CONFIDENTIAL

P 02570

PRIME MINISTER

The UK National Space Plan

CONCLUSIONS

You will wish the Sub-Committee to reach conclusions on:

a. to what extent to endorse the UK National Space Plan; and

b. how the cost should be accommodated.

BACKGROUND

2. In response to your request Mr Channon has circulated a further paper (E(A)(87)9) covering a Note prepared by Mr Gibson, (the Director General of the British National Space Centre (BNSC)) which identifies options. The Chief Scientific Adviser set out his recommendations in E(A)(87) 7. Also relevant is the Note on defence expenditure in space (E(A)(86) 61); and Mr Pattie's letter of 23 February about private sector contributions.

3. E(A) were unable to reach decisions on Mr Channon's proposals before Christmas. The Cabinet Office were therefore asked to prepare a paper reviewing Government expenditure programmes on industrial support and R&D. E(A)(87) 6 is the result. It enables Ministers to set the Space bid against other comparable existing and potential claims on resources.

Proposals

4. Mr Channon's original and revised bids - and the other Options identified in Mr Gibson's note - produce the following public expenditure profile in the PES period:

	£ million (cash)		
	1987/88	1988/89	1989/90
Present Civil Provision	112	113	119
Option 1	116	116	119
Option 2	130	140	150
Option 3	154	177	200
Option 4 (Mr Channon's new proposal. Mr Fairclough put forward a similar figure for 1989-90)	179	217	254
Option 5 (Mr Channon's original proposal)	201	252	302

Nothing of defence interest.

138

These sums are in addition to the current MOD spend on space of around £130 million a year, of which well over half is on Skynet.

£130m

100 in con

5. Mr Channon also proposes that the Sub-Committee:

a. invite the BNSC Management Board to prepare a detailed Space plan in line with the level of expenditure agreed by E(A); and

b. (subject to what is decided on the level of expenditure) agree in principle that BNSC should be constituted as a subordinate Department and that officials report to you on how this might be implemented.

What is a subordinate Dept

[illegible signature]

DISCUSSION

6. The key issue remains whether the benefit to the UK can justify spending more on space in the face of the other public expenditure claims, such as:

i. the Airbus: You are aware of the latest position. Mr Channon has sought authority to offer £500 million;

330
340.

ii. Westlands: (Westlands want the Government to order additional helicopters at a cost of around £200m - £210m in the years 1987/88 to 1991/92 (some £60m - £70m of which could fall in the PES years 1987/88 to 1989/90);

iii. the UK contribution to the EC R&D Framework Programme for 1987-91 (the UK is trying to negotiate a programme of 4.2 becu, but there are strong pressures for more);

iv. the Bide Committee have recommended Government expenditure of £425 million over 5 years (matched by equivalent funding from industry) for in effect an Alvey II programme. Mr Channon has said he hopes to accommodate this within existing provision; but it is difficult to see how, and it is undoubtedly a competing claim with space and other R&D spending.

7. It remains difficult to construct a convincing economic or industrial case for extra spending on space. In particular:

a. the returns are speculative and long-term. Mr Channon's original Memorandum (E(~~A)(86~~) 60) attempted (Annex D) to illustrate the commercial benefits gained from the UK space programme to date. But the arguments tend to rest on international analogy and the specific benefits remains very hard to quantify.

E.S.A.

33% govt funded for - sp

2.4% for total manufacturing

BN.S.C.

b. Mr Channon's paper still does not set out clear figures for total UK expenditure on space, although he does give figures for private sector R and D alone. We have been unable to obtain from DTI any figures on overall private sector space expenditure and so cannot substantiate the claim that it is higher in the UK than in other countries.

c. The costs to the UK of participation in ESA are vulnerable to cost escalation through exchange rate changes, subject to a 2 year lag. This could increase our liability. The UK, like any other Member, can withdraw from particular ESA programmes if forecast expenditure on that programme is due to exceed total provision by more than 20 per cent. But in practice such withdrawal is always difficult.

Options

8. Some £98m of funding is already committed in each of the Survey years. The incremental value of each option appears to be as follows:

a. Option 1 (Extra provision of £4m, £3m, and nil in the 3 Survey years)
The only new ESA programme would be in communications where we would contribute 20 per cent. This is the area which has had the greatest commercial success. Existing obligations in the national programme could be met, plus an earth observation data centre.

b. Option 2 (Extra provision of £18m, £27m and £31m).
Mr Gibson believes this option is "less honest" than Option 1 and "would not allow a coherent and balanced programme." In ESA, the UK would have a 13 per cent stake in the two next earth observation satellites. It would also have small shares in the space station programme, although these are so small (6 per cent or less) that it is not clear what advantage we would

get from them. Mr Gibson says we would not have the leading role in any ESA activity, but we would of course retain 20 per cent of the future telecommunications programme. In the national programme there would be increased spending on the UK data centre for the ESA earth observation satellite.

c. Option 3 (Extra provision of £42m, £64m and £81m)
In ESA, UK participation in the telecommunications programme would be increased to 33 per cent from 20 per cent (although the gain from the extra expenditure is not spelt out) and its participation in the Columbus space station programme increased from 4 to 10 per cent. Average UK participation in ESA would be 10 per cent. Mr Gibson says that "at this stage it begins to be possible to start a national programme" with an "effective UK earth observation data centre," new sensor developments and satellite platform technology.

d. Option 4 (Extra provision of £67m, £104m and £135m)
In ESA, the UK would take a 19 per cent share in data relay satellite systems, would retain polar platform leadership because of its 14 per cent stake in Columbus; and would take a 5 per cent share in Hermes. Average UK participation in ESA would stand at 12 per cent - about its present level. A balanced national programme is possible, says Mr Gibson, with a start on the UK centre for the Polar Platform and national flight opportunities.

e. Option 5 (Extra provision of £89m, £139m and £183m)
The full UK Space Plan, with average UK participation in ESA at 14 per cent. It would mean an increased UK role in ESA's earth observation programme and, in the national programme, new satellite test facilities.

Civilian & research R&D?

FINDING THE MONEY

9. Mr Channon cannot realistically find any significant extra amounts from within his present PES. Spending on space is already expected to take 25 per cent of his R&D budget by 1989-90. Unless, therefore, there is to be a claim on the Reserve, any increased spending on space will have to come from other programmes. The current position of the Departments which contribute to our civil space programme (DTI, MOD, and DES) is that they are unwilling to divert expenditure from their own programmes to fund additional space expenditure, although they would continue to have an interest in any expanded programme. (See Annex A for Departmental contributions in 1986/87). Mr Baker has told me he is opposed to any substantial extra spending on space; and Mr Younger will argue that the Defence Budget cannot provide any more. The Chief Scientific Adviser has suggested that the principal candidates for contributions are the nuclear programmes of the Department of Energy, agricultural R&D or transfer from the Defence Budget. These are certainly possibilities in the longer term, and E(RD) is already working to this effect. But it is unlikely to be possible to switch large amounts from them in the short term; and in addition to other pressures, the Defence Secretary in particular will have his hands full as it is to deliver the decision to constrain defence R&D to the 1985 costings.

10. If E(A) decide to go for anything more than Option 1, and firm agreement on the financing cannot be reached at the meeting, one possible way to settle the issue now might be as follows:

a. For 1987-88, the additional sums could be met by equal contributions from the 3 Departments most concerned with the space programme (DTI, DES, MOD). For Option 3, for example, this would mean £14m each;

b. For 1988-89 and 1989-90, the funding should be resolved in this year's Public Expenditure Survey. You could add that there should be a strong presumption of carrying through the arrangements for 1987-88 and also finding further offsetting savings from R&D elsewhere.

OTHER ISSUES

Organisation

11. At present BNSC is essentially a co-ordinating body. Mr Channon recommends that, subject to what is decided on the level of expenditure, BNSC should bcome a subordinate Department. A Working Group of officials considered this option, and also the option of BNSC becoming a Quango. DES and Research Council representatives favoured the latter course; representatives from DTI, BNSC, MPO, Treasury and Cabinet Office preferred Mr Channon's proposal. The strength of the case for establishing an independent new body depends on the level of expenditure agreed. It would probably not be necessary for the cheaper option. Decisions on machinery of Government questions are, however, for you to take, and, if a decision on this point is necessary, you may prefer not to consider this at E(A), but to handle it separately in consultation with the Ministers directly concerned. Why?

Presentation

12. There has been much media speculation about the Government's reaction to the Space Plan. It is possible that Mr Gibson may consider his position if he feels insufficient funding is made available for space. I understand privately that he has had an attractive offer from the Canadian Government to head their space organisation. His resignation could serve as a focus for adverse criticism.

HANDLING

13. You will wish to invite the Secretary of State for Trade and Industry to introduce his proposals. Other Ministers - the Secretaries of State for Defence, and for Education and Science in particular - will wish to comment. The Chief Secretary, Treasury, will have views on the public expenditure implications. The Secretary of State for Foreign and Commonwealth Affairs will wish to comment on international aspects. The Lord President and the Chancellor of the Duchy of Lancaster may have views on handling and presentation.

J B UNWIN

11 March 1987
Cabinet Office