there should be increased private sector expenditure on space, including R&D. Where there are good commercial prospects, but where the returns are distant, the Government are prepared to give a lead as for example with its recent initiatives in the earth observation field.

Economic analysis

(Recommendations/Conclusions:- 6.20)

19. The Government agree with the Select Committee that economic analysis of space programmes should be normal practice in BNSC and ESA.

Launchers

(Recommendations/Conclusions:- 6.21)

20. The Government agree with the Select Committee that the United Kingdom should have access to a reliable, low-cost launch system. As an ESA member and a participant in earlier Ariane variants, the UK will continue to have access to Ariane

launchers which promise to be competitive throughout the 1990s. The prospects for HOTOL are being explored, following the Government's 50% funding of proof of concept studies that were completed earlier this year. The scale of funding required to develop HOTOL or any similar concept would be far too great for the UK to contemplate on a national basis, particularly since only a relatively small number of such launch vehicles are likely to be required. The Government has therefore concluded that any further development must take place on the basis of international collaboration. The Government will support efforts by UK companies to find suitable collaborators but will not be providing any further financial support for the foreseeable future.

Communications

(Recommendations/Conclusions:- 6.2,6.24)

21. The Government welcome the Committee's endorsement of policy in the field of military communications satellites. The Ministry of Defence has made a substantial investment in the three satellites in the Skynet 4 Stage 1 programme and is now looking forward to their launch at intervals over the next two years. MOD was able to promote successfully the sale of two Skynet 4 type satellites to meet the requirements of NATO in the 1990s.

22. The Government take note of the Select Committee's recommendation that the role of British Telecom as the United Kingdom's representative or signatory to international satellite organisations should be reconsidered in favour of the BNSC. The Government will in due course review the position in consultation with all relevant interests, taking account of the comments in paragraph 8 above regarding the predominantly commercial emphasis today of the space communications market.

Industry

(Recommendations/Conclusions:- 6.25)

23. The Government do not share the Select Committee's view that UK industry will necessarily be disadvantaged if the United Kingdom does not match support for wide-ranging space programmes provided by other ESA countries. The Government will continue to be selective about their participation in ESA so as to secure economic, scientific and commercial benefits for the United Kingdom. In some sectors, for example in most of the communications field, UK industry is in a position to exploit opportunities without further Government financial help.

Science

(Recommendations/Conclusions:- 6.26)

24. The Government accept the Select Committee's view and recognise the need to ensure that infrastructure costs do not escalate. The Government will keep this constantly under review as projects develop. In particular, through the BNSC, infrastructure costs will be reduced by better co-ordination of the space technology activities carried out by Government departments and industry.

User Interests

(Recommendations/Conclusions:- 6.29)

25. The Government agree that the user communities should play a major part in future remote sensing programmes. User interests are represented on the British National Space Centre's programme boards and users will be involved in transforming the Earth Observation Data Centre into a commercial operation.

Weather Satellites

(Recommendations/Conclusions:- 6.32)

26. The Government accept the Select Committee's recommendation that the transfer of weather satellites to the private sector should be resisted. However this will be kept under review especially in the light of the Next Steps report and the possible implications for the Meteorological Office which is a candidate for agency status.

Microgravity

(Recommendations/Conclusions:- 6.33)

27. The Government note the Select Committee's recommendation but it is not yet clear what the benefits or commercial implications of microgravity research are likely to be, nor whether these can be achieved on a realistic timescale. The BNSC will maintain a watching brief on the situation.

dti

the department for Enterprise

CCPU

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

21 July 1988

SPACE: FUTURE ROLE OF BNSC

1. We have settled the main outline of our civil space policy - my minutes of 1 February and 11 April and the resulting correspondence. Since that time, the United Kingdom has re-entered the Columbus programme, taking a leading role on the polar platform.

2. The one remaining issue concerns the future of the British National Space Centre (BNSC). I have considered various options. My firm recommendation is that we should maintain the existing structure of BNSC and use it essentially as an inter-Departmental co-ordinating mechanism. We should concentrate on making it work effectively in this role.

why?

3. I considered carefully three alternative arrangements for BNSC: abolition; separate identity; and agency status.

JY2ABP

Abolition of BNSC would leave us to rely on the process of inter-departmental consultation which proved inadequate prior to 1985. A number of Departments participate in civil space activities and several are often involved in a particular project. Different interests will need to be reconciled - for example as regards the instruments to be flown on an earth observation platform. On past experience, I doubt whether the resultant need for close co-ordination of effort can be met effectively by ad hoc consultation. Moreover, abolishing the BNSC would raise further doubts about our intentions on space, particularly in Europe, making it more difficult to secure our agreed objectives.

4. Nor would I favour giving BNSC a separate identity with its own resources. This would tend to distance space from associated sectors of technology and science. The Government's approach is to emphasise the need to identify priorities and to make choices across the R & D field. In my opinion, we should leave the ultimate control of resources with Departments themselves, and with SERC and NERC. A free-standing BNSC could soon become a lobbying organisation for a substantially enlarged space programme, regardless of other scientific interests.

5. As regards agency status, we need to bear in mind that the great bulk of BNSC's activities are already carried out through agencies of one kind or another, notably ESA. A number of

activities are undertaken at the Royal Aerospace Establishment, Farnborough and at SERC's Rutherford Appleton Laboratory. Both establishments have a wide range of other tasks, and I do not believe that it would be sensible to divorce work on space from these activities or convert their civil space activities alone into an agency.

6. In my view, we should therefore retain the present structure of BNSC. This does have its awkwardnesses, because the Centre does not own its resources and because it has to serve many masters. But the structure brings together in one place those concerned with the day-to-day development of policy, while leaving ultimate control over resources with the partners responsible for ordering priorities.

7. I believe there is scope for building on the present arrangements by:

- developing much stronger contacts between BNSC on the one hand and industry and the scientific community on the other, with a particular focus on the commercial exploitation of our space programme;

- clarifying BNSC's relationship with its parent partners through a Resources Board which will concentrate on the approval of forward programmes and objectives within the

resources allocated by the partners, reviewing performance against objectives, and considering policy issues on which co-ordinated advice to Ministers is required;

- providing BNSC with clearer terms of reference. This requires a coherent statement of civil space policy, not least to counter any lingering unrealistic expectations. I see this as being contained in our reply to the report from the House of Lords Select Committee on Science and Technology on United Kingdom space policy. I am circulating a draft reply separately and intend to place a copy of the final text in the Library of the House before the summer recess. Secondly, I propose to give the recently appointed Director General a new remit (draft attached).

8. I should be grateful for any comments from you and colleagues on the above proposals by close on 25 July.

9. I am copying this minute to members of E(ST), and to Sir Robin Butler and John Fairclough.

Peter Smith

PP KC
(Approved by the Chancellor and signed in his absence)

JY2ABP

dti

the department for Enterprise

BRITISH NATIONAL SPACE CENTRE: RESPONSIBILITIES OF DIRECTOR-GENERAL

1. To co-ordinate the United Kingdom's civil space policy so as to secure both value for money and, by the cost effective use of resources, the maximum scientific, technological, commercial and other benefits to the nation; and in particular:

(a) to co-ordinate advice to HMG in formulating its stance towards, and to optimise the returns from, the United Kingdom's participation in ESA, and in other international programmes.

(b) to increase private sector involvement in the design, timing, operation and funding of ESA programmes.

(c) to co-ordinate the management of the national space science programme so as to derive the maximum scientific benefits from ESA's mandatory science programme and other space science activities.

(d) to co-ordinate the management of the other national space programmes (excluding certain defence specific programmes) consistently with the government's general approach to support for industrial research and development, including the encouragement of collaboration between industry, the relevant Research Councils and higher education establishments.

(e) to maximise the role of industry in the operation of the Earth Observation Data Centre at the Royal Aerospace Establishment, Farnborough, with the objective of the Centre becoming a wholly commercial activity at the earliest practicable date.

2. To advise the responsible Minister in the Department of Trade and Industry on civil space policy, taking account of the interests of the BNSC partners: on major issues this should be done through the BNSC Resources Board. (Where defence interests are concerned, the arrangements agreed between the Secretaries of State for Trade and Industry and for Defence on 26 January 1987 continue to apply).

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the department for Enterprise

3. To reinforce the BNSC's working relationship with the scientific community and industry, and to involve them in the policy formulation process - particularly as regards the determination of priorities.

4. To concentrate the role of the BNSC on the formulation of civil space policy and on the co-ordination and evaluation of the implementation of this policy.

5. To prepare annually a review of the BNSC's activities over the preceding year and a plan for BNSC's activities for the following three years, for consideration by the BNSC Resources Board.

July 1988

JY2ACN

AGROSPACE : Space PT3

Ch6 CPO
CCDTI

10 DOWNING STREET

LONDON SW1A 2AA

THE PRIME MINISTER

18 April 1988

Dear Lord Shackleton,

Thank you for your letter of 22 March.

As you say, the key to the development of earth observation lies in the creation of a market through the acquisition and processing of data for sale to end-users. This is the background to our recent decision to allocate £20 million over five years to the establishment of a new data centre.

Events on options for development of new earth observation satellites have been moving rapidly over the past month or so. We have kept fully abreast of the position on the Columbus Polar Platform and on RADARSAT. As David Young indicated on 30 March in the debate on your Committee's report, we have been urgently assessing the latest information from the European Space Agency and from UK industry and users.

Significant modifications to the Polar Platform configuration have resulted in a less expensive, more functional concept, which has led to agreement amongst industry and users that it should now be UK's top priority in the earth observation field. The Government have therefore decided to take a leading role in the Columbus programme.

Participation in the Polar Platform will build on our involvement in ERS-1 and the recent decision to set up a new data centre, and will be a key element in our drive towards exploiting the longer term commercial opportunities offered by earth observation activities.

At the same time we have decided not to take part in RADARSAT, which in the context of our intended Columbus participation would require an expensive parallel development of different platforms.

David Young and Kenneth Clarke will today be informing Parliament of the details of these decisions.

Yours sincerely

Margaret Thatcher

The Rt. Hon. Lord Shackleton, K.G., O.B.E.

cc BG
?GR ✓

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

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Direct line 215 5147
Our ref
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Date 15 April 1988

CF PPS?

Dear Paul,

Lord Shackleton wrote to the Prime Minister on 22 March alerting her to approaching deadlines for decisions on two space projects. He made a plea for the Government to provide financial support for both.

We have since spoken about the content of the letter in view of the imminent announcement on UK involvement in space in the future. A revised draft reply is enclosed along with the relevant Hansard extract from Lord Young's speech.

Yours

Peter

PS We are replying to the Lords and Commons written PQs at 3.30 pm on 18 April.

PETER SMITH
PRINCIPAL PRIVATE SECRETARY

IS7AAZ

DRAFT LETTER FOR THE PRIME MINISTER'S SIGNATURE TO:

The Rt Hon lord Shackleton KG OBE
Chairman of the Select Committee
on Science and Technology
Committee Office
House of Lords
LONDON
SW1A OPW

~~BTE~~

Thank you for your letter of 22 March.

As you say ~~the Government has an interest in earth observation, since it could have long term potential though virtually no commercial market exists at present. I am pleased that you recognise that~~ the key to ~~its~~ the development lies in the creation of a market through the acquisition and processing of data for sale to end-users. ~~Hence~~ our recent decision to allocate £20m over five years to the establishment of a new data centre.

of earth observation

This is the background to

Events on options for development of new earth observation satellites have been moving rapidly over the past month or so. We have kept fully abreast of the ~~situation~~ position on the Columbus Polar Platform and on RADARSAT~~, to which you draw~~

IS7AAX

LO 3ACM

~~attention.~~ As David Young indicated on 30 March in the debate on your Committee's report, we have been urgently assessing the latest information~~, received just before Easter~~, from the European Space Agency and from UK industry and users.

~~Taking account of~~ Significant modifications to the Polar Platform configuration have resulted in a less expensive, more functional concept, which has led to agreement amongst industry and users that it should now be UK's top priority in the earth observation field. The Government have therefore decided to take a leading role in the Columbus programme. Participation in the Polar Platform will build on our involvement in ERS-1 and the recent decision to set up a new data centre, and will be a key element in our drive towards exploiting the longer term commercial opportunities offered by earth observation activities.

At the same time we have decided not to take part in RADARSAT, which in the context of our intended Columbus participation would require an expensive parallel development of different platforms.

David Young and Kenneth Clarke will today be informing Parliament of the details of these decisions ~~on Monday 18 April~~.

IS7AAX

8

PRIME MINISTER

Lord Shackleton wrote to you on 22 March about space. We have held up a reply pending decisions on Columbus and RADARSAT. Lord Young will be announcing these on Monday. Content to sign the attached letter which we will deliver to Lord Shackleton shortly before the announcement?

RACG.

PAUL GRAY

15 April 1988

CONFIDENTIAL

DAS

File

bc: BG

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

14 April 1988

Dear Peter

SPACE

The Prime Minister was grateful for the Chancellor of the Duchy's minute of 11 April. She has also seen the comments by other colleagues and the Chief Scientific Adviser.

The Prime Minister is content with the conclusions in paragraph 13 of the Chancellor of the Duchy's minute. But she agrees with the Foreign Secretary that it would be desirable to give the Canadians advance warning of the decisions on Radarsat and Columbus. She has also noted the Chief Scientific Adviser's comments about the structure and management of BNSC, and would be grateful if your Department would put in hand consideration of the implications of these latest decisions on ESA involvement for the BNSC, along the lines indicated in my earlier letter of 5 February.

I am copying this letter to the Private Secretaries to the Secretaries of State for Foreign Affairs, Defence, Education and Science, the Chief Secretary, the Chief Scientific Adviser and Sir Robin Butler.

Yours,
Paul

PAUL GRAY

Peter Smith, Esq.
Chancellor of the Duchy of Lancaster's Office

CONFIDENTIAL

BG

Paul

CR
N/T CF

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
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Our ref
Your ref
Date 14 April 1988

Dear Paul,

Lord Shackleton wrote to the Prime Minister on 22 March alerting her to approaching deadlines for decisions on two space projects. He makes a plea for the Government to provide financial support for both.

As Lord Young indicated in the debate before Easter on Lord Shackleton's Committee's report on space, DTI is aware of the situation and is taking another urgent look at the options in the light of recent developments. Since then there has of course been further discussion in the House of Lords on whether what Lord Young said about when we had to respond to the Canadian Government on RADARSAT was correct. As you will be aware, Lord Young's statement was indeed correct and, while there is still no absolute deadline, we do need to let the Canadians know our decision as soon as possible.

A draft reply is enclosed along with the relevant Hansard extract from Lord Young's speech.

Yours,

Peter

PETER SMITH
PRINCIPAL PRIVATE SECRETARY

IS5AAX

DRAFT LETTER FOR THE PRIME MINISTER'S SIGNATURE TO:

The Rt Hon Lord Shackleton KG OBE
Chairman of the Select Committee
on Science and Technology
Committee Office
House of Lords
LONDON
SW1A OPW

SPACE

Thank you for your letter of 22 March.

As you say the Government has an interest in earth observation, since it could have long term potential though virtually no commercial market exists at present. I am pleased that you recognise that the key to its development lies in the creation of a market through the acquisition and processing of data for sale to end-users. Hence our recent decision to allocate £20 million over five years to the establishment of a new data centre.

How far, however, it is necessary for the Government to participate in the development of earth observation satellites to exploit the opportunities is debatable. The

options available are all expensive. When Kenneth Clarke discussed these earlier this year with industry and users, no consensus emerged on a preferred strategy, nor were they sufficiently confident of the prospects to put money up front as a contribution to the heavy development costs involved.

Events have been moving rapidly in recent weeks, and we are of course aware of the situation on the Columbus Polar Platform and on Radarsat, to which you draw attention. As David Young indicated on 30 March in the debate on your Committee's report, the latest information, received just before Easter, from the European Space Agency and from UK industry and users is being urgently examined. As soon as this has been assessed, we shall be in a position to take decisions on the earth observation projects.

IS5AAY

[LORD YOUNG OF GRAFFHAM.]

The noble Lord, Lord Butterworth, recognised that a savings wedge will develop and that will be taken into account to protect data collection. I do not think I could quite go along with the noble Lord in choosing between contributions to Covent Garden or data collection. I prefer my data collection to be musical, but noble Lords may have their own views on that.

I am grateful to the noble and gallant Lord, Lord Carver, who drew attention to the implications of defence. But the BNSC was set up to co-ordinate civil space activities. Defence space activities are the responsibility of the Ministry of Defence. I hope to assure the noble Lord and all in your Lordships' House that the appointment of a new director of BNSC is being examined as a matter of urgency. We are also examining, and I hope we shall come back with conclusions shortly, how to ensure that an industrial input into the British National Space Centre and a greater partnership with industry can come about in the future. We have taken the committee's views on that. However, alas, I cannot see how the space centre could be free-standing. It is part of a government department, it spends taxpayers' funds and at the end of the day the policy would have to be that of Ministers.

The noble Lord, Lord Rodney, said that money should be invested long-term as an act of faith. I am not sure what "long-term" is; often "long-term" is, I suspect, an excuse for those who cannot get funding for their particular projects if they are short-term. Acts of faith are perhaps something on which we should resort to prayer on occasions. We are looking carefully at each and every investment to ensure that there is a likelihood of a real return.

Perhaps I could assure the noble Lord, Lord Shaughnessy, that although his figures contemplated Italy participating in RADARSAT, my information is not that they are not interested but that they have not yet decided whether they will join. That decision is still to come. I wish to assure the noble Lord and indeed all in your Lordships' House that we shall respond to the Canadian Government in good time. The time is not tomorrow night; we have longer than that.

The noble Lord, Lord Peston, said that we must be prepared to sit down at the big table otherwise we should lose. I am a gambling man in my private life but not when I stand before this Dispatch Box. I believe that there are some important matters which we should look at. I shall deal with them very quickly since I have rather exceeded my time.

Lord Peston: My Lords, perhaps I may interrupt the noble Lord for moment. He said that he would make a statement on what the Government's space policy is. I take it that the noble Lord will not sit down before telling us that.

Lord Young of Graffham: My Lords, I am absolutely certain that the noble Lord, Lord Peston, would not let me sit down without doing so, and I shall give our policy before I sit down. Perhaps I may deal with earth observation which several noble Lords have identified today as an important area with long-term potential. We agree with your Lordships' committee that out main effort should go into the ground and user segments so that the space data can be usefully exploited by industry and science. As a first step it is essential to ensure proper handling and processing of data. For this reason we are providing about £4 million a year over the next five years to set up an earth observation data centre as part of the BNSC's National Remote Sensing Complex at the Royal Aircraft Establishment at Farnborough. In the first instance that will handle data from ERS-1 which should begin in the early 1990s.

In the space segment, there are a number of projects available. In the period immediately after ERS-1, ESA's first radar all-weather satellite, the Canadian-led RADARSAT and ESA's second radar satellite are proposed. Beyond that there is the polar platform with Columbus. I am afraid that when we discussed the future scenario with industry at the beginning of this year, there was little consensus emerging among our space companies and potential users on any preferred strategy, nor was there any apparent willingness to make a significant contribution to the heavy costs involved. In those circumstances we could not see why we should join nor what justification there was.

However, in the past few weeks ESA have been re-assessing with NASA the polar platform requirement and the indications are now that its target configuration will be significantly modified, resulting in a less expensive and perhaps more utilitarian concept. I ask myself from time to time, would that actually have happened if my right honourable and learned friend the Chancellor of the Duchy of Lancaster, had not questioned the programme so properly? Surely that is a proper function of each and every partner within ESA. ESA will now decide how to proceed at the Columbus board meeting on 18th April. But I hope we can take a decision before that time. At the same time, we have RADARSAT.

In view of all these decisions we asked the main space companies and users to carry out a rapid reappraisal of the changed situation and to give us their conclusions, which we received yesterday. ESA are giving the BNSC a presentation on the redefinition of the polar platform tomorrow. We are urgently re-examining the options and aim to reach decisions as soon as we have had an opportunity to reconsider first of all the latest information from ESA, then the latest information from the UK industry and users. So this debate is timely and it will be particularly helpful to have the views of the House on the matter, since we wish to continue to play a visible and effective part in the exploration and exploitation of space. We do this not at all costs, but we shall seek to spend our £120 million a year on civil space activities as sensibly and as usefully as we can in those ways which will have a good outcome.

I believe that we can put all this into context, my right honourable and learned friend the Chancellor of the Duchy of Lancaster having made a Statement in another place on Thursday 12th November last year. In it he explained the stance which we took at the Ministerial Council at The Hague and later in a Written Answer in another place on 10th February

this year my right honourable and learned friend [illegible]ained our policy on the science and technology of space research.

To summarise, it said simply that the Government will seek to use the expenditure on civil space activities in ways which are potentially beneficial for both the industry and scientific research. We are committed to a programme of scientific research in space, and in particular we are committed to the main aims of the European Space Agency's Horizon 2000 programme. We shall continue to consider the various options open to us in the field of earth observation, including the Columbus polar platform and RADARSAT. But we reserve the right to apply the same economic tests and the same spirit of looking for outcomes to space as we have in the rest of the economy. In this field space is on land as well as up in the air.

7.28 p.m.

Lord Shackleton: My Lords, the noble Lord's reply was in many ways predictable. I did not believe that the Government would move, particularly in response to a debate in the House of Lords, but the Minister left us with a measure of hope. I suppose I ought to be grateful that he seems to have persuaded the Canadian Government that we can have a little more time so that Her Majesty's Government do not have to announce a decision for or against at the time of this debate. The information which we have all had from official sources and from the Canadian Government was that the decision had to be taken by tomorrow. However, the Minister seems to have succeeded in postponing that decision and I hope it will be the right one.

I shall speak very briefly. First of all I should not like the noble Lord, Lord Peston, to think that we were nasty about economists. What we said was that one cannot carry out cost benefit studies on something if there is no costable benefit at the end of the day. However, we called for exactly the sorts of skills which he has in approaching these problems. Therefore I am very gratified that the advocate of the dismal science is such an enthusiast for enthusiasm. That is what is called for and what has to some extent come from a number of noble Lords in this debate, albeit not from the Secretary of State.

I do not accept that there has been a major change, notwithstanding remarks in regard to the policies of the European Space Agency. I do not know what the Government have been doing for the past four years if they have allowed a situation to develop in which, according to Mr. Clarke, the ESA has unfortunately not so far helped governments to agree on the balance. He said that he believed that the agency had simply piled up grandiose proposals in seeking to pursue every objective regardless of cost, as was shown by the high operating expenses and other matters.

I ask the noble Lord what the Government were doing all this time. They were party to this agency and they had representatives on it. Suddenly they wake up. A general election took place, but the same government came back to demonstrate a new dose of apparent realism and complete ignorance. I do not know who was advising Ministers as I am quite sure that the members of the British National Space Centre did not agree with their philosophy. I suppose that we should be grateful that there has been some progress.

A number of noble Lords made kind remarks to me. I can claim very little credit for this report. If I may say so, I had a very idiosyncratic committee, most of whom proved conclusively their capability of thinking for themselves, which is a distressing quality in a committee of which one is chairman. The result, I am bound to say, has been a difficult one to achieve but one on which there is a great deal of agreement. I must pay tribute to our advisers. The senior clerk, Mr. Hayter, and others did a superb job, because we were rushed in trying to get the report out in time to influence the Government before the first of what appeared to be a series of deadlines. There is now a third deadline as regards RADARSAT.

There is a great deal of enthusiasm among those who have moved into this field because they are interested and because they think it does something for this country. I ask the Secretary of State, because he has shown enthusiasm in other areas, whether the Government will stop trying to justify their very inadequate response at the moment and the change of direction of this body. If anyone has changed direction it is the Government rather than the European Space Agency.

We made clear that we think that Europe seeking to put man into space is mistaken. But we know that man is already in space and undoubtedly Englishmen, Scotsmen, Welshmen and Irishmen will go into space even if it has to be in an American or alternatively a Russian rocket.

I see that the Secretary of State is not volunteering to go himself. Perhaps the noble Lord, Lord Peston, could volunteer, as the Labour Party is always in the van of progress. I ask the Secretary of State to think very hard on this reduced area, namely RADARSAT and the polar platform. There is no doubt that the polar platform has been adjusted. It is an easier proposition. The Secretary of State can give some tribute to Mr. Clarke if it makes him and Mr. Clarke happy after the deplorable performance that Mr. Clarke has put up. According to what my European friends tell me, Mr. Clarke did not help his cause. The Secretary of State was not there and so he does not know whether that is the case, but let him talk to the other members of the European Space Agency. The Secretary of State is loyal and he is defending his subordinate. In those circumstances I do not think that we need to take the matter any further unless we start the debate all over again.

I suggest to the Secretaryof State that he might let those of his doubting colleagues read our report. I know one Treasury official who thinks that it is a very good report, but I shall not mention his name.

On Question, Motion agreed to.

British Architecture

7.35 p.m.

Lord St. John of Fawsley rose to ask Her Majesty's Government what they are doing to promote the quality of British architecture.

cc BG

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-218 2111/3

MO 30/2V

13th April 1988

Dear Paul,

MBRM
14/4

SPACE

The Defence Secretary has seen the Chancellor of the Duchy of Lancaster's minute to the Prime Minister of 11th April.

Mr Younger is content with Mr Clarke's proposals, including that regarding participation in the Columbus Polar Platform, on the understanding that no financial contribution will be sought from the defence budget at any stage of the programme.

I am sending copies of this letter to Lyn Parker (Foreign and Commonwealth Office), Tom Jeffery (Department of Education and Science), Peter Smith (Department of Trade and Industry) and Jill Rutter (HM Treasury) and to Trevor Woolley and Mr Fairclough in the Cabinet Office.

Yours ever

(I C F ANDREWS)
Private Secretary

Paul Gray Esq
No 10 Downing Street

AEROSPACE POLICY. PL 5

PRIME MINISTER

SPACE

Kenneth Clarke's minute of 11 April gives his conclusions following further consideration of the options on Earth Observation projects and the Aramis communication project.

There are three options for Earth Observation - Columbus, ERS-2 (both under ESA), and Radarsat. Industry has now reached a firm view in favour of Columbus, and Kenneth Clarke suggests we should now participate with a 5.5% share. He is prepared to find the small residual funding requirement from DTI programmes.

He concludes we should not participate in Aramis.

Both Geoffrey Howe and John Fairclough (minutes of 13 April) endorse these conclusions; although Geoffrey Howe thinks the Canadians need careful handling about the proposed rejection of Radarsat. I gather that the Chief Secretary and George Younger will also concur subject to minor detailed comments. The Policy Unit are also content.

John Fairclough rightly points out that, although these conclusions complete the greater part of the longer term review of space you commissioned in early February, there remains the need to review the structure and management of the British National Space Centre (BNSC).

Content:

i) To endorse Kenneth Clarke's proposed support for Columbus and rejection of the other projects, subject to handling the Canadians in the way proposed by Geoffrey Howe?

Y
RS MS

ii) To commission the further review of the structure and management of the BNSC?

Yes mt

RRCG.

Paul Gray

13 April 1988

cc DG

CONFIDENTIAL

FCS/88/069

THE CHANCELLOR OF THE DUCHY OF LANCASTER

Space

at top

1. Thank you for sending me a copy of your minute of 11 April to the Prime Minister, which I have read with interest.

2. I am pleased that you have decided that the UK should participate in the Columbus Polar Platform at a level which should enable us to lead. I agree with you that it represents a logical progression from the decision to concentrate on earth observation as a national priority, and to support the ERS-1 project and proceed with a new Earth Observation Data Centre.

3. It is also gratifying that industry have now established what their priorities should be, and that they centre on the Columbus Polar Platform. As you say, their support, and the evident success you have had in having the configuration of the Polar Platform modified to be less expensive and more functional, indicates the likelihood of the project's commercial relevance. I hope that our 5.5% share will indeed enable the UK to lead so that we can ensure the development of the Polar Platform meets our needs and those of British industry.

4. Our participation in the Polar Platform will also have the effect of strengthening the contribution we make to ESA programmes and of influencing the direction

/these

CONFIDENTIAL

these take. This could be important if any of the major new programmes, such as Hermes, were to founder, and the need arose to replace them.

5. I understand that ERS-2 seems increasingly unlikely to go ahead, and accept that we should not join it. I am less happy about Radarsat, particularly in view of the recent press flurry about our likely non-participation. However, the fact that it is a one off project with a high price tag lends force to your argument that it will not provide good value for money, and would undermine the level of our participation in other projects. I would ask only that we give the Canadians advance warning - this might best be done by routing your letter to Mr Oberle through our High Commissioner at Ottawa, and giving the High Commissioner the necessary background to explain the decision.

6. I note that you consider we should not join the Aramis Communications project, and that it too may not go ahead. I would not wish to dispute this.

7. I am copying this minute to the Prime Minister, George Younger, Kenneth Baker and John Major, and to John Fairclough and Sir Robin Butler.

(GEOFFREY HOWE)

Foreign and Commonwealth Office
13 April 1988

AEROSPACE: Space Policy pt 3

CONFIDENTIAL

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PRIME MINISTER

13 April 1988

SPACE

with PS

1. I support the proposals in the Chancellor of the Duchy of Lancaster's minute to you of 11 April. Earth observation certainly seems to me to be the right priority for the available headroom. As between the various projects, there are arguments as between Radarsat and Columbus. Radarsat would offer an alternative platform for international space ventures to ESA. It would start earlier and cost less. Columbus is a more international project and is likely to offer more data on earth resources and to be more relevant to our requirements. Industry support for it, whilst modest, is an important endorsement. And, unless we participate in a major European project such as Columbus, our ESA membership fee will go largely on overheads and offer very poor value for money. On balance I conclude with the Chancellor of the Duchy that the Columbus option is the right one.

2. The proposals in Mr Clarke's minute cover two of the issues in the longer term review of space which I proposed in my minute to you of 3 February and which you endorsed (your private secretary's letter of 5 February). The one outstanding issue for review is the structure and management of the BNSC. The Chancellor of the Duchy's proposals to you, if accepted, will provide a firm basis for space expenditure and activity over the next few years. It is equally important, in my view, that there should be a correspondingly firm structure for the BNSC. As you may recall, my predecessor proposed a number of different structures and budgetary arrangements for the Centre. This issue was set on one side whilst the Space Plan was prepared and considered. This now needs to be tackled and could effectively form the final part of the review which you asked the Chancellor of the Duchy to complete by the Summer Recess. Given the aim of

increasing the level of industrial investment in space R & D, I would suggest it is particularly important that attention be given to a structure and management system for the Centre which ensures close liaison with industry.

3. I am copying this minute to the Foreign Secretary, the Secretaries of State for Defence and Education and Science, the Chief Secretary, the Chancellor of the Duchy and to Robin Butler.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

AEROSPACE Space: Pt 3

dti

the department for Enterprise

CONFIDENTIAL

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

11 April 1988

SPACE

I wrote to you on 1 February setting out the conclusions I had reached on a number of major new projects. These included Ariane V and HOTOL where you and colleagues agreed that we should not participate. I made clear that I wanted to consider further the options on a number of Earth Observation projects and the Aramis communications project.

2. I have now carried out a further review of these programmes. The conclusions will largely determine our space policy over the next four to five years. This minute sets out my conclusions and recommendations. ESA timetables require us to notify them of certain decisions by 18 April. The Canadian Government requires an urgent decision on Radarsat.

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Earth Observation Programmes

3. As explained in my 1 February minute, there are three main projects on which decisions are required: the Columbus Polar Platform and ERS-2 under ESA; and Radarsat. The British National Space Centre has been urgently reviewing the options under these three projects with industry - the users as well as suppliers of technology - and other Departments. The key difference between the position now and when I last reported is that industry has reached a firm view on which of these projects they regard as most important - the Columbus Polar Platform. The target configuration of the Platform has also been significantly modified following discussions between ESA and NASA. I think our earlier reservations have played a part in the welcome agreement on a configuration that is both less expensive and more functional. The Platform will mark a logical progression from the decisions we have already taken to support the ERS-1 project and to proceed with a new Earth Observation Data Centre. It also represents the most promising and economic route towards possible commercialisation of earth observation activity.

4. The Platform is the most ambitious of the three projects. Columbus will be a major part of ESA's activities for the next ten years. If our membership of ESA is to mean anything then, particularly since we have decided not to enter into either of the other two major programmes - Ariane V and Hermes - we should in my view take a significant share in the Polar Platform in order to put ourselves in the lead role on the project.

5. I do not find the arguments for UK participation in the other earth observation projects persuasive. Radarsat is a one-off project outside ESA and if we were to consider participation in this as well it would be not only costly but would undermine our other priorities. ERS-2 is essentially a repeat of ERS-1, in which we are already participating, and is the least commercially orientated of the three. The Canadians require a decision on Radarsat now. On the other hand no statement is necessary on ERS-2, which increasingly looks unlikely to materialise.

Communications

6. It is now also questionable whether Aramis will go ahead as an INMARSAT/ESA venture. However, on the evidence so far

presented, my predisposition is to recommend against support. As I explained in my 1 February minute, the UK has been successful in communications in the past but the technology is now mature and industry itself should be prepared to bear the cost of any further funding.

Level of Participation in Polar Platform

7. I have considered carefully the level of participation in Columbus. The maximum share I have looked at over the next ten years is 7.5%. This is industry's basic recommendation and would cost some £330M. I could justify this level of participation although I believe we can achieve the main benefits by joining at a lower level.

8. I am concerned to ensure that we maximise the commercial potential for the results of the Polar Platform project. We have made a good start in getting ESA projects directed away from pure research towards what can be exploited commercially. I am keen to maintain this momentum. The minimum level of participation in Columbus at which this can be achieved is 5.5%, which should just be sufficient to give us the lead in the Platform.

9. Industry is now, at last, unanimous that, if difficult choices have to be made, they regard this project, even at a 5.5% level of participation, as their first choice. The total cost of a 5.5% share over the next ten years is

approximately £276M. As a single amount this is clearly significant, although spread over ten years its impact may not appear as great.

Funding Requirement

10. The approximate funding profile for the Platform over the next five years starting 1988/89 is £9M, £10M, £21M, £26M and £30M. This can largely be accommodated within the existing planned provision for BNSC except for the first two years when there is an estimated additional funding requirement of £9M and £6M respectively. I am pleased to report that industry is prepared to fund £5M on the assumption that HMG funds the remainder. This clearly indicates their support for the Polar Platform and provides a further valuable indication of the project's likely industrial relevance. Although my Department's budget is tightly stretched, I am prepared to find the resources needed in 1988/89 from elsewhere on my cash limited programmes. Funding for the later years will fall to be considered in the context of the forthcoming PES round.

11. It is important to see this project in the light of the other proposals for space expenditure that have been put forward. When I came in to my present post, there were proposals for the UK to enter in to all of the following:

Project	Total Funding (£m)
Ariane V	81
Hermes	195
Columbus	330
Radarsat	112
Aramis	20
ERS-2	35
HOTOL	No firm estimate but at least 1000
TOTAL	1773

I have turned down every one of these with the single exception of Columbus and even here I am proposing a level of participation which will save £54M.

Conclusions

12. The positive role in Columbus that I am proposing will enable us to present a vigorous and coherent Government policy for civil space over the next 4-5 years. The central action thereafter that I foresee is for the BNSC, in concert with its sponsor Departments, to provide clear direction to this policy so that industry, and particularly the users of earth observation data, can take forceful advantage of these new opportunities.

13. I invite colleagues to agree that:

i) we agree on 18 April to participate in the Polar Platform at 5.5%;

ii) we should not enter the Radarsat project, or the ERS-2 or Aramis projects if they go ahead;

iii) I should announce the decisions on the Polar Platform and Radarsat between now and 18 April and the decisions on ERS-2 and Aramis as and when I judge expedient.

dti

the department for Enterprise

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14. I am copying this minute to Geoffrey Howe, George Younger, Kenneth Baker and John Major and to John Fairclough and Sir Robin Butler.

KC

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AEROSPACE: SPACE
Policy Pt 3

Lord SHACKLETON

6/4

file DTS

10 DOWNING STREET

LONDON SW1A 2AA

D 12/4

From the Private Secretary

Ack/

23 March 1988

The Prime Minister has seen the attached letter of 22 March from Lord Shackleton. She wishes to send a reply after the debate in the Lords on 30 March, and I should be most grateful if you could supply a draft for this purpose by Wednesday 6 April.

PAUL GRAY

Peter Smith, Esq.
Chancellor of the Duchy of Lancaster's Office

GA

10 DOWNING STREET

Prime Minister

Lord Stockton has been at pains to request that you should see this letter personally before the 30 March Lords debate. I see nothing in it to change earlier views and decisions. If you are content, we will let you have a reply after 30 March.

RRCG
22/3

Yes
Thankyou

MT

From: THE RT. HON. LORD SHACKLETON, KG, OBE
Chairman of the Select Committee on Science and Technology

COMMITTEE OFFICE
HOUSE OF LORDS
LONDON SW1A OPW
01-219 3218/3346/6075

22nd March, 1988

Dear Prime Minister

SPACE

I appreciate that a number of colleagues from both Houses have been in touch with you about the United Kingdom's space policy. As Chairman of the House of Lords Science and Technology Committee I feel bound to make a further plea against an increasingly tight timetable for decisions on international programmes, if we are not to lose out on long-term space developments. I know it is argued that we can come back at a time to suit ourselves, but from my contacts with the European Space Agency and other members of the international space community in the last few days, I believe this to be untrue.

Two deadlines for major decisions are imminent. By 31 March we have to decide whether to join the Canadians in RADARSAT, and by mid-April whether to join ESA and the Americans in the Polar Platform. Within existing levels of expenditure it is possible to join at least one of these programmes. For a marginal increase we could join both. I shall be arguing this course of action in the House of Lords debate on 30 March and so will others. If we fail to join, British industry's contribution to RADARSAT will go to the Americans and its contribution to the Polar Platform will probably go to the French.

The Government has consistently expressed its interest in earth observation and the Committee strongly endorse this. It is the next area of space exploitation likely to become commercial, and we must not forget its value for defence - for instance in the Falklands. Future development requires the creation of a market for data which end-users will pay for. This in turn depends on continuity of satellite data, sufficient to attract new value-added industries and users. Because of the technological and commercial risks in launching satellites and the long time frame for profitability, the initial investment inevitably relies on the public sector for support, and the public sector are among the main users. RADARSAT in 1994 and the Polar Platform in about 1998 offer exactly the sequence of satellites which is needed. Last week's decision by the French to block the ERS-2 satellite (in

/the interests

the interests of their domestic space industry) reinforces this need. What is more the Polar Platform would get us into the Columbus programme and give us access to the Space Station. This is an optional programme which the United Kingdom Government "welcomed and endorsed" in Rome in 1985.

Since David Young will be replying to the debate on 30 March, I am copying this letter to him. Other aspects of space policy will of course also be raised then.

I hope you will excuse me for approaching you personally.

Yours sincerely

Eddie Shackleton

SHACKLETON

The Rt. Hon. Margaret Thatcher, MP,
10 Downing Street,
LONDON,
SW1A 2AA.

028/3294

CONFIDENTIAL

cc B/G

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1

NBPM
PRCG
21/3

18th March 1988

Dear Chancellor,

SPACE POLICY

Thank you for your letter of ~~10~~ 11 March.

I do not think there is much between us on this. As the letter from the Prime Minister's Private Secretary of 5 February indicated, there is a need to look at the UK's longer term involvement in ESA. Given the extended contractual nature of our commitments to ESA, there is obviously limited scope for reduced spending on space in the immediate future, even if that were compatible with current spending priorities and sensitivities. But the longer term position is much less clear and your review should provide a valuable opportunity to consider various spending options. While I welcome the opportunity to comment on the conclusions of your review, I think it would also be sensible, in view of the value for money and longer term expenditure issues involved, if my officials were kept closely in touch with the developing work. I understand my officials have already spoken to yours about this and have agreed arrangements to ensure adequate consultation.

I am copying this letter to the Prime Minister, Geoffrey Howe, George Younger, Kenneth Baker and John Fairclough and Sir Robin Butler.

Yours sincerely,

pp JOHN MAJOR

(Approved by the Chief Secretary and signed in his absence)

AEROSPACE: Space PT3

cc BG

dti

the department for Enterprise

CONFIDENTIAL

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Rt Hon John Major MP
Chief Secretary
HM Treasury
Treasury Chambers
Parliament Street
LONDON
SW1P 3AG

NBPM

RRCG
10/3

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Your ref
Date 10 March 1988

Dear John,

SPACE POLICY

Thank you for your letter of ~~9~~ 8 February. I am glad you welcomed the conclusions of my review.

You endorsed John Fairclough's suggestion, in his letter of 3 February, that there should be further consideration of space policy over the longer term taking account of technological implications and value for money. I am setting in hand work along these lines.

You will recall that I made clear in my minute of 1 February to the Prime Minister that I was satisfied that there was a case for continuing Government expenditure on space at present levels and that I did not rule out the possibility of recommending to colleagues at some future stage that we support a programme whose costs could not wholly be accommodated within the existing provision for space. I do think that the subject is very sensitive at the moment and I would not wish to encourage you to believe that this is the right time to look for any net reductions. You will of course have an opportunity to comment in due course on the conclusions of the further work I am putting in hand.

I am copying this letter to the Prime Minister, Geoffrey Howe, George Younger, Kenneth Baker, and to John Fairclough and Sir Robin Butler.

Yours ever,

KENNETH CLARKE

FE7ABZ

AEROSPACE : Space PT3

RESTRICTED

CCBA.

ELIZABETH HOUSE
YORK ROAD
LONDON SE1 7PH
01-934 9000

NBPM
PRCG
25/2

Peter Smith Esq
Principal Private Secretary to
The Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1-19 Victoria Street
London SW1H 0ET

25 February 1988

Dear Peter

STATUS OF THE BNSC

1. I have consulted my Secretary of State on your letter of 22 February.

2. Mr Baker notes that the Prime Minister has asked the Chancellor of the Duchy to bring to E(ST) before the summer recess his conclusions on the longer term development of the space programme including the way the headroom is to be used, the UK's future involvement with ESA, the technological position of the aerospace industry, and implications for the structure and management of the BNSC. Mr Baker notes that the major questions here relate to DTI expenditure but that DES responsibilities are also involved notably for SERC and NERC as the DES members of the BNSC. He would therefore wish to be closely involved in the preparation of the paper for E(ST), especially where it touches his interests. He would wish to be similarly involved in the preparation of the Government's reply to the House of Lords Report; and would be grateful for reassurance on these two matters.

3. Mr Clarke will know, from the letter of 28 January, that Mr Baker thinks the BNSC has a useful role to play even at present funding levels. He therefore welcomes Mr Clarke's proposal competitively to appoint a new Director General. He agrees that this should be at Grade 3 and recognises that the new DG could not then chair the Management Board. Mr Baker thinks that the DG should continue to be a full member of the Board, as helping to secure his authority particularly in international discussions.

4. As to the Chairman, Mr Baker notes the imminent change in DTI membership. He sees advantage in one of the existing members at Grade 2 level - MOD or DES - taking the chair for the immediate future, to promote continuity.

5. Looking beyond the E(ST) discussion Mr Baker sees advantage in annual rotation of the chairmanship among the three member Departments. He believes that this would strengthen the collaboration and commitment to the revised rolling plan which he hopes the Centre will prepare.

6. I am copying this letter to Paul Gray, Alex Allan, Tony Galsworthy, Brian Hawtin, Trevor Woolley and John Fairclough.

Yours,

Tom.

T B JEFFERY
Private Secretary

AEROSPACE : Space PTB.

Mr Gray

CABINET OFFICE

70 Whitehall London SW1A 2AS Telephone 01-233

File Ref: ST/16/1

Ha 0881

Mr P Smith
Principal Private Secretary to
the Chancellor of the Duchy of Lancaster
DTI
1-19 Victoria Street
London SW1H OET

NBPM
RPLG
2/3

24 February 1988

Dear Peter

file with PG.

STATUS OF BRITISH NATIONAL SPACE CENTRE

Mr Fairclough is in Japan at present, but we had had some advance notice of the proposals set out in your letter of 22 February through our normal working contacts, and hence were able to discuss them with him before he left. I can therefore confirm that Mr Fairclough is content with those proposals.

I am copying this letter to the recipients of yours.

Yours sincerely

Peter Casey

PETER CASEY

cc BH

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Tom Jeffery Esq
Private Secretary to the
Secretary of State
Department of Education and
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Our ref
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Date 22 February 1988

ARBA at his dept.
RBCG
22/2

Dear Tom,

STATUS OF BRITISH NATIONAL SPACE CENTRE

In his minute of ~~3~~ 8 February the Chief Scientific Adviser suggested that Ministers make decisions about the status of the British National Space Centre later this year in the light of a further consideration of space policy, especially of earth observation opportunities. The Chancellor of the Duchy is content to leave substantive issues until then but wishes to make some interim changes in view of the imminent retirement of the acting Director-General of the BNSC and the need to clarify the incoming Director-General's reporting arrangements.

The Chancellor of the Duchy has concluded that, in view of recent Ministerial decisions on UK participation in European Space Agency projects, a Director-General at Grade 2 level for the BNSC (as was Mr Roy Gibson) can no longer be justified. He considers that the post should be filled at Grade 3 level and that the Management Board should be chaired at Grade 2 level and not, as at present, by the Director-General himself. These arrangements would, of course, be reviewed after the further policy consideration later this year. The Chancellor hopes colleagues will be content to proceed on this basis.

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dti

the department for Enterprise

I am copying this letter to Paul Gray, Alex Allan, Tony Galsworthy, Brian Hawtin, Trevor Woolley and John Fairclough.

Yours sincerely,

Peter Smith

PETER SMITH
PRINCIPAL PRIVATE SECRETARY

FE6AAU

888-273

AGROSPACE: Space PT3

From: The Earl of Bessborough, DL.

Prime Minister

PERSONAL

House of Lords
01-219 3160

16th February 1988

Dear Prime Minister,

I feel I must write to thank you for giving so much time to Robin Caldecote, Peter Emery, Ian Lloyd and myself on U.K. space policy. I greatly appreciated the answers which you gave us and am glad that at least the U.K. ground base station to receive data from ERS1 will now be funded.

Secondly many congratulations on the outcome of the EEC summit. I think you got the balance exactly right. I am glad to see that you did make certain concessions which I am quite sure will in the long run be completely outweighed by the advantages of our belonging to a single internal European market.

Thirdly as the U.K. member of the Jury of the Bentinck Prize, I was so glad to hear Lynda Chalker read out your appreciation of Michael Butler's book Europe: more than a Continent. I should very much like to have a copy of this for my files. It was highly gratifying to me personally that I was able to persuade nine out of the other eleven Jurors that this was the best book out of the short-list of 32.

No doubt people will think I am prejudiced in favour of a more united Europe both politically and economically having a French mother, a Greek grandson and Italian nephews, and I may say that my wife as an American - and in particular a Philadelphian - is also very much in favour of something akin to a United States of Europe. It will certainly be a great day when a greater part of Western Europe, with a population of 330 million, is in a position to match up to the United States, Japan and the Soviet Union, even if our population will take a long time to rise to the one billion in the People's Republic of China!

With renewed thanks for giving us so much of your time on Space.

Yours ever,

Eric

Bessborough

P.S. I hope Ben Franklin's bust is well positioned at No10 or Chequers!

E.

The Rt. Hon. Mrs. Margaret Thatcher FRS, MP

BCL

CCBG

SUBJECT cc MASTER

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

10 February 1988

Dear Rosalind,

SPACE

The Prime Minister yesterday had a meeting with Lords Caldecote and Bessborough, Sir Peter Emery and Sir Ian Lloyd to discuss Government policy towards and spending on space. She was most grateful for the briefing provided with your letter of 8 February.

The main points raised by the Parliamentary delegation were:

(i) more enthusiastic participation by the UK in the European Space Agency and projects like Columbus would generate additional jobs in the UK. The spin-off was potentially very large with perhaps 90 per cent of Government funding being returned in the form of contracts for UK companies. This also helped to keep key scientific personnel in this country;

(ii) the UK was now at a crucial break point in its attitude towards the ESA. If we did not participate in projects like Ariane and Columbus it would not be possible to join later on and we would be effectively handing the ESA on a plate to the Franco-German axis;

(iii) United States experience had demonstrated the spin-off gains from space research for example in improving the reliability of the manufacture of components;

(iv) the private sector was willing to put up substantial funding of space research but was looking for a clear sign of Government commitment before offers would be forthcoming. Industrial interest in communication satellites might also be increased if there was scope to obtain a share of revenue operations as well as manufacturing contracts;

(v) there was a major danger of losing the benefits of earlier large expenditure if modest further additional amounts of finance were withheld. For example total spending on ESR1 over the last ten

BW

years had been some £42 million. But finance was being withheld for a ground station needed to receive and process data from ESR1;

(vi) if the UK Government decided not to support the ESA optional programmes this would raise the question of whether it made sense to continue to incur the basic expenditure of £80 million - it might be better to get out of the ESA altogether.

Responding to these points the Prime Minister stressed the very large sums Government was putting into scientific research. One of her main concerns was that the heavy costs incurred in supporting big "diplomatic" projects pre-empted funds that could be more profitably deployed in other areas. Projects like Ariane and Columbus would increase this problem. The Government had considered them very carefully but concluded that there was no realistic prospect of private sector involvement. The Government was however looking further at Aramis where there was a prospect of a 25 per cent private sector contribution.

I am copying this letter to Jonathan Taylor (H.M. Treasury), Lyn Parker (Foreign and Commonwealth Office), Tom Jeffery (Department of Education and Science) and Trevor Woolley (Cabinet Office).

Yours sincerely,
Paul Gray

(PAUL GRAY)

Ms. Rosalind Cole,
Chancellor of the Duchy of Lancaster's Office.

cc BG.

dti

the department for Enterprise

CONFIDENTIAL

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Rt Hon Sir Geoffrey Howe QC MP
Secretary of State
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Our ref
Your ref
Date 10 February 1988

PRCG
10/2

Dear Geoffrey,

SPACE

Thank you for your minute of 9 February. at Hap

I am grateful for your general endorsement for my approach but I am afraid I cannot accept some of your specific comments. I do not think it is true that what I am proposing amounts to a withdrawal from space research by the UK. Indeed, I have confirmed my view that expenditure at current levels, which at approximately £120m a year is already a considerable sum, is justified. What I do want to make clear is that, having considered the position carefully together with our companies, we do not see any industrial, commercial or scientific case for participating in Ariane V or, as presently proposed, the Columbus Polar Platform.

This does not necessarily mean that we shall not participate further in major earth observation programmes. As I said in my minute of 1 February, I am proposing to consider this further. This is a point which I shall make clear in my announcement. It is also contained in the formal response which I have today sent to ESA (copy attached).

FE3ADA

dti

the department for Enterprise

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Nor do I feel that there should be any difficulty in explaining our position to the Americans. There is no likelihood of any significant commercial returns for the foreseeable future for any of the major optional programmes proposed by ESA. Our own industry cannot agree on a preferred strategy and the programmes are bereft of any user participation.

You will wish to be aware that we are continuing to consider the options for space collaboration with other countries. You mention the Japanese. Although we have not said so publicly, we are considering their possible involvement in HOTOL. I shall also be making clear our continuing commitment to ESA itself.

I am copying this letter to the Prime Minister, George Younger, Nigel Lawson, Kenneth Baker, Sir Robin Butler and John Fairclough.

Yours ever,

KENNETH CLARKE

FE3ADA

888-273

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Dr Heinz Riesenhuber
Federal Minister for Research
and Technology
BONN
West Germany

Department of Trade and Industry

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Direct line 215 5147
Our ref
Your ref
Date 10 February 1988

Dear Heinz,

Thank you for your letters of 11 January and 5 February.

I much appreciate your kind remarks about UK membership of ESA. We fully intend to maintain our involvement in ESA. As I made clear at the Hague meeting, however, our future participation in the optional programmes will depend heavily on our assessment of the industrial, commercial and scientific benefits in each case.

Since the Hague meeting I have held discussions with major UK companies, particularly in the earth observation and launcher fields. My aim has been to establish their priorities, to assess industrial and commercial prospects and to ascertain what financial contribution they would be prepared to make towards new projects. I found little or no agreement on a preferred strategy for transforming earth observation activities into a commercial operation. I was particularly concerned that no clear user interest had been identified. Given these uncertainies, I have decided that the UK cannot commit itself to either the ERS2 or Columbus Polar Platform projects as presently proposed. I shall, however, keep them under consideration to see whether UK industry, including potential users, can agree on priorities and identify better commercial prospects.

EC3AKB

the Enterprise initiative

dti

the department for Enterprise

We decided at The Hague that there should be a Polar Platform study to throw greater light on both the size and form that a Platform might take and on the potential for its commercial operation. This needs to be done in consultation with the United States to ensure that a compatible international system is developed. I would find it helpful if this could be discussed further at official level.

I have also looked carefully with our companies at the launcher area. While the Arianespace market projections look promising in the long term, Ariane V will not begin to generate returns until the late 1990's even if those projections are borne out. UK industry is not prepared to make a financial contribution before then. Even the minimum effective participation in Ariane V would be expensive as an investment for the likely return. I also continue to be concerned about the man-rating of Ariane V. I recognise that this may not add significantly to the costs but, as I made clear at The Hague, I see no justification at all for this additional risk to the programme. I have therefore decided that the UK will not be joining the Ariane V programme.

I hope you will understand from the above why we feel unable to join the new optional programmes. Nevertheless, the UK remains committed to ESA and we will strive to made a success of all the programme to which we are subscribing.

I am copying this letter to Dr Lüst.

Best wishes,

Yours ever,

Ken

KENNETH CLARKE

EC3AKB

888-273

AEROSPACE: Space Policy
Pt 2

LORD BESSBOROUGH'S INTRODUCTORY REMARKS
AT THE MEETING WITH THE PRIME MINISTER
ABOUT UK SPACE FUNDING
HOUSE OF COMMONS, 9TH FEB. 1988

Prime Minister, I saw Lord Shackleton yesterday and he particularly asked me to say how good you had been to him in various ways, especially in supporting the funding of the Antarctic survey. He also asked me to say he did his utmost in his Report on UK Space Policy to make it as moderate as possible and not ask for too much.

I gather some members of the Sub-Committee were more critical of Government funding than he was. I was not myself a member of the Sub-Committee but at Lord Shackleton's invitation I did attend the meeting at which Roy Gibson gave evidence. I was also a member of the previous Sub-Committee on Remote Sensing and Digital Mapping which this present Report overlaps. I did of course initiate the first full debate on space research in the Lords in 1961 and have been following the developments ever since, not only in the United States and the Soviet Union but also earlier on at Woomera in Australia and more recently in China.

May I say that although not a member of this last Sub-Committee I do agree with its conclusions and recommendations. I will not detail these - they are on page 63 of the Report - since I am sure you have read them. The main point I would like to make is that greater Government participation in the European Space Agency and indeed in the Columbus space station would certainly lead to further UK contracts both in Europe and in the USA.

Before asking my colleagues Robin Caldecote, Peter Emery and Ian Lloyd to say a few words I could not help being struck by the letter in The Times of 3rd February from the Headmistress of Ashford School stressing the importance of a space programme which would kindle scientific and academic interest at a grassroots level. That was of course the school which won a competition in 1985 to build and put an experiment into space - albeit the American shuttle. This was of course the kind of thing that gave a fillip to the cause of "girls into science" everywhere.

Lord Shackleton

SPACE

(A) The following decisions have to be taken now

1. (By 10 Feb) Participation in Columbus
   a) APM
   b) MTFF
   c) Polar Platform
   d) Eureca

   Participation in Ariane 5

   These are optional programmes with which ESA has decided to go ahead; the UK has so far declined to join any of them. Without a positive decision to join, the UK will be excluded.

2. Participation with Canada in RADARSAT

The Committee have argued for participation in APM
Polar Platform (subject to review)
Ariane 5
RADARSAT

(B) The door is closed on participation in Hermes

(C) The United Kingdom participates in ESA's mandatory science programme (Horizon 2000) and the ERS-1 satellite (but not ERS-2). No decision has to be taken yet on a Data Relay Satellite. These apart, the United Kingdom would exclude itself from all ESA's major long-term activity at present levels of funding - each new programme would involve extra expense because the total United Kingdom Space budget is already committed for 2 years or so ahead.

(D) For a decade the United Kingdom has subscribed to the ERS-1 remote sensing satellite, now due for launch in 1990. Total United Kingdom expenditure on ERS-1 to March 1988 will have been about £42 m at constant 1987/88 prices. The satellite's orientation towards oceanography has been championed by the United Kingdom which has contributed instruments to the payload. But there is no money to build a United Kingdom ground station to process ERS-1 data. Without this the data from ERS-1 will not be useable in the United Kingdom.

(The target cost of the ERS Data Centre was £20 m. With the launch only 2 years away it is already too late to spend that much money in time, even if it became available now.)

ESA Subscriptions

The percentage of ESA's mandatory costs payable by a Member State is calculated according to the size of its national GNP. The percentage fluctuates from year to year as national GNPs rise or fall. The United Kingdom's contribution is now about **16%**.

Payment for optional programmes is calculated on the same basis but may be, and regularly is, varied. When mandatory and optional programmes are taken together, the percentage of ESA costs paid by the United Kingdom falls to about **12%**.

The Government's present policy, if unaltered, will lead to the United Kingdom's contribution falling to about **5%** after 1990, because the Government are not entering any of the new optional programmes.

Committee's Menu and Annual Costs

1.	Existing ESA programmes	£80m	
	Columbus (APM) (Polar Platform) Preparation for ERS 2 Ariane 5	£50m	
	Total via ESA	£130m	(after 5 years)
2.	Existing national programme	£32m	
	ERS Data Centre Radarsat National technology programme	£30-40m	
	Total (excl defence) outside ESA	c£70m	(after 5 years)
3.	Total public and private spending on space (excl defence c£100m)	c£200m	(after 5 years)

4. After 10 years the balance between ESA and national spending should shift from 2:1 to 1:1. This presupposes a large growth in spending outside ESA.

UK SPACE ACTIVITIES POSSIBLE AT DIFFERENT INVOLVEMENT LEVELS

SUBJECT ELEMENT (includes National, International and ESA programmes)	AT PRESENT £116M/YEAR	BUILDING TO £200M/YEAR OVER 5 YEARS
ESA Mandatory Programme	included	included but increasing core ESA costs will lead to greater funding requirements unless UK "share" renegoitated
Space Science Programme	static level	rational increase possible
Microgravity Science Programme	minimal level	constructive support possible
Telecommunications	included	change focus to Data Relay Satellite and Aramis?
European Data Relay Satellite and/or Aramis	no prospect of inclusion unless reorientation of telecomm vote	
ERS-1 Satellite	included	funding needs declining
ERS-1 Satellite Data Centre and ground segment elements	inhibited at present minimal level	possible
Preparing national users to effectively utilise the data (in a UK National User Programme)	Presently at non-effective level	possible
ERS-2 Satellite	@@@decision not taken	*** See below
Radarsat	@@@decision not taken	*** See below
Participation in Space Segment of Columbus - Attached Pressurised Module - Polar Platform - Man Tended Free Flyer	@@@decision not taken	*** See below
Effective ground segment to utilise Columbus Data	@@@decision not taken	through ERS-1 Satellite Data Centre and National User Programme (items above)
West Freugh receiving station	MoD funds	MoD funds
Infrastructure to process/disseminate/archive (i.e. utilise) West Freugh data for civil programme	excluded	integrate with ERS-1 Satellite Data Centre plans i.e. possible
Ariane 4	minimal level	moves to Ariane 5 support?
Ariane 5	@@@decision not taken	minimum level possible (i.e. non-influential vote level)
HOTOL	minimal level	further development possible to pursue
Technology development programmes		
e.g. Robotics	minimal	reasoned development possible
Guidance computers/systems	minimal	reasoned development possible
Precision low power gas space thrusters	minimal	reasoned development possible
Ion thrusters	minimal	reasoned development possible
Self checking microchips	minimal	reasoned development possible
Geographic Information Systems	minimal	reasoned development possible
Advanced Satellite-based Navigation Systems e.g. ESA Navsat	nil	reasoned development possible
Instrument development programmes e.g. Synthetic Aperture Radar Passive Microwave Scanners/ Sounders Visible Infra Red Imagers/ Sounders	minimal	some staged development possible but would have to be in collaboration, not by UK alone

@@@ "decision not taken" indicates that as current situation. Inclusion with present budget level would only be possible by specifically including the item and deleting some existent activities.

*** Participation in all of Columbus, ERS-2 and Radarsat will not be possible under rising £200M/year over 5 year budget line. Participation in one of the three would be possible - decision on long term returns that are possible against expenditure etc needs careful re-evaluation of studies/briefing papers that have been prepared.

Revised: 8 February, 1988.

The pull of space

From the Headmistress of Ashford School

Sir, I should like to endorse most strongly the views expressed in today's leader (January 27) on the importance of a national space programme, particularly for the kindling of scientific and technological interest at the grassroots level of school education.

The imaginative pull of space flight has been demonstrated dramatically in Ashford School since it won an ITN competition in 1985 to build and put an experiment into space, albeit on the American shuttle. Even the unforeseen delay to its flight has not daunted the astonishingly rapid increase since then in the school in the choosing of scientific subjects at GCSE, A-level and university courses and has given a fillip to the cause of "girls into science" everywhere.

The possibility of such direct involvement would certainly be enhanced by the existence of a national space programme; would act as a spur to the imagination as well as to the intellect; and might help to attract the leaven of visionaries that true progress demands in any field.

Yours faithfully,

TATIANA MACAIRE,
Headmistress, Ashford School,
East Hill,
Ashford, Kent.

January 27.

THE TIMES 30 JAN 1989

NBPM. Agreed the C/Duchy's office that his PQ today will say UK will not participate in Columbus as presently proposed.
PRCG
10/2

CCBC

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FCS/88/025

CHANCELLOR OF THE DUCHY OF LANCASTER

with PQ?

Space

1. I have seen your minute to the Prime Minister of 1 February, together with her response and the comments of George Younger and John Fairclough.

2. I warmly endorse your suggestion of a strategic review of our space policy. It is an area where the implications and future benefits are bound to be long term. E(ST) already exists as the appropriate forum.

3. Meanwhile our decision not to increase expenditure on civil space makes hard choices necessary. It is primarily for you to judge what effect so comprehensive a withdrawal from space research by the United Kingdom would have on our future as a technologically advanced society. I am concerned with the mangement of its effect on our partners and especially on our relationship with the United States. This applies with particular force to Columbus. Withdrawal from what will be the next major Western and American space project, with all the Western industrial powers and Japan participating, would leave us dependent on others for many of the most significant benefits -foreseen and unforeseen - of space exploitation. The Americans would contrast our initial

enthusiasm for the space station project (we proposed ourselves as the project leaders on the Polar Platform) with our new, negative stance. They would ask what the explanation was: loss of nerve, or fresh doubts about our ability to pay?

4. I wonder whether the 10 February deadline in fact applies to our participation in Columbus, given that we are taking part in the further extended preparatory stage within ESA until the autumn of this year. Can we propose to ESA that we delay our final decision on participation in Columbus until the autumn? This would give us time to examine systematically all aspects of a decision which either way will have substantial consequences.

5. My other comments can be brief. It is disappointing that the industrial firms involved in space research and development have not committed more of their own resources to space funding. The industry would no doubt argue that Government should give the lead in areas of high technology where the returns are inevitably long-term. This argument is indeed in line with the objectives of DTI's own innovation policy, which I understand to be

- to move away from near-market R&D support;

- to give greater emphasis to longer term research;

- to increase the awareness and participation of UK industry in international collaboration.

Against this background space programmes should not be denied government support just because they are not "market or even user led".

6. I welcome the proposal to go ahead with the Earth Observation Data Centre. This Government commitment in an important area of space exploitation will give a lead to industry, encouraging more investment in remote sensing and earth observation.

7. I am also glad that you intend to examine further the Aramis project. I agree that communications projects should be assessed on commercial grounds, and that it is time to reduce support from public funds for them.

8. I am sending a copy of this minute to the Prime Minister, George Younger, Nigel Lawson, Kenneth Baker, Sir Robin Butler and John Fairclough

(GEOFFREY HOWE)

Foreign and Commonwealth Office
9 February 1988

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cc BG

NBPM
PMG 10/2

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

9 February 1988

Dear Chancellor,

SPACE POLICY

I ~~have~~ attached seen a copy of your minute to the Prime Minister of ~~1~~ February.

The conclusions of your review of space policy are welcome. I support your decision not to enter into any new major ESA projects and to finance proposed future developments from your existing budget for 1988-89 and 1989-90.

The reactions of major companies suggest that there is no substantive technological or economic reason for UK support for the major ESA projects of Ariane V and Columbus. And the House of Lords Select Committee on Science and Technology Report on UK Space Policy bears out these doubts.

As you suggest the political case for expanding space provision is also very weak. There is certainly no justification for additional space spending financed from the Reserve.

Indeed, I really wonder whether we are justified in continuing to fund space activity even at the present level. I have seen John Fairclough's letter of 3 February which suggests a strategic review of space policy to 1992-93 taking account of technological implications and value for money. I support this approach. But it may be that in the absence of a larger space budget the present level of spend should be reduced. (The Select Committee Report also supports this view.) Given the pressure on public expenditure in general and in particular

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the range of demands for science and technology spending, ought we not to consider whether at least part of the £100 million plus a year we currently devote to civil space would not yield better returns elsewhere? I therefore suggest that a longer term review might look seriously at options for winding down Government funding, taking account of contractual commitments to ESA etc.

I am copying this letter to the Prime Minister, Geoffrey Howe, George Younger, Kenneth Baker and to John Fairclough and Sir Robin Butler.

Yours sincerely,

Jim Rutter

pp JOHN MAJOR

(Approved by the Chief Secretary + signed in his absence).

10 DOWNING STREET

From the Private Secretary

PRIME MINISTER

SPACE : MEETING WITH PARLIAMENTARY DELEGATION

The enclosed papers are:

Flag A – DTI briefing pack

Flag B – Mr. Clarke's minute of 1 February with his conclusions on Ariane, Columbus, Radarsat and Hotol.

Flag C – My letter of 5 February recording your conclusions on B.

Flag D – Minute just received from S/S Defence.

RRCG 8/2

dti

the department for Enterprise

The Rt. Hon. Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster and
Minister of Trade and Industry

Andy Bearpark Esq
Private Secretary to
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Our ref
Your ref
Date 8 February 1988

Dear Andy,

PRIME MINISTER'S MEETING WITH PARLIAMENTARY DELEGATION ON SPACE: 9 FEBRUARY 1988

File with PG

As requested in Paul Gray's letter of 5 February, I attach a brief for the above meeting. Also attached is a copy of the House of Lords Select Committee on Science and Technology recommendations which were published on 26 January and copies of Hansard for 23 July 1987, and 28 January 1988.

As you know, the Prime Minister has endorsed the Chancellor's conclusions on Ariane 5, Columbus, Radarsat and HOTOL, as set out in his minute of 1 February. The brief has therefore been prepared along those lines. The Chancellor intends to announce these decisions on Wednesday 10 February.

I am copying this letter to Jonathan Taylor HM Treasury, Lyn Parker Foreign and Commonwealth Office, Tom Jeffery Department of Education and Science and Trevor Wooley PS/Sir Robin Butler.

Yours
Rosalind Cole

ROSALIND COLE
PRIVATE SECRETARY

EC3AJA

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the department for Enterprise

SPACE: PRIME MINISTER'S MEETING WITH PARLIAMENTARY DELEGATION, 9 FEBRUARY

Objective

- Re-affirm that the Government view is that expenditure on civil space should be maintained at about the current level (about £120m 1987/88);

- Indicate that latest discussions with industry have not produced evidence to change that view.

Line to Take

1 Already explained to the House that space expenditure has to be weighed against other priorities, and that we think current level is about right.

2 Aware that House of Lords Select Committee Report argued for increasing current level of expenditure to £200m p.a. over next five years. Full reply will be given in due course, but Government not persuaded there is a sufficiently strong industrial, commercial or scientific case.

3 On evidence presented in latest discussions, we cannot see a convincing case for joining either Ariane 5 or the Columbus programmes, but the Chancellor of the Duchy will shortly be notifying the House and I would not wish to pre-empt him.

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the department for Enterprise

Counter Arguments

Q	Worthwhile joining Columbus for future potential?	A	Chancellor of the Duchy has held further round of meetings with main aerospace companies. No agreement within industry on preferred strategy. UK participation in Columbus would cost over £400m in total. To go ahead, particularly when no clear case for any particular option, could not be justified.
Q	Worthwhile joining Ariane 5 to maintain foothold?	A	As ESA member, UK will still have access to Ariane launchers. Participation in Ariane 5 would be expensive politial gesture. Total UK cost estimated at £80m for less than 3% share. Have already made clear we could not support man-rating requirements which will add to costs and may unbalance broader programme.
Q	What about HOTOL?	A	Project at early stage - no evidence of commercial demand. Would be extremely expensive - total development costs guessed at present as being well over £2 billion. Government has already helped fund "proof of concept" studies - companies now need to consider the case for their clarifying the initial results.

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PRIME MINSTER'S MEETING WITH PARLIAMENTARY DELEGATION ON SPACE:
9TH FEBRUARY 1988

BACKGROUND NOTE

1. The Chancellor's letter of 1 February to the Prime Minister sets out the background to the decisions about to be announced. Briefly his recommendations were that there is no case at the moment for entering the following programmes:-

   Ariane 5 and Columbus (ESA)
   Radarsat (Canadian collaboration)
   Hotol (British Aerospace).

   However, he did see justification for committing funds to a new Earth Observation Data Centre.

2. The House of Lords Select Committee on Science and Technology published its report on space policy on 26 January, recommending that we join the Columbus programme, take a minor share in Ariane 5, and expand the national programme, increasing total space expenditure to about £200 million a year after five years. In arguing for this figure, they recommend it as the order of size of programme which they consider justified in some 5 years time. However their main concern is that if expenditure is not increased beyond the present level, it will not be possible to enter any of the space programmes presently being considered. Since no further new programmes are likely to be proposed for the next 5-10 years, far from being constructive members of ESA, they argue that not to enter any of the new programmes is tantamount to the UK getting out of space; there will be no subsequent ESA programmes which the UK can enter - and clearly progress is not possible on the basis of a UK national programme alone.

3. Neither Lord Caldecote nor Lord Bessborough is a member of the HOL sub-committee on space. However, Lord Bessborough was a member of the sub-committee which reported on Remote Sensing and Digital Mapping in 1983. Both take, however,a strong interest in UK science and technology policy, and Lord Caldecote is chairman of the Science & Technology Committee of the North Atlantic Assembly. He is also a leading member of the engineering profession (Fellowship of Engineering).

4. John Wilkinson is a member of the All-Party Space Committee and has been a Vice-Chairman of the Conservative Defence and Space Committees. On 13 January, after a PQ from Ernie Ross, Mr Wilkinson said that it was important for Governments to have a strategic vision of the importance of space activities, for their strategic interest and also for their commercial benefits.

LW8AAX

5. Sir Peter Emery tabled 6 written PQ's on 26 November last about our relationship with the European Space Agency.

LW8AAX

children are educated as well as possible. I am sure that both those factors, together with the fact that in several schools the teaching is directed closely towards examinations, help to give us the good A-level results that we have.

Scheduled Offences

11. **Rev. Martin Smyth** asked the Secretary of State for Northern Ireland, pursuant to his answer of 2 July, *Official Report*, column *141*, what is his estimate of the cost of listing the different representations received from bodies and individuals, including the Government of the Republic of Ireland, concerning current arrangements for trying scheduled offences in the courts in Northern Ireland.

Mr. Tom King: Assuming that only representations made since 1979 were covered, the estimated cost of identifying and listing them all is estimated to be in excess of £300.

Rev. Martin Smyth: Does the Secretary of State recognise that that is a small sum to pay to allow the House to know what input has been made into a reform of the justice system of our nation? Or, are we being led astray by the statements of his previous co-chairman of the Anglo-Irish Intergovernmental Conference, who said that with the removal of Lord Hailsham we are getting ready to introduce three-judge courts in Northern Ireland?

Mr. King: If the hon. Gentleman had tabled a direct question I would have been happy to answer it. But on this matter, as I have made clear before, we have listened to the arguments and at present we are not persuaded of the merits of the case. That is the position and nobody should read more into it than what I have said. We are not persuaded of the arguments and our position remains as it was when I made my statement on the matter.

PRIME MINISTER

Engagements

Q1. **Mr. Gregory** asked the Prime Minister if she will list her official engagements for Thursday 23 July.

The Prime Minister (Mrs. Margaret Thatcher): This morning I presided at a meeting of the Cabinet and had meetings with ministerial colleagues and others. In addition to my duties in the House, I shall be having further meetings later today.

Mr. Gregory: Will the Prime Minister encourage local authorities this summer to put their services out to competitive tender, thereby securing savings of up to 30 per cent. in place of municipal Socialism?

The Prime Minister: Yes. As my hon. Friend knows, we are introducing legislaton on this matter. It is a matter of regret that more local authorities have not taken this course of action because they would have had substantial savings and a much more efficient service. We shall always encourage local authorities to produce services most efficiently. The local authority Audit Commission has made many proposals and has shown the scope for saving money.

Mr. Hattersley: Can the Prime Minister assure us that this morning's Cabinet meeting took an unequivocal decision not to reduce public expenditure in real terms next year?

The Prime Minister: We had an excellent Cabinet meeting this morning. We issued a statement as follows:

"The Cabinet had its usual July discussion of public expenditure today. It reaffirmed the policy"—

[HON. MEMBERS: "Reading."] Indeed, for the sake of greater accuracy. I assume that the right hon. Gentleman would want that.

"It reaffirmed the policy that public expenditure should continue to take a declining share of national income, as set out in the last Public Expenditure White Paper",

et cetera, et cetera.

Mr. Hattersley: Does the Prime Minister not know that exactly two hours ago journalists were briefed that this morning the Cabinet decided to maintain the public expenditure planning totals, which amounts to a cut next year in real terms? Why does she not have the guts to tell that to the House of Commons?

The Prime Minister: I am telling the right hon. Gentleman precisely what happened. Why does he not have the guts to accept it?

Mr. Michael Marshall: Is my right hon. Friend aware of the growing anxiety about reports that Her Majesty's Government have failed to reach agreement on an interdepartmental basis on the budget for space expenditure and that the proposal of the British National Space Centre for increased space activities will therefore be rejected. Does that not call into question our future commitment to the European Space Agency and to the BNSC?

The Prime Minister: I do not believe that it does. It is quite correct that we have not been able to find the considerable amount of extra expenditure that was requested. As my hon. Friend is aware, we spend through the taxpayer some £4·5 billion on research and development. We are not able to find any more resources; therefore, it would mean a switch of resources from one research or technology development to another. My colleagues felt that they could not make that switch and therefore we shall continue our subscription to the European Space Agency, but at present we are not able to find more money. I hope that the private sector, if interested in the results from such research, will come forward with considerable resources.

Q2. **Mr. Meale** asked the Prime Minister if she will list her official engagements for Thursday 23 July.

The Prime Minister: I refer the hon. Gentleman to the reply that I gave some moments ago.

Mr. Meale: Will the Prime Minister [HON. MEMBERS: "Reading."]

Mr. Foulkes: For greater accuracy.

Mr. Speaker: Try to paraphrase, please.

Mr. Meale: Will the Prime Minister extend her pledge and give a categoric guarantee that she will veto any attempt to introduce VAT on bus and rail fares or on newspapers?

The Prime Minister: I answered that question in detail last week. I am not quite sure to which of the three aspects

The Prime Minister: Extensive representations were made to keep in existence a very good school, very popular with parents. What the hon. Gentleman cannot stand is that that school gives great opportunity. Parents wanted it to be kept in existence. It is a very popular decision, which will bring opportunity to many pupils. The hon. Gentleman speaks about legislation. One can lay down regulations only under existing legislation.

Q4. **Mr. Tim Smith:** To ask the Prime Minister if she will list her official engagements for Thursday 28 January.

The Prime Minister: I refer my hon. Friend to the reply that I gave some moments ago.

Mr. Smith: Does my right hon. Friend agree that the strike proposed for next week by certain nursing unions can only hurt patients? Will she therefore condemn the action and invite the Leader of the Opposition to do the same?

The Prime Minister: Yes, Mr. Speaker, I agree with my hon. Friend. Strike action in the Health Service harms the patient and puts heavier burdens on those with higher professional standards who refuse to strike. I condemn such action. I hoped that it might have been condemned by all parts of the House. At any rate, it is condemned by those who care about the Health Service.

Q5. **Mrs. Mahon:** To ask the Prime Minister if she will list her official engagements for Thursday 28 January.

The Prime Minister: I refer the hon. Lady to the reply that I gave some moments ago.

Mrs. Mahon: How does the Prime Minister justify her previous remarks? Why cannot she defend the nurses who are taking action in defence of the National Health Service as vigorously as she defended the workers in Solidarity against the dictatorial rule of General Jaruzelski?

The Prime Minister: Harming patients is taking action against the National Health Service.

Dr. Goodson-Wickes: Does my right hon. Friend share my deep disquiet at the disclosure in the House of individual medical histories? Does the unethical practice adopted by right hon. and hon. Opposition Members achieve anything, save add to the distress of the parents concerned?

The Prime Minister: I am not aware of a particular case. I would have thought that the general proposition put by my hon. Friend is correct.

Mr. Steel: Will the Prime Minister recognise that following——

Mr. Dobson: It is Vatman.

Mr. Speaker: Hon. Members must not interrupt in that way.

Mr. Steel: Following her unsuccessful attempt to divide the nurses' unions will the Prime Minister recognise that the one thing she could do to restore morale in the National Health Service would be to state unequivocally that the nurses' pay award will be funded in full without cuts in the budgets of health authorities?

The Prime Minister: We had that identical question either last Question Time or the time before. Identical questions get identical answers. As Government we shall deal with the proposals from the review body in the way in which we have dealt with them before. When we know what the proposals are we shall decide precisely how they are to be funded.

Mr. John Browne: Does my right hon. Friend accept that our nation led the world in the exploration of land, sea and air, bringing great commercial, political and cultural advantage to our country? Does she believe that our national interest is greatly served by leading in the exploration of the new domain of space? If so, will she please give due weight to Lord Shackleton's report and give a clear indication to the House precisely as to what is our national space strategy?

The Prime Minister: Money spent on research in space has be weighed against the other competing demands for research money. That is what we are doing. We are keeping, of course, the full subscription to the mandatory programme of the European Space Agency. Some of the other programmes are optional. I understand that ESA itself is reviewing some of its programmes.

Q6. **Mr. Pike:** To ask the Prime Minister if she will list her official engagements for Thursday 28 January.

The Prime Minister: I refer the hon. Gentleman to the reply that I gave some moments ago.

Mr. Pike: Will the Prime Minister try to find time today to discuss with the Government Chief Whip and her ministerial colleagues, the hon. Member for Pendle (Mr. Lee) and the hon. Member for Rossendale and Darwen (Mr. Trippier) the outcome of a meeting that they attended with me earlier this month with Burnley, Pendle and Rossendale district health authority when that authority listed a contingency plan for cuts within the Health Service which it said would affect patient care and levels of service within the area if nurses' pay is underfunded next year? Does she recognise that Sir John Page, of the regional health authority, said this week that the health authority, which has now withdrawn that ploy, must now submit another? Does she accept that the cuts are already at an unacceptable level? Will she make additional funds available now?

The Prime Minister: I took the precaution of inquiring about the position of Burnley, Pendle and Rossendale health authority. According to our records, the number of in-patients is up by 7·5 per cent.——

Mr. Campbell-Savours: Oh, come on.

The Prime Minister: I am coming on. Day cases have gone up by 80 per cent., capital building completed has cost £6 million — the phase 3 development of Burnley general hospital. A pharmacy is under construction at a cost of £1·9 million. In the pipeline, it is planned to spend £5·9 million on Pendle community hospital. Waiting lists are down by 30 per cent. since 1983. Perhaps the hon. Gentleman would like to say thank you.

Q7. **Mr. Roger King:** To ask the Prime Minister if she will list her official engagements for Thursday 28 January.

The Prime Minister: I refer my hon. Friend to the reply that I gave some moments ago.

Mr. King: Is my right hon. Friend aware that February's edition of the authorative motoring magazine *Car*, has tested 12 cars on a price-quality audit? Number 10 was a Mercedes-Benz, number nine was a Citroen,

HOUSE OF LORDS SELECT COMMITTEE

PART 6 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The case for space

6.1 The case for space is not only one of science and technology. It is political, cultural, economic and military as well. The Committee recommend that the United Kingdom play a visible and effective part in the exploration and exploitation of space (5.9).

National and international programmes

6.2 The United Kingdom should remain within ESA and work for more effective and less costly ESA programmes (5.19).

6.3 The United Kingdom spends too little on national space programmes, compared with expenditure through ESA. This balance must be adjusted to get better value for money. Satellite programmes with commercial potential should be moved outside the ESA framework (5.12--13).

6.4 Bilateral collaboration in space should be developed, including defence cooperation with the US and collaboration with the Canadians on RADARSAT (5.21).

United Kingdom Space Policy and a national space plan

6.5 The Government's silence over BNSC's space plan was misleading and contributed to the atmosphere of damaging uncertainty during 1987 (5.25).

6.6 The United Kingdom needs a clear policy for space which is adhered to firmly and consistently. The Government should formulate a positive space policy and make a full statement of that policy. This should be supported by a national space plan which should be published and updated regularly (5.110).

6.7 Objectives for United Kingdom space policy are set out (5.111).

BNSC

6.8 BNSC should be made stronger, preferably by becoming free-standing within Whitehall, with its own Vote. ACOST has a responsibility for advising on this issue. BNSC should answer to a Minister in the Department of Trade and Industry. Industrial partners should be brought into BNSC. The next director general might come from industry (5.29--32).

ESA's long-term plan

6.9 The United Kingdom should play a more constructive role in ESA in the future and be prepared to take part in some ESA projects about which it has reservations, in the interests of full collaboration (5.36, 5.113).

Man in space

6.10 For the foreseeable future space offers enough opportunity to telecontrolled craft for the involvement of man in space to be an expensive and hazardous diversion. It is not necessary to put a European in space independently of the Americans. The Government should argue for the modification of ESA's declared pursuit of European autonomy in space (5.44, 5.113).

Space station and Columbus

6.11 Given that the Americans are going to build a space station, Europe is right to participate. British participation should be confined to the Advanced Pressurised Module and, subject to certain qualifications, the polar platform. If the Americans, for whatever reason, see advantage in delaying their space station programme, the United Kingdom should urge them to do so (5.44--51).

6.12 Appropriate steps must be taken in the ground sector to prepare for the data generated by the polar platform or by an alternative system of interacting smaller satellites (5.52).

Hermes

6.13 The United Kingdom should play no part in Hermes (5.55).

Ariane

6.14 The Committee oppose the man-rating of Ariane 5. Nevertheless, the United Kingdom should keep a foothold in launcher development by supporting Ariane 5, even if man-rated, at the same level of funding as Ariane 4 (5.56).

Funding

6.15 United Kingdom spending on space outside ESA should not fall below half of spending through ESA. Within a decade the target for spending should be equal funding through ESA and outside ESA (5.58).

6.16 The allocation of resources to space should take account of the fact that the United Kingdom's space policy depends on political and other non-scientific reasons as well as scientific considerations. There is no fixed percentage of the national budget which ought to be spent on R & D (5.59).

6.17 If the United Kingdom aspires to remain a leading participant in space exploration, the resources devoted to space science and engineering will have to rise (5.60).

6.18 The present level of total national spending on space is wrong. It gets the worst of all worlds. While the Committee cannot give precise figures, they believe the optimum level in present circumstances to be of the order of £200 million after five years (5.61--63).

6.19 Increased private sector expenditure on space should be encouraged. This will grow provided the Government gives a lead. British industry should spend more on R & D. But it is not reasonable to suggest that, in an area where commercial returns are distant, British industry should step in where the Government itself has declined to act (5.64--65).

Economic analysis

6.20 Provided that its limitations are recognised, economic analysis of space programmes should be normal practice in BNSC and ESA (5.67).

Launchers

6.21 The United Kingdom must have access to a reliable low-cost launch system for satellites. International competition should supply this market. In the longer-term the prospects of HOTOL should be explored, as an international venture. If at the end of the proof of concept stage of HOTOL the future looks promising, the Committee favour pressing ahead, subject to certain conditions (5.69--75).

Communications

6.22 Current British policy in military communications satellites is welcomed (5.78).

6.23 The public sector should support R & D in the communications field, particularly in the ground segment (5.79).

6.24 The role of British Telecom as the United Kingdom's representative or signatory to international satellite organisations should be reconsidered in favour of BNSC (5.80).

Industry

6.25 British industry will be disadvantaged if a gap develops between the United Kingdom and other ESA countries in their commitment to space (5.83).

Science

6.26 Exciting scientific discoveries in space and from space can be expected. Care is needed to ensure that the infrastructure costs of space research do not eat into the funds for research using that infrastructure (5.89).

Remote sensing

6.27 The development of remote sensing should form a central plank of United Kingdom space policy. This requires a settled policy for development, to assist satellite procurement, education and training of manpower, and provision of ground segment facilities. Remote sensing will depend on public funding for the foreseeable future (5.92--94).

6.28 The Government should make an immediate statement of their continuing interest in Earth observation, whether by means of the polar platform or a number of smaller satellites. Decisions about future satellites should take the need for continuity and the prospects of commercialisation into account (5.51, 5.95).

6.29 Future remote sensing programmes should be defined by the public and private user communities rather than by space equipment suppliers (5.98).

6.30 The main technique for emphasis in British remote sensing effort should be radar, though not to the exclusion of other techniques where appropriate (5.99).

6.31 The Government should examine the options for an independent remote sensing satellite programme. The emphasis should be on civil satellites with resolution good enough for military purposes. The programme could involve one or more partners (5.101).

6.32 Any transfer of weather satellites to the private sector should be resisted (5.96).

Microgravity

6.33 Microgravity research in the United Kingdom should have a small increase in funding in order to establish a healthy research community alert to world developments (5.106).

AEROSPACE: Space Policy
Pt 3

Seen but not read by P.M. No need to write to Chancellor.

RRCG 10/2

Prime Minister

Only para. 5 overleaf has any major bearing on Mr. Clarke's planned statement ~~next week~~ this week; and even here Mr. Younger does not seem to quarrel with Mr. Clarke's conclusion that "we cannot commit ourselves to participation in the Columbus programme".

RRCG 8/2

MO 30/2E

PRIME MINISTER

SPACE

I have read the Chancellor of the Duchy of Lancaster's minute of 1st February with great interest. The policy judgement he has had to make is a difficult one. It is hard to fault his conclusions that there is little market-led demand for expanded space effort, that the running is being made by scientists and technologists (and, he might have added, the aerospace industry), and that a relatively small commitment now would draw us into ever larger commitments in the future. I particularly agree with his comments on HOTOL and I would only feel justified in pressing a different view if I could foresee a major expansion of our defence interest in space involving joint efforts by our two Departments and an increase in expenditure from my budget. But I cannot.

2. Space will remain important to our defence, probably increasingly so given the substantial co-operation we receive from the USA. But our interest is likely to be confined to selected fields, notably communications where the Skynet satellite programme is already in hand. The defence budget will continue to fund those programmes needed by the Armed Forces and the Chancellor of the Duchy's proposal to cut back support from public funds for communications projects should be seen in this context. I should be grateful for an advance sight of any public statement he may make to ensure that it conveys the right message about defence.

3. On specifics, I agree with his conclusions on Ariane V and HOTOL and can foresee no circumstances in which, as has sometimes been suggested, the defence budget could contribute to the latter. I also accept his conclusion on RADARSAT. I welcome his proposal to go ahead with the Earth Observation Data Centre, and would only add that

the Ministry of Defence is already a contributor to earth observation as well as a user, through the National Remote Sensing Centre at Farnborough.

4. As regards the national programme (paragraph 13 of his minute), I think it is premature to conclude firmly that the joint DTI-MOD R&D programme should concentrate primarily on earth observation and, exceptionally, communications. More consultation between our Departments and the BNSC is required on this.

5. I also think we need further consultation at official level about the COLUMBUS programme. The defence interest does not appear to be great, (though this assessment could change if interest develops in the Pentagon). Nor can I afford to make a financial contribution given other competing claims on the defence budget, not to mention the ceilings on defence R&D expenditure. But the Polar Orbiting Platform, which has been proposed as ESA's contribution to COLUMBUS, would be important for meteorology well into the next century and I think we need a little more discussion before finally closing the door on it; although I accept that that may be the eventual outcome.

6. I am sending copies of this minute to the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer, the Secretary of State for Education and Science, the Chancellor of the Duchy of Lancaster and to Mr Fairclough and Sir Robin Butler.

G.Y.

Ministry of Defence
8 February 1988

AEROSPACE: Space Policy
PT 3

CONFIDENTIAL

file LO4ARC

bc: BS

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

5 February 1988

Dear Peter,

SPACE

The Prime Minister has seen the Chancellor of the Duchy's minute of 1 February and the Chief Scientific Adviser's response of 3 February.

Subject to the views of colleagues, the Prime Minister is content with the Chancellor of the Duchy's conclusions about Ariane V, Columbus, Radarsat and HOTOL. She is also content that the Chancellor should announce these decisions, both in the House and to ESA, next Wednesday.

The Prime Minister considers it would be helpful to have a further discussion about the longer term development of the space programme along the lines suggested in John Fairclough's note. She thinks it important this should be an internal Government exercise not the stimulus to further external lobbying. As well as the sort of programmes the Government should be supporting, it will be necessary to consider the UK's future involvement in ESA and implications for the structure and management of the BNSC. The Prime Minister would be grateful if the Chancellor of the Duchy could bring forward his conclusions on these various matters to E(ST) before the summer recess.

As I mentioned to you on the telephone, the Prime Minister has agreed to meet a number of Conservative Peers and backbenchers, who wish to discuss the Government's policies towards space, next Tuesday. I should be grateful if you could let me have some background briefing for this meeting for Monday evening's box.

I am copying this letter to Alex Allan (H.M. Treasury), Tony Galsworthy (Foreign and Commonwealth Office), Brian Hawtin (Ministry of Defence), Tom Jeffery (Department of Education and Science) and to Sir Robin Butler and John Fairclough.

Yours,
Paul

PAUL GRAY

Peter Smith, Esq.,
Office of the Chancellor of the Duchy of Lancaster.

CONFIDENTIAL

PRIME MINISTER

SPACE

The Chancellor of the Duchy's minute of 1 February (flag A) sets out the conclusions of his review of policy and expenditure on space. In brief, he proposes continuing with total expenditure at around current levels but concludes there is no case for entering into the major new projects of Ariane V, Columbus, Radarsat or HOTOL. The minutes of 3 February from John Fairclough (flag B) and George Guise (flag C) support Mr. Clarke's conclusions. But they go on to propose the need for a more fundamental review of the longer term direction of our space programme and relations with ESA.

On handling, Mr. Clarke needs to tell ESA of decisions on some of the possible new projects by 10 February. He also has oral questions that day, including one specifically on future space policy and he intends to use this as an opportunity to announce decisions.

Archie Hamilton tells me that you are being pressed strongly to meet leading Conservative supporters of a more active space policy before decisions are announced - specifically, Peter Emery and John Wilkinson from the Commons and Lords Caldecote and Bessborough. Archie thinks it would be difficult for you to refuse to see them. If you agree to meet them it will need to be before 10 February.

You might like to consider proceeding on the following lines:

(i) endorsing the conclusions in Mr. Clarke's minute of 1 February, and the proposed arrangements for announcement on 10 February;

(ii) agree to see the Conservative delegation after Questions next Tuesday;

Yes

(iii) invite Mr. Clarke to prepare a further paper for E(ST) in the late summer on the longer term direction of the UK space programme.

Content?

PLG.

PAUL GRAY

4 February 1988

PRIME MINISTER 3 February 1988

SPACE

The case for Space was very badly presented last year. The argument was based on exhortation by special interest groups which, when reduced to its elements, was a national plea for keeping up with the Joneses. The arguments failed to achieve any hike in the base expenditure level because they neither persuaded Ministers to redeploy their departmental funds, nor the Treasury to release extra from the reserve.

The lobbyists and the vested interest groups, both in the UK and Europe, have now accepted the government's position with varying degrees of grace - Annex A gives a summary of the recent HOL report. We have a new team at the DTI who are more robust about unproductive expenditure and it would send confusing signals for HMG to indicate any short term reversal in the stance which it has so recently taken. Government would provide funding at the presently agreed level with any further amounts to come from the private sector driven by commercial considerations. This has hit some of the grander 'man in space' schemes so beloved of the French!

Nevertheless there is a basic argument to which we will have to return. The presently agreed funding represents falling value for money and does not justify the long term maintenance of the BNSC outside the DTI. As more of the subscription is used on overheads and the basic programme, only an ever diminishing amount is available for specific programmes involving high degrees of national participation. John Fairclough identifies this problem quantitatively in his fourth paragraph. Annex B is a letter from BAe to Kenneth Clarke which ends by arguing that it would be better

to withdraw completely from the space programme than to leave long term funding at its presently agreed level. This argument does need proper airing in due course, particularly if the vested interest groups are so scornful of taxpayers' present contribution.

The issue could be addressed from the standpoint that space investment should not be part of the science budget at all! The technology for establishing equipment in space is well understood and it is essentially a question of technological effort driven by commercial rationale. Whereas it is true that certain science such as microgravity may only be done in space, that is not the same argument as categorising the whole of space expenditure within the science budget.

I therefore support the arguments of John Fairclough and agree that Kenneth Clarke's immediate proposals should proceed.

George Guise

GEORGE GUISE

PART 6 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The case for space

6.1 The case for space is not only one of science and technology. It is political, cultural, economic and military as well. The Committee recommend that the United Kingdom play a visible and effective part in the exploration and exploitation of space (5.9).

National and international programmes

6.2 The United Kingdom should remain within ESA and work for more effective and less costly ESA programmes (5.19).

6.3 The United Kingdom spends too little on national space programmes, compared with expenditure through ESA. This balance must be adjusted to get better value for money. Satellite programmes with commercial potential should be moved outside the ESA framework (5.12–13).

6.4 Bilateral collaboration in space should be developed, including defence cooperation with the US and collaboration with the Canadians on RADARSAT (5.21).

United Kingdom Space Policy and a national space plan

6.5 The Government's silence over BNSC's space plan was misleading and contributed to the atmosphere of damaging uncertainty during 1987 (5.25). became some members of Govt were giving false signals!

6.6 The United Kingdom needs a clear policy for space which is adhered to firmly and consistently. The Government should formulate a positive space policy and make a full statement of that policy. This should be supported by a national space plan which should be published and updated regularly (5.110).

6.7 Objectives for United Kingdom space policy are set out (5.111).

BNSC

6.8 BNSC should be made stronger, preferably by becoming free-standing within Whitehall, with its own Vote. BNSC should answer to a Minister in the Department of Trade and Industry. Industrial partners should be brought into BNSC. The next director general might come from industry. ACOST should advise on whether space science should be funded by BNSC rather than the research councils (5.29–32).

ESA's long-term plan

6.9 The United Kingdom should play a more constructive role in ESA in the future and be prepared to take part in some ESA projects about which it has reservations, in the interests of full collaboration (5.36, 5.113).

Man in space

6.10 For the foreseeable future space offers enough opportunity to telecontrolled craft for the involvement of man in space to be an expensive and hazardous diversion. It is not necessary to put a European in space independently of the Americans. The Government should argue for the modification of ESA's declared pursuit of European autonomy in space (5.44, 5.113).

Space station and Columbus

6.11 Given that the Americans are going to build a space station, Europe is right to participate. British participation should be confined to the Advanced Pressurised Module and, subject to certain qualifications, the polar platform. If the Americans, for whatever reason, see advantage in delaying their space station programme, the United Kingdom should urge them to do so (5.44–51).

6.12 Appropriate steps must be taken in the ground sector to prepare for the data generated by the polar platform or by an alternative system of interacting smaller satellites (5.52).

Hermes

6.13 The United Kingdom should play no part in Hermes (5.55).

Ariane

6.14 The Committee oppose the man-rating of Ariane 5. Nevertheless, the United Kingdom should keep a foothold in launcher development by supporting Ariane 5, even if man-rated, at the same level of funding as Ariane 4 (5.56).

Funding

6.15 United Kingdom spending on space outside ESA should not fall below half of spending through ESA. Within a decade the target for spending should be equal funding through ESA and outside ESA (5.58).

6.16 The allocation of resources to space should take account of the fact that the United Kingdom's space policy depends on political and other non-scientific reasons as well as scientific considerations. There is no fixed percentage of the national budget which ought to be spent on R & D (5.59).

6.17 If the United Kingdom aspires to remain a leading participant in space exploration, the resources devoted to space science and engineering will have to rise (5.60). Yes - from private sector!

6.18 The present level of total national spending on space is wrong. It gets the worst of all worlds. While the Committee cannot give precise figures, they believe the optimum level in present circumstances to be of the order of £200 million after five years (5.61–63). may be true.

6.19 Increased private sector expenditure on space should be encouraged. This will grow provided the Government gives a lead. British industry should spend more on R & D. But it is not reasonable to suggest that, in an area where commercial returns are distant, British industry should step in where the Government itself has declined to act (5.64–65). HMG is giving a lead!

Economic analysis

6.20 Provided that its limitations are recognised, economic analysis of space programmes should be normal practice in BNSC and ESA (5.67).

Launchers

6.21 The United Kingdom must have access to a reliable low-cost launch system for satellites. International competition should supply this market. In the longer-term the prospects of HOTOL should be explored, as an international venture. If at the end of the proof of concept stage of HOTOL the future looks promising, the Committee favour pressing ahead, subject to certain conditions (5.69–75).

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6.23 The public sector should support R & D in the communications field, particularly in the ground segment (5.79).

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Industry

6.25 British industry will be disadvantaged if a gap develops between the United Kingdom and other ESA countries in their commitment to space (5.83).

Science

6.26 Exciting scientific discoveries in space and from space can be expected. Care is needed to ensure that the infrastructure costs of space research do not eat into the funds for research using that infrastructure (5.89). Only these should be part of the science budget

Remote sensing

6.27 The development of remote sensing should form a central plank of United Kingdom space policy. This requires a settled policy for development, to assist satellite procurement, education

and training of manpower, and provision of ground segment facilities. Remote sensing will depend on public funding for the foreseeable future (5.92–94).

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6.31 The Government should examine the options for an independent remote sensing satellite programme. The emphasis should be on civil satellites with resolution good enough for military purposes. The programme could involve one or more partners (5.101).

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Microgravity

6.33 Microgravity research in the United Kingdom should have a small increase in funding in order to establish a healthy research community alert to world developments (5.106).

ANNEX B

BRITISH AEROSPACE

BRITISH AEROSPACE
PUBLIC LIMITED COMPANY
11 STRAND
LONDON WC2N 5JT
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From: DEPUTY CHIEF EXECUTIVE (ENGINEERING)

Direct Line: 01-389 3913

IRY/LDT/DCE.3467

29 January 1988

The Rt. Hon Kenneth Clarke, QC, MP,
Chancellor of the Duchy of Lancaster &
Minister of Trade & Industry,
Department of Trade & Industry,
1 Victoria Street,
London SW1H OET

Dear Chancellor of the Duchy of Lancaster,

UK Space Progamme

Thank you, on behalf of Sir Raymond who is abroad, for meeting with BAe on 19th January and for the opportunity to brief you on our perceptions of the way-ahead for the UK. You will recall that in essence we were advocating a 'lean' programme, which would nevertheless preserve what we regard as essential long-term science and technology goals, whilst at the same time enabling industry to seek and develop effective means of exploring the world market for communications and earth observation systems, and also permitting the UK to gain value for money from HMG's subscription to the ESA programme.

With the deadline date of 10th February for closure of the UK options on key European programmes now approaching, I thought it advisable to try and summarise what we regard as the key issues. February 10th is effectively the "drop dead" date for further participation in Ariane V and Columbus, after this date the packages of work allocated to the UK will be irrevocably redistributed amongst the European partners.

First, to leave the UK level of funding as it is means that the UK does not get fair value for its money: it is in effect, acting as a subsidy to reduce the contribution of other European countries, whilst being too little to give the UK enough flexibility to affect choice of programmes and objectives. Moreover as time passes there will be fewer programmes on which the UK can effectively spend its money because all the practical programmes will have been funded and allocated. It will be fruitless to spend the money which would otherwise be spent on ESA programmes on alternative National programmes which would only be in direct competition with European programmes. We can only conclude therefore that the UK would be forced to progressively reduce our space programmes to an ineffective level. There may be better ways of spending this money.

Second, whilst the level of funding proposed in the BNSC programme, or the lower level recently advocated in the House of Lords select committee, would be welcomed by the space community in the UK (and in Europe) we

recognise that these levels are unrealistic in the light of our various discussions.

Third, it should be recognised that UK industry has made considerable financial contribution to the space programme - British Aerospace has in total spent some £45M over the last 7 years, and we are prepared to continue this when we can justify the return to our shareholders. For instance my letter to Lord Young on HOTOL and Radarsat of 7th August 1987. In addition I have started a major UK initiative for advanced materials as part of the HOTOL enabling technology programme. The first steps have already been taken to start a similar initiative for advanced software systems. Of course neither we, nor the rest of industry, can sustain such long term programmes if there is no hope of a UK space programme at a sustainable and viable level.

I would strongly advocate that very serious consideration should be given to our proposal for a 'lean' and cost-effective increase beyond the present level of funding. Our estimate for this is approximately an extra £10M in 1988, rising to £30M per year from 1990 onwards. This will enable 'UK Ltd' to establish mechanisms for returns on investment in communications and earth resources systems, continue joint Government/industry fuding of appropriate National programmes, and to play an effective part in ESA programmes to ensure that the UK receives (at least) a 'juste retour' for its funding of ESA programmes; my long experience of international collaboration leads me to believe that given reasonable room for manoeuvre 'UK Ltd' can ensure that HMG gets not only a good return on its investment, but obtains a good return on the total European investment.

In a few words: the case for space should be based on economic competitive advantage to the UK. A 'lean' programme as proposed would provide a cost-effective approach, with HMG setting down the long-term science and technology basis which industry can then exploit as the technology matures and becomes closer to the Market. This is, we believe, entirely consistant with the recent DTI white paper. To stay with the present level of funding will progressively lead to programmes which will not be viable; logic suggests it might be better to face up to complete withdrawal.

I hope this is helpful

Yours sincerely

Ian Yates

I R Yates

cc G. Guise.

W0395 CONFIDENTIAL

PRIME MINISTER 3 February 1988

SPACE

at flag

The Chancellor of the Duchy of Lancaster's minute of 1 February seems to me to represent a very sensible analysis of priorities in the short term, given the Government's decision not to increase existing expenditure on space. It looks a perfectly reasonable basis for the decisions to be communicated to ESA next week. However, I think there are some longer-term implications that need to be addressed.

As the Chancellor's minute indicates, by 1992/93 there will be considerable headroom within the programme, and decisions will need to be taken on the way that headroom is to be used. If the Chancellor's recommendation is accepted that expenditure on space should stay at present levels, a period of review is required to decide how the DTI's headroom for space after 1990 should best be allocated. I believe those decisions should be guided by two principles.

First there is the question of consistency with the DTI's new innovation policy. The priority now is to concentrate on long term technologies in collaborative ventures. The Chancellor rightly refers to space as a potential technology driver. In my view the aim should be to identify programmes which offer the best prospect of stretching the technological capabilities of the aerospace and other industries and to evaluate the different options - of which the Chancellor has said earth resources is his current preferred choice - against this objective.

Second, we need to think through the implications of these decisions for our continued membership of ESA. By 1992, our total commitment to ESA, including the part paid by SERC, will have fallen to £47m, of which £24m will be for science programmes, £8.6m for residual commitments on existing applications

programmes, and £14.3m for the general budget. The general budget payments, which are mandatory, will then represent around 30% of our total payments to ESA as opposed to around 10% now. This is essentially pure overhead and will make our continued membership of ESA progressively worse value if we do not commit to any new ESA programmes. (Aramis does not affect these figures, since the expenditure ends in 1991/92.) This does not mean that we should subscribe to ESA programmes just for the sake of doing so but, if the Chancellor's preference for earth resources is borne out in the subsequent examination of the technological case, this might point to the UK considering whether to negotiate a lower level of commitment to the Columbus polar platform (which seems likely to be a more sensible programme than ERS II), consistent with the headroom available. This decision would of course also need to take account of whatever attitude the Americans were then showing to the Columbus programme and ESA's participation in it.

In short, I think we need a strategic view which carries the Chancellor's thinking forward to embrace the sort of programmes we should expect to have by 1992/93, our involvement in ESA by that time, and also the technological position of our aerospace industry. This might also lead to conclusions on the structure and management of the BNSC. It would be helpful if the Chancellor would set a time by which he would expect to report to E(ST) colleagues on the conclusion of this long term review.

I am copying this minute to the Chancellor of the Exchequer, the Foreign Secretary, the Secretaries of State for Defence and Education and Science, the Chancellor of the Duchy and to Sir Robin Butler.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

AEROSPACE Space policy pt 3.

CONFIDENTIAL

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the department for Enterprise

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

1 February 1988

SPACE

Following the European Space Agency's Ministerial Meeting at The Hague last November, I informed colleagues that I would be reviewing our policy on space. I wish now to bring you up to date with my thinking. ESA timetables require that we notify them of certain decisions by 10 February.

Conclusions of Review

2 I have carried out a thorough analysis of the various space projects on offer to us and I have had discussions with the major companies interested in expanding our space programme. I am quite satisfied that there is no case at the moment on industrial or commercial grounds for entering into any of the major new projects - Ariane V and the Columbus Space Platform

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the department for Enterprise

from ESA, Radarsat from Canada or HOTOL from British Aerospace. There is, of course, a serious political and diplomatic judgement to be made if we act now on these conclusions. I am, however, persuaded of the case for announcing a commitment to an Earth Observation Data Centre for which there is a strong technical (and potentially commercial) justification and which I can afford from within my existing departmental budget. I am also prepared to give further consideration to Earth Observation space projects generally and the INMARSAT Aramis communications project.

Wider Considerations

3 I give detailed comments on each of the programmes below (with a financing schedule at Annex A) but there are some key points that must be remembered in order to understand my pessimistic judgements:

(i) there is no prospect of significant private sector funding for any of the major projects listed above because there is no prospect of a worthwhile commercial return based on revenue from users within a reasonable timescale;

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the department for Enterprise

(ii) none of the projects is market or even user led. They are driven by scientists, technologists and the providers of equipment who hope that users will eventually come along;

(iii) a commitment now to any of these projects will almost inevitably lead to further commitment in the future at ever higher cost as further steps flow from a programme to which we will morally be binding ourselves. This is particularly true of HOTOL which is a classic Concorde project - the next step looks temptingly cheap and avoids a row but it leads to subsequent strides which will get larger and larger until future Governments will face formidable costs in the 1990's and beyond.

4 Politically I would be willing to buy peace by entering into one of these programmes if colleagues would prefer that. I would not be prepared to raid the budget of my Department's research and development programmes to do so. If money were on offer from the Reserve I would probably plump cynically for the next step on HOTOL at some £42m over five years as the most popular gesture with broad public appeal. However, in my opinion, there are some key political points to be made. Firstly, the lobbying, although powerful, comes almost exclusively from those with a commercial or political interest in the contracts at stake. It is the companies involved and

their lobbyists and constituency MPs who make all the running. No disinterested member of the public has ever lobbied me on space throughout my entire political career - even since I took over responsibility for it last June. Secondly, the lobbies are already prepared for the worst because of the outcome at the Hague and my comments before and since. My worst handling difficulties arise because my predecessor, for honourable reasons, allowed such high expectations to be aroused before the General Election that most of the companies acted until recently in the expectation that we would enter into all these programmes.

Proposals for Future Programmes

(a) Communications

5 We should cut back on support from public funds for communications projects. The UK has been successful in communications in the past, but the technology is now mature, and the communications world is increasingly commercial. There is no need for any policy pronouncement but we should in practice look to the private sector for funding of most future projects. I will examine the Aramis project further, which is within ESA and for which Marconi may be prepared to meet 25% of the cost, but no announcement is required on this for the present.

(b) Earth Observation

6 The UK might consider increasing its efforts in future in this area. It involves the capture of data by satellite, the processing of that data and its provision to end-users for weather forecasting, management of natural resources, oil exploration, etc. This is not a commercial activity, however, and will never be so unless a market can be created by persuading end-users, including Government agencies, to pay for data that they currently expect to get for free.

7 I am certainly not persuaded that we should proceed at this stage on some non-commercial 'industrial policy' ground with any of the international projects being considered - neither ERS-2, nor Radarsat, nor the Columbus Polar Platform. They have to be considered together and there is little or no agreement among our space companies, let alone potential users of the data, on any preferred strategy. Few users show any interest in putting money up front to pay for the data which the space community claim is so valuable to them. That said, it would be sensible to continue study of the options in discussion with companies, particularly those with user interests. I do not rule out the possibility that I may invite my colleagues at some stage to support a programme whose costs cannot wholly be accommodated within the existing provision for space. But I certainly have no such proposition to table at present.

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8 I therefore propose to indicate to ESA that we cannot commit ourselves to participation in the Columbus programme. Similarly, I shall soon inform the Canadian Government that we are not ready to take any decision on the Radarsat programme. In taking these steps, we should accept that the Columbus Polar Platform may not proceed or that the Columbus project as a whole may proceed without UK participation and that, if we subsequently wanted to join, we would have lost some ability to influence the project's direction.

9 At the same time, however, I intend to announce that we will go ahead with the Earth Observation Data Centre. We are already funding, through ESA, the ERS-1 project. Data is expected to start being transmitted from this satellite by the early 1990's. It could not be processed satisfactorily without the new Data Centre, in which case we would be open to serious criticism. I hope to use this decision to stimulate interest on the part of users. Total funding is estimated at £4m pa over the next 5 years. There will be sufficient headroom in the BNSC budget to meet this from 1989/90 onwards. For 1988/89 I am prepared to meet the cost from elsewhere in my Departmental budget.

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(c) Launchers

10 I have decided to inform ESA that we will not be participating in the Ariane V programme. Launcher activity has been a low priority, effectively ever since we pulled out of Blue Streak in the early 1970s, and there are no compelling arguments for behaving otherwise now. Ariane development has provided work for UK companies, but the "spin-off" has not been exceptional. We should not underestimate the political criticism we will face in not participating in Ariane V (just as our non-participation in the first Ariane programme was criticised) but I see no industrial, commercial or scientific case for spending £10m-plus each year in this area.

11 I do not think there is any case other than populist politics for entering in to further commitments on HOTOL. "Proof of concept" studies (since last summer fully funded by industry) have yielded some interesting results, which will need to be confirmed over the next three years by engineering work at relatively low cost. If at that stage a decision were taken to go ahead, the cost of the project, even on an international basis, would be enormous (possibly costing the UK taxpayer alone at least £70m pa by the mid 1990s). The project has so far been driven by scientists and technologists. There is no clear evidence of a potential commercial demand.

12 I propose to inform British Aerospace and Rolls Royce that industry will have to fund the next three-year phase of HOTOL from its own resources, though first indications from Rolls-Royce are that they will not be prepared to do so. Furthermore, I shall make clear that we can give no commitment, implied or otherwise, of subsequent Government funding for the project.

(d) National Programme

13 Research and Development support from DTI under the national programme is at present focussed through a joint technology programme with MOD which also provides support for international projects. I recommend that such support should in future concentrate primarily on Earth Observation and, exceptionally, Communications. We should also re-assess the DTI/MOD technology programme to achieve a higher overall private sector contribution.

Conclusion

14 I am satisfied that there is a case for continuing Government expenditure on space at present levels. It is an expanding and, in the longer term, possibly profitable area of economic activity, despite the substantial technological risks and high entry costs. It can be a technology driver, stretching

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companies' capabilities, and it helps the diffusion of the benefits of technological advance throughout the economy. I do not believe that any increase in spending now on any major new project would be cost-effective or politically worthwhile. I invite you and colleagues to endorse my approach.

15 I am copying this minute to Nigel Lawson, Geoffrey Howe, George Younger, Kenneth Baker and to John Fairclough and Sir Robin Butler.

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* Assumes 3% inflation and no exchange rate changes

** 1988/89 figure incorporates £7M extra Estimates provision recently sought from Treasury. These figures assume that the national programme remains constant at £13M per year throughout the period.

\# Assumes 18% participation in ERS-2 and 10% participation in Columbus.

No change is assumed in national programme. Any assumption that an increased private sector contribution might permit reductions in DTI funding would prove optimistic if there were no UK participation in the main ESA programmes.

	£ MILLION CASH*					5-YEAR TOTAL
	88/89	89/90	90/91	91/92	92/93	
Budget	72	67	69	70	72	
Committed	72	59	47	42	36	
HEADROOM **	0	8	22	28	36	94

How individual programmes now under discussion would take up the headroom:

Earth Observation Data Centre	4	4	4	4	4	20
Communications (Aramis project)	2	6	6	6	0	20
Earth Observation#						
ERS-2	0	7	8	8	8	31
Radarsat	1	12	24	25	22	84
Columbus						
- space	5	20	29	36	39	129
- ground	0	2	3	6	8	19
Launchers						
Ariane V	6	11	11	12	13	53
HOTOL	3	5	6	8	20	42
National ## Programme	see footnote opposite					

European Space Agency

4.27 pm

The Chancellor of the Duchy of Lancaster and Minister of Trade and Industry (Mr. Kenneth Clarke): I should like to make a statement on the outcome of the European Space Agency council meeting that I attended at The Hague on 9-10 November.

The 13 European Space Agency member states met to discuss wide-ranging proposals for the agency's future development. This was the first ministerial meeting since the Council in Rome in 1985 when members agreed on a blanced long-term plan for the next decade with the aim of moving by measured stages towards a wider European space capability. We have since underlined our commitment to ESA by the significant increased funding we have provided — no less than £85 million this year alone.

Since the Rome ministerial meeting, our commitment to European co-operation in space has not changed. What has changed, however, is the scale of ESA's aspirations. Overall, the total cost of the proposals put to us at The Hague would increase spending on space by more than two and half times over the next five years. For the United Kingdom, agreement to those programmes would have meant an increase to more than £200 million — the equivalent of more than a dozen new NHS hospitals— every year from now on.

Our objection is, however, not solely that the bill is so huge. We recognise that space research is expensive, but we cannot see sufficient scientific, industrial or commercial benefits to justify such a huge increase. My approach at the Council was therefore to press for a reassessment of priorities under present-day conditions, and to develop a strategy designed to achieve worthwhile aims which would yield solid and worthwhile returns.

Three major new optional programmes were presented by ESA: Ariane 5, a new heavy-lift launcher capable of putting three satellites into orbit; Columbus, the European involvement in the international space station project; and, at French insistence particularly, the Hermes manned spaceplane. I made it clear at the outset, as we had done in the preparation for the meeting, That I could not endorse the grandiose ambitions of the Hermes programme to put man in space by the year 2000. At enormous expense this would only achieve capabilities which the United States had achieved 20 years previously. There was considerable sympathy for my view from a number of other member states and it remains to be seen whether they will formally sign up to the programme in its entirety. At the moment, only six countries out of 13 have firmly committed themselves to making a contribution to the first phase of development.

On the Columbus space station programme, there has been no satisfactory conclusion yet to negotiations with the Americans about European participation. I declined to agree to proposals that Europe should in any event go ahead with a separate and autonomous version of the Columbus programme if agreement with the United States could not be reached. I said that we would consider further the proposal for a polar platform associated with Columbus, which would be an unmanned space vehicle, primarily for earth observation, that would be complementary to a similar United States platform. Our final position on that will depend on further discussions I shall be holding with United Kingdom companies about the financial contribution they would be prepared to make to ensure their participation either in contracts to which they attach significance or as users of the platform.

My approach to the Ariane 5 launcher proposal was that emphasis should be given to ensuring that the European Space Agency has a fully commercial launch capability—for satellites, in particular. It is important to give European industry ready access to a launcher for telecommunications and other satellites. Again, however, I had to question the increase that some other members wanted solely in order for Ariane 5 to be man-rated, and to enable it to launch spaceships as well as satellites.

The European Space Agency executive also brought forward proposals for increases in the mandatory science and general budgets, which had already enjoyed major increases since the Rome ministerial meeting. The science budget will have increased by about 27 per cent in real terms — over and above inflation — between 1985 and 1989. European Space Agency proposed a further increase of 5 per cent. per annum in real terms up until 1992. Professor Bill Mitchell, the chairman of the Science and Engineering Research Council, and I had to make it clear that there could be no justification for such a proposal. In our opinion, the European Space Agency could and should achieve the agreed scientific objectives within the currently agreed funding level. I could therefore not endorse the proposed increase.

Throughout the proceedings, I emphasised the need to take a fresh look at some of the new and hugely expensive European Space Agency proposals, which largely derive from a new desire to follow the Americans into manned space craft. I confirmed our substantial support for those parts of the established programme that gave due weight to industrial, economic, commercial and scientific considerations. I also argued for greater involvement of industry and users in the planning and financing of programmes. There was suppport from other Ministers for these aims, several of which were incorporated in the final Council resolution.

The United Kingdom remains one of the major participants in European space programmes. We have a budget of more than £110 million a year, and we shall continue to ensure that it is used as effectively as possible. We shall continue to play a constructive role with our European partners, and I shall be holding meetings with United Kingdom companies to see how that can best be achieved.

Mr. Bryan Gould (Dagenham): Will the Minister accept that what we have just heard is not so much a statement, more an admission of failure? First, it is an admission of political failure because, even in terms of the right hon. and learned Gentleman's own stated objectives, he completely failed to bring about any reassessment of priorities within the European space programme, and found himself wholly isolated. He is reported as having said that he at least came back with his money still in his pocket. It might be nearer the truth to say that he came back with his tail between his legs and a flea in his ear.

Is it not true that, while the Government may be correct in describing some of the ESA programme as over-ambitious, they have no alternative future programme to suggest for the European Space Agency? Is it not the case that, however modest and sensible the ESA's expansion, the British Government would have opposed it on

[Mr. Bryan Gould]

principle? Can the Minister assure the House that we shall at least participate in the Columbus programme and try to secure the lead role in the polar platform satellite project?

Is not this decision the worst possible news for the no fewer than 300 United Kingdom firms that are involved in space? Will they not now inevitably fail to win contracts, and will they not face a new brain drain of top scientists to Europe? What chance do we have of retaining those scientists and programmes when all the worthwhile and advanced work is being done elsewhere?

Did the Government try to win ESA support for investment in the Hotol project? Will the right hon. and learned Gentleman amplify his teasing, unsatisfactory remarks about the possible Japanese funding of Hotol? How do the Government expect the private sector—it must be their expectations—to make up the gap in space spending? What mechanisms has the Chancellor of the Duchy of Lancaster arranged for private sector contribution to the ESA? How can that possibly match the contribution that the Government—unlike 12 other Governments—have refused to make?

Is not the failure to back a British contribution to the European space agency symptomatic of a wider failure to back science in this country? Has the Minister seen the article in today's issue of *Nature,* which describes how British science is falling behind in metallurgy, biomedical engineering, solid state physics, civil and mechanical engineering, and material science? Those are all areas of weakness, and disciplines of great importance to our industrial future. Which of them will be hit by the Minister's opting out of the space programme in Europe?

Is the Minister aware that the Autumn Statement of a week or so ago promises real cuts in science spending over the next two years? Was his attitude at The Hague merely a reflection of that financial priority? Is he aware that his attitude at The Hague was a prime example of Thatcherism in action, characterised by short-term considerations—anti-investment, and-scientist—and, in the end, uniting everyone else against us in opposition to the position that he took?

Mr. Clarke: First, I obviously do not accept the hon. Gentleman's diagnosis of the meeting. It is fashionable when reporting European meetings to describe them in terms of rows, failures, or successes, with people coming away saying that they gave each other bloody noses, or failed to, as the case may be. However, the atmosphere at the meeting was extremely friendly. My colleagues, Dr. Heinz Riesenhuber of Germany and Alain Madelin of France, are people with whom I am on friendly, satisfactory terms and with whom I usually agree on politics. We share a belief in strong European co-operation in this and as many other matters as possible. We discussed optional programmes to be added to the mandatory programmes, to which we are a strong contributor. We exercised our option to decline to join in projects which are essentially led by the Hermes spacecraft project—a new addition since the Rome meeting.

If the hon. Gentleman inquires among the British industrial and scientific communities, he will find remarkably little support there for Hermes—the name of the proposed spaceship—and much sympathy with my view that the desire to get into manned spacecraft has been distorting the balance of the ESA programme. The only reason that I abstained at the end from supporting the resolution as a whole was not that I wanted to stop anybody going in for Hermes. If the French and the Germans want to pay for Hermes, I wish them success. I hope that Hermes succeeds eventually—if it matches their priorities.

I am worried that going in for the manned spacecraft will distort the balance of the whole programme, and perhaps damage the programmes in telecommunications and Earth observation which are our principal interests and which we think ought to be at the forefront of the programme. As Hermes gets into difficulties, I am sure that we will come back to the alternative that I put forward, that we should reassess priorities, and especially reassess what Ariane 5 was for, and get back to an assessment of the scientific and industrial objectives upon which we all started.

Mr. Gould: It did not happen.

Mr. Clarke: I agree that it did not altogether happen, but that was because the French put so much money into ESA. With the French prepared to put up almost half the cost, a decision was taken, to which only six member states firmly adhered, to press on with putting this spaceship in the centre of the programme. That was the position in which we were placed.

On alternatives, the hon. Gentleman mentioned the polar platform. I agree that that is an extremely interesting concept that has attractions for British industry and would enable valuable Earth observations to be conducted. Further discussions are required with the Americans, because to get the best value we must ensure that it relates to a similar American polar platform. In addition to the discussions that I have already had and which did not go very far, further discussions are required with British Aerospace and others who are interested in the polar platform to see upon what basis Government and industry might contribute if the Columbus programme goes forward in the way that we wish it to go forward.

What does this decision mean for firms? It means that we have decided not to go into these huge additional programmes, but it does not imply any reduction in our existing effort in space or in our existing contribution to the European Space Agency.

The hon. Gentleman asked about Hotol, the very ambitious programme put forward in particular by British Aerospace and Rolls-Royce for a re-usable spacecraft. That was not on the agenda at the ESA meeting and was scarcely mentioned. There was no prospect of ESA adopting it as a project and, so far, it has not been so adopted. I think that the French regard it as a competitor to the Ariane-Hermes project, which at the moment they have succeeded in promoting within the agency.

Hotol must be worked up to a serious project and we need to consider what international collaborators are available, because such collaborators are certainly required. That requires further discussions between British industry and the industries in the countries that are interested, and between the Government and British Aerospace and others about the next step in working up Hotol. There was never a snowball's chance in Hades that Hotol would be taken up by the European Space Agency at the Hague meeting. Sensibly, that was not put on the agenda.

Mr. Rhodri Morgan (Cardiff, West) *rose*——

Mr. Clarke: With respect, the hon. Gentleman cannot intervene now. He may ask a question in a moment. We are interested in more private sector funding on those aspects of space work that produce a commercial return. Not all space research can do that, but some can, and we have succeeded in getting private sector funding in the development work on a number of programmes. I shall give an example. With the agreement of practically every other member state represented at the meeting, I strongly stressed that the proposed data relay satellite is of such commercial potential that we should contemplate making it largely a private sector project. There would be strong British participation in that.

That matter was not clearly resolved because some member states, notably Italy, insisted that to a large extent it should be financed by Governments. I suspect that that sort of argument comes from countries that are not sure that their industries will get a large part of the work if it is left to the private sector to develop it and to British and other industries to compete on fair terms for the work that they can do best. We are interested in more private sector involvement, and that was put in the resolution. All the other 12 states agreed that we had to go further in getting private sector contributions.

The hon. Gentleman asked whether there was an increase in ESA's science budget. The answer to that is that there is. Professor Bill Mitchell, the chairman of the Science and Engineering Research Council went with me to the meeting. The hon. Gentleman would find that if my right hon. Friend the Secretary of State for Education and Science were to say that an additional £10 million was available for science and engineering research, Professor Mitchell would say that it should not be spent on space research because that is done very well and is not the highest priority.

The £200 million that the hon. Gentleman says we should spend each year on ESA — if he says that we should have signed up—is almost one third of the total amount that all the research councils at the moment put into the funding of all university and polytechnic programmes. It would be a huge slice from the scientific budget and the Science and Engineering Research Council and the Government and I had to decide whether that was a justifiable use of huge resources on what I regarded as largely non-scientific objectives.

Sir Geoffrey Pattie (Chertsey and Walton): While I support my right hon. and learned Friend in his desire for realistic programmes in space, is he not aware that Government spending on space has declined in real terms in the last few years? Is he not concerned that every country with a space capability is increasing its expenditure, while we appear to be cutting ours?

Mr. Clarke: Just making comparisons with what other countries spend does not take one far in many policy areas unless one asks on what those countries are spending money and if we are comparing like with like. When one looks at comparisons with other countries one finds that they are sometimes spending, not always very successfully, on quite different types of space programmes. They are not the kind of objectives that were on offer to us in ESA. We have to make a sensible appraisal of what is on offer.

If, in my discussions with British industry and in further council meetings of the European Space Agency, people come forward with well-judged projects of proven commercial, industrial and scientific value, we will consider them, analyse them and put them alongside other scientific and commercial priorities. I should be happy to discuss such projects with my right hon. Friend the Chief Secretary or with anybody else. When we are faced with a take-it-or-leave-it optional programme by an agency such as ESA, there is no point in saying that Britain has only one option and must choose to take what is on offer and go into things that I do not believe are in the interests of Britain's scientific or industrial community.

Mr. Malcolm Bruce (Gordon): Will the Minister accept that there is considerable resentment about the very strong position that he has taken against co-operating with the 12 other countries in Europe? His comment that was widely reported and, I think, broadcast on television—that, "If these countries want to frolic in space on their own, that is their affair"—has been properly and rightly resented as a demonstration of hostility to the idea and principle of European co-operation on the frontiers of technology.

Does he not accept that his view is totally inconsistent with the Government's active encouragement to British companies to get involved in research for the star wars project for which the technology and the final implementation is dubious and over which the Government have no control whatever? In this instance, he has turned down the opportunity to be involved in a technological development in which the Government would be actively involved and in which British companies would be guaranteed a stake in advance.

Apart from further damaging our relationships with our European partners with whom technological co-operation is vital, this decision will exclude many British companies from access to a vital market. Many of those companies are already investing substantial amounts of money. I understand that British companies have invested over £100 million in space technology. Therefore, the Government's suggestion that there is inadequate support from the private sector does not stand.

Does the Minister not acknowledge that, at the end of the day, the space programme and space technology will be developed in Europe and that British companies which have made that investment will be shut off from full participation and involvement in the spin-off? Is that not a disgraceful betrayal of securing Britain's role in the future development of some of the highest technologies that will be advanced in Europe?

Mr. Clarke: The comment to which the hon. Gentleman took exception arose out of my attempt at the end of the meeting to describe to lay journalists the difference between the mandatory programmes to which we are fully committed and in which we actively participate, the optional programmes in which we choose to take part — especially those programmes in telecommunications and Earth observation — and these new optional programmes related to this spaceship. I used a figure of speech that I took from a different legal connotation and described the French and one or two others as having gone of on a frolic of their own in exercising this option. As I said, they are paying for it and I wish them success, but we were not obliged to join it.

I do not understand the reference to star wars. No hon. Member has suggested that the Government should put

[Mr. Clarke]

hundreds of millions of pounds into star wars. We are not doing that. We are aware that private companies in Britain are trying to win contracts. That is what private companies are doing in space. The relationship between the space programme and interested companies in Britain is very important. The Government are putting money into space not simply so that British companies should get the money from the contracts and profit from the work, although we are glad when that happens. The justification of the Government's contribution is that in addition to the commercial profit there is some general economic spin-off and benefit to the nation, through technological advancement or access to other markets in other parts of the world.

That has to be a judgment. The judgment of supporters of some parts of the ESA programme is quite uncritical. Those wider economic benefits are not available from participation in this rather ill-judged project.

Several Hon. Members *rose*——

Mr. Speaker: Order. I realise the importance of this statement. I will endeavour to call every right hon. and hon. Gentleman who wants to put a question to the Minister, but could I ask for brief questions, as we have a heavy day ahead of us.

Sir Ian Lloyd (Havant): I am sure that I would be doing my right hon. and learned Friend a disservice if I did not convey my disappointment and dismay at some of his recent announcements on this subject, having recently returned from the Johnson space flight centre at Houston and having seen something of the industrial, commercial and scientific significance of space.

Does he agree that there are essentially three major groupings in the world capable of taking technology further to the general benefit of all—the United States, the Soviet Union and western Europe. Is it not perfectly clear that none of the old great powers of western Europe, including Britain can possibly do that on their own? Therefore, there is only one possible way in which it can be done, and that is by a united, effective western European effort—which this country should lead.

Mr. Clarke: We are party to such a united effort, and always have been, through the European Space Agency. It is important that we stay at the forefront of space science and reap the technological benefits it can bring to a wider range of industries. That has been and remains our object throughout.

We need international collaboration, but we have to collaborate with those who are taking the right route to those major benefits. My hon. Friend would be the first person with any knowledge of the subject with whom I have spoken who thinks that the Hermes spaceship is the right route. I thought it was wrong that France, as the dominant contributor to ESA, should determine that the central thrust of the organisation should be turned to getting a manned spaceship into space at the turn of the century.

Dr. John Marek (Wrexham): Is the right hon. and learned Gentleman aware that many Opposition. Members feel that it is a pity that the only words he can use are about industry—though that is necessary—and commercial return, and that words such as education, research, knowledge and long-term progress seem unable to pass his lips? It does not matter how many highly misleading statistics and figures he gives—he gave us enough in his statement today—he will not get away from the fact that Britain is worse in space and scientific space research than any other developed country. What advice can he give to me, and to scientists in Britain who are deeply ashamed every time we meet scientists from abroad, of the policies of the Government and his philistine friends?

Mr. Clarke: Professor Bill Mitchell and I spent our entire time talking about science, industry and technology as well as the benefits that should come to European society from what we are doing. We also talked about devoting considerable sums of money but had to weigh up the advantages of spending it on other educational and scientific matters. We were being asked to pay £200 million a year into the project, which is nearly half as much again as total Government spending on medical research of all kinds in Britain.

We were arguing about science and, with respect to many of our critics, we are facing wooley stuff about the 21st century and the need to put a man into space, and general not quantified or clearly targeted talk about technological collaboration with our partners. We were keeping our eyes on the ball. By the time our partners have got three years further into this singularly ill-judged attempt to get a man into space, because the Americans did 30 years before, they will come back and start talking to us again.

Sir T. H. H. Skeet (Bedfordshire): Does my right hon. and learned Friend recognise that the formula that he is using of commercial use could be used against other important subscriptions to Europe — CERN in Switzerland and Grenoble in France? Does he not also recognise that the major industrial countries — West Germany, France and Italy—support Hermes and that flowing from all those contracts will be important orders going to manufacturers, and that we stand a chance of losing the lot?

Mr. Clarke: As my hon. Friend said, we engage in much international big science, and it is important that we do. Space research is merely one of several areas where international collaboration is necessary and essential. We will get nowhere on our own, and we all understand that. If my hon. Friend talked to those in the academic and scientific community, I think that he would find that they agree that international big science should still be well targeted and properly run and that it cannot be allowed to run away with too high a proportion of total budgets that are much in demand in other academic areas. I cannot remember my hon. Friend's second point about contracts.

Sir T. H. H. Skeet: We will lose orders from Europe that will naturally go to European countries and not to the United Kingdom.

Mr. Clarke: We will, but my hon. Friend should not forget that we were only being offered in Ariane about 3 per cent. of the total project. Ariane 5 is 45 per cent. French and they are insisting that 45 per cent. of the work goes to French companies. It was designed for French political purposes and no large participation was offered to us.

Mr. Ernie Ross (Dundee, West): The Minister has rightly said that not many people disagree with his summation on Hermes. If we are to accept what the Minister has said today, he must answer a number of questions. He has to tell us what his alternative projects are. He has to identify those projects so that we can see exactly what our commitment will be to the European space initiative. He must also tell us how the reorganised British National Space Centre will operate. We have heard nothing about it today. At present, private industry is putting money into space research in the proportion of 3:1. How much more does he expect private industry to put in without knowing the extra support that he may or may not give it? He also has to make clear that he is prepared to stand up and to fight for British industry. If he will fight for our industry, we need to know the various projects that he will fight for and give his support to.

Mr. Clarke: The alternatives are being looked at. The alternative that we think is required and that we were pressing is a launcher that is likely to be competitive in the 1990s, with the key role of launching satellites. There will be several such launchers in the world by the time Ariane 5 comes on stream. It is not wise to spend so much additional money on Ariane—in raising its payload and its safety levels to carry man—to put a spaceship into orbit, because other rockets will be designed more cost-effectively to put launchers up. Our great strength is in satellites and telecommunications. We are interested in cost-effective launchers and not one designed for political purposes.

I have discussed the data relay satellite, which is extremely important and an area in which we hope to go forward. We are still having discussions on Hotol. We are to have discussions with the industry, and if out of those discussions come some well-judged projects which, if they are justified, offer value for money across all the criteria we have to apply to space projects, we will consider backing them.

Mr. Kenneth Warren (Hastings and Rye): Has my right hon. and learned Friend sensed the fear that is abroad in industry and commerce that we are standing on the threshold of a vast commercial breakthrough in the use of space transportation and that the Government are afraid to cross that threshold? I think it would be most helpful if he could reassure the House and the country that he understands the dimensions of those opportunities and will visit the space facilities to see what we can do. Lastly, would he please tell the House, and reassure me, that it is not a philosophy of how little we need to spend but how much we must spend that should guide him?

Mr. Clarke: I think that we have rather a good position in some areas of space at the moment, particularly as users of space facilities, telecommunications and satellites, and in some aspects of Earth observation. When we look at the polar platform, we will be looking at its value for Earth observation and what we might derive from that. I do not believe that someone with my hon. Friend's knowledge of the industry would disagree with my proposition that we must not be drawn into purely political choices of objectives. Having a spaceship with one's flag on is a political objective that is in danger of distorting the whole European space effort.

Mr. Rhodri Morgan (Cardiff, West): In advising the House that the Hotol project did not have a cat in hell's chance of being adopted, is the right hon. and learned Gentleman confirming that the British Government were not going to propose it and that therefore the private promoters of Hotol have to wait for the Dutch or Portuguese Governments to propose British projects at ESA meetings?

Mr. Clarke: My right hon. Friend the Member for Chertsey and Walton (Sir G. Pattie) raised it at the Rome meeting. Everyone in ESA knows about Hotol, but there is no interest in taking it on. It is not meant to be a criticism of my French colleagues, with whom I get on very well, but at the moment it is perceived by the French and the Germans as a competitor, and they do not want Hotol to go forward. *[Interruption.]* We have to consider with our own industry how to proceed, and it is not through the route of ESA at The Hague. I have encouraged British Aerospace to have discussions with the Germans and the Japanese, whose industries are interested. We will have further discussions but, as every hon. Member has urged upon me, there is no point in going it alone on a project like Hotol. If the European Space Agency is not a collaborator, there is no point in my throwing money down the drain into ESA on the Hermes project, which is a competitor. I have to continue the exploration for other international collaborators who might be interested in taking Hotol further.

Mr. Robert Rhodes James (Cambridge): Is my right hon. and learned Friend aware that the Government have got this totally wrong? Is he prepared to accept—I am not—that our nation will become a division 3 country, and that research and development in space will be relegated in the way that he has suggested? If that is the course that he will pursue, my constituents and I will not.

Mr. Clarke: With great respect to my hon. Friend, who is an old friend and colleague of mine, he is making the widest possible assertions based on the glossier public relations that surrounds the space industry—that this is somehow the future and the forefront of science. It could be, and parts of it are, and it is those bits on which we will collaborate. However, I remind my hon. Friend that the sum of money that we were being asked to contribute is a third of the total amount of all the research councils' funding of research of all kinds in all our universities and polytechnics. The amount represented the entire bill for school textbooks for England and Wales in every secondary school, or more than half as much again than what we are spending on medical research.

My hon. Friend, who is deeply concerned about science, ought to take note of the opinion of those in the Science and Engineering Research Council. That council said that it was quite unjustified to go into research on that scale, to the obvious detriment of the claims of the rest of the scientific and academic community.

Mr. Michael Grylls (Surrey, North-West): Is my right hon. and learned Friend aware that many people in private industry who pay taxes and are therefore concerned how taxpayers' money is spent will welcome his insistence on value for money and agree that just throwing money at space is not the right way? What I believe he is saying is that expenditure and effort should be targeted in the direction where it is most likely to be successful. That is a hard-headed, not a hard-hearted, approach, which I believe will appeal to those industries that will have to pay the bill.

Mr. Clarke: Yes, we were dealing with the optional programmes, where there are choices to be made. We have opted to play a full part in user programmes, those concerned with telecommunications, which is probably the most dramatic area of all, and Earth observation. We wanted the users and industry to be more closely associated with the planning than they are. The ESA is another great governmental agency that is driven by Governments and the officials of the agency, and it does not have close enough contact with industry and users. Users includes the scientific community. That is what we are arguing for.

I still think that the ESA will have to come back to that eventually because the Germans, as an hon. Member mentioned earlier, have got themselves in the curious position of backing Hermes but saying that it should cost 20 per cent. less. I cannot imagine how they will get on with that. In my opinion, the estimated cost of Hermes is a gross under-estimate. Before they get the spaceship in the air, it will cost far more than they are talking about at the moment.

If the Germans think that they can go on without us and spend less money than they are being asked for at the moment, the German Government are in for a big surprise.

Mr. Roger Sims (Chislehurst): Does my right hon. and learned Friend accept the clout that Britain carries in this sphere and that the extent to which British companies can play their part in space projects depends inevitably on the extent to which we are willing to make cash contributions towards their costs? Does he also agree that space technology involves not only the big companies but some 300 small companies, such as SIRA in my constituency, which are all doing a variety of work in space technology which has enormous potential in many areas apart from space? Does he agree that this work will be endangered and will not be able to continue unless we continue to play a realistic part in the European Space Agency programme? Will he take that into account?

Mr. Clarke: I will and do take that into account. Obviously I spend most of my time encouraging companies to fight for contracts. Among the reactions to the present news is the disappointment of the companies that expected contracts if we had gone into Ariane, Hermes and so on. We will have to to have more discussions with the industry and continue to explore ways for further international collaboration. Meanwhile, we are not cutting back on what we are doing. We remain heavily engaged in space industry of all kinds.

Mr. Richard Page (Hertfordshire, South-West): Although I understand the call to get industry more closely involved, can my right hon. and learned Friend say how we can ask companies to make long-term commercial judgments, bearing in mind their responsibilities to their shareholders, in areas that are by their very nature exploratory, where the benefits will be long-term and where those benefits might necessarily be unprotected? Other companies and countries within the ESA range are not asked to make such a contribution. Is it fair that we should do so? Bearing in mind that Columbus discovered America on state aid, should we not do the same?

Mr. Clarke: Columbus was not taking part in an international project so he probably had fewer problems at the planning stage. What we are asking is fair in certain parts of the space programme. People tend to go on about space without defining clearly what objectives they are after. there is a mixture. Some is pure scientific research, research and inquiry. Some is to try to get spin-off from technological advances that might be applicable in other areas. Some is for pure commercial return. It can be extremely profitable to go into large sections of the satellite and communications data relay business. When satellite development has obvious commercial benefits, it is right to expect commercial contributions. Technological spin-off is more difficult because it is difficult to get clear figures. Most researchers tend to be full of enthusiasm about potential technological spin-off but are not always clear about what it is. In pure science, we have to weigh up the claims on the budget with the claims of other areas. Pure research in space has seen a bigger increase in real terms in the last three years than any other area of pure science in this country. It is the combination of those things that one has to apply. That is what we are doing. I do not think that what was on offer at The Hague passed any of those tests satisfactorily.

Several Hon. Members *rose*——

Mr. Speaker: Order. May I again ask for brief questions, please?

Mr. Michael Stern (Bristol, North-West): Does my right hon. and learned Friend agree that the ESA subscription is far from being the be-all and end-all of the Government's involvement in space research? Does he agree that the firm control which he is rightly exercising over that subscription creates room for worthwhile bilateral projects, such as Radarsat in Canada, which will themselves give British industry a greater depth of experience towards the ESA programmes like Columbus and the polar platform?

Mr. Clarke: I do. My hon. Friend is right; we have a national space programme as well. We are heavily committed to keeping in the forefront of space exploration and research and industrial applications. At The Hague meeting, a Canadian observer was pressing on me again, as the Canadian Minister had already done, the prospects of collaborating in Radarsat into which the Canadian Government are prepared to put a large amount of money and in which it wants British participation. There are endless projects of that kind but I ask the House to accept that we must choose. The bulk of British industry will probably agree that our choice at The Hague not to go into Hermes was correct. We should all get together now and find better alternatives.

Mr. Timothy Wood (Stevenage): Is my right hon. and learned Friend aware that some of us are sceptical of the value of certain French-inspired space projects? Is he also aware that it is vital for the British space technology industry that we have a positive lead from the Government on the approach that should be taken by this country in space activities?

Mr. Clarke: As I say, we will have continuing discussions with the industry. I hope we can respond to my hon. Friend's challenge.

Mr. Rob Hayward (Kingswood): Is it not the case that the development of the air-breathing engine for Hotol is progressing? Can my right hon. and learned Friend assure

the House that, if that development comes to fruition in the near future, he would be in a position to put Hotol on the agenda at the ESA with the backing of some money?

Mr. Clarke: Work is progressing on the unique propulsion system of Hotol because the Government have been helping to finance it. That is how we have got to where we are on Hotol. The next stage will be more expensive, because it is enlarging the investigations. I think that we agree with the companies involved that we need international collaborators. If the ESA would collaborate on Hotol, we would have discussions with it. Meanwhile, we have to explore the position with others.

I expressed strong scepticism a moment ago about whether the European Space Agency would take Hotol on board. Apart from anything else, it has spent miles over the limit already—*[Interruption.]* I do not think the hon. Gentleman understands. The hon. Member for Dundee, West (Mr. Ross), who understands these things very well, knows that the French will not put money into Hotol because they see it as a competitor to Ariane and to Hermes. The Opposition are urging me to put money into the principal competitor of Hotol, which is what we were being asked to do at The Hague meeting earlier this week.

Mr. Phillip Oppenheim (Amber Valley): My right hon. and learned Friend is obviously aware that space is currently the fashionable area for public expenditure. I am sure that he will bear in mind also that every pound that we commit to speculative space projects is a pound less for other parts of industry, particularly the rest of the aerospace industry, in which we recently overtook French production and exports. Will he therefore bear in mind the fact that there are many demands on public expenditure and that we should not wade head first into unsatisfactory projects just because they are in a fashionable area?

Mr. Clarke: I agree. I also agree with my hon. Friend's point about the importance of committing ourselves to the British aerospace industry. We are heavily committed to Airbus, where we are working with the French, the Germans and the Spanish to ensure that Europe retains its own capacity to make large civil airliners. We are close together in discussions with the Americans to make sure that that is not thwarted. We are interested in a European fighter aircraft. I find that a very attractive suggestion. We are working on that with the Germans and the Italians. I regret that the French are inclined to go it alone and not join in on the European fighter aircraft.

If that aircraft does not go forward, we will have to look to the American industry to provide the bulk of all military aircraft for Europe. Those are areas where we are collaborating. Before we get too excited about what happened this week, it just happens that we do not agree with our French and German friends on this occasion that a spaceship should be added to the list of our other commitments to the aerospace industry or to the scientific community.

Mr. Michael Colvin (Romsey and Waterside): My right hon. and learned Friend should be aware that the free enterprise culture which has done so much to restore our economy does not yet apply to the business of space? With a Government lead it will, if it does not do so yet. He is aware that over 300 companies and most of our universities and research establishments are involved in space. In order to ensure that there is maximum effort in the right place, and no duplication of effort, will he please, under the auspices of his Department, arrange for proper co-ordination? If that co-ordination requires additional resources, can he assure us that those resources will be forthcoming?

Mr. Clarke: There are parts of the space effort with great commercial returns. There is private sector investment already in this country. There is a lot of private sector investment in America. There are areas where returns can be won. In other areas, the return is longer-term and Governments need to fund it. Frankly, other areas are not worth it because the commercial returns are nil and the scientific aims are illusory. We have to make a choice between them. Certainly we will have discussions with companies and others to try to co-ordinate our effort and make sensible choices.

Mr. Frank Cook (Stockton, North): Will the Minister confirm that had the decision this week been different, it would have meant more work for British industry and British institutes of technology? I apologise for having had to leave the Chamber on urgent business in the middle of questions on the statement. Will the Minister explain how he would square that with the hapless and hopeless readiness of the Government to agree immediately to contribute towards President Reagan's SDI programme, and to scuttle around Europe trying to persuade our European partners to do likewise? Is the Minister not leaning greatly towards American projects rather than to those which we share with our European partners?

Mr. Clarke: I have already referred to star wars. We are encouraging British companies to look for contracts there, but the programme will be paid for by the Americans, so that is a false analogy. My attitudes this week were not in any way governed by pro-American, anti-European feelings. I am an extremely enthusiastic supporter of closer European co-operation in this and many other respects. It was simply a difference of opinion about whether these were the correct optional programmes.

The hon. Gentleman asked what would have happened if I had agreed earlier this week. I suspect that the next time that he had a claim to make on behalf of Stockton, his region or shipbuilding, and I had started pleading difficulties with resources, he would have pointed out how cheerily I had just agreed to put £120 million a year into a spaceship programme because the Europeans were demanding it. I am not sure whether I would have won either way with some hon. Members.

Mr. Robert Hayward (Kingswood): On a point of order, Mr. Speaker.

Mr. Tony Marlow (Northampton, North): On a point of order, Mr. Speaker.

Mr. Speaker: No, I will take first the matter raised under Standing Order No. 20.

Nursing Staff (Intensive Care)

5.17 pm

Mr. Mark Fisher (Stoke-on-Trent, Central): I beg to ask leave to move the Adjournment of the House, under Standing Order No. 20, for the purpose of discussing a specific and important matter that should have urgent consideration, namely,

"the shortage of specialist nursing staff in intensive care units in west Midlands hospitals, affecting infants needing heart surgery".

This matter is specific because a north Staffordshire baby, David Barber, 34 days old and suffering from a hole in the heart and a missing valve, has now had his heart operation cancelled five times. The excellent Birmingham children's hospital has operating theatres available. It has surgeons who are ready and anxious to perform the operation. It has beds in the intensive care unit, but it cannot make use of those beds which lie empty because it has not the specialist nursing staff to service those beds.

This matter is important because it concerns not only the misery and anxiety which must face David Barber's family, but also the terrible choices facing hospital staff in deciding on which babies to operate. Above all, it concerns the crisis of nurse shortages which are facing the National Health Service after eight years of Government cuts and neglect. We know that 30,000 nurses leave the National Health Service every year because of a combination of low pay, poor conditions and very inflexible hours, and the Government are doing little or nothing about it.

This matter is urgent because, unless David Barber and other babies like him get the surgery which they so desperately need, his and their condition will inevitably deteriorate. Hon. Members on both sides of the House and members of the public will be appalled that the Government have allowed the National Health Service to decline to the point at which infants needing heart surgery are denied treatment. For that reason, I beg to ask leave to move the Adjournment of the House.

Mr. Speaker: The hon. Member for Stoke-on-Trent, Central (Mr. Fisher) asks leave to move the Adjournment of the House for the purpose of discussing a specific and important matter that he thinks should have urgent consideration, namely,

"the shortage of specialist nursing staff in intensive care units in west Midlands hospitals, affecting infants needing heart surgery".

I have listened with the greatest care and concern to what the hon. Gentleman has said and I also listened to him earlier this morning on the radio. I regret that I cannot find that this matter should take precedence over the Orders for today, but I hope that he may have other opportunities of raising it.

Points of Order

5.19 pm

Mr. Robert Hayward (Kingswood): On a point of order, Mr. Speaker.

Mr. Tony Marlow (Northampton, North): On a point of order, Mr. Speaker.

Mr. Speaker: I have been notified of a point of order from the Opposition Front Bench.

Mr. Donald Dewar (Glasgow, Garscadden): On a point of order, Mr. Speaker. I understand that, earlier this afternoon, the hon. Member for Tayside, North (Mr. Walker) made some gratuitously offensive allegations about some of my hon. Friends. At this stage, it is not appropriate for me, or for any hon. Members, to debate the issues raised in the recent television programme in Scotland. I do not want to follow the hon. Member for Tayside, North in his reckless course of conduct in that respect.

It should be put on record that no specific allegations were made about hon. Members in the programme. The procurator fiscal, who has the proper responsibility for these matters, has been asked to investigate any matters that may arise from the programme. Indeed, he was asked to do so some weeks ago by members of the Dundee Labour party and by my hon. Friends who were referred to in the outburst made by the hon. Member for Tayside, North.

I rise to make this point because I hope that you, Mr. Speaker, will advise the House, as I am sure that you would want to, that it would be better in these circumstances if hon. Members—even the hon. Member for Tayside, North — showed a proper and decent restraint and were not tempted into making irresponsible speculation and provocative suggestions which can only complicate the task of those who are properly looking into the issues that have been raised. Such behaviour reflects no credit on the House or on any hon. Member responsible for such opportunism.

Mr. Speaker: I accept what the hon. Member has said about the matter. I hope that we can conduct the affairs of this House on the basis of mutual respect and mutual honour. I trust that we will not have allegations of that kind made across the Floor of the Chamber.

The Lord Privy Seal and Leader of the House of Commons (Mr. Wakeham): There was a suggestion earlier that there was a planted question on this point. I owe it to the House to explain the position, and I can do that perfectly easily. The position is that any hon. Member who tables an early-day motion in the House is entitled to expect the Government to consider it and that, when the Leader of the House comes to the House for business questions, he should come with an answer to that early-day motion. My hon. Friend the Member for Tayside, North (Mr. Walker) raised a question specifically on early-day motion 281. The hon. Member for Halifax (Mrs. Mahon) raised a question on early-day motion 282 and the hon. Member for Islington, South and Finsbury (Mr. Smith) raised a question about early-day motion 214. I came prepared with answers to all early-day motions on the Order Paper and naturally I try to help the House. To do less would be a discourtesy.

Mr. Speaker: I hope that the House will leave it at that.

Lord Kilmarnock: My Lords, the Minister's reassurances are certainly encouraging. Does not the Minister agree that there is a great strain imposed on the finances of the Riverside authority by its leading role in the treatment of AIDS, particularly at St. Stephen's? Does not the Minister further agree that if sufficient money is not provided for this purpose it will have an adverse effect on the authorities of other hospitals and this could possibly feed through, in the long run, to Westminster?

The Earl of Arran: My Lords, with respect, the Question on the Order Paper relates to the possible closure of the Westminster Hospital.

Lord Grimond: My Lords, is the Minister aware that there are more than two noble Lords who have survived the attentions of my noble friend Lord Winstanley? Speaking as one who has benefited greatly from this excellent hospital, will the Minister bear in mind that not only is it excellent in itself but it covers a considerable part of London and a very large transient population of patients who have benefited greatly from it?

The Earl of Arran: My Lords, I am indeed aware of what the noble Lord, Lord Grimond, has just said.

Schools: Pupil Governors

3.24 p.m.

Lord Dean of Beswick: My Lords, I beg leave to ask the Question standing in my name on the Order Paper.

The Question was as follows:

To ask Her Majesty's Government whether students in sixth form colleges will be able to be members of the governing bodies of their colleges.

The Parliamentary Under-Secretary of State, Department of Education and Science (Baroness Hooper): My Lords, the Government have no plans to change the requirements of the Education (No. 2) Act 1986 concerning the composition of school governing bodies, which means that only in circumstances where pupils are co-opted will there be pupil governors in sixth form colleges.

Lord Dean of Beswick: My Lords, I thank the Minister for that reply. Is she aware of the disappointment that that will create among sixth form students? Does she agree that the Government are missing an excellent chance by not giving them the right to places on the governing bodies in a day and age where we are constantly telling young people to take more responsibility and be better citizens for it? Will it not be a tragedy if the Government miss this chance to show that they have faith in the younger people of this generation?

Baroness Hooper: My Lords, the Government's view, which was stated on a number of occasions during the passage of the 1986 Act, is that it is not generally appropriate for school pupils to be members of the governing body of their schools. Were they to become members, it would be necessary to exclude them from consideration of a substantial number of issues and this would detract from the principle that the governing body should act collectively.

Baroness David: My Lords, is the Minister aware that the position of students in sixth form colleges is slightly different from those in other schools? Student governors are probably appointed in their second year of the sixth form when they may very well be 18 and considered responsible enough to vote at that age? They consider that it is quite insulting that they are not going to be allowed to be made governors. Is the Minister aware that I am a governor of a sixth form college? The students are extremely cross that they are no longer going to be able to be governors and I hope that with the new Education Bill coming up there will be a chance to rectify that.

Baroness Hooper: My Lords, I am delighted that the noble Baroness is able to speak from her own practical and personal experience. I am sorry to hear that there is this feeling among the students at sixth form colleges. Nevertheless, we believe that the decision (which as I have said was fully debated during the 1986 Act) was the correct one. However, we feel that schools should encourage the participation of senior students as much as possible in the general running and considerations of the welfare of schools.

Baroness David: My Lords, is the Minister aware that the students like to have a vote?

Baroness Hooper: My Lords, I feel sure of that and I hope that once they are 18 they will exercise that vote in the many opportunities that are available to them.

European Space Agency Meeting, 9th–10th November

3.27 p.m.

Lord Denham: My Lords, with the leave of the House, I shall arrange for a Statement on the European Space Agency meeting on the 9th and 10th November, which is to be made in another place this afternoon, to be printed in the *Official Report*.

Following is the Statement by The Chancellor of the Duchy of Lancaster and Minister of Trade and Industry (*The Right Honourable Kenneth Clarke*):

"With permission, Mr. Speaker, I should like to make a statement on the outcome of the European Space Agency Council meeting at The Hague on 9th–10th November.

"The 13 ESA members states met to discuss wide-ranging proposals for the agency's future development. This was the first Ministerial meeting since the Council in Rome in 1985 when members agreed on a balanced long-term plan for the next decade with the aim of moving by measured stages towards a wider European space capability. We

areas has its own individual problems and I shall draw the comments of the noble Lord to the attention of my right honourable friend the Secretary of State.

Lord Campbell of Alloway: My Lords, can my noble friend the Minister say why he says that the question put by the noble Lord, Lord Marsh, is wide of the Question on the Order Paper?

The Earl of Arran: My Lords, with respect, because I deemed it to be so.

Lord Underhill: My Lords, is not the point of my noble friend's original Question illustrated by the sad news, which was announced on a radio programme this morning, of the young lad who has been called for an operation on five occasions. Five times the operation could not be carried out because, although the consultants and technical staff were available, there were insufficient nursing staff in the emergency wards. Is not that one of the problems raised by my noble friend's Question?

The Earl of Arran: My Lords, I regret I do not know the exact and precise circumstances of the case which is mentioned. Of course it is regrettable, but once again I must repeat that there are regrettable circumstances across the country. Each district authority is aware of them and is doing its best to put them right.

Lord Wallace of Coslany: My Lords further to the point made by my noble friend, is the Minister not aware that the problem of waiting lists will never be properly solved until adequate steps are taken to provide good accommodation, pay and conditions for nurses and a stop is put on the wastage of NHS-trained nurses to the private sector?

The Earl of Arran: My Lords, I think it is clearly understood that everyone is aware of the nurses' situation. At all times my right honourable friend the Secretary of State is looking at those particular circumstances to see whether, and if so what, improvements can be made.

Noble Lords: Next Question!

Lord Wells-Pestell: My Lords, does the Minister accept that there is a vast army of men, women and children awaiting operations who should have been operated on not weeks ago but months ago?

The Earl of Arran: My Lords, the situation is this. Of those who require admission into hospital 50 per cent. are admitted immediately and the remaining 50 per cent. are admitted within eight weeks. It is the final 50 per cent. to which we are giving special attention.

Westminster Hospital

3.20 p.m.

Lord Ennals: My Lords, I beg leave to ask the second Question standing in my name on the Order Paper.

The Question was as follows:

> To ask Her Majesty's Government whether they will give an assurance that the Secretary of State for Social Services will not approve any proposal to close the Westminster Hospital.

The Earl of Arran: No, my Lords. If such a proposal comes to be decided by Ministers, it would only be endorsed after the most careful scrutiny.

Lord Ennals: My Lords, I am grateful to the Minister for giving that assurance. Is the noble Earl aware of the outstanding record of Westminster Hospital as a centre of excellence, being efficient, economic and caring? Is he aware that over the past 10 years, to my knowledge, there have been repeated proposals for the closure of this great hospital which successive Secretaries of State have refused? Does he understand the very serious problem of morale in the hospital when it is constantly being suggested that its future is uncertain?

The Earl of Arran: My Lords, I am, indeed, aware of the great contribution that the Westminster Hospital makes to London. The simple point is that no decision has yet been made about the closure of the hospital and in those circumstances I think it is difficult to answer more questions on that point.

Lord Winstanley: My Lords, is the Minister aware of the fact that I, in a professional capacity, have had occasion to send several noble Lords to the Westminster Hospital, and I am delighted to see two of them here today fully restored to health and vigour? In those circumstances, does not the noble Lord accept that any closure of the Westminster Hospital will have very serious consequences for your Lordships' House?

The Earl of Arran: My Lords, I am indebted to the noble Lord, and I am very much aware of the great services that the Westminster Hospital gives to the Palace of Westminster.

Lord Wise: My Lords, is my noble friend aware that I can verify the remarks of the noble Lord, Lord Winstanley, because this time last week I was in fact lying in the Westminster Hospital after being taken there hurriedly from this building during the morning? Is my noble friend aware also that the care and attention I received and the kindness shown to me during the whole of my stay there could not have been bettered anywhere in the world?

The Earl of Arran: My Lords, I am aware of the many wonderful, similar circumstances that my noble friend has mentioned and I hear of circumstances the whole time which bear out precisely what he has said.

have since underlined our commitment to ESA by the significant increased funding we have provided—no less than £85 million this year alone.

"Since the Rome Ministerial meeting, our commitment to European co-operation in space has not changed. What has changed, however, is the scale of ESA's aspirations. Overall, the total cost of the proposals put to us at The Hague would increase spending on space by more than two and a half times over the next five years. For the UK, agreement to these programmes would have meant an increase to over £200 million—the equivalent of more than a dozen new NHS hospitals—every year.

"Our objection is, however, not solely that the bill is so huge. We recognise that space research is expensive. It is that we cannot see sufficient scientific, industrial or commercial benefits to justify such a huge increase. My approach at the Council was therefore to press for a re-assessment of priorities under present day conditions and to develop a strategy designed to achieve worthwhile aims which would yield solid returns.

"Three major new optional programmes were presented by ESA: Ariane 5, a new heavy lift launcher capable of putting three satellites into orbit; Columbus, the European involvement in the international space station project; and, at French insistence, the Hermes manned spaceplane. I made clear at the outset that I could not endorse the grandiose ambitions of the Hermes programme to put man in space by the year 2000. At enormous expense this would only achieve capabilities which the United States would have achieved 20 years previously. There was considerable sympathy for my view from a number of other member states and it remains to be seen whether they will formally sign up to this programme in its entirety. At the moment only six countries out of 13 have committed themselves to making a contribution to the first phase of development.

"On the Columbus space station programme there has been no satisfactory conclusion yet to negotiations with the Americans about European participation. I declined to agree to proposals that Europe should in any event go ahead with a separate and autonomous version of the Columbus programme if agreement with the US could not be reached.

"I said we would consider further the proposal for a polar platform associated with Columbus. This would be an unmanned space vehicle, primarily for earth observation, that would be complementary to a similar US platform. Our final position on this will depend on further discussions I shall be holding with UK companies, including the financial contribution they would be prepared to make to ensure their participation either in contracts to which they attach significance or as users of the platform.

"My approach to Ariane 5 launcher proposal was that emphasis should be given to ensuring that ESA has a fully commercial launch capability. It is important to give European industry ready access to a launcher for telecommunications and other satellites. Again, however, I had to question the increase that some other members wanted to see solely in order for Ariane 5 to be man-rated and to enable it to launch spaceships as well as satellites.

"The ESA Executive also brought forward proposals for increases in the mandatory science and general budgets. These had already enjoyed major increases since the Rome Ministerial. The science budget will have increased by some 27 per cent. in real terms between 1985 and 1989. ESA proposed a further increase of 5 per cent. per annum in real terms up until 1992. Professor Mitchell, the Chairman of SERC, and I had to make clear that there could be no justification for such a proposal. In our opinion, ESA could and should achieve the agreed scientific objectives within the currently agreed funding level. I could therefore not endorse the proposed increase.

"Throughout the proceedings I emphasised the need to take a fresh look at some of the new and hugely expensive ESA proposals which largely derive from a desire to follow the Americans into manned space craft. I confirmed our substantial support for those parts of the established programme which gave due weight to industrial, economic, commercial and scientific considerations. I also argued for greater involvement of industry and users in the planning and financing of programmes. There was support from a number of other Ministers for these aims—indeed several of them were incorporated within the final Council resolution.

"The UK remains one of the major participants in European space programmes. We have a budget of over £110 million a year and we will continue to ensure that this is used as effectively as possible. We will continue to play a constructive role with our European partners and I shall be holding meetings with UK companies to see how this can best be achieved".

Business of the House

The Lord President of the Council (Viscount Whitelaw): My Lords, I beg to move the Motion standing in my name on the Order Paper.

Moved, That the debate on the motion in the name of the Lord Sherfield set down for 18th November shall be limited to 5 hours and that Standing Order 35 and paragraphs 10 to 13 of the Rules for the Conduct of Short Debates shall apply to the debate with the substitution of "5 hours" for "2½ hours" and "25 minutes" for "20 Minutes".—(*Viscount Whitelaw.*)

On Question, Motion agreed to.

Income and Corporation Taxes Bill [H.L.]

3.28 p.m.

The Lord Advocate (Lord Cameron of Lochbroom): My Lords, on behalf of my noble and learned friend the Lord Chancellor, I beg to move that this Bill be now read a second time.

[LORD CAMERON OF LOCHBROOM.]

This Bill is a pure consolidation of certain enactments relating to income and corporation tax and is the first consolidation on this subject since 1970.

With the permission of your Lordships, I should like to take a moment to pay tribute to some of those involved in the preparation of this Bill. First, I should like to thank the draftsmen who, I understand, have been working on the consolidation for some four years or more. The exercise has been extraordinarily difficult in that each year a new and massive Finance Act has had to be incorporated, culminating this year in a pre-election Act and followed by a further large Act after the election. I am sure your Lordships will agree that to have completed the consolidation of such an enormous body of complicated and constantly changing law at all is a phenomenal achievement.

Secondly, and more unusually, I should like to thank Her Majesty's Stationery Office which presented us with what I believe to be the largest Bill in recent times, numbering well over a thousand pages and running into three volumes. This has been a major test of the new technology now in operation in the Stationery Office and the sheer logistics of handling a Bill of this size have been formidable. Nevertheless, the Bill was ready. If your Lordships give this Bill a Second Reading, it will be referred in the usual way to the joint committee on the consolidation of Bills. I beg to move.

Moved, That the Bill be now read a second time.—(*Lord Cameron of Lochbroom.*]

3.30 p.m.

Lord Bruce of Donington: My Lords, we on this side of the House would like to associate ourselves with the tributes that have been paid by the noble and learned Lord to the draftsman and to all those who have participated in this mammoth task of consolidation. That, of course, includes members of the committee which dealt with it as well as the other officers of the House.

It may be permissible to say that the Bill is 1,041 pages long. I can well remember in my early professional career having to deal with the Income Tax Act 1918, as amended in subsequent Acts, which resulted in a small text book half an inch thick. It dealt with the whole of our tax affairs until the outbreak of war. We now have this colossal Bill. And the text books occupy roughly a yard instead of half an inch.

I respectfully suggest that when the Government get down to the whole question of taxation simplification they should bear in mind these physical matters and the tremendous complexity of the clauses. Those of your Lordships who have been associated with taxation statutes will agree that our taxation laws are among the most complicated in the world. That situation, we hope, will soon be rectified.

Lord Diamond: My Lords, we should like to associate ourselves with this valuable consolidation.

Lord Houghton of Sowerby: My Lords, I apologise for intruding when noble Lords are awaiting the main business of the day. I shall not carry on the debate for more than a moment or two. I understood that consolidated Bills were taken formally. I was getting ready to make a full apology to the House for speaking at all.

This is a unique Bill. It is worthy of notice on any count. The noble and learned Lord who introduced the Bill referred to its size and weight. It must be the heaviest Bill of this century. I do not remember anything approaching its size. I hope that noble Lords will not walk about the House with it because it is a safety hazard. It weighs 2·5 kg. It costs £2·45 to send by parcel post. I do not think that there has been anything like it before.

One feature worthy of note concerning this biggest ever Bill is that your Lordships played no part whatever in its contents. Everything, from beginning to end, was held in the bondage of the Parliament Act 1911. Your Lordships sat in the House as helpless observers while the biggest piece of legislation—fiscal expropriation—was passed. Your Lordships had no power to alter it by a jot or a tittle. I cannot get over the shame that the Liberal Government of 1911, aided and abetted by the Irish Nationalists, inflicted it upon Parliament. We have suffered from it ever since.

Another feature of the Bill is that the Taxes Management Act 1970 is not included. I understand that. The Taxes Management Act is not a charging taxation Act; it is a management and enforcement Act. At the time, it was not a money Bill. It was dealt with by your Lordships' House, but successive governments have included in successive Finance Bills amendments to the Act on enforcement and the liberty of the subject. They have thereby excluded your Lordships from discussing draconian powers which are placed in the hands of the taxing authorities.

With VAT, a great collection of new weapons was in the hands of the Customs and Excise. Indeed, the Customs and Excise has a law of its own. If the House is confronted with the recommendations of the Keith Committee on income tax, we shall have another large incursion into individual liberty which we shall not be able to touch if included in a Finance Bill.

As the Bill has taken so long to prepare, I wonder whether it is the time to be consolidating at all. I thought that we were on the threshold of major tax reforms. We have waited 17 years for this Bill. I am not surprised that it has taken four years to prepare. We should offer our deepest sympathy to all who have been engaged in this tedious task. It is the most complicated legislation in the world. It constitutes a serious obstacle to the conduct of business and normal relations between the citizens and bureaucracy.

Another point about the Bill is that when a consolidation Bill is introduced, practitioners, both in the department and outside, have to begin to learn chapter and verse all over again. The income tax Acts are like a Bible to practitioners and the profession. They always want to be able to quote chapter and verse. If we present them with a revised version of

faxed copy used by MCA/DRN.

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CCBG.

From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

David Norgrove Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1A 2AA

11 November 1987

Dear David,

ESA MINISTERIAL MEETING, THE HAGUE, 9/10 NOVEMBER

I attach a draft statement reporting the outcome of the ESA Ministerial meeting which concluded late yesterday. The Chancellor hopes to be able to make the statement in the House today although this will obviously depend on what happens to the day's business.

I am copying this to Tony Galsworthy (FCO), Alex Allan (Treasury) and Tom Jeffery (DES).

Yours sincerely,

Peter

PETER SMITH
PRINCIPAL PRIVATE SECRETARY

NO2ACH

ESA MINISTERIAL MEETING, THE HAGUE 9/10 NOVEMBER

DRAFT STATEMENT BY THE CHANCELLOR OF THE DUCHY OF LANCASTER

1 With permission, Mr Speaker, I should like to make a statement on the outcome of the European Space Agency Council meeting at The Hague on 9/10 November.

2 The 13 ESA members states met to discuss wide-ranging proposals for the Agency's future development. This was the first Ministerial meeting since the Council in Rome in 1985 when members agreed on a balanced long-term plan for the next decade with the aim of moving by measured stages towards a wider European space capability. The UK played a leading part at that meeting. We have since underlined our commitment to ESA by the significant increased funding we have provided - no less than £85 million this year alone.

3 Since the Rome Ministerial meeting, our commitment to European co-operation in space has not changed. What has changed, however, is the scale of ESA's aspirations. Overall, the total cost of the proposals put to us at The Hague would increase spending on space by more that two and a half times over the next 5 years. For the UK, agreement to these programmes would have meant an increase to over £200 million - the equivalent of more than a dozen new NHS hospitals - every year.

KC3AAX

4 Our objection is, however, not solely that the bill is so huge. We recognise that space research is expensive. It is that we cannot see sufficient scientific, industrial or commercial benefits to justify such a huge increase. My approach at the Council was therefore to press for a re-assessmet of priorities under present day conditions and to develop a strategy designed to achieve worthwhile aims which would yield solid returns.

5 Three major new optional programmes were presented by ESA: Ariane 5, a new launcher capable of putting 3 satellites into orbit; European involvement in the Columbus space station project; and, at French insistence, the Hermes manned spaceplane. I made clear at the outset that I could not endorse the grandiose ambitions of the Hermes programme to put man in space by the year 2000. At enormous expense this would only achieve essentially what the United States achieved in the 1960s. There was considerable sympathy for my view from a number of other Member States and it remains to be seen whether they will formally sign up to this programme in its entirety. At the moment only five countries out of 13 have committed themselves to making a contribution to the first phase of development.

6 On the Columbus space platform programme there has been no satisfactory conclusion yet to negotiations with the Americans about European participation. I declined to agree to proposals that Europe should in any event go ahead with a separate and parallel version of the Columbus programme if agreement with the US could not be reached.

7 I said we would consider further the proposal for a polar platform associated with Columbus. This would be an unmanned space vehicle, primarily for each observation, that would be complementary to a similar US platform. Our final position on this will depend on further discussions I shall be holding with UK companies, including the financial contribution they would be prepared to make to ensure their participation either in contracts to which they attach significance or as users of the platform.

8 My approach to Ariane 5 rocket proposal was that emphasis should be given to ensuring that ESA has a fully commercial launch capability. It is important to give European industry ready access to a launcher for telecommunications and other satellites. Again, however, I had to question the vast increase that some other members wanted to see solely in order for Ariane 5 to be man-rated and to enable it to launch spaceships as well as satellites.

9 The ESA Executive also brought forward proposals for increases in the mandatory science and general budgets. These had already enjoyed major increases since the Rome Ministerial. The science budget will have increased by some 27% in real terms between 1985 and 1989. ESA proposed a further increase of 5% per annum in real terms up until 1992. Professor Mitchell, the Chairmn of SERC, and I had to make clear that there could be no justification for such a proposal. In our opinion, ESA could and should achieve the agreed scientific objectives within the currently agreed funding level. I could therefore not endorse the proposed increase.

10 Throughtout the proceedings I emphasised the need to take a fresh look at some of the new and hugely expensive ESA proposals which largely derive from a desire to follow the Americans into manned space craft. I confirmed our substantial support for those parts of the established programme which gave due weight to industrial, economic, commercial and scientific considerations. I also argued for greater involvement of industry and users in the planning and financing of programmes. There was support from a number of other Ministers for these aims - indeed several of them were incorporated within the final Council resolution.

11 The UK remains one of the major participants in European space programmes. We have a budget of over £110m a year and we will continue to ensure that this is used as effectively as possible. We will continue to play a constructive role with our European partners and I shall be holding meetings with UK companies to see how this can best be achieved.

CC 0259

CABINET OFFICE

70 Whitehall London SW1A 2AS Telephone 01-270 0259

From John W Fairclough FEng
Chief Scientific Adviser

W0246

CONFIDENTIAL

NBPM.

Rt Hon Kenneth Clarke QC MP
Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1 Victoria Street
London SW1

5 November 1987

Dear Chancellor,

SPACE

As promised in my minute to the Prime Minister of ~~27~~ 24 October, I have now held discussions with Departments, including officials from the BNSC, on how our overall approach to space can be presented in the most positive light. We focussed particularly on steps that could be taken to give you the best chance of gaining support for your line at the ESA meeting next week.

I have five suggestions to make:-

a) contact with the Germans. I believe you should talk to Riesenhuber at the earliest possible opportunity. The German Government has not yet decided its line for next week but a decision is imminent. The Germans are under great pressure from the French and agreement to a substantial increase in their space budget is likely. From a discussion I had with him at the OECD meeting last week, Riesenhuber is not unsympathetic to the UK position particularly with regard to our proposal for industrial involvement - on which he asked for a paper. We understand their final decision is to be taken tomorrow morning. If you are to have a chance of persuading the Germans to accept your position, you need to talk to Riesenhuber before then. You also need to discuss with him the proposal that he should chair the ESA meeting in place of the Dutch. If he does so, we may hope for a reasonably supportive line from the chair. However, we cannot expect this to help us very far if we cannot adopt a more positive stance on the following points;

b) clear proposal on form of industrial participation in ESA. If your line is to carry weight next week, I believe it is essential that you are able to present a reasonably clear idea of how industrial involvement might be secured in ESA programmes and what changes in the ESA mechanisms and structure would be needed to achieve joint funding arrangements. The details would of course be for the ESA Secretariat but, anticipating the opposition you may expect from some quarters, you will be much more convincing if you have a clear outline of the sort of arrangements you believe would work;

c) industrial involvement in British space efforts. On the basis that we should practise what we preach, you may be asked how successful we have been in involving British industry in our own space effort. The more hard evidence and example you have on this, the better;

d) financial flexibility. The Foreign Secretary drew attention to the importance of your having the flexibility at next week's meeting to maintain a UK position in projects whilst other options were considered. The Prime Minister and the Chief Secretary have indicated their readiness to accept this provided it is within current public expenditure provision. It seems highly likely that European partners will expect you to give some indication of your position on this at the meeting. They will be aware of the message about the UK economy in the Chancellor of the Exchequer's Autumn Statement. Quite apart from any room for manoeuvre there may be in the DTI's own budget, it would be helpful if you had clear advice from your Department about the extent to which you could draw on the £10m a year which industry has offered for national space projects. This could create room to redeploy your existing space provision;

e) publicity. It will be important to keep driving home the message at the beginning of the article you wrote for the Times yesterday about what we are doing in space to counteract everything that will be said about what we are not doing. If the proposal for a further increase in the mandatory science programme is to be vetoed, for example, this will need careful presentation, eg as the UK view that a decision on the resources for the science budget should be taken in the context of a revised ESA programme, rather than an outright rejection of space science as such.

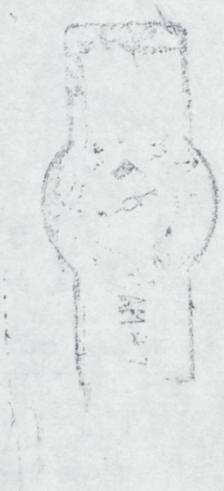
3 I hope these points will be helpful in your preparation for next week's meeting. I would be very happy to assist with any follow up work afterwards.

4 I am copying this letter to the Prime Minister, other members of E(ST) and to Sir Robert Armstrong.

Yours sincerely,

JOHN W FAIRCLOUGH

AEROSPACE: Space PT3



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Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Kenneth Clarke MP
Chancellor of the Duchy of Lancaster
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

NBPM.

28 October 1987

Dear Ken,

ESA MINISTERIAL MEETING: 9-10 NOVEMBER 1987

Thank you for copying to me your minute of 20 October to the Prime Minister. I have since seen comments from Geoffrey Howe, Kenneth Baker and David Norgrove at No. 10.

Aap

I fully endorse your proposed line that the UK should not agree to increased expenditure above the present budget for space.

However, I note Geoffrey's suggestion that there should be some increase in the present budget to secure the UK's hold on presently planned projects - particularly Columbus - over and above the additional £4 million we agreed DTI should spend on Space this year to keep open our options - with which David Norgrove's letter concurs. We have, of course, already debated the issue of the relative priority to be accorded to space alongside the other many competing demands on both our limited science and technology expenditure provision. None of the departments with space interests have so far been prepared to give this area of activity a higher priority. But if you or other departments were in principle prepared to do so I must underline my agreement with the Prime Minister's view, recorded in David Norgrove's letter, that any additional funding would need to be found from within existing baseline provision agreed in the present Survey.

On other points raised in your minute, I favour the proposed re-appraisal of ESA's strategy and operations, since this should bring about greater focus on value for

AEROSPACE: Space Policy PT3

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money and private sector funding for programmes; as you suggest our ESA partners may well have some sympathy with these aims. I also agree with Kenneth Baker's view that proposed increases in the mandatory science budget should be resisted strongly and agree that the same should apply to the General Budget since this stance will increase the pressures for realistic financial control. I hope we shall be able to carry our European partners with us in seeking realistically costed ESA programmes which give good value for money.

I am sending copies of this letter to the Prime Minister, other members of E(ST), Sir Robert Armstrong and John Fairclough.

Yours Ever,
John

JOHN MAJOR

CUP

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W0231

NBM

PRIME MINISTER

27 October 1987

ESA MINISTERIAL MEETING: 9/10 NOVEMBER 1987

In his minute to you of 26 October the Secretary of State for Education and Science has drawn attention to the need to present our overall approach to space and to ESA in the most positive light. The line proposed by the Chancellor of the Duchy which you have endorsed provides a good basis for this. ACOST's support is also useful. I would be happy to participate in developing this approach and will set up discussions in the way Mr Baker has suggested.

pp **JOHN W FAIRCLOUGH** Jane Hane.
Chief Scientific Adviser

Aerospace: Pdny PV3

10 DOWNING STREET

cc Mr Fairclough. Cabinet Office

I think you should take it that you have the authority for (iv) in Mr Baker's minute.

DCV
26/10

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cc PS

PRIME MINISTER NBRR

ESA MINISTERIAL MEETING : 9/10 NOVEMBER 1987

1. Kenneth Clark sent me a copy of his minute to you dated 20 October in which he set out the line he proposed taking at the forthcoming ESA Ministerial Meeting. I wholly agree with the line he proposes, as you will have seen from a copy of my letter to him of 21 October.

2. On the particular proposals Kenneth makes in para. 2 of his minute to you I have these points:

(i) Our strong resistance to any increase in the mandatory science budget is a UK Government position, not just that of the SERC. We should, if necessary, use our power of veto despite the likely animosity from other countries to which Kenneth later refers.

(ii) The fundamental reappraisal of which Kenneth speaks in para. 2(iii) and (iv) of his minute should thus include reappraisal of the ESA science programme.

(iii) I strongly endorse the aim of changing the attitudes towards industrial involvement and of seeking this wherever possible. It is not realistic to expect a great deal of private sector support for the mandatory science programme. Every effort must be made. But our main aim here is to inject greater financial reality and discipline into ESA's thinking in those areas where we acknowledge support to be primarily a responsibility of governments.

(iv) We must consider very carefully how our overall approach can best be presented in a positive light, and the media briefed accordingly. Kenneth has made a useful

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start. I think that John Fairclough should be asked with Kenneth's officials and mine and with the help of the BNSc Management Board, to work out the further steps in this process.

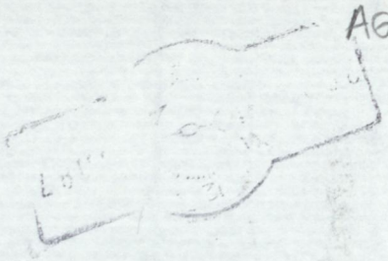
3. I am copying this minute to the other members of E(ST), Sir Robert Armstrong and John Fairclough.

KB.

KB
Department of Education and Science

26 October 1987

AGROSPACE: Space PT3



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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

23 October 1987

ESA MINISTERIAL MEETING: 9/10 NOVEMBER 1987

The Prime Minister has seen the Chancellor of the Duchy of Lancaster's minute of 20 October about the line he proposes to take at the ESA Ministerial meeting on 9/10 November. She has also seen the Foreign Secretary's minute of 22 October.

The Prime Minister is content with the proposed negotiating line, subject to the views of colleagues. However, she believes that the suggestion that there is growing disregard for financial, practical and commercial realities (paragraph 2(ii)) should be softened to suggest that although grandiose objectives may have their attractions, they have little regard for financial, practical and commercial realities.

The Prime Minister is also content that, as the Foreign Secretary has suggested, the Paymaster General might agree to the minimum UK funding necessary to maintain our position until reassessments are completed if some of the projects go ahead despite objections. Her agreement is, however, conditional on Departments being prepared to find the necessary money from within existing resources. The Prime Minister also agrees that it would be useful to discuss our proposed approach with our major partners in advance of the meeting.

I am copying this letter to the Private Secretaries to members of E(ST), to John Fairclough (Chief Scientific Adviser, Cabinet Office) and Trevor Woolley (Sir Robert Armstrong's Office, Cabinet Office).

David Norgrove

Peter Smith, Esq.,
Office of the Chancellor of the Duchy of Lancaster.

CEG

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From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

David Norgrove Esq
Private Secretary to
the Prime Minister
10 Downing Street
LONDON
SW1

23 October 1987

NBPM.

Dear David,

ESA MINISTERIAL MEETING 9/10 NOVEMBER: SCIENCE

The Chancellor of the Duchy wrote to the Secretary of State for Education and Science on 16 October giving him advance notice of the line he proposed to take on the ESA science budget at the Ministerial meeting on 9/10 November. You may be interested to see a copy of his letter (attached). The Secretary of State for Education and Science has already copied round his reply of 21 October.

I am copying this letter to Private Secretaries to members of E(ST), Trevor Woolley and to John Fairclough.

Yours sincerely,

Peter

P J SMITH
PRIVATE SECRETARY

ENC

EC4CBK

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From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

Rt Hon Kenneth Baker MP
Secretary of State
Department of Education
and Science
Elizabeth House
York Road
LONDON
SE1 7PH

16 October 1987

Dear Ken,

ESA MINISTERIAL MEETING 9/10 NOVEMBER: SCIENCE

You will recall that E(ST) agreed on 1 October that we should go forward to the forthcoming European Space Agency (ESA) Ministerial Meeting at The Hague on the basis that there would be no additional funds for expenditure on space.

I shall shortly be writing to the Prime Minister setting out the line I propose to take at the ESA Meeting. In accordance with E(ST)'s decision, I intend to oppose proposals which the ESA Executive are expected to put forward for increased expenditure in a number of areas. One of these is likely to be a recommendation for a 5% pa increase in the science budget for the period 1990/1994.

Science is one of ESA's mandatory programmes, to which member states contribute at GNP level; in our case currently about 16%. Our contribution is largely funded by SERC, who are, I understand, firmly against any increase in expenditure. Their position is outlined in the attached background paper.

Since this is essentially a science matter I wanted you to know in advance the line I would be taking. I assume that you would want us to take a firm line here as in other areas of ESA's proposals.

OC5AAL

It may, however, result in our having to exercise a veto since the science budget is mandatory and any increase would require unanimous approval.

If you do have any comments on my proposed position on the science budget I should be grateful if your office could let mine know urgently.

KENNETH CLARKE

OC5AAL

BACKGROUND PAPER FOR MR KENNETH CLARKE - SPACE SCIENCE PROGRAMME

1. The mandatory space science programme is mainly concerned with astronomy, studies of the Earth's atmosphere and the sun. Until 1985 the procedure for choosing space science missions was that up to say four proposals would be put to ESA's science programme committee every two or three years and one would be selected on scientific merit. There was no long-term plan.

2. At the 1985 Ministerial meeting ESA came forward with a twenty year plan for the science programme called "Horizon 2000", which had been agreed by space scientists throughout Europe and sought additional funds for its full implementation. At the end of 1984 the level of resources available for the science programme was about 140M ESA Accounting Units (about £100M). They sought to increase this by 7% pa for seven years.

3. In the run up to the January 1985 meetings, and before the formation of BNSC there was considerable discussion between Departments about the line that should be taken at the Ministerial meeting. Regarding the science programme the SERC/DES line was that no new money was available for space science, because of higher priority demands on the DES Science Budget.

4. An increase in the science programme requires the unanimous agreement of all ESA member states. There was considerable debate about the proposed increase and in the event the UK Government was party to an agreement that science programme funding should rise by 5% a year for the five calender years 1985-1989 (roughly half the total amount ESA was requesting). This will result in a level of resources for science of about 180M Accounting Units by the end of 1989 (£126M). E(A) Committee decided that the extra costs should be borne by DTI, MoD, DoE and the Department of Transport.

5. The Horizon 2000 science programme consists of a mixture of small and medium projects and four major "cornerstone" missions. At the forthcoming Ministerial meeting ESA may be seeking a further increase of 5% a year for the calender years 1990-1994, which would bring the level of resource to that originally sought by ESA in 1985. The additional UK funds required to meet such an increase would be:

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
£M	0.6	2.0	3.3	4.8	6.3	7.0

Officials are still discussing whether the increase for the last two years will be requested by ESA.

6. An additional £4Mpa is needed from 1989/90 onwards to meet unavoidable costs due to adverse exchange rate movements since October 1985.

7. There is a proposal from some European states that a quarter of the full optional programme for microgravity research should become mandatory and its cost added to the current mandatory programme. This would then cost the UK about £3.5M in 1989/90 rising to about £4.8M by 1992/93. The UK Research Councils would wish it to continue as an optional programme and there is no UK provision for the ESA microgravity programme beyond 1989.

8. The SERC, who currently spend about £30M pa on space through the BNSC of which about £16M is paid direct to ESA (the remainder being necessary to provide instruments for ESA missions and to develop underpinning technology) believe that the present volume of ESA's science budget is adequate and are not prepared to fund any further growth. It may be that greater emphasis should be placed within the Horizon 2000 programme on small and medium scale missions at the expense of one or more of the prestigious cornerstone missions.

9. The BNSC Management Board at its recent meeting on 12 October endorsed the view that since there were no new funds available the Minister should oppose a further increase in the ESA science budget. It should be possible to devise an adequate programme from the current level of resources. It is necessary to preserve the UK's domestic expenditure at the present level to enable UK scientists to participate effectively in the ESA missions.

10. In opposing any further increase in the ESA mandatory science programme and general budget the UK could well be isolated, but the SERC (and UK-officials) view is clear, ie that there should be no increase in funds for the mandatory science programme.

11. ESA will argue that such a line will wreck the whole plan which was only agreed by consensus throughout Europe. The response to that could be either.

a. stretch the programme out in time: to match the annual resources available but this could be regarded as yet another example of the UK's lack of commitment to European scientific collaboration;

or b. seek additional partners in the programme (NASA, USSR).

PRIME MINISTER

SPACE

Mr. Clarke has set out, below, his proposed negotiating line for the ESA Ministerial meeting. As expected, it proposes a fundamental re-appraisal and that in the meanwhile, new infrastructure initiatives and other new commitments should not go ahead.

The Foreign Secretary acccepts this negotiating line but believes (with Mr. Clarke) that in practice some of the initiatives may well go ahead even if there is a re-examination. The Foreign Secretary proposes that we should try to find a way to keep a toe-hold in them even if this requires some extra funds. We should agree to the minimum UK funding necessary to maintain our position until re-assessments are completed. He also proposes that we should discuss our approach with our major partners in advance of the meeting.

I suggest you:

(i) agree with the line proposed by Mr. Clarke, subject to the views of colleagues; Yes

(ii) agree that we should try to keep a toe-hold if necessary but only if Departments are willing to find the necessary money from within existing allocations; Yes

(iii) agree that we should discuss our proposed approach with major partners in advance of the meeting. Yes

Content?

DAVID NORGROVE

22 October 1987

VC2AQE

CCPC

CONFIDENTIAL

DN

PM/87/060

PRIME MINISTER

ESA Ministerial Meeting: 9/10 November 1987

with DRN

1. I have seen a copy of Kenneth Clarke's minute to you of 20 October.

2. I agree with the line he proposes to take on the mandatory science and general budget areas. This may indeed attract animosity from other member states, but I understand that we have an effective veto.

3. I also support his proposed line on the ESA Executive's proposals. I suspect that he may be right in saying that there will be some sympathy from other member states. However others, especially the French, will press at least for Ariane and Hermes to go ahead. I would expect Mitterrand to have made a strong plea to Kohl on these lines at his latest meeting. On past experience he may well have been successful.

4. I therefore agree with him that there is a serious risk that some projects might go ahead, but with the UK henceforth totally excluded from them. I question whether this would be in our best interests.

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5. While I accept that the industrial effect is primarily for Kenneth to assess, I do not think it is sensible in the long term to exclude the UK totally from such an important area of advancing technology. Nor do I see how it would be consistent with the need we perceive to maintain involvement with developing SDI technology.

6. I also believe that there could be political penalties. While a decision not to participate in any individual project might be defensible, the cumulative effect would be damaging, and would give rise to allegations that Britain was "backing out of Space" which would be difficult to refute.

7. This would not be consistent with the picture we are successfully presenting of a resurgent Britain beginning to enjoy the benefits of the economic success of the last eight years and to play an increasingly leading role in the Western world. It would, I think, diminish the value which other Western countries place on our participation in international scientific and industrial projects generally.

8. More specifically, in the case of Columbus, the Americans have, since President Reagan's invitation to you to join the International Space Station project, set great store on our continuing to play a role in it. George Shultz recently took the initiative in writing to me to make precisely this point. I note Kenneth's assessment that prospects for agreement on the project between ESA and the US are reasonable, though not yet fully secured. Against that background there will be considerable dismay in Washington if we abandon the project.

9. I support Kenneth's proposal to seek to delay any decisions on the project proposals at the ESA meeting while they are reassessed. But as he recognises, we may not succeed in doing this. In such a case, both for the reasons given above, and in order to influence those decisions, I consider that we should find a way to keep a

toehold in them. This would require some extra funds: I am not in a position to quantify them, but do not believe that they would be large. I therefore very much hope that colleagues will agree that he should have the necessary discretion, should it become clear that some of the projects will go ahead, to agree to the minimum UK funding necessary to maintain our position until reassessments are completed.

10. Finally, it will strengthen the likelihood of getting the result we want from the ESA meeting if we discuss our proposed approach with our major partners in advance of the meeting. I strongly urge that we do this.

11. I am copying this minute to members of E(ST), Sir Robert Armstrong and John Fairclough.

(GEOFFREY HOWE)

Foreign and Commonwealth Office

22 October 1987

AEROSPACE: Space Policy: Pt 3.

CONFIDENTIAL

CC/BG

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

20 October 1987

ESA MINISTERIAL MEETING: 9/10 NOVEMBER 1987

1 As I suggested at E(ST) attached on 1 October, I am writing to set out the line I propose to take at the European Space Agency (ESA) Ministerial Meeting on 9/10 November at the Hague.

2 I attach a note setting out the background including the major initiatives being proposed by ESA, the position of other Member States and the possibility of greater private sector involvement. Against this background, I propose to take the following line at the ESA meeting:-

(i) The UK should acknowledge ESA's past contribution and affirm that it intends wishes to continue to play a constructive role in its affairs.

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(ii) However, we should express concern at the recent trend in ESA towards increasingly grandiose objectives, which, attractive though they maybe, have little regard ~~with apparent growing disregard~~ for financial, practical and commercial realities.

(iii) We should suggest that before Europe embarks on the ESA Executive's latest ambitious proposals, the time has come to re-think ESA's priorities, strategy and methods of operation within a more reasonable financial profile.

(iv) Until such a fundamental re-appraisal has been undertaken, we should urge our ESA partners not to proceed with the new infrastructure initiatives, or new commitments on other optional programmes.

(v) We should also resist strongly any proposed increases in the mandatory Science (largely funded by SERC who are opposed to any increase) and General Budget areas.

(vi) In proposing a re-appraisal of ESA's strategy and operations, we should suggest the following guidelines:-

- The ESA Executive be instructed to present within a set time (say, by mid 1988) a range of

costed options for each programme area, highlighting value-for-money considerations and identifying private sector funding possibilities for each option. We shall have to accept that some of the longer term programmes will not attract industrial funding, but even here we should insist on some industrial and user involvement in the design and timing decisions.

ESA must, therefore, encourage private sector participation in all its optional programmes by:

- reviewing carefully the case for proceeding with projects where no private sector money is involved, if possible identifying users who will be ready to take over operational or recurring expenditure following development;

- setting milestones project-by-project where the case for increasing the existing private sector involvement would be specifically addressed.

3 The proposed UK approach is likely to attract sympathy from a number of other Member States who are worried about the cost

and direction of the Executive's package of proposals. It is doubtful, however, whether any other Member would wish to take quite such a firm line as I am recommending. There is consequently a risk that there may be sufficient support for some optional programmes to proceed, notably Ariane 5 and Columbus, albeit in attenuated form. If this were to happen then it may result in the UK being excluded from any future participation in these two programmes. There may also be animosity from other countries at the UK if we are not prepared to join any new programme or if, as I expect, we are the only Member blocking any increase in the Science budget.

4 It remains my view, however, that if we are to inject some commercial reality in to the thinking of ESA and to bring the private sector in to give space programmes the industrial orientation they urgently need, then we must be prepared to take a firm line now. I therefore hope you and colleagues will endorse my proposed line for the ESA meeting.

5 I am copying this minute to members of E(ST), Sir Robert Armstrong and John Fairclough.

KENNETH CLARKE

ESA MINISTERIAL MEETING: 9/10 NOVEMBER 1987

Background

1 ESA plans envisage two major new initiatives: Ariane 5, a new version of the European launcher with increased carrying capacity to meet the anticipated demand to launch heavier satellites in the mid 90's; and Columbus, the planned US-led international space station, in which President Reagan had invited participation, not only from Europe but also Japan and Canada. The French have also pressed hard for the inclusion of the space plane Hermes to provide Europe with the competence to put man in space by the year 2000.

2 The ESA Executive has been looking for agreement to a single, all-embracing package. This appears increasingly unrealistic with costs now estimated to increase across the board by roughly 150% in real terms by 1992. The position on the initiatives is:-

Ariane 5 - technical progress satisfactory, so that the project is sufficiently defined to move to full development.

Columbus - Prospects for agreement with the US on collaborative arrangements look reasonable, though not yet fully secured. Of the three main elements in the programme, the only one requiring an urgent decision is the Pressurised Module which will be physically attached to the space station. The UK has minimal user interest in this module though we have achieved responsibility for some demanding software technology from our industry.

Hermes - Much technical and operational uncertainty remains and consequently there is little confidence in cost estimates, which have risen alarmingly since the Challenger accident showed the need for more complicated design. The project does not appear to be ready for full development.

As part of the ESA Executive's current recommendations, increases are also sought in the two mandatory programmes, the science programmes, where the Executive is proposing a 5% per annum real increase for five years <u>on top of</u> the 5% per annum increase agreed in Rome in 1985, and the general budget. Unlike

the other optional programmes, the unanimous agreement of Member States is required for these increases.

Position of Other Member States

3 There are indications of growing concern among some other Member States over the scope and costs of the package likely to be put forward. Of the major partners, Germany is thought to have major reservations on Hermes and on full scale development of Columbus at this stage. France is more supportive of the Executive's approach, but has doubts about some of the increases in expenditure recommended. Less is known about the Italian position, though they appear to have funds in place to support the early, less costly, part of the plan. Consequently the UK is unlikely to be alone in questioning the Executive's ambitious aspirations, though a number of Member States may be able to back a programme whose costs were limited to the doubling of expenditure envisaged at the Rome meeting in 1985.

Private Sector Involvement

4 E(ST) agreed on 1 October that we should go forward to the ESA Ministerial Meeting next month on the basis that there would be no additional funds. Following that discussion I set in hand a review of our domestic space programme to determine:

- the extent to which a substantially greater private sector contribution to our national programme is feasible;

- how that increased private sector funding would call for adjustments in the priorities and management of that programme; and, I hope, give better value for money; and

- whether such an approach would over time release resources which could be deployed on pursuit of ESA objectives which we endorsed.

I am afraid that the private sector could only be induced to take the question seriously after the restatement of our position which I made to counter their lobbying at a recent international conference. Discussions with the private sector now suggest that a greater injection of private sector funding may be possible, although this would still fall well short of the ESA Executive's proposed increases. But I need more time in which to make a clearer assessment of the prospects and to have discussions with Ministerial colleagues who also fund part of our domestic space effort. Consequently I see no way in which the main themes of a substantial re-alignment of our domestic space effort could be set in place before the ESA Ministerial meeting on 9/10 November.

OC5ABE

CF file VC

CCCO
Ch Scientific
CDL
DES

10 DOWNING STREET

LONDON SW1A 2AA

THE PRIME MINISTER

12 October 1987

Dear Sir John

Thank you for your letter of 10 September. I am grateful to you for setting out your views so thoroughly and constructively. I understand the importance you attach to Britain's involvement in space - and I share your feelings about the way money has been wasted in defence R&D.

When I announced that the Government had decided not to increase funding for space at present, I invited the private sector to come forward with further resources. The aerospace industry has responded and major companies have agreed to continue work for the time being at company expense on certain key national space programmes. At the same time, the British National Space Centre has been authorised to commit £4 million in order to keep open programme options with the European Space Agency (ESA). This will allow the United Kingdom to continue to participate in the ESA preparatory programmes for the Ariane V launcher and the Columbus space station until the ESA Ministerial Council meeting which is planned for November.

I was also interested in your comments on the way in which the Government should manage its national space programme. As you say, the future status and structure of

801

the British National Space Centre will have to be considered in the light of the broader decisions that are taken on our future involvement in space.

Yours sincerely

Margaret Thatcher

Sir John Mason, C.B., F.R.S.

DEPARTMENT OF TRADE AND INDUSTRY
1-19 VICTORIA STREET
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GTN 215) 5147
(Switchboard) 01-215 7877

From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

David Norgrove Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1A 2AA

5 October 1987

Dear David

Thank you for your letter of 15 September to Timothy Walker enclosing one from Sir John Mason about space funding. As requested I attach a draft reply for the Prime Minister's signature. I apologise for failing to meet your deadline.

I am sending copies of this letter and enclosure to John Fairclough (Chief Scientific Adviser) Trevor Woolley (Cabinet Office) and Tom Jeffery (Education and Science).

Yours sincerely

Julian Farrel

JULIAN FARREL
PRIVATE SECRETARY

SE4ACR

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Please type

~~DRAFT~~ REPLY FOR THE PRIME MINISTER TO SEND TO:

Sir John Mason CB

The Royal Society

6 Carlton House Terrace

LONDON

SW1Y 5AG

VCU/AREW.

Thank you for your letter of 10 September. ~~in which you put forward arguments for increasing Government funding for investment in space science and technology~~.

I of course entirely ~~While I can~~ understand your views on the importance of space projects. But ~~you will appreciate that~~ the Government has to balance the longer term benefits of expenditure on space research against alternative uses of funds in support of other areas of British industry.

~~You will probably be aware that~~ When I announced that the Government had decided not to increase funding for space at present, I invited the private sector to come forward with further resources. The aerospace industry has responded and

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major companies have agreed to continue work for the time being at company expense on certain key national space programmes. ~~In parallel to this~~ At the same time, the British National Space Centre has been authorised to commit £4 million in order to keep open programme options with the European Space Agency (ESA). This will allow the United Kingdom to continue to participate in the ESA preparatory programmes for the Ariane V launcher and the Columbus space station until the ESA Ministerial Council meeting ~~scheduled~~ which is planned for November ~~1987~~.

I was also interested in your comments on the way in which the Government should manage its national space programme. As you say, the future status and structure of the British National Space Centre will have to be considered in the light of the broader decisions that are taken on our future involvement in space.

SE4ACQ

Sir John MASON

29/9

FILE
DA

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

ACK/ 15 September 1987

I enclose a copy of a letter which the Prime Minister has received from Sir John Mason of the Royal Society.

I should be grateful if you would provide a draft reply for the Prime Minister's signature, to reach this office by 29 September.

I am copying this letter and enclosure to Trevor Woolley (Cabinet Office), John Fairclough (Chief Scientific Adviser) and Tom Jeffery (Department of Education and Science).

(D.R. NORGROVE)

Tim Walker, Esq.,
Department of Trade and Industry.

dg

From: Sir John Mason, C.B., F.R.S.

R12pps.

The Royal Society
6 Carlton House Terrace, London, SW1Y 5AG
Telephone 01-839 5561 Telex 917876

10 September 1987

Our Ref: BJM/T.NG

Dear Prime Minister,

THE NATIONAL SPACE PROGRAMME

FLAP PT 1

1. I wrote to you 18 months ago arguing for the formulation of a national strategy for space and for a central agency to carry it out. I was very pleased that you initiated an interdepartmental study which resulted in the establishment of the National Space Centre (BNSC) charged with producing a national plan for the next 10 years. It was therefore very disappointing to read your statement in Parliament that the government felt unable to fund the programme recommended by the Centre and that no additional money could be made available for space at the present time.

2. In the hope that this is not the government's last word and that the matter will be reconsidered by a committee under your chairmanship, I respectfully submit the following arguments in favour of Britain maintaining a realistic and viable investment in space science and technology. These represent my personal views, but I am confident that they would receive widespread support from the scientific community, including those who have no direct interest in space.

3. Advances in space have been so great and so rapid that it is difficult to see clearly more than a few years ahead. However, it is virtually certain that space science and technology will, during the next 20-30 years, have a greater impact on such areas as telecommunications, transport, defence and earth observations than all the technical advances of this century, apart from nuclear energy and computers.

4. Accordingly, it is difficult to see how any major industrial country can afford not to participate actively in these developments in order to influence the design and operation of space systems and derive maximum benefit from them. Competence in space activities is increasingly regarded as a measure of a country's capabilities in advanced technology because these impose on industry the most exacting standards of design, construction, testing and quality control. Probably the most important result of the U.S. Space Programme, especially the Moon Project, was to stretch American technology and management to the limit across the board, and this has given their industry the lead in many areas.

5. British industry has developed considerable competence in building satellites and component systems but this is limited to a few firms where performance is patchy. This competence needs to be expanded and sustained in order to compete in the rapidly expanding world markets for space technology and services. Satellite communications traffic is doubling every four years, whilst the demand for related ground equipment is estimated to

/.....

reach £15 bn. a year by the end of the century. If U.K. industry were to obtain 10 per cent of just this latter business and make 10 per cent profit, this would nearly pay for our entire space programme. I believe that our industry needs the challenge and discipline of working on international space projects. The money lost on NIMROD and FOXHUNTER alone would fund our present space activities for ten years.

6. Although the economic benefits from space activities are mainly long term, and claims for spin-off are often exaggerated, there are many examples of major advances, e.g. in new materials, electronics, sensors, soft-ware and medical equipment, being fed back quite quickly into manufacturing industry. Because industry has much to gain, both directly and indirectly, from a healthy space programme, I agree that it should contribute to the funding of research in space technology and its applications. The identification and management of jointly-sponsored projects should be given high priority by BNSC but, as in all other countries, they will have to be substantially funded by government.

7. The competence of U.K. industry in space has been underpinned by, and largely built upon, our achievements in space science which, until recently, were second only to those of the United States. Apart from the fact that some of the most exciting of all scientific discoveries are being made in space, a strong space science programme is essential for the development of new ideas, instrumentation and techniques that may lead to practical applications and also for the recruitment and training of young scientists at the very forefront of technology. It has also given university groups and institutes like the Rutherford-Appleton Laboratory invaluable experience in the execution and management of very complex projects with great success.

8. For all these reasons it seems unthinkable that the U.K., already a major user of space systems, should cease to become actively involved at a viable level and become merely a customer. Virtually all of our industrial competitors are making much larger investments in space than we and are planning further expansion. Even India has a programme similar in cost but considerably greater in effort. During a recent visit to India I was both impressed and depressed to find that they have a larger, better defined and more coherent programme, much better managed than our own, and supported by sustained and steadily increasing funding. Even if the BNSC plans were fully implemented, our effort would still be a good deal smaller than that of France, Germany, Japan and China.

9. Our present level of investment is insufficient for us to remain a credible and effective partner in the proposed European programme. It will not enable us to have a strong influence on the choice, design and management of major projects for which we have the expertise and experience. As a minority shareholder in projects led by France, Germany and Italy, it is doubtful whether we would get a reasonable return on our investment and it might be better to withdraw altogether.

10. Although I have no personal axe to grind over space (except for the maintenance of meteorological satellites), I feel strongly that it would be a profound mistake for the U.K. not to make an adequate investment in both space science and technology. At this stage, this might be set at a level rather lower than recommended by BNSC, deferring decisions on longer-term projects such as HERMES and HOTOL until more detailed studies have been made.

/.....

I believe that our status and credibility as an advanced manufacturing nation, capable of competing at the forefront of modern technology, will depend a good deal on this decision. The French, Germans and Japanese are already busy 'talking us down' and excluding us from discussions on future space systems on the grounds that we have already opted out. I hope that, for the sake of some additional £100 M p.a. we shall prove them wrong and exercise our leadership both in the European programme and in getting our proper share of industrial contracts.

11. Finally, a word on the management of our national space programme. I believe that our support for, and performance in, space has suffered from the fact that although several departments have interests in space, none has overall responsibility for producing and funding a coherent national programme. Space is a good example of an area of strategic importance where the total national requirement is greater than the sum of perceived departmental requirements and, therefore, has to be addressed from the centre. Once the overall size and shape of the programme has been decided, and a national plan endorsed, I hope that its execution will be entrusted to a National Space Centre with a strong identity and a budget of its own.

12. I hope, Prime Minister, that you will find these arguments both constructive and persuasive and that, despite all the other calls on public expenditure, you will find it possible to sustain and enhance our national competence and influence in a field that is bound to become of increasing political, economic and strategic importance in the future.

Yours sincerely

John Mason

John Mason

The Rt Hon. Margaret Thatcher, M.P., F.R.S.,
10 Downing Street,
LONDON,
SW1A 2AA

AEROSPACE

SPACE POLICY

PT 3

DEPARTMENT OF TRADE AND INDUSTRY
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Secretary of State for Trade and Industry

Prime Minister (2)
For information
MCA 19/8

Andy Bearpark Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1

19 August 1987

Teleprinted
to Cornwall
19/8/87

Dear Andy

We spoke on Friday about my Secretary of State's decision to authorise BNSC to commit £4 million to enable the UK to participate in the extensions to various ESA preparatory programmes. We have now sought and obtained Treasury approval of this expenditure and we will be announcing it tomorrow by means of a press notice, a draft of which is attached.

The decision to provide this funding was influenced by two factors which we shall be stressing in response to press enquiries. First, negotiations with the ESA Executive have reduced the amount necessary to keep open UK options from £7 million to £4 million and second, more importantly, the private sector have indicated the importance they place on this decision by agreeing to continue work on key national space programmes at their own expense. BNSC estimate that the total private sector funding involved will amount to about £3 million, over £1 million of which will be provided by British Aerospace. I understand that British Aerospace will be issuing their own press notice welcoming these developments.

I am copying this letter to Lyn Parker (FCO), David Ball (Defence), Chris de Grouchy (DES), Max Felstead (Chief Secretary's Office) and to John Fairclough.

Yours ever

Jeremy Godfrey

JEREMY GODFREY
PRIVATE SECRETARY

AU2ADM

20 August 87

REVISED PRESS NOTICE

PRIVATE SECTOR CONTRIBUTES TO SPACE EXPENDITURE

The aerospace industry has responded positively to the challenge from the Prime Minister, in the House of Commons on 23 July, to give concrete support for space activities. Major companies have agreed to continue work at company expense on certain key national space programmes until the results are known of the general review of the UK's R&D priorities being undertaken in the Autumn.

In parallel to this new private sector effort on the national front, the Secretary of State for Trade and Industry, Lord Young, has authorised BNSC to commit £4m in order to keep open programme options with the European Space Agency.

This will allow the UK to continue to participate in ESA's preparatory programmes for the Ariane V launcher and the Columbus space station until the ESA Ministerial Council meeting scheduled for 9/10 November, 1987. Discussions on this basis have been held with the ESA Executive.

Discussions between BNSC and the private sector are continuing with a view to defining a more active long-term cooperation in the UK's space activities.

CONFIDENTIAL

REVISED PRESS NOTICE 20 AUGUST 1987

PRIVATE SECTOR CONTRIBUTES TO SPACE EXPENDITURE

THE AEROSPACE INDUSTRY HAS RESPONDED POSITIVELY TO THE CHALLENGE FROM THE PRIME MINISTER, IN THE HOUSE OF COMMONS ON 23 JULY, TO GIVE CONCRETE SUPPORT FOR SPACE ACTIVITIES. MAJOR COMPANIES HAVE AGREED TO CONTINUE WORK AT COMPANY EXPENSE ON CERTAIN KEY NATIONAL SPACE PROGRAMMES UNTIL THE RESULTS ARE KNOWN OF THE GENERAL REVIEW OF THE UK'S R AND D PRIORITIES BEING UNDERTAKEN IN THE AUTUMN.

IN PARALLEL TO THIS NEW PRIVATE SECTOR EFFORT ON THE NATIONAL FRONT, THE SECRETARY OF STATE FOR TRADE AND INDUSTRY, LORD YOUNG, HAS AUTHORISED BNSC TO COMMIT £4M IN ORDER TO KEEP OPEN PROGRAMME OPTIONS WITH THE EUROPEAN SPACE AGENCY.

THIS WILL ALLOW THE UK TO CONTINUE TO PARTICIPATE IN ESA'S PREPARATORY PROGRAMMES FOR THE ARIANE V LAUNCHER AND THE COLUMBUS SPACE STATION UNTIL THE ESA MINISTERIAL COUNCIL MEETING SCHEDULED FOR 9/10 NOVEMBER 1987. DISCUSSIONS ON THIS BASIS HAVE BEEN HELD WITH THE ESA EXECUTIVE.

DISCUSSIONS BETWEEN BNSC AND THE PRIVATE SECTOR ARE CONTINUING WITH A VIEW TO DEFINING A MORE ACTIVE LONG-TERM COOPERATION IN THE UK'S SPACE ACTIVITIES.

ENDS

Space?

CONFIDENTIAL

CC BG

DEPARTMENT OF TRADE AND INDUSTRY
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From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

David Norgrove Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1A 2AA

23 July 1987

Seen by the Prime Minister.
Asked for sentence on industrial contribution to be added.
pa now. DRN 24/7.

Dear David,

SPACE

As you may be aware there are two Parliamentary questions tabled for answer tomorrow on space (from David Knox MP and Michael Marshall MP). As you will appreciate we will need to table answers by 10.00 am tomorrow.

You will wish to be aware that, in the light of discussion at Cabinet this morning and the Prime Minister's statement during questions this afternoon, the Chancellor of the Duchy has approved the attached answers.

I am copying this to Tony Galsworthy (FCO), Jill Rutter (HMT), John Howe (MOD), Rob Smith (DES), Trevor Woolley (Cabinet Office) and John Fairclough and to Tim Walker here.

Yours sincerely,

Peter

PETER SMITH
PRIVATE SECRETARY

JY5ABW

442 **Mr David Knox** (Staffordshire Moorlands): To ask the Chancellor of the Duchy of Lancaster, whether he will give a progress report on preparations for the European Space Agency ministerial meeting in November. ¶

136 **Mr Michael Marshall** (Arundel): To ask the Chancellor of the Duchy of Lancaster, in what form and by what date he anticipates announcing Her Majesty's Government's response to the British National Space Centre's proposals for future expenditure before the European Space Agency meeting of Ministers scheduled for 9th and 10th November.

Discussions are currently taking place between officials of the member states of the European Space Agency. The Government is reviewing its priorities for R & D expenditure. It is important that we make the most effective use for the benefit of UK industrial performance of the resources available from the taxpayer. The longer term benefits of expenditure on space research have to be balanced against alternative uses of funds in support of other areas of UK industry.

Having carefully considered the options on space, we have decided at present not to increase our expenditure above the current level. This is already running at over £100m a year. Discussions and preparations will therefore proceed upon that basis.

KC1ABH

10 DOWNING STREET

Prime Minister

You might like to have a word about this at Cabinet.

Is a decision on space to be announced today?

DRN
23/7.

CCBG

DEPARTMENT OF TRADE AND INDUSTRY
1-19 VICTORIA STREET
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From the Chancellor of the Duchy of Lancaster and Minister of Trade and Industry

THE RT HON KENNETH CLARKE QC MP

Prime Minister 2
A convincing letter.
DRN
27/7

Rt Hon Sir Geoffrey Howe QC MP
Secretary of State
Foreign and Commonwealth Office
Downing Street
LONDON
SW1A 2AL

22 July 1987

Dear Secretary of State,

SPACE

file with DRN

Thank you for your minute of earlier today.

I agree that the publication of the decision I propose is somewhat hasty because of the need to announce any decision to Parliament before it rises if at all possible. I do not, however, believe that it is unconsidered as it is in fact the logical and inevitable result of the lengthy discussions we have had at E(A) on more than one occasion. It is quite plain that the overwhelming majority of colleagues, including David Young and myself, do not give increased expenditure on the Space Plan any high degree of priority compared with other important bids for research and development funds.

I am afraid that the ESA Ministerial meeting is not the deadline for our decision. Officials from the member states are at this moment meeting to embark on the further preparation and negotiation of a package for Ministers. We have to decide now whether our officials can negotiate on the basis of any further commitment of funds. Earlier papers have always pointed out that a decision in favour of Option 3 would be too late in the Autumn to be of any real value in these negotiations. Our conclusion that we do not wish to commit funds to that or any other additional option will soon feed back out of the ESA discussions and our decision would soon be exposed in a controversial and damaging way.

I much prefer to face these difficult choices by announcing decisions at the time of our choice rather than responding to inevitable pressure in a way that would suggest continuing indecision. I would suggest that the history of our discussions of the Space Plan indicates that the minute from the Prime Minister's

EC4BRT

office earlier today sets out the only sensible conclusion which is to announce a decision now. I do not think that any further meetings of E(ST) are likely to affect the outcome on Space or our position in the ESA talks over the Autumn.

I hope that you will accept therefore that I should set out this position clearly in the written answer that I now propose to make.

I am copying this letter to the Prime Minister and other previous recipients.

Yours sincerely,

Peter Smith

pp KENNETH CLARKE

(approved by the Chancellor and signed in his absence)

EC4BRT

AEROSPACE: Space Policy PR3.

cc BG

This must be properly discussed

Prime Minister #1

There can be no conclusion of a reluctant decision

This caused Mr Clarke not to make his statement today. (He made no attempt to consult you.) Do you want to leave Mr Clarke to discuss this with Sir G. Howe, or say that a further delay would be pointless?

DRN 22/7.

FCS/87/161

CHANCELLOR OF THE DUCHY OF LANCASTER

Space and IT92

1. Thank you for copying to me your minute to the Prime Minister on these matters.

2. A decision as hasty and uncoordinated as this would be inconsistent with the extensive debates which have already taken place on the Space Plan within Whitehall. It would have considerable international implications, and we should not go ahead before the matter has been debated in the new E(ST) Sub-Committee, which was set up to look at important issues of this kind in a coordinated way. I note that John Fairclough shares this view and will have further papers to put to Ministers soon.

3. I do not follow your argument about the necessity of bringing the matter to a conclusion now and announcing our decision to Parliament. I thought the real cut-off date was the ESA Ministerial meeting on 9 and 10 November this year, and I reiterate my belief that we need a proper look at the subject before a final decision is communicated to this meeting.

Agreed MT

/4.

4. Nor is it likely that the attempt to balance good news on information technology with bad news on space will succeed, given that quite different industry interests are involved. The effect of the UK largely withdrawing from the ESA activities and leaving the FRG, France and indeed Italy to continue in the exploitation of space would certainly have a most unwelcome influence on our image as a technologically advanced country. Withdrawal from participation in the international Space Station negotiations, which would follow immediately, would be seen as reneging on a project authorised at Head of Government level.

5. There is another domestic presentational drawback. A negative decision now would spoil the positive media coverage of our recent announcement of a new approach to scientific research and development under the Prime Minister's personal guidance. We should continue to capitalise on that good publicity, not put it in reverse.

6. For all these reasons I very much hope that you will not go ahead with a statement this week.

7. I am copying this minute to the Prime Minister and other recipients of your minute.

(GEOFFREY HOWE)

Foreign and Commonwealth Office

22 July 1987

MR NORGROVE 22 July 1987

SPACE AND IT 92

I strongly agree with the flavour of your advice to the Prime Minister on the second Alvey programme. There is a clear attempt by the DTI to steam-roller us into accepting Alvey II as a way of cheering up science and industry as an antidote to the bad news about space.

The DTI sent a minute about Alvey and Eureka at the end of April which crowed about how successful both programmes were and how market-orientated were their projects. The paper was full of confusion between 'return on capital' and 'value for money'. On first reading the IT 92 programme seems full of the same old stuff. The original purpose of the Alvey programme was to stimulate small and medium sized companies and the Alvey directorate was to be led by an industrialist independent from Whitehall. There were also to be clear targets and performance measures.

In fact the Alvey programme has been led by DTI-based officials and the bulk of the resources have gone to large companies where additionality must be very low. I saw the fruits of one Alvey project, on computer graphics, at IBM last month and its achievements were impressive. The IBM research people nevertheless agreed that the programme would have gone ahead with or without Government money!

The plans for a second Alvey programme have been presented without sufficient critical analysis of the benefits of the first. In particular I have nowhere seen addressed the question: how many of the claimed Alvey results would have been achieved anyway?

The DTI is very confused about its research role. It continues to confuse return on capital with value for money. It tends to pay for work that would be carried out by companies anyway. It does not push industry hard enough on subjects like launch aid - we had to force them to get an extra percent return on any Airbus super profits.

Conclusion

1. IT92 Why is so much of the Support for Innovation (SFI) budget going to profitable companies that ought to finance their own R&D? Until this basic question is addressed with a proper analysis of how effective the Alvey programme has been in terms of causing research to happen which otherwise would not, there should be no blanket approval given to Kenneth Clarke's attempt to bulldoze through IT92 without proper analysis. It is nothing whatsoever to do with the space programme and the two decisions should remain quite separate.

2. Space I also agree with the logic of John Fairclough's argument about space. To stay with the Option 1 level will be read as a retreat from space anyway and it would therefore represent a more positive policy to stop completely. Since this would be most unpopular with most Ministers, such a draconian alternative might make them take seriously Fairclough's proposals for re-allocations for space at a future E(ST) meeting.

Unfortunately his intervention is late and much of the machinery is already in gear for Kenneth Clarke's announcement this week. I nevertheless agree that it would be better if his announcement did not preclude the Fairclough proposal.

GEORGE GUISE

File ABG

10 DOWNING STREET

LONDON SW1A 2AA

22 July 1987

From the Private Secretary

Dear Peter,

SPACE AND IT92

The Prime Minister has seen the Chancellor of the Duchy's minute of 21 July which gave further information about the proposed announcement on information technology. She has also seen the Chief Secretary's letter to the Chancellor of the Duchy of 21 July and John Fairclough's minute of the same date.

The Prime Minister took some reassurance from the Chancellor of the Duchy's minute, particularly from the way in which private sector involvement is expected to increase. However, she is not yet convinced that the proposal has been thought through in sufficient detail, and against the background of the Chief Secretary's objections she has asked that the Chancellor of the Duchy's statement should make no specific commitment on domestic funding for IT92 and that he should bring his proposals back for more detailed discussion in the autumn.

John Fairclough was concerned that an announcement now might foreclose the possibility of considering space in the context of a more general discussion of priorities, and argued that we should either spend more, or stop. The Prime Minister has considered this, but believes that an announcement on space does have to be made now. She does not think it would be realistic to leave open the possibility of spending more on space, but she hopes it will be possible to leave open the option of spending less.

I am copying this letter to the Private Secretaries to members of E(A), E(ST) and to Trevor Woolley (Cabinet Office) and John Fairclough.

Yours,

David

David Norgrove

Peter Smith, Esq.,
Chancellor of the Duchy of Lancaster's Office.

019/4208

CONFIDENTIAL

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Kenneth Clarke QC MP
The Chancellor of the Duchy of Lancaster
and Minister of Trade and Industry
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

21 July 1987

Dear Chancellor,

SPACE AND IT92

We have discussed your minute of yesterday to the Prime Minister on your proposed announcement on the Government response to the Space Plan and the IT86 Report.

As I told you, I have no difficulty with the general line on space. But the announcement of funding for the IT92 programme causes me severe problems both in relation to our forthcoming discussions in the 1987 Public Expenditure Survey and the substance of the proposals for a follow up programme to Alvey. You told me that you had provision in your baseline for this programme of £10 million, £14 million, £14 million in each Survey year. Our officials have subsequently discussed and, as I understand it, the programme has not been agreed between the Departments, despite it being above the DTI's delegated authority. On that basis I cannot accept that it is firmly scored within your baseline provision.

Moreover, as his recent letter to me on the Survey made clear David Young does not regard the existing baseline for innovation spending as adequate: he has put in a bid for £150 million for the DTI innovation programmes over the PES period out of a total bid for additional resources, excluding agreed additional and demand led increases, of over £500 million in the 3 Survey years. In his letter David also asked for my agreement that he should be able to have flexibility to accommodate developing priorities within his programme limits agreed in the Survey. Any agreement now to earmark part of your baseline for IT92 spending would seriously pre-empt our forthcoming bilateral discussions on DTI programmes and priorities for the Survey period.

CONFIDENTIAL

I have further reservations about the rationale, objectives and management of the proposed IT92 programme which I would want to discuss with you before any commitment were made. On rationale, it is not at all clear what is the justification for the new programme's heavy emphasis on application based research. Given the relative nearness of these applications to the market place, it is difficult to see why these developments should not be funded commercially, particularly in view of the heavy involvement in many of the programmes of major electronics companies like GEC and Plessey. And, as with the Alvey programme, there is an almost total absence of measurable objectives for IT92. I find this particularly worrying when we have so little evidence of the commercial, as opposed to the technical, success of the Alvey programmes. Finally, the management of IT92 presents a considerable challenge because of the much greater complexity of working relationships between public and private sector institutions. Given that the management of the Alvey programme gave rise to problems of effective co-ordination, I would need to be assured that there were adequate arrangements in place to manage what will be a far more complex operation.

It was for these reasons that I have resisted any announcement on the level of commitment and funding of IT92 in advance of our Survey discussions in your speech at last week's Alvey Conference. That speech served, very helpfully, to dampen down expectations about Government support for a post Alvey programme. Given the way in which your speech was reported I see no need in substance for any Parliamentary announcement on IT92 this side of the Recess. In view of the points outlined above I remain convinced that we should postpone any announcement until after our Survey discussions are concluded. I do however recognise your presentational problem. As I said, I think you could give greater emphasis to the agreement on the EC R & D Framework in which it would be possible to make some reference to both ESPRIT and RACE (on which Legislation Committee agreed last week that there should be a scrutiny debate anyway). For the reasons set out above this would need to avoid any specific commitment to domestic funding for IT92.

I am copying this letter to the Prime Minister, Geoffrey Howe, members of E(A) and E(ST) and to Sir Robert Armstrong and John Fairclough.

Yours sincerely,

Jim Ruddock

pp JOHN MAJOR

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

PRIME MINISTER

SPACE AND IT92

Kenneth Clarke has now come back with more information about his proposals on Information Technology. This is reassuring to some extent, for example in claiming that industry would pay "in the region of up to" 70 per cent of the cost of the programme, compared with around 42 per cent under Alvey. However, the note is still very thin. Moreover, the Chief Secretary has weighed in with a heavy letter, arguing that no commitment to domestic funding for IT92 should be made at this stage. He is concerned in particular that this would appear to pre-empt the Survey. I would add that Mr. Hurd was not permitted to announce a programme for spending on prisons, which was arguably far more politically difficult than the announcement on space. It is also particularly important to support the Chief Secretary at this stage.

I recommend that the statement should make no specific commitment on domestic funding for IT92 and that Mr. Clarke should be invited to bring his proposals back for more detailed discussion in the autumn.

Agree? Yes mt

John Fairclough has come back on the question of space. He argues that the Government must either decide to spend more, or stop. He hopes that any announcement now will not foreclose this possibility.

I do not think that Kenneth Clarke's statement necessarily does this, but you could ask him to leave the possibility open, as John Fairclough wishes.

Agree? Yes mt

DSGreer.

p.p. David Norgrove
21 July 1987

DG2CBV

CCBS

CONFIDENTIAL

W066

PRIME MINISTER

21 July 1987

SPACE AND IT92

I have now seen The Chancellor of the Duchy of Lancaster's minute of 20 July to you about the announcement he proposes to make on Space and on IT92. I do not know enough about the specific proposals for IT to comment at this stage.

2. The Chancellor proposes keeping our spend on Space R & D at currently planned levels. This will serve only to defer a difficult decision. We must either decide to spend more or stop though, in the circumstances, I believe we need more time for the new machinery to begin its work.

3. Ministers are, at the moment, not well prepared to decide such an important issue. I am preparing a paper for E(ST) for a meeting later this month on the way in which priorities should be set. I should hope to follow this up with a more substantive paper by October at the latest which would propose guidance on spending priorities as an input to the final stages of the PES round. I should like Ministers to have the opportunity to consider Space as part of this exercise, and I think it would be unfortunate if any announcement now were to foreclose that possibility.

4. I am copying this minute to the Chancellor of the Duchy of Lancaster and to the recipients of his of 20 July.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

AEROSPACE
SPACE
PT 3

cc BG and return.

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

21 July 1987

SPACE AND IT'92

1 I have seen your Private Secretary's letter of 21 July.

2 I attach an annex setting out in more detail the purpose of the proposed expenditure on IT'92. David Young and I see this as a worthwhile programme of collaborative research and user-led applications of IT that will improve the competitiveness of UK industry in the next decade and beyond. It is a more modest programme than Alvey. It is important for our future competitiveness that we continue to provide limited support for high risk R & D where the benefits will extend far wider than those companies directly involved.

3 It is obviously important that we attract a much higher proportion of funding from private industry. We are accordingly

JY5AAM

proposing arrangements whereby industry will in practice pay up to 70% of the total costs of the new programme including the academic element. This compares with approximately 40% of the total costs of the current Alvey programme. Detailed figures are set out in a further annex.

4 As I explained in my minute yesterday, I believe there would be significant practical and presentational advantage in announcing IT'92 at the same time as the decision on space. We have achieved some helpful coverage today following our response to the House of Lords' report on Civil R & D. It would be unfortunate if we were to detract from this by what will be seen as a largely negative statement on space. The confirmation of agreement on the EC Framework Programme will certainly help. But this needs to be combined with a positive response on a domestic programme which is not only long outstanding but which will be an essential counterpart to that in Europe. I therefore hope you are content for me to proceed with a statement tomorrow along the lines I previously proposed.

5 I am copying this minute to Members to E(A), E(ST) and to Sir Robert Armstrong and John Fairclough.

KENNETH CLARKE

JY5AAM

ANNEX A

IT'92 PROGRAMME: CONTENT

The IT'92 Programme will provide support for:

(a) the novel use of IT applications with the primary objective of increasing the international competitiveness of British industry; and

(b) collaborative (industry/academic) research particularly into enabling IT technologies such as Intelligent Knowledge Based Systems and software engineering, and in support of activities under the applications programme.

Alvey was almost exclusively a collaborative IT research programme. The shift towards applications under IT'92 reflects the need to translate developments in leading edge technologies achieved under Alvey, which are still distant from the market, in to user-led applications. At the same time, however, there is a continuing need for a certain level of research to ensure a flow of new technologies and to provide the firm domestic base

JY5AAK

which British companies need to benefit fully from collaboration in Europe. This is particularly important with the advent of ESPRIT II. In principle UK firms will be able to qualify for support of up to £200m over the next 5 years but they must be able to demonstrate they are at or near the forefront of the relevant technologies.

We cannot yet be precise about the content of the programme since it will be for its Director (we intend recruiting a respected industrialist) to make detailed recommendations to Ministers in consultation with an advisory board of industrialists (including users) and academics. Whatever sub-programmes are agreed will be cleared with the Treasury in the usual way for schemes of industrial support; this will include rationale, objectives, assessment procedures, monitoring and evaluation arrangements.

Department of Trade and Industry

July 1987

JY5AAK

IT'92 PROGRAMME: FUNDING

Finance for the IT'92 Programme will come from DTI and the SERC. The respective allocations are as follows (in £M):

	87/88	88/89	89/90	90/91	91/92	92/93
DTI	(4)*	10	14	14	14	14
SERC	0	0†	3†	7	11	11

* the DTI allocation was agreed within the Department's baseline at the beginning of this year. It is unlikely that the full £4m will be spent in 1987/88;

† subject to further discussion by SERC and may be increased to £10m in total over the two years.

The balance of the £55m SERC expenditure will fall in to later years.

JY5AAL

2 All the SERC's present commitment is for research although they will be considering how they might also support some applications work. The DTI expenditure will support some research but concentrate largely on applications. In the early years however research is likely to take a larger proportion since applications projects will take some time to put forward.

3 The split of DTI expenditure is likely to be of the order (£M):

	88/89	89/90	90/91	91/92	92/93
Research	7	7	4	2	2
Applications	3	7	10	12	12

Thus, including the SERC contribution, the total split would be

	88/89	89/90	90/91	91/92	92/93
Research	7	10	11	13	13
Applications	3	7	10	12	12

JY5AAL

Industrial Contribution

4 The exact industrial contribution to IT'92 will depend on the level of grant agreed for each project. The grant of 50% (for research) and 25% (negotiable, for applications) relate to eligible costs which will be defined more strictly than under the Alvey Programme.

5 Assuming grants of 50% for research and an average 20% for applications projects, the contributions to IT'92 will be of the order:

		88/89	89/90	90/91	91/92	92/93	Total
Research	(HMG	7	10	11	13	13	54
	(Industry	10	14	15	18	18	75
Applic	(HMG	3	7	10	12	12	44
	(Industry	15	37	52	63	63	230

JY5AAL

6 Under these assumptions, industry would pay in the region of up to 70% of the cost of the programme. The funding regime under Alvey has been 50% of actual costs to industry and 100% to academics (from SERC). The industrial contribution in Alvey is thus expected to be around 42% of the whole programme.

Department of Trade and Industry

July 1987

CCBG

MINISTRY OF DEFENCE WHITEHALL LONDON SW1A 2HB

TELEPHONE 01-218 9000
DIRECT DIALLING 01-218 2111/3

MO 11/8/2

21 July 1987

N BPM

Dear Kenneth,

SPACE AND IT92

Thank you for sending me a copy of your minute of 20th July to the Prime Minister. I do not wish to challenge the conclusion which you and David Young have reached that additional involvement in space should not be a Government priority and that the resources available could be used elsewhere to produce greater benefit for UK industry.

I am sending copies of this letter to the Prime Minister and Geoffrey Howe, other members of E(A) and E(ST) and to Sir Robert Armstrong and Mr Fairclough.

Yours ever,

George.

George Younger

The Rt Hon Kenneth Clarke QC MP

AEROSPACE

SPACE POWER

OT 3

File JA2AQ2
cc BG

10 DOWNING STREET

LONDON SW1A 2AA

21 July 1987

From the Private Secretary

Dear Peter,

SPACE AND IT92

The Prime Minister has seen the Chancellor of the Duchy's minute of 20 July, with the proposed statement announcing decisions on Space and Information Technology.

The Prime Minister is content with what is proposed on Space, subject to the views of colleagues. However she is not convinced that the Government is yet in a position to announce firm decisions on spending on Information Technology. She would prefer the statement to be postponed until tomorrow, Wednesday, and in the meantime she has asked that the Chancellor of the Duchy should circulate a further note with more information about the proposed spending on Information Technology, including the pattern of spending year by year and the proportion to be found by private industry, compared to the amount which was found by private industry for Alvey I. She has not ruled out an announcement on IT alongside Space tomorrow, but in view of the significance of the proposals, it may be necessary to be less forthcoming than in the draft, and to postpone a firm announcement until Parliament returns in November.

I am copying this letter to Tony Galsworthy (Foreign and Commonwealth Office), to the Private Secretaries to members of E(A), E(ST) and to Trevor Woolley and John Fairclough (Cabinet Office).

Yours,

David.

(DAVID NORGROVE)

Peter Smith, Esq.,
Chancellor of the Duchy of Lancaster's Office.

PRIME MINISTER

SPACE AND IT92

Mr Clarke, in his minute below, proposes to make an announcement combining Space and Information Technology. He proposes, in particular, announcing firm proposals for a "significant" programme for ESPRIT and the follow-up to Alvey, to which DTI would allocate £70 million over the next five years with the SERC adding another £55 million. Approval is requested by noon tomorrow, in order that he might make a statement tomorrow afternoon.

This timing is intended to help the business managers to avoid a log jam of statements later in the week. But the fact that the proposed expenditure would come from within the existing baseline is neither here nor there. DTI have made substantial bids for this year's Survey, and Mr Clarke says only that they would not anticipate needing to press for any "significant funds above baselines in future years for support for research and applications in this sector of industry". You will want more information than is provided in this minute before being prepared to agree to expenditure on IT in this way.

There are at present no statements scheduled for Wednesday. I suggest you ask Mr Clarke to circulate during the course of tomorrow an urgent, more complete explanation of the proposals on IT, including the pattern of expenditure year by year and the proportions of spending to be found by private industry, compared to the amount found by private industry for Alvey I. You might say that you will not rule out an announcement on IT alongside Space on Wednesday but that, in view of the significance of the proposals, it may be necessary to be less forthcoming on Wednesday and to postpone a firm announcement until Parliament returns in November.

A good MT.

Agree?

DW

D R NORGROVE

20 July 1987

DS2ACM

File J 03 BAN

bc RG

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

MR. FAIRCLOUGH

SPACE

The Prime Minister was grateful for your minute of 17 July which proposed that funding for space should be discussed in E(ST). The Prime Minister fully understands and sympathises with your objective in proposing this. However, funding for space has been discussed several times now, and it is clear that most colleagues, including Lord Young, give it a relatively low priority. The Prime Minister of course recognises that there may be some difficulty about an announcement of this kind soon after the publication of the Government's response to the House of Lords' report. However, it could also be argued that such an announcement would show that the Government was being firm in setting its priorities.

2. Against this background, the Prime Minister takes the view that the best thing now is for Lord Young to put forward his proposals to colleagues as he intends.

3. I am sending copies of this minute to the Private Secretaries to Lord Young and Sir Robert Armstrong.

DN

20 July, 1987.

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cc BC

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

20 July 1987

(pa)

SPACE AND IT92

1 We are now considering our priorities on research and development in meetings of E(ST), and David Young and I will be contributing to discussions on papers setting out strategic options which are now being prepared. We have however inherited two troublesome issues which need to be resolved quickly to clear the decks for our wider discussions. Since the Election, David and I have been considering what response the Government should make to the BNSC Space Plan and the IT'86 report. Both issues have been outstanding since last year. Key decisions have to be taken in the next few weeks to avoid the risk of our abandoning or winding down programmes by default rather than choice. The issues will not wait until after the Parliamentary Recess, and the House will expect a statement about them.

JY4ACV

2 On space, as you know, E(A) considered that there was a case for Option 3 of the Space Plan but colleagues were not prepared to find the necessary funds from their own budgets. After two lengthy discussions, E(A) decided that if we could not find the funds to enable Option 3 to proceed, then we should continue with the current level of funding - Option 1. E(A) invited my predecessor to explore the possibility of finding funds from industry to enable Option 3 to proceed. The major suppliers, British Aerospace and GEC, and the users BT and Cable and Wireless, have between them offered £10m a year for the first three years if the Government were to proceed with Option 3. But there is still a substantial shortfall (the figures are given in Annex A).

3 We now need to bring the matter to a conclusion and announce our decision to Parliament. The Director-General of ESA will be visiting the UK in the first week of August to begin the last round of talks before the ESA long-term plan is finalised. Unless we decide our level of participation before the recess it would be too late to have much influence on the shape of the ESA programme and our industry would almost certainly be unable to secure the most attractive work even if we were to decide to proceed with Option 3.

4 David and I do not feel that additional involvement in space should be a Government priority and we believe that the resources available to us could be used elsewhere to produce greater benefit for UK industry. If you and colleagues agree I would propose to announce that we have decided to keep to the same level of expenditure on space for the time being. This would mean that we cannot enter into any of the new ESA programmes starting this year, including the space station, Ariane 5 and Hermes since we already have commitments which need the present level of funding for the next two years. Thereafter I would need to consider further the appropriate mix of programmes.

5 I would wish to announce our decision on space this week. The announcement will cause some disappointment and may excite criticism of our support for research and new technology. I would therefore like to combine it with a positive announcement about our long expected response to the IT'86 report in the context of our general approach to R&D. This would involve announcing firm proposals to proceed with a significant programme of user led and collaborative research and development of applications of IT. The European Community's programme on information technology (ESPRIT) is an important part of our response to the IT'86 report. I also need to tell the House that ESPRIT will be extended now that the adoption of a new R&D

JY4ACV

Framework Programme is imminent, following your proposal at the European Council. In addition I would announce the commitment of further funds from within existing baselines. I would not anticipate that David and I would need to press for any significant funds above baselines in future years for support for research and applications in this sector of industry. It will be a feature of the new programme that industry will be expected to contribute a much higher proportion of expenditure than was the case under the Alvey Programme.

6 I am enclosing a draft statement. I would be grateful for colleagues' agreement and any comment by noon on Tuesday 21 July.

7 I am copying this minute to Geoffrey Howe, (in view of the reference to EC R&D), to Members of E (A), E(ST) and to Sir Robert Armstrong and John Fairclough.

L.

KENNETH CLARKE

JY4ACV

INNOVATION IN INDUSTRY: DRAFT STATEMENT

1 With permission, I will make a statement on Government support for innovation in industry.

2 Innovation is a key element for successful and competitive industry. The main responsibility for increasing effective innovation effort must rest with industry itself. Only the private sector can provide the necessary level of resources and make the judgements about market opportunities required to meet the challenge of the next decade and beyond. The Government has fostered an economic and business environment which has resulted in increased industrial competitiveness and profitability. We now look to industry to maintain the present welcome trend towards increased expenditure on innovation.

3 However, we accept that Government also has a direct role to play and public expenditure is required to stimulate research and development and the application of new technology by industry in the market place. The Government provides some £4.3bn per annum of financial support for innovation. The

Government's main task has to be to decide the most effective use of the resources it can make available from the taxpayer.

4 The Government has completed its consideration of two major high technology proposals: the British National Space Centre's Space Plan, and the Report of the IT'86 Committee.

5 The Government already provides over £100m a year for space R&D. The longer term benefits of increased expenditure on space research have to be balanced against alternative uses of the funds in support of other areas of UK industry. Having studied the options on space in the light of the space plan, we are not convinced that it would be cost effective to increase our expenditure on space above present levels. We shall be reviewing current programmes to ensure that present expenditure is being directed as effectively as possible. We believe that additional resources available to us for research and development expenditure can be better directed to other areas of greater direct benefit to the UK's industrial performance.

6 The IT86 Report proposed that the Government should allocate funds towards application projects which would support the implementation of advanced information technology, and towards collaborative research designed to support applications and to develop the most promising aspects of the Alvey Programme. The Government welcomes the broad conclusions of the IT'86 Report. I am pleased to announce that my Department is prepared to allocate £70m over the next 5 years towards such an initiative. The Science and Engineering Research Council is prepared to allocate £55m towards research projects over the same period, and is considering the scale and nature of its support for higher education institutes in applications projects.

7 This part of the initiative will be administered by a new unit, the IT92 Directorate, which will be located within my Department. I intend that it should be headed by an executive from industry and that its staff should include people from industry and the Research Councils - notably the Science and Engineering Research Council.

8 The IT'86 Committee also envisaged that the European Community's ESPRIT programme would form an important element of their proposed new programme. I am therefore glad to inform the House that agreement by the Council to the Community's 1987-91 Research and Development Framework Programme has now been reached. Major initiatives in the field of information and telecommunications will be made possible. UK firms will certainly benefit significantly from this second stage of ESPRIT which will be a £1.1 billion programme. In telecommunications the £350m RACE - Research in Advanced Communications in Europe - programme will be implemented and again UK firms will be important participants. One task for the IT92 Directorate will be to ensure that domestic and European research efforts are compatible and complementary.

9 Taken with the new EC Framework programme and the existing programmes of support for information technology by Government Departments, the IT92 programme marks a Government contribution of at least £375m to the United Kingdom's IT industry. We shall be looking to industry to continue to take the lead in these initiatives, and further to increase its own commitment. In this way we believe that we can we achieve the major increase in innovation in industry that is essential to our future competitiveness.

ANNEX A

£m	1987/8	1988/9	1989/90
Current space provision	112	113	119
Additional contributions:			
DTI	6	9	12
MOD	5	6	9
Industry	10	10	10
	133	138	150
Space Plan (Option 3)	154	177	200
Shortfall	21	39	50

JF4AZF

PRIME MINISTER

SPACE

John Fairclough argues that E(ST) should have an opportunity to try to find from other programmes money to support Option 3 expenditure on space. He has told me that he has in mind reductions in expenditure on energy and agriculture.

You will understand and sympathise with his objectives. But the attempt to wrest resources from other departments has been made several times during the past months. You will only win resources from Messrs. Parkinson and McGregor if you are prepared to give this a high priority and to have a battle. And it must be doubtful whether any money you could get from them, for example by cutting back Dounreay, would be best spent on space rather than on some other R & D.

John Fairclough also argues that it would give the wrong message to "withdraw" from space so soon after the publication of the Government's response to the House of Lords' report. But this could be argued in the opposite direction: not to increase expenditure on space and, at the same time, to announce continued expenditure on information technology (if that is what happens) could be said to show that the Government was showing firmness in setting its priorities.

Agree that Lord Young should be left to put his proposals to colleagues, recognising that this will mean no extra expenditure on space?

Yes mt

D.R.N

17 July 1987

PMMADB

B.PP

D10

CCBG

W063

PRIME MINISTER

17 July 1987

SPACE

I understand Lord Young's difficulty in finding additional funding for space bearing in mind that the benefits of the programme extend well beyond his own Departmental responsibilities. We created the E(ST) machinery to tackle just such issues and I should like to suggest that we now use that machinery to make one more attempt, before the recess, to reach a decision on the Space Plan.

2. Space is right at the frontiers of technology and the timescales from experiments to commercial application are long. It is right, therefore, for Government rather than industry to shoulder the main burden outside areas like communications where the commercial uses are established. As you know, I consider that space is important scientifically, technically, and eventually commercially, and that there is a good case for a programme even above Option 3.

3. I think it is of higher priority than some other areas of Government R & D, and therefore that E(ST) should try to find the money from other programmes. If you agree I will prepare a paper for consideration by E(ST) with my recommendations on where the additional funding shall be found.

4. I have previously argued, and continue to believe, that if we cannot fund space properly it would be better to withdraw altogether than to carry on with inadequate funding. But this is a very important decision. It would mean abandoning an area of technology in which all our major competitors are active, as well as a growing number of countries outside the first economic rank including India, Canada and even to some extent Argentina. Withdrawal would be bound to be conspicuous and must have some effect on our scientific and technological reputation, as well as relations with our current ESA partners. I understand consideration is being given to an announcement of our withdrawal from Space research and development in the House next week. It is also exactly the wrong message so soon after the publication of the White Paper in response to the House of Lords report on Government Research and Development.

5. Please may I have your agreement to consider this question with E(ST) as a matter of urgency.

6. I am copying this minute to Lord Young and to Sir Robert Armstrong.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

Pnm

SUBJECT
CC MASTER

bc: BG

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

16 July 1987

SPACE

The Prime Minister had a word with your Secretary of State this morning about his minute of 14 July on expenditure on space. Your Secretary of State explained his intention to combine announcement of a decision not to proceed with space, with a response to the IT86 report. The Prime Minister questioned whether a continued high level of Government funding for the ALVEY programme was now appropriate and whether in fact more of the burden should now be carried by industry itself. It was also necessary to keep in mind that the agreement reached on the Framework Programme for R & D in the European Community could also have expenditure consequences for the DTI. Your Secretary of State undertook to consider both these points before circulating his proposals to colleagues.

I am copying this letter to Sir Robert Armstrong and to John Fairclough.

D. R. Norgrove

Jeremy Godfrey, Esq.,
Department of Trade and Industry.

DBS.

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CONFIDENTIAL

PRIME MINISTER

SPACE

Since the Election, Kenneth Clarke and I have reviewed the position on space. As you know, E(A) considered that there was a case for Option 3 of the Space Plan but colleagues were not prepared to find the necessary funds from their own budgets.

2 We need to know our level of participation without which we have little or no chance of securing the best chances for UK industry to participate. The Director General of ESA will be visiting the UK in the first week of August to begin the last round of talks before the ESA long-term plan is finalised. Whatever our conclusion, I believe that it is important to decide one way or the other before the Recess.

3 I accept that Option 3 would represent a worthwhile programme and the shortfall of funds has been reduced by the £10 million for 3 years industry was prepared to offer towards it. But there is still a substantial shortfall for (the figures are given in Annex A) and I have concluded that I cannot give space higher priority than the other support that my Department gives to R&D. Indeed I have not felt able to propose additional funds for space in my PES bid. If we were to go ahead, I see no alternative to finding the money from the Reserve and I accept that pressures on public expenditure would make this very difficult.

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4 A decision not to proceed with space would require careful presentation. I would like to combine it therefore with a positive announcement about our approach to R&D and make our long expected response to the IT86 report at the same time. This would involve announcing firm proposals to proceed with a significant programme of user-led collaborative research and development of applications of IT. Funds for this could be found from within my existing baseline.

5 I would welcome the chance to discuss this with you.

6 I am copying this minute to Sir Robert Armstrong and to John Fairclough.

D Y

14 July 1987

DEPARTMENT OF TRADE & INDUSTRY

JG3BFU

ANNEX

£m	1987/8	1988/9	1989/90
Current space provision	112	113	119
Additional contributions:			
DTI	6	9	12
MOD	5	6	9
Industry	10	10	10
	133	138	150
Space plan (Option 3)	154	177	200
Shortfall	21	39	50

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PART 2 ends:-

MOS/DTI TO PM 31.5.77

PART 3 begins:-

SS/DTI TO PM 14.7.77

Grey Scale #13

C Y M

A 1 2 3 4 5 6 M 8 9 10 11 12 13 14 15 B 17 18 19

Blue Cyan Green Yellow

Colour Chart #13

Centimeters 1 2 3 4 5 6 7 8

Inches 1 2 3