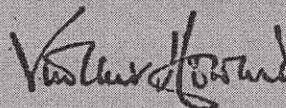


- a. Assuming a 14 warhead payload with reduced CEP, how many D5 missiles equate in approximate effectiveness to an outload of 16 C4 missiles with 8 warheads?
 - b. Based on the calculation at 3a, what total inventory of D5 missiles would we need to purchase? What would be the likely cost? What would be the difference between this price and that of the presently proposed C4 inventory?
 - c. Stemming from the smaller size of a D5 buy, what savings in the storing and upkeep arrangements might be achieved at COULPORT?
 - d. If storing, upkeep and outloading of D5 missiles was arranged in the US, and provision for these functions at COULPORT deleted, what might be the saving?
 - e. Based on the missile buy at 3b above, how many D5 warheads would be required? What extra costs would be involved in development of these warheads?
 - f. Overall, how would a four boat force with 12 tube OHIO centres compare in costs with a 16 tube stretched 640?
 - g. What other costs would be relevant in comparing the capital costs, and phasing of costs, of the alternate C5 and D5 programmes? What would be their effect?
4. I appreciate that such replies as you can provide prior to our impending ORC meeting will not be either sufficiently comprehensive or assured to form a basis of decision. Nevertheless they should help to show whether some delay in decision (so as to allow the D5 option to be refined by the Americans) is a worthwhile course. We will need too to establish fairly carefully what the cost of delay might be and whether, for example, it would be feasible to

squeeze the programme to accommodate it, or to delay the ISD by, say, prolonging a POLARIS boat in extended service.



V M HOWARD
COMMODORE
for ACDS(Pol)

2 April 1981

ILLUSTRATIVE EFFECTS ON COSTINGS AT ANNEX A CAUSED BY FLUCTUATIONS
IN THE DOLLAR EXCHANGE RATE

SERIAL	TOTAL COSTS £1 = US \$2.36	TOTAL COSTS £1 = US \$2.00	TOTAL COSTS £1 = US \$1.80
1	4739.5	4993.9	5107.1
2	5606.0	5906.5	6014.9
3	6033.0	6356.4	6500.6
4	87.2	102.9	114.3
5	238.5	281.0	312.2

~~SECRET~~



DRAFT

C.A. Whitmore, Esq.,
No. 10 Downing Street

CHEVALINE FLIGHT TRIALS

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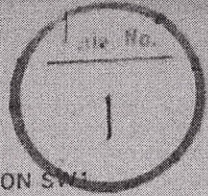


- 2 -

4. None of this has come to public notice. The US Government of course knows of it, but we see no particular reason why it should come up when the Prime Minister visits Washington next month.
5. My Secretary of State will continue to watch the position closely and I will keep you informed.
6. I am sending copies of this letter to George Walden and Donald Wright.

SECRET

SECRET



B1217



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3 Hd SCDS(B)	DCDS (II)
4 SCDS B 1	DCDS (OR)
SPC	ACDS (OPS)
ADC	ACDS (POL)
SO/CDS	ACDS (P&L)
PA/CDS	ACDS (S)
FILE: 11415	

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1

Telephone 01-8727822 218 2111/3

MO 18/1/1

30th January 1981

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ACNS(P)

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CHEVALINE FLIGHT TRIALS

CIR 13 HIT

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None of this has come to public notice. The US Government naturally knows of it, but we see no particular reason why it should come up when the Prime Minister visits Washington next month. If,

C A Whitmore Esq

SECRET



however, the Prime Minister would like further advice my Secretary of State suggests that this is offered verbally in the context of any Washington briefing meetings you may be arranging.

My Secretary of State will continue to watch the position closely and I will keep you informed.

I am sending copies of this letter to George Walden (FCO) and David Wright (Cabinet Office).

*Yours and
B. M. Norbury*

(B M NORBURY)

B1389

COVERING SECRET



File No.
2

No. 2900/25/3

To CDS

PS/S of S

Copy to: PSO/CDS
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PS/CSA
DUS(P)
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	SPC		ACDS (OPS)
	ADC		ACDS (POL)
	SO/CDS		ACDS (P&L)
	PA/CDS		ACDS (S)
FILE: 1141/5			

CHEVALINE FLIGHT TRIALS

References:

- A. SecCNS 2900/25/3 of 30 January 1981 — B1203 (att)
- B. MO 18/1/1 of 30 January 1981 — B1217 (att)

I understand that No. 10 have queried the cost implications of resolving the problems resulting from the recent Chevaline flight trials failures. I attach a draft note for this purpose. I have not had the opportunity to show it to CNS but CDP has agreed its factual content.

B.T. Brown

Secretary/CNS
4 February 1981

COVERING SECRET

1144/5

PSO/CDS

COS 20TH MEETING/81 TUES 28 JUL 81

ITEM 3. NUCLEAR MATTERS

1. The Minutes of this item are attached.
2. Further Presentation on Nuclear Matters. It was agreed that CNS, after discussion with CDS, would arrange for a presentation to his colleagues on nuclear matters (Para 6c).
3. Sec/CNS has asked for guidelines.
4. CDS may wish to keep the content simple and basic, with topics including National Strategic Nuclear Targetting Policy, the submarine launched options open to us to meet that policy, the relative argument for C4/D5, 12/16 tubes, rocket/warhead numbers, service and support in US/UK. A section will have to be devoted to costs and their implication on strategic options. In addition, there should be a situation report on the manufacturing capacity of AWRE to meet warhead requirements for both Trident and the replacement for WE 177.
5. Special Nuclear Materials. Concern was expressed that not all COS were being kept adequately informed about developments relating to SNM (Para 5e) and CDS undertook to investigate why this was the case (Para 8).
6. If this comment was directed specifically at the late delivery to CAS and CGS offices of the base paper 'Strategy for Special Nuclear Materials' dated 27 April 1981, then I plead guilty and apologise for the inconvenience this has caused.
7. I did not copy this paper to CAS and CGS in April because at the time I felt they did not need to know the 'shopping-list' for SNM. This list related largely to ND projects, and where materials for the WE 177 replacement were concerned, the assumptions on numbers and timing was in step with AFD policy.
8. As soon as I was aware on Thurs 23 Jul that nuclear matters including SNM were to be raised in COS on 28 Jul, permission was asked of the joint signatories, CSA and CDP, to copy the paper to CGS, CAS, DCDS(OR), ACDS(Pol) and SECCOS. I informed CGS outer office and DASB that they would receive this paper by Fri 24 Jul, and I subsequently kept them informed on progress (or lack of it).
9. In the event, CSA was away and no one in his Parish was prepared to authorise in his absence. When CSA came in on 27 Jul he and CDP authorised copies only for CGS and CAS. These were run off and delivered prior to the COS meeting.

1 of 2

Folio No.

31(i)

Expand into, say
3 briefings in
more detail.

B/R

B/R

15/10

~~SECRET~~



DRAFT

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36

89603

- PSO/CDS

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	ADC	ACDS (POL)
	SO/CDS	ACDS (P&L)
	PA/CDS	ACDS (S)
	FILE: 114/5	US SEC.

ACDS(Pol) 234/81

UK STRATEGIC NUCLEAR FORCE

Reference: MO 18/1/1 dated 3 Aug 81 - 8955 FLAG 4

1. You will recall that, at reference, S of S sought PUS's advice by the end of the month on certain aspects of the UK Strategic Nuclear Programme; also that, at paragraph 3 of the reference, the S of S asked for the views of the Chiefs of Staff on the issues raised.

2. I attach a proposed draft minute that PUS will shortly be sending to S of S (Annex A) covering a draft note for S of S to send to his Ministerial colleagues (Annex B). Both have been drafted by Head of DS17 in consultation with my staff and the Scientific, Financial and Naval Staffs.

The last sentence of paragraph 4 to Annex B (in square brackets) has been overtaken by events.

3. As you know, following an exchange of letters between CDP and his US opposite number, DUS(Pol)(PE) and others consider that the option to replicate POLARIS motors should be held open beyond 24th August by payment of \$4.2M now plus some \$250,000 a month thereafter. I know that you take a different view.

4. Annex A is being used as background briefing material for the S of S's meeting with Mr Weinberger on Friday 21st August. A 'line to take' is at Annex C.

SECRET

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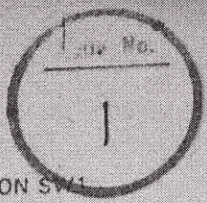


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30th January 1981

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CHEVALINE FLIGHT TRIALS

ERC13 ATT

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