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Space Policy

AEROSPACE

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SERIES

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Trade & Industry : Science Policy

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SLH

10 DOWNING STREET

From the Private Secretary

9 November 1992

Dear Peter,

EUROPEAN SPACE AGENCY

The Prime Minister was grateful for the President of the Board of Trade's minute of 22 October, setting out the negotiating line he proposes to take at the Council of the European Space Agency. He has also seen the Foreign Secretary's minute of 5 November. He is content with the negotiating line proposed.

I am copying this letter to the Private Secretaries to Members of EDS, Jane Hare (Office of Science and Technology, Chancellor of the Duchy of Lancaster) and Melanie Leech (Cabinet Office).

Yours

Mark

MARK ADAMS

Peter Smith, Esq.,
Department of Trade and Industry

KW

PRIME MINISTER

EUROPEAN SPACE AGENCY

Mr Heseltine will be attending a meeting of the Council of the European Space Agency next week. He has written seeking your approval for the negotiating line he wishes to take (Flag A).

You have an interest in the matter, having written to fellow Heads of G7 countries last February (copy attached at Flag B), supporting the case for satellite missions for environmental Earth observations.

Mr Heseltine's proposed negotiating position is consistent with your initiative. It also maintained a long standing UK position to stand aside from the more grandiose plans for manned space transportation. Mr Heseltine accepts that we can only negotiate on the basis of the existing PES allocation to DTI for space spending. As you will see, the Foreign Secretary (Flag C) and Professor Stewart (Flag D) have written to support Mr Heseltine's approach.

Content to agree?

MRA

MARK ADAMS
6 November 1992

home\space.sm

cc RB
PU

PSM/92/062

PRIME MINISTER

EUROPEAN SPACE AGENCY (ESA)

1. Michael Heseltine copied to me his minute to you of 22 October, setting out the UK objectives for ESA's Ministerial meeting on 9-11 November. I agree with his proposed line for the UK delegation, and note with satisfaction that our decision to stand aside from the manned spaceflight programme in The Hague in 1987 has been vindicated by subsequent events.

2. I am glad to see that earth observation is to receive a higher profile in the Agency's activities, in line with the UK's industrial objectives, and with the initiative you set in train earlier this year to encourage closer dialogue between the providers and users of satellite data for environmental purposes. Earth observation will be of particular importance in providing the scientific data for effective follow-up to UNCED. But, as Michael warns, we shall need to be on our guard against those ESA members who may wish to supplant our leading role. I share his view that if we are to counter this risk we must take on commitments at this Council meeting, and note his intention of meeting our negotiating objectives from within the sums eventually allocated to DTI space spending during the current PES round.

3. I am copying this letter to members of EDS, the Chief Scientific Adviser and to Sir Robin Butler.

DH.

(DOUGLAS HURD)

FOREIGN AND COMMONWEALTH OFFICE

5 NOVEMBER 1992

cc PU

W0666

FROM: PROFESSOR STEWART

DATE: 28 October 1992

[illegible]

PRIME MINISTER

EUROPEAN SPACE AGENCY (ESA) MINISTERIAL: GRANADA 9/10 NOVEMBER

You will have seen the President of the Board of Trade's letter of 22 October seeking your endorsement of the UK's proposed negotiating line for the forthcoming ESA Ministerial in Granada on 9/10 November. It is my recommendation that you support the line proposed.

2. Financial reality has forced enthusiasm for manned space flight to be tempered, and ESA Ministers will be invited to endorse a much more modest programme. ESA will maintain its participation through the Columbus programme in the US-led space station FREEDOM but, within the overall ESA programme, greater weight will be given to Earth Observation and also to space communications.

3. It is widely recognised that the UK got its priorities right in identifying Earth Observation as the area in which to be a leading player. The UK will continue to stand aside from manned space flight at the forthcoming Ministerial and will seek confirmation of UK roles in ESA programmes which are central to our aims.

4. The UK will seek agreement to proceed with the development of the Polar Platform (for which British Aerospace are the prime contractor), and the instruments to be carried on the first mission to use the Polar Platform (scheduled for launch in 1998) which will be key to the operational exploitation of Earth Observation. Preparations will also be made for a second mission.

5. Following collective approval by Ministers, the UK is already a member of the relevant ESA programmes. Financial provision has been made, and announced in Expenditure Plans, for the associated costs. The UK intends to secure its negotiating objectives within the sums allocated to DTI space spending during the PES settlement, although the extent to which this can be achieved will clearly depend on the outcome of the PES settlement. Nonetheless, it is important that the UK commits to the above projects, if possible, to avoid calling into question the viability of our ESA membership.

WDPS.

PROFESSOR WILLIAM D P STEWART

cc PU

CABINET OFFICE
70 Whitehall, London SW1A 2AS
Telephone: 071-270 0400

Chancellor of the Duchy of Lancaster
Minister of Public Service and Science

V/NBAM

Kb5132

Rt Hon Michael Heseltine MP
The President of the Board of Trade
Department of Trade and Industry
Ashdown House
123 Victoria Street
London
SW1E 6RB

27 October 1992

Dear President of the Board,

EUROPEAN SPACE AGENCY

with AA?

I have seen your minute to the Prime Minister of 22 October. I am happy to endorse the line you propose to take at the forthcoming Ministerial Council in Granada.

It is striking how the pragmatic UK approach to space is coming to be shared by others across Europe, as doubts grow about the rationale for manned space. Our selective policy, with emphasis on practical utility, has shown its merits. I have however noted the points you made about the potential impact of the PES settlement.

The UK continues to participate fully and get excellent science from the subscription which SERC pays to the ESA Science Programme. I am pleased however that the hard won cap on ESA Science spending is not in question, and that as a result the Agency's Science Programme will not be an issue on the Ministerial agenda.

I am copying this letter to members of EDS, Sir Robin Butler and to Professor Stewart.

Yours sincerely,

Ian C. Dougal

WILLIAM WALDEGRAVE

Approved by the Chancellor of the Duchy of Lancaster and signed in his absence

cc DO

PRIME MINISTER

EUROPEAN SPACE AGENCY

The Council of the European Space Agency (ESA) will once again meet at Ministerial level on 9-10 November next. The aim will be to set a new course for European civil space activity following disagreement (primarily over the Hermes spaceplane project) at last year's conference. You and other EDS colleagues will wish to know the negotiating line which I propose the UK should take. Edward Leigh will be our representative.

2 This November, ESA Ministers will be invited to endorse a much more modest programme of manned space flight. Financial reality has forced even the French to temper their enthusiasm for Hermes and the project in its present form has been abandoned (to our quiet satisfaction since we declined to join). It is instead proposed to study the technology of manned space flight in a joint programme with Russia. ESA will maintain its participation (through the Columbus programme) in the US-led space station FREEDOM. But within the overall ESA programme, greater weight will be given to "putting space to work" through unmanned satellites primarily for Earth Observation but also for space communications. ESA's space science programme (of major interest to SERC) will be unaffected.

3 The UK will continue to stand aside from manned space transportation. This is no longer a bone of contention

between us and our European partners. It is widely recognised that we got our priorities right in identifying Earth Observation as the area where we wanted the UK to be a leading player. We seek confirmation this year of UK roles in ESA Programmes which are central to our aims. The initiative which you took in writing to your fellow G7 Heads of Government in the run-up to the successful UNCED Earth Summit, has served to raise political awareness of the importance of satellites in studying the global environment and climate, and to reinforce the UK's reputation as a driving force in this area. We have brought about a structured dialogue between space agencies and the users of space data.

4 The UK seeks agreement (now that design work has been completed) to proceed with development of:

(a) the Polar Platform (for which British Aerospace are the prime contractor), and

(b) the instruments to be carried on the first mission to use the Polar Platform (scheduled for launch in 1998).

Among these instruments will be an advanced synthetic aperture radar (SAR) to be developed in the UK by Matra-Marconi. This is one of the keys to the operational exploitation of Earth Observation. Preparations will also be made for a second mission.

5 Following earlier collective approval by Ministers, the UK is already a member of the relevant ESA programmes. Financial provision has been made - and announced in our Expenditure Plans - for the associated costs (including a share of up to 25% in the mission to carry the advanced SAR). It is my firm intention that the UK should secure its negotiating objectives within the sums allocated to DTI space spending during the PES

period. I accept, of course, that the extent to which this can be achieved will depend on the necessary resources being available in my PES settlement. But decisions must be taken on our negotiating stance at the ESA Council before the final outcome of the PES Round is known. Unless we commit to these projects (which are at the heart of our civil space policy as set out to Parliament), we shall be calling into question the viability of our membership of ESA. I cannot believe that this would be in the national interest.

6 In accordance with the principles for the funding of civil space programmes which you agreed in June 1991, the DTI is acting on behalf of the space interests of a number of Departments and Research Councils. The British National Space Centre has confirmed that the Departments and Research Councils who will exploit the technology developed in ESA continue to endorse the UK's civil space priorities. They agree that this technology addresses future user needs.

7 There is still some risk that other countries, disappointed at the loss of the work they expected on Hermes, could seek to supplant the UK in some of its Earth Observation roles. Some scope for negotiation will be required.

8 I should be glad to know if you or any other colleagues have any concerns to raise. I am copying this minute to all EDS members, to Professor Stewart and to Sir Robin Butler.

M H

22 October 1992

DEPARTMENT OF TRADE AND INDUSTRY
PE10068

CONFIDENTIAL

ESA MINISTERIAL COUNCIL: GRANADA, 9-10 NOVEMBER 1992

MAIN ISSUES AND UK NEGOTIATING POSITION

The Legacy of the 1991 Ministerial meeting

1 At their meeting in Munich in November 1991, ESA Ministers failed to agree on the future of the ambitious plans (first set in 1987) for European autonomy in manned space flight. The Germans in particular were no longer able to fund their share of the colossally-expensive Hermes spaceplane project. They wanted ESA to explore the potential for wider international collaboration - so as to recognise Europe's potential new relationship with Russia and achieve cost savings. The basic disagreement over Hermes caused ESA Ministers to defer all major decisions on future ESA projects for one year, during which time the ESA Director General was mandated to prepare a more modest and more affordable long term programme. Savings were to be sought primarily in the major space infrastructure programmes rather than in the applications programmes (such as Earth Observation) of major interest to the UK.

2 In pursuing the objectives endorsed by UK Ministers, we were seeking confirmation in Munich of a leading UK role in the next phase of ESA's Earth Observation programmes. In particular, we sought agreement to:

(i) Development, within the Columbus programme which the UK had joined in 1988 at a subscription level of 5½%, of the British Aerospace-led Polar Platform as the satellite to undertake

(ii) the first Polar Platform mission (POEM-1 - scheduled for launch in 1998): in our preferred configuration this was to carry instruments for meteorological observations and environment/climate research, plus an advanced version of the Matra-Marconi designed Synthetic Aperture Radar (SAR).

3 The decision on the Polar Platform was caught up in the uncertainty over the infrastructure programmes and was held over for a year. However, the UK Minister (Lord Reay) was able to persuade his Ministerial colleagues that, as a means of demonstrating a European commitment to enhanced understanding of the global environment and global climate change in the context of the UNCED Earth Summit, the decision should be taken to start work on POEM-1. An initial phase of one year was thus agreed, using the BAe Polar Platform as the "technical base". The advanced SAR was not immediately selected as part of the payload. Instead a repeat flight of the basic SAR carried forward from ERS-1 and ERS-2 was envisaged. But the ESA Director-General was asked to consider the feasibility of incorporating the advanced SAR and to report his findings at the end of the initial one year phase.

4 Ministers had agreed that the UK would take a share of up to 25% in POEM-1 so long as the advanced SAR instrument was chosen. Pending the decisions at this year's Ministerial meeting, the UK entered POEM-1 at the level of 20% (in recognition of the mission's contribution to the study of environment and global climate and of the benefits in terms of SAR data continuity from even the basic SAR).

Current Proposals from the ESA Director-General

5 The Ministers will be invited to:

(a) Adopt a new Long Term Plan which, while not in itself creating financial obligations, will point the way to new programme proposals;

(b) take certain decisions creating immediate financial commitments and thus allowing particular programmes to proceed forthwith to development.

6 A year's reflection has produced a general consensus that spending on the manned space programme must be reduced. In addition, Germany and France have become strong advocates of a major integration between programmes in Europe and in Russia concerned with future manned transportation systems. At the political heart of the agenda for the conference in Granada will thus be proposals to:

(i) Abandon Hermes in its present form;

(ii) introduce a three-year study phase during which to investigate;

  (a) a possible Euro-Russian spaceplane (still to be called "Hermes");

  (b) possible development of elements associated with manned transportation for the US-led Freedom space station.

7 A decision as to whether to commence development of any of these projects would be taken around 1995. There will be no financial implications for the UK since we shall not join these programmes.

8 In contrast, the Director-General's proposals confirm the broad lines of the space applications programmes ("putting space to work" through unmanned satellites). The Space Communications programme (with agreed UK participation) will proceed largely as foreseen: further activity in communications is proposed but no new commitments are sought in Granada. The Science programme remains unchanged, with the level of resources agreed in December 1990.

Earth Observation

9 Earth Observation has a central role in the Director-General's proposals. ESA confirms its intention to make a major contribution to the development of technology to study the global environment and global climate change - and further to develop the technology for radar-based observations. Because the users of satellite remote sensing can now be better-defined, it is proposed that POEM-1 should be implemented in two separate missions, each directed at the needs of particular user communities. These missions would be:

- ENVISAT-1, to be launched in 1998 carrying the advanced SAR and instruments for environmental research; and
- METOP-1, to be launched in the year 2000 carrying operational meteorological instruments for Eumetsat and other instruments related to operational climate monitoring and research.

Both missions would use the BAe Polar Platform, but in a slightly smaller version than envisaged for POEM-1.

10 The UK's POEM-1 commitments will transfer to this new scenario - although the level of participation in ENVISAT-1 and METOP-1 need not be identical. Both UK objectives - Polar Platform and advanced SAR - would be achieved. While two missions will inevitably cost more than one, it is envisaged that Eumetsat, as the operational agency, would pay for the launch and operation of METOP-1.

11 The majority of delegations favour the twin mission scenario. But the Germans are opposed to the advanced SAR (in part because they believe its development would give an undue advantage to UK industry) and argue for the retention of the original POEM-1. France, on the other hand, strongly supports the new scenario and, so long as it is adopted, will drop her objection to the choice of the UK Polar Platform to carry these missions. It is very much in the UK interest to support the twin mission scenario - but we shall aim for a larger share in ENVISAT-1 than in METOP-1.

12 ESA proposes (and we agree) that the Granada conference should commit to ENVISAT-1 so that development can start immediately. We should be ready to take a share of up to 25% in this mission but would hope, by negotiation, to achieve a lower figure while still securing the inclusion of the advanced SAR in the payload. In contrast, the Conference should simply initiate a preparatory programme for METOP-1. Eumetsat will need adequate assurance that this mission will proceed: but until the payload split and cost sharing arrangements between ESA and Eumetsat are finalised, the attribution of cost between ESA Member States and Eumetsat Member States cannot be established. A decision on full development need not be taken before 1994 and the UK should

reserve its position on the level of its participation until then.

13 The total cost of a 25% share in the ENVISAT-1 mission plus a GNP share in the ESA preparatory programme for METOP-1 would amount to £238m. This translates into the following cost profile (cash):

£m

1992-3	1993-4	1994-5	1995-6	1996-7	1997-8	1998-9	1999-2000	2000-3
11	17	25	31	32	29	24	18	51

These figures do not include the cost of the Advanced Along Track Scanning Radiometer - a nationally-funded instrument (costing £15m) for which DOE have made a PES bid.

14 There is a risk that some major ESA countries may insist on an "indicative commitment" to METOP-1 before they confirm their agreement to ENVISAT-1. The UK delegation will need flexibility to deal with the situation. As a party to POEM-1, the UK is bound to take some share in METOP-1. A GNP share would be the norm - but we will have to stick within the constraints of the annual space budget as determined by PES. No formal commitment will be required in Granada, and the decision on the UK's level of participation in the ESA costs can be taken in accordance with established procedures. The Meteorological Office is making provision in its forward expenditure plans for a GNP share in Eumetsat's funding of the meteorological component of METOP-1.

15 These projects jointly form the centrepiece of UK civil space policy. The expenditure foreseen in paragraphs 12-14 above (allied to that on the Polar Platform - see paragraph 18 below) will have to be accommodated within the space baseline allocated by DTI Ministers in the light of the current PES Round. But the roles which the UK anticipates taking in these projects are crucial if UK membership of ESA is not to be thrown into question. We have deliberately chosen to be selective about our participation in ESA: this means that the value of ESA to us largely depends on what we achieve in Earth Observation. We have to pay a GNP-related membership fee to support ESA's overheads (and the science programme). Unless we accompany this fee by worthwhile participation in the optional programme of most interest to us, we shall effectively be supporting an infrastructure yielding us limited industrial benefit and serving to buttress the space activities of other countries.

Columbus

16 The Polar Platform itself remains within the Columbus programme. Although the European contribution to the space station Freedom is maintained, one of the elements in Columbus - the Man-Tended Free Flyer - will be abandoned. The UK made it clear from the outset that our subscription to Columbus was primarily directed at work on the Polar Platform. The allocation

CONFIDENTIAL

To:	Prime Minister
Copies to:	Mr Leigh Sir Peter Gregson Dr Robinson CAST Mr Stow FRM1 Mr Alty CP1 Lady Strathnaver Special Adviser Mr Pryor BNSC (With papers)
Originated by:	AJP
Type for signature of:	President

EUROPEAN SPACE AGENCY

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3 The UK will continue to stand aside from manned space transportation. This is no longer a bone of contention between us and our European partners. It is widely recognised that we got our priorities right in identifying Earth Observation as the area where we wanted the UK to be a leading player. We seek confirmation this year of UK roles in ESA programmes which are central to our aims. The initiative which you took in writing to your fellow G7 Heads of Government in the run-up to the successful UNCED Earth Summit, has served to raise political awareness of the importance of satellites in studying the global environment and climate, and to reinforce the UK's reputation as a driving force in this area. We have brought about a structured dialogue between space agencies and the users of space data.

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5 Following earlier collective approval by Ministers, the UK is already a member of the relevant ESA programmes. Financial provision has been made - and announced in our Expenditure Plans - for the associated costs (including a share of up to 25% in the mission to carry the advanced SAR). It is my firm intention that the UK should secure its negotiating objectives within the sums allocated to DTI space spending during the PES period. I accept, of course, that the extent to which this can be achieved will depend on the necessary resources being available in my PES settlement. But decisions must be taken on our negotiating stance at the ESA Council before the final outcome of the PES Round is known. Unless we commit to these projects (which are at the heart of our civil space policy as set out to Parliament), we shall be calling into question the viability of our membership of ESA. I cannot believe that this would be in the national interest.

6 In accordance with the principles for the funding of civil space programmes which you agreed in June 1991, the DTI is acting on behalf of the space interests of a number of Departments and Research Councils. The British National Space Centre has confirmed that the Departments and Research Councils who will exploit the technology developed in ESA continue to endorse the UK's civil space priorities. They agree that this technology addresses future user needs.

7 There is still some risk that other countries, disappointed at the loss of the work they expected on Hermes, could seek to supplant the UK in some of its Earth Observation roles. Some scope for negotiation will be required. The issues are examined further in a note which is being circulated at official level.

8 I should be glad to know if you or any other colleagues have any concerns to raise. I am copying this minute to all EDS members, to Professor Stewart and to Sir Robin Butler.

MICHAEL HESELTINE
October 1992

A:HAS.003

of industrial roles has reflected this UK priority and the UK has only a small share of the Attached Laboratory (ESA's contribution to the structure of the space station).

17 Under the new proposals, Columbus will now comprise four separately identifiable elements:

(i) The Polar Platform.
(ii) The Attached Laboratory.
(iii) Precursor flights (using the Russian Mir space station and the US Shuttle for microgravity experiments)
(iv) Studies for a possible Euro-Russian space station.

There will be a separate subscription for each of these "slices". The UK's existing Columbus commitments will transfer to (i) and (ii). We will not participate in (iii) and (iv). The costs of operating the Attached Laboratory once it is in orbit will be studied with a view to decisions in 1995 on how these costs should be met.

18 The UK's share of the Polar Platform "slice" of Columbus will be around 23%. Our share in the Attached Laboratory element will be about 1%. The overall cost to the UK will be £184m. The joint cost profile (in cash terms) for the two elements is as follows:

£m

Actual to date	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
32	7	20	23	26	27	26	18	5

19 Ministers will be expected at the Granada conference to assume the commitments enabling Polar Platform and Attached Laboratory to proceed immediately.

Collaboration with Russia

20 We have resisted attempts to establish a specific programme of financial assistance by ESA to the Russian space industry: but contracts with Russian firms will be placed under the relevant ESA programmes (although not directly in Earth Observation). An expectation is growing that Russia will in due course enter into partnership with ESA. Ministers will be invited to adopt a formal Declaration on collaboration with Russia: the UK can support this.

British National Space Centre
12 October, 1992

SUBJECT
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cc EA(ST)
Professor Stewart

10 DOWNING STREET
LONDON SW1A 2AA

THE PRIME MINISTER

6 February 1992

PRIME MINISTER'S
PERSONAL MESSAGE
SERIAL No. T45/92

Dear Helmut,

In our communiqué on the London Summit we called for greater efforts in co-operation on environment science and technology, emphasising particularly satellite monitoring and ocean observation. This reflected a long tradition in Summit discussions of advancing international collaboration in Earth observation. I have in mind in particular the Houston and Paris Summits.

The United Nations Conference on Environment and Development in June offers, I believe, an opportunity for the nations with access to satellite technology to build on the momentum of earlier Summits and to demonstrate to the World how, through co-operation, we are making a vital contribution to the sustainable management of the global environment. I wish to commend to you the value of an initiative for UNCED along these lines, and to seek your agreement to our officials pursuing it urgently in the coming weeks. The intention of my initiative is that the active space nations set out for UNCED a unified schedule of the Earth Observation satellite missions through the next decade, and underline their commitment to strengthen collaboration in order to achieve a truly global observing system for the environment.

It is fortunate that the Committee on Earth Observation Satellites, which was born at the Paris Summit, is now gathering together the full dossier of information on planned satellite missions for environmental Earth Observations over the next decade. I am of course pleased that the European Space Agency has now set in place the missions that will make a significant contribution in this area to the end of the century and beyond. We will therefore have the basic material for UNCED available within the next few months. We have in mind that a convenient time for senior officials of member countries to meet and discuss this dossier and how to carry forward active international collaboration in developing the earth observation programmes would be in March or April. The dossier should be available by then, and this should just be in time for the results to be fed into the final stages of the UNCED process. This initiative should of course be promoted as supportive of the UN's existing Earthwatch programme, co-ordinated by UNEP, which systematically brings together information on the state of the world's environment.

Our officials will need to begin working closely together with those of other CEOS member nations, and with the UNCED preparatory teams, very quickly if this initiative is to be brought to a successful conclusion. They will also, of course, need to keep our Sherpas fully informed as we approach the Munich Summit.

I look forward to your views on my proposal and hope that you can agree to work beginning quickly to bring it to fruition.

I am copying this letter to fellow heads of G7 countries, and would welcome their views and support for this initiative.

Yours Ever,

John

SE Herrn Dr Helmut Kohl MdB

DER BOTSCHAFTER
DER BUNDESREPUBLIK DEUTSCHLAND

THE AMBASSADOR
OF THE FEDERAL REPUBLIC OF GERMANY

London, 27 April 1992

[illegible]

Dear Prime Minister,

I have the honour to transmit the original of the letter by Herr Helmut Kohl, Chancellor of the Federal Republic of Germany, a copy of which has been forwarded to you on 9 April 1992.

I am, dear Prime Minister,

Yours sincerely

Hermann Richthofen

His Excellency
The Rt. Hon. John Major, MP
Her Majesty's Prime Minister and
First Lord of the Treasury
10 Downing Street
London SW1

BUNDESREPUBLIK DEUTSCHLAND
DER BUNDESKANZLER

Bonn, den 7. April 1992

Seiner Exzellenz
dem Premierminister des
Vereinigten Königreichs
Großbritannien und Nordirland
Herrn John Major, M. P.

London

Lieber John,

die von Dir in Deinem Brief vom 6. Februar 1992 vorgeschlagene Initiative der G7-Staaten für die UNCED-Konferenz begrüße ich. Es ist zweckmäßig, die satellitengestützte Erdbeobachtung und insbesondere die Aufbereitung und Auswertung von Umweltdaten für ein weltweites System der Umweltbeobachtung zusammenzuführen.

In Europa haben wir durch den Beschluß der Münchener ESA-Ministerkonferenz vom November 1991 bereits eine gute Ausgangsbasis geschaffen. Der Erdbeobachtung wird im Rahmen der ESA-Programme künftig eine hohe Priorität eingeräumt. Das angelaufene Programm einer polaren Erdbeobachtungsmission wird die bisherigen, mit maßgeblicher deutscher Unterstützung entwickelten Satellitensysteme zur Erderkundung (ERS 1 und 2) fortsetzen und erweitern und damit für die Umwelt- und Klimaforschung hervorragende Chancen eröffnen. Deutschland leistet für die Instrumentierung und Durchführung der polaren Mission wichtige Beiträge.

Ich stimme daher Deinem Vorschlag, ein weltweites System zur satellitengestützten Umweltbeobachtung aufzubauen, im Grundsatz zu. Sie kann ein wichtiger Beitrag zur Entwicklung eines globalen Managements des Umweltschutzes sein, erfordert jedoch ein abgestimmtes multilaterales Vorgehen.

...

Dabei wird es vor allem darauf ankommen, die weltweit vorhandenen Potentiale zusammenzuführen, um durch Synergieeffekte die Wirksamkeit zu erhöhen und Kosten zu sparen.

Aus meiner Sicht muß dabei unbedingt dafür Sorge getragen werden, daß die Möglichkeiten, die sich durch die politische Öffnung der Staaten Mittel- und Osteuropas ergeben, einbezogen werden. Wir stehen auch hier vor der Herausforderung, die bisherige Teilung der Welt dauerhaft zu überwinden. Die GUS verfügt offenbar über umfassende Systeme und Daten zur Erdbeobachtung, die sie einbringen könnte.

Darüber hinaus sollte - gerade in Anbetracht der Zielsetzung der UNCED - angestrebt werden, auch die Länder der Dritten Welt von vornherein in die Auswertung und Nutzung der mit diesen Systemen gewonnen Daten mit einzubeziehen. Sie würden dadurch die Möglichkeit erhalten, sich an der weiteren Ausgestaltung der weltweiten Umweltbeobachtung aktiv zu beteiligen, so daß sich ein gemeinsames Umweltbewußtsein entwickeln kann.

Entsprechend Deinem Vorschlag, sollten daher - bei grundsätzlichem Einvernehmen zwischen den G7-Ländern - unsere Vertreter in den einschlägigen Gremien, insbesondere dem CEOS, hierüber sprechen und für die UNCED gegebenenfalls eine entsprechende Initiative vorbereiten. Angesichts der vielfältigen Belastungen unserer Haushalte müssen wir allerdings eine klare Vorstellung über die finanziellen Implikationen haben. Die Zusammenarbeit der aktiven Raumfahrtnationen auf diesem Gebiet ist auch als eine Möglichkeit zu sehen, durch bessere Nutzung der vorhandenen Potentiale deren Wirksamkeit zu erhöhen und Kosten zu sparen. Hierbei sollten auch die neuen Chancen der Zusammenarbeit mit den Ländern Mittel- und Osteuropas und den Republiken der GUS ausgelotet und genutzt werden. Ich habe die fachlich zuständigen Minister, Herrn Dr. Riesenhuber und Herrn Prof. Dr. Töpfer, gebeten, in diesem Sinne mitzuwirken.

Mit freundlichen Grüßen

und allen guten Wünschen
für Dich und die Deinen
Dein

SR

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

10 April 1992

Dear Phillip,

EARTH OBSERVATION: SATELLITES

I enclose Chancellor Kohl's reply to the Prime Minister's letter of 6 February. I do not think it calls for a reply.

I am copying this letter to Richard Gozney (Foreign and Commonwealth Office), the Private Secretaries to members of EA(ST), Professor Stewart and Sonia Phippard (Cabinet Office).

Yours,
Stephen

(J. S. WALL)

Phillip Ward, Esq.,
Department of the Environment.

PRIME MINISTER'S
PERSONAL MESSAGE
SERIAL No. T89/92

Courtesy Translation

SUBJECT
MASTER

Filed on:

Message

from

Herr Helmut Kohl, Chancellor of the

Federal Republic of Germany

to

His Excellency The Rt. Hon. John Major, MP

Prime Minister of the United Kingdom of Great Britain

and Northern Ireland

Dear John,

I welcome the G7 initiative you propose in your letter of 6 February for UNCED. It is expedient to bring together satellite-based earth observation and, in particular, the preparation and evaluation of environmental data for a global observing system for the environment.

A sound basis has already been created in Europe with the decision of the ESA ministerial meeting in Munich in November 1991. In future high priority will be attached to earth observation within the framework of the ESA programmes. The ongoing programme of a polar earth observation satellite mission will continue and extend the previous earth observation satellite systems ERS 1 and 2, for whose development Germany provided substantial support, and thus open up excellent opportunities for environmental and climate research. Germany is making major contributions to equipping and implementing the polar mission.

I therefore agree in principle with your proposal that a global system of earth observation by satellite be developed. Such a system can play an important part in the development of global environmental protection management, but will require a coordinated, multilateral approach.

It will therefore be a matter above all of bringing together the potentials available worldwide synergy will increase effectiveness and cut costs.

In my view, the possibilities afforded by the political opening of the countries of Central and Eastern Europe must certainly be taken into account. Here, too, we face the challenge of overcoming permanently the former division of the world. Obviously the CIS has at its disposal comprehensive earth observation systems and data which it could bring to bear.

In addition, the aim particularly in view of UNCED's objectives, should be from the outset to involve the third world countries in the evaluation and utilization of the data obtained from these systems. They would thereby be given the possibility of playing an active role in the further development of global environmental observation, so that a common environmental awareness can evolve.

In keeping with your proposal, if there is general agreement within G7, our representatives in the relevant bodies - particularly the CEOS - should therefore discuss the matter and, if appropriate, prepare an initiative for UNCED. Bearing in mind the many demands on our budgets, however, we must be very clear in our minds about the financial implications. Coopertion among the active space nations in this field should also be considered a possibility of increasing their efficiency and saving costs through improved utilization of existing potential. We should also sound out and seize the new opportunities for cooperation with the countries of Central and Eastern Europe and the republics of the CIS. I have asked the responsible ministers, Dr. Riesenhuber and Prof. Töpfer, to cooperate in this spirit.

With all good wishes to you and yours,
sincerely,
sign. Helmut Kohl

Telegramm

von

Herrn Helmut Kohl

Bundeskanzler der Bundesrepublik Deutschand

an

Seine Exzellenz

The Rt. Hon. John Major, MP

Prime Minister of the United Kingdom of Great Britain

and Northern Ireland

Lieber John,

die von Dir in Deinem Brief vom 6. Februar 1992 vorgeschlagene Initiative der G7-Staaten für die UNCED-Konferenz begrüsse ich. Es ist zweckmässig, die satellitengestützte Erdbeobachtung und insbesondere die Aufbereitung und Auswertung von Umweltdaten für ein weltweites System der Umweltbeobachtung zusammenzuführen.

In Europa haben wir durch den Beschluss der Münchener ESA-Ministerkonferenz vom November 1991 bereits eine gute Ausgangsbasis geschaffen. Der Erdbeobachtung wird im Rahmen der ESA-Programme künftig eine hohe Priorität eingeräumt. Das angelaufene Programm einer polaren Erdbeobachtungsmission wird die bisherigen, mit massgeblicher deutscher Unterstützung entwickelten Satellitensysteme zur Erderkundung (ERS 1 und 2) fortsetzen und erweitern und damit für die Umwelt- und Klimaforschung hervorragende Chancen eröffnen. Deutschland leistet für die Instrumentierung und Durchführung der polaren Mission wichtige Beiträge.

Ich stimme daher Deinem Vorschlag, ein weltweites System zur satellitengestützten Umweltbeobachtung aufzubauen, im Grundsatz zu. Sie kann ein wichtiger Beitrag zur Entwicklung eines globalen Managements des Umweltschutzes sein, erfordert jedoch ein abgestimmtes multilaterales Vorgehen.

Dabei wird es vor allem darauf ankommen, die weltweit vorhandenen Potentiale zusammenzuführen, um durch Synergieeffekte die Wirksamkeit zu erhöhen und Kosten zu sparen.

Aus meiner Sicht muss dabei unbedingt dafür Sorge getragen werden, dass die Möglichkeiten, die sich durch die politische Öffnung der Staaten Mittel- und Osteuropas ergeben, einbezogen werden. Wir stehen auch hier vor der Herausforderung, die bisherige Teilung der Welt dauerhaft zu überwinden. Die GUS verfügt offenbar über umfassende Systeme und Daten zur Erdbeobachtung, die sie einbringen könnte.

Darüber hinaus sollte - gerade in Anbetracht der Zielsetzung der UNCED - angestrebt werden, auch die Länder der Dritten Welt von vornherein in die Auswertung und Nutzung der mit diesen Systemen gewonnenen Daten mit einzubeziehen. Sie würden dadurch die Möglichkeit erhalten, sich an der weiteren Ausgestaltung der weltweiten Umweltbeobachtung aktiv zu beteiligen, so dass sich ein gemeinsames Umweltbewusstsein entwickeln kann.

Entsprechend Deinem Vorschlag, sollten daher - bei grundsätzlichem Einvernehmen zwischen den G7-Ländern - unsere Vertreter in den einschlägigen Gremien, insbesondere dem CEOS, hierüber sprechen und für die UNCED gegebenenfalls eine entsprechende Initiative vorbereiten. Angesichts der vielfältigen Belastungen unserer Haushalte müssen wir allerdings eine klare Vorstellung über die finanziellen Implikationen haben. Die Zusammenarbeit der aktiven Raumfahrtnationen auf diesem Gebiet ist auch als eine Möglichkeit zu sehen, durch bessere Nutzung der vorhandenen Potentiale deren Wirksamkeit zu erhöhen und Kosten zu sparen. Hierbei sollten auch die neuen Chancen der Zusammenarbeit mit den Ländern Mittel- und Osteueropas und den Republiken der GUS ausgelotet und genutzt werden. Ich habe die fachlich zuständigen Minister, Herrn Dr. Riesenhuber und Herrn Prof. Dr. Töpfer, gebeten, in diesem Sinne mitzuwirken.

Mit freundlichen Grüssen
und allen guten Wünschen für Dich und die Deinen
gez. Dein Helmut Kohl

Cl PC

Botschaft
der Bundesrepublik Deutschland
Embassy
of the Federal Republic of Germany

The Minister Plenipotentiary
Helmut Wegner, Chargé d'Affaires

9 April 1992

Dear Prime Minister,

I have the honour to transmit the enclosed letter of Herr Helmut Kohl, Chancellor of the Federal Republic of Germany.

A courtesy translation is attached.

I am, dear Prime Minister,

Yours sincerely

Helmut Wegner

His Excellency
The Rt. Hon. John Major, MP
Her Majesty's Prime Minister and
First Lord of the Treasury
London

Ecu

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

9 March 1992

Dear Phillip,

EARTH OBSERVATION: SATELLITES

I enclose Prime Minister Mulroney's reply to the Prime Minister's letter of 6 February.

The letter does not call for a reply. It will of course need to be followed up, particularly the final sentence.

I am copying this letter and enclosure to Richard Gozney (Foreign and Commonwealth Office), Private Secretaries to Members of EA(ST), Professor Stewart and to Sonia Phippard (Cabinet Office).

Yours,

Stephen

J. S. WALL

Phillip Ward, Esq.,
Department of the Environment

cc pc

Canadian High Commission Haut Commissariat du Canada

March 6, 1992

Mr. Stephen Wall
Private Secretary to the
Prime Minister
Prime Minister's Office (Overseas Affairs)
10 Downing Street
London, SW1A 2AA

Dear Mr. Wall,

I forward a copy of a letter from the Canadian Prime Minister to the Right Honourable John Major regarding the satellite initiative. As soon as the original letter has arrived, it will be sent on to you for your records.

Yours sincerely,

Gaétan Lavertu
Deputy High Commissioner

SUBJECT
MASTER
OPS
FILED ON: AEROSPACE : Policy Pt4

PRIME MINISTER'S
PERSONAL MESSAGE
SERIAL No. T66/92

March 6th, 1992

Dear John

Thank you for sending me a copy of your letter to Chancellor Kohl proposing more concerted work by G-7 Summit members on earth observation in the lead-up to the United Nations Conference on Environment and Development.

Canada will be pleased to associate itself with this initiative. I have asked Canadian officials on the Committee on Earth Observation Satellites to participate actively in any discussions on a unified schedule of the earth observation satellite missions. The production of a unified schedule at UNCED would constitute a significant contribution to this important event. One issue that officials will have to resolve is the dispute over terms of access to the data by countries not active in space.

With warmest personal regards.

Yours sincerely

Brian Mulroney

The Right Honourable John Major
Prime Minister of the United Kingdom
10 Downing Street
London, England

PRIME MINISTER'S
PERSONAL MESSAGE
SERIAL No. T66/92

SUBJECT
MASTER
OPS
FILED ON:

CANADA

PRIME MINISTER · PREMIER MINISTRE

OTTAWA, K1A OA2

March 4, 1992

Dear John,

Thank you for sending me a copy of your letter to Chancellor Kohl proposing more concerted work by G-7 Summit members on earth observation in the lead-up to the United Nations Conference on Environment and Development.

Canada will be pleased to associate itself with this initiative. I have asked Canadian officials on the Committee on Earth Observation Satellites to participate actively in any discussions on a unified schedule of the earth observation satellite missions. The production of a unified schedule at UNCED would constitute a significant contribution to this important event. One issue that officials will have to resolve is the dispute over terms of access to the data by countries not active in space.

With warmest personal regards.

Yours sincerely,

Brian

The Right Honourable John Major
Prime Minister of the United Kingdom
10 Downing Street
London, England

SUBJECT
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10 DOWNING STREET
LONDON SW1A 2AA

cc EA(ST)
Professor Stewart

THE PRIME MINISTER

6 February 1992

PRIME MINISTER'S
PERSONAL MESSAGE
SERIAL No. T45/92

Dear Helmut,

In our communiqué on the London Summit we called for greater efforts in co-operation on environment science and technology, emphasising particularly satellite monitoring and ocean observation. This reflected a long tradition in Summit discussions of advancing international collaboration in Earth observation. I have in mind in particular the Houston and Paris Summits.

The United Nations Conference on Environment and Development in June offers, I believe, an opportunity for the nations with access to satellite technology to build on the momentum of earlier Summits and to demonstrate to the World how, through co-operation, we are making a vital contribution to the sustainable management of the global environment. I wish to commend to you the value of an initiative for UNCED along these lines, and to seek your agreement to our officials pursuing it urgently in the coming weeks. The intention of my initiative is that the active space nations set out for UNCED a unified schedule of the Earth Observation satellite missions through the next decade, and underline their commitment to strengthen collaboration in order to achieve a truly global observing system for the environment.

It is fortunate that the Committee on Earth Observation Satellites, which was born at the Paris Summit, is now gathering together the full dossier of information on planned

DW.

satellite missions for environmental Earth Observations over the next decade. I am of course pleased that the European Space Agency has now set in place the missions that will make a significant contribution in this area to the end of the century and beyond. We will therefore have the basic material for UNCED available within the next few months. We have in mind that a convenient time for senior officials of member countries to meet and discuss this dossier and how to carry forward active international collaboration in developing the earth observation programmes would be in March or April. The dossier should be available by then, and this should just be in time for the results to be fed into the final stages of the UNCED process. This initiative should of course be promoted as supportive of the UN's existing Earthwatch programme, co-ordinated by UNEP, which systematically brings together information on the state of the world's environment.

Our officials will need to begin working closely together with those of other CEOS member nations, and with the UNCED preparatory teams, very quickly if this initiative is to be brought to a successful conclusion. They will also, of course, need to keep our Sherpas fully informed as we approach the Munich Summit.

I look forward to your views on my proposal and hope that you can agree to work beginning quickly to bring it to fruition.

I am copying this letter to fellow heads of G7 countries, and would welcome their views and support for this initiative.

Yours Ever,
John

SE Herrn Dr Helmut Kohl MdB

PRIME MINISTER

EARTH OBSERVATION: SATELLITES

When Lord Reay attended the European Space Agency's Ministerial meeting in November he pressed for initiation of the ESA's programme for the Observation of the Earth and the Environment. He was concerned that European countries should not lose the opportunity of demonstrating to UNCED that they are committed to satellite based monitoring of global climate change and other environmental factors.

Although the ESA has agreed an Earth Observation programme, there is no binding commitment on the platform to be used. Michael Heseltine suggested that we should attempt to ensure a unified schedule of observation missions through the Committee on Earth Observation Satellites (CEOS), under UK chairmanship, this year.

We need to move fast. The Committee would need to be convened soon. The ultimate parent of CEOS is G7. Speed is more likely to be achieved if you write to G7 colleagues promoting the case for the unified schedule. At Flag A is Michael Heseltine's letter setting out why you should write, followed by the draft. The draft incorporates comments from Mr Lilley, Mr Maples, and comments fed in by FCO. Professor Stewart has also seen the draft and is content. Andrew is also content.

Content to sign?

MARK ADAMS
31 January 1992
c\home\satellites (kw)

DRAFT LETTER FROM THE PRIME MINISTER TO HEADS OF G7 NATIONS
LONDON ECONOMIC SUMMIT - EARTH OBSERVATION

In our communique on the London Summit we called for greater efforts in co-operation on environment science and technology, emphasising particularly satellite monitoring and ocean observation. This reflected a long tradition in Summit discussions of advancing international collaboration in Earth observation. I have in mind in particular the Houston and Paris Summits.

The United Nations Conference on Environment and Development in June offers, I believe, an opportunity for the nations with access to satellite technology to build on the momentum of earlier Summits and to demonstrate to the World how, through co-operation, we are making a vital contribution to the sustainable management of the global environment. I wish to commend to you the value of an initiative for UNCED along these lines, and to seek your agreement to our officials pursuing it urgently in the coming weeks. The intention of my initiative is that the active space nations set out for UNCED a unified schedule of the Earth Observation satellite missions through the next decade, and underline their commitment to strengthen collaboration in order to achieve a truly global observing system for the environment.

It is fortunate that the Committee on Earth Observation Satellites, which was born at the Paris Summit, is now gathering together the full dossier of information on planned satellite missions for environmental Earth Observations over the next decade. I am of course pleased that the European Space Agency has now set in place the missions that will make a significant contribution in this area to the end of the century and beyond. We will therefore have the basic material for UNCED available within the next few months. We have in mind that a convenient time for senior officials of member countries to meet and discuss this dossier and how to carry forward active international collaboration in developing the earth observation programmes would be in March or April. The dossier should be available by then, and this should just be in time for the results to be fed into the final stages of the UNCED process. This initiative should of course be promoted as supportive of the UN's existing Earthwatch programme, co-ordinated by UNEP, which systematically brings together information on the state of the world's environment.

Our officials will need to begin working closely together with those of other CEOS member nations, and with the UNCED preparatory teams, very quickly if this initiative is to be brought to a successful conclusion. They will also, of course, need to keep our Sherpas fully informed as we approach the Munich Summit.

I look forward to your views on my proposal and hope that you can agree to work beginning quickly to bring it to fruition. I am copying this letter to fellow heads of G7 countries, and would welcome their views and support for this initiative.

c<home<satellite (aa)

cc PU

The Rt. Hon. Peter Lilley
Secretary of State for Trade and Industry

Department of Trade and Industry

Ashdown House
123 Victoria Street
London SW1E 6RB

Direct line
071-215 4440

DTI Enquiries
071-215 5000

The Rt Hon Michael Heseltine MP
Department of the Environment
2 Marsham Street
London
SW1P 3EB

17 January 1992

Dear Michael

EARTH OBSERVATION: SATELLITES

attached
with JSW? A
will request
if required.

I welcome the initiative proposed in your letter to me of 14 January. It would build in a positive way on the contribution which Hugh Reay was able to make at the Ministerial meeting of the European Space Agency in Munich. Earth Observation is very much the centrepiece of UK space policy and I think there would be solid political benefit in demonstrating in a context like UNCED the contribution which satellite-based observation can make to a full understanding of global climate and environment problems. We will have an opportunity to show that we made some good choices in determining our space policy and that we are an important player in a major international collaborative effort to exploit the unique vantage point of space so as to deepen our understanding of Planet Earth. The initiative also fits in well with the fact that 1992 is International Space Year.

The timing you suggest is very tight. Realistically, I doubt if the proposed meetings could now be convened before April. But I am certainly ready to ask the Director General of the British National Space Centre to prepare as a matter of urgency the dossier on future missions which would be the basis for discussion among the CEOS participants. Obviously, it would be for you and FCO to take forward the task of integrating the results of the proposed meetings into the process of preparing for the UNCED conference.

I thus support your proposal that the Prime Minister should write in the terms you propose to the Heads of the G7 Nations. This will be an important political signal and should help to ensure a good attendance at the proposed meetings. An important task will fall to FCO in explaining to G7 countries the background to our proposal and the sort of strategy we have in mind for UNCED.

I am copying this letter to the Prime Minister, the Foreign Secretary and other members of EA(ST), Professor Stewart and Sir Robin Butler.

Yours ever

Peter

JW1157

47a/2 est.vd/docs/LILLEY

cc PU

ECONOMIC SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG

The Rt Hon Peter Lilley MP
Secretary of State
Department of Trade & Industry
Ashdown House
123 Victoria Street
LONDON SW1E 6RB

17 January 1992

Dear Peter

with request, if required.

I have seen a copy of Michael Heseltine's letter to you of 14 January about satellites.

Given that ESA has now agreed an Earth Observation programme based on the UK's polar platform, I accept that we do not want this to falter. I can therefore see attractions in using UNCED to reinforce international Earth observation priorities. We want to have a favourable outcome to negotiations at UNCED, although we must of course take full account of any cost implications. As I understand it, what is proposed is essentially a co-ordination exercise, which has no additional expenditure implications. On this basis there looks to be a case for a letter from the Prime Minister to G7 colleagues. I have no comments on the draft.

I am copying this letter to the Prime Minister, the Foreign Secretary and other members of EA(ST), Professor Stewart and Sir Robin Butler.

Yours ever

JOHN MAPLES

cro

cc PU

SECRETARY OF STATE FOR THE ENVIRONMENT

2 MARSHAM STREET
LONDON SW1P 3EB
071-276 3000

My ref:

Your ref:

The Rt Hon Peter Lilley MP
Department of Trade and Industry
Ashdown House
123 Victoria Street
LONDON
SW1

14 January 1992

Dear Secretary of State

SATELLITES

Hugh Reay is to be congratulated on the outcome of the European Space Agency Council. It was gratifying to see that the environmental imperative of Earth observation offered us high ground that matched our national industrial interests. I believe there is an opportunity to press home our advantage and to aim at an initiative by the active space nations at UNCED.

In addition to our industrial interests, there are vital reasons for environmental protection why existing commitments to Earth observation missions should be maintained. Satellites have become an essential source of information on the state of the planet. They are monitoring the declining state of the ozone layer; they are our main source of data for looking for the greenhouse gas warming, and the main source of data on habitat destruction on a global scale. Loss of continuity of missions could leave international environment policy flying blind.

While ESA has now agreed an Earth Observation programme based on the UK's polar platform, I note Hugh's concern that the commitment is not totally binding; and there is still the possibility of disputes, and hence delays, about the platform to be used. There are uncertainties also in the US and Japan where other priorities have begun to threaten this decade's Earth Observation programmes. If those programmes falter I fear that this is bound to accentuate the remaining problems for Earth Observation within ESA.

However there may be a way to reinforce international Earth observation priorities in the UNCED context and to press home the advantage we gained at the European Space Agency Council.

Specifically, the intention would be to mark up in the UNCED process a unified schedule of the missions that will be launched by the leading space countries during the next decade and to record a determination to increase co-ordination in the interest of better environmental monitoring. The fact that the Committee on Earth Observations Satellites (CEOS), conveniently under UK Chairmanship this year, is currently co-ordinating just such a unified schedule of missions offers a timely way to advance the initiative.

My suggestion would be that this Committee might be convened to review the dossier in March or April, and that we convene in the UK a back-to-back meeting of senior officials from the relevant CEOS Member Nations to confirm the commitment to the objective of the 10-15 year programme, and to increasing co-operation to optimise the programme and the utilisation of results. This would provide the substantive material we would seek to bring forward at Rio de Janeiro. The new presentation of a unified schedule using space for the benefit of the environment could catch the interest and imagination of the world and be a significant additional achievement of the UNCED process.

Time is, however, very short. If we are to stand a chance of effecting this initiative officials from our Departments and the FCO must start discussions immediately with the relevant nations participating in CEOS. We must also develop the elements of an UNCED text through the Preparatory Committee negotiating team and the UNCED Secretariat before the next crucial PrepCom meeting in March to provide a ready context for the schedule of missions.

I therefore further suggest that you and I put to the Prime Minister a draft letter to his G7 colleagues, since G7 is the ultimate parent of CEOS, commending this initiative to them and seeking their early agreement for official level contacts to all relevant CEOS members on its implementation. Early signals on the G7 net would also allow us to contact our opposite numbers among the CEOS members and prepare for the March/April meeting.

I attach a draft letter for the Prime Minister.

I am copying this letter to the Prime Minister, the Foreign Secretary, and other members of EA(ST), Professor Stewart and Sir Robin Butler.

Richard Shaw

MICHAEL HESELTINE

Approved by the Secretary of State
and signed in his absence

CABINET OFFICE

70 Whitehall London SW1A 2AS Telephone 071-270 0320

Qd. 0257, File Ref: ST 140/3/3

Mr A J Pryor
BNSC
Dean Bradley House
52 Horseferry Road
London

16 December 1991

Dear Arthur

ACCESS TO PUBLICLY FUNDED DATA

As I begin to clear my desk for leaving this job next month, I find this topic is the biggest skeleton in my cupboard.

2. You will recall that following discussion at EA(ST)(90) 5th Meeting, I held a meeting on 8 March (copy of the note attached for convenience) and began work on a draft report. Unfortunately its completion fell foul of other priority work, and of Edmund Nickless's departure.

3. This is an important issue and I want to produce a report to EA(ST)(O) before I go. I recognise that things change fast and we here, for example, have been paying more attention to IPR issues in recent months. Much of the impetus for our exercise came from the possibility that NASA would restrict availability to its data unless we reciprocated. You may be able to update this story.

4. I accordingly attach a draft paper designed for EA(ST)(O) on 13 January and would be grateful for urgent comments by close of play on 6 January.

5. I am sending this letter and the draft on the EA(ST)(O) circulation and to those who attended the March meeting.

Yrs

C R WALKER

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DRAFT REPORT TO EA(ST)(O)

ACCESS TO PUBLICLY FUNDED DATA

Report by Mr C R Walker

The need for the UK to establish a policy in relation to the European Space Agency (ESA) on the international exchange of satellite-derived data for global environmental research (GER) exposed a number of broader issues. As agreed at E(ST)(O)(90) 5th meeting, the Cabinet Office convened interested parties, listed at Annex A, to consider the wider implications for other publicly-funded monitoring and survey programmes of the line adopted by the British National Space Centre Resources Board (BNSC) - that satellite-derived GER data should be made freely available to bona fide researchers.

THE PROBLEM

2. From the S&T point of view, the guiding principle should be that bona fide researchers should have free or low-cost access to the data they need for their researches. But the working through of this principle is inevitably complex in the light of general government policies on using a market approach wherever possible and of severe practical difficulties in, for example, avoiding "free-riders". Solutions probably need to vary between organisations and types of data.

3. Current policy emphasises a market approach to the exploitation of data based upon customer-contractor principles. It looks towards cost recovery from customers reflecting both the

expense of acquiring the data and of its subsequent processing and dissemination. One effect of this policy has been that basic data are now often seen as a valuable resource, from which revenue earning value-added services can be generated. General guidance fees and charging policy is set out in "Fees and Charges: A Guide for Government Departments". It seems possible that less than optimal use may be being made of certain key reference series such as topographical and geological data. Researchers often complain about constraints.

CURRENT PRACTICE

4. The Cabinet Office asked departments and Research Councils for details of their policy on charging for the exploitation and dissemination of data, both generally and as it applies to bone fide researchers. Although practice varies in detail across departments there is a broadly common approach.

5. Responses from departments have not identified any difficulties with the approach being developed by BNSC if that were to apply to satellite-sensed data only; however, it was felt that there would be a knock-on effect which might cause difficulties in other areas.

Research findings

6. Except where the work is commercially sensitive, the general practice is to encourage the publication of research results in the open scientific literature, or as technical papers of the originating research organisation (BRE, ADAS etc). MAFF allows its contractors to publish R&D results four weeks after reporting them which provides a period to allow delay or withholding of permission to publish on grounds of safeguarding intellectual property or protecting the national interest.

Statistical surveys

7. The results of statistical surveys supported by departments are normally published in various ways.

Costs of publication

8. Generally, the cover price of in-house or HMSO publications is set to recover the direct costs of publication but not of carrying out the original work. Some OPCS publications include a small amount to cover editorial work in OPCS.

Registers and public records

9. Policy is to provide public access to environmental data which increasingly are required by statutory and EC requirements to be available on open registers, accessible to public at little or no cost. The registers being established by the National Rivers Authority are an example. For other data, for example hydrographic, the Hydrographic Department of MOD is designated a place of deposit under the Public records Act 1958 and provides free access to all unclassified data. Agricultural census data are available to researchers at marginal costs subject to conditions prohibiting exploitation of data for profit.

Enquiry work

10. Usual departmental practice is to levy a charge based on the marginal costs of the staff time spent in preparing and answering the enquiry.

11. Responses to requests for extensive or ad hoc data sets are usually judged on a case-by-case basis, taking into account the nature of the data sought and the status of the enquirer.

Distribution of publications

12. Copies of published reports may be made available under library exchange schemes and, in the case of digests of statistical data, to those contributing data. In promoting sustainable development, ODA provides reports generally free of charge to disseminate information and knowledge.

DATA CHARGING

13. Crown copyright allows for a single copy of data, including maps, to be provided free of charge for research purposes; multiple copies are charged against HMSO guidelines.

14. Although there is a recognition of the need to broaden access to large-scale data sets and to encourage the full use of data, there are conflicting considerations in certain areas. For example, Research Councils earn some of their income from Government Departments; if the data generated from commissioned research and from the Science Vote were freely available, the incentive to commission might disappear. OS and BRE operate in a quasi-commercial mode with cost-recovery budgets determined by Memorandum Trading Account. The Meteorological Office provide processed data free to collaborative researchers or at costs of reproduction. Conditions may be imposed on the research and publication may have to be through Meteorological Office.

15. Much Social Science data is deposited with the ESRC Data Archive at the University of Essex. Current charging policy, which discriminates on whether the user is engaged in academic, commercial, charitable or other non-profit making research, has proved cumbersome to administer.

RECOMMENDATIONS

16. Objectives that should inform charging policy for a public sector service supplying data are:

a. It should be self financing, in the sense of fully covering costs from revenue;

b. Within the scope of its terms of reference, the service should supply consumers with <u>every</u> piece of data which is worth at least as much to the customer as it costs to supply, but <u>no</u> information which is worth less than it costs.

17. Charging policies should seek to maximise the benefits of the work through mechanisms such as

- licensing out equipment designs, software and process know-how;

- patentable inventions.

It will generally be too costly for Departments to obtain the necessary information to maximise benefits in every case and a simple, practical system will generally be more appropriate. If externalities are to be included in the benefits considered, Departments will need to decide who should pay in order to maintain the principle of full cost recovery.

18. One consideration is that where data are generated from an extremely expensive exercise which is either undertaken or not and cannot be fine-tuned - rocket-launched satellites are the classical example, but there are many others - there is a powerful argument for making the resulting data as widely available as possible to maximise the national benefit from the high initial cost. It will sometimes be possible to adopt the

familiar approaches of a "standing charge" or subscription, coupled with a low charge for the data.

19. Some additional principles which might guide departmental policy to the provision of data sets and in encouraging optimal usage are:

a. charge full market rates to commercial users, restricting usage of the data and on-sales through licensing as necessary; and -

b. charge bone fide researchers at cost and prohibit commercial usage by licensing agreements, recognising that the application of both these principles will have to be considered according to the nature of each case.

c. provide access, at a charge which would not prohibit or deter optimal use of data collected at public expense, to data held by the department if research is being undertaken by another departmental contractor or if results likely to be of clear benefit to all involved;

d. operate knock for knock;

e. provide data free to local authorities and other official bodies on need to know basis;

f. as required by policy, statute or EC Directive, provide public access to data free of charge (air pollution) or at marginal cost (maps and tapes of air pollution).

CONCLUSIONS

20. The review has revealed differences in detailed practice but no areas of major difficulty. In general, the objective of

ensuring that bona fide researchers can get access to necessary data is achieved.

21. Departments are invited to take account of the suggestions in paragraphs 16 to 19 in establishing their charging regimes.

22. Any problems arising in this area should be reported to EA(ST)(O) for interdepartmental consideration.

C R Walker
Cabinet Office

DAT(91)M1

ACCESS TO PUBLICLY FUNDED DATA

NOTE OF A MEETING HELD ON 8 MARCH AT THE CABINET OFFICE

Present:	Mr C R Walker (Chairman)	CO
	Mr B Watts	MAFF
	Mr R C Davis	MOD
	Mr M Sharpe	DES
	Mr S Bonde	FCO
	Mr M Whippman	HMT
	Mr D Revolta	HMT
	Mr P Edmonds	HMT
	Mr A Pryor	BNSC
	Mr C Collier	Met Office
	Mr J Fox	OPCS
	Dr M Williams	WSL
	Mr B J Hinde	NERC
	Mr M Kender	ESRC
	Mrs M Veal	SERC
	Mr E F P Nickless (Secretary)	CO

1. CHAIRMAN'S INTRODUCTORY REMARKS

The Chairman said that the Official Committee on Science and Technology had invited the Cabinet Office to convene interested parties to consider in greater detail the issues involved in charging for access to publicly funded data E(ST)(O)5th Meeting, Minute 8). The present meeting was designed to carry the work forward.

2. PRICING POLICY FOR DATA SERVICES

The meeting had before it a personal note by the former economic adviser in the Cabinet Office Science and Technology Secretariat (DAT(91)1) setting out some preliminary thinking on the principles which might inform pricing policy for data services.The paper discerned two main objectives for pricing policy for a public sector service supply data:

i. It should be self-financing, in the sense of fully covering costs from revenue;

ii. Within the scope of its terms of reference, the service should supply consumers with <u>every</u> piece of data which is worth at least as much to the customer as it costs to supply, but <u>no</u> information which is worth less than it costs.

The paper emphasised that for many types of information service there was large initial cost exemplified by launching a satellite or purchasing a super computer, while once the information was available it could be shared with extra customers at minimal reproduction cost.

In a brief discussion, the following main points were made:

a. A value could be attributed to all data, leaving suppliers to decide charges and what might be made available free of charge;

b. The extent of data use was determine by externalities. There were advantages in encouraging maximum utilisation;

c. Free goods have drawbacks because they encourage no economic sense of value; as a general principle all activities other than departmental core functions should be charged unless there were powerful reasons, such as economic or social, for not so doing;

d. Licensing had a role to play in attaching conditions to the use of data.

Summarizing the discussion, the Chairman said that the paper was a useful contribution which seemed to command general acceptance.

The Group

- took note.

3. PRICING PRACTICE

The meeting considered a note by the Chairman (DAT(91)2) summarizing responses to a request by the Cabinet Office that Departments and Research Councils indicate their policy on charging for exploitation and dissemination of data, both generally and as it applies to bona fide researchers.

The Chairman said that the exercise was driven by the need to establish the UK policy position within the European Space Agency on the international exchange of satellite-derived data for global environmental research (GER). The BNSC Resources Board had adopted the line that satellite-derived data should be freely available to bona fide researchers. There were possible wider implications for other publicly-funded monitoring and survey programmes but responses had not identified particular areas of concern. The paper had been produced to focus discussion and might form the basis of a report to EA(ST)(O).

Introducing the discussion Mr Pryor said that the Earth Observation Data Centre (EODC) at Farnborough would receive and process satellite sensed data for sale. Initially pricing would reflect the marginal costs only of processing, archiving and dissemination, not launch costs. Policy was to move to fuller cost recovery recognising both the need to encourage commercial usage and to maximise revenue. Individual researchers were not well placed to meet true costs. The preferred solution was for block funding by

Research Councils and Departments for their areas of responsibility, leaving individuals to apply within the limits of funding.

A crucial factor was that the US through NASA were developing a worldwide GER network, and had proposed that satellite-sensed environmental data would be freely available to all bona fide researchers, on a reciprocal basis. It was in the UK's interests to agree as we were likely to be net beneficiaries. A consequence was that overseas researchers would have access to the EODC; it would be necessary for the UK to cover the costs of such access.

There was a need to define the categories of data to be included in the release arrangements. The US were prepared to include Synthetic Aperture Radar data which the UK saw as having commercial potential. This matter and the prevention of data leakage would be pursued at a meeting of space agencies in April.

In a general discussion the following main points were made;

a. A Congressional requirement was that LANDSAT data should be treated commercially. US policy was moving away from this position;

b. Commercialisation of SPOT (France) and LANDSAT (US) data had been slower than anticipated. Neither was likely to recover the launch and associated costs;

c. The BNSC approach was to place responsibility for the funding of operational satellites with users of the data. The case for funding would have to be made once the policy objectives had been established by BNSC. A difficulty was that there was no central body to arbitrate;

d. The unpredictable nature of research posed difficulties in estimating the demands of the research community for satellite data against which to bid for the appropriate provision;

e. If data generated from commissioned research and the Science Vote were freely available the incentive to commission new work might disappear;

f. While satellite data do not differ qualitatively from other data, the international dimension, the magnitude, complexity and academic interest were distinctive features;

g. Space measurements need to be related to a range of ground based observations.

4. In discussing the shape of a report to EA(ST)(O) the following points were made:

a. The definition of publication was changing with the move from paper to digital databases;

b. The cover price of HMSO publications reflected commercial assessment of the likely market but not the costs of the work reported;

c. Exchange of data from Research Councils to Departments raised problems. For example, DOE wished to have access to the NERC North Sea database for monitoring purposes but had not contributed to the costs of data collection;

d. A developing perception of the desirability of free access to any environmental data as a public good was prejudicing normal policy on charging;

e. Even if data were provided free of charge, the use of licences would be the appropriate way to constrain use;

f. The issue of Crown copyright needed to be clarified;

g. Responses from departments had not identified any difficulties with the approach being adopted by BNSC if that were to apply to satellite data only; however it was felt that there could be knock-on effects which might cause difficulties in other areas;

5. Summarizing the discussion the Chairman that the paper commanded broad acceptance. The Cabinet Office would prepare a revised draft which was more "free-standing" than the working document before the meeting. He invited departments to provide written amendments to the draft report. The Cabinet Office would seek to clear a revised draft for the 30 April EA(ST)(O) meeting.

The Group -

noted with approval the Chairman's summing up and invited the Cabinet Office to be guided accordingly.

Cabinet Office
18 March 1991

file

c:\wpdocs\pps\esa.dbg

cc: PC
PU

10 DOWNING STREET
LONDON SW1A 2AA
From the Principal Private Secretary

4 December 1991

EUROPEAN SPACE AGENCY

The Prime Minister has seen Lord Reay's minute of 3 December reporting on the ESA Ministerial Meeting in Munich. He has commented that, in the circumstances, this is a satisfactory outcome.

I am copying this letter to Sonia Phippard (Cabinet Office) and to Professor Stewart.

Andrew Turnbull

Bill Jones, Esq.,
Department of Trade and Industry.

CCPC/PU

Prime Minister
A satisfactory outcome. Nice to see the French & Germans falling out.
AT
3/12

TO:

THE PRIME MINISTER

FROM:

LORD REAY

3 December 1991

EUROPEAN SPACE AGENCY

I was grateful for your endorsement of our negotiating line at the ESA Ministerial meeting in Munich on 18-20 November. You and EA(ST) colleagues might now appreciate a brief note on the outcome. We made good progress towards achieving UK objectives on Earth Observation. However, major uncertainties remain over the future of ESA's manned space programme. ESA Ministers will meet again in a year's time when a number of critical decisions will have to be taken.

2 The scene for the meeting was set by the decision of the German cabinet, taken in the week immediately preceding the Conference, that funding could not be provided for the envisaged level of German participation in the Hermes and Columbus manned space programmes. Chancellor Kohl and President Mitterrand discussed the matter when they met in Bonn on 15 November and issued a statement asking the ESA Director-General to study the possibilities for wider international cooperation as a means of containing costs, and to present revised proposals to another ESA Ministerial meeting to be held at the end of 1992.

3 The German Research Minister, Dr Riesenhuber, was thus obliged to ask the Conference to defer all main decisions for a year. This equivocal approach was not at all to the taste of the French. Their Space Minister, M Quiles, argued that, though a review at the end of 1992 was now inevitable, the momentum must be

maintained in the meantime. This implied that Hermes and Columbus should continue to be funded during 1992 at the originally-envisaged level. The French further argued that all decisions on programmes at the end of 1992 must be interlinked. There could, for instance, be no question of confirming the Polar Platform or initiating a new Earth Observation programme at this meeting.

4 Riesenhuber was finally forced to agree that Hermes and Columbus could proceed during 1992 within a slightly-reduced overall ESA budget. Work will proceed substantially as planned on the Polar Platform. After a further year's work with nearly half of the committed budget of 430 mau already spent, it will become that much harder to justify termination of the Platform during the 1992 review.

5 As foreshadowed in my letter to you of 4 November, I took the lead in arguing that Ministers should not leave Munich without formally initiating ESA's programme for the Observation of the Earth and the Environment. I argued that, if everything was put off until next year, the European countries would lose the opportunity of demonstrating to next year's UNCED Conference that they were committed to systematic and continuous satellite-based monitoring of global climate change and other environmental factors. Most delegations supported me (including Germany). There was a general feeling that the meeting needed a "success" and that Earth Observation was the natural way to provide this. We thus managed to isolate the French who eventually gave grudging agreement to adoption of the relevant Resolution - while still insisting that Earth Observation would have to be reviewed (along with the decision on the Platform) at the end of 1992. Nonetheless, the Earth Observation programme - with its commitment to a first Polar Mission using the Polar Platform - is now launched and the UK is perceived as having played a positive role. The payload for the first mission will include a (hopefully advanced version of) Marconi's Synthetic Aperture Radar.

6 A few final comments. In view of the hostility we encountered in 1987, the UK delegation appreciated the irony of Germany's predicament at this meeting. The German position is crucial since they contribute 27% of the expenditure on the manned space programmes. It is finally being realised that the cost of European autonomy in manned space flight may have risen above a politically affordable level. Talk of wider international cooperation (notably with the Soviets and with Japan) looks like the start of a face-saving retreat towards a more modest European space programme. Munich probably marks the beginning of the end of Hermes in its present form.

7 The (possibly temporary) dislocation of the Franco-German alliance which dominates ESA allowed the UK to seize the initiative on this occasion. If France and Germany decide to put less effort into manned space and more into space applications, the leading roles which the UK has acquired in the niche area of Earth Observation may well come under threat. We shall do our best to guard against this in the 1992 review. But, for the moment, we are still on track to achieve the objectives we have set ourselves in ESA.

8 I am copying this minute to all EA(ST) members, to Professor Stewart and to Sir Robin Butler.

Hugh Reay

AEROSPACE: Space
Policy Pt 4

cst.ps/dr/8dm14.11

cc PU

N DPM

AJ 19/11

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG
071-270 3000
Fax 071-270 5456

Lord Reay
Parliamentary Under Secretary
 of State for Industry and
  Technology
Department of Trade and Industry
Ashdown House
123 Victoria Street
LONDON
SW1E 6RB

18 November 1991

Dear Hugh

EUROPEAN SPACE AGENCY (ESA): MINISTERIAL MEETING

Thank you for sending me a copy of the UK's draft proposed negotiating line for the forthcoming ESA Ministerial Meeting in Munich on 18 November. I have also seen the Prime Minister's response (Mr Turnbull's letter of 11 November).

I too am content with the line you propose to take. I have taken note that in order to ensure confirmation of the Columbus polar platform, in which the UK will have a key role, you may need to be flexible on the level of funding. I hope that this can be avoided in the interests of maximising the value for money that we get from this very substantial investment, but this approach is acceptable on the basis that it can be contained within your existing baseline, as noted in paragraph 18 of the officials' paper attached to your minute.

I am copying this letter to the Private Secretaries of all EA(ST) members, to Professor Stewart and to Sir Robin Butler.

DAVID MELLOR

cc PC / PA

Foreign &
Commonwealth
Office

London SW1A 2AH

1/c Policy Unit

-/ file

15 November 1991

Dear Stephen,

File with AT

European Space Agency (ESA)

Lord Reay has copied to the Foreign Secretary his minute of 4 November on our negotiating line at the ESA Ministerial in Munich later this month. The Foreign Secretary agrees with him and the Prime Minister (your letter of 11 November to DTI) that the proposed line is right.

The key objective for the FCO at the Ministerial will be to ensure that ESA continues its Earth Observation Programme within the Columbus project, and that the UK maintains its leading role in that Programme. This will be good for our commercial interests, given that British Aerospace are the lead contractors in the construction and supply of the Polar Platform on which ESA's Earth Observation Programme is based. But, just as importantly, our leading role in the Earth Observation Programme will help to buttress our overall policies on global environment issues and the prominent part we intend to play at UNCED in Rio de Janeiro next year. As Lord Reay says in his minute, the development of the Programme will provide concrete evidence at Rio that the European countries are committed to effective environment and climate monitoring.

The Foreign Secretary also agree with Lord Reay that we should try to seize the political initiative at ESA by pressing for immediate endorsement of the Earth Observation Programme, if this should prove necessary.

I am copying this letter to the Private Secretaries of all EA(ST) members, to Professor Stewart and to Sir Robin Butler.

Yours ever,

(S L Gass)
Private Secretary

Stephen Wall Esq CMG LVO
10 Downing Street

Adosphos :Slacs 114.

cc PX ✓

SECRETARY OF STATE FOR THE ENVIRONMENT

NBPM AT 15/11

Prime Minister

CONFIDENTIAL

Prime Minister

EUROPEAN SPACE AGENCY

– flap

I was very pleased to see in Lord Reay's letter on the European Space Agency the progress that he has made in registering Earth observation from space as a priority within the ESA's long term plan.

I agree entirely with Hugh's line of looking beyond Munich to the Earth Summit in Rio de Janeiro, where you have taken a world lead by announcing your intention to attend. I believe further that we should take a leading role in the run-up to Rio in extending commitment and cooperation on Earth observation beyond Europe. Our record within ESA places the UK in a good position to do this. If decision-making is paralysed in Munich then the announcement of this initiative would give us the political high ground that Hugh rightly says we should seek.

There is no international agreement devoted to the need for commitment, cooperation and coordination towards a long-term observation programme to secure environmental needs equivalent to the European commitment of the ESA Long-Term Plan and the Resolution on the Observation of the Earth and its Environment. As Hugh points out, even the Polar Platform is currently part of the Columbus programme.

SECRETARY OF STATE FOR THE ENVIRONMENT

I believe there is a wish to make a new commitment amongst leading nations with access to satellite technology. We can tap the momentum of the Earth Summit in Rio de Janeiro to draw them together. A UK-led initiative to achieve such a new agreement, or a commitment to work towards one, would be a very positive aspect of our contribution to the Rio conference.

I would like my officials to work closely with Hugh's to pursue ways and means of preparing further for a strong statement at Munich. In particular we might look for a number of demarches to key capitals to ensure immediate support.

I am copying this to all EA(ST) members, Bill Stewart and Sir Robin Butler.

MH

15 November 1991

AEROSPACE: Space Policy pt 4

KW

10 DOWNING STREET
LONDON SW1A 2AA

From the Principal Private Secretary

11 November 1991

Dear Bill.

EUROPEAN SPACE AGENCY

The Prime Minister has seen your minute of 4 November. He has commented that it confirms the wisdom of our decision, much criticised at the time, to refuse to join the European manned space programme. He agrees that the difficulties of this programme should not be allowed to obstruct the development of the Earth Observation project. He therefore endorses the negotiating position Lord Reay is proposing.

I am copying this letter to the Private Secretaries of all EA(ST) members, to Professor Stewart and to Sir Robin Butler.

Yours sincerely
Andrew Turnbull

ANDREW TURNBULL

Bill Jones Esq
Department of Trade and Industry

W0104

PRIME MINISTER 6 November 1991

EUROPEAN SPACE AGENCY.

Lord Reay's approach to the European Space Agency Ministerial (ESA) is sound and the UK is well regarded for its prescience in being firm at the outset about what it was prepared to do in ESA and for being proven to be right in its choices.

2. I confirm that the negotiations on the Polar Platform, where British Aerospace is the main contactor, will not be easy in the light of pressure from the French industrial sector. It is critical to defence-related industries such as British Aerospace that the UK position on the Polar Platform is sustained.

3. I strongly support the view that the UK should use the Earth Summit in Rio de Janeiro to lever support for the Earth Observation programme and for us not to become embroiled in Manned Space Flight at this stage.

4. I am copying minute to Sir Robin Butler.

PROFESSOR WILLIAM D P STEWART
Chief Scientific Adviser

MR WALL **5 NOVEMBER 1991**

EUROPEAN SPACE AGENCY

I have no comments on Lord Reay's note with my new INTELSAT hat on: that organisation is well removed from manned space flight issues. But given the space industry's interest in INTELSAT as (I believe) the world's largest non-military purchaser of satellites, I imagine that these European rivalries could just spill across to the INTELSAT election. It is therefore useful to have this background.

The UK line in all this seems absolutely right. I am sure it would be useful for the Prime Minister to stress the importance of the Earth Observation programme for the climate change debate, and for the European stance at the Rio conference next year. The links are brought out clearly in the background note by officials and firm words on this front from the Prime Minister may just strengthen Lord Reay's hand.

JM

JOHN MILLS

130.JM

cc

Prime Minister

The report confirms our wisdom in refusing to join the European manned space programme which is now in difficulty.

But those who guessed wrong are resentful and may try to challenge the strong position we have achieved in the Earth Observation project where BAe has been selected as the prime contractor.

Lord Reay is right to argue that the Earth Observation programme, which is relevant to global warming, should go ahead

CONFIDENTIAL

Prime Minister

4 November 1991

8/11

EUROPEAN SPACE AGENCY

The Council of the European Space Agency (ESA) will meet at Ministerial level in Munich on 18-20 November next. It will need to take some major decisions on the future of European space programmes. I shall be representing the UK in Munich and I thought that you and other EA(ST) members would wish to know our proposed negotiating line. Since British Aerospace is one of the UK parties with an interest in the outcome of the meeting, I, rather than Peter Lilley, am sending this to you, in accordance with the procedures set out in Peter's memorandum to you of 7 October.

2 At the last such Ministerial meeting in The Hague in 1987, we found ourselves at odds with our European partners. The rest of ESA were set on initiating a highly-ambitious manned space programme. The UK declined to participate in this (colossally-expensive) venture. We wanted ESA to concentrate on the commercial and operational potential of unmanned satellites. But the other ESA members embarked on their grand vision without us.

3 We subsequently conducted a rigorous review of UK civil space policy. We concluded (and announced to Parliament in 1988) that we would still work primarily through ESA but that we would concentrate on Earth Observation which we saw as the next major "market" in space.

4 Experience has shown that we got our priorities right. ESA's manned space programme has run into financial and technical problems (the development costs of the Hermes spaceplane have, for instance, risen by 40%). ESA will have to decide in Munich whether to persevere with manned space flight. Hermes has become the central issue. There is a major dispute between France (who wants to maintain the original Hague programme) and Germany and Italy (who argue that further preparatory work at least is needed before a commitment to development can be taken).

CONFIDENTIAL

5 In contrast, the commercial potential of satellite remote sensing has become clearer. Its value as a business tool in areas like minerals prospecting, mapping, crop monitoring and pollution control is now widely acknowledged. And there is growing recognition that Earth observing satellites are uniquely capable of providing measurements to help us understand environmental phenomena like global climate change. Over the last two years, we have painstakingly used our ESA subscription to build a lead role for the UK in ESA's Earth Observation projects. We are providing (through Marconi) the most advanced instrument - the synthetic aperture radar (SAR) - on ERS-1 (launched in July) and on ERS-2 (to be launched in 1994).

6 The Munich Ministerial is set to initiate the next phase of ESA's Earth Observation activities. This will be based on the polar platform (a much larger satellite giving a quantum leap in capability) scheduled for launch in 1997-98. British Aerospace has been selected as the prime contractor. In Munich, we shall be seeking confirmation of this role and a commitment to begin development work. We also want ESA formally to start the programme to develop the ground support system for, and the instruments (including another version of SAR) to be flown on, the first polar platform mission. The resulting financial commitments for DTI will be within the funding authority already agreed by Ministers.

7 The negotiations will not, however, be easy.

8 There is resentment among other ESA members at the UK's success in winning major roles in Earth Observation from an aggregate level of participation in ESA now amounting to less than 7% (not much more than that of Belgium). We may yet face a direct challenge to the polar platform and our role on it. We must make it clear in that case that we cannot agree to participate in the Columbus programme (within which the polar platform falls along with other programme elements of primary interest to other ESA Members) unless the platform proceeds to immediate development. But equally, to attain our Earth Observation objectives, we may need to show some flexibility over the funding of Columbus.

9 There is also the risk that the disagreements among other ESA members over the manned space programme could paralyse all decision-taking in Munich. If a stalemate is in prospect, I believe the UK should take the political high ground. We should argue strongly that ESA's Earth Observation programme needs immediate endorsement. The European countries attending the Earth Summit in Rio de Janeiro next year will want to point to the ESA polar platform mission as a demonstration of

their commitment to systematic and continuous satellite-based environment and climate monitoring. A major political opportunity will be lost if Munich ends in general disagreement (particularly as the ESA Earth Observation programme is, in some ways, in advance of its US counterpart).

10 The Earth Summit and its follow-up will be primarily a matter for Michael Heseltine and Douglas Hurd. But I am sure that a UK lead along the above lines at the Munich Ministerial would be well-received and would put us in a positive light in comparison to any in-fighting over the manned space programme.

11 Further details of the main issues at the Munich meeting and of the UK's negotiating aims (including possible flexibility on Columbus) are contained in the attached paper by officials.

12 I should be glad to know if you or other colleagues have any concerns to raise. I am copying this minute to all EA(ST) members, to Professor Stewart and to Sir Robin Butler.

Hugh Reay

LORD REAY

ESA MINISTERIAL COUNCIL: MUNICH, 18-20 NOVEMBER 1991

MAIN ISSUES AND UK NEGOTIATING POSITION

European Autonomy in Manned Space Flight

1 The primary reason for holding this ESA Ministerial Council is to decide on the future of the European manned space programme initiated at the last such meeting in The Hague in 1987. There are particular problems over the Hermes spaceplane and the manned elements of Columbus (the European contribution to the US-led space station). European ambitions have outrun the ability of ESA Member States to provide the required level of funding. In particular, the estimated development costs of Hermes have risen by 40% to some £5150 million. Now that the design phase has been completed, the conference must decide whether to proceed with actual development.

2 This implies a judgement as to whether the goal of European autonomy can be sustained. The debate will be highly political. For some, like the French, Hermes is an affirmation of a European identity which justifies financial sacrifices. It also has major industrial importance for France which has the largest share in the project. Others, notably Germany, have become more sceptical. Their instinctive feeling is that the scale of funding now required is out of proportion to the benefits of the project. Germany's main industrial interest is in Columbus.

3 The only way of maintaining all the elements of The Hague programme within the annual budget levels available to other ESA members for space would be to extend the relevant development programmes including Columbus and Hermes. The ESA Executive have now proposed a strategy based on delaying programmes in this way. On the central issue of Hermes, it is proposed to delay the first manned flight until 2003. Germany still wishes to avoid a full commitment to Hermes development, preferring to concentrate on proving the critical technologies before taking the final decision in a few years time. The French are strongly resisting this dilution of the "momentum" of Hermes. It remains to be seen whether a "crisis" can be avoided through a compromise involving a commitment to development now, followed by a review in three years time giving the option of termination at that point.

UK Aims in Earth Observation

4 Having declined to support the manned space programme, the UK is not directly exposed to this dispute. But there could be knock-on effects on Earth Observation which is where the UK's main interests lie.

5 Besides exploiting the opportunities which ESA offers for high quality research, the UK sets out to choose those ESA programmes which stand the best chance of leading to the operational and commercial space systems of the future. In such programmes we aim for a level of participation giving us major influence. We have begun this process in the Earth Observation area through our support for the British-developed synthetic aperture radar on ERS-1 and ERS-2.

6 The UK will use this Ministerial Council to secure a commitment to develop the ESA polar platform and to finalise its first mission (POEM-1) scheduled for 1997-98. This will include specific confirmation of UK roles. In accordance with Ministers' wishes, the UK has concentrated its ESA funding on the polar platform and its mission so as:

(i) To enable UK industry to win leading roles (under ESA's "juste retour" regime);
(ii) To push for a mission structure most suited to subsequent commercial exploitation.

The polar mission will also be a major step in facilitating the systematic monitoring of global climate change and other environmental factors. New operational entities will emerge in due course to carry forward this task.

7 Awkwardly for the UK, the polar platform itself comes within the Columbus programme. The UK has entered Columbus at the level of 5.5%. Our funding will go primarily to the polar platform where the UK share will be 26%. On this basis, British Aerospace are poised to win the role of prime contractor. But we will be also be taking a small share in the other Columbus elements. The proposed extension of the Columbus programme would prolong it until 2004.

8 The UK has taken a 30% share in the preparatory programme to finalise the selection of instruments and to determine the ground segment arrangements for POEM-1. The proposed payload consists of a balanced mix of instruments:

(a) To serve operational meteorology (with a payload provided by Eumetsat - for which the UK contribution, financed through the Meteorological Office by MOD, will be some £20 million);
(b) To conduct research into climate and atmosphere;
(c) To further demonstrate the potential of radar-based remote sensing, the key to future commercial operations.

9 We want POEM-1 to fly an advanced version of the synthetic aperture radar (an ASAR) - seen as the next major step in market development. But further technical studies are needed to

determine whether it can be developed in time. If not, the mission will re-fly the synthetic aperture radar (SAR) now operating successfully on ERS-1. In either case, Marconi will be the contractor. Logica are well-placed to contribute to the ground segment. We are looking for data handling and processing arrangements which will be suited to the needs of subsequent operational and commercial systems.

10 If Columbus is extended, the effect (exacerbated by adverse exchange rate movements since 1987) will be to increase the remaining cost of the programme to the UK to £210 million. But this increase would be well within the contingency margin which the UK, like other Member States, accepted as a legal obligation upon joining Columbus and can be contained within the present DTI space baseline carried forward at its existing level.

11 Ministers have authorised funding for UK participation in POEM-1 at the level of 25%. DTI has made provision for these costs (estimated at £224 million in the period up to 2003) within the present space PES baseline. If it is decided to re-fly the SAR, the UK will aim for a decision in Munich initiating the preparatory phase of a development programme which would look to fly ASAR on a subsequent mission. UK participation in such a preparatory programme (scheduled to run from 1992 to 1996) would be funded by a reduction in the instrument allocation for POEM-1.

12 A preparatory programme will, in any case, be necessary to prepare the ground for a second polar mission. Continuity of data will be essential to climate change monitoring. Since such a mission would have a more operational character, the funding for some of its instruments might not be appropriate for the DTI space budget. No commitment to such a mission will be assumed in Munich - but a decision on development will need to be taken around 1995. The Department of the Environment and BNSC are undertaking an exercise for EA(ST)O on the UK's future environmental data needs. The question of UK participation in a second mission, and the attribution of mission costs among Departments, will fall to be addressed through the recently agreed procedures for the funding of civil space programmes.

13 Those procedures will also be used in relation to two other items of potential UK interest in ESA's longer-term plans for Earth Observation, namely the proposed Aristoteles mission to measure the Earth's gravity and magnetic field and the development of a new generation of meteorological instruments for Eumetsat. No commitment to these missions is sought at the Ministerial.

14 Eumetsat have still formally to confirm that they will participate in POEM-1. They are seeking assurances as regards access to future ESA polar missions. But the Meteorological

Office is convinced that POEM-1 offers an opportunity which Eumetsat must seize.

Potential Problem Areas in the Negotiations

15 A French proposal to replace the first mission using the polar platform with up to three missions using a French satellite, is still on the table - and could be promoted vigorously if Eumetsat seeks to opt out of POEM-1. But if the consequence would be to stop the development of the polar platform, we would use the threat of UK withdrawal from Columbus to provide negotiating leverage. Another difficulty concerns Germany's search for an increased role on the platform to compensate for the industrial effects of the projected slow-down in the pace of development of the manned elements of Columbus. The UK is seen as enjoying an unduly privileged position: the polar platform looks likely to proceed to immediate development under UK industrial leadership, and yet the UK is contributing "only" 5.5% to Columbus. We will vigorously resist German pressures.

16 A more delicate question may arise on the future costs of Columbus. Hermes will clearly require a commitment of additional funds. The ESA Executive, supported by some Member States, will argue that the same holds for Columbus as a result of factors outside ESA's control such as re-designs enforced by changes to the space station. The Executive proposal is to set a new cost baseline for Columbus at a level equal to the original baseline plus the level of contingency so far used. This new baseline would then be subject to a further 20% contingency margin.

17 We shall argue strongly against the Executive's proposal, making the point that cost increases arising from a re-definition of the programme elements should be containable within the original contingency margin and that ESA should accept the challenge of working within this discipline. We stand a reasonable chance of winning the day. But the ESA Ministerial may well end with a "package deal" within which agreement to increase the cost base for Columbus could be included. The UK could decline to increase its exposure and seek to reduce its membership of Columbus to something like 4.85% in consequence. But there is a distinct risk that the other Member States would mount a major challenge to our roles on the polar platform if we were alone in refusing to consider a change in our position on this point.

18 The UK delegation at the Ministerial meeting will thus need to judge, in the light of the climate of the negotiations, whether to indicate a willingness to consider an increase in the cost base of the Columbus programme if this is the only way to safeguard our priority interests. This could take various forms. It may be suggested, for instance, that the contingency margin

associated with the new baseline should be allocated among the elements of the Columbus programme (including the polar platform) in proportion to each country's participation in that element. In such a case, we would aim to tailor annual ESA budgets so that the resulting cost profiles could be contained within an unchanged space baseline.

19 The Ministerial meeting may also be asked to look forward to the costs which will be involved in operating ESA's in-orbit infrastructure. The UK argues that payment should be directly related to use. It should be possible to defer serious consideration of this point in view of the proposed delay in the development of Hermes and Columbus.

British National Space Centre
28 October 1991

A:AP77.DRB

cc PU

SECRETARY OF STATE FOR EDUCATION AND SCIENCE

ELIZABETH HOUSE YORK ROAD LONDON SE1 7PH
TELEPHONE 071-934 9000

The Rt Hon KENNETH CLARKE QC MP

J S Wall Esq
Private Secretary
10 Downing Street
London SW1A 2AA

Dear Mr Wall,

HELEN SHARMAN

HAP

Your letter of 11 June to John Ratcliff reported that the Prime Minister had met with Helen Sharman to discuss her recent space mission, and indicated that she was keen to find an educational use for the film and photographs she took in space and also for the outcome of the scientific experiments which she conducted.

Officials held successful meetings with Miss Sharman on 3 July to discuss ways in which the Department might help put her expertise to educational use.

Letters have been sent to Miss Sharman summarising the outcomes of these meetings - copies attached. You will see that the Department will be pursuing a number of initiatives designed to put her in touch with the scientific community and to facilitate the educational use of materials from the JUNO mission.

Yours sincerely

Alison Cater

ALLISON CATER
Private Secretary

DES

THE DEPARTMENT OF EDUCATION & SCIENCE
ELIZABETH HOUSE YORK ROAD LONDON SE1 7PH
SWITCHBOARD 071-934 9000 FAX 071-934 9082 GTN No. 3914

Miss Helen Sharman
MNB (JUNO) Ltd
81 King William Street
LONDON
EC4P 4JS

5 July 1991

Dear Miss Sharman,

I was very pleased to meet you on Wednesday to discuss how we might draw on your experience of the JUNO mission for the benefit of schools.

I hope it will be helpful if I summarise the action we agreed to take.

i. On your <u>photographic material</u> and remote sensing, HMI Mr Brian Harris will investigate if it would be possible to incorporate some of your material in the DES/BNSC science resource pack on remote sensing which is at an advanced stage of development; Philip Lewis will check with BNSC about the likelihood of our proceeding with a geography pack where it might be possible to use a number of your photographs. On both packs Philip will be in touch.

ii. On the <u>use of the broader JUNO experience</u>, SI Mr Vic Green will seek to arrange a meeting with LEA science advisers through their national association. The object would be to obtain advice and practical help from the advisers and HMI on how best to present your materials and experience to schools; and to get help in drawing up a planned programme of school visits including talks that might involve several schools. Philip Lewis will alert Eurfyron Gwynne-Jones and Gwyn Pritchard at Channel 4 to the fact that you will approach them to discuss the possible production of a broadcast programme and/or a video, both aimed at schools.

iii. As regards <u>more general contacts</u>, Barnie Baker will talk to the Association of Science Education about how, generally, the Association might help you in your aims. We noted in particular that the next annual meeting of the Association (attended each year by more than 5,000 science teachers) is in Sheffield from 3-6 January 1992. This is outside your JUNO contract period but if you were available it could provide a very useful forum. You will also get in touch with Dr John Williams at the Engineering Council to discuss ways in which JUNO might contribute to the Council's education programme. Philip will also let you have a contact address for Heather Couper, a freelance film maker in the education field, with a particular interest in space.

I hope that in these various ways schools, teachers and pupils will be able to benefit from your space flight. Please do not hesitate to get in touch with any of us if matters arise on which we may be able to help. If in doubt please ring me or Philip Lewis. Depending on progress made on the various fronts we might meet again later in the year.

Yours sincerely

A E D CHAMIER
Head of Schools Branch 3

THE DEPARTMENT OF EDUCATION & SCIENCE
ELIZABETH HOUSE YORK ROAD LONDON SE1 7PH
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Direct Line:
071-934 9853

Miss Helen Sharman
MNB(JUNO) Ltd
81 King William Street
LONDON EC4P 4JS

5 July 1991

Dear Helen,

John Vereker, Geoffrey Heaford (Science and Engineering Research Council), Roger Troke (British National Space Centre) and I were delighted to meet you and Christopher Hayes at the Department on Wednesday.

The purpose of this letter is to summarise the action which we agreed to take forward on what we termed our scientific and popularisation objectives; the first to ensure that the relevant scientific community in the UK were made aware of the experiments in which you were involved and enabled to network with their Soviet counterparts; and the second to maximise the wider educational impact of your flight.

Scientific Objectives

- Geoffrey Heaford will, after consulting his colleagues in his own and other Research Councils, provide me with a list of the people in the UK scientific community who are interested in the areas covered by your experiments: you, in your turn, will let me have a list of your contacts in the Soviet scientific community so that we can offer both sides the opportunity to get in touch with each other and develop working relations direct.

- Geoffrey Heaford will also speak to the Director of the Rutherford Appleton Laboratory, Dr Paul Williams, and orchestrate an invitation to meet the people at the Space Science Department there. Geoffrey will also check out whether there might be benefit in engaging a wider audience for such a visit.

Popularisation Objectives

- You are already in touch with Geoffrey Pardoe about the part you might play in the programme of events that the British National Space Centre are preparing for British Industry in Space Year in 1992 ("BISY 1992"). Roger Troke will keep a track on this, not least because your full-time involvement in the JUNO project comes to an end this December. We agreed to look at ways of overcoming this obstacle well before 1992.

- Geoffrey Heaford will contact the organisers of "Star Lab" which visits a school a day, to consider how your experience might be used to enhance their work to stimulate interest in science in schools.
- Geoffrey Heaford will talk to colleagues at the Royal Observatory Edinburgh. That has a visitors' centre and offers the potential for a productive visit, perhaps in connection with the Edinburgh science festival.
- Geoffrey Heaford will speak to Peter Briggs, organiser of the annual meeting of the British Association for the Advancement of Science. This year's meeting was in Plymouth in the last week of August and could provide an ideal platform for publicising your experiments to the scientific community.
- I shall speak to Sir Walter Bodmer, the Chairman of the Committee for the Public Understanding of Science, to see whether there might not be opportunities (be it a lecture or an article for the Committee's journal, Science and Public Affairs, Published by the Royal Society) for disseminating your experience through that network.
- I shall also talk to Professor John Durant, a member of that Committee and the holder of a Chair for the public understanding of science jointly funded by the Science Museum and Imperial College, to consider what role in all of this there might be for our Science Museums, not only in London but elsewhere, perhaps especially in Manchester. For your part, you agreed to consider the sort of exhibits (of general, as well as scientific, interest) you might be able to make available.

We agreed that the best way of taking all of this forward was to work up specific proposals for you to consider so that you can prioritise the various options for putting the remaining six months of the year to best effect. I hope that we will be able to come back to you on the various items above in the not too distant future.

We also agreed that in order to keep the threads together, I would act as the central coordinating point for these activities and that correspondence should therefore flow through me. And, we undertook to hold a meeting at the end of the year to review our success in helping you.

It was a great pleasure meeting you and I look forward to working with you in the months ahead.

всего хорошего

David Wilkin

DAVID WILKINSON

cc Mr Vereker
Mr Chamier
Mr Ritzema
Mr Mainwood

Mr Heaford (SERC)
Mr Troke (BNSC)

AEROSPACE: Space Policy Pt 4

chex.jp/kg1/63 **CONFIDENTIAL**

Treasury Chambers, Parliament Street, SW1P 3AG
071-270 3000

27 June 1991

Miss J R Binstead
Private Secretary to the
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
LONDON
SW1A 2HB

Dear Jane

WEU SATELLITES

WITH JSW / WILL REQUEST IF REQUIRED

The Chancellor has seen your letter of 26 June explaining the proposed new UK line on participation in the new WEU Satellite Centre.

The Chancellor has commented that this new position represents a considerable change of heart from that advocated by Mr King in his minute of 19 June to the Foreign Secretary. The Chancellor had fully agreed with Mr King's earlier decision not to participate in the Satellite Centre, since this would offer us nothing of military value for the foreseeable future. Moreover, the political difficulties of withdrawal in the future would arguably be greater than of withdrawal now.

Nevertheless, the Chancellor recognises the political concerns underlying Mr King's new position. He is, therefore, reluctantly prepared to agree to the expenditure of up to £4.6 million as proposed, but only on the basis that all of the conditions set out in your letter are made extremely clear to our WEU partners and are adhered to precisely. It will be most important to ensure that we do not proceed to future stages of a WEU satellite project, which could in the longer term lead to the UK expenditure of perhaps £1 billion for no discernible military reason.

CHANCELLOR OF THE EXCHEQUER

Such MOD expenditure will, of course, have to be contained within the existing defence budget. Similarly, the DTI contribution to the feasibility studies will, of course, have to be funded within the existing DTI baseline.

I am copying this letter to recipients of yours.

Yours sincerely

Kate Gaseltine

MISS K GASELTINE
Assistant Private Secretary

cst.ps/let/8dm26.6

CONFIDENTIAL

NPPM
AT
27/6

cc PC
cc PU

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG
071-270 3000
Fax 071-270 5456

The Rt Hon Peter Lilley MP
Secretary of State for Trade and Industry
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

27 June 1991

Dear Peter

FUNDING OF CIVIL SPACE PROGRAMMES

Your minute of 18 June to the Prime Minister reported on the review of the arrangements for funding civil space programmes.

2. My officials were fully consulted during the review process and I endorse the arrangements for the allocation of space projects and their funding set out in the attached paper. As the paper makes clear these arrangements must of course remain subject to the normal Survey procedures and public expenditure constraints.

3. I am copying this to members of EA(ST), to Professor Stewart and to Sir Robin Butler.

DAVID MELLOR

RESTRICTED

cc PC

MINISTRY OF DEFENCE
WHITEHALL LONDON SW1A 2HB

Telephone 071-21 82111/3

SECRETARY OF STATE

MO 13/4D

26 June 1991

File

Dear Kate,

WEU STUDY ON SPACE

We spoke earlier this evening on this subject. I explained that the Defence and Foreign Secretaries have considered this further, taking account both of the delicate stage of our wider European negotiations, and of the discussions at the Anglo/French summit on Monday. My Secretary of State feels that now is the wrong moment to be conspicuously refusing to participate in the project for the Satellite Centre. To do so would in present circumstances have a disproportionate impact on our tactical position in the European debate, and complicate the task of the Prime Minister in securing a satisfactory outcome in more important issues.

He therefore believes that we should not at this stage withdraw from the project, but at the same time make our continued participation in the work subject to a number of conditions. These would include further work to get the costs reduced and the timescale more related to the real possibilities of a useful output; and clear guarantees about eventual access to the indispensable HELIOS imagery on satisfactory terms. We would also relate our participation clearly to the satisfactory development of the WEU's place in European defence, including progress on the ideas for an operational role and a European Reaction Force, which the UK has advocated.

Inherent in this would be the firm position that our conditional commitment to the Centre was limited to £4.6m as a maximum. If our conditions were met, this sum would of course need to be found from within the Defence Budget.

Nor would we be committed to the Centre beyond an experimental three year period. We do not expect to be alone in this; and UK's involvement of £600k in feasibility studies is of course, as the Industry Secretary has made clear, already so limited. We are very

Kate Gaseltine
HM Treasury

conscious of the need to avoid any danger that our willingness to go along with the project now would become a slippery slope to a much larger financial commitment - although this is less of a danger with the Satellite Centre than with the studies. It is in the hypothetical development of the studies into a proposal for a dedicated fleet of satellites (which no European country could afford) that the big costs would lie.

The Defence Secretary has therefore asked Mr Hamilton to speak on these lines at tomorrow's meeting.

I am copying this letter to the Private Secretaries to Members of OPD, and to Sonia Phippard (Cabinet Office)

Yours sincerely

(MISS J R BINSTEAD)
Private Secretary

cc PC

[illegible]he Rt. Hon. Peter Lilley MP
Secretary of State for Trade and Industry

CONFIDENTIAL

The Rt Hon Douglas Hurd CBE MP
Secretary of State for Foreign
and Commowealth Affairs
Foreign and Commonwealth Office
Downing Street
LONDON
SW1A 2AH

Department of Trade and Industry

1-19 Victoria Street
London SW1H 0ET

Direct Line
071-215 4440

DTI Enquiries
071-215 5000

25 June 1991

Dear Douglas

WEU STUDY ON SPACE

flag

Tom King minuted you on 19 June about the line to be taken by the UK on the space issues that will come up at the WEU Ministerial Meeting on 27 June.

My interest in this topic arises out of the relevance of the WEU proposals to the parallel European Space Agency (ESA) Earth Observation programme. The UK has recently concentrated its space efforts, through ESA, on the development and exploitation of satellite remote sensing. In particular, a leading role has been secured for UK industry in the development of synthetic aperture radar which is progressively improving the level of ground resolution, and which will enable us to view the surface of the earth through cloud and at night.

Our policy aim, therefore, must be to consolidate our position, and to maximise the value of our investment in ESA. I note that Tom King feels unable to support the proposed Satellite Centre. But this means that it becomes even more important for the UK to remain involved in the work of the WEU so that we can ensure that the WEU does not go its own way, but works closely with ESA, preferably by appointing ESA as its contractor.

In order to achieve this objective, I believe that we should take a positive line when the first stage of the feasibility study is discussed on 27 June. I confirm that DTI is prepare to meet the resulting cost of £600k. And I should like the British National Space Centre to be part of the UK team which contributes to the study.

I am copying this to OPD colleagues, Sir Percy Cradock and Sir Robin Butler.

Yours ever

Peter

AEROSPACE
Space Pol Pt 4

NDPM AT 216

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21 June 1991

PRIME MINISTER

FUNDING OF CIVIL SPACE PROGRAMMES

The Secretary of State for Trade and Industry kindly sent me a copy of his minute to you of 18 June. Flag A

2. I am content that DTI should take the lead on the development phase of civil space and that there should be collective Ministerial consideration, in EA(ST) if appropriate, before major programmes are agreed. This is a positive step forward.

3. I am copying this minute to the members of EA(ST) and to Sir Robin Butler.

WDPS.

PROFESSOR WILLIAM D P STEWART
Chief Scientific Adviser

2 (a-b)

FCS/91/149

SECRETARY OF STATE FOR DEFENCE

WEU Study on Space

1. Thank you for your minute of 19 June. I recognise the difficulty of finding the necessary £4.6m for a three year project which would have no immediate operational value to the United Kingdom. Nonetheless, as you recognise, our decision not to participate in the Satellite Centre will complicate life for other WEU partners, and we shall be blamed if the project founders as a result. The timing is awkward, given that we are arguing with the French and others in the IGC that we should put our defence eggs in the WEU rather than the EC basket, and that we should agree other operational roles for the WEU as a pre-condition for any reference to defence in the IGC Treaty.

2. It is important, therefore, that we announce our willingness to participate in the other part of the project, in which the UK interest is more tangible; I hope Peter Lilley can confirm this.

3. The presentation of these decisions will be important. I hope you could agree that we should say that our non-participation in the Satellite Centre is not an implied criticism of the venture, and we are content for it to proceed as a WEU project. But the Centre would give us no additional benefits, and therefore we cannot justify the expenditure at a time when we are cutting back the size of our armed forces.

/4.

AEROSPACE: Space Policy Pt 4

6

4. I agree that you should discuss this with M. Joxe at the Summit on 24 June, in order to prepare the French in advance of the Ministerial meeting on 27 June. It would help to soften the blow if you could indicate that HMG would be happy to give assistance to the Centre in a non-financial way, eg by seconding photo-interpreters or training personnel to the Centre. I know this is something that has been considered in the past.

5. I am copying this minute to OPD collegaues, Sir Percy Cradock and Sir Robin Butler.

DH.

(DOUGLAS HURD)

21 June 1991

Foreign and Commonwealth Office

CONFIDENTIAL

10 DOWNING STREET
LONDON SW1A 2AA

From the Principal Private Secretary

20 June 1991

Dear Martin,

FUNDING OF CIVIL SPACE PROGRAMMES

The Prime Minister has seen your Secretary of State's minute of 18 June and was content with the arrangements proposed for the allocation of responsibilities for space projects and for their funding.

I am copying this letter to the Private Secretaries to members of EA(ST), to Professor Stewart and to Sir Robin Butler.

Yours sincerely

Andrew Turnbull

(ANDREW TURNBULL)

Martin Stanley, Esq.,
Department of Trade and Industry.

CONFIDENTIAL

CEPC-

1a-c

As when replies received

SECRETARY OF STATE

FOREIGN SECRETARY

WEU STUDY ON SPACE

You will know that the WEU has been considering whether and how it might move towards the acquisition of a space-based surveillance capability. At the last WEU Ministerial in February, we agreed to take a decision on the way ahead at the next meeting. Thus, at the WEU Ministerial Council on 27 June, we shall be invited to participate in the next stage of this project: the establishment of an experimental Satellite Centre to carry out the joint training of photo-interpreters and the analysis of imagery; and the initiation of pre-feasibility studies to examine the merits of the WEU developing and deploying its own fleet of observation satellites.

2. Clearly, there are political attractions in joining a European endeavour of this kind. However, after careful consideration, I have had to conclude that in the light of competing priorities I cannot justify the costs to the Defence Budget of participation in the Centre. In the case of the studies on the satellites themselves, I understand that there is a UK industrial interest and that the DTI is considering a contribution towards these.

The WEU's proposals

3. The intention would be for the Satellite Centre to be established on 1 January 1992 with a small planning staff, and to start operations 6-12 months later after it had recruited further staff and found a suitable building. Its activities would be reviewed after three years' operations, when participants could reconsider their involvement. Over this experimental period, costs would be kept to a limit of 38.25 MECU (£26.9m), of which the UK share would be about £4.6m.

TEMPORARILY RETAINED

SECRETARY OF STATE

4. The pre-feasibility studies would determine the WEU's operational requirement; examine existing projects which might be drawn on in meeting that requirement; and, where no such projects were available, identify the need for further studies and their costs and timescales. Participating States would be invited to provide officials for the study team and to allocate 5 MECU (£3.5m) for studies in 1992/93. The UK share would be about £600,000.

The value of participation to the UK

5. The Satellite Centre would set out to use imagery to help verify arms control agreements and to help in other security and environmental tasks. The defence value of this would be limited especially in the short term. Imagery from current and proposed European commercial systems will be of low resolution over the next decade, and whilst some useful imagery will become available in 1994 from the French/Italian/Spanish HELIOS military intelligence satellite, the terms and conditions under which this would be available to the Centre have yet to be agreed.

More fundamentally, it is clear that the costs inherent in the project beyond the experimental stage would be very large indeed; the question is not whether we would withdraw, but when.

6. I have of course taken account of the likely reaction of our WEU partners, especially at such a sensitive time in the European

debate. They have more to gain than us from the project in military terms; and I understand that all are likely to agree (some with varying degrees of unease over the costs) to proceed to the next stage. They are therefore likely to be disappointed at our decision, not least since their share of the costs will increase markedly. A particular danger is an adverse French reaction. Pierre Joxe feels strongly that Europe's willingness to acquire its own military space capability is both militarily necessary and a measure of its political stature, and that indefinite total dependence on the US is humiliating. He has already pressed me hard on this issue. I understand that French officials have indicated informally that their Ministers are particularly keen that we should participate; and that, if we were to decide not to do so, they might well refuse to proceed within the WEU. We shall therefore have to explain our position with care on 27 June, and I intend to use the Anglo-French Summit on 24 June to prepare the way.

7. I understand that, for civil space policy and industrial reasons, the DTI judges it to be in our interest to participate in the pre-feasibility studies. On this basis, it would be very helpful to be able to indicate on 27 June our willingness to do so. If this is acceptable to our partners, it will, of course, soften the blow of our decision not to participate in the Centre.

8. No doubt Peter Lilley will wish to comment; and I should be grateful to know that you and OPD colleagues, to whom I am copying this minute, would be content with this approach. Copies of this minute go also to Sir Percy Cradock and Sir Robin Butler.

TK.

Ministry of Defence (T K)
19 June 1991

~~CCRU~~

Prime Minister
DTI are volunteering to be the lead department for the development phase of all space programmes, even where the ultimate user may be another department. This proposal is agreed with other depts and Treasury
AT 18/6

PRIME MINISTER

FUNDING OF CIVIL SPACE PROGRAMMES

In the light of the difficulties we encountered in mobilising the funding for UK participation in the European Space Agency's ERS-2 project, David Young undertook to review the arrangements for funding civil space programmes. I have inherited that task and now present my findings to you in your capacity as Chairman of EA(ST).

The issue can be summarised as follows. Access to space is no longer an end in itself: we put space to work in a variety of ways. The development of applications of space is a lengthy and costly business. Many of the ultimate users of space technologies like Earth Observation (uniquely capable of monitoring global environment and climate) will be Government Departments and other public bodies. The question we really failed to resolve in the ERS-2 case is whether potential "users" of space systems should make a greater financial contribution while such systems are under development.

My conlusions are set out in the attached paper. In essence, I feel that we should avoid fragmentation of responsibility for civil space developments and that a "lead" Department should be accountable politically and financially for each major project.

dti
the department for Enterprise

But, as the paper brings out, there are difficulties in assigning this responsibility during the early development phase. I am thus ready to accept that DTI, within which the Minister for Space is located, should generally take on this "lead" role. But I propose that decisions on entry into major development programmes should be a matter for collective decision, and that we should clearly anticipate the responsibilities which users will assume once the development phase is succeeded by an operational space system.

The proposed arrangements also have the following features:

(i) the user interest will be identified more clearly at the outset of a development programme;

(ii) customer/contractor principles will apply in toto once the operational phase is reached: and the users will be expected, where appropriate, to assume some financial responsibility during the demonstration stage at the end of the development phase;

(iii) on behalf of HMG as a whole, the British National Space Centre will advise on the development programmes which the UK should enter, alert potential users to the applications of such programmes, and act as project manager on behalf of the "lead" Department.

I commend these proposals to you and EA(ST) colleagues. I believe they would provide a better basis for decisions on future space projects.

I am copying this letter to the other members of EA(ST), to Professor Stewart and to Sir Robin Butler.

PBL

P B L
18 June 1991

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CONFIDENTIAL

FUNDING OF CIVIL SPACE PROGRAMMES

The Issue

Except for the pursuit of scientific research in space (a matter for SERC), British civil space policy is "utilitarian". We put space to work through unmanned satellite missions serving a variety of commercial and Government needs.

2 The UK pursues its space objectives primarily through the European Space Agency (ESA). ESA's programmes develop and demonstrate a variety of new applications of space. The UK's main contribution to ESA is in Earth Observation. Remote sensing satellites are uniquely capable of providing global monitoring of the Earth's climate and environment: and there are many potential commercial applications. But the UK also has an interest in ESA work on advanced satellite communications.

3 Virtually all of the UK's participation in these ESA programmes is funded by DTI: and the Minister for Space is located within DTI. DTI acts, de facto, as the UK's space paymaster for applications development in ESA.

4 But there will be numerous "users" of the systems thus developed. In particular, various Government Departments and Research Councils will be major users of the data from Earth Observation satellites. Should these potential "customers" at least share in the development costs?

Duration of European Space Agency Projects

5 It may take up to 15 years to bring space projects in ESA from first conception to final fruition. The "development phase" comprises:

(i) Pre-launch:
    (a) feasibility studies, project definition;
    (b) detailed design, development and construction of satellite and instruments: integration of payloads with platform;
(ii) Launch (commonly 6-10 years after (i)(b));
(iii) Post-launch; validation and demonstration (eg receipt over several years of data from a new Earth Observation satellite).

Operational Space Systems

6 ESA is an R&D organisation concerned with the development of space technologies. Once a particular technology has been proven, further exploitation will normally be left to commercial entities or to user bodies. We move to the "operational phase".

7 Bodies like EUTELSAT, INTELSAT, INMARSAT and EUMETSAT are funded by "users" (British Telecom International and the Meteorological Office in the UK case). They procure their satellites on the open market and operate on a self-funding basis. There are also purely commercial satellite-based systems (eg direct broadcasting).

8 In such operational systems, the customer has a clear idea of the service or data he expects to receive from space, and is confident that the space-based system can meet this need cost-effectively. The user (commercial or Government/public sector) should - and generally already does - expect to stand up to the full economic cost of relevant space missions. The normal customer/contractor relationship applies.

The Development Phase

9 How far can the same relationship be applied to the development phase?

10 There are difficulties. Our experience of major space projects is that, because of the long lead times involved, potential "customers" will not accept until late in the project cycle that the basis for an

operational system has been proven. "User" Departments and Research Councils resist becoming involved financially until a space system has been demonstrated and is yielding quality data. By that time, the point of natural transition to an operational system may well be quite close.

Project Proposals from the European Space Agency (ESA)

11 ESA's overall strategy is set out in a long-term plan which is reviewed, and up-dated as necessary, by Ministers from all ESA countries about every four years (last in 1987, next in 1991). The UK Minister (the Minister for Space) aims to influence this plan in a direction favourable to the UK's own space themes. In itself, the plan does not create financial commitments for Member States of ESA. Individual projects come forward for approval, from within the plan, as and when the time is ripe to begin them. By this time, initial studies will have been completed. Member States can choose, at the moment of the decision to proceed with detailed design and actual "build", whether or not to participate. If they do enter a project, they are committed for the remainder of the project (10 years or so). ESA has, nonetheless, a good record of completing projects within the originally envisaged costs.

Future UK Funding Arrangements: Proposed "Lead Department" Role

12 Some smaller development projects will be of direct interest to only one Department: in such cases, funding can be handled in the conventional way. But major projects will generally be inter-Departmental in scope. We need a mechanism for collective decision-taking on both the policy and funding aspects of such projects - without fragmenting project management.

13 It will not always be realistic to expect every Government Department with a potential "customer" interest, to take a financial stake ab initio. Political and financial responsibility for the development phase is best vested in a single Department - referred to henceforth as the "lead Department". But there may, as considered below, be some scope for contributions from users at the post-launch demonstration stage.

Mechanisms

14 The principal source of advice on ESA matters is the British National Space Centre (BNSC). The BNSC is a partnership comprising all Departments and Research Councils with space interests: DTI, MOD, FCO, DOE, SERC, NERC, Met Office and Cabinet Office. We propose to build on BNSC's inter-disciplinary expertise to determine the UK's overall interest in future space projects. A key role will fall to the BNSC Resources Board which is chaired by DTI and comprises representatives at Deputy Secretary level from all the partner Departments and Councils.

15 The Director General of BNSC will prepare for the Resources Board a technical and financial analysis of proposed major new ESA development projects. This analysis will include options for the level of UK participation. Where appropriate, the analysis may suggest that the UK should not take part. Within the limits of prudent speculation, the Director General's analysis will also trace the future path through the development phase and on into the prospective operational space system. This systematic analysis of development projects and of the interests of users will be an essential input to any ministerial decision, and for this purpose consultation with prospective users will be reinforced to assist the work of the Resources Board.

16 In this way, such potential users of future operational systems will be enabled to begin planning for the associated future financial commitments (including the significant costs associated with massive data flows from space). But the BNSC analysis should also specifically identify the scope for initial contributions from the eventual users during the post-launch demonstration stage - for instance when data was actually being received and disseminated from a demonstration mission. "Operational" instruments will also be carried on primarily "demonstration" satellites. Funding in this case should rest with the user.

17 It will be the role of the Resources Board to reach a view on each development project. If the view is favourable, the Board should:

(a) propose the appropriate level of UK participation;
(b) identify the "lead Department";
(c) recommend how funding during the post-launch demonstration stage might be shared with "users".

18 The "lead Department" role should, in most cases, fall to DTI - even for space applications which go beyond the DTI's mainstream concerns. The presence of the Minister for Space in DTI provides a natural focus for the political oversight of the UK's total involvement with ESA (including the political trade-offs which sometimes have to be made with other ESA Member States). There may, however, be occasions when, for some particular development project, another Department such as DOE should assume the "lead Department" role. The Resources Board should thus make recommendations on a case by case basis.

Consideration by Ministers

19 The Chairman will submit the Resources Board's findings to the Minister for Space. He will need first to consult the Treasury and to incorporate their views. Perspectives for funding must be clearly indicated. The Minister for Space will wish to form his own view on the project, calling for supplementary information if required from BNSC. Once he is satisfied, he will put his proposals to colleagues and invite them to give their support. It may be possible to do all this by correspondence. But otherwise, the proposals from the Minister for Space should be put to, and decisions reached after discussion in, E(ST).

20 The collective deliberations of Ministers must address the question of funding for the development phase. Agreement by Ministers to proceed with a project will be subject to satisfactory funding arrangements. These may be settled relatively easily if the designated "lead Department" can meet the requisite commitments from within its current PES allocation and undertake (subject to Treasury approval) to fund the continuing long-term commitment from a stable baseline beyond the PES period. Ministers will also take note of any agreed contribution at the demonstration stage from "user" Departments or Councils.

21 But the Minister for Space may have to report to colleagues that full funding has not been found for a development programme in which he recommends UK participation. In that eventuality, Ministers should discuss the merits of the case and decide jointly on the priority to be attached to the project. The scope for PES transfers - or contributions by PES abatement - in favour of the "lead Department" should be examined. Informed by the collective view (which would specifically be communicated to the Treasury), the Minister from the "lead Department" would bid in PES for any additional funding that might be required. But no decision on UK participation could be taken until proper provision had been made in PES - and until it was clear that the relevant commitments could be sustained beyond the PES period.

Project Management

22 The BNSC will provide technical and management oversight of UK participation in all development projects, on behalf of the "lead Department".

Recommendation

23 It is recommended that these arrangements should be put into effect for future decisions on UK participation in major development programmes. Such decisions may be required on the second and subsequent polar platform missions (including associated instrumentation and ground segment development), and - in due course - on the development on an international basis of a returnable space launcher.

May 1991

1JAN2291.HA2

Subject cc Master

KW

c/Foreign/Sharman

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

11 June 1991

HELEN SHARMAN

Helen Sharman came in to see the Prime Minister this evening to talk about her space mission. She seemed a thoroughly nice person, not at all critical of HMG and keen to put her experience to good use. In particular, she is keen to find an educational use for the film and photographs she took in space and also for the outcome of the scientific experiments which she conducted.

The Prime Minister thinks we should encourage this approach and perhaps cooperate in arranging some speaking engagements for her in schools.

Helen Sharman goes back to Moscow this Thursday for a few days. Thereafter she will be available until the autumn.

The Prime Minister would be grateful if the Secretary of State for Education could give this a fair wind and arrange for somebody to talk to Helen Sharman before she leaves on Thursday and see what can be fixed up. Sir Michael Marshall is taking a close interest. Another point of contact is Mr John Glover, Assistant General Manager of the Moscow Narodny Bank Limited which put up the money for the experiments conducted in space. His address and telephone number are:

Moscow Narodny Bank Limited
81 King William Street
London EC4P 4JS

Tel: 071-623 2066

I am copying this letter to Simon Gass (Foreign and Commonwealth Office) and Sue Bishop (Department of Trade and Industry).

J S WALL

John Ratcliff Esq
Department of Education and Science

PAPER C

BNSC

RESTRICTED Brief No ....

BRITISH NATIONAL SPACE CENTRE

Mr Arthur Pryor, Director General

Summary

BNSC coordinates UK civil space policy. The centrepiece of that policy is now Earth observation. Remote sensing by satellite will be a major future commercial activity, but satellites are also uniquely capable of providing global data on the Earth's environment and climate system. The Council of the European Space Agency will meet at Ministerial level in the Autumn of this year. This will be a major opportunity to set the course of the European Earth observation effort and the UK's role within it. Space is one of DTI's largest R&D programmes.

BNSC

The BNSC is an inter-departmental mechanism for the coordination of the UK civil space effort. Its partners are DTI, Cabinet Office, Department of the Environment, MOD, FCO, SERC and NERC. The Centre does not have its own staff and budget: it co-locates in London staff from the partner departments, and provides its "trading name" to space work at the Royal Aerospace Establishment (Farnborough) and at the Rutherford Appleton Laboratory of SERC (Didcot). The Director General and most of the London-based staff are part of DTI. The UK aims to exploit space for a variety of "utilitarian" purposes. BNSC's role is to advise Ministers about future space projects and to manage the existing space programme.

UK Space Policy

The UK conducts its civil space policy primarily through the European Space Agency (ESA). The BNSC manages the interface with ESA. We have adopted a selective approach, concentrating on Earth observation which is both a major industry of the future and an important source of environment and climate data. But we also have a significant stake in ESA's space science and advanced telecommunications programmes.

Other European countries have favoured a more ambitious space policy, including manned space flight. France, Germany and Italy are the moving forces behind ESA's programme to develop the man-rated Ariane-5 rocket and the Hermes space plane. These programmes (in which the UK is not participating) are now running into financial difficulties. There is growing political recognition that the UK's priorities were shrewdly chosen. The ESA Council will meet at Ministerial level this Autumn to take stock of the ESA programme and to chart the course for the next four years. This will be a major opportunity for the UK to consolidate its leading role in Earth observation - although to achieve this goal fully, some increase in space spending may need to be considered. The main concern of other ESA member states will be to see whether the European manned space programme can be maintained.

UK space spending is now running at about £150m per year (of which £90m comes from DTI). Major projects involving the UK include ESA's ERS-1 and ERS-2 remote sensing satellites (to be launched in 1991 and 1994 respectively) and the polar orbiting Earth observation satellite (the "polar platform") due to be launched in 1997 as part of Columbus (ESA's contribution to the international space station project). British Aerospace are developing the platform. The UK has funding for a 25% share in the programme to develop the instruments for the platform - so long as the right instruments are chosen.

The "users" of data from space will include several Government Departments. A clear distinction has been proposed between the <u>development</u> of space systems (generally funded by DTI) and the <u>operational use</u> of developed systems (to be funded by user Departments like DoE).

BNSC
17 May 1991

1/a Press Office

+/ Prime Minister

I have asked DTI for a fact sheet on our policy/expenditure on space issues -

Stephen 11/6

cc PC Backup

Foreign & Commonwealth Office

London SW1A 2AH

10 June 1991

Dear Stephen,

Anglo/Soviet Space Project: Call on the Prime Minister by Helen Sharman

Helen Sharman, the first British citizen to take part in a space flight, will be calling on the Prime Minister on 12 June. Background was set out in Christopher Prentice's letter of 15 May.

As explained in Christopher Prentice's letter, preparation for the Juno Mission in which she participated have been underway since 1989. They culminated in a flight launched on 18 May. The flight appears to have been a success. The Prime Minister sent a message of good wishes to Miss Sharman and her back up Major Mace shortly before the flight (I enclose a copy).

Miss Sharman will no doubt wish to give the Prime Minister an account of her experience - both the flight itself and the 18 months she spent in the Soviet Union preparing for it. The Prime Minister might wish to draw on the following points:

- Difficulties of training in Soviet Union? Language problems? Relationship with Soviet scientists running programme?

- Role of space in wider Soviet scientific/research effort? Amount of spin-off in other sectors? Implications of tighter Soviet budgetary controls for funding of space exploration?

- Role of women in Space? Her hopes as one of Britain's candidate European astronauts.

During Miss Sharman's flight, the Juno Mission Commander Lt Col A Artsebarskiy publicly disparaged the role of women in space, dismissing them as earth-bound creatures. The British National Space Centre have nevertheless nominated Miss Sharman as one of three British candidates for the European Space Agency's Astronaut Corps.

/The only

The only point of potential difficulty which may arise is the lack of British Government funding for the Juno Mission. We made it clear from the start that public funds would not be available. But, in the absence of private sector investment, this meant that planned UK experiments were not undertaken during the mission. There was some comment on this in British media coverage of the flight. If this is raised by Miss Sharman, the Prime Minister might reply that, while we greatly admire her courage and skill, we do not believe manned space missions should be a high priority for British Government spending. We concentrate our expenditure on more cost-effective activities which offer scope for commercial exploitation or environmental monitoring.

I am copying this letter to Martin Stanley (DTI).

Yours ever

(S L Gass)
Private Secretary

J S Wall Esq
10 Downing Street

~~Soviet~~ [illegible]

(14)

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CSB 2741,

REC[illegible]

17 MAY 1991

Foreign &
Commonwealth
Office

London SW1A 2AH

RESTRICTED

15 May 1991

Pa [illegible] 17/5

Dear Stephen,

Anglo-Soviet Space Project: Juno Mission: Message from the Prime Minister

Thank you for your letter of 14 May, enclosing a letter from the Soviet Ambassador. The Department already had a submission in hand, recommending a message to the astronauts from the Prime Minister. I enclose the draft text. If the Prime Minister agrees, we will telegraph this to Moscow to ensure that it reaches the astronauts on time, and is issued to the UK press there. I also enclose a short draft Private Secretary reply to Zamyatin.

Subject to a final medical check on 17 May, a British citizen, Miss Helen Sharman, expects to take part in a joint Anglo-Soviet space project, the Juno Mission, in which she will fly with a Soviet crew to the MIR space station on 18 May. If for any reason Miss Sharman is unable to take part in the mission, her place will be taken by Major Timothy Mace. Whichever it is, he or she will be the first Briton in space.

The project has received no financial support from either HMG or British industry and HM Ambassador Moscow, who expects an invitation to the launch, has expressed concern (Moscow telno 870, copy attached) at the risk of adverse media coverage for the UK. He has sugessted that we promote a positive press line.

The Juno Mission was announced on 29 June 1989 and Miss Sharman and Major Mace began their training in the USSR on 1 December 1989.

Juno is the first Anglo-Soviet space mission and, apart from the flight to the MIR space station, will consist of a number of experiments including human physiology, liquid culture of cells and micro-organisms, materials science and fluid physics, and protein crystallisation. Miss Sharman, in space, and Major Mace, on the ground, will take part in these experiments.

UK policy on space, both nationally and through the European Space Agency, has been to promote activities which offer scope for commercial exploitation, such as Earth

/Observation

Observation, or environmental monitoring. We do not contribute financially to manned space projects, which we do not regard as cost-effective. This was made clear consistently to the original private sector organisers of Juno.

The Government nevertheless gave the project its blessing because the organisers' original concept of a commercial venture, if successful, would have vindicated our policy preference that investment in space should be industry-led and would have provided a high profile example of practical cooperation with the USSR.

Unfortunately, after early expressions of interest, investment confidence by British industry in the commercial value of the project collapsed and offers of financial support were withdrawn. Eventually all the financial support came from the Moscow Narodny Bank.

The lack of British funding has meant that the major UK experiments were abandoned and the scientific programme conducted by Miss Sharman and Major Mace will now be confined to Soviet experiments. The confusion over funding has been well-publicised and HMA Moscow is rightly concerned that the Mission, and HMG's position, may be trivialised or even ridiculed in the media.

But it will nevertheless be the British space hero or heroine who will capture the headlines, and it would go some way to dampening possible criticism of HMG's unwillingness to contribute financially to the mission if their personal achievement could be recognised. Miss Sharman and Major Mace met Mrs Thatcher before they left for the Soviet Union, and the Princess Royal met them at Star City during her tour of the Soviet Union last year. The Prime Minister may therefore wish to send Miss Sharman and Major Mace his personal congratulations and wishes for a successful mission. We are also proposing separately that the Princess Royal sends a personal message to Miss Sharman.

Yours ever,

Christopher Prentice.

(C N R Prentice)
Private Secretary

J S Wall Esq
10 Downing Street

DRAFT MESSAGE FROM THE PRIME MINISTER

TO: Miss Helen Sharman and Major Timothy Mace

I have been following with keen interest your progress as you have both trained and prepared for your flight with the Juno Mission. On the eve of the launch, I send you my very best wishes for success in your mission, whether as the first Briton in space or working in support on the ground. Our thoughts will be with you and your Soviet colleagues in your historic venture.

Good luck and God speed.

TINABK

✓ qF

PRIME MINISTER

MESSAGE FROM DOMINIC MORRIS

Miss Sharman (the astronaut) and team have landed safely in space. The press office have put out on your behalf the following:

> Relieved and delighted that Miss Sharman and the others in the crew have landed safely. Looks forward to seeing her and her team mates at a reception shortly to hear first hand about their experiences.

PAM

26.5.91

TW

A: SPACE

10 DOWNING STREET
LONDON SW1A 2AA

MESSAGE FROM THE PRIME MINISTER TO MISS HELEN SHARMAN AND MAJOR TIMOTHY MACE

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Good luck and God speed.

17 May 1991

TW

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

16 May 1991

ANGLO-SOVIET SPACE PROJECT

Christopher Prentice wrote to me yesterday with a draft message from the Prime Minister to the British participants in the Anglo-Soviet space project.

The Prime Minister was happy with the message and I should be grateful if you could arrange its despatch.

(J. S. WALL)

Simon Gass, Esq.,
Foreign and Commonwealth Office.

Tw

A. ZAMYATIN
cc FCO

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

16 May 1991

Thank you for your letter of 14 May to the Prime Minister, drawing attention to the launch on 18 May of the joint Anglo-Soviet Space Mission. We were already giving thought to a message from the Prime Minister to the astronauts. This has now been sent to our Embassy in Moscow for delivery. I am glad to enclose a copy. Thank you for your initiative.

(J. S. WALL)

His Excellency Mr. Leonid M. Zamyatin

Tw

R15/5

Foreign &
Commonwealth
Office

London SW1A 2AH

RESTRICTED

15 May 1991

Content

Prime Minister ①

Draft message to the first Briton in space. Looks ok. See X and Y overleaf for background.

Stephen
15/v

Dear Stephen,

Anglo-Soviet Space Project: Juno Mission: Message from the Prime Minister

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Yours ever,

Christopher Prentice.

(C N R Prentice)
<u>Private Secretary</u>

J S Wall Esq
10 Downing Street

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TO: Miss Helen Sharman and Major Timothy Mace

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Good luck and God speed.

TINABK

DRAFT LETTER FROM PS/NO 10

TO: His Excellency
Mr Leonid M Zamyatin
Ambassador of the Union of Soviet Socialist Republics
13 Kensington Palace Gardens
London W8 4QX

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FILE

qr?

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

14 May 1991

Dear Mr Gass

I enclose a copy of a letter the Prime Minister has received from Mr. L. Zamyatin, the USSR Ambassador, concerning the launch of the spaceship with the first British Astronaut on board.

I should be grateful for **urgent advice** please.

I am copying this letter to Jane Binstead (Ministry of Defence) and to John Ratcliff (Department of Education and Science).

Knipe
pp (J. S. WALL)

S. L. Gass, Esq.,
Foreign and Commonwealth Office.

R1415

ПОСОЛЬСТВО
СОЮЗА СОВЕТСКИХ
СОЦИАЛИСТИЧЕСКИХ РЕСПУБЛИК

FCO for urgent advice
cc. MOD/DES

The Rt.Hon. John Major, MP
Prime Minister
10 Downing Street
London

14 May 1991

Dear Prime Minister,

I have much pleasure to inform you that on the 18th of May a launch of the spaceship with the first British Astronaut on board is to take place. Miss Helen Sharman is likely to be chosen out of the two present candidates for the flight. Please find the enclosed details of the launch and the whole mission, which might be of interest for you and your scientific advisers.

In our view it is a historical event for your country as well as for the British-Soviet relations. The road to space is never easy. That is why we would like to hope that you will find it possible on the Day of the launching to convey to the astronauts your regards and some encouraging words.

Yours sincerely,

L. Zamyatin

L.ZAMYATIN
USSR Ambassador

MEDIA INFORMATION

ALL ENQUIRIES TO: **PARTNERS IN PR** 14-16 GREAT PULTENEY STREET

LONDON W1R 3DG TELEPHONE: 071 439 0245 FACSIMILE 071 287 9395

THE JUNO MISSION 1991

THE

FIRST

ANGLO-SOVIET

SPACE

MISSION

MEDIA INFORMATION PACK

THE JUNO MISSION

18 - 26 MAY 1991

UK CONTACTS FOR DURATION OF THE MISSION

Partners in PR - 071 439 0245

Joanna Dodd and Belinda Lawson

THE JUNO MISSION

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13 MAY 1991

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Kitcont.001

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THE JUNO MISSION

TIMETABLE OF MAIN MISSION EVENTS
(based on launch date of 18 May 1991)

MAY		
4	Crews leave for Baikonur	
15 - 18	Media visit to Baikonur	
16	Media interview with Crews in Baikonur	
17	State Commission give decision on Crew for flight	
18	Launch day	
	T-07.45	Final medical examination
	T-06.45	Breakfast
	T-05.45	Crew No 1 and Crew No 2 leave accommodation in separate buses
	T-05.05	Arrive at Pre-flight Centre
	T-05.00	Crews put on spacesuits Pressure checks made
	T-03.45	Meeting with families/friends
	T-03.15	Official farewell at Pre-flight Centre
	T-03.10	Depart for Launch Pad
	T-03.00	Crew boards rocket
	T-02.15	Begin pre-flight checks
	T-00.20	Switch on-board power
	T-00.00	Launch
	T+00.08	Soyuz separates from launch rocket
19	Continue in orbit, in preparation for docking	
20	Docking with MIR (17.20 Moscow time, 15.20 UK time)	
23	Press conference from MIR	
26	Return crew leaves MIR	
26	Crew recovery (helicopter)	
26	Return to Star City	
27*	Press conference: Star City - upon return	
31*	Press conference: Star City - after medical	
JUNE		
5*	Moscow press conference	
8/9/10*	London press conference	

* Exact time and date to be confirmed, depending on medical condition of the crew.

Supplied by NPO Energiya

1.2 FLIGHT PROGRAMME AND RECOVERY PROCEDURE

Cargo spacecraft with the crew, which includes the British Astronaut researcher, will lift-off from the space-launch complex at Baikonur and will enter an intermediate orbit.

During the first three flight orbits, the spacecraft's systems are closely monitored. The Crew take off the spacesuits, which they were wearing during the flight into orbit. During the fourth and fifth orbits, manoeuvres take place which move the spacecraft into a higher orbit. Travelling in this orbit, it catches up with the station. The period from the seventh to the eleventh orbits is allocated for the Crew's rest period.

The second rendezvous manoeuvre is accomplished during the seventeenth and eighteenth orbits. Afterwards, the crew prepares for the rendezvous and docking of the spacecraft with the MIR station.

On the thirty-third orbit, the third manoeuvre is accomplished bringing the spacecraft to a distance from the station from which the rendezvous is accomplished automatically using the automatic guidance equipment.

After checking the state of on-board spacecraft and station systems, the Crew follow the ground command to switch into the mode for automatic mooring. Mooring and docking with the station are accomplished during the thirty-fourth orbit. Rendezvous and docking are monitored both by the crew and the flight control personnel.

After the docking and checking the spacecraft connection for leaks, the astronauts move from the spacecraft into the station.

The flight takes five and a half days. After entering the station, the Crew carry out repair work on the spacecraft. Afterwards, they have their first supper together in orbit, and move the cargo into the station. During the first day of the joint flight, the

Soviet-British crew begin the on-board experimental programme with the experiment "Vita". The experiments are carried out during the whole of the first day (the set-up for the "Electrotopograph" is done towards the end of the day). At the same time, the main crew and the newly arrived Soviet cosmonauts prepare for the change of command duties at the station, as well as the unloading of the cargo in the SOYUZ TM.

During the third day, the crew continue to perform experiments. They also take part in a press conference.

On the fourth day, the British astronaut starts the ECG recording. After breakfast the experiments continue. Experiments on geophysics are carried out towards the end of the day.

During the fifth day the Crew are busy packing the equipment to be returned to Earth and completing their experiments. The sixth day sees the preparation for the descent and undocking of the SOYUZ TM and the return to Earth.

RECOVERY OF THE FLIGHT CREW

The equipment and staff of the search and recovery operation are positioned in advance in the spacecraft landing area. The helicopters and aircrafts, carrying out radio and video observations, on duty in assigned zones along the landing route, locate the recoverable capsule by its radio bearing. They track it until landing, while maintaining two-way communication with the crew.

The recoverable capsule landing takes place in the USSR. The recoverable capsule is designed for ground landing, but it is also equipped with special systems assuring Crew's safety in case of a water landing.

At the landing site, the Crew is met by a specially trained search group comprising technical experts and doctors. The search group is provided with all the necessary means to ensure rapid arrival at the landing site and provision of the necessary help to the Crew.

On board the search planes there are parachute landing groups, comprising doctors and rescue parties, which, if necessary, can make a parachute landing to the recoverable capsule. Apart from airplanes and helicopters, special cross-country vehicles are used for the search and rescue. The team includes technical experts and doctors who are qualified parachute jumpers and scuba-divers. The doctors in the group are provided with necessary medical equipment and medicines that can be used in the field and in all weather conditions.

After landing and leaving the capsule, the Crew open the hatch and prepare the containers carrying scientific equipment and video and photographic films for transportation. In case of emergency, they can use the on-board emergency stock comprising warm clothing, life jackets and boats, signalling and radio communication equipment, food, drinking water and other necessities. After landing and leaving the recoverable capsule, the crew take off the space suits and put on airborne uniforms. They then undergo after-flight medical examination at the landing site.

If the recoverable capsule lands on water, the Crew take off their space suits, put on special suits, prepare life jackets and boats and establish a radio link with the rescue service. They leave the recoverable capsule with the assistance of the arrived search group.

Reports from the search and rescue site are transmitted to the Mission Control Centre. They cover the process of search, finding the recoverable capsule and evacuation of the crew from the recoverable capsule and from the landing (or water landing) site.

125750
MDHIAN 3151

Mr Hayter
We spoke. Pl. pursue with Sov D, BNSC, etc. We ought to lead.
22/4

RESTRICTED
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TELNO 870
OF 190930Z APRIL 91

FOLLOWING FOR LYNE, SOVIET DEPT

JUNO SPACE PROJECT

1. THE LAUNCH IS NOW DUE TO TAKE PLACE ON 18 MAY. I AM EXPECTING AN INVITATION TO OBSERVE IT.

2. MEANWHILE, BOTH SUNYAEV, PROFESSOR AT THE INSTITUTE OF SPACE RESEARCH AND PROJECT LEADER FOR THE ANGLOA/SOVIET COLLABORATION ON SPECTRUM X, AND PROFESSOR POUNDS FROM THE UNIVERSITY OF LEICESTER, HAVE EXPRESSED CONSIDERABLE DISQUIET TO ME ABOUT THE LIKELY PUBLIC IMPACT OF THE LAUNCH. THEY SAY THAT THE FAILURE OF THE BRITISH GOVERNMENT AND BRITISH INDUSTRY TO SUPPORT THE PROJECT MEANS THAT HELEN SHARMAN WILL HAVE NO SERIOUS SCIENTIFIC WORK TO DO DURING HER FLIGHT. THERE IS THEREFORE A RISK THAT THE MEDIA WILL TREAT HER FLIGHT AS MERE SPACE TOURISM, AND THAT THE BRITISH SIDE IN PARTICULAR WILL BE SUBJECT TO PUBLIC CRITICISM, PERHAPS EVEN RIDICULE.

3. SUNYAEV POINTED OUT THAT THE MIR SPACE STATION IN WHICH HELEN WILL BE SPENDING A WEEK IS CARRYING A BRITISH TTM TELESCOPE WHICH HAS BEEN PERFORMING IMPECCABLY FOR 4 YEARS AND IS A GREAT TRIBUTE TO BRITISH SCIENCE AND INDUSTRY. HE REGARDS THE COLLABORATION ON SPECTRUM X ALSO AS A MODEL OF ITS KIND. HE BELIEVES THAT THESE TWO PROJECTS SHOULD BE PLAYED UP AT THE SAME TIME AS THE JUNO MISSION GOES INTO SPACE, IN ORDER TO EMPHASISE THAT ANGLO/SOVIET SPACE COOPERATION IS SUBSTANTIAL, EFFECTIVE AND HAS A WORTHWHILE FUTURE.

4. SUNYAEV CLAIMED, HOWEVER, THAT HE HAD BEEN advised? ? BY A BRITISH COUNTERPART THAT IT WOULD BE EMBARRASSING TO THE BRITISH AUTHORITIES IF THE PERFORMANCE OF THE TELESCOPE WAS EMPHASISED, APPARENTLY BECAUSE OF THE EMBARRASSMENT WHICH THE AUTHORITIES IN BRITAIN FEEL OVER THEIR FAILURE TO SUPPORT JUNO. HE REFUSED TO TELL ME WHO HAD EXPRESSED THESE VIEWS OR EVEN WHAT ORGANISATION HE CAME FROM.

4. SUNYAEV MAY BE EXAGGERATING. BUT THERE IS OBVIOUSLY SOME RISK THAT THE PUBLIC PRESENTATION OF THE MISSION WILL MISFIRE. I DO

NOT KNOW WHO IS RESPONSIBLE FOR MANAGING IT, OR FOR ENSURING THAT THE EVENT IS PROPERLY COVERED BY THE BRITISH MEDIA. GIVEN THE PRIVATE NATURE OF THE JUNO MISSION, IT IS I SUPPOSE POSSIBLE THAT NOBODY IN GOVERNMENT HAS TAKEN A GRIP. WE ARE ASKING THE BRITISH MEDIA IN MOSCOW WHAT THEY ARE PROPOSING TO DO. BUT BRITISH GOVERNMENT SOURCES IN LONDON ARE BOUND TO BE ASKED FOR THEIR VIEWS AS THE DATE APPROACHES. YOU MIGHT SEE HOW BEST A COHERENT AND POSITIVE LINE CAN BE PUT TOGETHER AND PROMOTED. PROFESSOR POUNDS, PHYSICS DEPARTMENT, UNIVERSITY OF LEICESTER AND DR MICHAEL CRUISE, RUTHERFORD APPLETON LABORATORY, WILL NO DOUBT BE HAPPY TO GIVE ANY TECHNICAL ADVICE NEEDED.

BRAITHWAITE

YYYY

DISTRIBUTION 46

MAIN 46

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DOINT DIRECTORATE
DTI

NNNN

~~cc~~ PU

RESTRICTED

LORD PRIVY SEAL

PRIVY COUNCIL OFFICE
WHITEHALL, LONDON SW1A 2AT

4 February 1991

Dear Peter

Cab Prop

SPACE BILL

You wrote to John MacGregor on 28 December seeking colleagues' approval to legislate to implement the provisions of the Inter-governmental Agreement (IGA) on the Internationally Permanently Manned Civil Space Station which must be ratified by the end of 1992.

Douglas Hurd, Kenneth Baker and Tom King wrote supporting the proposal. I understand that the minor points raised by Douglas and Tom are being pursued at official level and that Home Office officials will be kept in touch with future developments. No other colleague has commented. You may take it, therefore, that you have colleagues' agreement to your policy proposals.

You have bid for a place for this Bill in the 1991/92 legislative programme. As you know, FLG Committee are currently drawing up proposals for 1991/92 programme for submission to the Cabinet. There can be no assumption, therefore, that a Space Bill will be granted a place.

I am copying this letter to the Prime Minister, members of HS and OPD Committees and to Sir Robin Butler and First Parliamentary Counsel.

Yours

WADDINGTON

The Rt Hon Peter Lilley MP

AEROSPACE: Space Policy
Pt 4

cc/PU

FCS/91/018

SECRETARY OF STATE FOR TRADE AND INDUSTRY

Proposal for a Space Bill

– flag

1. You wrote to the Lord President on 28 December 1990 seeking colleagues' policy approval for a Space Bill.

2. In general I am content with the provisions of the Bill as set out in the memorandum. My officials will be in touch with yours on one or two small elements in the Intergovernmental Agreement which do not appear to be addressed directly in the Memorandum enclosed with your letter.

3. I am copying this minute to the Prime Minister, the Lord President and to members of HS and OPD Committees.

(DOUGLAS HURD)

Foreign and Commonwealth Office

23 January 1991

AEROSPACE: Policy pt 4

ccPC
PU

MINISTRY OF DEFENCE
WHITEHALL LONDON SW1A 2HB
Telephone 071-21 82111/3

SECRETARY OF STATE

MO 21/1D

16 January 1991

Dear Peter,

SPACE BILL

Kap

Thank you for the opportunity to comment on your letter to John MacGregor concerning your proposals for a Space Bill to be included in the 1991/92 Parliamentary Session.

I have no comments of a specifically Defence nature, and I am content with the proposed changes in legislation referred to in paragraph 2 of the Annex to the Memorandum to the Home and Social Affairs Committee. However, perhaps I could draw your attention to what is, I believe, a minor point concerning an agreement in 1967 entitled 'Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space'. Article VIII of this Treaty deals with the question of jurisdiction and control of objects launched into Space but did not, I understand, anticipate the advent of joint ventures. Article 21 of the 1988 Inter-Governmental Agreement (IGA) also deals with the extension of jurisdiction and takes account of the collaborative project element. It will of course be necessary to ensure that any proposed UK legislation to meet the requirements of the IGA does not conflict with the 1967 Treaty.

The Rt Hon Peter Lilley
Secretary of State for Trade and Industry

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SECRETARY OF STATE

I am copying this letter to the Prime Minister and HS and OPD Committees.

Tom King

SPACE

Policy

Pt 4

CCPO

HOME SECRETARY

QUEEN ANNE'S GATE LONDON SW1H 9AT

11 January 1991

Dear John,

SPACE BILL

I have seen a copy of Peter Lilley's letter -HAP to you of 28 December, and am writing to record my agreement to his proposals for legislation. I have a particular interest in the Bill given my responsibilities for criminal jurisdiction and my officials have already been in consultation with his on these aspects. I should be grateful if Peter's official could continue to consult mine on any further developments and in particular on the detailed terms of the Bill.

I am copying this letter to Peter, and to recipients of his letter to you.

Yours ever

Kenneth.

The Rt Hon John MacGregor, OBE, MP
Lord President of the Council
Privy Council Office
Whitehall
London SW1

AEROSPACE - Space policy pt 4

010

[illegible]

dti
the department for Enterprise

The Rt. Hon. Peter Lilley MP
Secretary of State for Trade and Industry

Rt Hon John MacGregor OBE MP
Lord President of the Council
Privy Council Office
Whitehall
LONDON
SW1A 2AT

[illegible]

Department of Trade and Industry

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London SW1H 0ET

Enquiries
071-215 5000

Telex 8811074/5 DTHQ G
Fax 071-222 2629

Direct line 071-215 5623
Our ref PE12196
Your ref
Date 28 December 1990

Dear Lord President

SPACE BILL

I am writing to seek H Committee's policy approval for a Space Bill, which is included in my proposals for legislation in the 1991/92 Session. At the same time I am also seeking clearance from OD Committee who have an interest because of the international aspect.

The case for the Bill is set out in the attached Memorandum. You will see that its provisions are non-controversial and stem from an international agreement signed by HMG in 1988 in the knowledge that complementary domestic legislation would be necessary prior to ratification which is required by the end of 1992. The proposed Bill is short and suitable for the Second Reading Committee procedure. In view of these factors I hope that policy approval for the Bill can be cleared by correspondence.

I am copying this letter together with the Memorandum to the Prime Minister and to members of HS and OPD Committees.

Yours sincerely
Martin Stanley

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

MEMORANDUM TO HOME AND SOCIAL AFFAIRS COMMITTEE

PROPOSED SPACE BILL

The Issue

The need for domestic legislation to implement certain provisions of the Intergovernmental Agreement (IGA) on the International Permanently Manned Civil Space Station prior to ratification by December 1992.

Recommendation

2. That the Committee approve the policy of a short Space Bill to provide the domestic legislation necessary to implement the provisions of the IGA prior to ratification by the end of 1992.

Timing

3. Because the deadline for the ratification of the IGA is end 1992, the Secretary of State for Trade and Industry has included the Bill in his bid for legislation in the 1991/2 programme. Policy clearance is therefore required in early 1991.

Background

4. The Intergovernmental Agreement between the US, member states of the European Space Agency (ESA), Japan and Canada was signed by the UK and

other parties in 1988. It provides for cooperation in the design, development, operation and utilisation of a permanently manned civil space station, planned to operate from the late 1990s. While the space station project is subject to close Congressional scrutiny and is now under a tighter budget regime than originally planned, work on the project is going ahead in the US, although some rescheduling and redesign is likely.

5. The IGA includes provisions on intellectual property rights (IPR) in respect of space station elements registered by ESA, the cross-waiver of liability by partner states in the event of claims for damages arising from activities carried out under the Agreement, the facilitation of the movement of persons, goods and data needed to implement the Agreement and the exercise of criminal jurisdiction over space station elements and personnel. Legal advice is that to safeguard UK interests domestic legislation is required to implement the provisions in respect of IPR and criminal jurisdiction. The legislative requirements are described in rather more detail in the Annex to this Memorandum. The other matters can if necessary, be dealt with through administrative actions.

Argument

6. We signed the IGA in 1988 in the knowledge that domestic legislation would be needed to implement some of its provisions. We have committed £150m to participation in the Columbus programme, ESA's contribution to the space station project. Our involvement is directed primarily at the development of a large earth observation satellite in polar orbit (the

polar platform). The polar platform, for which British Aerospace is positioned to act prime contractor, is central to our priority space objective of exploiting earth observation techniques for commercial and environmental purposes.

7. The UK participated fully in negotiating the terms of the Agreement. It lays down the essential ground rules for this highly ambitious collaborative programme. Given the high cost of space activity, international collaboration is the only practicable way forward if the potential of space as a tool - including in this case support for our environmental policy - is to be realised. Without the necessary legislation UK interests would be damaged. Legal advice is that such legislation should be in place prior to ratification. If the UK does not ratify the Agreement by the due date, we would risk opening the IGA to re-negotiation and casting doubt on our commitment to the Columbus programme and the future of the polar platform. This would be a serious blow to our national space policy, be politically highly embarrassing and weaken our credibility as a partner in international space activity.

Expenditure and manpower implications

8. The Bill would have no implications for government expenditure and manpower over and above the £150 million referred to in paragraph 6.

ANNEX

SUMMARY OF PROVISIONS IN THE INTERGOVERNMENTAL AGREEMENT REQUIRING UK LEGISLATION

1. In the following cases, UK interests would be disadvantaged in the absence of legislation:

- ESA member states may extend their national jurisdiction for the purpose of patent infringement to activities in or on ESA

- registered space station flight elements. Otherwise such infringements would be deemed to have occurred and be subject only to jurisdiction in the territory where the element is registered, most likely to be France;

- any participating state may exercise criminal jurisdiction over the flight elements they provide and over their own national personnel on the space station. If the UK does not extend its criminal jurisdiction, British elements and personnel could be subject to US jurisdiction.

2. Following the extension of national jurisdiction changes in the existing patent legislation would be required if the UK were to avoid the risk of being in breach of the Agreement. These would cover:

- a requirement that when claiming damages for patent infringement on an ESA - registered element, a person may not recover damages in more than one ESA member state. Where different patent owners in different ESA member states file actions relating to the same infringement, damages may only be recovered in one state by one of the owners;

- the mutual recognition between ESA member states of mutually enforceable intellectual property right (IPR) licences for activities in or on ESA - registered elements;

- rules regarding the transit of patented ESA - registered articles between member states;

COPY: DUTY CLERK
PRIME MINISTER'S
OFFICE

CABINET OFFICE
70 Whitehall London SW1A 2AS Telephone ~~01~~ 071-270-0320

Qd. 0632
File ref: ST 140/3
ST 187/1

Dr R F Coleman
Chief Engineer and Scientist
Department of Trade and Industry
Room 708
1 - 19 Victoria St
London SW1

13 December 1990

Dear Ron

ACCESS TO PUBLICLY FUNDED DATA

A number of broader, yet related, issues have been exposed by the UK's need to establish a policy position within the European Space Agency (ESA) on the international exchange of satellite-derived data for global environmental research (GER). These were discussed briefly at the meeting of E(ST)(O) held on 30 November. It was agreed that the Cabinet Office would convene interested parties to consider the wider implications for other publicly funded monitoring and survey programmes of the line adopted earlier in the year by the BNSC Resources Board - that satellite-derived GER data should be made freely available to bona fide researchers.

2. The purpose of this letter therefore is both to commission a preliminary information gathering exercise and to invite Departments to indicate their interest in attending a future meeting.

3. The BNSC Resources Board's approach is not prima facie consistent to the Government's present general policy on the exploitation of data from publicly funded programmes, which emphasises a market approach. However, it is one which the UK will probably have to adopt if ESA is to

secure a reciprocal data exchange agreement with the United States, which would view such data as a public good, and make an exchange agreement conditional upon the data being made available to researchers at the marginal cost of reproduction.

4. No doubt researchers will welcome the proposed approach on GER data, which it could be argued is a special case. But, more general concern has been expressed about access to other publicly funded monitoring and survey programmes (e.g. Ordnance Survey, BGS, meteorological as opposed to climatic data) where the present market-led approach may be denying researchers access to data, thereby constraining research and limiting the national benefit from major public investments.

5. It seems opportune to reconsider the position of bona fide researchers' access to data, without undermining the general premise that those wishing to acquire proprietary rights over data from public funded programmes should pay a price which reflects the full costs of acquisition, processing and dissemination.

6. In advance of a meeting to discuss these issues, it would be useful to have an idea of current practice. I would therefore be most grateful if, <u>by the end of January</u>, Departments and Research Councils could provide an indication of their policy on charging for the exploitation and dissemination of data, both generally and as it applies to bona fide researchers. We have for example the impression that there may often be educational discounts.

7. I am sending copies of this letter to those on the attached list who have an obvious interest. I am also sending copies on the EA(ST)(O) circulation. I should be grateful if all recipients would let Miss Temple here (270 0206) know if they would wish to attend or be represented at the meeting I will be chairing. Nil returns not required.

C R WALKER

Distribution List

Mr J M M Vereker
Dr P J Bunyan
Mr E B C Osmotherly
Dr D J Fisk
Dr W D Evans
Mr J H Barnes
Mr G L Reid
Dr G G Pope
Mr A Bennett
Mr Monger
Mr Whippman
Professor Sir David Phillips
Professor Sir Mark Richmond
Professor Newby
Professor Knill
Professor Blundell
Mr A Pryor
Dr J Houghton
Sir David Plastow

PRIME MINISTER

PHOTOCALL WITH BRITISH ASTRONAUT CANDIDATES

The two British astronaut candidates for the Juno Mission, the first Anglo-Soviet space venture, Army Major Tim Mace and Miss Helen Sharman, a Sheffield University Chemistry graduate, will be coming tomorrow morning at 09.30 for a photocall. There were originally nearly 13,000 applicants, who have been whittled down since the first announcement in June, to Major Mace and Miss Sharman. After a further 18 months of training in the Soviet Union, one of these two will eventually go into space, joining two Soviet cosmanauts aboard the Mir space station 250 miles above the earth.

Major Mace and Miss Sharman will be accompanied by Mr Peter Graham, the Mission Director, and Air Vice Marshall Peter Howard, in charge of the Mission's medical team. Sir Geoffrey Pattie may also attend.

Mr Whittingdale and I will be in attendance.

Content for the photocall to be in the Green Room?

Yes MT

Peter Bean

PETER BEAN
Press Office

28 November 1989

27/11

WED 29 NOV : 09.15 Photocall

PRIME MINISTER

1 Geoffrey Pattie has written to ask whether you would like to meet the two astronauts who will be on the Juno mission with the Soviets. The DTI thinks this is a good idea for a photo call, and so do I.

2 The only difficulty is about dates because the candidates are in Russia at present. The photo call would have to take place on either 27 or 28 November. I have not had the chance to consult Amanda as to whether it is possible on these days.

Happy that I consult Amanda to find a date? - ✓ reasonably

ML-B

possible now

WEDS 29 NOV 9.15 am.

MARK LENNOX-BOYD
20 November 1989

dti
the department for Enterprise

The Rt. Hon. Nicholas Ridley MP
Secretary of State for Trade and Industry

Department of
Trade and Industry

1-19 Victoria Street
London SW1H 0ET

Enquiries
01-215 5000

Telex 8811074/5 DTHQ G
Fax 01-222 2629

Miss Caroline Slocock
The Private Secretary
The Prime Minister
10 Downing Street
London
SW1A 2AA

Direct line 01 215 5623
Our ref JW5ADZ
Your ref
Date November 1989

SIR GEOFFREY PATTIE MP: PROPOSED PHOTOCALL BY THE PRIME MINISTER WITH BRITISH ASTRONAUT CANDIDATES

You asked for advice on the proposal by Sir Geoffrey Pattie that the Prime Minister should have a photocall with the British candidates to become astronauts on the Juno mission with the Soviets. Our advice would be strongly that she should if at all possible. It is a good example of our co-operation with the Soviet Union and the project has made its own way to success with commercial sponsorship and so whether Government should have provided some funding for it should cease to be an issue: indeed we can praise it, as an example of Ministers' philosophies in action. Nevertheless it may be necessary to guard against some carping criticism that having refused to fund the Juno project the PM is willing enough to join in an excellent 'good news' story. It should be possible to counter this however by some fairly upbeat praise of this successful co-operation with the Soviet Union which we welcome, of the spirit of adventure and courage of the astronauts, and of the commercial sponsorship as an excellent example of the Government's approach in successful operation. But it might also be possible to arrange the photocall at the House with some bipartisan presence, for example with Michael Marshall MP and Lord Shackleton also.

With the successful taking up of sponsorship slots in the Juno project we think the underpinning role of the Moscow Narodny Bank ceases to be a problem. We are providing scientific and technical help, on for example the choice of experiments and how to work them up, but not as noted above any funding. This may give rise to a passing problem over publicity arrangements if the sponsors wish to give particular privileges to a single television company, as they did when the astronauts were recently at the Royal Aerospace Establishment and we just alert you to this.

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

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

9th November 1989

Dear Mark,

Thank you very much for arranging for the Prime Minister to meet Christine Keeble. It was a very good occasion — it seemed to give pleasure all round.

You will recall the Prime Minister asking me about the progress of astronaut selection for the Juno mission.

The position is that the final four fly to Moscow on Sunday next for further visits and will return to the UK on Nov 24th That weekend we will announce the two who will return to the USSR for the 18 month training.

As I told you it looks highly likely that Helen Sharman the Sheffield University Chemistry graduate will be one of the two but that information is given in confidence

27th.
28th.

The two will return to Moscow on Nov 29th Media coverage is already intense. It seemed to me that a 'good luck' photo opportunity could be a possibility with the Prime Minister.

If DTI advice was sought they

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

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

would warn of the dangers of the PM appearing to endorse the project. I do not feel that the PM would be doing other than wishing good fortune to two young people from our country with whom many other young people will soon seek to identify.

I will be happy to make any arrangements you wish.

Yours ever

CC V/x

SECRETARY OF STATE FOR EDUCATION AND SCIENCE

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

NBPM

Rrc6
27/9

The Rt Hon Norman Lamont MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
LONDON SW1

25 SEP 1989

Dear Norman,

In your letter of 14 September to Nicholas Ridley you said that your agreement to his proposal that the DTI should negotiate within ESA on the basis that the UK would support the proposed ERS-2 satellite, in advance of the PES outcome, was conditional on my confirming that the DES contribution would be forthcoming, whatever the outcome of the PES discussions.

I agree with Nicholas that we must start serious discussions with ESA now, if we are to use our support for the ERS-2 to strengthen our hand over the Polar Platform negotiations. However, as you know from our meeting on 15 September, there are acute pressures on the Science Budget at this time, and I have to say that I cannot find the funds required from savings in the Science baseline, or indeed elsewhere in my programme. I am therefore making this one of my highest priority bids in our current discussions.

I am copying this letter to the Prime Minister, to other members of E(ST), and to Sir Robin Butler and John Fairclough.

Yours ever,

AEROSPACE: Space Policy Pt4.

cc ~~PC~~

Foreign and Commonwealth Office
London SW1A 2AH

From The Minister of State

15 September 1989

Dear Alan,

Rop

Thank you for your letter of 12 September to Ivon Brabazon. I am replying as I have taken over responsibility for space in the FCO from Simon Glenarthur.

I endorse your decision to agree to the request from the Project Juno organisation to use the RAF Institute of Aviation Medicine for the medical tests involved in the final selection process.

As you say, there would undoubtedly be considerable media interest in the medical tests and your decision to give the press access to the IAM seems also to be the right one. To do otherwise would give credence to some in the media's belief that the Government is anti-space.

Similarly, I support your decision to release on special unpaid leave the 3 Service personnel and the Civil Servant who have volunteered for selection as one of the astronauts. In terms of Anglo-Soviet relations we should, as far as possible, take a positive attitude towards such a high profile initiative as Project JUNO, whilst making it clear that there can be no question of Government funding for the Project.

I am copying this reply to the other recipients of your letter.

The Hon William Waldegrave

Alan Clark MP
Minister of State on Defence Procurement
Ministry of Defence
Whitehall
LONDON SW1A 2MB

cc: The Rt Hon Margaret Thatcher MP
Eric Forth (DTI)
Robert Jackson (DES)

JE2AMP

AEROSPACE: Space Pr4

cst.ps/3nl14.9/lets

UNCLASSIFIED

~~ccPU~~

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG

NBPM
PTA6
15/9

The Rt Hon Nicholas Ridley MP
Secretary of State for Trade and Industry
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H OET

14 September 1989

Dear Nick

1989 PUBLIC EXPENDITURE SURVEY: ERS-2

Ros

Thank you for your letter which arrived here on 31 August. I understand your concern to be in a position to announce a UK decision to participate in ERS-2 at the October Council meeting of the European Space Agency, and to use this prospect in order to lever a decision by ESA in favour of the BAe platform for the Columbus project. It is helpful that you are prepared to absorb the costs not covered by other departments - save those which Kenneth Baker indicated that DES would be willing to meet - by offering reductions in your other cash limited programmes; and of course we will shortly be discussing your PES requirements across the board.

Ideally, we ought not to move to a decision on ERS-2 until PES discussions are completed, particularly in what promises to be a very difficult PES round. But on the basis that you are prepared to meet the additional expenditure of £3.8, £4.5, £2.2 million from within your programme as reduced by the amounts which I understand you are prepared to offer, and also on the basis that John MacGregor can confirm that the DES contribution will be forthcoming, whatever the outcome of his PES discussions, I would be content for you to give an advance indication to the ESA that you will be giving formal agreement at the October Council meeting.

We will need to do further work on the general issue of bringing together policy and funding decisions in the area of interdepartmental space projects, and I have asked my officials to pursue this with yours.

I am copying this letter to the Prime Minister, to other members of E(ST), and to Sir Robin Butler and John Fairclough.

NORMAN LAMONT

AEROSPACE: Space Pt4

File
EAM/A: Juno

cc PC

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

SIR ROBIN BUTLER

BRITISH-SOVIET SPACE PROJECT

You told me that Sir Geoffrey Pattie had asked whether the Prime Minister might be prepared to take part in a video endorsement of the British-Soviet Space Project 'Juno'. I have sought the advice of DTI who recommend against the Prime Minister's involvement at this stage, and the Prime Minister has herself endorsed this. I should be grateful if you could explain to Sir Geoffrey that the Government has consistently underlined the private sector-led nature of this project. The Prime Minister does not rule out a message at some appropriate time but feels that to send one now would risk misunderstanding about the project's relationship with Government.

CHARLES POWELL
12 September 1989

010

MINISTRY OF DEFENCE
WHITEHALL LONDON SW1A 2HB

Telephone 01-218 6621 (Direct Dialling)
01-218 9000 (Switchboard)

Minister of State
for Defence Procurement

D/MIN(DP)/AC/3/6

12th September 1989

CDP 12/9

Dear Ivar

WILL REQUEST IF REQUIRED

PROJECT JUNO

There was correspondence earlier this year between Robert Atkins (DTI), Simon Glenarthur (FCO), David Trefgarne (MOD) and Robert Jackson (DES) concerning Project Juno - the plan for a British astronaut to go on a mission on the Soviet space station. The correspondence rests with David Trefgarne's letter of 23 February to Robert Atkins. It was concluded at the time that HMG should not give anything that could be construed as official Ministerial support for the project. However, the possibility of the project team making use of the Royal Air Force Institute of Aviation Medicine (IAM) at Farnborough for the medical tests involved in the selection process was left open until such time as a formal request was made.

In the last few weeks it has been established that three serving Officers and one Ministry of Defence Civil Servant have volunteered of their own volition for selection as one of the astronauts, and have reached the group of 35 candidates for final selection. At this stage each candidate is required to obtain written confirmation from his employer that the candidate, if selected to be part of the team of four liable for astronaut training, is available to take up employment with the Project JUNO company. Officials have studied the various options and have proposed that the candidates may be released on unpaid leave. This would mean that the Service personnel would not be entitled to pay or allowances from the MOD during the period of

The Rt Hon Lord Brabazon of Tara

absence; that the period of leave would not count as service for the purposes of promotion, increments of pay, retired pay, pensions or gratuity; and that any injuries sustained during the period of unpaid leave would not be attributable to the Service. The Civil Servant candidate would also be released on unpaid leave; the absence would count for seniority, but, as with the Service candidates, it would not be reckonable for incremental or pension purposes. I am advised that there should, in principle, be no security problems if one of our people is selected.

As far as the IAM is concerned, a firm request has been made by the Project JUNO organisers for the facilities to be used by Project JUNO for the final selection testing for the prospective British astronauts, on repayment terms. There would undoubtedly be considerable media interest in the medical tests, and it is therefore proposed to allow the Project Juno team to give the press access to the IAM, subject to detailed arrangements being agreed by the Commandant.

I am disposed to agree to the two proposals above. I believe that to refuse permission for individuals to participate could be seen as churlish; if we refused access to the IAM, the tests would have to be conducted abroad (probably France or the Soviet Union). I take the view that the arrangements above would demonstrate that we welcome the opportunity this offers to the individuals concerned and that we wish the project every success in the context of developing Anglo-Soviet relations, but would preserve the line that the Service and Civil Servant volunteers applied as private individuals and are not sponsored by the MOD.

I trust that these arrangements can be agreed by you. The candidates are required to produce written confirmation from their employers by 15 September, so I would be grateful for your early response. As with the earlier correspondence, I am copying this to Eric Forth (DTI), and Robert Jackson (DES); also, given the interest this might spark in the media in the near future and her forthcoming visit to Moscow, to the Prime Minister.

ALAN CLARK

CDP

dti
the department for Enterprise

RESTRICTED

The Rt. Hon. Nicholas Ridley MP
Secretary of State for Trade and Industry

Charles Powell Esq
Private Secretary
to the Prime Minister
10 Downing Street
London SW1A OAA

Department of Trade and Industry

1-19 Victoria Street
London SW1H 0ET

Enquiries
01-215 5000
Telex 8811074/5 DTHQ G
Fax 01-222 2629

Direct line 01 215 5621
Our ref JW1AAX
Your ref
Date 11 September 1989

Dear Charles

BRITISH-SOVIET SPACE PROJECT "JUNO" - APPROACH FROM SIR GEOFFREY PATTIE

You told me of Sir Geoffrey Pattie's request that the Prime Minister provide some form of video endorsement to Project Juno before her departure for the Soviet Union. As you assumed, Sir Geoffrey Pattie has taken on the Chairmanship of the UK end of this project to put a British astronaut in space as part of the Russian Space Programme.

Our informal inquiries suggest that the project is so far proceeding on course. However we see no reason to recommend a Prime Ministerial endorsement. We have consistently stressed the private sector-led nature of this project - which the Government welcomes but in which it has no direct involvement, and for which it has no financial responsibility.

The Government has already demonstrated its sympathy for the project's objectives through Lord Young's presence at the press launch in Moscow in June. There may at a later stage be a time when a Prime Ministerial message would be appropriate; but we feel that use of the Prime Minister to promote the venture now would give the wrong message about its relationship with Government, and could risk misunderstanding if all were not to go smoothly in the future.

I am sending a copy of this letter to Stephen Wall (Foreign and Commonwealth Office).

Yours ever

Neil Thornton
(Private Secretary)

Recycled Paper

①

E.R.

PRIME MINISTER

BRITISH ASTRONAUT

Geoffrey Pattie has been in touch about the project sponsored by the Moscow Narodny Bank to select and train a British astronaut. He wonders whether you would record a short piece for a promotional film for the project, preferably this week.

I have consulted the Department of Trade and Industry who think it would be a mistake for the Government to get too close to the project. The whole point is that it should be non-Governmental. David Young attended the Press launch, and this got it off to a good start. They do not think it would be right for you to be more closely associated with it at this stage. Anyway, this week is exceptionally busy for you.

Agree to accept DTI advice and not take part in the film? If so, I will explain to Geoffrey Pattie.

C.D.P.

Agree not to do it

not

CDP

11 September, 1989.

JD66

CF - pc. ccPU

RPM6
11/9

dti
the department for Enterprise

The Rt. Hon. Nicholas Ridley MP
Secretary of State for Trade and Industry

Prime Minister 2

Good news. After some discussion the funding for GRS-2 looks guaranteed.

CAG
8/9

Department of Trade and Industry

1-19 Victoria Street
London SW1H 0ET

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01-215 5000

Telex 8811074/5 DTHQ G
Fax 01-222 2629

The Rt Hon Norman Lamont MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
LONDON SW1

Direct line 215 5422
Our ref PE5AAE
Your ref
Date 30 August 1989

Dear Norman

GLOBAL CLIMATE: ERS-2

John Major wrote to David Young about ERS-2 on 12 July.

I am concerned that interested colleagues may well not feel able to provide funds to meet the balance of the cost of ERS-2. More important still, I am concerned that John's proposals mean that we shall not know whether the UK is able to participate in ERS-2 until after the Survey discussions are concluded. This may not be until after the ESA Council in October, when decisions on ERS-2 are to be taken: meanwhile we are losing the opportunity to improve the prospects for the selection of a BAe polar platform for Columbus because we cannot let our ESA partners know that we will commit ourselves to ERS-2 if the BAe platform is chosen.

At the Prime Minister's meeting on 19 April, there was a clear consensus in favour of UK participation in ERS-2. This being so, I think that we should seek to avoid a prolonged and complex negotiation in which all parties haggle over Departmental contributions, whilst the UK loses opportunities at ESA. I have therefore decided that I am prepared to find the balance of the cost of ERS-2 - i.e. the rest of the cost except for whatever is settled in relation to Kenneth Baker's helpful offer of a contribution to cover the ATSR instrument, which my officials will need to discuss further with his. This implies an increase in my space baseline for the PES years of a further £3.8m, £4.5m and £2.2m.

David Young made it clear in his minute to the Prime Minister of 1 February that he did not have headroom for expenditure on ERS-2 within the budget allocated by DTI to the British National Space Centre. He proposed to cover the increase in the DTI space budget by transferring funds from other DTI cash-limited programmes, recognising that this would require some re-ordering of departmental priorities, and he reaffirmed this position in his bidding letter to you of 17 May. It was thus very surprising to see that in John Major's response to David's bidding letter, dated 19 July, he expressed the view that David should find the funds for the 50% share in ERS-2 (the original offer) through a re-ordering of priorities within the space programme. I have to stress once again that this is not possible: and the additional ERS-2 bid which I am now putting forward will likewise have to be accommodated by further reductions, in my other cash-limited programmes. John proposed a number of such reductions, and we shall need to discuss these in our bilateral. especially publicity

As a matter of tactics, we need to establish our position on ERS-2 well before the crucial ESA Council in October. On any realistic view, the UK is going to have to participate in ERS-2, given its environment dimension. Since my bid for ERS-2 is closely related to the other components of the my bid over baseline, these components of my bid over baseline, these components need to be considered together with ERS-2. I shall therefore be pressing you for agreement to all elements of my bid for space, subject to agreement on offsetting savings on other cash-limited budgets, at our bilateral on 18 September, so that I can authorise BNSC immediately afterwards to indicate support for ERS-2 subject to a satisfactory UK outcome on the choice of platform for Columbus. The actual commitment to ERS-2 would take place at the October ESA Council itself.

I am copying this letter to the Prime Minister, to other members of E(ST), to Sir Robin Butler and to John Fairclough.

Yours ever
Nicholas

ESPU

SECRETARY OF STATE FOR EDUCATION AND SCIENCE

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

MAPM

BRC
10/8

The Rt Hon Nicholas Ridley MP
Secretary of State for Trade and Industry
Department of Trade and Industry
1 - 19 Victoria Street
LONDON SW1H 0ET

Dear Nicholas,

8 8 89

ERS-2 SATELLITE

✓ will request if required.

In his letter of 22 June, your predecessor asked whether DES was able to find the cost of the advanced ATSR instrument (AATSR) on the proposed ERS-2 satellite as part of the proposed overall UK contribution of just under £60m towards the cost of the satellite.

Kenneth Baker is on record as having offered to contribute in a modest way to the ERS-2 satellite and I agree that, in principle, the most appropriate way would be to organise the supply of the AATSR. However, I can see no prospect of finding as much as £13.5M in total, or the specific sums quoted by David Young over the period 1989/90 to 1992/93.

I understand that the historic cost of the ATSR on the ERS-1 satellite, updated to 1989/89 prices, was about £6m, and that that figure included contributions from other countries. On the basis of the total cash flow for UK participation in ERS-2 and a realistic estimate of inflation of the £6m cost of the ATSR, I have included a bid for £2m pa in this year's PES. Since other priorities do not allow for reallocation from elsewhere, a total of £6m should be regarded as a maximum contribution over these three years.

In order for me to pursue this PES bid vigorously, the first priority must be to obtain a realistic estimate of the cost of constructing the AATSR, and to explore the possibility of obtaining other partners to help with the funding of this instrument, as was the case for ESR-1. It will also be essential to examine the implications of the proposed increase in the AATSR specification over the instrument on the ERS-1. My officials are in contact with yours and I understand that it will be some time before a firm estimate for the cost of constructing the AATSR is received from British Aerospace. We are also exploring the possibility of RAL performing the same coordinating role for the construction of the AATSR as it has done for the instrument for the ERS-1.

Yours ever,

John

- COPIES GO TO :-

① PRIME MINISTER

② MEMBERS OF E(ST)

③ SIR ROBIN BUTLER

④ JOHN FAIRCLOUGH

✓Me KK
cc PU

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

24 July 1989

Dear Neil,

SPACE, FUTURE ROLE OF BRITISH NATIONAL SPACE CENTRE

The Prime Minister was grateful for your Secretary of State's minute of 19 July. She has also seen the Chief Scientific Adviser's minute of 21 July. The Prime Minister is fully content with the proposals.

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

Yours,
Paul

(PAUL GRAY)

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

CONFIDENTIAL

CONFIDENTIAL

PRIME MINISTER

FUTURE ROLE OF BRITISH NATIONAL SPACE CENTRE

A year ago you reluctantly agreed that the British National Space Centre (BNSC) should continue as a co-ordinator for the civil space interests of the different Government Departments, rather than being absorbed within the DTI. But you asked for its future to be rigorously reviewed after 12 months.

Lord Young's minute (Flag A) responds to that remit. He argues that:

- BNSC has proved its worth;
- in large part because of its efforts good progress has been made in securing the recognition of the importance of Earth Observation (e.g. for environmental modelling) and the low importance of manned space flight programmes;
- none of the alternatives to the BNSC, e.g. abolition, Agency status or a separate identity with its own budget, offer any advantage over the present arrangements;
- the present structure of BNSC should therefore be continued but with two improvements:
    - continue the process of focusing the management structure to reflect the concern with space applications rather than space as an end in itself;
    - expand the BNSC Resources Board to include the DOE and John Fairclough;
- the process of moving towards a tauter customer/contractor relationship should be continued, drawing on advice from the expanded Resources Board.

This approach is supported both by John Fairclough (Flag B) and by George Guise (Flag C). George argues that the fears he expressed last year that the BNSC would become a lobbying focus have not been borne out.

Content to agree Lord Young's proposals?

Yes mt

PRG.

PAUL GRAY

21 July 1989

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C

PRIME MINISTER 21 July 1989

BNSC

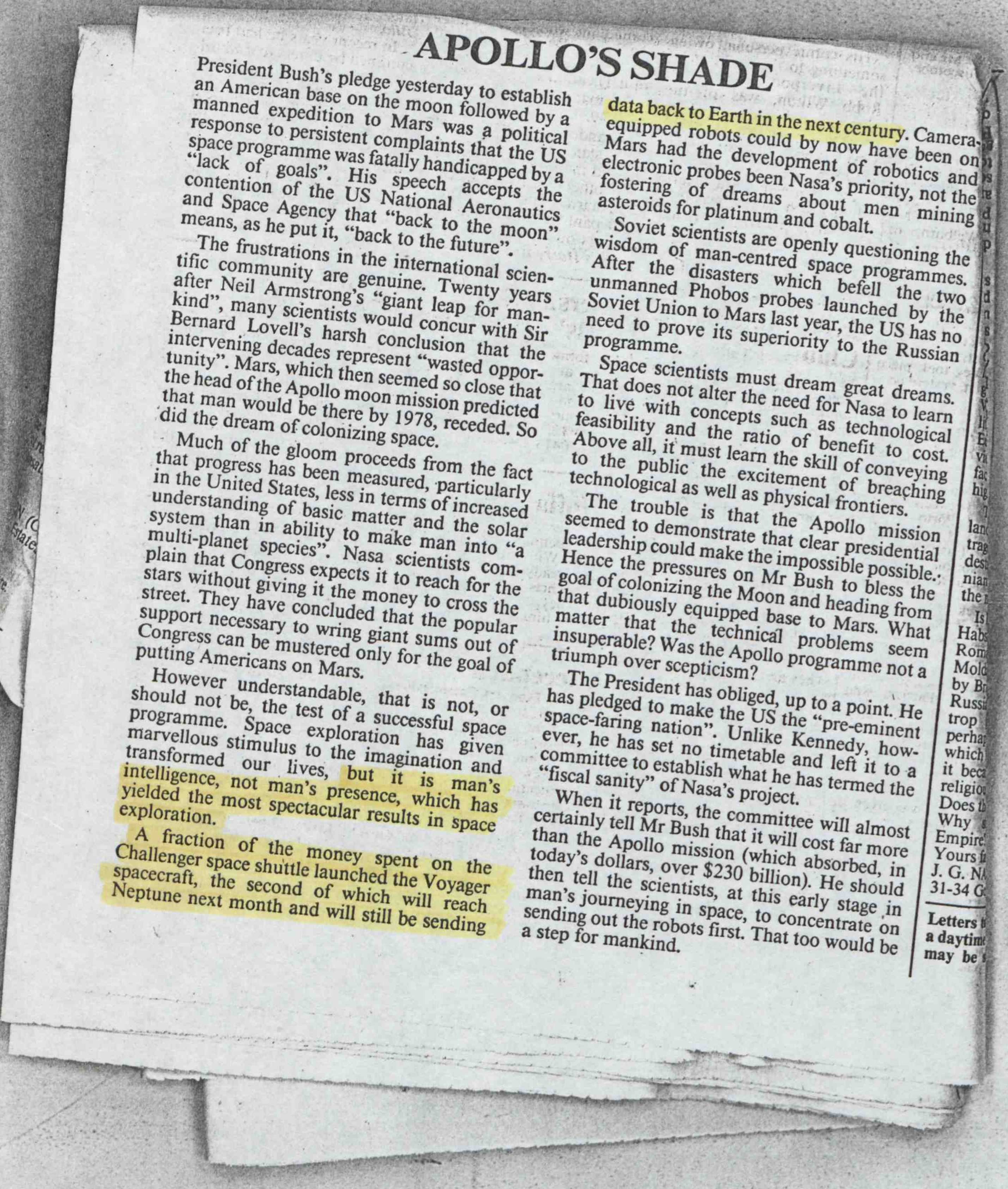
I agree that we should leave BNSC alone for the moment. The fears which I expressed last year, that we were leaving a structure in place which had already embarrassed the Government by lobbying for huge expenditures, has not been borne out. BNSC is well controlled by its present Director General, Arthur Pryor, a DTI Under Secretary and well fulfils its inter-departmental co-ordinating role.

If the people involved were different, these dangers might resurface. Currently however, BNSC is representing Britain's position effectively at ESA and has efficiently renegotiated us into the Polar platform. It is an organisation which is supporting Government policy by pushing for maximum industrial funding of space application and concentrating our national efforts on value for money rather than man-in-space type 'gloire' projects. It is reassuring that the DTI proposes to house it physically within their own premises rather than letting it remain a separate organisation on Millbank.

The UK's low key space strategy which emphasises the commercial and Government uses of space rather than pandering to the exhortations of the space lobby appears to be gaining international support. See for instance today's Times leader attached on George Bush's proposals for Mars. Fairclough's emphasis is therefore right, that BNSC's purpose is to represent departmental and industrial customers rather than aerospace producers. This point should be emphasised in replying to Lord Young.

GEORGE GUISE

Times 21/7



APOLLO'S SHADE

President Bush's pledge yesterday to establish an American base on the moon followed by a manned expedition to Mars was a political response to persistent complaints that the US space programme was fatally handicapped by a "lack of goals". His speech accepts the contention of the US National Aeronautics and Space Agency that "back to the moon" means, as he put it, "back to the future".

The frustrations in the international scientific community are genuine. Twenty years after Neil Armstrong's "giant leap for mankind", many scientists would concur with Sir Bernard Lovell's harsh conclusion that the intervening decades represent "wasted opportunity". Mars, which then seemed so close that the head of the Apollo moon mission predicted that man would be there by 1978, receded. So did the dream of colonizing space.

Much of the gloom proceeds from the fact that progress has been measured, particularly in the United States, less in terms of increased understanding of basic matter and the solar system than in ability to make man into "a multi-planet species". Nasa scientists complain that Congress expects it to reach for the stars without giving it the money to cross the street. They have concluded that the popular support necessary to wring giant sums out of Congress can be mustered only for the goal of putting Americans on Mars.

However understandable, that is not, or should not be, the test of a successful space programme. Space exploration has given marvellous stimulus to the imagination and transformed our lives, but it is man's intelligence, not man's presence, which has yielded the most spectacular results in space exploration.

A fraction of the money spent on the Challenger space shuttle launched the Voyager spacecraft, the second of which will reach Neptune next month and will still be sending data back to Earth in the next century. Camera-equipped robots could by now have been on Mars had the development of robotics and electronic probes been Nasa's priority, not the fostering of dreams about men mining asteroids for platinum and cobalt.

Soviet scientists are openly questioning the wisdom of man-centred space programmes. After the disasters which befell the two unmanned Phobos probes launched by the Soviet Union to Mars last year, the US has no need to prove its superiority to the Russian programme.

Space scientists must dream great dreams. That does not alter the need for Nasa to learn to live with concepts such as technological feasibility and the ratio of benefit to cost. Above all, it must learn the skill of conveying to the public the excitement of breaching technological as well as physical frontiers.

The trouble is that the Apollo mission seemed to demonstrate that clear presidential leadership could make the impossible possible. Hence the pressures on Mr Bush to bless the goal of colonizing the Moon and heading from that dubiously equipped base to Mars. What matter that the technical problems seem insuperable? Was the Apollo programme not a triumph over scepticism?

The President has obliged, up to a point. He has pledged to make the US the "pre-eminent space-faring nation". Unlike Kennedy, however, he has set no timetable and left it to a committee to establish what he has termed the "fiscal sanity" of Nasa's project.

When it reports, the committee will almost certainly tell Mr Bush that it will cost far more than the Apollo mission (which absorbed, in today's dollars, over $230 billion). He should then tell the scientists, at this early stage in man's journeying in space, to concentrate on sending out the robots first. That too would be a step for mankind.

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CONFIDENTIAL

PRIME MINISTER   21 July 1989

SPACE: FUTURE ROLE OF BNSC

I have seen a copy of the Secretary of State for Trade and Industry's minute to you of 19 July.

2. In my opinion the proposals he makes involve a more fundamental change than he takes credit for. I strongly support the model underlying his proposals, whereby BNSC would act on behalf of a number of different Departmental customers - and hopefully private sector industry as well. This is at the heart of his observation that space is a means to a variety of ends. So far DTI has been responsible for all the applications programmes of ESA but only in order to demonstrate the commercial potential of the technologies. For the future, as the technologies mature, he wants to consider vesting financial responsibility in those Departments, including DTI, with a direct customer interest in the application, as DOE for example has in earth observation satellites. BNSC would then provide a central focus for dealing with the European Space Agency on the range of projects to which the UK wished to commit itself. In essence, this is the concept which my predecessor advocated when he proposed the establishment of the BNSC.

3. The financial arrangements to which Lord Young refers in the penultimate paragraph of his minute are at the heart of this proposition. He says that further time should be devoted to reflecting on the issues involved. I am sure that is right. Since the decision on this is so central to the role and structure of the BNSC, I do not think it would make sense to try and settle the question of its future independently of the financial issues. The

immediate decision could then be left over for the time being. I would be very ready to help in these further discussions if the Secretary of State would find it helpful.

4. I am sending copies to members of E(ST) and to Sir Robin Butler.

JWF

JOHN W FAIRCLOUGH
Chief Scientific Adviser

dti
the department for Enterprise

A cc P.U

JF portanewais

CONFIDENTIAL

PRIME MINISTER

SPACE: FUTURE ROLE OF BRITISH NATIONAL SPACE CENTRE

Summary

This minute reviews UK civil space policy and the role of the BNSC, 12 months on from the statement of our strategy in our reply to the report produced by the House of Lords Select Committee on Science and Technology last July. As you requested then, I have looked critically at whether BNSC should continue as at present constituted, against the alternatives of abolition, separate identity (with its own budget) and agency status. This minute invites you to endorse my conclusion that BNSC has proved its worth over the last year, and proposes a couple of improvements in its management structure and supervisory arrangements.

Detail

2 You will recall that we took a number of decisions last year about UK civil space policy and about the role of the BNSC. In July that year, we issued a clear statement of our space strategy in our reply to the report produced by the House of Lords Select Committee on Science and Technology. We presented a cogent programme which involved a selective approach to space projects and a keen desire to secure value for money in the projects we decided to enter. We declined to follow the other members of the European Space Agency into the massive expenditure associated with the pursuit of a European capability for manned space flight. We identified Earth Observation as the next area of space activity likely to yield substantial industrial and commercial benefits: and we looked forward to UK participation in

the polar platform element of the European Space Agency's Columbus programmes as a major opportunity to secure our aims in this area.

3 We also specified the role which the British National Space Centre would play in advising on and implementing space policy and in acting as a co-ordinating focus for the civil space interests of DTI, MOD, FCO and DES (through SERC and NERC). Responsibility for funding was left with BNSC's constituent departments. But the newly appointed Director General (one of my own staff) was given a clear remit to seek the most cost-effective use of resources committed to civil space and to engage the business community, including space users, in the development of space activities. You were initially unsure about the need for BNSC in the light of the earlier decision to abandon the Space Plan. You felt the Centre's work could be absorbed within the DTI. But it was finally agreed to give BNSC a year to prove its worth. You asked for its future to be rigorously reviewed after 12 months.

4 It has fallen to me to conduct this review and to present my conclusions to you. Account has been taken of the views of all BNSC partner Departments and Councils, of the Treasury and of John Fairclough. But we also need to look at the extent to which we are achieving the objectives we set ourselves in our space policy.

5 I believe the decisions we announced a year ago are now beginning to bear fruit. Our ESA partners are showing misgivings about the escalating cost and technical difficulty of the European manned space flight programmes. There is also a greater recognition of the potential importance of Earth Observation. The UK is well-placed with the industrial leadership of the Columbus polar platform. (But we still need

to secure a platform design and a choice of instruments best fitted to commercialisation: I am making PES bids to help achieve this.) Nationally, we have placed the contract for the construction and commissioning of the Earth Observation Data Centre with a consortium of British firms: we expect this facility to be operated and run by the private sector within five years or so. We have defused a potentially-damaging dispute over the funding of ESA's space science programme (Horizon 2000) and achieved an independent review of the management of this programme. We hope this review will provide a more solid foundation for the future of ESA's space science activity.

6 It has also become clear during the past year that observations from space will have an important role to play in the politically-sensitive area of climate modelling and environmental monitoring. The Columbus polar platform (and the other comparable platforms to be operated by the US and Japan) will offer major opportunities. And, in the interim period, we hope to be able to support ESA's ERS-2 satellite which will provide continuity of data right through into the polar platform era.

7 BNSC deserves much of the credit for what has been achieved. We have moved beyond the phase when space policy was driven by technology (funded by DTI) and by space science (funded by DES through SERC). Space has become a vehicle to serve many goals. BNSC is well placed to bring a multi-disciplinary perspective to bear on the subject, but it will need to draw on the full range of relevant interests.

8 There is also now a better understanding in Parliament and in the media of what we are trying to achieve in our space policy. The work which DTI and FCO Ministers have done,

assisted by BNSC, in explaining our civil space aims has helped to make the space lobby less vocal and negative (although it has certainly not been silenced).

9 The alternatives to BNSC are still those set out in Kenneth Clarke's minute to you of 21 July 1988: abolition; separate identity; or agency status.

10 I do not see abolition and a reversion to the status quo ante, as offering us any advantage. We would have to replace BNSC with some other form of inter-departmental consultation, both to secure effective implementation of programmes and to coordinate the UK position in ESA. There would be no saving in resources since the staff who now make up BNSC were previously employed on this work within the constituent departments and would merely revert to that pattern. And coordination by committee would, in view of the increasing number of "players" in space, be laborious and time consuming. I also believe that abolition would provoke a needless political row by stimulating the space lobby to renew their strident criticisms of Government.

11 The idea of giving BNSC a separate identity, with its own budget, can, in my view be dismissed. This was what the space plan contemplated, and we have moved in a different direction.

12 Agency status for BNSC looks impractical. The BNSC both advises on, and implements, policy. A number of BNSC activities are undertaken at the Royal Aerospace Establishment, Farnborough (itself shortly to become an agency) and at SERC's Rutherford Appleton Laboratory. It would make no sense to brigade these activities into a separate space agency. And, crucially, the greater part of our space programme is already carried out through the European Space Agency.

13 I thus conclude that we should continue to build on the present structure of BNSC. But I can see two areas where improvements are desirable.

14 Firstly, I should like the management structure of BNSC to reflect the reality that we are concerned with the applications of space and not merely with space as an end in itself. There should be, within BNSC, a clear focus for identifiable functions where space technology has a role to play - eg environment data measurement, commercial Earth Observation, telecommunications etc. This process (already initiated in the reorganisation which the current Director General has introduced) would demonstrate BNSC's role in coordinating the space systems required to support these various functions. It would also facilitate BNSC's task in moulding various facets of the UK interest into a coherent position within the European Space Agency. The active cooperation of departments other than the DTI will be required.

15 Here I come to my second recommendation. I believe the BNSC Resources Board (the group of officials at Deputy Secretary level, chaired by DTI, which supervises the BNSC's activities) should be expanded to include the Department of the Environment and the Chief Scientific Adviser, John Fairclough. In this way, the growing number of "players" in space can be reflected in BNSC's management' and John Fairclough can give an indiction of where the collective interests of Government may lie in relation to particular projects. I hope that staff from departments like DOE will be made available to BNSC, as circumstances require, to give the Centre the capacity to deal comprehensively with HMG's interests in space.

dti
the department for Enterprise

16 You did have some concerns over the BNSC's separate location. The lease on its present accommodation in London expires next year and I propose to relocate it in one of the DTI's other buildings.

17 This concludes my recommendations for BNSC which I hope you will be able to endorse.

18 There is one final point to do with financial accountability for UK space expenditure which I should like to raise. The recent correspondence over ERS-2 demonstrates that there are still problems in allocating financial responsibility for projects of this kind which involve a number of "user" Departments. In my view we should be moving towards a tauter customer/contractor relationship in which users stand up to the cost of research and development for the space segment. This raises some broad issues on which I would like to reflect further. But it would be helpful if the expanded Resources Board were able to let me have agreed advice in due course.

19 I am sending copies to the members of E(ST), to Sir Robin Butler and to John Fairclough.

D Y

DEPARTMENT OF TRADE & INDUSTRY
19 July 1989

PS2CNK

dti
the department for Enterprise

PERSONAL

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

Charles Powell Esq
Private Secretary to
Prime Minister
10 Downing Street
LONDON
SW1

Prime Minister

Advice for your meeting with Mr. Tebbit.

The key points are:

– there is no question of support from public funds.

– there seems to have ~~[illegible]~~ been a plan to appoint Geoffrey Pattie as Chairman. Mr. Tebbit probably does not know about this.

– there is some risk of putting the Americans' nose out of joint.

Direct line 215 5422
Our ref PB3BGP
Your ref
Date 24 June 1989

Dear Charles,

USSR: BRITISH ASTRONAUT PROJECT

You wrote on 17 June about Moscow Narodny Bank's invitation to Mr Norman Tebbit to chair the company that would select a British citizen to be an astronaut in a Soviet space launch, and try to raise commercial sponsorship for the project.

The project is a private sector venture which was strongly supported by the Soviet Union prior to President Gorbachev's visit. The project envisages a competition, operated possibly through one or more of the clearing banks, to select a British candidate astronaut. He would then receive Russian language training prior to training in the Soviet Union, with an intended launch in Spring 1991. The Soviet Union are approaching other Western countries, including France and West Germany, about participation in similar projects.

The UK project's financing has had a chequered history. More recently, it appears to have been put on a sounder footing with the intervention of Moscow Narodny Bank, who are underwriting the project, at least initially until they can replace their financial involvement with commercial sponsorship. They have set up a subsidiary company, known as Antequera (though its name is likely to change), to manage the competition, organise the sponsorship and arrange the series of experiments which are to be carried out on board the Mir Space Station by the British astronaut. The bank have subcontracted the handling of publicity to Saatchi and Saatchi.

In essence the ~~[illegible]~~ decision is for Mr. Tebbit. We would not stand in the way – but he needs to reflect carefully.

CDP.

dti
the department for Enterprise

An agreement with the Soviet space organisation, Glavcosmos, was signed in April granting the rights to the project to Moscow Narodny bank. They are planning a major public announcement Moscow next week and have asked my Secretary of State to witness the public signature.

Subject to greater certainty that the event is going to go ahead - it has already been promised only to fall away twice in past Ministerial exchanges - my Secretary of State is prepared to be present at such a ceremony. We have been at pains however to make clear that this implies no special Government commitment to the project - a point that Mr Tebbit will need to understand.

The company has yet to appoint a chairman, who is intended to be present in Moscow to sign the agreement. Sir Geoffrey Pattie was approached recently about this appointment and apparently accepted it. We were therefore surprised to hear that Mr Tebbit had also been approached. We understand from Moscow Narodny Bank (who have been keeping us informed about the project) that their Chairman, Mr Maslov, wanted to appoint a chairman with a higher public profile than Sir Geoffrey. Sir Geoffrey has apparently been told that there may be an obstacle to his appointment. Mr Tebbit has <u>not</u> been told that he is in competition.

Since this is entirely a private sector project, we cannot advise Mr Tebbit officially. It must be left to his own judgement. If the project fails, we would not wish to support it from public funds, either in cash or by free use of Government R&D Establishments. However if it succeeds, it will be helpful to our relations with the Soviet Union. Our position should therefore be one of detached benevolence. We see no objection to either candidate under consideration by the Moscow Narodny Bank.

There have been direct contacts with the Americans, who have raised no objections.

I am sending a copy of this letter to Stephen Wall (FCO).

Yours ever,

Neil Th

NEIL THORNTON
Private Secretary

dti
the department for Enterprise

PERSONAL

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

Charles Powell Esq
Private Secretary to
Prime Minister
10 Downing Street
LONDON
SW1

Prime Minister

Advice for your meeting with Mr. Tebbit.
The key points are:
– there is no question of support from public funds.
– there seems to have been a plan to appoint Geoffrey Pattie as Chairman. Mr. Tebbit probably does not know about this.
– there is some risk of putting the Americans' nose out of joint.

Direct line 215 5422
Our ref PB3BGP
Your ref
Date 21 June 1988

Dear Charles,

USSR: BRITISH ASTRONAUT PROJECT

You wrote on 17 June about Moscow Narodny Bank's invitation to Mr Norman Tebbit to chair the company that would select a British citizen to be an astronaut in a Soviet space launch, and try to raise commercial sponsorship for the project.

The project is a private sector venture which was strongly supported by the Soviet Union prior to President Gorbachev's visit. The project envisages a competition, operated possibly through one or more of the clearing banks, to select a British candidate astronaut. He would then receive Russian language training prior to training in the Soviet Union, with an intended launch in Spring 1991. The Soviet Union are approaching other Western countries, including France and West Germany, about participation in similar projects.

The UK project's financing has had a chequered history. More recently, it appears to have been put on a sounder footing with the intervention of Moscow Narodny Bank, who are underwriting the project, at least initially until they can replace their financial involvement with commercial sponsorship. They have set up a subsidiary company, known as Antequera (though its name is likely to change), to manage the competition, organise the sponsorship and arrange the series of experiments which are to be carried out on board the Mir Space Station by the British astronaut. The bank have subcontracted the handling of publicity to Saatchi and Saatchi.

In effect, the decision is for Mr. Tebbit. We would not stand in the way – but he needs to reflect carefully.

CDP.

An agreement with the Soviet space organisation, Glavcosmos, was signed in April granting the rights to the project to Moscow Narodny bank. They are planning a major public announcement Moscow next week and have asked my Secretary of State to witness the public signature.

Subject to greater certainty that the event is going to go ahead - it has already been promised only to fall away twice in past Ministerial exchanges - my Secretary of State is prepared to be present at such a ceremony. We have been at pains however to make clear that this implies no special Government commitment to the project - a point that Mr Tebbit will need to understand.

The company has yet to appoint a chairman, who is intended to be present in Moscow to sign the agreement. Sir Geoffrey Pattie was approached recently about this appointment and apparently accepted it. We were therefore surprised to hear that Mr Tebbit had also been approached. We understand from Moscow Narodny Bank (who have been keeping us informed about the project) that their Chairman, Mr Maslov, wanted to appoint a chairman with a higher public profile than Sir Geoffrey. Sir Geoffrey has apparently been told that there may be an obstacle to his appointment. Mr Tebbit has not been told that he is in competition.

Since this is entirely a private sector project, we cannot advise Mr Tebbit officially. It must be left to his own judgement. If the project fails, we would not wish to support it from public funds, either in cash or by free use of Government R&D Establishments. However if it succeeds, it will be helpful to our relations with the Soviet Union. Our position should therefore be one of detached benevolence. We see no objection to either candidate under consideration by the Moscow Narodny Bank.

There have been direct contacts with the Americans, who have raised no objections.

I am sending a copy of this letter to Stephen Wall (FCO).

Yours ever,

Neil Th

NEIL THORNTON
Private Secretary

PERSONAL

DT

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

17 June 1989

Dear Stephen.

Mr Norman Tebbit wants to come to see the Prime Minister shortly to discuss an invitation which he has received from the Moscow Norodny Bank to become Chairman of a London-based company with the task of selecting a British citizen to be an astronaut in one of the Soviet space shots. As I understand it, the purpose is to seek commercial sponsorship of this. Mr Tebbit is asking the Prime Minister's advice. I should be grateful for a very early view on whether you think this would be appropriate for Mr Tebbit to undertake bearing in mind, among other things, that we do not want to offend the Americans.

I am copying this letter to Neil Thornton (Department of Trade and Industry) and would be grateful for their advice as well. I should be grateful if the matter could be handled in strict confidence. The Prime Minister will want to discuss it with Mr Tebbit herself and would not want others to make contact with him.

Yours sincerely,

Charles Powell

C. D. POWELL

Stephen Wall, Esq.
Foreign and Commonwealth Office

PERSONAL

DT

file

SLZATI

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

MR. RICHARDS

CABINET OFFICE

UK/USSR COOPERATION IN SPACE

Your minute of 3 March asks whether the Prime Minister told Dr. Marchuk in November 1987 that we would like to co-operate with the USSR in space to the extent that the French were co-operating with them.

I cannot recollect any such exchange nor does my record of the Prime Minister's meeting with Mr. Marchuk on 13 November 1987 suggest that it took place (I attach a copy). I cannot rule out that something was said at a social occasion at which they met at the Royal Society. But the Prime Minister has no recollection of it.

C. D. POWELL

6 March 1989

C.P.
Unable to [illegible]
[illegible]

CF

Pl. track our my record, if there was one

CDP

Our Ref: Qa 0801

File No

MR POWELL
No 10

3 March 1989

UK/USSR COOPERATION IN SPACE

During a visit to the USSR in October 1988, Dr J Houghton, Director-General, Meteorological Office, had talks with Academician Marchuk, President of the USSR Academy of Sciences, about cooperation in space.

In the course of their conversation Dr Marchuk mentioned that during his call on the Prime Minister on 13 November 1987, she had indicated that she would like to cooperate with the USSR in space to the extent that the French were cooperating with them.

Dr Houghton has recently written to John Fairclough asking for any information we may have on that conversation. I would be grateful for any light you may be able to throw on the subject, particularly regarding Marchuk's remark on his conversation with the Prime Minister.

John Richards

JOHN RICHARDS
S&T Secretariat
Room 417B 70 W

PART 3 ends:-

FCO to DTI. 22.11.88

PART 4. begins:-

J. RICHARDS to CDP. (Qa.0801) 3.3.89


Grey Scale #13
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