S
3003

PREM 19/2612

PART 7

SECRET.

MT.

TOP SECRET

CONFIDENTIAL FILING

Procurement of Weapon Systems

HARM/ALARM Air Launched Missiles

Cost of Defence Procurement.

DEFENCE

PT1: March 1983

PT7: November 1988

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
~~11.11.88~~		~~31.10.89~~					
~~10.11.88~~		~~22.11.89~~					
~~22.11.88~~ TPM		~~12.12.89~~					
~~24.11.88~~		19.12.89					
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~~16.12.88~~							
~~21.12.88~~		Parliaments					
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~~13.9.89~~							
~~26.9.89~~							
~~19.10.89~~							

PREM 19/2612

PART 7 ends:-

CST to SS/ Defence 21.12.89

PART 8 begins:-

CST to SS/Defence 18.1.90

The National Archives

DEPARTMENT/SERIES PREM 19 PIECE/ITEM 2612 (one piece/item number)	Date and sign
Extract details: Lamont to King 21/12/89	
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Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

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cst.ps/5nl21.12/drfts

SECRET UK EYES A

45(a-b)

000657

Treasury Chambers, Parliament Street SW1P 3AG

The Rt Hon Tom King MP
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
London
SW1A 2HB

21 December 1989

Dear Secretary of State,

EFA RADAR AND TORNADO AIR DEFENCE VARIANT

I have seen the Prime Minister's response of 15 December to your minute of 6 December, mine of 12 December and Nicholas Ridley's of 13 December about the EFA radar, and your minute of 13 December about the Tornado ADV and her response of 14 December.

2. I understand that your officials and mine are meeting to discuss the studies which the Prime Minister has requested. They will need to keep closely in touch and reach a full understanding of the costs and risks of the two radar option for EFA, and alternatives.

3. They will also need to reach the fullest possible understanding about the read across to the Tornado ADV, to which the Prime Minister referred. We and our predecessors have recognised in previous correspondence that there is a link between the EFA and Tornado programmes because current plans are for a mix of the two aircraft to be used for UK air defence. We will need to consider the best likely balance of investment in the capabilities of the two aircraft. I am strongly of the view therefore that we and colleagues should have as much information as is available about the options, their cost and risks and their effect on the Tornado or any alternative aircraft's capabilities before we take a final view on the EFA radar choices. Although you do not expect a first report from British Aerospace about the Tornado to be available until the Spring and your officials in-house work may not be complete, officials will need to give us the fullest possible report, drawing on progress in the studies you have set up.

DEFENCE: Procurement

SECRET UK EYES A

b A7

4. I am copying this letter to the Prime Minister, Nicholas Ridley and other colleagues in OD, Malcolm Rifkind, and to Sir Robin Butler.

Yours sincerely

Alison Campbell

pp **NORMAN LAMONT**
Approved by the Chief Secretary and signed in his absence.

cst.ps/12nl21.12/lets

CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

CCP

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG

The Rt Hon Tom King MP
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
London
SW1A 2HB

CDJ 21/12

21 December 1989

Dear Secretary of State,

CHIEFTAIN REPLACEMENT

file with CDP

Thank you for the copy of your minute of 14 December to the Prime Minister, proposing to spend an extra £3 million on the demonstration phase for the Challenger II tank. I have noted that the net effect is an increase of £2 million in the estimated cost of the project as a whole. I have no objection to the proposal, provided the additional research and development expenditure is absorbed within the agreed R & D ceiling for 1990-91.

I am copying this letter to the Prime Minister, to other members of OD, and to Sir Robin Butler.

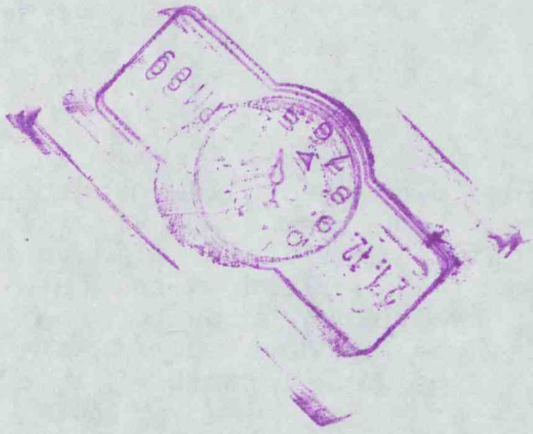
Yours sincerely

Isleen Campbell

pp **NORMAN LAMONT**

Approved by the Chief Secretary and signed in his absence

DEFENCE: Procurement
A7



cc PC

(2)

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

MO 26/2/2D

18th December 1989

Prime Minister

Still major problems, although Aldermaston in slightly better

CDN 19/xii

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

I attach a set of reports on Major MOD Procurement Projects for the Prime Minister.

The Secretary of State intends to report further to the Prime Minister on the EH101 Helicopter Programme early in the new year.

Yours sincerely

John Colston

(J P COLSTON)
Private Secretary

Charles Powell
No 10 Downing Street

EH101 ASW HELICOPTER FOR RN

Programme Value: £2,255M

Problems

- No maximum price on development contract.
- Main contractor (EHI) (the joint venture Westland/Agusta company) not in full control of the programme.
- No contractual requirements to prove total mission system works.

Current Situation

- Westland have now submitted a maximum price proposal. This is higher than we could consider reasonable and contains a number of unacceptable caveats. Nevertheless, it represents a basis for negotiations which are now being taken forward with the company as a matter of urgency.
- There is evidence that the high-level executive group (the "Gruppo Operativo") established at EHI by Westland and Agusta is having a positive effect on the programme. The MOD's objective remains, however, to improve the contractual arrangements through the appointment of a Prime Contractor for the whole RN mission system. This consideration has played an important part in the study (which is nearing completion) of alternative procurement strategies for the RN EH101.

REBUILDING PROGRAMME AT ALDERMASTON

Programme Value: £1,013M

Original Problems

- Inadequate project definition.
- Inadequate project management control.
- Inexperienced industry over-reliant on MOD/AWE in key nuclear safety areas.
- Split in responsibility between MOD and PSA.
- Technical difficulties.
- Cost escalation.

Current Situation

- NNC Ltd as Facilities Project Management Contractor (FPMC) continue to provide an effective management of the overall programme and to play a strong role in the commercial and management aspects affecting critical project timescales and costs. This has been particularly valuable in minimising the programmatic impact of recent industrial action by installation contractors (now settled) and during final stages of equipment installation and acceptance in A90 Building.
- The start of non-radioactive commissioning in A90 remains on-schedule for January 1990 although work to replace the Zone 1 ductwork (for containment of radioactivity required for the second stage commissioning) will not be fully complete until April 1990. AWE is currently considering greater industry involvement in the two-year commissioning programme, and, when implemented, these proposals will further increase confidence in meeting the mid-1992 milestones for the new production facilities. The overall programme remains tight but fully achievable.

PINDAR: RELOCATION OF MOD/CABINET OFFICE CRISIS MANAGEMENT ORGANISATION INTO HARDENED ACCOMMODATION

Equipment and Installation Programme	c. £51.9M*
Works Programme	c. £49.9M*

Problems

- Lack of defined requirement for the total PINDAR project until July 1989.
- Management and control of a large hybrid works/equipment project involving PSA and MOD contractors.

Current Situation

- The technical, commercial and price evaluation of the systems implementation proposals submitted by the 3 Competitive Engineering Definition Study contractors has been completed, and the prime contractor has been selected.
- A submission has been made to HM Treasury. Following receipt of Treasury approval, final negotiations with the selected prime contractor will be initiated.
- Active steps have been taken to arrest the previously reported delays to PSA's site works programme. A revised plan is being prepared by PSA and the works contractor to provide a basis for recovery action. Nevertheless we are very sceptical of the PSA's ability to reclaim the slippage, and their control of the work leaves a great deal to be desired. Consideration is therefore being given to alternative options for completing the primary works element.
- The revised procurement costs for the equipment and installations programme illustrate the substantial savings predicted as a result of the prime contract competition (now £51.9M rather that the £67M previously reported). Final costs are however subject to detailed contractual negotiations with the selected firm.
- The PINDAR ISD estimate remains in the range October 1991 to December 1992.

* Programme procurement costs to MOD at LTC 89 prices.

IMPROVED UNITED KINGDOM AIR DEFENCE GROUND ENVIRONMENT (IUKADGE) INTEGRATED COMMAND AND CONTROL SYSTEM (ICCS)

Equipment and Installation Costs (Basic System) - c£225M*

Problems

- The Prime Contractor, UKSL, have failed adequately to design and to maintain the design coherence of the ICCS system throughout the development programme.
- As a direct result, the ICCS design is unsound and the system failed to pass the contractual tests during the summer of 1988.
- UKSL are making very slow progress in fixing the known faults and do not expect to complete the basic ICCS before 1992.
- The current system design does not provide a sound basis upon which the rest of the Air Defence system can be built; it lacks the flexibility, robustness and expansion capability required.

Current Situation

- UKSL continuing with testing and rectification of single-site software but progress is slow and there is known to be a growing number of faults appearing as testing progresses. Earliest possible completion date for basic system is April 1991.
- Response to the Audit Report's findings will not be available from UKSL until 21 December 1989.
- MOD has called for personal involvement and assurances from 3 owner-companies of UKSL (GEC, Hughes and Siemens). Hughes, as company with key problems, has replied for all 3 giving the necessary assurances and a clear indication that increased resources with high level management committment will now be brought to bear on the programme.

(*Costs at September 1988 economic conditions.)

Very sorry.

19.12. AM 89

cc DPR
&
PSA

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

MO 26/3/1L

19th December 1989

CDP

Dear Charles,

TYPE 23 FRIGATE ORDER

I enclose for information a copy of the written answer on Type 23 frigate orders which Michael Neubert MP, Under Secretary of State for Defence Procurement, will be giving this afternoon.

I am copying this letter and its enclosure to private secretaries to other OD and EA colleagues, and to Sonia Phippard (Cabinet Office).

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary

Charles Powell Esq
No 10 Downing Street

Question: To ask the Secretary of State for Defence, if he will make a statement on the outcome of the recent competition for Duke-class Type 23 frigates.

Answer (Mr Neubert):

Competitive bids were sought from British shipyards for a batch of between one and four Type 23s. Three yards - Cammell Laird Shipbuilders in Birkenhead, Swan Hunter Shipbuilders in Newcastle-upon-Tyne and Yarrow Shipbuilders in Glasgow -- responded, and it has been an extremely keen and commercial competition, to the taxpayer's benefit. All three yards are to be thanked for taking part in it.

The competition has demonstrated that our commercial approach is continuing to encourage improved efficiency in the industry, enabling it to compete more effectively here and abroad. It has also underlined the benefit of ordering in batches and the better value for money which results from it. On this occasion, having invited tenders for up to four ships, we have decided to order three. To order four now, even all

from one yard, would not give us significantly more attractive unit prices than ordering three. The new ships will be named WESTMINSTER, NORTHUMBERLAND and RICHMOND.

After evaluation of the bids, we have decided, subject to contract, to place the order with Swan Hunter Shipbuilders of Wallsend in Newcastle-upon-Tyne.

Swan Hunters have won our order fairly and squarely on commercial terms. The value of the order is commercially confidential, but I can say that the average unit cost of the three new ships is significantly less in real terms than for the last order, which in its turn was lower than for previous ships of the class.

It follows from this, that both Swans and the other yards were extremely competitive this time; we are sure they will be keen bidders for our future requirements. They will, for instance, be able to bid for another batch of Type 23s, for which we hope to invite tenders next year.

Nine Type 23s are now on order for the Royal Navy. It remains the Government's policy to maintain a surface escort fleet of about fifty destroyers and frigates. This latest order

demonstrates as clearly as possible our commitment to NATO and our nation's defence. At the same time, today's announcement confirms that we remain resolute in pursuit of value for money.


19.12.
AM 8 9

SECRET UK EYES A

MJ

file 44

cc PC

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

15 December 1989

Dear Brian,

EFA RADAR

The Prime Minister has considered the Defence Secretary's minute of 6 December about the continuing problems with the Radar for the European Fighter Aircraft, together with comments in the Chief Secretary's minute of 12 December and the Trade and Industry Secretary's minute of 13 December. She agrees that the Germans are behaving very badly on this and that we need to expose them. She is therefore content that we should lead the Germans to believe that we shall if necessary adopt a 3-nation ECR90, to maximise our negotiating leverage with them.

At the same time, the Prime Minister agrees with the Chief Secretary that we need to study the options much more carefully before we commit ourselves in fact to adopt this course. She does not think it would be appropriate to reopen the whole issue of the European Fighter Aircraft itself but would like a study done as rapidly as possible of the costs and risks of developing EFA with two separate radars, with read-across to the problems we are experiencing with the Tornado ADV radar. She would hope this exercise could be conducted speedily. Until the study has been completed and considered by Ministers, it must be clear that - whatever we say to the Germans - we are not committed to the option of separate radars.

I am copying this letter to the Private Secretaries to members of OD, to the Private Secretary to the Secretary of State for Scotland and to Sir Robin Butler.

Yours sincerely,

Charles Powell

Charles Powell

Brian Hawtin Esq
Ministry of Defence

SECRET UK EYES A

dti

the department for Enterprise

CONFIDENTIAL AND COMMERCIAL IN CONFIDENCE

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

The Rt Hon Tom King MP
Secretary of State for
Defence
Ministry of Defence
Whitehall
LONDON SW1A 2HB

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
Our ref 01 215 5623
Your ref JW4AFF
Date 15 December 1989

Dear Tom

TYPE 23 FRIGATES

Thank you for sending me a copy of your letter of 8 December to Norman Lamont.

I was pleased to note that the competitive bidding for the latest batch of Type 23 frigates has stimulated further improvements in efficiency, in the yards, reflected in keener prices, and offers substantial benefits in terms of value for money.

Although I recognise that the acceptance of Swan Hunter as clear winners in competitive terms faces the unsuccessful bidders, Cammell Laird and Yarrow, with problems of potential workload - this situation applies to all. Having now established both the principle and policy of awarding naval orders on the basis of competition and value for money, in my view, we should maintain consistency in our approach.

I note Malcolm Rifkind's concern, expressed in his letter to you of 12 December, about the implications for Clydeside of placing this latest order with Swan Hunter. However, similar arguments could be advanced for Merseyside (unemployment in Birkenhead at 10.3%, in Liverpool at 14.2%) as a result of Cammell Laird's lack of success in the competition. Had Swan Hunter been unsuccessful this time the implications for Tyneside (unemployment rate in Newcastle of 9.8% and on South Tyneside of 16.5%) would have been equally serious. Indeed, following the decision to order all 3 of the last batch of Type 23s with Yarrow in July 1988, Swan Hunter was forced to make 700 employees redundant. And, of course, local North East interests would argue that the Glasgow area has retained

Recycled Paper

dti

the department for Enterprise

CONFIDENTIAL AND COMMERCIAL IN CONFIDENCE

more shipbuilding activity generally.

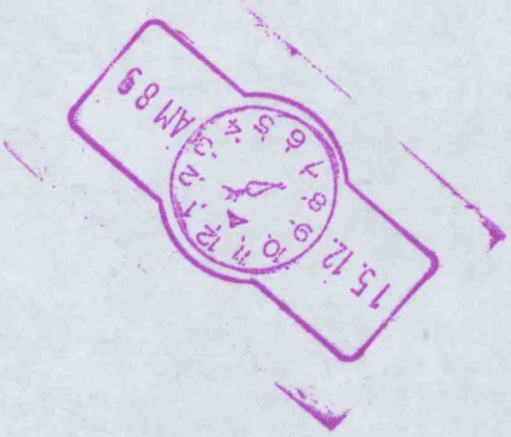
I recognise that in 1985-86, in the run-up to, and immediately after, privatisation of the warshipbuilders, frigate orders were split between yards to maintain viable workloads. Events have, however, moved on and it would be retrograde to revert to this approach. If this latest order is split between yards, as Malcolm Rifkind has suggested, not only is there an issue of fairness and even-handedness to Swan Hunter as clear winners in the competitive process, but also the question of how or among how many yards the order is split. On present order books, Cammell Laird's future could be argued to be more perilous than Yarrow's. At best, splitting orders can only be a short-term palliative in industrial and social terms; and at worst it could dissipate the productivity and value for money benefits which have been achieved. Sooner or later the issue of reducing excess capacity in this sector will have to be faced. I therefore strongly support your proposal to order the three ships from Swan Hunter, on the basis of best value for money.

I am sending copies of this letter to the Prime Minister, Norman Lamont and other members of OD, and for information to Kenneth Baker. Norman Fowler. Malcolm Rifkind, and to Sir Robin Butler.

Recycled Paper

DEFENCE: Procurement

pt 7



CONFIDENTIAL

COMMERCIAL IN CONFIDENCE

c: CHALLENGE (mem)

bcc : PC

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

15 December 1989

Dear Brian,

CHALLENGER 2 TANK

The Prime Minister has noted the Defence Secretary's minute of 14 December about the need to carry out additional work during the Demonstration Phase of the Challenger 2 tank, at a cost of some £3 million.

I am copying this letter to the Private Secretaries to members of OD and to Sonia Phippard (Cabinet Office).

Yours ever,

Charles Powell

CHARLES POWELL

Brian Hawtin, Esq,.
Ministry of Defence

CONFIDENTIAL

COMMERCIAL IN CONFIDENCE

mem

SECRET - UK EYES A

File 43A

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

14 December 1989

Dear Brian.

TORNADO AIR DEFENCE VARIANT

The Prime Minister has seen the Defence Secretary's minute of 13 December about the various problems with the Tornado Air Defence Variant, which she finds thoroughly alarming in its implications. She would very much hope that the BAe Study of Radar could be completed more rapidly and hopes that at least provisional results could be available to Ministers by the early summer. We cannot just let this drift on.

I am copying this letter to the Private Secretaries to members of OD and to Sir Robin Butler.

Yours ever,

C. D. POWELL

Brian Hawtin, Esq.
Ministry of Defence

SECRET - UK EYES A

RESTRICTED
COMMERCIAL IN CONFIDENCE

CCPC

MINISTRY OF DEFENCE WHITEHALL LONDON SW1A 2HB

TELEPHONE 01-218 9000
DIRECT DIALLING 01-218 2111/3

MO 26/3/1L

14th December 1989

CDS 14/XII

TYPE 23 FRIGATES

Thank you for your letter of 12th December.

We gave careful consideration to the loading of the yards in arriving at a decision to place all three ships with Swan Hunter Shipbuilders (SHS), although the primary consideration was how to achieve the best value for money. As you will appreciate, all three shipyards are in areas with double-figure unemployment. The yards have tuned the size of their workforce to the current level of the naval ship programme and whichever yard receives an order, others will face job losses in the short to medium term. SHS in fact have less MOD work on order than do YSL and if they had not won this order they would have faced a large rundown in the near future. As it is, an order for three ships will enable SHS to maintain their current level of employment for the next two to three years. However if one of the ships was taken from them and placed with YSL, SHS would need to reduce the size of their workforce from about the end of 1990 - the situation you are seeking to prevent at YSL.

The Rt Hon Malcolm Rifkind QC MP

My principal concern must be with value for money for the Defence Budget. The best method we have for securing this, and one which has been extremely effective in warship procurement, is competition. You will have seen that Norman Lamont has strongly supported this line. YSL won the last two Type 23 Frigate competitions on price and currently have five ships on order, having just delivered the First of Class, HMS Norfolk. To direct one of the current batch of ships to YSL, against the very clear result of the competition, would send quite the wrong signal to the industry, especially since the future existence of the yard does not rest on this order. Moreover, if a ship were directed to YSL the two ships remaining at SHS would cost us some £2m extra per ship and in order to keep the total cost of the three ships to the level now on offer YSL would have to reduce their price for a single ship by some 20%. It is very doubtful that they would agree to such terms.

The circumstances in which the two other ships which you mention were directed to particular yards were quite special. In the case of the Type 22 Frigate placed at Cammell Laird, the yard had just emerged from an ugly industrial action and was facing certain closure. The ship that they were given was to have been ordered from SHS, who had won the competition for a pair of Type 22 Frigates, and SHS were offered Type 23-02 as compensation for losing the Type 22. I do not see any real parallel to that situation in the present case.

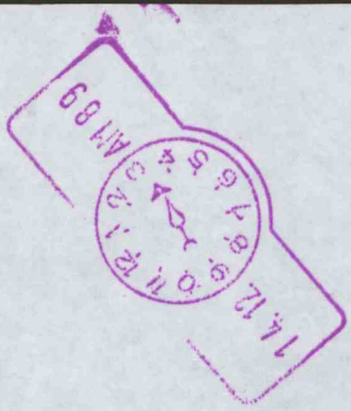
Although YSL undoubtedly face a reduction in their manpower, we do not believe that they face closure as a result of their failure to win the present order. In the coming year, they will have the opportunity to tender for orders for the next batch of Type 23 Frigates and for a batch order of Single Role Mine-hunters.

In all the circumstances, I do not believe I would be justified in directing one of the ships on the current order to YSL.

I am sending a copy of this letter to the recipients of yours.

Tom King

DGA/DNCG : Procurement P19



MO 26/4/2/1L

PRIME MINISTER

You will recall that it was agreed in OD last year that MOD would fund Vickers Defence Systems (VDS) to undertake a Demonstration Phase for the Challenger 2 tank, lasting until the end of September 1990, and costing £90M.

2. A need has arisen to carry out additional work during this period, which will add some £3M to the costs of the Demonstration Phase.

3. The requirement arises because of the recent agreement within NATO on the characteristics of a target representing the armour of the Future Soviet Tank 2 (FST 2), the threat the Chieftain replacement will have to defeat. It had been expected that such an agreement would not be reached until after December 1990 and that it would not be possible to test against representative targets until during the later Trials Phase of the Chieftain replacement programme. This is why the present contract with VDS requires them to have demonstrated by the end of next year only the potential to defeat FST 2. The Americans have now signalled their intention to conduct firing trials against the new target during the next 12 months using their new enhanced ammunition. Assuming these tests are judged to be successful, we can expect General Dynamics to make considerable play of results in their continued bid to win the Chieftain replacement order. In judging the relative performance of the Chieftain replacement contenders in terms of penetration

potential, we need to have tested the performance of the Challenger 2 CHARM 3 ammunition against the new target in the same period. To ensure a fair comparison, it is also important that we should carry out limited trials using our own targets with the new American ammunition. Together these tests will cost some £3M but, because work on this had already been programmed, albeit during the later Trials Phase, the increase in the cost of the project overall is limited to £2M.

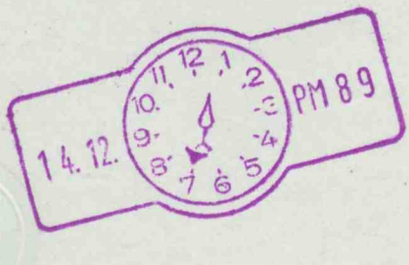
4. By going beyond the terms of the current Demonstration Phase contract we run the risk of being accused by VDS of moving the goalposts. VDS have been advised of the possibility of bringing the trials forward into the Demonstration Phase and are reserving their position pending a final decision by us. However, given the developments I have described, we clearly must gather as much information as we can on the capabilities of both CHARM 3 and the US competitor. The results will help us in reaching our decision next year on the replacement of Chieftain; indeed, we could in my view be open to criticism if we did not do this and I shall take this line in public if needed.

5. I am copying this minute to members of OD, and to Sir Robin Butler.

Ministry of Defence

T K

14th December 1989


14. 12.
PM 8 9

43(A-B)

CBD
D4/xii

SECRET - UK EYES A

B.0304

MR POWELL (Personal)

EFA RADAR

There are some important issues which underlie the correspondence generated by the Defence Secretary's minute of 6 December: the technology lead in the next generation of air combat radar, the commercial future of Ferranti (though this project is only one component), and ultimately perhaps in the current European political and budgetary climate the maintenance of the EFA project as a whole.

2. The letters from the Chief Secretary and the Trade Secretary highlight the uncertainties surrounding the current state of play. It would be helpful to have a clearer picture of the present financial position of Ferranti and its future ownership and funding prospects. It would also be useful to have more details of the Ferranti compromise proposal mentioned in paragraph 6 of the Defence Secretary's minute. On the face of it, this seems a sensible approach. At the very least we should be pressing the Germans to explain why Stoltenberg ruled it out so dismissively. It would be interesting to check how strongly opposed in reality the German Government is to the idea.

3. The financial aspects of the revised ECR 90 project could usefully be clarified. The £150m extra cost of a three-nation ECR 90 looks like a pretty broad estimate which could benefit from closer examination. It must be an open question how firm the Spanish and Italians would be in sticking to this option in the face of German offers to share in MSD 2000 project. If they do not come in, the

42(A-C)

PRIME MINISTER

EFA RADAR

We have another serious procurement problem, this time with the Radar for the European Fighter Aircraft. There are two aspects.

First, we, the Italians and the Spanish all believe that only the Ferranti ECR90 meets the agreed specifications for EFA. But the Germans are refusing to accept that, and insist that they will go ahead with their own radar (the MSD 2000), even though it does not meet the specifications. Ferranti have leaned over backwards to be helpful, even offering the German firm AEG a lead role in a consortium to develop the ECR90: but the German government have blocked even this. They want their radar and nothing else. As the Trade and Industry Secretary points out, this is thoroughly anti-competitive.

Second, this trouble has come at an awkward moment for Ferranti, weakened by its financial troubles. No-one in their right mind is going to place a contract with them until they have found a solution to their problems. Failure to do that just plays into the hands of the Germans.

What to do?

If the Germans go on being unco-operative, we shall end up with two radars for EFA. This will incur extra costs: at least £150 million (spread over five years) for taking on the German share of the development cost of ECR90. But since the radar is such a big part of the overall 'package' of the plane, we would end up in practice with two different aircraft. The real additional costs could be substantially more than £150 million. The alternative would be to cave in and accept the German radar: but we can hardly do that, knowing in advance that it doesn't meet the specifications.

There are two points which need, therefore, to be decided.

B

In the short-term, the Defence Secretary recommends that we try to out-bluff the Germans by "letting them believe" that we shall go ahead with the ECR90 even if they do not come in. That's about the only negotiating leverage we have: and other colleagues are content for him to adopt this line. Peter Levene is to see his German counterpart on Monday.

In the longer-term, we could face very difficult decisions. Are we really prepared to incur the additional costs of going ahead with EFA without a single radar? Are the Germans just looking for an excuse to pull out of EFA altogether? What is the relationship between difficulties over EFA and the horrendous problems with Tornado ADV dealt with in the minute which you saw last night?

The Chief Secretary urges that officials should be instructed to prepare a paper which examines the risks and costs of the two radar options, as well as the options for the future of Tornado. There seems to me a careful line to be steered here. The Treasury clearly see this as an opportunity to bail out of EFA which they never liked. But it is not self-evidently wise to call the whole project into question, at least at this stage, especially when we previously failed to identify any realistic alternative. On the other hand, we certainly need to have a clearer idea of just what we are getting into by going down the two radar path, to which the Defence Secretary wants to commit us. This points to a limited study at least.
So:

Yes - the Germans are being intolerable & we need to expose them.

- agree to tell the Germans that we will if necessary adopt a three-nation ECR90, but on the clear understanding among ourselves that we are not yet committed to this option if the Germans call our bluff?

- agree to a study by officials of the costs and risks of a two radar EFA, and how this relates to the problems we are experiencing with the Tornado ADV radar, but

Yes

without reopening the whole question of the choice of EFA?

Voluminous advice from the Defence Secretary, the Chief Secretary, the Trade and Industry Secretary and the Policy Unit is attached.

C. D. POWELL

14 December 1989

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(kk)

42 (A-G)

Prime Minister

This does not take us much further forward. There are serious, possibly critical problems with Tornado which go to the heart of our air defence. At best they can be put right at a high cost. At worst, it will prove of limited use & durability. The implications for us are bad, and for Italy & Germany worse. But for the moment, all we can do is continue studies.

MO 26/11L

Copy No 1 of 25 Copies

PRIME MINISTER

TORNADO AIR DEFENCE VARIANT

In his minute of 14th July, my predecessor alerted you to the studies that were planned of the options for the future of the Tornado Air Defence Variant (ADV), following reports that the aircraft could not cope with the self-protection jammer carried by the Soviet Backfire bomber.

2. I attach much importance to this issue. A great deal of work has been set in hand. This covers three areas: a feasibility study into options for countering the Backfire jammer and enhancing the Tornado ADV's operational capability; Operational Analysis to support the feasibility study and to examine the long term balance between the Tornado ADV and EFA within our future fighter force structure; and an assessment of the fatigue life of the airframe and its implications.

CDP
IJ
M.J.

Feasibility Study

3. As indicated in my Private Secretary's letter of 23rd June, the aircraft's main area of weakness is electronic counter counter-measures (ECCM). When the two stage recovery programme for the AI24 Foxhunter radar was approved early last year, new intelligence had given cause for concern about the capability of the latest self-protection jammer carried by the Backfire. But it

B

was believed that the Stage 2 radar would give the ADV a good chance of countering this threat. Since then, further technical assessment, including flight tests, has suggested that, depending on the tactical situation, the jammer could prevent the ADV with the Stage 2 radar from successfully engaging the bomber. The Feasibility Study will therefore explore the scope for upgrading the AI24 radar beyond Stage 2 to provide a capability against the Backfire jammer. It will also examine whether there would be advantage in replacing the AI24 with a radar of a different design.

4. In addition, the study will assess the cost and technical feasibility of giving the Tornado ADV an upgraded capability to meet the threat of the late 1990s: aspects to be examined will include defensive aids, modern missiles and improved ability to counter targets with small radar signatures.

5. Only industry can carry out this work. British Aerospace (BAe) is in the lead. Engineering teams have been established and the programme is now well under way. But there is a great deal of ground to be covered; and, while I am keen to see early results, I do not expect a full report before the end of next August. But I have asked for priority to be given to studying the radar and BAe have promised an interim report on this by next Spring.

Operational Analysis

6. The Operational Analysis (OA) studies will proceed in two phases. The first will examine and compare the effectiveness of the various options for improving the Tornado ADV. To do so properly it will have to await the results from the BAe work. But it also first needs an improvement in our mathematical modelling to

C

reflect an air battle including ECM. Our current techniques represent ECM in a crude and simplistic way, so we have begun work in the three research establishments concerned - Malvern, Farnborough and West Byfleet - to tackle this deficiency. The early indications are that some improvements may be possible in the area of individual combat, but the most difficult area remains the modelling of the broad air defence battle.

7. The second phase of OA will assess the effectiveness of the UK's air defences with a variety of force mixes. In particular, it will examine variations in the relative mix of Tornado ADV and EFA. We currently envisage a UK air defence fighter force of seven squadrons of Tornado ADV and two squadrons of Phantom, the latter to be replaced by two squadrons of EFA from 2000. We need to establish whether these plans - and, in particular, the weight they place on the ADV - remain the best available. This analysis must take into account all aspects of air defence capability, including surface-to-air missiles, before reaching conclusions about the most cost-effective mix in the future fighter force. This will be a major and complex task, and we need to ensure that it is done properly. Its timing is also inevitably dictated by the first phase of study. Thus even if the BAe work is completed to time and we have the results by the end of August, I do not expect to receive a report on the force mix study much before the end of next year.

Fatigue

8. Evidence from early in-service fatigue testing and operational use suggested that the Tornado ADV would develop fatigue problems rather earlier than predicted when it entered service. This could

D

constrain possible solutions to the radar problem. As a first step, modifications to strengthen the airframe have been incorporated during construction to all but the first 46 aircraft; they will be modified retrospectively. This prompt remedial action seems to be working; and further results from fatigue tests and from monitoring aircraft fitted with special instrumentation suggest that the fatigue problem may be less severe than initially feared.

9. British Aerospace is conducting a more detailed assessment of fatigue. This is likely to take some months. It is therefore impossible at this stage to estimate accurately the cost of any programme designed to rectify fatigue, since this will depend on the outcome of the assessment and of continuing fatigue testing. But early indications are that the very tentative estimate by my officials of £1000 million quoted in the then Chief Secretary's minute of 13th July may be on the high side. Final results of the assessment should be available in good time for consideration alongside next Spring's interim report on the radar.

Other Work

10. We are separately examining possible off-the-shelf alternatives to the Tornado ADV in case overcoming its radar and fatigue problems turns out not to be cost-effective. This is a delicate matter given our recent (and prospective) sales to Saudi Arabia. The study is therefore being conducted entirely within my Department.

11. In his minute of 17th July, your Private Secretary asked for the Treasury to be involved in the preparation of this report. I

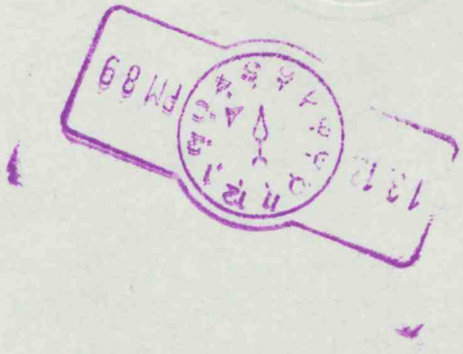
understand that Treasury officials would have preferred a fuller status report about the Tornado and EFA programmes, setting out the main options which might be available to us, including those involving alternative radars and aircraft, together with as many as possible of the pros and cons, including the risks, of each option. But I believe that, until we receive the critical technical information from BAe's study of radar, we are in no position realistically to identify and assess the options. The work I have outlined will take longer than ideally we would like, although I shall see to it that the present momentum is sustained. But there are big issues here and we must understand the facts properly. I shall report further in the Spring.

12. I am copying this minute to OD colleagues, and to Sir Robin Butler.

T K

Ministry of Defence
13th December 1989

Defence : Pouvement Pr 7.



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the department for Enterprise

SECRET

PRIME MINISTER

EFA RADAR

I have seen Tom Kings' minute of 6 December recounting the latest developments on the choice of radar for the European Fighter Aircraft and proposing that we should be prepared to opt for the ECR90 if the Germans cannot be budged from their support for the MSD2000.

It goes without saying that Ferranti's own future has to be settled before we could go down this road, but subject to that I agree with his conclusion that a firm commitment to the ECR90 - which alone meets our operational requirements - is the last chance we may have of persuading the Germans to settle on a solution that is acceptable to the four partners in EFA. That must be in the best interests of all for both economic and technical reasons.

Another consideration that I believe is important is the need for the radar to be chosen on a fair basis. Watching the events over the past few months I have been struck by the way in which the German government has been prepared to intervene to ensure that a German-led consortium wins the radar competition, for example, by offering a government guarantee on the performance of the MSD2000. This MoD not unreasonably concluded was not something they could offer Ferranti. I would find it difficult to see how we could go along with such a deal that would be clearly contrary to the open competitive environment we want to see both domestically and in international trade. I also find it distasteful, if it is true, that the German government should see fit to prevent TST and Ferranti from pursuing a compromise that would enable both companies to be in the winning consortium. I hold no brief for the Ferranti bid, but I do feel that we owe it to them to ensure the radar decision is based as far as possible on

Recycled Paper

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the department for Enterprise

objective assessment of the merits of the competing radar bids and that the companies involved are permitted to come to whatever arrangements they see to be in their commercial interests. Copied to OD Members, SS/SCOT & FERS

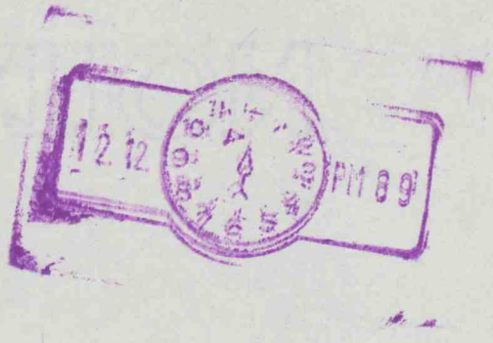
NR

13 December 1989

DEPARTMENT OF TRADE AND INDUSTRY

JW2AHX

Recycled Paper



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CCPC

CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

Treasury Chambers, Parliament Street SW1P 3AG

The Rt Hon Tom King MP
Secretary of State for Defence
Ministry of Defence
Main Building
London
SW1

CONF/13/17

13 December 1989

Dear Secretary of State

TYPE 23 FRIGATES

Thank you for your letter of 8 December, proposing that you should order three of the four type 23 frigates for which tenders were invited in the Spring. I am content for the orders to be placed with Swan Hunter on the basis set out below.

2. You referred in your letter to the review of the related EH101 anti-submarine helicopter project. I expect we will need to look very carefully at the options for proceeding with this troubled project, or for purchasing an alternative helicopter, bearing in mind that the helicopter is an essential part of any anti-submarine frigate's capabilities.

3. I understand that officials are agreed that adopting an alternative helicopter would involve a substantial redesign of the stern of the ship. This might prove quite costly if the frigates had to be adapted after they were built.

4. On the other hand, I fully understand why you would prefer not to delay an order. I am also reassured by your letter that your department could arrange for a change in build, which would be likely to have only a small cost. I suggest that officials discuss in detail how to minimise the risk of nugatory expenditure on adapting the frigates, in case we should after full consideration of the options decide to purchase an alternative helicopter. We need to reach that decision in principle before any further tenders for type 23 frigates are invited, to ensure that any nugatory expenditure is confined to these three. If you are content with this approach, I will not press the argument that delaying the three orders proposed in your letter until we have reached a helicopter decision could represent better value for money.

DEFENCE: Procurement PT 7.

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5. You also referred to the range of issues concerning amphibiosity and other matters to which John Major referred when he agreed to the invitations to tender for these ships last April. I understand discussions are continuing, and hope they can be completed shortly with a full understanding of all the relevant facts between your officials and mine.

6. I was most grateful for the assurance in your letter that the costs of the three frigates you propose, which officials have estimated to be over £400 million in cash terms, will be contained within the defence provision we agreed in the 1989 public expenditure Survey. I take it that this will, if necessary, be at the expense of lower priority projects. Your defence programme as a whole will therefore be one which is forecast to cost each year no more than the cash plans we agreed plus such cash risk as you and I agree to be reasonable in view of the uncertainties affecting your programme. Officials will need to continue discussions on this point. My agreement to a frigate order is inevitably subject to them being affordable, in this sense, within defence provision as we agreed at the end of the Survey.

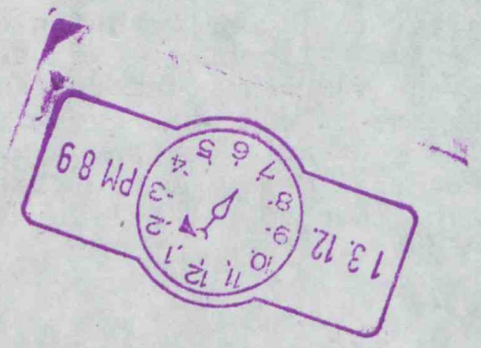
7. I agree that there is no reason for splitting the order, which would carry the consequent cost penalty you mention, and which would be contrary to our competition policy.

8. You therefore have my agreement, as you asked, to place the orders subject only to the conditions about nugatory expenditure and affordability mentioned above.

9. I am sending copies of this letter to the Prime Minister, other members of OD, Kenneth Baker, Norman Fowler, Malcolm Rifkind, and to Sir Robin Butler.

Yours sincerely
Cays Evans

NORMAN LAMONT
approved by the Chief Secretary and signed in his absence



SECRET UK EYES A

cab 40(A-B)

000643

FROM: CHIEF SECRETARY
DATE: 12 December 1989

PRIME MINISTER

EFA RADAR

I have seen Tom King's minute to you of 6 December. will CDP?

2. I am sure Tom is right to say that we could not place a contract of this sort with a consortium led by Ferranti until a financial reconstruction of that company is well under way. I would take a similar view in relation to a consortium involving, but not led by, Ferranti as there must be doubts about Ferranti's ability to retain key staff until its present uncertainties are resolved.

3. Tom refers to an agreement between Ferranti and AEG that the latter could become the lead company for ECR90, and that ECR90 might incorporate certain features from APG65. If, contrary to Tom's expectations, the Germans were to be ready to consider such an arrangement, we would need to examine properly the cost-effectiveness and risks involved. Incorporating new features into ECR90 would not necessarily be a straightforward matter, as the attempts to improve MSD 2000 have shown. Changing the composition of the consortium could bring with it both risk and a longer timescale. I suggest Tom's officials and mine discuss the matter.

4. In his paragraph 11, Tom asks for our views. On tactics, I would be content for Tom "to let the Germans believe" we would adopt a 3 nation ECR90, as long as this did not involve any commitment to such an option.

B

5. On substance, I am firmly of the view that we need a full and thorough examination of the options we face. The radar is central to EFA's capability and a two radar solution would have substantial implications for other aspects of the plane. The costs and risks involved need to be fully identified. It is unfortunate that there was no preparatory discussion on these matters between officials before Tom wrote.

6. I propose that officials should now prepare a paper examining the costs and risks of the two radar option, and the alternative options based on MSD 2000 or APG 65. It would be helpful if we could have at the same time the report on the options for the future of the Tornado which was requested in your private secretary's letter of 17 July.

7. I am copying to members of OD, to Malcolm Rifkind and to Sir Robin Butler.

Carys Evans

pp NORMAN LAMONT
approved by the Chief Secretary
and signed in his absence

Deluxe :
Procurement Pt 7

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39(A-D)

PRIME MINISTER

12 December 1989

EFA RADAR

It appears that the Germans are about to present us with an ultimatum; either all the EFA nations agree to develop the German-led MSD 2000 radar, or the Germans will "go it alone" with the Hughes APG 65 radar (which is already fitted to their Phantoms).

For once the UK can be presented clearly as on the side of the angels. The other two EFA nations - Spain and Italy - agree with us that the Ferranti-led option, ECR90, is the best solution.

We are, however, left with stark and unsatisfactory choices:

(a) a 2 radar solution for EFA;

(b) opting for MSD 2000 or APG65 when three out of four EFA nations considers both inadequate for their needs;

MOD want:

- agreement to continue to let the Germans believe - for tactical reasons - that we would be prepared to develop ECR90 without them;

- views on the substance of the choice before us.

The Treasury are prepared to acquiesce to the tactics, provided this does not box us in on the options. This seems realistic.

B

On substance, they would like more information before forming a view. Underlying this is the long-held Treasury belief that a third option exists - pull out of EFA.

This view is based on the belief that, since the original decision was taken to enter the EFA development stage, circumstances have changed materially:

- a 2 radar solution would be high risk and high cost;

- Tornado has run into fatigue problems;

- the arms control environment is more favourable.

They feel that this calls for a more fundamental look at the overall mix of our air defence capability between now and 2010 when new fighters, incorporating real step changes in technology, will start becoming available.

Comment

It would not be surprising if the Treasury were using this as an opportunity to reopen the whole decision to proceed with EFA. What they may have in mind is to cancel EFA, and phase out Tornados more quickly than originally planned. An off-the-shelf purchase of US fighters, for example, would then become an interim solution until new technology comes on stream in the next century.

But this is hardly realistic:

- there are no obvious alternatives;

- it ignores the question of capability against the threat.

Moreover, Tom King's minute states that the US APG65 radar has been compromised. Given this we need to ask if there are other particular reasons why the Germans are so keen to pursue its technology?

I do, however, have sympathy with the Treasury view to this extent:

- the radar is the heart and head of any plane;

- two radars mean that two very different packages will have to be developed for the defensive aids systems, the weapons systems and the avionics generally;

- this implies a very major change in the nature of the EFA project. In many respects we would be building two separate planes which in normal circumstances would be a nonsense;

- EFA was always going to entail a high degree of risk - not least in systems integration. A two radar solution increases that risk and the prospect that costs will escalate;

- we need to be absolutely clear about all the implications before embarking on the 2 radar course. For example, does the MOD estimate of an extra £150 million over five years apply to the radar only, or does it include the consequential additional costs of other systems as well?

Recommendation

I recommend that you:

(i) agree that Tom King should continue to let the Germans believe we will press ahead with ECR90;

(ii) agree that this should be done in such a way as not to close off options we may wish to pursue at a later date;

(iii) ask for a fuller assessment of the costs and risks involved, with a view to determining the exact circumstances in which a two radar solution may or may not be sensible. This should be prepared urgently;

(iv) ask for a fuller explanation as to why the Germans appear content to pursue technology that has been compromised.

Andrew Dunlop.

ANDREW DUNLOP

CGPC (1)

SCOTTISH OFFICE
WHITEHALL. LONDON SW1A 2AU

Prime Minister

CONFIDENTIAL & COMMERCIAL - IN CONFIDENCE

Do you wish to intervene on this?

The Rt Hon Tom King MP
Secretary of State for Defence
Ministry of Defence
Whitehall
LONDON
SW1A 2HB

12 December 1989

CDN 12/12

Dear Tom,

TYPE 23 FRIGATES

Thank you for sending me a copy of your letter of 8 December to Norman Lamont.

I am extremely concerned at the implications for Clydeside of your proposal to place all 3 Type 23 frigate orders with Swan Hunter Shipbuilders Ltd (SHS). As your letter acknowledges, without further frigate orders Yarrow Shipbuilders Ltd (YSL) would have to begin laying off employees late next year and I understand that substantial redundancies would follow during 1991. In contrast, these orders would apparently enable SHS to maintain full employment for 2-3 years. Failure to award any of these orders to YSL would be seen as a further body blow to the economy of the west of Scotland, coming hard on the heels of deep and widespread concern over the future of the steel industry in Scotland. The city of Glasgow, where the unemployment rate is currently 11.9%, would be particularly hard hit. I have to say that I do not find your statement very reassuring, that YSL "should be able to survive" until the next round of naval ship orders. As you know all their present workload consists of Type 23s, unlike Swan Hunter which has a wider range of MOD and other work. Even assuming that there was a further batch of orders next year and that YSL won some or all of these, that would come too late to avert the problem they will face in a year's time.

I endorse the general principle that orders should be awarded on the basis of competition and value for money. But in the circumstances I believe we would be justified, in industrial and social terms, in exploring with YSL the scope for a negotiated price for, say, one vessel at a level equivalent to that offered by SHS. This approach was adopted before with the decision to split the last 2 Type 22 frigate orders between SHS and Cammell Laird, to enable the latter to survive, and our decision to award the Type 23/02 order to SHS on a negotiated price basis to avoid substantial redundancies in that yard at the time. I am conscious that this course of action could lead to some delay in announcing the result of

the competition, but in my view this would be justifiable in the circumstances.

I am sending copies of this letter to the Prime Minister, Norman Lamont, and other members of O(D), and for information to Kenneth Baker and Norman Fowler, and to Sir Robin Butler.

Yours ever,

MALCOLM RIFKIND

RBI346X3

Delene - Delene Procurement Pt 7

The National Archives

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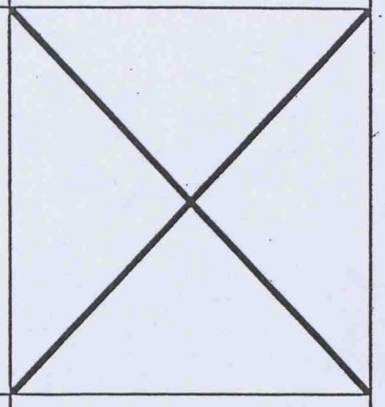
Extract details: King to Lamont 11/12/89	
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The National Archives

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CONFIDENTIAL

CHARLES POWELL

8 December 1989

EFA RADAR

I understand Tom King has minuted the Prime Minister on this issue. I would be grateful for sight of a copy of his minute and an opportunity to comment before you put it to the Prime Minister.

ANDREW DUNLOP

CONFIDENTIAL

CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

CC/C
(2)

MINISTRY OF DEFENCE WHITEHALL LONDON SW1A 2HB

TELEPHONE 01-218 9000
DIRECT DIALLING 01-218 2111/3

MO 26/3L

8 December 1989

Dear Norman,

TYPE 23 FRIGATES

In his letter of 24th April, John Major agreed that the Ministry of Defence should invite tenders for the next batch of up to four Type 23 frigates. I have now considered the results of the competition and propose to order three ships from Swan Hunter Shipbuilders Limited (SHS).

HMS NORFOLK, the first of the Type 23 class, was accepted from Yarrow Shipbuilders Limited (YSL) last month. Six others are currently on order: five at YSL and one at SHS. Tenders were invited in April from YSL, SHS, the VSEL subsidiary Cammell Laird (CL) and Vosper Thornycroft (VT) for combinations of up to four ships. Bids were received from the first three yards; VT declined to tender.

The competition has again been excellent, with prices substantially below those of the previous batch, which were themselves lower than those of earlier ships. All bids were compliant and SHS are the clear winners for any number of ships.

The Rt Hon Norman Lamont MP

In order to maintain our commitment to a force level of about 50 destroyers and frigates, I should really be placing orders for four ships now. However, in view of the pressures on the defence programme and budget, and notwithstanding the excellent prices on offer, I cannot confirm the affordability of the fourth ship within the Defence Budget at this stage. I, propose therefore, to place an order for only three ships now. This will mean, however, that we shall need to run on some older, out of date, and manpower intensive ships beyond their previously planned pay-off dates if numbers are to be kept at 47 or above. Should the fourth ship retain its place in the programme, it will be included in the next batch competition.

The capital cost of an order for three ships is £350M, of which £213M is the shipbuilding element and £137M is for weapons systems and equipment. This expenditure will be contained within the defence provision agreed in PES 89.

An order for three Type 23s should enable SHS to maintain their present work force for two to three years. YSL won the order for the last batch of Type 23 frigates in July 1988 and currently have five ships on order. CL have three Upholder class submarines and a regular load of Trident sub-contract work from Barrow. Employment at both YSL and CL is likely to contract from about the end of next year, but both yards should be able to survive until the next round of naval ship orders. There are thus no defence reasons for splitting the order. To do so would cost the Defence Budget a premium of at least £12M which, given the pressures on the budget, I could not contemplate. It is, in any event, important that we maintain our competition policy, which is fostering improved efficiency in the yards and providing real benefits in terms of value for money.

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Our officials are continuing to discuss the range of issues concerning the requirement for destroyers and frigates and other matters which John Major raised when he agreed to the issue of invitations to tender for these ships, and I understand that there are no outstanding issues of this kind which would give you difficulty about this order. Your officials have, however, questioned whether the order should be delayed until we have completed our review of the related EH101 ASW helicopter project, thus avoiding a possible need to modify the ship helicopter handling arrangements by contract change notice. I have looked at this and concluded that there is no case for postponing the order on these grounds. The additional expenditure at risk is likely to be small and, in the event of a decision not to continue with EH101, we could only avoid incurring it by delaying the order up to 18 months. The risk of losing the current very good prices as a result of such a delay is very real and outweighs the much smaller risk involved in allowing the order to proceed.

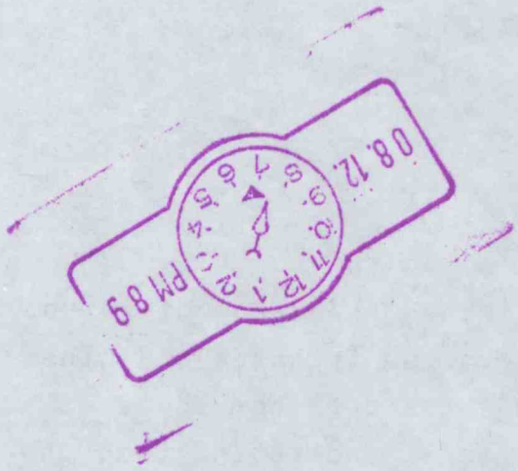
I should be grateful for your agreement that I should place the order now. Subject to any views that colleagues may have, I propose that an announcement should be made by means of an oral statement in the House as soon as possible next week.

I am sending copies of this letter to the Prime Minister and other members of OD, and for information to Kenneth Baker, Norman Fowler, Malcolm Rifkind and, to Sir Robin Butler.

Tom King

NAT IND: Shipbuilding

pt 5



CONFIDENTIAL



10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

7 December 1989

Dear Ian.

SUPPORT DEFENCE MISSILE SYSTEM

Thank you for your letter of 6 December about your Secretary of State's intention to announce that we intend to proceed with the next phase of the French-led Anti-Air Missile Systems programme. The Prime Minister is content with the proposed written PQ and answer, on the assumption that the necessary funds are already within the Defence Programme.

I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), Neil Thornton (Department of Trade and Industry), Carys Evans (HM Treasury) and Sonia Phippard (Cabinet Office).

Yours sincerely,

(CHARLES POWELL)

I.M. Woodman, Esq.,
Ministry of Defence.

cc PC
CCPU
36A(A-6)

MO 26/11/9L

PRIME MINISTER

at flap

EFA RADAR

You will wish to be aware of developments since my Private Secretary wrote to yours on 1st September, reporting on the outcome of an earlier meeting with my German counterpart about the way ahead on the choice of radar for EFA. Dr Stoltenberg acknowledged that, unlike ECR 90 (the Ferranti led proposal), AEG's offer of the MSD 2000 radar did not meet the needs of the RAF as specified in the four nation European Staff Requirement. He offered, therefore, to establish whether AEG (and its associate Marconi) could improve their technical offer.

2. We have since received and evaluated AEG's revised proposals. The enhanced MSD 2000 still falls short of our needs in key areas, notably its detection and tracking performance; the volume of sky which can be searched; its performance in the electronic counter measures (ECM) environment; the limited number of air-to-air missiles which it can guarantee to support in flight; and its inability to remain undetected by its target. The technical risk is high, particularly over the proposed improvements in the vital field of ECM, where there is no evidence that the suggested enhancements have been thought through fully. Our conclusion remains, therefore, that only ECR 90 will meet our needs. This judgement is supported by the Spanish and Italians, and also by NEFMA, the international agency responsible for managing the development of EFA.

B

3. In contrast, the Germans continue to support MSD 2000 and do not appear to be attracted by the proposed enhancements on offer for that radar because of the increased technical risk. Their fallback position still appears to be the American APG 65 (a current in-service radar of which MSD 2000 would be a development) and which could in theory be replaced by a new radar at some point in the future. But APG 65 is already incapable of meeting the developing threat and has been compromised to the Russians. The technology for the next generation of radar is in its infancy; we see no prospect of it becoming available until the second decade of the next century.

4. Bids for the EFA radar contract were invited from all potential suppliers in the EFA nations and the US; after exhaustive evaluation of the two options which emerged from the competition, only ECR 90 was found to meet our requirements in all significant respects. I believe, therefore, that we should continue to press for ECR 90 as the choice of radar for EFA.

5. There remains however the complication of the future financial viability of Ferranti. Although we are now making limited new contractual commitments to Ferranti after case-by-case examination, neither we nor our partners could agree to place such a major contract as the radar with a consortium led by Ferranti until the financial reconstruction is well advanced. I have told the Ferranti Board, in unequivocal terms, of the importance that the MOD attaches, as a customer with programmes at risk, to the early resolution of their problem but that they should not assume the radar contract as an essential element of their reconstruction plans (the value of the business is not substantial in comparison with Ferranti's overall turnover, especially in the first five years).

C

6. Ferranti's current difficulties do, of course, provide an unwelcome complication, not least for the Germans who have no confidence in Ferranti's continued financial viability. In an effort to meet their concerns, Ferranti have already agreed with AEG, the German lead contractor in the MSD 2000 consortium, that they would be prepared to let AEG take over as the lead company for the ECR 90. It has also been agreed that they can incorporate certain features derived from APG65, if the Germans so require. Despite this very helpful initiative which the Italians and Spanish fully support, I judge from Stoltenberg's attitude, when I discussed EFA with him last week at the NATO Defence Planning Committee meeting, that he is not prepared to consider any such compromise.

7. I believe that Stoltenberg will write to me and our Italian and Spanish counterparts very shortly, stating that Germany has decided on MSD2000 and inviting the other three nations to join in. If they do not, I suspect Germany will then go it alone with the APG 65 which they are already buying to update their Phantom F4 aircraft and will not develop a new radar at all.

8. That will leave us with a stark choice. First, are we prepared to spend the extra money that will be needed to develop ECR 90 with Italy and Spain (or even on our own), so that we have a radar which meets our requirement? If we are, that will strengthen my negotiating hand with Stoltenberg. Second, if we are not, are we prepared to proceed with the EFA programme and to fit a radar to EFA which we know will fall well short of our requirement?

9. If the Germans decide to go down their own route, an initial survey suggests that the extra cost to the UK for the development and integration of a three nation ECR 90 might be of the order of

D

£30 million a year over the next 5 years, though we cannot be sure until we have entered into negotiations with the companies concerned. It would also require Spain and Italy to take on equivalent extra costs between them. If these countries do not join us then we would have to cover their share as well. I should, of course, try to avoid a two-radar solution, but it may unfortunately turn out to be the only way of keeping the EFA programme unless the Germans are prepared to accept the solution favoured by the other 3 partners.

10. If, on the other hand, we were to decide against pursuing ECR 90 then we would have consciously to fit a radar to EFA knowing that it would not meet the threat foreseen for the late 1990s and beyond, and that it would be well into the 21st Century before any replacement radar became available. There is the consideration that repeated assurances have been given, both in the House and to delegations of colleagues and other interested parties, that our overriding aim is to secure the radar most suited to the RAF requirement.

11. These are questions of great importance to the future air defence of the UK and to the future of EFA and I would welcome a very early view on the line that you and colleagues would support in the event that the Germans finally reject an ECR 90 based solution. At this stage, however, I think that there are tactical reasons for letting the Germans believe that we are prepared to proceed on the lines of paragraph 9; without such an assurance, there is really no negotiating weight that we can bring to bear on them! I hold firmly to the view that, subject to the industrial considerations that I have set out in paragraph 5 above, we should be prepared to face the financial implications of a 2 radar solution for this aircraft.

12. I am sending copies of this minute to OD colleagues and the Secretary of State for Scotland, and to Sir Robin Butler.

Ministry of Defence
6 December 1989

T K

DEFENCE : Procurement
A 7



CONFIDENTIAL

CCPC

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

MO 26/3L

6th December 1989

Dear Charles,

SUPPORT DEFENCE MISSILE SYSTEM

My Secretary of State has asked me to let you know that he will shortly be announcing that we intend to proceed with the next phase of the French-led Family of Anti-Air Missile Systems (FAMS) programme to meet the Royal Navy's Support Defence Missile System (SDMS) requirement, subject to the satisfactory conclusion of negotiations with the participating nations. We have, therefore, decided after very careful consideration not to participate in further phases of the US-led NATO Anti-Air Warfare System (NAAWS) project.

The choice between these two collaborative programmes has been an extremely difficult one, because both projects offer the prospect of a highly capable ship defence system. In making the decision all factors have been taken into account, but amongst the most important have been consideration of the balance between performance and programme cost and risk. The requirement for a SDMS is linked to the Type 42 frigate replacement programme, and we have concluded that of the two projects, FAMS offers the better prospects of providing an affordable and capable system within that timescale.

NAAWS was assessed as having the potential to become an extremely effective and comprehensive anti-air warfare system. Although it embodies some difficult technical challenges, we considered that with careful risk management within a measured programme, these could be met. But we believe that FAMS is more likely to provide a local area defence system which could be put to sea in the required timescale for the RN, whilst at the same time remaining within our stringent budgetary constraints.

Although it was not a factor in our decision, it is also possible that this will allow the French Government to lift its objections to the proposed merger of the missile and guidance systems division of British Aerospace and Thomson-CSF.

Charles Powell Esq
10 Downing Street

My Secretary of State intends to announce this decision on Friday 8th December by means of a written PQ and answer. (I attach a copy of the draft announcement).

A copy of this letter goes to Stephen Wall (Foreign Office), Neil Thornton (DTI), Carys Evans (HM Treasury) and Sonia Phippard (Cabinet Office).

Yours sincerely

Ian Woodman

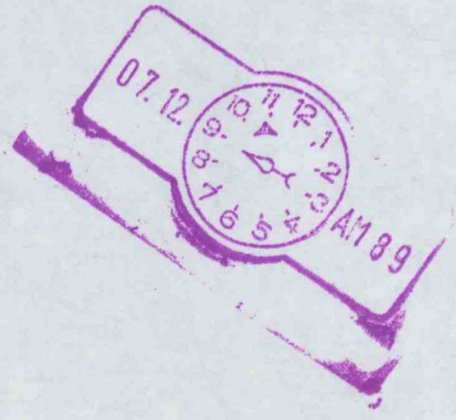
(I M WOODMAN)
Private Secretary

DRAFT ARRANGED PQ

Q. To ask the Secretary of State for Defence, if he will make a statement on the Royal Navy's requirement for a Support Defence Missile System.

A. I can announce today that we intend, subject to the satisfactory conclusion of negotiations with the other participating nations, to join a 24 month Project Definition phase for the Local Area Missile System (LAMS) variant of the Faimily of Anti-Air Missile Systems next year. We have therefore decided, after very careful consideration, not to participate in the next phase of the NATO Anti-Air Warfare System (NAAWS) project.

The choice between these two collaborative programmes has been an extremely difficult one because both projects offer the prospect of a highly capable ship defence system. Many complex factors have had to be assessed; particular consideration has been given to the balance between technical performance and programme cost and risk. The UK's requirement for a SDMS is linked to the MOD's plans to procure an Anti-Air Warfare (AAW) escort ship to come into service at the turn of the century to replace the Type 42 destroyers. On balance, it has been concluded that, of the two projects, FAMS offers the better prospect of providing an affordable and capable system within that timescale.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ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD
NORTH ATLANTIC TREATY ORGANIZATION

CABINET
DU SECRÉTAIRE GÉNÉRAL
OFFICE
OF THE SECRETARY GENERAL

Tel: (32-2) 728 45 21/41 44
Fax: (32-2) 728 46 66

OA-302
NATO HQ
1110 BRUSSELS
Belgium

29 November 1989

Mr. C.D. Powell
Private Secretary
10 Downing Street
LONDON SW1A 2AA
UK

Prime Minister

You might like to glance at this. The views have no support in MOD, but they are quite cogently put. I intend to ask the MOD for a commentary on them.

CDP 5/xii

Dear Charles

I am enclosing a short article by Ken Brower which I think outlines the technical issues in tank procurement very well.

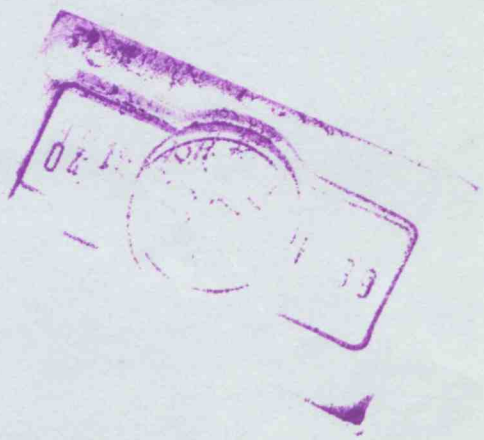
He is coming to the UK in January to address this issue at the Higher Command and Staff Course at Camberley.

Sincerely
Chris

CHRIS DONNELLY
SOVIETOLOGIST-IN-RESIDENCE

Att:

2216/SIR185



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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/4/5/1/1

22nd November 1989

CDJ 29/X

Dear John

MOD RELATIONS WITH COMMERCE AND INDUSTRY

I have seen a copy of the minutes of the fifth meeting of E(CP)(89) concerning the Government's relationships with industry, which unfortunately I was unable to attend.

In his summing up Nigel Lawson asked that I provide a detailed response to the request for a review in his letter of 12 June. My letter of 9 August provided replies to both of the questions actually put to my Department in Nigel's letter, and I see little scope for furnishing additional detail; but I am of course happy to expand on the relationship between my Department and industry.

The aim of our procurement policy is to provide the equipment needed by our armed forces in a way which gives the best value for money. We believe that this is best achieved by the use of competition, wherever practicable and sensible, in the procurement process. We also adopt a commercial approach with the defence industry to help achieve this aim. These policies have been applied with vigour in recent years and have brought about a significant change in the way we do business with industry.

The attached table, which gives, by value, the proportion of work placed by competition and other means, shows that the proportion of contracts (including collaborative and overseas contracts) placed by reference to competitive forces has increased from 30% in 1979/80 to 49% last year. Of course, if you look at our record on contracts

The Rt Hon John Major MP

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where we are completely master of the process, the figure is closer to 60%, largely because in collaborative programmes it is not always possible to get agreement to what we would regard as the best commercial practice.

These figures do not, however, reveal the true extent of our employment of competition for two reasons. First, they do not capture competition at the sub-contract level; second, while those contracts placed non-competitively are often of very large value - because they are usually for large projects where suitable competition is not available, eg Trident, or large collaborative programmes - they do not represent a large number of contracts. For example, a breakdown by number of contracts placed rather than their value, shows that 83% were placed by reference to market forces in 88/89. This figure in particular makes it clear that the use of any method other than competition is very much the exception.

The minutes also raised the question of my Department's attitude to overseas purchases. My Department has no difficulty with the concept that an overseas supplier should win our business if it provides the best value for money solution and satisfies the appropriate security considerations. While, as was noted at the meeting, overseas firms have not significantly improved on their success rate over the last few years, this may be indicative not only of the value for money available from UK industry, but also of the difficulties overseas suppliers may perceive in entering MOD's market.

Initiatives such as the Anglo-French Reciprocal Purchasing Arrangements established at the end of 1987 and the IEPG action plan agreed by IEPG Ministers in 1988 are designed to combat the perceived difficulty of breaking into the MOD market. Both initiatives aim to increase the visibility of the procurement process of the MOD largely by the use of the MOD's Contracts Bulletin. As well as a healthy circulation in the UK, this publication has a growing circulation abroad - currently there are about 200 overseas subscribers, mostly in France. As the current holders of the Chairmanship of the IEPG and in our separate arrangements with the French we are playing a leading role in the progress toward a fair and open European defence market; the forthcoming publication of contracts bulletins by the IEPG nations will help promote this.

Finally, it may be helpful if I repeat our answers to the two questions originally posed by Nigel Lawson in his letter of 12 June. On the first of these, I hope I have made clear above our commitment to a procurement policy based on competition. The natural corollary of this is that we do not sponsor industry, though there are for strategic reasons certain capabilities we wish to maintain, and in fact we go to some lengths to try and ensure that competition is maintained wherever possible - as our action in the GEC/Siemens takeover of Plessey demonstrates.

The earliest figures available for the Defence Export Services Organisation are for 1982 when the division employed 318 people. Now that figure is 192. However, I should reiterate that the role of the DESO is not that of sponsorship, but of the provision of advice and assistance to individual firms or groups of firms wishing to sell defence equipment abroad on a case by case basis.

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

Yours ever

ALAN CLARK

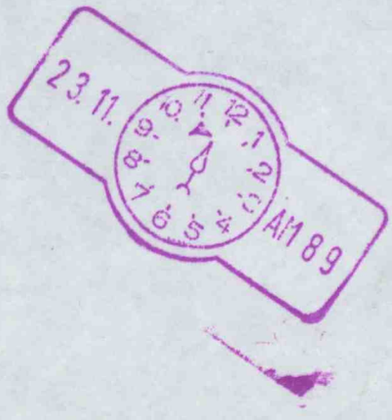
PROPORTION OF CONTRACTS BY VALUE PLACED BY COMPETITION

	1979/80	1988/89
Contracts placed by competition	14	28
Contracts placed otherwise by reference to market forces (1)	16	21
Total	**30**	**49**
Contracts placed on estimates at outset or as soon as possible thereafter (2)	36	42
Contracts placed on actual costs with incentives to minimise costs (2)	12	5
Contracts placed on actual costs plus a percentage fee (2)	22	4
Total	**70**	**51**

Notes

(1) Includes informal competitive tendering procedures and commercial pricelists (appropriately discounted).

(2) Priced by reference to the Government profit formula.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Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

Enter extract details if it is an extract rather than a whole piece.
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Sign and date next to the reason why the record is not available to the public ie. Closed under FOI exemption; Retained under section 3(4) of the Public Records Act 1958; Temporarily retained; Missing at transfer or Number not used.

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(2)

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

MO 26/2/2

25 October 1989

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

Your letter of 15th October asked when the development contract for the RN EH 101 programme was placed, and whether this reflected a collective Ministerial decision.

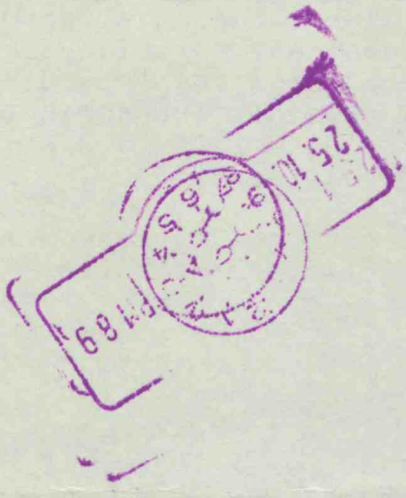
2. There was extensive Ministerial correspondence in 1983 on the terms and conditions of UK participation in the EH 101 programme, but the key papers are I think Mr Heseltine's minute of 15th March 1983 to the then Chancellor of the Exchequer, which was copied to the Prime Minister and other Ministerial colleagues principally concerned, and which sought Treasury agreement to defence aspects of the development launch, and the Chancellor's response of 24th March indicating conditional approval. Further exchanges in 1983 on the level of launch aid (again involving No. 10) did not affect the principle of UK participation in development.

3. The development MOU was signed in London - by the Chief of Defence Procurement on behalf of the Ministry of Defence - on 13th January 1984.

Yours sincerely,
John Colston
(J P COLSTON)
Private Secretary

C D Powell Esq
No 10 Dowing Street

DEFENCE: Procurement Pt 7.



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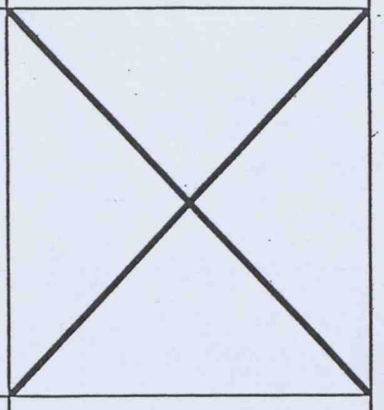
Extract details: King to Lamont 19/10/89	
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file DTS

bc: PC

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

15 October 1989

MAJOR MOD PROCUREMENT PROJECTS

Thank you for your letter of 9 October about major MOD procurement projects which are experiencing problems. Could you just remind me when the development contract for the EH101 ASW Helicopter was placed, and whether it was a collective Ministerial decision?

C. D. POWELL

John Colston, Esq.
Ministry of Defence

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010

CCP (2)

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

MO 26/2/2

9th October 1989

Prime Minister

The time must be approaching when we shall have to cut our losses on the EH101. We've clearly been sold a pup on IUKADGE – either because the companies misled us, or the MOD procedures for placing the contract were inadequate.

CDP 9/X.

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

I attach a set of reports on major MOD procurement projects for the Prime Minister.

I did not send you reports in July because of the change of the Secretaries of State; Mr King wished to be fully briefed on the projects before further reports are submitted. He is taking a personal interest in the action set in hand to rectify the difficulties identified in the reports.

There are two new reports in this series; one is the IUKADGE programme and the other, although not an MOD programme, details the problems that Royal Ordnance are having in the United States which are achieving a high profile within United States Government circles.

Yours sincerely,

John Colston

(J P COLSTON)
Private Secretary

Charles Powell, No 10

EH101 ASW HELICOPTER FOR RN

Programme Value: £2,255M*

Problems

- No maximum price on development contract.
- Main contractor (EHI) (the joint venture Westland/Agusta company) not in full control of the programme.
- No contractual requirement to prove total mission system works.

Current Situation

- Following further high level discussions with Westland, the company has agreed to submit a proposal for a maximum price, which should be with the MOD shortly. Although this is an encouraging development, the Secretary of State and CDP have met senior representatives of the company to warn them that if their proposal is not a realistic one, with sensible terms and conditions, then the MOD would have to review its position on the RN programme.
- Westland and Agusta have established at EHI a small, high-level executive group, called the "Gruppo Operativo" which is designed to exert more pressure on the parent companies to work effectively together. Concerns about time and cost overruns on the programme remain, however, and, in view of this, MOD officials are carrying out a study of the implications of pursuing alternative procurement strategies for the EH101 (including cancellation options).
- A contract has been let upon Sema Group Systems Ltd (formerly CAP Scientific) to write a detailed RN performance specification, which will be used as the basis for selecting a Prime Contractor responsible for the whole mission system.

* Revised estimate at 1989 economic conditions.

REBUILDING PROGRAMME AT ALDERMASTON

Programme Value: £1,013M

Original Problems

- Inadequate project definition.
- Inadequate project management control.
- Inexperienced industry over-reliant on MOD/AWE in key nuclear safety areas.
- Split in responsibility between MOD and PSA.
- Technical difficulties.
- Cost escalation.

Current Situation

- NNC Ltd as Facilities Project Management Contractor (FPMC) continue to provide an effective management of the overall programme and to play a strong role in the commercial and management aspects affecting critical project timescales and costs. Recent notable successes have included completion on time of critical equipment (Glovebox) deliveries for A90.
- The substantive handover of A90 for commissioning remains on-schedule for January 1990. NNC Ltd have recently been awarded a contract (separate from the FPMC) to plan details of the two year commissioning programme with a remit to utilise contractors where necessary to overcome AWE manpower shortfalls and to maintain (or to improve upon) programme milestones for commencement of production in 1992; their report is due in October.
- The overall project cost estimate to completion remains within the budget established and approved by Ministers 12 months ago. All major milestones remain achievable, although some rescheduling of minor tasks is inevitable.

PINDAR: RELOCATION OF MOD/CABINET OFFICE CRISIS MANAGEMENT ORGANISATION INTO HARDENED ACCOMMODATION

Equipment and Installation Programme c. £67M*

Works Programme c. £49.9M*

Problems

- Lack of a defined requirement for the total PINDAR project until July 1988.

- Management and control of a large hybrid works/equipment project involving PSA and MOD contractors.

Current Situation

- The evaluation of the systems implementation proposals submitted by the 3 Competitive Engineering Definition Study contractors is proceeding satisfactorily.

- The technical evaluation has reached a conclusion and draft final reports have been prepared. The formal process to select the PINDAR prime contractor, taking account of price and commercial considerations, is being initiated. The EPC project approval process for the systems implementation phase is also underway.

- PSA's site works programme is proceeding against a contractually binding and incentivised "practical completion" date of October 1990, but PSA have recently notified further delays which have reduced the probability of achieving this timescale. Ways of recovering the programme have been discussed with PSA and the Contractor.

- The process of finalising the agreement with the site works contractor had resulted in the completion of certain site commissioning activities being deferred until after October 1990. The conditions under which this anticipated PSA run-on work could be managed have been negotiated with the prospective PINDAR prime contractors to minimise risk.

- The PINDAR ISD estimate remains in the range October 1991 to December 1992.

* Programme costs to MOD at September 1988 economic conditions.

This simply says that we have been sold a pup.

IMPROVED UNITED KINGDOM AIR DEFENCE GROUND ENVIRONMENT (IUKADGE): INTEGRATED COMMAND AND CONTROL SYSTEM (ICCS)

Programme Value: £225M*
(NATO contribution - 83%)

BACKGROUND

- The IUKADGE programme comprises a series of projects which together will lead to the progressive re-equipment of the UK Air Ground Environment. It involves the construction of a number of hardened facilities, the provision of transportable air defence ground radars, of improved communications, the creation of a new integrated command and control system known as ICCS. This project is being implemented under a fixed price contract with UKSL, a consortium of Hughes Aircraft Co, Marconi and Plessey, and 83% of the cost is funded by NATO. The contract was awarded as a result of a full international competition. Total system responsibility is vested in the prime contractor.

- The accommodation has been completed and now houses all the ICCS computers and displays. The communication system and most of the new radars have also been delivered and the ICCS which is a highly complex real-time software based system is the only outstanding element.

- The RAF has confirmed that in the interim existing systems will continue to provide an acceptable level of air defence for the UK.

PROBLEMS

- The Prime Contractor, UKSL, have failed adequately to design, and to maintain the design coherence of the ICCS system throughout the development programme.

- As a direct result, the ICCS design is unsound and the system failed to pass the contractual tests during the summer of 1988.

- UKSL are making very slow progress in fixing the known faults and do not expect to complete the basic ICCS before 1992.

- The current system design does not provide a sound basis upon which the rest of the Air Defence system can be built; it lacks the flexibility, robustness and expansion capability required.

*Programme costs at September 1988 economic conditions.

CURRENT SITUATION

- As a result of UKSL's obvious inability to resolve the software problems which resulted in the system failing to pass its final test last year, the Department, with UKSL's agreement, instituted an independent external audit of the project. The Audit was lead by SD/Scicon and was conducted by a mixed team of experts from that company, from Government and from management consultants, Coopers and Lybrand.

- The Audit team have concluded that the current system design is unsound but have identified several actions which would remedy this situation if implemented in full. The audit has also confirmed that the Contractors proposed Way Ahead Plan is most unlikely to lead to resolution of the software problems in the mid 1990 timescale suggested by UKSL.

- The Department has validated most of the Audit's technical findings which are reinforced by UKSL's continued inability to make progress with the rectification of the software faults.

- UKSL have now received a copy of the Audit and their comments are awaited.

- CDP is writing to the three companies involved to arrange an early meeting.

ROYAL ORDNANCE 105MM LIGHT GUN FOR THE US ARMY

BACKGROUND

RO plc have won an order to provide 115 Light Guns for the US Army. This is the most valuable order they have won in the US. However they are having great difficulty in delivering the required quantities on time. The US Army have expressed their increasing concern at high level, including the Secretary of the Army, Mr Stone.

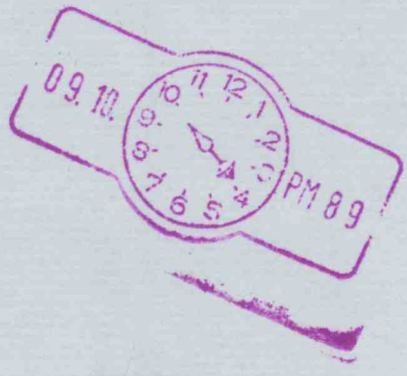
The reasons for the slippage include post quality sub-contracted products; inadequate stocking procedures; quality assurance problems; and an over-ambitious delivery forecast. At root, the equipment as designed is simply not amenable to modern efficient production methods.

STATUS

Currently the latest agreed delivery schedule is for 64 guns by end of October. Following US Army and MOD pressure, RO have brought in 50 extra assembly and inspection personnel and invested £3M in new capital equipment for production line. Also additional dedicated and accountable senior managers have been appointed to achieve deliveries.

SOLUTION

In September the delivery of 46 guns was achieved on time; spares support for these weapons will be delivered by end-October. Defective items supplied on earlier deliveries have now been replaced. RO still expect to achieve end-October target of 64 guns on time. However, we feel that they are being very optimistic, and that they have fundamental problems in manufacturing that will not be easily solved. In addition, similar contract in Australia is facing the same problems.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PM 89

CONFIDENTIAL

RE
SRW

cc PU

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

28 September 1989

Dear Robin,

THE NATO FRIGATE (NFR 90)

The Prime Minister has seen the Defence Secretary's minute of 18 September recommending that we should proceed to completion of the Project Definition phase of the NATO Frigate. She has also seen the Chief Secretary's minute of 26 September recording his very strong doubts whether this would be wise.

The Prime Minister shares in full the Chief Secretary's doubts. It was only with reluctance that OD originally accepted that we should enter the PD phase for the NATO frigate, which is why such clear conditions were established. It is agreed by everyone that these conditions have not been met. She is very sceptical whether we would in fact get better value for money by continuing with the PD phase, but that is not the main point. When Ministers agree certain conditions for a project and they are not met, then the project (or our participation in it, where it is a multilateral one) should be suspended: that is the only sound procurement practice. In any case, it does not seem to the Prime Minister a wise or sensible policy to proceed with a collaborative venture in the expectation that it will collapse.

The Prime Minister concludes that we should abide by the original OD decision and withdraw from the NFR 90 Project.

I am copying this letter to the Private Secretaries to members of OD and to Sir Robin Butler.

Yours sincerely,

(C. D. POWELL)

Brian Hawtin, Esq.,
Ministry of Defence.

CONFIDENTIAL

(1)

PRIME MINISTER

THE NATO FRIGATE

You will remember the NATO Frigate. It is one of the less satisfactory joint projects in which we have become involved. You were never keen on it. But you agreed in early 1988 that we could join the Project Definition phase for an initial period, to see whether some sense could be made of it. The conditions were that the various partners should agree on a realistic timetable: and the hull and the weapons systems should be in alignment.

We have now reached the first break point, and the fact is that the conditions agreed by OD have not been met. Even the MoD do not pretend they have. Indeed it is increasingly clear that the Project will never happen. Different governments want different weapons systems, and the different weapons systems will require a different type of hull.

We have to decide whether to leave the Project now: or to go on a little bit longer until the end of the Project Definition phase.

The MoD have come up with a new argument. Assuming the NATO Frigate is never built, we shall have to develop a Frigate of our own, and that will require a lot of design work. We could probably get that work cheaper by continuing with the Project Definition phase of the NATO Frigate, and then run off with all the technical details, than we could by financing the work ourselves. We still have some £6 million committed to the NATO Project which is unspent. They claim that feasibility studies for a ship of our own would cost at least £16 million.

The Treasury not surprisingly object to this. In their view the terms set by OD in 1988 have not been met and that's that. They dispute the MoD point that we could get better value for money by going on until the end of the Project Definition phase than by pulling out now, pointing out that we do not know what the remainder of the Project Definition phase will deal with. It may be totaly irrelevant to our needs. Even if working on a national

basis would cost rather more, we could be certain that the money would go on work which meets our needs and requirements rather than somebody else's.

There is also the important point of principle. You have time and again hammered home the need for good procurement practice, and it is quite clear that going on with the NATO Project would not be good procurement practice. You were prepared to make an exception last time. But 18 months later, the position is no better, indeed rather worse. It would be wholly inconsistent with the stand you have taken to agree to let this Project run on. There will no doubt be some political flak in NATO if we withdraw. But it will not be very convincing, since it is pretty clear that the others are going to withdraw sooner or later anyway.

Agree that we should now withdraw from the NATO Project? The Policy Unit are of like mind.

Yes - NATO's frigate won't sail.

C.D.P.

(C. D. POWELL)
26 September 1989

cst.ps/14nl26.9/drf

CONFIDENTIAL

FROM: CHIEF SECRETARY
DATE: 26 September 1989

PRIME MINISTER

THE NATO FRIGATE (NFR 90)

I have seen Tom King's minute of 18 September.

2. Tom does not seek to argue that the conditions set out in your Private Secretary's letter of 18 January 1989 have been met. I am sure he is right not to do so. The timetable for NFR 90 is unrealistic and mismatched. I understand that earlier this month MOD officials asked the other nations to agree to change it but their request was rejected. You will recall that in September 1987 George Younger met a similar response when he expressed concerns to his collaborative colleagues about the mismatches.

3. I do not believe there is any dispute that sound procurement requires realistic timetables and a matching of progress on the weapons systems to that of the platform. The Efficiency Unit report "Learning by Experience" commented on the extent to which political pressure, rather than technical realism, has determined ship weapon timescales which do not then produce the best fighting performance. As a result of past misalignment, the Navy's Type 23 frigate will be at sea for a number of years without an operational command system, and therefore unable to fight effectively.

4. As Tom says, both the candidates Anti-Air Warfare Systems have completed feasibility studies. Unfortunately both have problems. The US led NAAWS project seems likely to be carried forward by way of an upgrade of the Sea Sparrow missile. As the UK does not have this missile, it would not be sensible for us to participate any longer in this project

5. In the alternative FAMS project, the missile on offer from industry has been assessed by MOD scientists having substantial shortfalls in key areas of the Navy's requirement. Further study is needed of possible means of making good these deficiencies before the project could sensibly enter project definition (PD).

6. In these circumstances the correct approach would be to seek to sort out the AAW projects before taking project definition of the platform any further forward. I am sure we would do this if we were dealing with a national project. The desire to continue with NFR 90 PD can, therefore, only be seen as one mismatch. Looking at the timetable further downstream it contains further mismatches and is too compressed to be realistic.

7. As I have said, Tom does not suggest your condition has been met. He argues instead that £6 million which would be spent by the UK in continuing PD represents good value for money. I understand that MOD do know the areas in which work will be undertaken in the balance of PD, but they do not know how effort and expenditure will be divided between these areas. It follows that the likely output of PD cannot be assessed and this makes it very difficult to draw any conclusion on value for money. Tom is no doubt correct to say that working on a national basis would cost rather more but, as such work would be better focused on UK requirements and undertaken on a more sensible timescale, it is likely to be better value for money.

8. Tom also suggests that, at the end of PD, NFR 90 is unlikely to continue in its present form and that he will identify the most cost-effective arrangement at that time in consultation with like minded partners. It is, of course, standard practice to re-examine any MOD procurement project at the end of PD and seek the best way forward. That said, it is rare to withdraw from projects after the completion of PD - as was noted in "Learning from Experience".

9. It is also far from clear that there will be many like minded nations at that stage. For the reasons already mentioned, any project based on NAAWS will be unattractive. Of the FAMS nations, France and Italy want a point defence missile system (i.e one which protects the frigate alone). The UK wants an area defence system (i.e. one which also protects ships in company with the frigate). This leaves Spain as a possible like minded nation. There is an obvious danger that, if we now continue with NFR 90, we would come under intense political pressure at the end of PD to collaborate on a project which was not realistic in relation to our requirements.

10. The conditions you set for continued UK involvement are well known to the other NFR 90 nations. They are also aware that, in 1986 when we entered the earlier stage of feasibility study for the platform we said we would not go into PD unless sufficient progress had been made by that time in the AAW system. In 1987 MOD's Equipment Policy Committee recognised that this condition had not been met. Despite this we went into PD, albeit on the basis of your condition. If we were now to continue with PD, it would mean for a second time deliberately ignoring the fact that our own conditions had not been met. Our partners would no doubt draw conclusions from this which would not be helpful to us in other collaborative projects.

11. I hope you will agree that, in line with the conditions you set, we should now withdraw from the NFR 90 project.

12. I am copying this minute to members of OD and to Sir Robin Butler.

C Evans

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

Defence - Procurement Pt 7

SUBJECT cc MASTER 34 file

SECRET
COMMERCIAL IN CONFIDENCE - MARKET SENSITIVE

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

25 September 1989

Dear Neil,

FERRANTI

The Prime Minister held a meeting this afternoon to consider the current problems of Ferranti. The Trade and Industry Secretary, the Defence Secretary and the Attorney General were present.

Your Secretary of State summarised what is known of the background to Ferranti's problems. The Serious Fraud Office were awaiting the results of the Coopers and Lybrand investigation before deciding whether to take action themselves. It seemed likely that Ferranti would have to write off some £215 million, although some of this might eventually be recovered from Peat Marwick (who had advised Ferranti on ISC's financial position before the merger) and their insurers.

There was considerable uncertainty about the company's future. Ferranti themselves wanted to stay independent and were looking for a minority partnership. Their merchant bankers were examining the possibility of putting together the defence interests of Ferranti, Racal and Thorn. But it seemed more likely that a major defence contractor would attempt to take the company over. Several companies, including some foreign ones, had already expressed interest. This could raise difficult issues of competition policy and might require referral to the MMC. In addition, take-over of Ferranti by a foreign company could give rise to security problems of particular concern to the FCO which would have to be taken into account (although it might be possible to hive off the activities in question, as had happened in other recent cases).

It was noted that there were allegations that ISC had been involved in supplying defence equipment to South Africa, China and Iran among others, although it seemed likely that these activities were confined to the US.

The most serious and immediate concern was the likely implications of the company's problems for Ferranti's

involvement in the EFA project. There was no doubt that recent events had gravely damaged the company's chances of winning the contract for the EFA radar. But there appeared to be little the Government could do about it. The company's best remaining hope of success probably lay in being taken-over by a top-grade defence contractor. But this might involve delay, especially if a bid had to be referred. The DTI should ensure that the company was fully aware of the possibility of referral, which was obviously more likely in the case of some potential bidders than others. For internal purposes, it would be helpful if DTI were to draw up a list of possible purchasers, so as to identify in advance problems which could arise in the event of a bid.

The Prime Minister concluded that the DTI should keep in close day-to-day touch with the company and bring home to them the need for rapid decisions about their future if their prospect of securing the EFA contract was to be kept alive. The normal procedures would of course have to be followed in the event of a bid for Ferranti.

I am copying this letter to the Private Secretaries to the Defence Secretary, the Foreign Secretary, the Attorney General and Sir Robin Butler.

yours sincerely,

C. D. POWELL

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

33

PRIME MINISTER

FERRANTI

You are having a meeting on Monday afternoon with Tom King, Nick Ridley and the Attorney General to assess the latest position on Ferranti. The Foreign Secretary is unable to attend but has sent you some written comments.

The latest position is summarised in the DTI letter at Flag A below. This summarises the outcome of the 11th hour refinancing drama which we reported to you while you were in Tokyo. It also sets out the possible longerterm ways forward for the company; they are said at present to favour the "minority shareholder" route.

The issues you will want to cover include:

- The present financial state of the company.

- The relative likelihood of the various options for the company's future.

- The implications of a foreign takeover. The Foreign Office letter at Flag B spells out a number of the aspects involved.

- Other foreign policy aspects of Ferranti's past and current activities (again see the Flag B letter).

- The position in relation to existing and possible future MOD contracts with Ferranti.

- The implications for EFA.

PLG.

PAUL GRAY

23 September 1989

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

Charles

cf

Await comments from Chief Sec. & FCO. Return to me on 2 Oct. CH

BF

NFR 90

You will want to be aware of these latest papers. I have not processed them pending comments from the Treasury and possibly FCO.

PRCG
23/9

PRIME MINISTER 22 September 1989

NFR 90

You will recall that you agreed to the UK entering the Project Definition (PD) stage of NFR 90 subject to the following conditions:

- funding would be limited to an initial six month period;

- the UK would withdraw at that point unless (a) all partners were agreed on a realistic timetable (b) the hull and weapons systems were in alignment.

The MOD accepts that these conditions have not been met. Tom King argues, nevertheless, that they should now be set aside and that the UK should continue participating in the project on the grounds that:

- the current composition of NFR 90 is likely to break up anyway at the end of PD, as participating nations (either in partnership or alone) pursue their own differing requirements. The implication is that UK withdrawal at that point will be less painful than it would be now;

- the UK will need to carry out the same work in developing a national design as that proposed now for the remainder of the NFR 90 PD. It is better value for money, therefore, to spread the cost amongst seven other partners.

The Treasury argue for withdrawal now on the grounds that:

- it would be poor procurement practice to continue with an unrealistic and misaligned programme which would offer poor value for money in the long run;

- the degree of mismatch between hull and weapons systems is worse than indicated by the MOD;

- the £6 million we would spend continuing PD is of uncertain value should we decide to develop our own national design;

- it will be more difficult to withdraw at the end of PD should we wish to then. And if the NFR 90 partnership breaks up of its own accord, we will be poorly placed (unlike our partners) to make satisfactory alternative arrangements.

Comment

I share the Treasury's concern about the MOD's approach. The sums involved seem small. But experience demonstrates that from little acorns do the great oaks of procurement disasters grow.

My specific concerns are as follows:

First, we have learnt some expensive lessons over the years by not pursuing sound procurement practice. Nimrod was a classic example of a platform that was designed before its equipment. The NFR 90 project is repeating the same mistakes. The risk exists that a major redesign of the hull will be required at a later date which will be expensive and waste time. Alternatively we will have to compromise and make do with less effective weapons .

Second, I am far less confident about progress on the anti-air weapons than the MOD appear to be. One of the weapons under consideration is unsuitable because it is being driven by a US timetable which is not as pressing as our own.

And the alternative system falls short of our requirement by some 50 per cent or more in some key areas. MOD's Research Establishments have concluded that more work is required before we could be confident that these deficiencies could be rectified allowing the system to enter the Project Definition phase.

Third, it does not seem a wise policy to proceed with a collaborative venture in the expectation that it will collapse at a later date.

Fourth, like the Treasury, I believe it will damage the UK Government's credibility with our partners to disregard for a second time the caveats on which our continued participation within NFR 90 was made conditional.

Fifth, and probably most important of all, to set aside your caveats would also send entirely the wrong signals to the MOD about the importance which you attach to putting defence procurement on a sound basis and avoiding procurement disasters in the future. You only repeated this message to them in June at your Value for Money seminar.

RECOMMENDATION

I recommend that you support the UK's withdrawal from the NFR 90 project.

Andrew Dunlop.

ANDREW DUNLOP

SECRET COMMERCIAL IN CONFIDENCE
MARKET SENSITIVE
NOT TO BE COPIED

32a-b

Foreign and Commonwealth Office

London SW1A 2AH

22 September 1989

Dear Charles,

file with PG.

Ferranti

Your letter of 13 September to Brian Hawtin recorded the Prime Minister's wish to convene a meeting of the Ministers concerned to discuss the problems of Ferranti. As you know, the meeting has now been fixed for Monday 25 September when the Foreign Secretary will be unable to attend due to his absence in New York for the UN General Assembly.

There are a number of potential foreign policy implications which he believes should be borne in mind in discussion:

(i) He is particularly concerned by the possible links of Ferranti's subsidiary, ISC, with South Africa. It would be damaging if it were to transpire that the subsidiary of a British defence contractor was in some way involved in circumventing the arms embargo on South Africa, given HMG's commitment to its strict observation. In the approach to the CHOGM we would want to demonstrate that any report of breaches of the embargo by British companies would be vigorously investigated. So far, the evidence suggests that any trade with South Africa involving ISC has been confined to the US. It is therefore probable that there has been no breach of the arms embargo on South Africa so far as the UK is concerned. If, however, the suggestion of South African links appears in the press, and if we are asked questions about it, we propose to take the line that HMG scrupulously observes the arms embargo and that any indication that it has been breached will be vigorously investigated.

(ii) Involvement by ISC in the CONDOR programme or in passing missile technology to Pakistan would also undermine our efforts, through the Missile Technology Control Regime, to prevent ballistic missile technology reaching the Third World. The Foreign Secretary hopes that this aspect can be pursued in further investigation of ISC's activities so that, if their involvement in such projects is confirmed, we can look at steps to try to stop it.

(iii) We shall need to watch the progress of US investigation of ISC's activities, to ensure that they do not raise the sort of problems of extraterritorial jurisdiction with which we have had trouble sometimes in the past.

(iv) If there is any question of foreign take-over of Ferranti, the FCO will need to consider a specific security problem: the handling of our international secure and other telecommunications traffic depends on use of Ferranti Argus computer message switches in London and at our communications centre in Northamptonshire.

(v) Foreign take-over of Ferranti would also have a more general impact on our national defence sales reputation abroad. This is primarily a matter for the Defence Secretary but we should want to avoid a situation where a potential purchaser, eg in the Gulf, would be discouraged from looking to the UK if part of a system he wanted - eg a frigate with a Ferranti command system - were made by a company owned in a country, eg the FRG or the US, which he believed might make political difficulties about export. This is an obvious argument for preferring any take-over of Ferranti to be by another UK company, eg GEC.

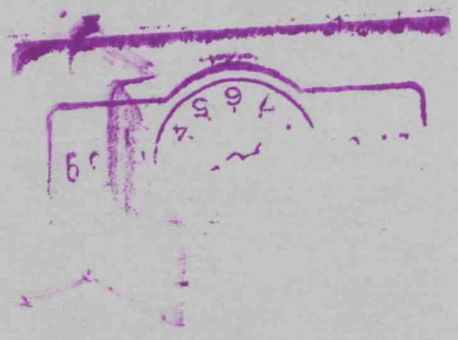
I am copying this letter to the Private Secretaries to the Defence Secretary, the Trade and Industry Secretary, the Chancellor to the Exchequer, the Attorney General and Sir Robin Butler.

Yours,
Stephen Wall

(J S Wall)
Private Secretary

C D Powell Esq
10 Downing Street

DEFENCE Procurement Part 7



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the department for Enterprise

CONFIDENTIAL - COMMERCIAL IN CONFIDENCE & MARKET SENSITIVE

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

C Powell Esq
Private Secretary to the Prime Minister
10 Downing Street
London SW1

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 215 5623
Our ref PE5ABW
Your ref
Date 22 September 1989

Dear Charles

file with PG 2219

FERRANTI INTERNATIONAL SIGNAL PLC

In my letter of 15 September I set out the financial background of Ferranti International Signal plc. This letter is intended to bring you up to date with recent developments, ahead of the meeting which the Prime Minister has called for Monday afternoon.

For much of this week, Ferranti's management and its advisors have been concerned to ensure that the company had sufficient credit facilities to enable the company to continue trading - and give it adequate time to consider its longer-term strategy. Yesterday morning, albeit a matter of minutes before certain facilities had to be renewed, a consortium of banks agreed to provide facilities to Ferranti until 16 October. The banks appear to have set this date not as an ultimate deadline but to indicate their wish to see Ferranti's longer-term path identified as speedily as practicable.

Meanwhile, Coopers and Lybrand are undertaking an investigation on Ferranti's behalf of the matters leading up to the present position. They have indicated informally to Barings (Ferranti's merchant bank advisers) that there is indeed likely to be a maximum shortfall of £215m, which will result in a net loss of about half the shareholders' funds.

The company is now pursuing an assets disposal programme - before its recent difficulties it had decided to dispose of various "non-core" businesses (especially a number of US interests), and was hoping to raise £100m through these disposals. Its negotiating position has, of course, been weakened by recent developments.

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the department for Enterprise

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Ferranti and Barings have concluded that in addition the company needs an equity injection of some £150m. They are exploring three separate ways of securing this - a rights issue among the shareholders; a substantial (29 per cent) minority shareholding by a larger company with defence interests; or a takeover by a larger company. At present they appear to favour the "minority shareholder" route which, they believe, would preserve Ferranti's independence (though many would presume that the minority shareholding would one day become a majority shareholding) while giving the company access to technology which should help it be technically competitive in the years ahead.

Several companies - from the UK, Europe and the US - have been in contact with Ferranti's management in recent days. It is too early to tell which of these expressions of initial interest will develop into a genuine wish to become a shareholder in (or owner of) Ferranti.

Meanwhile MOD will not place new orders with the company until things are resolved, but they are being helpful in expediting payment of those bills from the Company which are legitimately due. Despite the current financial difficulties, which are unrelated to MOD business, Ferranti remain an important and valued supplier. In addition to some £450m of business with the company, MOD are continuing to discuss further requirements with them.

It is not possible yet to tell what impact recent developments - and the possibility of Ferranti forming an association of some kind - will have on its prospects in the competition to supply the radar for the European Fighter Aircraft (worth at least £500m to Ferranti over 10-15 years). Ferranti maintain that without this order the company would probably have to withdraw from the airborne radar business. This, they say, might in turn call into question their whole Scottish operation. Mr Rifkind's minute of 7 September to the Prime Minister deals more fully with the possible unemployment consequences.

I am copying this to the Private Secretaries to the Secretary of State for Defence, the Attorney General and the Foreign Secretary, and to Trevor Woolley (Cabinet Office).

Yours ever,

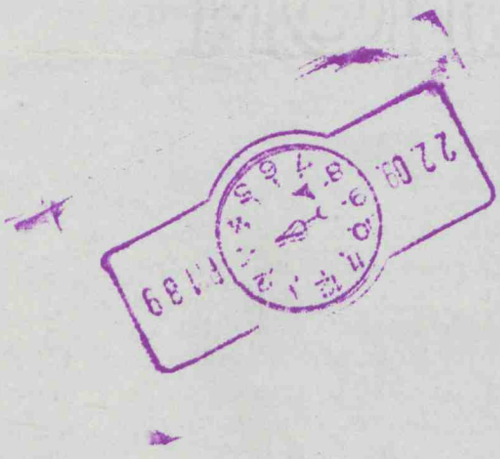
Neil Thornton.

NEIL THORNTON
Principal Private Secretary

the Enterprise initiative

Recycled Paper

DEFENCE - Procurement Pack 7



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MR POWELL

c Sir Robin Butler

The NATO Frigate (NFR 90)

You will have seen the Defence Secretary's minute to the Prime Minister of 18 September reporting the results of the baseline review of this project and recommending that we stay in the project until the end of project definition (PD).

2. You will recall that when the project was last considered by OD Ministers at the beginning of last year the then Chief Secretary, with the example of the Type 23 frigate in mind, opposed entry into PD unless the programme schedule were modified so that PD on the hull did not begin until feasibility studies (FS) of the ship's main armament, the support defence missile system (SDMS), had been completed and successfully evaluated. The Prime Minister ruled that we should enter PD for the hull, but only on the basis that our initial funding was explicitly limited to the period up to the first baseline review. Unless by then all the partners had agreed to a timetable which was both realistic in technical terms and contained no mismatches between the ship and its major weapon systems, the UK would withdraw from the project at that point.

3. The Defence Secretary's minute glosses over the fact that the mismatch of timescales has not been eliminated. This means that, on the present basis, both the ship and the

CONFIDENTIAL

command system would be designed in ignorance of the characteristics of the principal weapon system in its developed form. It is also not clear how confident we can be that the results of PD would be usable if the present project collapsed and we went a different way. We might, for example, want a smaller ship. Nor can we be sure that we would necessarily save on computer software for a national combat direction system (CDS) by staying with the project. It is also worth asking whether if we withdrew now we would lose completely the right to information and technology emerging from the study. It seems to me that all these points need probing before we can take the Defence Secretary's minute at face value.

4. I understand that the Chief Secretary will be minuting to make some of these points, and recommending that we pull out of the project now. This may also spark some comment from the Foreign and Commonwealth Office. The Prime Minister may therefore wish to see the Chief Secretary's minute before making her decision.

L V Appleyard

L V Appleyard

Cabinet Office
22 September 1989

DEFENCE: Procurement
Pt 7

10 DOWNING STREET

~~Paul~~.

CF

Pl B/F again on Friday. PRCB 11/9

MOD have asked for grace until Friday to see whether Ferranti's troubles alter any of the attached.

DM

SECRET 81

CDP letter faxed to NoTo 21/9/89

MR. GRAY

FERRANTI

I have shown your note of 20 September to the Prime Minister. She agrees that it would not be appropriate for the Government to intervene. But she is not happy with the second paragraph of the proposed line to take if Ferranti's financial problems become public, because it suggests that the Government is indifferent to the company's fate and the loss of jobs. It would be better not used at all and replaced by something to the effect that this is a matter for the company and its financial advisers rather than for the Government. I should be grateful if you would pass this on.

CDP.

C. D. POWELL

21.9.89

SLH/28

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29 30 Note

MR. GRAY

Spoke Neil Thomas (DTI) who confirmed that the line would be as at X.

FERRANTI

PREM 21/9

I have shown your note of 20 September to the Prime Minister. She agrees that it would not be appropriate for the Government to intervene. But she is not happy with the second paragraph of the proposed line to take if Ferranti's financial problems become public, because it suggests that the Government is indifferent to the company's fate and the loss of jobs. It would be better not used at all and replaced by something to the effect that this is a matter for the company and its financial advisers rather than for the Government. I should be grateful if you would pass this on. X

CDP.

C. D. POWELL

21.9.89

SLH/28

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Prime Minister
The last para. suggests that all is not lost. But agree we should not intervene?
CDP
21/9.

MR. POWELL

FERRANTI

We have been told this evening that Ferranti faces a serious funding crisis. The tranche of commercial paper [illegible] due for replacement tomorrow. As I understand it, the paper is in the hands of a Dutch Bank, who are insisting on repayment. Talks have been under way in the City today to seek to arrange re-financing. But so far these have been unsuccessful. The latest word (2100 our time) is that the talks will break down.

If they do, the prospect is for Ferranti to face insolvency, and for it to go into receivership. That could well happen, and become known, [illegible] our time Thursday.

Such a step does not [illegible] the eventual outcome for the assets and contracts of the company. It would be for the receiver to consider how best to proceed.

I have discussed this with Neil Thornton in DTI. They and MOD agree that it would not be appropriate to intervene. DTI apparently were approached during the day, and said there were no special messages the Government wished to send. The Secretary of State for Trade and Industry feels it is doubly important he must not become involved now because of the possibility that, at a later stage, his formal legal powers may be brought into play.

Assuming the outcome is as above, once the news becomes public, the proposed line will be:

- The Government has been kept in touch with developments.
- Not appropriate for Government to comment on these commercial matters. This would look very cold in Scotland
- The Government would consider use of its powers as and when relevant in the normal way.

I think this would be better not said - at the very least it is sad for all concerned

SECRET

We will keep you in touch with any further developments. But I should be grateful for confirmation that the Prime Minister does not want to make any input to the deliberations. Feel free to ring me during our night.

P.S.

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I have enquired when the [illegible] will be encountered. [illegible] it is thought not to be [illegible]

pp. [signature]

PAUL GRAY

20 September, 1989.

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I have enquired when the next similar re-financing problem will be encountered. I cannot get a clear answer tonight, but it is thought not to be before mid-October.

pp. Diana Hunter

PAUL GRAY

20 September, 1989.

1989-09-20 21:06 COBR P.02

29 ans

JD3ANS

SECRET

Prime Minister

Re last para. Suggests that all is not lost. But agree we should not intervene?

CDP 21/9.

MR. POWELL

FERRANTI

We have been told this evening that Ferranti faces a serious funding crisis. The tranche of commercial paper falls due for replacement tomorrow. As I understand it, the paper is in the hands of a Dutch Bank, who are insisting on repayment. Talks have been under way in the City today to seek to arrange re-financing. But so far these have been unsuccessful. The latest word (2100 our time) is that the talks will break down.

If they do, the prospect is for Ferranti to face insolvency, and for it to go into receivership. That could well happen, and become known, between 0900 and 1000 our time Thursday.

Such a step does not of course determine the eventual outcome for the assets and contracts of the company. It would be for the receiver to consider how best to proceed.

I have discussed this with Neil Thornton in DTI. They and MOD agree that it would not be appropriate to intervene. DTI apparently were approached during the day, and said there were no special messages the Government wished to send. The Secretary of State for Trade and Industry feels it is doubly important he must not become involved now because of the possibility that, at a later stage, his formal legal powers may be brought into play.

Assuming the outcome is as above, once the news becomes public, the proposed line will be:

✓ The Government has been kept in touch with developments.

I think this would be better not said - at the very least it is sad for all concerned

Not appropriate for Government to comment on these commercial matters. This would look very cold in Scotland

✓ The Government would consider use of its powers as and when relevant in the normal way.

SECRET

JD3ANS

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SECRET

24 ans

Prime Minister

Re last par. Suggests that all is not lost. But agree we should not intervene

CDP 21/9

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This would look very cold in Scotland

We will keep you in touch with any further developments. But I should be grateful for confirmation that the Prime Minister does not want to make any input to the deliberations. Feel free to ring me during our night!

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PAUL GRAY

20 September, 1989.

28a-b.

JD3ANS

SECRET

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pp. Diana Hudson

PAUL GRAY

20 September, 1989.

MO 26/3L

PRIME MINISTER

THE NATO FRIGATE (NFR 90)

You will recall that, at the beginning of last year, my predecessor circulated a paper to OD on the way ahead on the NATO Frigate (OD(88)1 of 12th January 1988). After discussion out of Committee, you agreed that the United Kingdom should sign a Memorandum of Understanding committing us to the first stage of the development (the Project Definition (PD) study) of a NATO Frigate, (in collaboration with seven other nations (USA, Canada, France, Germany, Italy, Netherlands and Spain) only on the basis that our funding commitment should be limited to the period up to the first baseline review. You also entered the further proviso that, at that point, we should be satisfied that the timetable was realistic in technical terms and that it contained no mismatches in the plans for the major weapons systems with which it was to be equipped (your Private Secretary's letter of 18th January 1988 refers).

2. The baseline review was formally presented to member nations on 6th-8th September. I am now reporting to you, and to OD colleagues, as my predecessor was asked to do, on the outcome and way forward. Under the terms of the MOU, any nation wishing to withdraw from the project is required to announce its decision by 5th October, if it wishes to leave without financial penalty. It is now timely, therefore, to examine the arguments for remaining in this collaborative programme until the end of PD.

3. As I have indicated, the OD decision laid great emphasis on the importance of resolving the alignment question satisfactorily. The key and very sound reason for this was that, at that time, the

proposed development timetables for the platform and the two candidate Anti-Air Warfare (AAW) systems appeared to be significantly out of step. Alignment between programme timescales, while not perfect, is now much improved; it allows for interaction between different parts of the project, thereby reducing the risk that development on one programme will be adversely affected by failures or uncertainties on another. Feasibility Studies of the ship's two candidate Anti-Air Warfare systems have been completed and assessed, and give us confidence that an effective system can be developed. Project timescales will be further adjusted during PD as more detail emerges of when interactions will be possible and are required.

4. However, I do not think that this is any longer the key issue in deciding whether we should continue to participate in this phase of the programme or not; we are now faced with a rather different situation. At the outset of the project, the stated aim was to achieve a common design of platform, together with a large number of common weapons, electronics and propulsion systems, which would meet the particular requirements of each participant. Whilst the participating nations are continuing to work towards this aim, there has been a growing perception in most, if not all of the member nations, that the achievement of a common overall design between the eight nations may no longer be realistic.

5. There are a number of reasons for this. Firstly, in the AAW area, four nations are likely to choose the Franco-Italian led "FAMS" for their main weapon system and four the American dominated "NAAWS". Each system may demand a slightly different approach to the frigate's Combat Direction System (CDS). Secondly, notwithstanding the degree of commonality so far achieved in overall design, the participating nations do have varying requirements for the remaining systems on board and for the timetables for their

introduction into service which currently range from 1997 to 2004. The RN is now looking at 2000 for it First of Class in-service date.

6. This changed situation does not mean, however, that there is nothing to be gained by all the nations remaining in the programme until the end of the PD phase, rather the reverse; I understand that most participants are of like opinion. We would need the results of PD work even if we decided to opt for development of a national ship; and it would cost us considerably more to complete this element of the work on our own. Moreover, if we remain in the project until the completion of PD, we can influence the outcome as well as retain full rights over all information and technology emerging from the study; we could then use such information in any alternative national or collaborative development programme, whichever course we chose to follow.

7. As for costs, withdrawal from the NATO frigate project now would immediately save the unspent £6M of the £9M we undertook to contribute as our share of PD. But the cost of computer software definition for the national CDS solution alone would exceed the £6M that we would pay to complete the PD on the NATO frigate. Feasibility Studies for a national alternative ship and CDS would cost at least £16M.

8. I conclude that remaining in the project until the end of the present PD phase represents good value for money and that leaving now would not. My firm recommendation, therefore, is that we should proceed to the completion of PD on the NATO frigate, on the clear understanding that this would not commit us in any way to continue in the project after PD is completed. We can expect our partners to approach the remainder of PD phase in much the same spirit. Once the PD is completed, it is unlikely that all eight nations will wish to carry the project forward in its present form; some may form

smaller groupings, centred possibly around each of the AAW systems; others may withdraw altogether. Our objective, at that point, (which would, of course, be a matter for OD collectively), would be to identify the most cost-effective collaborative arrangement, in the light of the results of PD and our choice of AAW system, in consultation with those of our partners who were of like mind.

9. I should be grateful to know that you, and colleagues, are content for me to proceed accordingly.

10. I am sending a copy of this minute to OD colleagues and to Sir Robin Butler.

Ministry of Defence
18th September 1989

DEFENCE: Procurement PT7

SECRETARY OF STATE

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

MO 26/11/9L

18th September 1989

Dear Charles,

EFA RADAR - LETTER FROM CHAIRMAN OF FERRANTI

Thank you for your letter of 5th September in which you indicated that the Prime Minister would wish to see the draft reply to the letter to my Secretary of State from Sir Derek Alun-Jones (Chairman of Ferranti) about the choice of radar for EFA.

Clearly, Ferranti has heard a garbled account of the meeting between the Defence Secretary and Dr Stoltenberg reported in Brian Hawtin's letter of 1st September 1989. In consequence Sir Derek obviously fears that we are about to ditch the Euroradar consortium in favour of AEG/Marconi. As you will recognise this is not the case. Our aim is to explore with AEG/Marconi the possibility held out by the Germans of making MSD 2000 respond to the RAF's requirements at no extra cost. At the same time on the ECR 90 front we shall be pursuing with German officials the terms of a possible undertaking by HMG - without, of course, any financial commitment on our part - to underpin Ferranti's agreement (still to be finalised) indemnifying the Germans against any extra costs incurred by the German company responsible for integrating the radar into the aircraft as a result of failure by Ferranti to measure up to their contractual obligations.

It is certainly the case that hitherto we have taken the view that only ECR 90 is substantially compliant with our requirements, but the competition has not yet been concluded. Clearly before any final choice is made, we and our partners must evaluate whatever AEG/Marconi put forward in support of the German contention that the MSD 2000 bid can be adjusted, without extra cost, to meet our needs and those of the other participating nations. Only then shall we be in a position to reach a judgement as to whether this German proposal puts MSD 2000 back into the running. We will keep you in touch with any important developments.

Sir Derek Alun-Jones has also referred to possible restrictions on any future export sales due to a US veto were MSD 2000 to be selected. Our view is that the difficulties likely to be created for future export sales of EFA because of the choice of radar are

Charles Powell Esq
10 Downing Street

not likely to be significantly worse for MSD 2000 with its US participation than for ECR 90. Although there has been considerable talk of the restrictions which a US Government, and more particularly a US Congress, might place on MSD 2000 we feel that this has been exaggerated. The main problem for us will be the need to remain constantly vigilant about shifts in opinion in Washington and to sustain our contacts with key officials in the State and Defence Departments.

I am sending a copy of this letter to Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office) and Carys Evans (Chief Secretary's Office), and to Trevor Woolley (Cabinet Office.

Yours sincerely,
John Colston

(J P COLSTON)
Private Secretary

DRAFT LETTER FROM THE SECRETARY OF STATE FOR DEFENCE TO CHAIRMAN OF FERRANTI

1. Thank you for your letter of 4 September 1989 about the choice of radar for the European Fighter Aircraft (EFA).

2. As you will recognise, I am anxious to find a way forward on this important issue which will ensure that the right choice of radar is made taking full account of operational, technical risk and cost factors. No final decision has yet been made and there is no truth in the suggestion that a proposal is now being formulated in MOD to "capitulate to the FRG", to use your words.

3. The fact of the matter is that aspects of the technical compliance of AEG/Marconi's bid are being discussed with them against the background of the joint operational requirement and the fixed price which they have offered. At the same time, we are also considering with the Federal Government the terms of a possible Government undertaking (without financial commitment) to underpin the agreement which you have been negotiating with them. As you will know, we are already in touch with you about this and will keep in close contact over the coming weeks. This further work is being undertaken without any preconceptions as to final decisions on one option or the other. Our aim remains to secure a radar that is operationally, technically and financially acceptable to all four participating countries.

4. I hope that this clarifies the situation. I can assure you that we are very conscious of the qualities of ECR 90 as a contender in this competition.

Defence
Procurement
Pt 7

PRIME MINISTER

cc: MR. PERKS

FERRANTI

Some more disagreeable facts are crawling out of the woodwork. It now seems that ISC - Ferranti's American subsidiary - has been the subject of a Grand Jury investigation for some two years, and is thought to be involved in selling arms to South Africa, Iran, Iraq and China in defiance of various embargos. Some of these arms have been trans-shipped through the United Kingdom. The Sunday Times have the story and are likely to make a splash with it at the weekend. I am discussing a line with the Department of Trade and Industry.

CDP

MT

CHARLES POWELL
15 SEPTEMBER 1989

copy. No. 1 of 9. 27(A-B)

dti

the department for Enterprise

COMMERCIAL: SECRET AND MARKET SENSITIVE
NOT TO BE COPIED (EXCEPT PRESS LINE)

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

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

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 5622
Our ref PB5AAV
Your ref
Date September 1989

Dear Charles,

FERRANTI

Brian Hawtin's letter of 12 September set out the background to the announcement by Ferranti International Signal plc of the suspension of trading in the company's shares. This letter is intended to bring you up-to-date with developments.

This morning the Board of Ferranti announced that "there are indications that lead the Board increasingly to suspect significant irregularities in relation to some contracts" entered into by ISC Technologies Limited before the merger. The Board added that the position was far from resolved; and that the company had commissioned Coopers & Lybrand (and not Peat Marwick, who are Ferranti's auditors) to carry out an urgent investigation. We have kept the Serious Fraud Office informed.

Ferranti management has presented their bankers with their own "worst case" estimate - a gross loss of £215m (involving a net loss to shareholders' funds of some £160m) - because of various dubious contracts. Ferranti's bankers - National Westminster and Barclays are the main banks involved - are continuing to be supportive towards the company (though some of the banks involved in a 25 - bank syndicate underwriting certain loan facilities to Ferranti have not, so far, proved as constructive). Nat West executives made it clear to officials this morning recent events made it very much in Ferranti's own interests speedily to form an association with a stronger company. They said Ferranti had been promised continuing facilities until 6 October. It does not appear that this date has been set as a deadline but, rather, to

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dti

the department for Enterprise

COMMERCIAL: SECRET AND MARKET SENSITIVE

impress on Ferranti management the need to consider the company's longer term future as a matter or urgency. (Not surprisingly, some companies including overseas defence companies, have been in touch with Ferranti this week).

This morning's announcement by Ferranti may create press enquiries for Departments about the ISC Technolgies contracts. We suggest the following line, which has been agreed both by Ferranti and the SFO:

> that the company has informed the Government of the problem; that the SFO has been put in the picture; and that the Government expects that Ferranti and Coopers & Lybrand will inform the SFO, or any other appropriate body, of relevant material which becomes available as a result of the C & L inquiry.

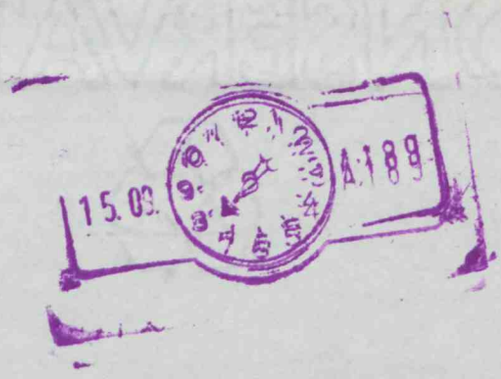
I should add that there are reports that Sunday's press may contain suggestions of the evasion of US export controls by a separate ISC subsidiary. There must be a possibility that revelations of this kind will put at risk the support which Ferranti's leading bankers have so far displayed.

I am copying this letter to the Private Secretaries to the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary, the Secretary of State for Defence, the Secretary of State for Scotland, and the Attorney General, and to Trevor Woolley (Cabinet Office).

Yours ever

Neil Thornton.

NEIL THORNTON
Private Secretary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10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

13 September 1989

Further to my telephone call I am writing to confirm that there will be a meeting to discuss Ferranti on Monday 25 September at 1500 hours. I am allowing an hour for the meeting although it may be over before.

I am copying this letter to the diary secretaries in the Department of Trade and Industry, Attorney General and Foreign Office.

SLH

PP MRS. AMANDA PONSONBY

The Diary Secretary,
Ministry of Defence

0494 × 4814
462666 Mrs. Brooker

DT

10 DOWNING STREET

25 Sept
1500

Amanda

we need a
meeting soon of
Defence ×
DTI ×
Attorney ×
FCS } optional
~~Chancellor~~
(in that order of priority)
to discuss Ferranti.
45 minutes.
Can you please
fix.
AR

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NOT TO BE COPIED

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26

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

13 September 1989

Dear Brian,

FERRANTI

Thank you for your letter of 12 September about the problems of Ferranti, about which your Secretary of State has also spoken to me. The Prime Minister takes the view that this is a very serious matter and there will need to be a meeting of Ministers principally concerned to discuss it. We will be in touch to arrange this, but unfortunately it cannot be before the Prime Minister leaves on her visit to Japan. The Prime Minister has said she would not wish any necessary action to be delayed in the meantime, and the Trade and Industry Secretary should proceed as he sees fit, in consultation with the Attorney.

I am sending copies of this letter to the Private Secretaries to the Trade and Industry Secretary, the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary, the Attorney General and Sir Robin Butler.

Yours sincerely,

Charles Powell

(C. D. POWELL)

Brian Hawtin, Esq.,
Ministry of Defence.

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The National Archives

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Instructions for completion of Dummy Card

Use black or blue pen to complete form.

Use the card for one piece or for each extract removed from a different place within a piece.

Enter the department and series,
eg. HO 405, J 82.

Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

Enter extract details if it is an extract rather than a whole piece.
This should be an indication of what the extract is,
eg. Folio 28, Indictment 840079, E107, Letter dated 22/11/1995.
Do not enter details of why the extract is sensitive.

If closed under the FOI Act, enter the FOI exemption numbers applying to the closure, eg. 27(1), 40(2).

Sign and date next to the reason why the record is not available to the public ie. Closed under FOI exemption; Retained under section 3(4) of the Public Records Act 1958; Temporarily retained; Missing at transfer or Number not used.

017/4210

CONFIDENTIAL

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street, SW1P 3AG

Brian Hawtin Esq
Private Secretary to the
Secretary of State for Defence
Ministry of Defence
Main Building
London
SW1A 2HB

11 September 1989

Dear Brian,

EFA RADAR AND LOW FLYING

The Chief Secretary has seen your letter of 1 September to Charles Powell, and his reply of 5 September.

He agrees that the latest German offer is potentially attractive and should be explored and evaluated properly. He would be grateful if MOD officials could continue to keep Treasury colleagues in touch, as they have very helpfully done so far.

He understands that officials are also in touch about the idea of a commercial indemnity, if the Germans were willing to choose ECR90. It is not yet clear that it would be practicable for the British Government to undertake to ensure that payment was made without any contingent liability on public funds, even if in most circumstances Ferranti, backed by a bank guarantee, would be likely to pay. He believes this practical problem needs to be solved before any final offer is made to the Germans along such lines.

I look forward to seeing a draft reply to Sir Derek Alan-Jones.

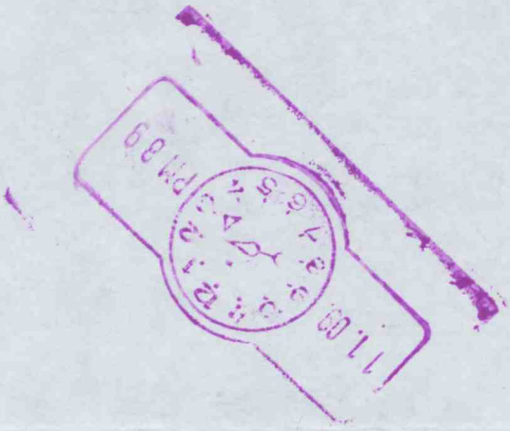
I am copying this letter to Charles Powell, Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office) and to Trevor Woolley (Cabinet Office).

Yours,

Pete Wanless

PETER WANLESS
Assistant Private Secretary

DEFENCE: Procurement
Pt 7



CONFIDENTIAL

Prime Minister

This is a bit over the top. Mr. King will reply. CDP 11/9

Prime Minister

EFA RADAR

I have read with considerable dismay the letter of 1 September from Tom King's Private Secretary to your own Private Office; and I have seen from your Office's response of 5 September that you yourself are concerned that the procedure agreed on EFA Radar could erode the position of Ferranti in relation to the Radar contract. My concern is reinforced by representations I have received directly from Ferranti and by Sir Derek Alun-Jones' letter of 4 September to Tom King, which was copied to you.

As reported by the Ministry of Defence, the meetings which took place with the Germans on 30 and 31 August represent a very substantial move on our part towards the German position; and Ferranti certainly believe that this is the way that AEG also interpret it.

There is no doubt that it would be astonishing if the United Kingdom were to withdraw from its support for the ECR90. Ferranti have led the field in the competition for this contract each time the bidders have been reviewed over a lengthy period. They are ahead on price and on the extent to which they can comply with the technological requirements for the new system; and they have backed their promises of performance with substantial financial guarantees. It would be seen as humiliating to bow to the obdurate refusal of the Germans to accept the outcome of a fair and exhaustive process of bidding and assessment for this contract.

It is a matter of particular concern that we appear to be contemplating the prospect of the Germans backing their contender with an unlimited Government to Government guarantee while we remain unwilling to offer similar backing to Ferranti. This imbalance in Government support must surely place a British firm in considerable disadvantage in any context and I really do not see the logic in welcoming it in this case but seeking to offset it in other fields, such as aid and trade, where the UK is not itself a purchaser.

There can be no doubt that failure to gain this long awaited contract would be very serious for Ferranti. While I have no wish to labour the importance of Ferranti in Scotland, both as an employer and as a leader in technology, the consequences would be very damaging indeed. Last week it became apparent that they were likely to have to shed 400 jobs in their Edinburgh factories simply because of a relative lack of demand for their defence-related products. If they also lose the radar contract, they have told me that a further 700 job losses are likely to result in the near future. Even more serious however is the fact that, without this contract, Ferranti see little future for themselves in radar which is central to their activities here. Some 2,400 are currently employed in this field and the initial job losses would certainly be followed by substantially more. The loss of both employment and technical capability in this field would be grave.

I hope therefore that, as a Government, we shall continue to stand firm against the unfair and unreasonable attitude of the Germans towards the company which clearly deserves to be given the contract. It would have massive implications for us if we seemed ready to resile from our position on this in order to accommodate a German desire for a radar system for Europe originating not in Europe but substantially in the United States. It does seem quite extraordinary that we should be prepared to do this partly because the non-UK contractor was to be backed by a financial guarantee of a kind which we would simply not be prepared to contemplate.

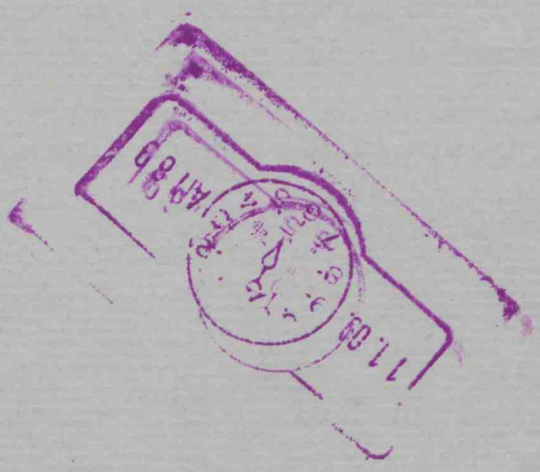
I am copying this minute to Tom King, John Major, Nick Ridley, Norman Lamont and Sir Robin Butler.

MR

M R

Scottish Office
7 September 1989

DEFENCE: Procurement Pt 7.



CONFIDENTIAL

FILE

KK

bc PC
FCO
DTI
SO
ch. Sec By
CO

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

5 September 1989

EFA RADAR AND LOW FLYING

Thank you for your letter of 1 September conveying the conclusions of your Secretary of State's discussions with Dr. Stoltenberg on 31 August, covering EFA Radar and Low Flying.

The Prime Minister has raised no objection to what was agreed on low flying on which, as you pointed out, she has already been consulted.

I think she may be anxious that the procedure agreed on EFA radar could erode Ferranti's position, a fear which is clearly reflected in Sir Derek Alun-Jones' letter of 4 September to your Secretary of State. It might be prudent to let the Prime Minister see the reply to that letter before it issues.

I am copying this letter to the recipients of yours.

(C. D. POWELL)

Brian Hawtin, Esq.,
Ministry of Defence.

CONFIDENTIAL

CCPC
(2)

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

MO 3/20S
MO 25/11/9

1 September 1989

Re results of Mr. King's meeting with the Germans

CDP 1/9

Dear Charles,

EFA RADAR AND LOW FLYING

In his letter of 21st August, John Colston set out the state of play on the selection of the EFA radar and low flying and mentioned that the Defence Secretary and Dr Stoltenberg would be meeting on 31st August to take matters forward. They duly did so; discussion was constructive, conducted in a friendly atmosphere and covered both issues in detail. The ground on the EFA radar was prepared the previous day by Sir Peter Levene and Herr Ruppelt, his opposite number.

My Secretary of State was pleased with the outcome and felt that useful progress was made. On EFA, the German team gave a categoric assurance that they had every wish to maintain the momentum of the project and to ensure its success, a commitment that has not been overly obvious in recent months. There was, of course, no realistic prospect of reaching a final agreement on EFA radar yesterday but the German approach was much more constructive than we had expected and provides a useful basis for further work.

The German side accepted that opting for the APG65 as an interim solution is not a viable proposition given the nature of the requirement. However, instead of continuing to argue that we have been inflexible in our attitude to MSD2000 they acknowledged that it does not currently meet our requirements in key areas and agreed to ask the German-led consortium, on the basis of the specification we provided, to look at whether their technical offer could be revised to meet RAF requirements. It will take some 2/3 weeks for them to complete their technical study but their initial advice from AEG is that it should be possible, in their judgement, to do so by sub-optimising certain aspects of the German requirements which, we were assured, would be acceptable to the Luftwaffe. The German Government would, we were told, be prepared to give an unlimited Government guarantee that MSD2000 would be completed to cost and required performance. The German guarantee would also cover the UK (Marconi) element of the AEG consortium.

Charles Powell Esq
No 10 Downing Street

SECRETARY OF STATE

We were pressed, once more, to give a comparable Government to Government guarantee on ECR90 and it is clear that German doubts over Ferranti's likely performance remain. My Secretary of State reiterated, however, that such a Government to Government guarantee is not possible; the German side agreed to further and parallel discussions on the form of an indemnity which would be acceptable to us (and them) on the lines currently on offer i.e. a commercial indemnity offered by Ferranti, backed by a bank guarantee and underpinned with a guarantee by HMG to ensure that payment was made but not out of public funds. Discussions will also take place on the size of any commercial indemnity (on which the German view now seems to be tending towards DM 220m rather than DM 70m) and on the form that arbitration, perhaps a Joint Commission, might take in the event of a claim.

Our intention is to press ahead with these discussions as soon as possible and to aim for a joint paper by the National Armaments Directors to Ministers which can then form the basis for national consideration, which will, of course, be the more difficult element of the exercise. It remains to be seen just how quickly matters can be processed and how close AEG will be able to come to meeting the RAF's requirements; given the past history, and until we have firm proof in the form of a revised offer, we remain inevitably somewhat sceptical. But the prospect of having two radars for consideration which would both largely meet our requirements and which, in the case of MSD2000 would be backed by an unlimited German Government guarantee, is clearly attractive and one that we must explore and evaluate properly. It also keeps the Germans very much in play, which has broader politico-military advantages in the light of the shortcomings in some aspects of their current thinking on security issues. We will keep you in close touch with progress; Mr King will be seeing Dr Stoltenberg on 20th/21st September which will afford an opportunity for them to take stock. In the meantime, and with Ferranti's position very much in mind, it will be important to maintain the correct and factual position (as Mr King emphasised to Dr Stoltenberg) that discussions on the radar are continuing and that Ministers have made no decisions, including between the two consortia.

Turning to low flying, we have tried hard to maintain the linkage with EFA radar but (as John Colston surmised in his letter of 21st August) further events and discussion show that this is not realistic. The Americans have now told the Germans that they are prepared to settle for an average of 15 minutes per sortie; for his part, Dr Stoltenberg accepted that he cannot expect to see low flying stopped on Friday afternoons as well as lunchtimes. His deadline for a response from us, in order to enable him to meet his timetable of a report to the Bundestag, is 15th September. In the circumstances, Mr King reserved his position but considers it appropriate to settle now on the basis already agreed by the Prime Minister (your letter of 19th July refers). He proposes to do so shortly, making clear that it is important that the way the Germans



FERRANTI INTERNATIONAL

Ferranti International Signal

With compliments

SIR DEREK ALUN-JONES
Chairman

Ferranti International Signal plc,
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Telephone: 01-834 6611 Telex: 264055 Fax: 01-834 1137

propose to present the outcome does not cause any unnecessary difficulty presentationally here. In that regard he will, of course, also make it clear that there will be no increase in the total amount of low flying in the United Kingdom. With these concerns in mind, our officials will keep closely in touch with the Germans in the course of the finalisation of the report.

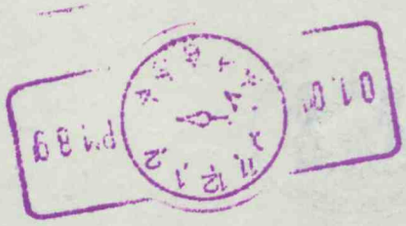
I am sending copies of this letter to Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office), Carys Evans (HM Treasury) and to Trevor Woolley (Cabinet Office).

Yours sincerely

Brian Hawtin

(B R HAWTIN)
Private Secretary

DEFENCE : Procurement Part 7



FERRANTI INTERNATIONAL

Ferranti International Signal

SIR DEREK ALUN-JONES
CHAIRMAN

4th September 1989

The Rt Hon Tom King MP
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
LONDON
SW1A 2HB

Dear Secretary of State,

ECR90 for EFA

I am writing to you urgently as we now detect a move within the Ministry to overturn present policy and abandon support of ECR90 in the face of the continued German refusal to accept this radar as the winner of the EFA competition.

Ferranti has invested an enormous amount of its resources in the development of the Euroradar response to the EFA radar requirement with, hitherto, great encouragement from the UK MoD and Italy and Spain. Much of its future depends on its success, indeed to be adandoned in present circumstances would be a severe blow to the company and in our view would seriously endanger the EFA project.

In the competition to meet the EFA requirement, only MBB (FRG) within Eurofighter did not agree that ECR90 had won on technical, contractual and commercial grounds.

FRG alone has continuously blocked and delayed the selection of ECR90 despite clear evidence that it was the correct choice within the rules of the competition and the collaborative project.

The prime reasons for this FRG refusal to accept ECR90 - where it is not based on the deliberately misleading allegation that ECR90 is "higher risk" (disproved when independently examined) - are based on a belief within FRG that a choice of MSD2000 or even the original APG65 would in some way rescue the FRG programme to refit Phantoms with APG65. It is now well known within FRG that even this minor re-development of APG65 by AEG/Hughes and its integration into the Phantom by MBB is proving difficult, late and very much over budget.

/Continued

to The Rt Hon Tom King MP date 4th September 1989

Up until now, UK, Italy and Spain have expressed a clear determination to instal ECR90 in EFA for soundly based reasons. Now the UK, it is being proposed, should totally reverse its position.

The sound reasons why ECR90 was selected within Eurofighter are:

1) ECR90 meets the full requirements of all nations and offers very significant operational advantages over the competition.

2) ECR90 is lower in development cost and fully competitive in production cost.

3) ECR90 is a modern technology radar based on proven concepts demonstrated in the Blue Vixen radar and thus can be considered lower risk than anything based on the US APG65.

4) ECR90 is inherently capable of more stretch to meet future requirements.

5) ECR90 is wholly European and avoids accepting restrictions on future export sales in that USA will be able to claim a veto not only on the old USA technology, but on any new technology arising in re-development (which will flow back to Hughes under AEG's agreements with Hughes).

It is widely accepted that the use of MSD2000 - a radar based on old US technology - would in the longer term take Europe out of this technology for the future leaving it entirely dependent on the USA. EFA itself would not be a significant advance in electronic technology which would damage its sales prospects and indeed in due course will undermine the justification for proceeding with the project at all.

The Euroradar development team is recognised to be superior. AEG have never undertaken development of a radar of this complexity and GEC have not excelled themselves on the development of Foxhunter. Undoubtedly, Hughes capability will be offered to underwrite the ability of AEG, but the potential cost in time, money and loss of control of the technology will be enormous if the development is ultimately rescued by Hughes on their terms.

While the Euroradar consortium proved capable of winning the competition and is capable of meeting the requirements of the contract without Government assistance, it cannot overcome FRG intransigence on this matter without your assistance.

We cannot match the FRG willingness to guarantee or shoulder extra costs arising from FRG's Phantom problems. Nor can we guarantee MBB performance in integration of the chosen radar or meet extra costs they might incur through lack of competence in this task. It can be argued that MBB's role as integrator is a major risk to the programme anyway. No private company can subsidise a foreign government.

/Continued

to The Rt Hon Tom King MP date 4th September 1989

We have worked closely with the UK, Italy and Spain to achieve the choice of ECR90 and the concomitant advantages inherent in such choice. We will continue to do so. However, in current circumstances only government can defeat FRG refusal to accept ECR90 regardless of the illogicality and future ill-effects of not doing so.

You will not, I am sure, overlook that the USA has a strong commercial incentive to try to kill the EFA project or at the least ensure it is technically little advance on US offerings and thus unlikely to replace future sales of US aircraft. Use of APG65 technology will ensure a US veto on exports.

There are ways of overcoming German intransigence other than wholesale appeasement. A three-nation proposal has been formulated which if adopted would force FRG to contemplate having to go its own way with some APG derivative. While extra cost would be incurred initially in such an approach, there are significant advantages too. The extra cost of further delay would be eliminated, useful currency and balance of payments advantages accrue, production prices are essentially unchanged and all the advantages of ECR90 would be retained. The risks of adopting proposals led in development by AEG and in integration by MBB would be avoided.

We are confident that realistically faced with going it along, FRG resistance would collapse and they would seek to re-join the project. Such a re-joining would then be dependent on agreement and there would be no need to make concessions to FRG in relation to further delay, work share, financial terms or insistence on AEG and MBB leading the development and integration which would reduce existing risks considerably.

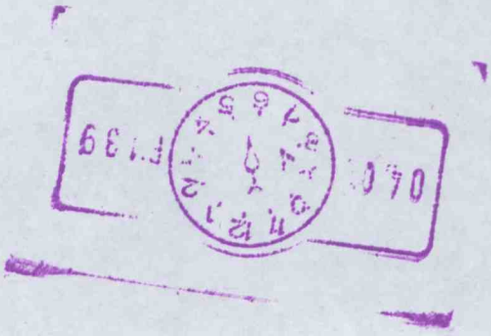
The proposal now being formulated within the MoD to capitulate to the FRG in relation to the choice of radar will fundamentally undermine the principles of fair competition and, in due course, the EFA project as a whole. A project that builds an F-18 equivalent 20 years after at enormous cost and which is virtually unexportable will inevitably be abandoned in due course.

In view of the seriousness of the situation, I am copying this letter to the Prime Minster and to the Secretary of State for Scotland.

Can we please meet urgently to discuss this matter.

Yours faithfully

Copy: The Rt Hon Margaret Thatcher MP
The Rt Hon Malcolm Rifkind QC MP



(2)

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

MO 3/20L
MO 26/11/9

21st August 1989

Dear Charles,

EFA RADAR AND LOW FLYING

My letter of 28th July recorded discussions between Mr Younger and Dr Stoltenberg on the selection of the EFA radar and the possible offer of a package of measures to reduce the impact of RAF low flying in the Federal Republic. I am writing to record the progress (or lack of it) achieved in further discussions between officials, and the outcome of telephone conversations between the Defence Secretary and Dr Stoltenberg last week.

Despite major efforts on our part, discussions at official level on resolving the basic problems on the choice of radar for EFA have made little progress. We have agreed with the Germans and our other two partners a set of conditions for the management of the project which are designed to meet specific German concerns on the control of costs. We have indicated our willingness to consider alterations to the composition of the ECR 90 consortium to allow a degree of participation by AEG; and have proposed a form of words for discussion which is aimed at meeting German concerns that they should be guaranteed against any cost overruns on ECR 90, but without exposing HMG to any financial risk.

The Germans, however, have continued to prevaricate, most notably by pursuing their wish for a Government to Government guarantee and insisting that the scale of cover provided under the indemnity arrangements be increased from the 70MDM previously agreed between Sir Peter Levene and his German counterpart to around 220MDM, a significant proportion of which involves costs outside Ferranti's control. Their tactics appear to be to continue to urge us to accept some form of compromise on MSD 2000 because of the difficulties of securing a mutually acceptable deal on ECR 90; or, as an alternative, to go for the American APG 65 (from which MSD 2000 is developed) as an interim solution, to be followed by a mid-life update by an as yet unspecified new generation of radar. Their last fall-back position appears to be to accept the latter solution unilaterally.

Charles Powell Esq
10 Downing Street

The Defence Secretary and Dr Stoltenberg have agreed to meet in Bonn on 31 August, with officials, to try to break the deadlock on this issue.

You will recall that Mr Younger made clear at his meeting with Dr Stoltenberg that our willingness to offer a package of measures to reduce the impact of RAF low flying might be dependent on a satisfactory outcome of the EFA radar selection process. The German failure to conclude that selection process on an acceptable basis may accordingly delay our response on low flying beyond the point at which the Germans had originally been requesting our reply. Separately, the US are keen to respond to Stoltenberg with a parallel package of measures on low flying. We have told the US of our continuing interest in concerting the UK and US approaches on this issue, both in terms of timescale and substance, as far as is possible. There is, however, a risk that the US will confirm their acceptance of a package of measures on low flying before we are ready to do so, thus increasing the risks of the UK becoming isolated and especially vulnerable to German Governmental and public criticism. (There has already been some press comment in the FRG identifying the RAF as the least co-operative of the "sending states"). The Defence Secretary recognises that it may well be necessary, if it becomes apparent that there is no realistic prospect of taking the two issues forward in the same timescale, to conclude the issue of low flying training separately.

I am sending copies of this letter to Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office), Carys Evans (HM Treasury), and to Trevor Woolley (Cabinet Office).

Yours sincerely,
John Colston.

(J P COLSTON)
Private Secretary

DEFENCE: Procurement:
PT 7

RESTRICTED - COMMERCIAL IN CONFIDENCE

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

9 August 1989

TYPE 23 COMMAND SYSTEM

The Prime Minister has seen your letter to me of 8 August and is content that this should be announced today.

I am copying this letter to Carys Evans (Chief Secretary's Office) and to Trevor Woolley (Cabinet Office).

CAROLINE SLOCOCK

John Colston Esq
Ministry of Defence

RESTRICTED - COMMERCIAL IN CONFIDENCE

Prime Minister
MOD want to announce this tomorrow.

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

MO 26/3V

There is no indication of the cost, but content for it to go ahead?

8th August 1989

This is within the present budget.

CABS 8/8

Dear Caroline,

TYPE 23 COMMAND SYSTEM

We propose to announce on Wednesday, by means of a press release, the award of a contract to DOWTY SEMA Ltd for the development and production of the new command system for the Royal Navy's Type 23 frigates and Auxiliary Oiler Replacement ships.

This contract is the product of an intensive effort since the cancellation in July 1987 of the CACS 4 system originally intended for these ships, after it became clear that its computer hardware would never be capable of coping with the very demanding requirements of a modern command system, the need for which was highlighted by experience in the Falklands.

The Ministry of Defence has taken full account of the lessons learned from CACS 4. The new system will have a computing power many times greater than CACS 4. It will incorporate the rapid advances in computer technology made in recent years, and will be based on modern distributing computing architecture. We have developed the most comprehensive specification and acceptance criteria ever achieved for a system of this kind prior to commitment to development and production. The agreed contract terms will place strong incentives on DOWTY SEMA to deliver the command system to specification, time, cost and the required standard of reliability. The new system will be a development of the Submarine Command System (SMCS) currently being developed by the firm for the submarine flotilla.

A number of Type 23 frigates will have to go to sea initially without the new command system. Our best estimate at present is that three ships will enter operational service without command systems installed and a further three will have to be fitted with their systems immediately after acceptance and before beginning their weapon trials. To reduce risk we will have a programme of phased delivery of software and this will also enable us to introduce the capability into the fleet as early as possible.

Caroline Slocock
No 10 Downing Street

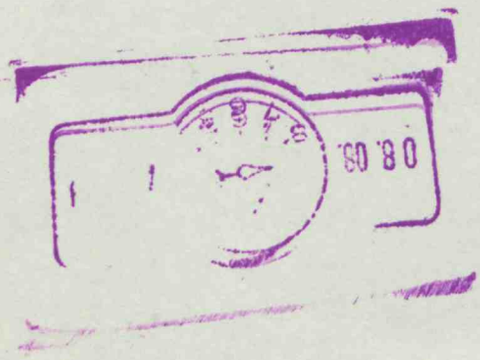
The decision to cancel CACS 4 was difficult but my Ministers are confident that we now have a sound basis for the command system for the Type 23 frigates which will be the mainstay of our surface fleet into the 21st century. Obviously in an area of high technology like this there is still potential risk, but very close attention has been paid to the management and control of risk in setting up this programme.

I am sending a copy of this letter to Carys Evans (Chief Secretary's Office), and to Trevor Woolley (Cabinet Office).

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary



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CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street, SW1P 3AG

2 August 1989

J G Colston Esq
Ministry of Defence
Main Building
Whitehall
LONDON
SW1A 2HB

Dear John,

EFA RADAR

Your letter of 28 July to Charles Powell reports that officials should take forward the discussion on the choice of EFA radar with the aim of reaching a conclusion and recommendation to Ministers by early August. The Chief Secretary considers it important that his officials are fully involved in this process.

The Chief Secretary has noted the intention to give comfort to the Germans on the basis set out at the end of your second paragraph. He would be grateful if the text of this arrangement could be cleared in draft with Treasury officials.

I am copying this letter to Charles Powell, Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office) and Trevor Woolley (Cabinet Office).

Yours,

Peter Wanless.

PETER WANLESS

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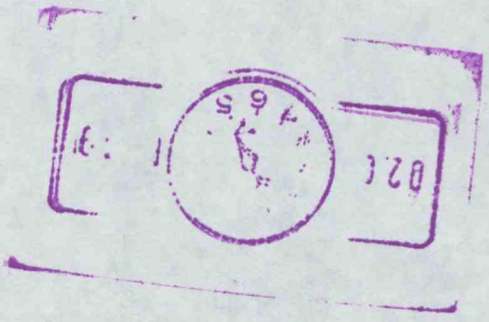
Defence
Procurement
Pt 7



(2) CCP/C

Prime Minister
This is becoming very tortuous.
CDP 28/7.

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

MO 26/11/9L

28th July 1989

Dear Charles,

EFA RADAR

Further to my letter of 17th July, I should record that Mr Younger held a further meeting with Dr Stoltenberg on 20th July at which some progress was made in reaching a decision in favour of ECR90 as the radar for EFA. This followed a meeting between Sir Peter Levene and Herr Ruppelt, his German opposite number.

Mr Younger noted that a form of words which more or less met the German requirements had been agreed between Sir Peter Levene and Herr Ruppelt. Sir Peter had explained that the UK could not agree to the Government-to-Government arrangement for an indemnity requested by Germany to protect Germany from any costs consequent upon accepting the ECR90 radar; that it would be inequitable to provide an indemnity to Ferranti and not to GEC-Marconi; and that it would be an unacceptable precedent in our procurement policy. Since the primary German concern was financial, Sir Peter had suggested that the indemnity should remain with the Ferranti consortium (Euroradar) as in the existing proposal, backed by a bank guarantee. However, HMG could act as arbitrator of the indemnity. Negotiations on whether the money was due would be with HMG, who would also authorise payment, whilst liability for this payment would remain with Euroradar. However, in order to give some comfort to the German request for a Government guarantee, language would be constructed indicating full UK government backing but making clear that all financial risk and responsibility remained squarely on industry underwritten by a UK bank.

Dr Stoltenberg acknowledged the preference of the UK, Italy and Spain for ECR90 and agreed that discussion should take place at official level on the details of the wording of an agreement along these lines. He also pressed for a shift in the German membership of the Euroradar consortium from Siemens to AEG, and stressed the importance of managing the programme strictly within the budget.

Mr Younger accepted that the option of shifting the Euroradar structure in favour of AEG should be studied, whilst noting that the problem in this area could turn out to be a German one rather

Charles Powell Esq
10 Downing Street

than one for Ferranti; and he confirmed the importance of keeping the project within the agreed budget.

In conclusion, it was agreed that officials should take the matter forward, on the basis of the proposal set out at paragraph 2 above, with a view to reaching conclusions and recommendations to Ministers by early August.

I should also add that, for tactical reasons, Mr Younger did not confirm to Dr Stoltenberg our willingness to offer a package of measures to reduce the impact of RAF low flying in the Federal Republic (as set out in Mr Younger's minute of 18th July and acknowledged in your letter of 19th July to Brian Hawtin). He took the line that he did not expect that it would be easy to sell such a package to his colleagues but that he hoped that it might be possible to offer such a package provided that a satisfactory outcome of the EFA radar selection process (ie the choice of ECR90) could be achieved in parallel. Dr Stoltenberg appeared ready to accept that agreement on ECR90 would be a pre-condition of agreement on a package on low flying.

I am sending copies of this letter to Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office), Carys Evans (Treasury) and to Trevor Woolley (Cabinet Office).

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary

DEFENCE: Procurement Pt 7

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

18 July 1989

The Prime Minister has asked me to thank you for your letter of 21 June about the future of the European Fighter Aircraft (EFA) programme.

Overall, work is going ahead satisfactorily, though not unexpectedly in such a complex, multinational project there is a need for a lot of detailed discussion and negotiation. In the case of the radar, there are, as you say, two competing options and it is taking rather longer than we would have liked to reach a decision. But I can assure you that the differences are being tackled at a high level and with great determination on our part.

(CHARLES POWELL)

David Martin, Esq., M.E.P.

CONFIDENTIAL

GR

MO 3/7S

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

17th July 1989

Dear Charles,

EFA

Thank you for your letter of 22nd June 1989 enclosing one from Mr David Martin MEP about the EFA programme. In submitting the attached draft reply, I am taking the opportunity to report developments since Brian Hawtin's letter of 16th June 1989. I apologise for the considerable delay in replying.

My Secretary of State, accompanied by Sir Peter Levene, discussed the choice of radar for EFA with the Defence Ministers of partner nations in the margins of the ministerial meeting of the Independent European Programme Group in Portugal on 28th June. He said that the EFA programme was of vital importance to the participating nations and to the Alliance as a whole, yet its progress was being severely impaired by the failure to take a decision on the radar. The choice for the UK was clear, since only ECR90 responded in all important respects to the RAF's operational requirements. The independent assessment commissioned by Sir Peter Levene and his German counterpart had also concluded that ECR90 was better fitted for the UK's needs. In our view ECR90 was rather less risky than MSD2000.

The Defence Secretary was supported by Pisano (Italy) who pointed out that only ECR90 met the requirements of all four nations and the Italian national requirement in particular. Italy favoured ECR90 because it was a clearly European programme free of potential US constraints which offered greater opportunities for development over the lifetime of the project and a more substantial ECM capability. Serra (Spain), although less positive, also supported ECR90 because MSD2000 would be too dependent on US technology - something which the Spanish Air force wished to avoid after their experience with the Hughes APG65 radar in their F18s.

Stoltenberg (Germany) argued that MSD2000 met German national requirements; and was less risky in their view. He could not risk any overshoot of costs because there was no disposition on the part of the Bundestag Defence and Appropriations Committees to consider additional funding. The fact that they had refused to allow for inflation in the German share of the development programme meant

Charles Powell Esq
No 10 Downing Street

CONFIDENTIAL

that he had to take a very strict view of costs. Everything possible must be done to keep costs within authorised appropriations, otherwise the entire programme would be at risk. He therefore continued to support MSD2000. If he were to consider ECR90 further, the elimination of risk would be a paramount consideration. He feared that a commercial indemnity of the kind discussed with Ferranti might lead to protracted negotiations in the event of cost overruns.

The Defence Secretary said that he fully supported the need to maintain strict cost controls; but we could not accept a radar which did not meet our requirements. Risk was an important factor; but the Germans were well protected by the obligations on the contractor to contribute to any consequential costs incurred by MBB and by the indemnity - buttressed by a bank guarantee - which they had negotiated with Ferranti.

After further discussion, the Defence Secretary and Dr Stoltenberg concluded that their deputies and National Armaments Directors should continue negotiations urgently, concentrating on ECR90 as the solution preferred by three of the participants. If this failed to resolve the outstanding differences, EFA Ministers would meet again within a month.

As you will have noted from the Defence Secretary's minute to the Prime Minister of 14th July, this further meeting is taking place today. We do not believe that the attached draft is sensitive to the outcome of that meeting, or to the considerations raised in the Chief Secretary's minute of 13th July.

I am sending copies of this letter to Richard Gozney (FCO), Neil Thornton (DTI), David Crawley (Scottish Office), Carys Evans (Treasury) and to Trevor Woolley (Cabinet Office).

Yours sincerely,

John Colston.

(J P COLSTON)
APS/S of S

DRAFT REPLY FROM PS/PM TO MR DAVID MARTIN MEP

1. The Prime Minister has asked me to thank you for your letter of 21st June 1989 about the future of the European Fighter Aircraft (EFA) programme.

2. Overall, development work is proceeding satisfactorily, though not unexpectedly in a complex multinational project such as this, detailed discussions may be needed in some cases by the partner nations before final decisions can be taken on the choice of expensive and technologically very advanced pieces of equipment. This said, we and our partners are committed to the objective of developing a cost-effective new generation of aircraft for use well into the next century. As you say, EFA is of very great importance to the high technology industries of all the participants.

3. In the case of the radar, there are, as you suggest, two competing options. It is taking rather longer than we would have liked to reach a decision; but while I cannot comment on the evaluation of the bids, I can assure you that Ministers and senior officials of the Ministry of Defence are actively engaged in discussions with their opposite numbers in Germany, Italy and Spain about all aspects of the choice.

4. I hope this is helpful to you.

SECRET

24 SRWCSW

File

10 DOWNING STREET

LONDON SW1A 2AA

17 July 1989

From the Private Secretary

Dear Carys,

FIGHTER AIRCRAFT FOR THE RAF

The Prime Minister has seen the Chief Secretary's minute of 13 July, and the Defence Secretary's minute of 14 July, on fighter aircraft for the Royal Air Force. She is distinctly unhappy about the need to spend additional large sums on the radar for the Tornado ADV fighter, and the possibility of even higher expenditure to deal with fatigue problems to the Tornado airframe. She notes that MoD are about to embark on a study of all the options for the future of Tornado, but does not regard it as acceptable that this should take until next Spring. She would wish to see a preliminary report at least by the middle of the autumn and thinks that Treasury officials should be involved in preparing it.

At the same time the Prime Minister does not think it sensible suddenly to suspend our efforts to reach agreement on the radar for EFA, provided we can resolve the issue in favour of ECR-90. We should therefore press ahead with that. But the arguments against accepting the alternative radar preferred by the Germans become even stronger.

I am copying this letter to the Private Secretary to the Secretary of State for Defence, and to the other Private Secretaries to the members of OD and Sir Robin Butler.

Yours sincerely,

(C. D. POWELL)

Miss Carys Evans,
Chief Secretary's Office.

SECRET

PRIME MINISTER

FIGHTER AIRCRAFT FOR THE RAF

The Chief Secretary is very worried about the cost of upgrading the Foxhunter Radar for Tornado: and the likelihood of a substantial bill - possibly as high as £1 billion - for dealing with unexpected fatigue problems with the Tornado airframe. He goes on to argue that this casts doubt on the viability of the plan to equip the RAF into the next century with a mixture of Tornado and EFA: that we need to start a radical re-think: that we must keep open the option of a multilateral termination of the EFA project: and that in the meantime we should suspend attempts to agree on the radar for EFA (in order to stall the project altogether).

This is a series of fairly major jumps and the Defence Secretary in his minute objects to the suggestion that we should suddenly block attempts to agree on the EFA radar, just when he is due to try to resolve the issue in our favour.

It seems to me that you should rule:

- attempts to settle the EFA radar in our favour should continue, but we should not agree to accept the German radar; Agreed

- a further study of the Tornado/EFA balance in the light of the problems with Tornado, and taking account also of the CFE negotiations (which will not affect dual capable aircraft, but could affect the air defence Tornado) should be initiated.

Agreed - Nanlyon

Agree?

CDP

CHARLES POWELL
16 July 1989

22a-6

CCPC

MO 26/11/9L

PRIME MINISTER

FIGHTER AIRCRAFT FOR THE RAF

with CDP

I have seen the Chief Secretary's minute to you of 13th July.

2. We are about to embark on studies to identify all the options for dealing with the future of the Tornado ADV. These will examine a range of issues, including the question of the right balance between EFA and the Tornado ADV. This detailed work will take until at least next Spring. Until we have the results, we shall not be in a position to reach any conclusions about the long term future of the Tornado ADV. However, I am in no doubt about the need for an aircraft of EFA's capability and I was glad to see that the Chief Secretary is not advocating that we should reverse earlier decisions. If anything, the concerns about Tornado reinforce the operational importance of EFA and of making the right choice of radar for that aircraft as soon as possible.

3. We must also bear in mind the potential impact of CFE. If general reductions are achieved, the quality and flexibility offered by EFA will take on ever increasing importance.

4. As you know, we are currently working urgently to reach a conclusion with the Germans on the EFA radar, in line with your view, recorded in your Private Secretary's letter of 19th June, that we should press vigorously for an early decision in favour of ECR-90. The Italian and Spanish Governments support this radar; and it is also recommended by the International Project Office. There is keen interest in the House about this issue and (rightly) pressure for early decisions.

6

5. In our continuing efforts to resolve the matter as speedily as possible, David Trefgarne and Peter Levene are meeting their German opposite numbers on Monday morning and I will be seeing my German colleague, Dr Stoltenberg, next Thursday. We have been pressing the Germans for many weeks now to come to a conclusion; and it would be quite intolerable to start going slow at this crucial juncture or to be without a clear negotiating mandate. The Germans would detect immediately any easing off in our pressure, and any suggestion that the UK was itself now dragging its feet would merely encourage them to redouble their efforts in support of the MSD 2000 with serious implications for programme costs and timescale, even if indeed it did not give a second wind to those in Bonn who oppose the project outright.

6. Accordingly, while I shall of course inform colleagues of the outcome of the Tornado ADV studies, including any industrial implications, I regard it as essential to proceed with efforts to settle the EFA radar issue in favour of ECR-90 as quickly as possible on the lines already agreed.

7. I am copying this minute to OD colleagues, and to Sir Robin Butler.

Ministry of Defence
14th July 1989

for (George Younger)
[Approved by the Secretary of State and signed in his absence]

cst:ps/9jm13.7/drfts

21a-c

cert

SECRET
UK EYES A

000376

FROM: CHIEF SECRETARY
DATE: 13 July 1989

PRIME MINISTER

FIGHTER AIRCRAFT FOR THE RAF

I have seen the letters of 16 and 23 June from the Defence Secretary's Private Secretary to yours.

2. I very much agree that the news that the supposedly improved radar for the Tornado ADV fighter will still not be adequate to engage Soviet bombers properly is a worrying development. Quite apart from the military implications, I am concerned that we should have agreed to spend £150 million as recently as the Spring of 1988 on an improvement to the radar which, it now seems, will have to be followed quite quickly by further expenditure tentatively estimated at several hundred million on yet more improvements or even on a completely different radar system.

3. My officials have also been alerted by George's to the prospect of expenditure estimated at up to approximately £1000 million on dealing with the unexpected fatigue problems to the airframe. While I very much hope that these alarming figures will prove to be too high, experience with defence projects in the past is not encouraging.

4. I am not sure we can be confident that our present plan to equip the RAF in to the early part of the next century with a mixture of Tornado ADVs and EFA fighters still represents the most cost effective way of proceeding. There may be other options that are less risky, in both financial and military terms.

6

5. On the basis of the information now available to me, I am not advocating that we should reverse earlier decisions. However, I think it would be helpful for officials to consider all the options, including numbers as well as types of aircraft, in more depth urgently, and to report to us as soon as possible. This study would need to cover industrial as well as military and financial aspects.

6. There is an important link here with the current negotiation with the Germans on the European Fighter Aircraft radar. If, in the light of officials' assessment, we did wish to change our strategy the costs of unilateral withdrawal from EFA are high. The costs of agreed multilateral termination are a good deal lower. A failure to agree on an EFA radar could lead to multilateral termination, and provide a reason for ending the project. It follows therefore that, while the reconsideration of our options is being undertaken, we should avoid letting the radar discussion come to a conclusion.

7. I am copying this minute to OD colleagues, and to Sir Robin Butler.

P. Wales

JOHN MAJOR

pp [Approved by the Chief Secretary and signed in his absence.]

Defence: Procurement Pt 7

13 JUL 1989

COVERING CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

(2)

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

MO 26/2/2S

27th June 1989

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

I attach a set of reports on major MOD Equipment Procurement Projects for the Prime Minister. These cover the naval EH101 programme; the rebuilding programme at Aldermaston; and PINDAR. We are separately preparing a full report to the Prime Minister on both the naval and utility versions of the EH101, as requested in the course of last week's Value for Money seminar.

Yours sincerely,

John Colston

(J P COLSTON)
APS/S of S

C D Powell Esq
10 Downing Street

COMMERCIAL IN CONFIDENCE
COVERING CONFIDENTIAL

EH101 ASW HELICOPTER FOR RN

Programme Value: £2,100M*

Problems

- No maximum price on development contract.

- Main contractor (EHI) (the joint venture Westland/Agusta Company) not in full control of the programme.

- No contractual requirement to prove total mission system works.

Current Situation

- Considerable pressure has been brought to bear on the two partner companies Westland and Agusta, with the aim of improving the management of the programme and relations between the two companies. Both companies have expressed their determination to effect a real improvement, and undertook to do so at a meeting held between the UK and Italian National Armaments Directors recently in Rome.

- The extent to which these expressions of good intent will be translated into real improvement remains, in our opinion, in some doubt. One of the undertakings was to appoint a plenipotentiary Chief Executive. Whilst there is a claim that this has now been put into effect, again we shall need considerable convincing. Currently further discussions are taking place between the two governments and the companies with a view to the reconvening of a meeting chaired by the National Armament Directors in the very near future. A radical change in the structuring of the programme cannot be ruled out.

*NB. Revised programme estimate at September 1988 economic conditions and including projected costs for RN Mission System Integration (MSI) contract.

REBUILDING PROGRAMME AT ALDERMASTON

Programme Value: £1031M (£974M uprated to 3Q88)

Original Problems

- Inadequate project definition.
- Inadequate project management control.
- Inexperienced industry over-reliant on MOD/AWE in key nuclear safety areas.
- Split in responsibility between MOD and PSA.
- Technical difficulties.
- Cost escalation.

Current Situation

- NNC Ltd are now firmly established as Facilities Project Management Contractor (FPMC) with overall control of the programme and 110 staff on-site. Total costs remain steady and the application of taut commercial practices in contract placement and expediting deliveries is proving decisive in meeting Trident critical timescales.
- Recent minor installation difficulties in the A90 project have been widely covered in the media and MOD and PSA have reported on the programme to the House of Commons Defence Committee. Handover of subcontract work to MOD and rapid rescheduling by FPMC have allowed remedial action within existing programme budget and timescales.
- Manufacturing and assembly of components in the existing facilities at AWE continues to meet Trident schedules but urgent action is in hand to minimise the impact of the sluggish recruitment and manpower shortfalls at AWE; transfer of staff from non-Trident programmes and increased contractor involvement is planned to allow future production build-up.

PINDAR: RELOCATION OF MOD/CABINET OFFICE CRISIS MANAGEMENT ORGANISATION INTO HARDENED ACCOMMODATION

Equipment and Installation Programme: c. £67M*

Works Programme: c. £49.9M*

PROBLEMS

- Lack of a defined requirement for the total PINDAR project until recently.

- Management and control of a large hybrid works/equipment project involving PSA and MOD contractors.

CURRENT SITUATION

- The 3 Competitive Engineering Definition Study contractors submitted their final implementation plans and specifications in April on schedule, in accordance with the planned programme.

- Evaluation of the implementation proposals is now underway. The PINDAR prime contractor will be selected on the results of the evaluation in late 1989.

- PSA have now completed their detailed negotiations with their site contractor, and the agreement is signed. The site works programme is proceeding against a contractually binding and incentivised "practical completion" date of October 1990.

- The process of finalising the agreement and works programme has resulted in the completion of certain site commissioning activities being deferred until after October 1990. Work is in hand to ensure that these activities are compatible with the eventual prime contractor's initial equipment installation programme.

- Overall programme costs remain as previously reported.

- The ISD estimate remains in the range October 1991 to December 1992.

*NB. Programme costs to MOD at September 1988 economic conditions.



SECRET UK EYES A

(2)

20

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

MO 26/8/1L

Rio Minister

A worrying - and probably explosive - development.

CDP 23/6

23rd June 1989

Dear Charles

The Prime Minister will recall that a two-stage recovery programme was approved last year for the A124 Foxhunter radar, which is fitted in the Tornado ADV. Stage 2, to be completed by 1991, would bring the radar up to an acceptable level of performance against the original staff requirement. This programme is generally proceeding satisfactorily.

At the time the recovery programme was approved, new intelligence had given cause for concern about the capability of the standard jammer carried by the ADV's prime target, the Backfire bomber. It was however believed that the Stage 2 radar would give the ADV a good chance of countering this threat. Since then, further technical assessment, including flight tests, have suggested that, whilst much would depend upon the overall scenario, the jammer could after all prevent the ADV with the Stage 2 radar from successfully engaging Backfire with its medium-range missile. Further improvements may therefore be needed.

This is obviously a worrying development, although the full implications have yet to be assessed. Possible solutions may be constrained by the results of a study being undertaken into the fatigue life of the airframe. Officials are working urgently to provide this assessment, and the Defence Secretary will thereafter be writing more fully to Ministerial colleagues with his proposals.

I am copying this letter to Private Secretaries to members of OD, and to Trevor Woolley (Cabinet Office).

Yours sincerely,
John Colston

(J P COLSTON)
Private Secretary

C D Powell Esq
10 Downing Street

SECRET UK EYES A

Defence Procurement



David MARTIN MEP

6/7

(1) 13/7

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

Ackd 22 June 1989

I enclose a copy of a letter which the Prime Minister has received from Mr David Martin, M.E.P.

I should be grateful if you would let me have a draft reply, to reach this office by Thursday, 6 July.

CHARLES POWELL

John Colston Esq
Ministry of Defence

Member
of the European Parliament

Lothians

David Martin MEP,
Ruskin House,
15 Windsor Street,
Edinburgh EH7 5LA.

031 557 0936.

21 June 1989

The Right Honourable Margaret Thatcher MP,
The Prime Minister,
10 Downing Street,
London.

R22

Dear Mrs. Thatcher,

As the Euro MP for the Lothians, I view with grave concern reports that British and West German Defence Ministers believe that the four-nation European Fighter Aircraft (EFA) will be cancelled before it reaches production largely because of German opposition.

It appears to me that German opposition is basically coming at a political level as it is widely accepted that the new radar system developed by Ferranti is technically superior to the West German preferred AEG model.

I am therefore asking you to intervene at the highest political level with Chancellor Kohl to allow this project to go ahead without further delay.

If the project were not to go ahead the consequences would not only lead to the loss of high technology jobs within my own constituency but would mean Britain and Europe would once more hand the new technological future over to the Americans with all the implications that will have for future employment.

Yours sincerely,

David Martin

David Martin MEP

COMMERCIAL IN CONFIDENCE

file Dts
(A4)
bc = PC

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

19 June 1989

EFA RADAR

Thank you for your letter of 16 June about the position reached on the choice of radar for the European Fighter Aircraft. The Prime Minister has read this carefully and commented that we must continue to press the case for the ECR 90 vigorously.

I am copying this letter to the Private Secretaries to the Foreign Secretary, Secretary of State for Trade and Industry, the Chief Secretary and Trevor Woolley (Cabinet Office).

C. D. POWELL

Brian Hawtin, Esq.
Ministry of Defence

COMMERCIAL IN CONFIDENCE

Confidential COMMERCIAL IN CONFIDENCE

CCPC (2)

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

MO 26/11/9L

16 June 1989

Prime Minister

We must pursue this vigorously. The Germans are refusing to abide by a clear majority view because - for once - it favours us. CDP 16/6

Dear Charles,

EFA RADAR

In your letter of 13th June, you asked for a note for the Prime Minister about the position reached on the choice of radar for the European Fighter Aircraft (EFA); and what was being done to secure the Euroradar option.

As you suggest, negotiations have reached a critical stage. NEFMA, the international body managing EFA, have recommended to the four partner nations that ECR 90 (produced by the Euroradar consortium led by Ferranti) should be adopted as the EFA radar. However, at the last meeting of the EFA Steering Committee on 29th May, the German delegation continued to pursue its preference for the MSD 2000 option proposed by the consortium led by AEG of Germany and which includes Marconi, FIAR (Italy) and INISEL (Spain). This option is a development of the American Hughes radar in their F18 fighter which, the Germans have argued, responds to their national needs and is a safer choice in terms of technical risk.

Only ECR 90 is substantially compliant with our own operational requirements, as stated in the European Staff Requirement for Development (ESRD). MSD 2000 falls short in a number of important fields. The Italians strongly favour ECR 90 on operational grounds; the Spanish have also indicated their support. The Germans, while accepting that ECR 90 responds to their operational requirements, have argued that the technical risk associated with ECR 90 is high.

In order to establish an agreed technical baseline for the comparison of the two competing radars, Sir Peter Levene and his German counterpart and National Armaments Director commissioned an independent technical review. This resulted in agreement for the first time by the Germans that MSD-2000 also carries risk and that ECR-90 does meet more closely the UK requirement. They have also accepted separately that although MSD-2000 is optimised to meet their national requirement, it does not meet ours. Even so, they

Charles Powell Esq
10 Downing Street

have continued to claim at working level that MSD 2000 is the safer choice. This claim is not supported by our national assessment of the competing bids which concluded that ECR 90 is somewhat less risky overall; and that it is also the right choice on operational and technical grounds. A similar conclusion was reached after an independent assessment of the options by SD Scicon on our behalf.

In terms of price, there is little between the two options since Ferranti in a further round of the competition have more than matched the unsolicited price reduction first offered by the AEG consortium at the end of April. Both are within the sum budgeted for by the prime contractor and ourselves.

Against this background, the Germans suggested at the Steering Committee meeting that they might be able to accept ECR 90 if the other nations indemnified them against any additional costs that might be incurred by their airframe manufacturer, Messerschmitt Bolkow Blohm (MBB) which has design responsibility for integrating the radar into the aircraft, in the event of the radar being delivered late.

A government to government indemnity was not acceptable either to us or to the other partner nations; and following an initiative by Sir Peter Levene with his German counterpart designed to break the impasse, discussions took place between the Euroradar consortium, the German government and MBB about a possible indemnity arrangement by Ferranti and its partners. We, of course, were not party to those discussions; and will not be providing any form of financial guarantee to the Germans or to the radar consortium. But we understand that during the negotiations an outline agreement was reached at working level for consideration by German Defence Ministers and their NAD.

Following further discussions today, however, between Sir Peter and the German National Armaments Director, it has become clear that the Germans are not, at present, minded to take a firm decision on this issue; they have said that they need to study the whole EFA programme in greater depth to analyse the global risk involved. Their motives for this are not at all clear, although comments have been made that there is considerable disquiet in Germany over "the UK getting far more than their fair share of the high-tech and highly desirable work." Nevertheless, the Defence Secretary has insisted that when he meets his IEPG colleagues in the IEPG Ministerial Meeting in Lisbon on the 28th June, he will require a meeting between the EFA partners in an effort to try to break the log jam.

You will know from the letter to the Prime Minister from Sir Derek Alun-Jones of today's date that industry is now well aware of

the unhelpful attitude of the German Government to the Euroradar bid and has asked for our assistance. Mr Younger appreciates their concerns and is anxious to find an acceptable solution to the problem; he intends to use his discussions in Lisbon to that end.

I am sending a copy of this letter to the Private Secretaries to the Secretaries of State for Foreign and Commonwealth Affairs, Trade and Industry, the Chief Secretary and to Trevor Woolley (Cabinet Office).

Yours sincerely

Brian Hawtin

(B R HAWTIN)
Private Secretary

RESTRICTED
COMMERCIAL IN CONFIDENCE

MO 26/4V

PRIME MINISTER

155MM SP HOWITZER - PUBLIC ANNOUNCEMENTS

You will recall that, following the decision in late 1986 to cancel the tri-national SP70 Project, a Request for Quotations was sent to industry for a new self-propelled howitzer. In June 1988, following a detailed evaluation of all the proposals, we announced that we would fund further work by Vickers Shipbuilding and Engineering Ltd, (VSEL), on their private venture AS90 Self Propelled Howitzer. Further, we would continue to monitor the US funded M109 Howitzer Improvement Program (HIP) manufactured by Bowen, McLaughlin, York (BMY). This enabled us to keep our options open and at the same time bring competitive pressures to bear on the contractors involved.

2. Following further detailed assessment I have accepted the recommendation of my Equipment Policy Committee that a contract now be awarded to VSEL for the completion of development to our requirements and production of AS90. The Chief Secretary has given his agreement.

3. I intend to announce this decision to Parliament by means of a Written Answer on Tuesday next, 20th June and I attach, for information, a copy of the proposed question and reply. This will be followed, later that afternoon, by an MOD Press Conference.

4. I am copying this to OD colleagues, and to Sir Robin Butler.

(Private Secretary)
For Defence Secretary

G Y

(Approved by Mr Younger and signed in his absence.)

Ministry of Defence
16 June 1989

COMMERCIAL IN CONFIDENCE
RESTRICTED

155M SP HOWITZER - PARLIAMENTARY ANNOUNCEMENT

DRAFT QUESTION

To ask the Secretary of State for Defence whether he is now able to make a statement on the procurement of 155mm Self Propelled Howitzers for the Army?

DRAFT REPLY

In my reply on 8th June 1988 to a question from my hon Friend the member for Berkshire East (Mr Mackay)(Official Report col 586), I announced the award of a contract to Vickers Shipbuilding and Engineering Limited (VSEL), worth some £4M, for further work on their AS90 Self-Propelled Howitzer. This was to enable them to demonstrate more fully the performance of their design against the British Army's specification and to secure option prices for any subsequent production orders. In the interim period we have also closely followed the development in the US of the M109 Howitzer Improvement Program.

Following a very careful and detailed evaluation of the two systems, and subject to the agreement of satisfactory terms, I have decided to place a contract with VSEL for the completion of development and a production order for 179 AS90 Self-Propelled

Howitzers. This contract, with initial spares and support, is worth some £300M. I have also arranged an option for a further quantity of howitzers which may be exercised during the next two years.

The new weapon will replace our 105mm Abbot guns, and will significantly enhance artillery firepower. Its introduction will mark a further step in our planned programme to ensure that the Armed Services are equipped with up to date and highly capable equipment.

CONFIDENTIAL

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

13 June 1989

EFA RADAR

I understand that the negotiations over radar for EFA are reaching a rather crucial point. I think the Prime Minister would find it very helpful to have a note on the position reached and what is being done to secure adoption of the Euroradar option. It would be helpful to have this for the end of the week.

C. D. Powell

Brian Hawtin, Esq.,
Ministry of Defence.

CONFIDENTIAL

Defence PE7

Procurement.

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)/DGT/1/2/4

22 May 1989

C 00123/15

Dear Mr Blatchford,

DROPS/RTE

will request if required

You will by now have received my reply dated 3rd May to your three earlier letters on the subject of DROPS/RTE; I sincerely hope that you are now able to accept my assurances. Having read my letter you will not, I imagine, be surprised to learn that your latest communication of 4th May does not persuade me that there are any grounds to justify reconsidering our position and we will shortly therefore be taking up the production options in the contract with Arbau Klaus as planned.

I am copying this letter to Sir Peter Levene, Lord Young and the Private Secretary to the Prime Minister.

Yours sincerely

Trefg

Lord Trefgarne

Michael I Blatchford Esq., C.Eng

Defence - Procurement

CONFIDENTIAL
COVERING COMMERCIAL IN CONFIDENCE

CC A (2)

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

MO 26/2/2L

22nd March 1989

Mr Prime Minister
CDP
23/3

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

I attach an eighth set of reports on major MOD Equipment Procurement Projects for the Prime Minister.

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary

Charles Powell Esq
10 Downing Street

COVERING COMMERCIAL IN CONFIDENCE
CONFIDENTIAL

EH101 ASW HELICOPTER FOR RN

Programme Value: £1805M

Problems

- No maximum price on development contract.
- Main Contractor (EHI) (the joint venture Westland/Agusta company) not in full control of the programme.
- No contractual requirement to prove total mission system works.

Current Situation

- The MOD's proposal for a maximum price has been considered by the Westland Main Board, who have asked for further time before reaching a final decision. The likelihood of a satisfactory outcome under the present contractual arrangements is remote.
- The findings of the study into RN Mission System Integration (MSI) have been discussed with our Italian partners and EHI. Their views are awaited. Meanwhile, a contract is to be placed for the writing of a detailed performance specification. This specification will enable us to run a competition to select a Prime Contractor responsible for the whole RN EH101 system.
- Official discussions have taken place at the highest level with the Italian MOD to consider a radical change to the contractual arrangements. An attempt to effect just such a change two years ago was rebuffed; personality changes on both the Governmental and Industrial sides in Italy however, now give rise to hope that they may after all be achievable. Progress in this respect will be reflected in the next report.

PINDAR: RELOCATION OF MOD/CABINET OFFICE CRISIS MANAGEMENT ORGANISATION INTO HARDENED ACCOMMODATION

Programme Value:

Equipment & Installation Programme	£67M*
Works Programme	£49.9M*

PROBLEMS

- Lack of a defined requirement for the total PINDAR project until recently.

- Management and control of a large hybrid works/equipment project involving PSA and MOD contractors.

CURRENT SITUATION

- The 3 Competitive Engineering Definition Study contractors submitted their draft implementation plans and specifications in late February in accordance with the planned programme. The forecast completion date for the studies remains April 1989 when final implementation proposals will be submitted.

- The PINDAR prime contractor will be selected in late 1989.

- Following conclusion of the high level negotiations between PSA and their works contractor in late 1988, PSA are now tying down the details of the agreement and working to establish a detailed plan of work to completion of the site programme. Whilst more time than originally forecast has been needed to refine the programme work, PSA's contractor has re-affirmed the intention to complete the primary works within the agreed timescale.

- Programme costs have been revalued to current price levels. The works cost takes into account PSA's negotiations with their site contractor; this revised cost reflects the substantial price inflation in the construction sector.

- The ISD estimate remains in the range October 1991 to December 1992.

*NB Revised programme costs to MOD at September 1988 economic conditions.

REBUILDING PROGRAMME AT ALDERMASTON

Programme Value: £974M

Original Problems

- Inadequate project definition.
- Inadequate project management control.
- Inexperienced industry over-reliant on MOD/AWE in key nuclear safety areas.
- Split in responsibility between MOD and PSA.
- Technical difficulties.
- Cost escalation.

Current Situation

- Programme is under single project control with a total value of £974M. Periodic reports are being provided to MOD Ministers and Treasury against a baseline programme and milestones.
- The National Nuclear Corporation (NNC) has achieved its target strength of 100 people at AWE on schedule, and continues to provide full project management of the programme. Priority is being given to the Trident critical projects and those programmes recently handed over from PSA.
- Production of the first Trident warhead item was achieved in December 1988 utilising existing facilities. The programme remains on-schedule to meet 1989 deliveries to storage prior to final assembly at AWE Burghfield.

CF

FILE
SMH
CMOS

10 DOWNING STREET
LONDON SW1A 2AA

THE PRIME MINISTER

6 March 1989

Dear Arnold,

Thank you for your letter of 17 February, setting out your views on the competition for the EFA radar. I entirely understand that this is of very great interest to Marconi and I can assure you that the points in your letter, among others, are being taken into account in the assessments being carried out to compare the competing bids. Since no decision on this matter has yet been taken, it would not be appropriate for me to comment in any more detail at this stage.

Incidentally the matter was not raised in my conversations with Chancellor Kohl.

Yours ever

Margaret

The Lord Weinstock

COMMERCIAL IN CONFIDENCE

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

MO 26/5/1L

February 1989

Dear Charles

EFA RADAR

attached

thank you for your letter of 17th February, enclosing one from Lord Weinstock to the Prime Minister on the European Fighter Aircraft radar competition.

This competition to supply the radar for EFA is now nearing completion. The main competing bids are a radar known as MSD2000 from a consortium led by AEG of Germany and including Marconi of the UK, FIAR of Italy and INISEL of Spain; and one known as ECR90 from the Euroradar consortium which is led by Ferranti, and which also includes FIAR and INISEL, together with (a very recent adherent) Siemens of Germany. So far Eurofighter, the Weapon System prime contractor which has the responsibility of recommending a radar choice to the nations, has been unable to reach a decision, because of technical disagreement amongst the partner companies.

Nations' experts have been carrying out their own assessment of the competing bids, and further meetings will be held over the next few weeks to try to resolve the differences of view, after which formal submissions will be made to Ministers. However, on the basis of the UK project office initial assessment (supported by the international management office in Munich), there are many points in Lord Weinstock's letter with which we would disagree (and which have indeed been challenged in the course of discussion with colleagues from the other nations). For example, we would dispute his claims that the MSD2000 will meet the requirement "with minimum risk"; that there is little difference between it's performance and that of the ECR90; and that the MSD2000 radar can accommodate "massive future increases" in processing power.

No final decision has yet been taken on the radar selection, however, either by the UK or internationally, and it would therefore be inappropriate for the Prime Minister to comment substantively on any of the points raised by Lord Weinstock. A draft reply on this basis is attached.

Yours ever

(S McCARTHY)
Private Secretary

Charles Powell Esq
10 Downing Street

COMMERCIAL IN CONFIDENCE

40

DRAFT LETTER FROM THE PRIME MINISTER TO LORD WEINSTOCK

Thank you for your letter of 17th February, setting out your views on the competition for the EFA radar. I fully recognise that this important equipment is of very great interest to Marconi and I can assure you that all relevant factors are being taken into account in the assessments being carried out to compare the competing bids. I should, however, make it absolutely clear that no final decision on this matter has yet been taken, and it would therefore be inappropriate for me to comment in any more detail at this stage.

cst.ps/10jm24.2/drfts

CONFIDENTIAL

ecfa.

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street, SW1P 3AG

CDP
24/2.

The Rt Hon George Younger TD MP
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
London
SW1 2HB

24th February 1989

Dear George,

R&D EXPENDITURE - CHIEFTAIN REPLACEMENT

Thank you for your letter of 20 February.

I am content with the proposed increases in your R&D on the basis that the increase will be appropriately reduced if we do not proceed with Challenger 2 beyond the Demonstration Phase.

I note your comments on the R&D costs of retrofitting a new gun. I would simply point out that your department can presently envisage retrofitting this gun to Challenger 1 even if Abrams were chosen to replace Chieftain. It follows that the R&D involved would not be the consequence of a decision to procure Challenger 2.

I am copying this letter to the Prime Minister and members of OD, and to Sir Robin Butler.

Yours Ever,
John

JOHN MAJOR

CONFIDENTIAL

Defence - Procurement
PR7

File to

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

20 February, 1989.

The Prime Minister has asked me to thank you for your letter of 17 February about the question of the radar for the European fighter aircraft. I can assure you that she read this before our departure for Frankfurt for the Anglo-German Summit.

(C.D. Powell)

The Lord Weinstock

to

SECRET 20A-3

SCPC

CDP or.

MINISTRY OF DEFENCE WHITEHALL LONDON SW1 2HB

TELEPHONE 01-218 9000

DIRECT DIALLING 01-218 2111/3

MO 26/4/2/1L 20th February 1989

CDS 21/2

Dear John,

R&D EXPENDITURE - CHIEFTAIN REPLACEMENT

- attached.

At the meeting of OD on 19th December (OD(88) 6th Meeting) I was invited to discuss with you:

> ".... the extent of the adjustment required to the ceilings on defence R&D expenditure laid down by E(A) to take account of the additional R&D expenditure associated with the development of Challenger 2/2, including costs arising in the longer term."

Following discussion between our officials, I understand that there is agreement that the E(A) ceilings should be adjusted over the next five years to take account of the R&D expenditure associated with a purchase of Challenger 2/2, less that on CHARM 3, subject to readjustment if, following the Major Review at the end of next year of the outcome of the Demonstration Phase, Abrams is selected as the replacement to Chieftain.

This would mean that, at LTC 89 prices, and taking also into account the $1M which OD agreed would have to be paid to General Dynamics Land Systems, the R&D ceilings should be raised as follows:

The Rt Hon John Major MP

B

88/89	89/90	90/91	91/92	92/93
22	41	33	16	6

These figures, like the E(A) ceilings themselves, are VAT-inclusive.

Officials could not agree on the longer term costs of Challenger 2/2 uprating, although the OD settlement obliged us to consider these also. At this stage, I do not wish to press the point since we have no clear ideas of the costs (only that they will be extensive). I suggest we return to this nearer the time, although I must record that I regard this issue as critical.

I am copying this letter to the Prime Minister and members of OD, and to Sir Robin Butler.

Yours ever,

George.

George Younger

Lord WEINSTOCK

24/2

D28/2

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

17 February 1989

I enclose a copy of a letter to the Prime Minister from Lord Weinstock about radar for the European Fighter Aircraft. You will see that he expects the Prime Minister to be discussing this with Chancellor Kohl at the Anglo-German Summit. In fact, there are no plans to raise the subject. But if there are any points of which the Prime Minister should be aware, you will no doubt let me know in Frankfurt.

Meanwhile, I should be grateful if you would have a draft reply prepared to Lord Weinstock.

CHARLES POWELL

Brian Hawtin, Esq.,
Ministry of Defence.

THE GENERAL ELECTRIC COMPANY, p.l.c.
1 STANHOPE GATE · LONDON W1A 1EH
01-493 8484

17th February, 1989

Dear Margaret,

You will no doubt be discussing with Herr Kohl in the next few days the question of the radar for the European Fighter Aircraft (EFA). Apparently, the United Kingdom leans towards the ECR 90 and the Federal Republic of Germany prefers the MSD 2000.

The fact is that the MSD 2000 consortium, of which our Marconi subsidiary is a member, has offered a radar which will meet the requirement, and a very tight timescale, with minimum risk. MSD 2000 is based on the American Hughes APG 65 radar. It avoids reinventing the wheel and at the same time applies the most up-to-date European technology in achieving the enhanced performance required.

/.....

As to performance of the two radars, careful selection of the operational scenarios enables either system to be shown to be superior, but a truly objective analysis will show little difference between them. Similarly, there is little to choose as to their potential for evolution; it is certainly beyond dispute that the MSD 2000 has been designed to accommodate massive future increases, of the order of several hundreds per cent, in processing power.

Against the MSD 2000, there has been an overstated concern as to its American parentage and the consequent impact on export prospects. Actually, the American officials have looked very favourably at this question, and a draft MOU already accommodates most of the needs of the EFA partners. Whilst no Administration could give carte blanche approval, the possibilities for export, particularly to the Middle East, look promising.

/.....

There will be no restrictions on using American technology to implement the MSD 2000 programme, and furthermore an important clause in the MOU provides for the flowback under licence of European technology to the United States. This possibility of using European technology to upgrade existing APG 65 radars effectively opens for the EFA nations a vast potential export market (which is not available to the ECR 90).

Such an arrangement seems to me to represent the best in two-way trans-Atlantic defence collaboration, which, before and after 1992, we must surely continue to foster.

Discussion during the next few weeks will be much concerned with the West German well publicised anxiety to avoid unnecessary risk, which does not seem unreasonable given the constraints surrounding the EFA programme and the fragility of its status in Germany.

/.....

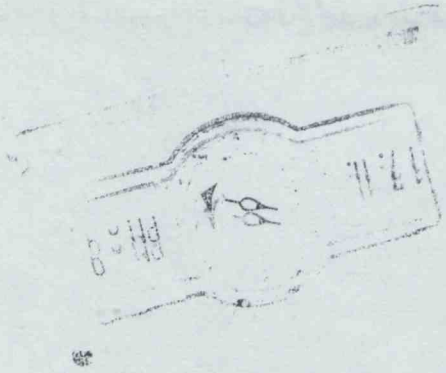
The MSD 2000 offers for the EFA a radar of performance and potential which enhances the European technology base and does not run the risk of terminating a crucial defence project. I have no doubt that you will want to make sure that full and careful consideration is given to all the relevant factors before any decision is made which does not offer these advantages.

Yours,

Arnold

Lord Weinstock

The Rt. Hon. Mrs. Margaret Thatcher, MP,
10, Downing Street,
LONDON, SW1.



SIR DAVID PLASTOW
Chairman and Chief Executive

VICKERS P.L.C.
Millbank Tower
Millbank
London SW1P 4RA
Telephone 01-828 7777

20 January 1989

The Rt Hon Margaret Thatcher MP
The Prime Minister
10 Downing Street
LONDON SW1

Dear Prime Minister,

Today the contract for the £90 million programme for Challenger 2 was signed.

Your personal interest in the acquisition by Vickers of the tank factory at Leeds, and your endorsement of the Challenger 2 programme is very much appreciated. We are confident that by September 1990 we shall have produced sufficient evidence to lay the ghost of Nimrod!

Yours ever,

David Plastow

/BAS

LCCA

SIR DAVID PLASTOW
Chairman and Chief Executive

VICKERS P.L.C.
Millbank Tower
Millbank
London SW1P 4RA
Telephone 01-828 7777

Friday 20th Jan.

Dear Mr Powell, 24/1

Today the contract for the £90m programme for Challenger 2 was signed.

Please accept my gratitude for the most helpful way in which you arranged my meeting with the Prime Minister.

Yours sincerely, David Plastow

Covering CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

(27)

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

Prime Minister

The main points are:

- little or no improvement on EH101
- likely cost escalation on Project Pinder
- new design problems emerging with Ferranti.

CDP
12/1

MO 26/2/2L

11 January 1989

Dear Charles,

MAJOR MOD PROCUREMENT PROJECTS

I attach a seventh set of reports on major MOD Equipment Procurement Projects for the Prime Minister.

Yours sincerely,

(B R HAWTIN)
Private Secretary

Charles Powell Esq
10 Downing Street

COMMERCIAL IN CONFIDENCE
Covering CONFIDENTIAL

DECEMBER 1988

EH101 ASW HELICOPTER FOR RN

Programme Value: £1805M

Problems

- No maximum price on development contract.
- Main Contractor (EHI) (the joint venture Westland/Agusta company) not in full control of the programme.
- No contractual requirement to prove total mission system works.

Current Situation

- The Main Westland Board are expected to discuss proposals for a maximum price when they meet this month (December).
- The effectiveness of changes to the structure of the EHI Board (in particular, the addition of 2 independent non-executive Directors) has not yet had time to show itself. The resignation of Dr Teti from Agusta (and hence as Co-Chairman of EHI) could change the status quo within EHI and the relationship with its parent companies.
- The study to examine how to achieve mission system integration by appointing a prime contractor to be responsible for the complete RN EH101 system (incorporating the helicopter and ASW equipment) has been completed and its findings are now being evaluated to determine the best way forward.

[This sounds pretty tentative]

DECEMBER 1988

REBUILDING PROGRAMME AT ALDERMASTON

Programme Value: £974M

Original Problems

- Inadequate project definition.
- Inadequate project management control.
- Inexperienced industry over-reliant on MOD/AWE in key nuclear safety areas.
- Split in responsibility between MOD and PSA.
- Technical difficulties.
- Cost escalation.

Current Situation

- Programme is under single project control with a total programme value of £974M.
- The National Nuclear Corporation (NNC) has mobilised a team at Aldermaston to provide full project management of the programme working closely with the AWE core-team under Project Director Facilities. The value of this arrangement is already evident with recent milestones achieved and tight control procedures based on NNC experience on large civil reactor programmes.
- MOD has the contractual and financial responsibility for the projects previously managed by PSA and these are now under NNC control.
- Production of Trident warheads in existing AWE facilities is proceeding to schedule.

DECEMBER 1988

PINDAR: RELOCATION OF MOD/CABINET OFFICE CRISIS MANAGEMENT ORGANISATION INTO HARDENED ACCOMMODATION

Equipment and Installation Programme	c. £64M
Works Programme	c. £42.5M

PROBLEMS

- Lack of a defined requirement for the total PINDAR project until recently.
- Management and control of a large hybrid works/equipment project involving PSA and MOD contractors.

CURRENT SITUATION

- Contractors' teams for the three Competitive Engineering Definition Studies have been established and work is proceeding in accordance with agreed plans to a defined requirement. A fast start-up has been achieved and early milestones have been met.
- Accounting Officer responsibility for funding of the PINDAR works programme will be transferred from PSA to MOD(PE) with effect from 1 April 1989. This will further enhance the degree of integration and control of works and equipment aspects.
- PSA have concluded negotiations with their contractor on the package of changes needed to enable the site to meet the defined requirement. The revised firm price offer negotiated by the PSA and which reflects price inflation in the construction sector, is being assessed. The outcome will be reported in the next submission.
- The ISD estimate currently lies in the range October 1991 to December 1992.

DECEMBER 1988

FERRANTI

In addition to the specific projects reported in this note, the Ministry of Defence has a more general concern about the performance of Ferranti. There have been difficulties with both Version 1 and Version 4 of the Computer Assisted Command Systems being developed for Batch II Type 22s and Type 23s respectively. The Ministry is also monitoring closely progress on FIN 1075, the inertial navigation platform for Harrier GR 5; problems with this development would have delayed the entry into service of the aircraft had we not purchased a small quantity of alternative platforms from the United States to fill the gap.

2. The difficulties which have arisen on individual projects seems to be symptomatic of a more general problem of management and company attitude towards the MOD as a customer (and, for that matter, towards some overseas customers). On first examination this attitude bears similarity to the attitude of GEC at the time the MOD put the Airborne Early Warning development out to competition in 1986. The MOD had to draw GEC's attention to their poor performance on other projects also. Review of GEC's performance on these contracts, and re-negotiation of contracts for completion of development in problem cases, resulted in GEC acceptance of responsibility as prime contractor for solving these development problems.

3. The Ministry therefore intends in future negotiations with Ferranti on existing and new contracts to secure clear acceptance of their responsibilities as prime contractor. In addition, Lord Trefgarne has spoken to Sir Derek Alun-Jones (Chairman of Ferranti) and represented to him the MOD's concerns. As a result, it has been agreed that MOD and the company should nominate senior points of contact to examine the status of the main MOD contracts where poor performance has been identified. In the further negotiations which MOD's project managers have with Ferranti, the company will be expected to bring forward proposals for 'get well' programmes as necessary.

PRIME MINISTER

MINUTES OF OD

I put your proposed amendment to the OD minutes to the Cabinet Office. I attach their very stuffy reaction. The fact is that the minutes are simply wrong but they do not want to change them. You must know what you meant. Their version appears to be based on their interpretation of the preceding discussion rather than anything you actually said.

The only amendment which the Cabinet Office offer is to replace the first sentence of the summing-up so that it reads:

> "The Prime Minister, summing up the discussion, said that the improved Abrams MI was preferred {instead of 'was to be preferred'} on military and procurement grounds ...."

That at least is somewhat better since it does not carry the implication that the clear conclusion of the Committee as a whole was to prefer the Ambrams MI.

I cannot for the life of me see why they object to the second part of your proposed amendment - to add the words "and we had to give Vickers a chance to produce an acceptable tank". That was the whole point of the discussion; and it needs to be right at the beginning of the summing up as an antithesis to the preference for the Abrams Ml on military and procurement grounds. The Cabinet Office argue that the same point is made in the following sentence of the minutes. Actually it isn't: that sentence records the Committee's decision, while your addition records the reason for that decision.

It is very rare indeed for you to dispute the minutes, and one can argue that it's all a bureaucratic waste of time. But there does seem to be an attempt to portray you as single-handedly over-riding the professional advice, and I think you should resist.

Agree that I should minute back as in the attached?

C.D.?

C. D. POWELL

22 December 1988

P.S. I have now shown these papers to Sir ~~Rob~~ Percy Cradock who absolutely agrees with the above

SL3BFT

CDP

19(A-B)

Ref. A088/3684

MR POWELL

Defence and Overseas Policy Committee

Thank you for your minute of 21 December. Several Departments whose Ministers are members of OD have suggested particular formulations of the minutes which they have agreed not to press in the interests of OD as a whole. For this reason and because, on the grounds outlined below, I am afraid that the amendment suggested in your minute would be legitimately criticised as inaccurate, I am afraid that I must advise against making this amendment.

2. The main point of the amendment you suggest is that "the military preferred the Abrams M 1 as a replacement for Chieftain". The Secretary of State for Defence said in his opening statement that "The Ministry of Defence have a firm preference for the Abrams I on military and procurement grounds". The significance of this is that the Procurement Executive of the MOD, for procurement reasons,as well as the Chiefs of Staff favoured the Abrams and would object if their view was excluded. The Chancellor of the Exchequer and the Foreign Secretary spoke in favour of this view, and it was not contested by the Prime Minister, the Secretary of State for Trade and Industry or others on those grounds: the point made against it was that a decision now in favour of Abrams would have other disadvantages and Vickers had to be given a chance.

3. The second effect of the amendment in your minute is to insert the words "and we had to give Vickers a chance to produce an acceptable tank". I cannot see what this adds to the words immediately following in the minutes".... and the Committee therefore agreed that VDS should be given an opportunity to show

FRBAQI

B

producing a paper on

by September 1990 that they were capable of time and cost which met each of the military specifications...."

4. If any amendment were to be made to the record I think that we could justify omitting the words "to be" from the first sentence so that it reads ".... the improved Abrams M 1 was preferred on military and procurement grounds as a replacement to Chieftain", ie a factual statement about the view of those competent to advise on military and procurement grounds and not a conclusion of the Committee. I doubt if such an amendment is worth making and would prefer to leave the minutes as they are. But if the Prime Minister wanted to go any further than that, perhaps it may be best if I have a word with her about it when I see her tomorrow morning.

FE.R.B.

ROBIN BUTLER

22 December 1988

[redacted]



Vme SL 3BPQ
cc PC

18A.

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

SIR ROBIN BUTLER

CABINET OFFICE

DEFENCE AND OVERSEA POLICY COMMITTEE: MEETING ON 19 DECEMBER

The first sentence of the Prime Minister's summing up of the discussion on a New Tank for the Army, as recorded in the minutes of OD of 19 December, did not seem to me to reflect exactly what the Prime Minister said. I have, therefore, shown the minutes to her and she has confirmed that they do not exactly match the conclusion which she drew from the discussion . She has proposed the following revision:

> "The Prime Minister, summing up the discussion, said that it was clear that the military preferred the Abrams MI as a replacement for Chieftain. But its selection would be likely to have severe domestic, industrial and commercial consequences; and we had to give Vickers a chance to produce an acceptable tank. The Committee therefore agreed ....".

You will wish to consider whether a correction on these lines should be issued.

C. D. POWELL
21 December 1988

SECRET

(1)

10 DOWNING STREET

Prime Minister

Are you content for the first sentence of your summing up to go on record, as in these minutes? I do not myself remember your saying it.

No - see revision. It was the military who preferred Bhamo

CDP
20/11

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

Prime Minister

Tanks

I attach the revised statement in case you are able to look at it before you come down. I have underlined new passages. I think it meets most of the requirements set by yesterday's discussion in OD

CDP 20/xii

17(A-D).

DRAFT STATEMENT TO PARLIAMENT

1. With permission, Mr Speaker, I would like to make a statement about the replacement of the Chieftain tank.

2. Chieftain entered service with the British Army in 1965. Although it continues to give excellent service, it is now rather advanced in years and technology in this field has moved ahead. It has proved impracticable to organise an international collaborative tank project in an early timescale. Allied collaboration in the field of tanks and their armament remains an important objective for the future; but I have concluded that Chieftain must be replaced as soon as practicable by a tank developed nationally by this country or an ally. I have also decided, subject to satisfactory contractual terms, to upgrade the armament of the Challenger 1 tanks now in service by fitting them with an improved gun, known as CHARM.

3. My Department has accordingly conducted an assessment of the available tank options. The three main contenders were an improved version of the Leopard 2, manufactured by Kraus Maffei of Germany; an improved version of the Abrams M1, manufactured by General Dynamics of the United States; and the Challenger 2 Mk 2 proposed by Vickers Defence Systems, which is an improved version of Challenger 1. Our assessment was complicated by the fact that the three tanks were not all at the same stage of development.

4. It soon became apparent that all three contenders had the potential to meet the Army's requirement. Our assessment took account not only of this factor but also of technical merit, risk, timescale, cost, reliability, stretch potential, interoperability with allies, logistic implications and the prospects for overseas sales.

5. The size of the investment in a new tank makes it essential to conform to sound procurement practice and to minimise risk. After the most careful consideration, therefore, I have decided to give Vickers Defence Systems an opportunity to demonstrate that they are able to deliver Challenger 2 Mk 2 to specification, to time and to cost. Subject to agreement of satisfactory contract terms, my Department will fund the company to undertake a demonstration phase which will last until the end of September 1990. This will require them to demonstrate within the contracted time, before any further commitment is made, that Challenger 2 Mk 2 will meet the Staff Requirement and can be successfully developed and produced to the required standard so as to achieve the required in-service date, and at a price which the company have already offered us. Precise criteria for performance and technical achievement have been established against which the success of the demonstration phase will be measured; I am publishing a summary of these in the Official Report. An important task for the company will be to demonstrate that an improved ammunition round for the tank's main gun, which we

believe will be necessary to match the technical developments of the future, can be successfully developed to the standard and in the timescale required. Intermediate milestones have been established within the demonstration phase at which the company will have to demonstrate satisfactory progress. This staged approach will enable us to keep our options open for the future.

6. Mr Speaker, my decision to take the first steps towards replacing Chieftain is an important one for the Army and the NATO Alliance. Over the next twenty-one months Vickers Defence Systems will have an excellent opportunity to prove their ability to develop a [highly] successful tank. I commend my decision to the House.

Following is the Statement:

The requirements of the demonstration phase are in summary as follows:

a. to demonstrate overall vehicle performance in prototype tanks;

b. to demonstrate successful integration at bench level;

c. to demonstrate weapon system performance;

d. to demonstrate armour performance;

e. to achieve successful proof firing of the CHARM gun;

f. to demonstrate fightability;

g. to demonstrate system accuracy;

h. to produce an acceptable risk assessment;

i. to produce an acceptable reliability analysis;

j. to specify equipment, stores and facilities which the Ministry of Defence would be called upon to supply;

k. to demonstrate that the improved ammunition round can be successfully developed.

The requirements will be specified in detail in the contract with the company.

CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

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

MO 26/4/2/1L

20th December 1988

Dear Charles,

A NEW TANK FOR THE BRITISH ARMY

I attach the final version of the statement my Secretary of State will be making to Parliament at 1530 today. It should, of course, be treated as confidential until then.

I am copying this letter and attachment to the Private Secretaries to the members of the Cabinet and to Trevor Woolley (Cabinet Office).

Yours sincerely,

(B R HAWTIN)
Private Secretary

Charles Powell Esq
10 Downing Street

COMMERCIAL IN CONFIDENCE
CONFIDENTIAL

DRAFT STATEMENT TO PARLIAMENT

1. With permission, Mr Speaker, I would like to make a statement about the replacement of the Chieftain tank.

2. Chieftain entered service with the British Army in 1965. Although it continues to give excellent service, it is now rather advanced in years and technology in this field has moved ahead. It has proved impracticable to organise an international collaborative tank project in an early timescale. Allied collaboration in the field of tanks and their armament remains an important objective for the future; but I have concluded that Chieftain must be replaced as soon as practicable by a tank developed nationally by this country or an ally. I have also decided, subject to satisfactory contractual terms, to upgrade the armament of the Challenger 1 tanks now in service by fitting them with an improved gun, known as CHARM.

3. My Department has accordingly conducted an assessment of the available tank options. The three main contenders are an improved version of the Leopard 2, manufactured by Kraus Maffei of Germany; an improved version of the Abrams M1, manufactured by General Dynamics of the United States; and the Challenger 2 Mk 2 proposed by Vickers Defence Systems, which is an improved version of Challenger 1. Our assessment was complicated by the fact that the three tanks are not all at the same stage of development.

4. All three contenders have the potential to meet the Army's requirement. Our assessment took account not only of this factor but also of technical merit, risk, timescale, cost, reliability, stretch potential, interoperability with allies, logistic implications and the prospects for overseas sales.

5. The size of the investment in a new tank makes it essential to conform to sound procurement practice and to minimise risk. After the most careful consideration, therefore, I have decided to give Vickers Defence Systems an opportunity to demonstrate that they are able to deliver Challenger 2 Mk 2 to specification, to time and to cost. Subject to agreement of satisfactory contract terms, my Department will fund the company to undertake a demonstration phase which will last until the end of September 1990. This will require them to demonstrate within the contracted time that Challenger 2 Mk 2 is able to meet the Staff Requirement and can be successfully developed and produced to the required standard so as to achieve the required in-service date, and at a price which the company have already offered us. Precise criteria for performance and technical achievement have been established against which the success of the demonstration phase will be measured; I have set these out today in a written answer to the question from my Hon Friend, the Member for Shrewsbury and Atcham. An important task for the company will be to demonstrate that an improved ammunition round for the tank's main gun, which we believe will be necessary to match the technical developments of the future, can be successfully developed to the standard and in the timescale required. Intermediate milestones have been established within the demonstration phase at which the company will have to demonstrate satisfactory progress. This staged approach will enable us to keep our options open for the future, if this proves necessary.

6. Mr Speaker, my decision to take the first steps towards replacing Chieftain is an important one for the Army and the NATO Alliance. Over the next twenty-one months Vickers Defence Systems will have an excellent opportunity to prove their ability to develop a successful tank. I commend my decision to the House.

Following are the criteria set out below in the written answer to the question from the Hon Member for Shrewsbury and Atcham.

The requirements of the demonstration phase are in summary as follows:

a. to demonstrate overall vehicle performance in prototype tanks;

b. to demonstrate successful integration at bench level;

c. to demonstrate weapon system performance;

d. to demonstrate armour performance;

e. to achieve successful proof firing of the CHARM gun;

f. to demonstrate fightability;

g. to demonstrate system accuracy;

h. to produce an acceptable risk assessment;

i. to produce an acceptable reliability analysis;

j. to specify equipment, stores and facilities which the Ministry of Defence would be called upon to supply;

k. to demonstrate that the improved ammunition round can be successfully developed.

The requirements will be specified in detail in the contract with the company.

SECRET

Cite 88
16
CCPC

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

20 December 1988

Dear Brian.

NEW TANK FOR THE ARMY

Thank you for your letter of 19 December enclosing a revised text of the Defence Secretary's statement on a new tank for the British Army. The Prime Minister is content with this, subject to excising the word 'highly' in the very last line.

I am copying this letter to the Private Secretaries to members of OD and to Sir Robin Butler.

Yours sincerely,

C D POWELL

Brian Hawtin, Esq.,
Ministry of Defence

SECRET

SECRET AND PERSONAL

15.

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

MO 26/4/2/1L

19th December 1988

CH

Dear Charles,

A NEW TANK FOR THE BRITISH ARMY

I attach a draft Parliamentary statement which has been amended to take account of the outcome of the OD discussion this afternoon. The Defence Secretary very much hopes that it will prove possible to make the statement on 20th December; I should be grateful, therefore, for comments or clearance by 1100 tomorrow, or sooner if possible, please. In view of the sensitivity of the draft statement, any further circulation should, of course, be restricted to those with an essential need to know.

I am copying this letter and attachment to the Private Secretaries to the Foreign and Commonwealth Secretary, the Secretary of State for Trade and Industry, the Lord President of the Council, the Lord Privy Seal and to the Chief Secretary, and to Trevor Woolley (Cabinet Office).

Yours sincerely
Brian Hawtin

(B R HAWTIN)
Private Secretary

Charles Powell Esq
10 Downing Street

SECRET AND PERSONAL

14.

PRIME MINISTER

SOLE COPY

NEW TANK FOR THE ARMY

The Policy Unit's note (attached) came in too late to be included in the meeting folder which you already have. It is in effect a strong plea for purchase of the Abrams tank, which is not particularly helpful. But it does also suggest some points which you will wish to consider if we proceed as the Defence Secretary recommends:

- it suggests that you should insist that the project be managed within existing R & D ceilings;

- it proposes that the Statement to the House should make clear that the final choice between the Challenger and the Abrams will only be made at the end of the Demonstration Phase in 1990 and that the decision will genuinely be open until then;

- and it proposes that Vickers should be prepared to assume the greater share of the financial risk, at least during the Demonstration Phase.

CDP

C. D. POWELL
17 December 1988

DS2AMY

SECRET UK EYES A
COMMERCIAL IN CONFIDENCE

13(A-F).

PRIME MINISTER

16 DECEMBER 1988

A NEW TANK FOR THE ARMY

OD decided - for entirely understandable reasons - to give Vickers the opportunity to prove themselves. The Defence Secretary was asked to tie up the loose ends; to see whether satisfactory terms and conditions could be negotiated. He has instead produced an extraordinary paper - entirely different in tone to his previous paper - which casts doubt on the whole strategy agreed.

At the last meeting of OD George Younger sat on the fence. He failed to give any strong steer one way or the other. He gave the impression that he could live with either choice of tank. In the absence of any strong military steer, it was reasonable to conclude that the industrial and political considerations should be the deciding factors in favour of giving Vickers a chance.

Now the Defence Secretary seems to be trying to wash his hands of any responsibility for that decision. His paper issues two powerful disclaimers and introduces new information to support them.

THE DISCLAIMERS

The message from his paper is clear. In effect he is saying to his colleagues: "If you want to support Vickers, on your heads be it. Don't blame me if we have another Nimrod situation". He is thus ensuring that if anything does go wrong, you will be blamed. Given the Defence Secretary's unwillingness hitherto to state a clear preference, this is an extraordinary position to adopt. For example:

B.

- Para 18: "I cannot be expected to manage the defence programme within sharply reducing ceilings when colleagues are not prepared to take the difficult decisions on individual cases that the R&D policy requires."

- Para 13: "Although £92.1m is a large sum to place at the risk of possible failure, if it is my colleagues' wish to give the company this opportunity I am prepared to do so; though I must make it clear that my Department's firm preference on military and procurement grounds is for Abrams."

THE NEW INFORMATION

To support these disclaimers the Defence Secretary has produced three rabbits out of the hat. They cast the overall decision in a quite new light.

First, the CHARM ammunition. CHARM 3 was not even mentioned in the last OD paper. It is now portrayed as a potential show-stopper. MoD propose that if at the end of the Demonstration Phase the prospects for the successful achievement of the CHARM 3 round are considered unsatisfactory (even if Challenger 2 is satisfactory in every other respect) then the contract with Vickers should be cancelled. To put this into perspective: the viability of the whole project will be judged against an item which is a) still no more than a gleam in the designer's eye and b) whose development is considered high risk.

Second, stretch potential. Again the new paper gives this a much higher profile. It suggests that even if the high risk CHARM 3 round is achieved, it will still be inadequate to keep the new tank abreast of expected Soviet improvements. A new larger calibre gun is likely, therefore, to be required early next century. The cost to the UK of

C.

retrofitting this gun to our tanks (let alone the cost of developing the gun) is estimated at more than £100m. To put this expenditure in context, the MoD's Equipment Policy Committee (EPC) were shown figures of the likely performance of the Abrams gun. These suggested that Abrams would not need a new gun to defeat the improved Soviet tanks (known as FST3) which are forecast to come into service around the years 2004-2007.

Third, research and development. Again this was not even raised as a problem in the last OD paper. If MoD really believe that a British tank is not affordable in R&D terms, this points to a reconsideration of Abrams. A more likely explanation is that this is yet another MoD attempt to find any opportunity to drive a coach and horses through the R&D ceilings. They have never liked them. Such a move should be strongly resisted.

THE TERMS AND CONDITIONS

It is against this background that the terms and conditions offered by Vickers must be judged. There are three areas for concern.

- **First, overall cost**. The Government is being asked to spend nearly £100 million of taxpayers money (a figure which includes £9m of development expenditure made by Vickers up to this point) just to get Vickers to the starting gate - and to do so when the indications are that a better tank will already be available. But this is only part of the subsidy the Government would be paying to purchase Challenger 2. Vickers are also making it a condition of agreement that the Government fills their production gap until such time as Challenger 2 comes on stream. MoD propose to accommodate this demand by purchasing additional recovery vehicles at a cost of around £1 - 1.5m per vehicle (in the region of £100m in

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total.) There will be an opportunity cost attached to this purchase. The vehicles will also be purchased on the basis of a non-competitive procurement; and in a timescale which is tailored to meet the needs of Vickers rather than the British Army. In effect Vickers will be producing vehicles which will be put straight into store. Finally the taxpayer may have to pay £100m - which might not otherwise be required - to modify our tanks to accept a larger calibre gun. All of this seems a very high price indeed to pay for a tank which is not the preferred choice of the ultimate customer. And even if the aim is to assist our balance of payments situation, there must be more cost-effective ways of using these sums to do so.

- **Second, incentives**. Vickers are not being asked to share any of the financial risks of development. Vickers like to give the impression that they are doing the Government a favour. But they are in the tank business because they believe that it is in their commercial interests to be so. They stand to benefit substantially from a successful development of Challenger 2. But they are asking to be totally insulated from the financial consequences of failure. This must reduce the incentives for them to manage the programme as effectively as possible. Doubly so when the Defence Secretary's proposed statement to Parliament makes it very clear that the presumption is that Vickers' will get the ultimate production contract. This in itself makes it politically more difficult to cancel the contract with Vickers at a later stage should things turn sour.

- **Third, judging success or failure**. MoD have done as much as is possible to establish a precise set of criteria by which Vickers' success or failure in the Demonstration Phase can be judged. Peter Levene doubts whether it is ever possible to create successfully a sufficiently black or white, pass or fail, situation. There must be a

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strong possibility that, at the end of the Demonstration Phase, Vickers will be seen to have made much progress - to be 80-90 per cent of the way there. In those circumstances will it be politically feasible to say that they have failed and terminate the contract? We really would then be facing another Nimrod situation.

CONCLUSION

In principle it is right to give Vickers the opportunity to prove that they can provide the British Army with an effective tank in the time and to the cost required.

But the MoD now appear to be saying that they strongly favour the American tank. Their implication is that any decision in favour of Vickers will be made on political and industrial grounds. In those circumstances they will not be held responsible if anything goes wrong. At the very least George Younger should be pressed to make his position clear.

If the military view is not as finely balanced as at first appeared - and we have never believed it was - then the price that the Government is being asked to pay to support Vickers is too high. If this was a matter of industrial policy - and not tied up with the emotion and politics of defence - would the Government even consider paying it?

The strategy proposed runs counter to the broad thrust of everything the Government has tried to do in the field of defence procurement. It offers British industry the fruits of success but complete protection against the risks of failure. It will thus send all the wrong signals to industry: namely that in extremis the Government will be there to pick up the tab.

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This might be defensible if no alternative existed. But there is an effective alternative available. An alternative which offers at least the prospect of a continuing tank-making capacity in this country.

The liklihood is that the design and manufacture of tanks will in future be a collaborative exercise. There may be advantages in forging the necessary relationships sooner rather than later.

If, however, OD still decide that it is right to assist Vickers in this way, it should be made conditional on three things:

- first, that the project is managed within existing R&D ceilings;

- second, that the last line of paragraph 6 of the draft statement to Parliament is amended as follows:

  - delete from "against the possibility ..." to the end of the line. Insert two new sentences as follows: "at the end of the Demonstration Phase we will re-examine the options. There is at present no presumption in favour of either solution." This will be vital if we are to keep up the pressure on Vickers to perform.

  - third, that Vickers should be asked to assume some of the financial risk.

Andrew Dunlop.

ANDREW DUNLOP

10 DOWNING STREET

PRIME MINISTER

Personally I think this leans too far towards Vickers. The proposed re-draft would commit the Government firmly and publicly to Vickers, to a point where it would be very difficult to extract ourselves even if the Challenger does not meet the requirement. Vickers would have a hold over us: and without some understanding with General Dynamics, we would have no fall-back.

C.D.P.

CHARLES POWELL

16 December 1988

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the department for Enterprise

12(A-E.)
CCPC

SECRET/UK EYES A
COMMERCIAL IN CONFIDENCE

PRIME MINISTER

A NEW TANK FOR THE ARMY

I have the following points on George Younger's paper for our meeting on 19 December (OD(88)12).

2. I think we can be confident that Vickers (VDS) will produce a good tank, to time and to cost. After all, their future will depend on it. And their successful private venture developments of advanced turrets for their Mark 7 and for the Brazilian Osorio give them a tangible track record.

3. We must allow them the chance. Equally, they must be tied tightly to performance and we must be left free to withdraw if development of the tank or its CHARM gun and ammunition goes badly astray. To that extent I share George's views.

4. But I am concerned about aspects of his proposed approach and in particular about what we say in public now. I think that we shall risk ditching VDS's overseas sales prospects (for Challenger 2 as well as their other products) while giving ourselves the worst of all political worlds and no practical advantages.

5. Our essential requirement is to tie VDS to tough terms in the Development Phase which will provide milestones and a final review, failure in any one of which may trigger cancellation of Challenger 2. These terms - accepted by VDS - are satisfactorily reflected in the ten aspects of system performance which they will have to demonstrate (Annex A to the paper) and in the three contractural conditions which George proposes at paragraphs 13(a)-(c). I am content with these.

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dti

the department for Enterprise

B.

SECRET/UK EYES A

COMMERCIAL IN CONFIDENCE

6. The points on which I have reservations lie in recommendations (d), (e) and (f) at paragraph 20 of the paper:

- (d) (under which Challenger 2 would not be declared the winner until the Development Phase was over, while VDS would have no guarantee of securing the production contract) seems damagingly half-hearted. If these points emerge publicly, they will give us nothing extra in practical terms (since the reality is that development failure will indeed lead to cancellation); will deny us the political credit for having made a clear choice of Challenger; and will harm VDS' export prospects;

- (e) and (f) suffer similar drawbacks. To negotiate a fall-back contract with GDLS for Abrams, or to promise the Germans that Leopard 2 will be brought back into contention if Challenger fails, will make us look indecisive and timorous; will cast doubt on our faith in CDS, so again damaging their overseas prospects; and will give us no practical gain (since, whatever we decide now, the fact is that both Abrams and Leopard 2 will be available as competitive fall-backs if Challenger fails).

7. I therefore have difficulty in accepting these recommendations and hence paragraphs 5 and 6 of the draft public ... announcement (Annex E to the paper). I attach a revised version of those paragraphs which I recommend to you.

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dti

the department for Enterprise

C.

SECRET/UK EYES A

COMMERCIAL IN CONFIDENCE

8. I am copying this minute to OD colleagues and to Sir Robin Butler.

D Y

16 December 1988

Department of Trade and Industry

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PS5BTA

D.

SECRET/UK EYES A

COMMERCIAL IN CONFIDENCE

REVISED DRAFT STATEMENT TO PARLIAMENT

Delete paragraphs 5 and 6 in draft at Annex E to OD(88)12 and replace with the following:

"5 After the most careful consideration I have decided that Challenger 2 Mk2 is the best choice to replace Chieftain, subject of course to agreement of satisfactory contract terms. The size of the investment in a new tank makes it essential to conform to sound procurement practice and to minimise risk. Accordingly, we shall now set in hand the first stage of procurement by placing a contract with Vickers Defence Systems for the demonstration phase which will last until the end of September 1990.

6 This will require the company to build on the extensive development work which they have already undertaken so as to demonstrate within the contracted time that Challenger 2 Mk2 will meet the Staff Requirement and can be successfully developed and produced to the necessary standard so as to achieve the required in-service date, and at a price which the company have already offered us. Precise criteria for performance and technical achievement have been agreed with the company against which the success of the demonstration phase will be measured; these take account of future requirements

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that can be foreseen today to improve the ammunition of the tank's main gun. Intermediate milestones have been established within the demonstration phase to enable progress to be assessed.

7 Mr Speaker, my decision today is an important one for the Army, for the NATO Alliance and for British industry. Challenger 2 Mk2 not only has the potential to meet the British Army's exacting requirement for a tank to serve well into the next century but will also be set fair to gain a significant share in world export markets. Vickers Defence Systems have faced up successfully to very strong competition from world-class contenders. I have every confidence that over the next 21 months they will confirm their ability to complete the development of a highly successful tank. I commend my decision to the House."

dti

the department for Enterprise

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CONFIDENTIAL SECRET + COMMERCIAL IN CONFIDENCE

Paul,

As promised.

Neil Thorne
29/11

Department of
Trade and Industry

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COMMERCIAL IN CONFIDENCE

CHIEFTAIN REPLACEMENT

LINE TO TAKE WITH PRIME MINISTER

1. At OD last Thursday you concluded that Vickers should be given the chance to show that they can overcome technical difficulties in Challenger 2 and deliver acceptable tank to time and to cost. George Younger was asked to pursue this with Vickers and report back.

2. Worried about how long all this will take. Fact is that MOD have been raking over precisely this ground for 2 years. The answers are:

(i) Royal Ordnance and MOD's Royal Armament Research and Development Establishment (RARDE) responsible for shortcomings of Chieftain and Challenger 1 because they, not Vickers, designed and built them;

(ii) Vickers in 1980s have developed two successful turrets incorporating proven systems and technology of sort that will be used in Challenger 2. Mark 7 and Osorio - with Vickers' turrets mounted on respectively German Leopard 2 and Brazilian hulls - well thought of internationally. British Army reports on Mark 7 uniformly good, while Osorio outperformed M1 in recent Saudi trials;

(iii) Challenger 2 is well down development path. First hulls, with improvements, and turret castings currently being built at Leeds. Fire control system designed: all components proven and in manufacture (computer, sights, etc). First 3 tanks, with clearance for manned firing, will be ready in February 1990.

3. Fear any further delay will just encourage General Dynamics to offer us increasingly unrealistic terms while Vickers' credibility in international market-place fades away. Moroccans known to be waiting on our decision. Rest of Middle East also watching us closely.

4. Suggest we have a very early, and restricted, meeting to take final decision. Simply cannot afford to let this drag on into more studies or repetitive analysis.

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10(A-C)

PRIME MINISTER

A NEW TANK FOR THE ARMY

You have an OD on Monday to consider again the choice of a new tank for the Army. A paper by the Defence Secretary is in the folder. George Younger is coming in to talk you through it on Monday afternoon. The objective is to make a Statement in the House on Tuesday.

The paper proposes giving Vickers until September 1990 to show that they can produce an acceptable tank on time and to cost, even though the MOD's preference is to buy the Abrams. In short, Ministers are being invited to take a political decision in favour of giving Vickers a chance. If it goes wrong, the experts will be able to say - and will do so - that they were over-ruled.

In rather more detail, the paper's conclusions are:

- discussions with Vickers have reached agreement on criteria which Vickers would have to meet by September 1990 if the contract is to be awarded to them. They would also have to demonstrate that they could meet an in-Service contract date of October 1994. Failure to meet any one of the criteria by 1990 - or to meet intermediate milestones - would disqualify Vickers from getting the contract;

- Vickers would also be disqualified if they were unable to demonstrate that the CHARM 3 ammunition, to be developed by Royal Ordnance, would be available by 1996;

- the cost of giving Vickers this chance is some £92 million, which would be written off if Vickers failed. The MOD would also have to give Vickers a contract on a non-competitive basis for some 77 armoured repair

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and recovery vehicles to fill a work gap;

- choice of Challenger 2 would mean taking on additional defence research expenditure, to allow future up-dating of the tank and gun. The Defence Secretary wants the Defence R&D ceilings adjusted accordingly, arguing that the extra expenditure would not arise if we were to opt for Abrams as MOD would prefer. He is being asked to accept it for political reasons.

- meanwhile, we would negotiate a contract with the Americans for the fall-back purchase of the Abrams in the event that Vickers fail to meet the criteria. This would keep up the pressure on Vickers. We would also keep open the German option, in the event that they were to demonstrate that they had improved the Leopard's armour to an acceptable degree.

I am sure that this is the right way to go. Although it is uncomfortable to have to over-rule the expert advice in favour of choosing the Abrams, this is the best way to do it. Vickers are given a chance to show they can do the job: the onus is on them, and if they fail, no-one could seriously quarrel with a decision to opt for the American tank. Nevertheless, there are some questions which need to be asked:

- do we think Vickers' prospects of meeting the criteria and the timetable are good enough to be worth going through this exercise? Or are they so desperate to get the contract that they are giving assurances that they know they cannot deliver? If that is the case, we just waste two years;

- in particular, what confidence do we have that Royal Ordnance can develop the CHARM 3 ammunition? Without that, there is little point in having the tank;

- are we sure that a new gun capable of knocking out the best of the Russian tanks in the period around the

turn of the century can be retro-fitted without difficulty? If we have a tank which cannot do that, we are wasting our time and money;

- are the criteria sufficiently demanding to ensure that we shall have an effective tank if they are met?

- are they also sufficiently clear and objective to rule out subsequent dispute about whether they have been met or not?

- presumably MOD do not expect to be given a blank cheque for their R&D ceilings. What precise figures are they bidding for?

C.D.P.

CHARLES POWELL

16 December 1988

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SECRET - UK EYES A
COMMERCIAL IN CONFIDENCE

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PRIME MINISTER

c Sir Robin Butler

A NEW TANK FOR THE ARMY
OD Meeting at 5 00 pm on Monday 19 December
OD(88)12

CONCLUSION

Subject to discussion the Committee might be guided

a. to agree that:

i. Vickers Defence Systems (VDS) should be allowed to undertake a Demonstration Phase of Challenger 2/2 at a cost of £78.4M (plus a further £10.2M for demonstration of CHARM 3 and £3.5M for the period of the Major Review), subject to the three conditions proposed by the Secretary of State (paragraph 13 a-c of his Memorandum);

ii. a contract should be drawn up with General Dynamics Lands Systems (GDLS), at a cost of up to $1M, for a fall-back purchase of Abrams, against the possibility that a decision has eventually to be taken not to select Challenger 2/2 as the replacement to Chieftain;

COMMERCIAL IN CONFIDENCE
SECRET - UK EYES A

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b. to invite the Secretary of State for Defence

i. to report to the Committee the outcome of the first of the two reviews of the progress of the Demonstration Phase;

ii. to reply to the Federal German Defence Minister along the lines proposed (paragraph 16 of the Defence Secretary's Memorandum);

iii. if any adjustment is to be allowed to the ceilings on defence research and defence expenditure agreed in 1986 by the Ministerial Steering Committee on Economic Strategy (Sub-Committee on Economic Affairs), to agree with the Chancellor of the Exchequer the amount and phasing;

iv. subject to the agreement of Cabinet, to arrange for the Committee's decision to be announced to Parliament in the terms of the draft statement proposed at Annex E, as amended in discussion.

BACKGROUND

2. The Committee invited the Defence Secretary on 24 November (OD(88)5th Meeting) to explore the scope for giving VDS an opportunity to demonstrate that they could overcome the technical difficulties associated with the development of Challenger 2/2 and could deliver an acceptable tank to time and to cost. The Defence Secretary now proposes

that a Demonstration Phase (DP) should be set in hand immediately at a cost of £78.4M. There would be two intermediate milestones at which progress would be reviewed; and following the completion of DP on 30 September 1990, a three month Major Review (MR) would determine whether Challenger 2/2 could achieve the required performance. There would be an additional cost of £3.5M to keep the project alive during MR, plus a further £10.2M for demonstrating the CHARM 3 ammunition round which will need to be developed if the gun is to be capable of engaging the next generation of Soviet tanks from the mid-1990s. The Defence Secretary warns that CHARM 3 will be a high risk programme; a judgement will have to be reached by the time of the MR on whether Royal Ordnance, who will be acting as ammunition sub-contractor to VDS, will be capable of developing CHARM 3 to specification by its planned in-service date of 1996.

3. The Defence Secretary therefore proposes that it should be made clear to Vickers that the project will be terminated if:

a. the MR shows that the required capability has not been demonstrated or the in-service date for the tank of April 1994 cannot be achieved or the development and production prices now being quoted cannot be held;

b. it becomes clear at the intermediate milestones that the required performance will not be achieved by the end of DP;

c. even though in every other respect the outcome of DP is acceptable, it is judged that the in-service date of 1996 for CHARM 3 cannot be achieved.

If every condition is satisfied, a contract should be placed with VDS for completion of development and perhaps, at that stage, production also. But against the possibility that any one of the conditions will not be met, the Defence Secretary proposes to negotiate a contract with GDLS over the next 18 months, at a cost of up to $1M, for a fall-back purchase of Abrams.

4. The Defence Secretary says that selection of Challenger 2/2 will involve greater research and development (R&D) expenditure than if Abrams is chosen: £105M or £88M for the immediate programme (depending on whether Challenger 2/2 eventually goes into production) plus an amount probably well in excess of £100M for the eventual development cost associated with the retrofitting of a larger calibre gun (necessary in due course to counter expected improvements in Soviet tank armour). He has asked that the ceilings imposed on defence R&D expenditure in 1986 by E(A), with the aim of preventing the defence sector from pre-empting too high a proportion of UK scientific expertise, should be adjusted to accommodate this.

5. At its previous meeting, the Committee accepted that , because of its inadequate armour, the German Leopard 2 should be ruled out as a replacement for Chieftain. Since then, Dr Scholz, the German Defence Minister, has offered a substantial order for a new British self-propelled gun (the

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A90, to which the MOD are not yet committed) if the UK purchase Leopard 2. The Defence Secretary proposes to turn this offer down, on the grounds previously endorsed by the Committee.

ATTENDANCE

6. All members of the Committee will be present. The Chief of the Defence Staff, Marshal of the Royal Air Force Sir David Craig, has been invited to attend.

HANDLING

7. After the Defence Secretary has introduced the paper, discussion should cover the following points:

A. VDS's ability to deliver

The Defence Secretary reiterates the relatively higher risk associated with Challenger 2/2 as against Abrams (as well as his Department's preference on military and procurement grounds for the US tank). There is particular unease over CHARM 3. Can the Defence Secretary elaborate further? How real is the risk that CHARM 3 programme will be delayed? Would it really be necessary to abort Challenger 2/2 on that account alone? However stringent the conditions now imposed on VDS, is there a danger that, especially given the political and other pressures likely to be exerted following the completion of DP, there will be no option but to grant the firm more time, thus risking a repetition of the NIMROD AEW saga? The Trade and Industry Secretary should comment.

B. Terms of proposed contract

The approach recommended by the Defence Secretary will maintain pressure on VDS, who have accepted (save in one minor respect) fixed prices. Will VDS accept the conditions proposed? (Defence Secretary) The DP is to be reviewed at two intermediate milestones. When will these be? Presumably the outcome will be reported to the Committee? (Defence Secretary) The paper implies that following the DP, choice of tank will be automatic. Again, it is presumably the intention to bring the matter back to the Committee at that stage? (Defence Secretary) The Trade and Industry Secretary and Chancellor of the Exchequer should comment.

C. Order for armoured repair and recovery vehicles (ARRVs)

Vickers have insisted that they will commence DP only if an order is placed for 77 tank equivalents to plug the two year gap between the completion of the Challenger 1 programme and the start of Challenger 2/2 production. This will make it necessary to bring forward an order for additional Challenger ARRVs, for which provision has already been made but in a different timescale. Is there scope for reducing the number? Will this give rise to budgetary difficulties? (Defence Secretary) The Chancellor of the Exchequer should comment.

D. Cost of Abrams

The acquisition cost of Abrams, assuming an initial production order of 600 tanks, is now greater than that of Challenger 2/2. Is there not a risk that, in the event that the Challenger 2/2 programme had to be

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dropped, GDLS would raise the price still further, in the knowledge that there was no alternative? How can we guard against this? (Defence Secretary) The Chancellor of the Exchequer should comment.

E. FRG offer

The proposed response to Dr Scholz, which makes the point that, if Challenger 2/2 does not come up to scratch, Leopard 2 might be considered if the Germans were to bring it up to the required standard, seems right. Does the Foreign Secretary agree?

F. R&D expenditure

The Defence Secretary argues that it is unreasonable that he should be held to the 1986 E(A) ceilings, which presupposed a greater degree of overseas purchase, if that option is ruled out. Following a similar plea earlier in the year in connection with EFA, an adjustment was agreed. The Chancellor of the Exchequer is likely to oppose any increase, on the grounds that:

i. if the new gun of larger calibre proceeds, it will be retrofitted to Challenger 1, irrespective of whether Challenger 2/2 or Abrams is pursued. The development costs of retrofit (probably upwards of £100M) cannot therefore be regarded as an additional expense which would fall to the UK only if Challenger 2/2 were chosen;

ii. the MOD have always known that Challenger 2/2 would entail greater R&D expenditure than Abrams. They should have sought an uplift in the R&D ceiling on this score at an earlier stage.

If, in order to reach final agreement, you were inclined to allow a modest increase in the ceiling in respect of ii., any adjustment should be confined at most to the additional R&D cost of DP, and should not presume that Challenger 2/2 would definitely be pursued thereafter. The Chancellor of the Exchequer and the Trade and Industry Secretary should comment.

G. Handling of announcement

The Defence Secretary has attached at Annex E the draft of a statement to be made to Parliament the following day (20 December). Are members of the Committee generally content with it? It is customary for Cabinet to endorse major defence equipment decisions. This might be done by circulating the draft for Cabinet clearance (say by midday the following day). The Defence Secretary should be invited to speak on this.

P J WESTON

16 December 1988

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

MO 26/4/2/1

13 December 1988

mr Rifkind

CDP
13/12

Dear Charles,

A NEW TANK FOR THE ARMY

You asked me to let you know where matters stand on our discussions with VDS following suggestions that there had been no contact between the Ministry of Defence and the company.

The position is as follows. Peter Levene had a meeting with Mr Boxall, Chairman and Chief Executive, on 29th November at which he explained that Ministers had taken no decision on the Chieftain replacement; and that before they considered the matter again they required further information from the companies concerned about their respective offers. Mr Boxall was told that if the development of Challenger2 were to proceed there would need to be a high degree of confidence that the programme would succeed. It was stressed that for a successful development to lead to production, not only would the tank development programme need to be completed successfully but the eventual performance of the CHARM ammunition would also need to meet the requirement. In sum, he was left in no doubt that it was up to Vickers to demonstrate that they were capable of overcoming the technical difficulties of delivering the tank to meet the requirement to time and to cost.

Vickers were given a list of ten areas, details at Annex, against which they would have to demonstrate their ability to do this. They were invited, in writing, to make proposals, including the criteria to be met, in each of the ten areas; they were also told that they must provide a detailed and costed plan which should include anticipated completion dates by which progress could be monitored, together with proposals for ways of demonstrating that the criteria had been met and the prices.

There has been very considerable discussion with the company in the intervening period. We have now reached broad agreement with them on the scope and terms for a demonstration phase for Challenger 2/2 designed to show one way or the other whether they can deliver an acceptable tank to time and to cost (in the event that OD decide to

Charles Powell Esq
10 Downing Street

follow that course). The outcome will be reflected in the paper for OD, which is currently in preparation, and which my Secretary of State expects to circulate by the middle of this week.

I hope this provides the information you require.

Yours sincerely

Brian Hawtin

(B R HAWTIN)
Private Secretary

ANNEX A

ESSENTIAL INFORMATION REQUIRED BY MOD

1. Overall Vehicle Performance. Three prototype tanks, mounting the CHARM gun shall be produced to demonstrate mobility and firepower in the field, integration of the fire control system in the turret, rate of fire and live crew clearance. They should demonstrate the operation of the fire control software and the integration of the main components via the Mil.Std. 1553B databus.

2. Integration at Bench Level. Demonstrate integration and the correct operation of all the fire control components, including digitally controlled servos and drives in the Weapon System Test and Integration Facility (WSTIF). The loading of the databus and the successful functioning of the operational software under simulated battle conditions should show a 100% margin in the loading of the databus, and in storage capacity and time loading of the computer.

3. Weapon System Performance. Demonstrate the operation to specification of the turret and its system in the hull motion simulator. Including simulation of firing on the move.

4. Armour Performance. Demonstrate that the new design of turret together with the gun mounting and mantlet can withstand multiple hits from CE and KE rounds and provide an assessment of the probability that the turret will continue to function after such hits.

5. CHARM Firing. Proof firing of CHARM gun mounted in a stand but in representative bearings and with the mantlet, and any other operationally required fittings attached, demonstrate both required accuracy and penetration.

6. Fightability. Simulate the crew workload and demonstrate satisfactory ergonomic design using a suitably representative simulation of the crew stations.

7. System Accuracy. Demonstrate through analysis and provision of sufficient supporting evidence that the firing error budget will be met for firing both when stationary and on the move.

8. Risk Assessment. Produce a formalised risk assessment of the remainder of the Development programme, including a network risk analysis by independent audit, indicating the date for reaching full acceptance standard and any uncertainty in that estimate.

9. Reliability. Produce a reliability analysis of the main components of the tank, in particular the automotive unit, the turret, and fire control system, together with the plans and aims of the reliability growth programme.

10. Government Furnished Aspects. Specify range requirements, requirement for the use of RARDE facilities, and any other MOD equipment, services or facilities on which the programme will depend.

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

12 December 1988

NEW TANK FOR THE BRITISH ARMY

The United States Ambassador came in to see the Prime Minister this afternoon to discuss the choice of a new tank for the Army. He was accompanied by the Minister of the United States Embassy, Mr. Seitz.

The Ambassador said that the Prime Minister probably thought that he had come to sell her a tank, in which case she would be right. He well understood her oft repeated determination to ensure that Britain's defences remained strong. That meant she was looking for the best tank and there was no doubt that the Abrams was it. Some $3 billion had gone on research and development and it was a working tank with further improvements in store. He had seen press reports to the effect that the choice of an American tank would cost Britain jobs. With a 100 per cent offset, and arrangements for co-production and sale to the Third World, this simply could not be right. He was particularly concerned that the Prime Minister should have direct access to the best technical information and judgments. He hoped very much, therefore, that she would consult the Master General of the Ordnance and see technical experts nominated by him.

The Prime Minister said that a full technical assessment had already been carried out and further work had been commissioned, with the intention of reaching a decision before Christmas. The assessment would be available to her but she was not sure she need see the technical people herself. It would not be right to try to substitute her technical judgment for that of the experts. But the Ambassador could be assured that all the factors would be fully considered before a decision was reached.

The Ambassador asked whether the Prime Minister would say a word about the political dimensions of the decision. The Prime Minister said that politics here were exactly the same as they would be in the United States. She recalled that American law required the Administration to buy American wherever it could. We already bought far more

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military equipment from the United States than they bought from us. That said, it would not be a political decision. We wanted to have a very good tank and could not afford any mistakes. That was why we were taking quite a long time over reaching a decision.

I am writing separately about two other points which the Ambassador raised.

I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), Alex Allan (HM Treasury) and Trevor Woolley (Cabinet Office).

(C. D. POWELL)

Brian Hawtin, Esq.,
Ministry of Defence.

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PRIME MINISTER

MEETING WITH THE UNITED STATES AMBASSADOR

Ambassador Price is coming to see you on Monday afternoon. He has instructions to lobby hard for the Abrams tank. This is not particularly welcome, but a legitimate activity. The American firm are pressing their case very hard. In addition to 100 per cent offset, they have offered us the sales lead in a number of Gulf States and are probably about to lower their price.

You should not, of course, give any hint which way the decision is likely to go. The key points which you will want to get across are:

- we will take account of any points he has to make.

- no decision has yet been made. We hope to take one before Christmas.

- we recognise the merits of the Abrams. The improved Challenger is also very good. Value for money will be the key to our decision.

- we buy twice as much defence equipment from the Americans as they do from us. Recent examples where we have been ready to buy American when it offers the best value for money are the Boeing AWACS (£1 billion) and Harpoon (£180 million).

A fuller note by MOD is in the folder.

CDP

C. D. POWELL
9 December 1988

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SECRET UK EYES A
COMMERCIAL IN CONFIDENCE

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

MO 26/4/2/1V

9th December 1988

CB 9/12

Dear Charles,

A NEW TANK FOR THE ARMY

You asked yesterday for a briefing note in advance of the US Ambassador's call on the Prime Minister on Monday to discuss the Chieftain replacement programme. This is enclosed as requested.

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary

Charles Powell Esq
10 Downing Street

COMMERCIAL IN CONFIDENCE
SECRET UK EYES A

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PRIME MINISTER'S MEETING WITH US AMBASSADOR

SUBJECT: NEW TANK FOR THE BRITISH ARMY

OBJECTIVE

To establish whether the Ambassador has any new factors to introduce into the current consideration of whether Challenger 2 Mk 2 or the US Abrams should be adopted to replace Chieftain.

LINE TO TAKE

- Note any new proposals Mr Price may wish to make on behalf of his Government; assure him they will be fully taken into account.

- No decision on choice of tank has yet been made; issues complex and finely balanced; further consideration required; hope decision can be made before Christmas.

- Fully recognise merits of Abrams; excellent tank, especially in improved `block 2' version. Also recognise benefits of increased standardisation its adoption by British Army would bring to NATO.

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- But improved Challenger would also be powerful tank to meet threat in 1990s; and offers coherent tank fleet in British Army.

- Britain has very open defence procurement policy. Believe all NATO nations, including US, should be more ready to buy from each other to maximise value for money from scarce defence resources. We buy twice as much from US as they from us. US still however buys comparatively little of its defence equipment abroad, and is a difficult market to penetrate.

- Decision to abandon Nimrod in favour of Boeing AWACS, and Harpoon in preference to Sea Eagle, good examples of our willingness to take politically difficult decisions to purchase US equipment.

- Value for money will be the key to our decision. But all relevant factors, including interoperability, support costs, sales prospects, industrial factors and procurement risk will be taken into account.

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BACKGROUND

1. An improved version of the Abrams M1 tank, manufactured by General Dynamics Land Systems (GDLS), incorporating the so-called "Block 2" enhancements, has been considered by Ministers as a candidate to replace the Chieftain, which forms half the British Army's main battle tank fleet. On 24 November OD considered whether Vickers Defence Systems (VDS) might be given an opportunity to demonstrate that they are capable of delivering an acceptable tank - which would be the Challenger 2 Mk 2 - to time and to cost.

2. At their 24 November meeting OD invited the Defence Secretary to consider whether there would be advantage in a further approach to GDLS, in parallel with the negotiations with VDS. Further discussions with GDLS have been held in respect of the arrangements for offset and overseas sales that would apply if we ordered Abrams. GDLS had already offered 100% offset and had agreed to final assembly in the UK, provided the UK firm concerned was competitive in terms of price, delivery, performance and quality. They have now offered a marketing agreement which would give a UK partner (i.e. the firm assembling Abrams for the British Army) a marketing lead for Abrams in a range of countries, including Gulf States other than Saudi Arabia and Kuwait. In these cases GDLS would license a UK partner to produce the tank in the UK. Any US content would then be at the discretion of the UK firm, who could, if they so chose, produce the whole tank domestically, to the extent that this made commercial

sense. It would also give UK firms 15% of the production arising from all sales by GDLS to third countries other than Egypt.

3. We have no indication of whether Mr Price has any new factors to bring into account in support of Abrams. He will no doubt stress the advantage that adoption by the British Army of Abrams, and its German-designed smooth bore 120mm gun, would bring in terms of increased NATO interoperability. This feature was described in the paper considered by OD on 24 November. Mr Price may also wish to say that a UK decision in favour of Abrams would rate very highly in US eyes in the current debate on burdensharing in NATO.

4. There is a possibility that GDLS are about to reduce their price, and they will have a team in London next week for discussions which might include a revised offer.

5. The Prime Minister will wish to assure Mr Price that Abrams is being given genuine and careful consideration. We in Britain operate a more open defence equipment procurement policy than many of our NATO Allies, and have taken the lead in the Independent European Programme Group, of which we shall assume the Chair on 1 January, in encouraging our European partners to follow suit.

6. Our decision two years ago to abandon Nimrod AEW in favour of a purchase of Boeing E3A (AWACS), at a cost of £930M, was perhaps the most significant example of our readiness to buy from our Allies, including the US, where this offers best value for money. Other

examples include the adoption of the ship launched Harpoon missile (£180M) in preference to Sea Eagle, and Outboard Ship ESM equipment with a value of £150M.

7. Overall, the balance of defence trade between UK and US continues to be at about 1:2 in the US favour. In 1985/6 UK purchases from the US were valued at $1 billion. Our own sales performance in the US has been good by comparison with other European countries, and the adoption of the BAe Hawk trainer aircraft was the most recent large success. Nevertheless, the US buys comparatively little of its equipment needs from abroad, and remains a difficult market to penetrate. Protectionism is never far below the surface in Congress, and has been a disturbing feature in recent years, though the Administration has generally been successful in resisting it.

8. The AWACS offset arrangement (130%) caused a substantial stir in Congress, and Mr Price may draw attention to this. The point to make here is that, unlike some other countries who demand offset regardless of cost, our policy in the US is to seek bid opportunities for British companies, who must win the business on merit; the offset commitment lasts until business of the agreed value has been secured. Generally US firms have done well in honouring their obligations, recognising that they themselves (and indeed the US taxpayer) benefits from increased competition among their suppliers.



R5/12.

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

D/S of S/PS/10V

2nd December 1988

GBM. 5/12.

Dear Charles,

Your letter of 23rd November enclosed a copy of one from Brigadier Anthony Cowgill which argued for the choice of the British alternative for the new tank for the Army.

The British Management Data Foundation is a small company (assets £20K) whose activities are "generally focussed on matters affecting competitiveness". Brigadier Cowgill might be thought a little presumptive when he speaks as if representative of the beliefs of "Industry" in his final paragraph.

I have replied on the Secretary of State's behalf and a copy of my letter is attached.

Yours ever,

Bill Clark

(W C CLARK)
Private Secretary

Charles Powell Esq
10 Downing Street

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

MO 26/4/2/1V

1st December 1988

Dear Brigadier Cowgill,

Thank you for your letter of 22nd November to the Secretary of State. He read it with interest and the issues you raise are being taken into account in the Government's decision.

As my Secretary of State said in the House last week, the options for replacing the Chieftain tank are still under consideration and it is the Government's intention to reach a decision by the end of the year.

Yours sincerely,

(W C CLARK)
Private Secretary

Brigadier Anthony Cowgill

SECRET

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Jp 0683

PRIME MINISTER

A New Tank for the Army

Following the discussion in OD on 24 November, I asked the Assessments Staff to prepare a short comparison of NATO and Warsaw Pact tanks. This is attached. It is worrying. It brings out clearly the high and rapidly improving quality of the tanks we face. Their relatively greater speed of improvement is critical: we are shooting at a fast-moving target.

2. I am not suggesting that because of this we should duck a decision between Abrams and Challenger 2. But we should be clear first what either (unmodified) could do against the Russians. We must also satisfy ourselves that a new gun, capable of knocking out the best of the opposition, can be retrofitted on either without difficulty. Otherwise we are in danger of wasting our time and money.

PERCY CRADOCK

29 November 1988

SECRET

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NATO/WP TANK COMPARISIONS

By quantity

Central Region (1988):

NATO	9,953 (NATO/WP ratio of 1:1.9)	of which	4,241 (43%) are modern[1] (1:2.4)
WP	18,800		10,250 (55%)
NATO	9,953 (1:0.9)	of which	4,241 (43%) are modern (1:2.1)
Soviet	9,600		8,750 (91%)

Atlantic to the Urals (ATTU)(1988):

NATO	17,965 (1:2.8)	of which	4,242 (27%) are modern (1:5.6)
WP	49,600		23,600 (48%)
NATO	17,965 (1:2)	of which	4,241 (27%) are modern (1:5.1)
Soviet	36,750		21,800 (59%)

The First (British) Corps is likely to be outnumbered by at least 3.5:1, possibly 5:1 or higher. By 1990 Group of Soviet Forces Germany (GSFG) tank stock will be 50% T-64s and 50% T-80s (both fitted with explosive reactive armour (ERA)). The proportion of T-80s will rise to 60% by 1992 and 75% by 1996.

General Comparison of Soviet/NATO tanks in Service

Firepower. There is no evidence of any marked qualitative differences between the armament of modern Soviet and modern NATO tanks. But certain Soviet tanks, unlike any NATO tanks, can fire missiles from their tank gun. Old NATO tanks have general superior firepower (due to better fire control systems) but WP retrofitting is reducing this. Thus the advantage held by NATO in the 1960s and 1970s is being eroded as a larger number of modern Soviet tanks come into Service and older models are retrofitted.

Armour. There is no marked difference against kinetic energy (KE) rounds

1 "Modern" tanks are Leopard II, M1/M1-A1; and Challenger (NATO); T-64, T-72 and T-80 (WP)

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tween modern WP and modern NATO tanks (though most WP tanks are edging ahead of their NATO counterparts). ERA on WP tanks has given them significantly greater protection against chemical energy rounds than possessed by NATO tanks. (The main rounds fired on the battlefield are chemical energy, only tanks can fire kinetic energy rounds). About 30% of the Soviet tanks in GSFG are fitted with ERA and there is a continuing programme of retrofitting both older and more modern types. By the early 1990s all tanks in GSFG will probably have ERA. (Developments in ERA may defeat a kinetic energy attack also.) The frontal arc of modern Soviet tanks is virtually invulnerable to currently deployed NATO anti-tank guided weapons. All older tanks on both sides have significantly lower protection than modern variants and are, therefore, highly vulnerable. But the smaller size of Soviet tanks enhances their changes of surviving.

Mobility Virtually all modern tanks are significantly faster than all older tanks. In general, modern Soviet tanks have slightly better operational mobility) (ie moving to the battlefield and exploiting any breakthrough) as they are lighter (wider choice of bridges) and have a snorkel capability (for river crossing). NATO tanks have slightly better tactical mobility (ie manoeuvring on the battlefield) as they have a better power-to-weight ratio (for agility and acceleration) and more advanced suspension (a more stable platform when firing on the move).

New tanks

WP. A new tank (FST-1) entered service last year. We do not believe it will be deployed in GSFG. It is likely that another new tank (FST-2, possibly mounting a larger calibre gun) will be so deployed in the mid-1990s and another (FST-3) in the first decade of the next century. A new Romanian tank (a T-72 variant) is expected to enter service in 1992.

NATO. The French Leclerc is due to enter service in 1992.

New tanks for both NATO and the WP will feature increased protection and improved firepower. But the WP deploys a new tank about every 7 years, and the gun penetration performance required by NATO increases in quantum jumps with each new Soviet tank. The WP concurrently is upgrading its inventory of

D.

anti-tank weapons. New NATO anti-tank weapons are not due to start entering service until the mid/late 1990s by which time the Soviet Union will be deploying FST-2 with greatly increased protection.

Assessment

The WP's massive numerical superiority in modern tanks in both the Central Region and ATTU is not in any way balanced by qualitative factors. Indeed, such factors tend, if anything, to favour the WP and compound its numerical advantage.

The WP's numerical superiority in older tanks may be offset to some extent by the superior firepower of the older NATO tanks. But modernisation of older WP tanks means that the qualitative difference is gradually shrinking. The amount by which the WP numerical advantage can be discounted is, therefore, gradually being reduced.

Older tanks are no match for modern tanks. The number of modern WP (and Soviet) tanks deployed in both the Central Region and ATTU is greater than the total number of NATO tanks.

The rapid replacement of older WP tanks by modern types and modernisation of the remainder means that the qualitative balance will increasingly favour the WP. Therefore, the likelihood is that in the relatively near future the WP will enjoy both quantitative and qualitative advantages compared with NATO.

C105/WSI5

The Times 24 Nov 88

Rt Hon Minister

This morning's Times

CDP
24/11

Choosing right tank for the Army

From Field Marshal Sir John Stanier

Sir, Once again your leading article, "On the right tracks" (November 19), admirably sums up the dilemma with which the Government is faced in choosing a tank for the British Army.

There is, however, one aspect of the choice which has not, I think, so far been mentioned. The American Abrams tank performs magnificently; the ease and speed of loading its 120mm gun is much enhanced by the stowage of much of the very high-explosive ammunition in an armoured box on the back of the tank turret (known as the "bustle"). You say that the Abrams is a proven tank, and so it is – in everything except in battle.

It has always been a principle of British tank design that no high-explosive charges should be stowed above the turret ring, but well below in the hull of the tank. This is the case with Challenger, Chieftain and all their ancestors. It means of course that loading the gun is neither so easy nor so quick, and it necessitates the use of ammunition separated into two parts.

It does, however, keep this very high risk part of a tank's cargo in the safest place in the vehicle. In the Abrams, although separated from the turret by an armoured wall, it is right behind the commander's head.

Fortunately, the Western powers have had little recent experience of actual tank warfare. Other countries have been less lucky. The Israelis have always had very clear ideas about tank design. It would be interesting to know which tank they would choose.

Yours faithfully,
JOHN STANIER,
Royal United Services Institute for Defence Studies,
Whitehall, SW1.
November 19.

From Mr A. J. Stobart

Sir, The choice of the British Army's new battle tank is surely not a matter of political or economic priorities. The basic and only priority must be that the Army, who will have to operate the tank, must have total confidence that it will fulfil all the proper requirements of a battle tank into the next century.

The British Army suffered lamentably in World War II from being often equipped with tanks that were outgunned by the Germans, and often, too, having inferior armoured protection. Whole regiments suffered a hideous penalty as a result.

This mistake must not be repeated.

Yours faithfully,
JOHN STOBART,
Flat 1,
24 Finborough Road, SW10.

Personal

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

Prime Minister

OD: Tanks

I have asked round a bit about the likely line-up at OD tomorrow.

The Chancellor inclines to the American tank, but does not want an argument with you & has decided not to attend.

The Chief Secretary's main concern is likely to be the number of tanks & the contract conditions.

The Northern Ireland Secretary is

inclined to the Challenger, but wants to hear the arguments.

The Trade & Industry Secretary is strongly for Challenger.

The Foreign Secretary is for the American rank.

The Defence Secretary discussed the matter with you, & I don't think his view has changed (i.e. for Challenger).

The Lord President & Lord Privy Seal are unknown quantities.

You should be able to get it through.

CDP 23/11

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PRIME MINISTER

OD: A NEW TANK FOR THE ARMY

You read the papers over the weekend for tomorrow's OD discussion on a New Tank for the Army. You are well familiar with the arguments. I still think it likely to be quite a difficult discussion if the Foreign Secretary and the Chancellor are opposed to a decision to buy the Challenger 2.

It is also important to bear in mind that a decision to go for Challenger will most likely be presented as you overriding official and military advice. It will be identified as your decision, particularly if it goes wrong.

I think therefore it is worth trying to build in one more break-point in a Challenger decision in about a year's time: i.e. the final decision will be taken only when Vickers have demonstrated that they can put all the various systems together and produce a workable Tank. To what extent the Policy Unit's idea of making Vickers bear all the costs over the next 12 months is really viable, I do not know. But it would seem reasonable to ask them to take at least part of the financial risk.

If there is time at the end of OD, there ought to be a very brief discussion of the Future Requirements for Support Helicopters. You will remember that Westlands are letting us down badly over the EH 101. The Defence Secretary is proposing to make only a tentative commitment to the first stage of Project Definition, while simultaneously looking at alternative means of meeting the Support Helicopter Requirement, for instance by a combination of Chinook and Black Hawk. You will want to ask the Defence Secretary how pressure can best be exerted on Westlands to do better. You will find a briefing note at the back of the folder.

C.D.P.

(C. D. POWELL)
23 November 1988

SECRET

Brig. COWGILL
7/12

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

Ack/ 23 November 1988

I enclose a copy of a letter I have received from Brigadier Anthony Cowgill.

I should be grateful if you would let me have a draft reply, to reach this office by Wednesday, 7 December.

CHARLES POWELL

John Colston, Esq.,
Ministry of Defence

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R22/11

BRITISH MANAGEMENT DATA FOUNDATION

(Limited by Guarantee)

Highfield, Longridge, Sheepscombe, Stroud, Gloucestershire. GL6 7QU

Tel: 0452 812837 Fax: 0452 812527 London Office: 01 839 2798

From : The Director
Brigadier Anthony Cowgill MBE

The Rt Hon George Younger TD MP
Secretary of State for Defence

Dear Secretary of State,

NEW TANK FOR THE ARMY

The fear of another Nimrod nonsense is affecting the decision to continue British procurement of our next tank. On this point, may I perhaps offer a view from the standpoint of someone who was much involved with the development and maintenance of tanks to meet the operational needs of the Army during my service in REME - and now in my BMDF capacity with improving the world competitiveness of British industry.

During the past few years I have led teams of senior engineering executives round some of the most advanced plants and R&D establishments in the world. We always return convinced that we have the capacity to equal if not better the standards and achievements of our rivals. We should not sell ourselves short. The Americans do not!

In the tank field we can be a world player even from a small base. There are world markets which we can continue to support and exploit. Many other countries envy our position in this respect - we should not lightly throw our special position away.

It is important for the longer term good, not only of the Army and of British industry, but for the country as a whole that the decision on the procurement of the next British tank **reflects confidence in ourselves.** Our efforts should go into taking the necessary action to ensure that this time we get it right and that the special factors affecting the Nimrod and SP70 are not allowed to recur. There will certainly be no shortage of support from all those concerned in industry who are determined to achieve world best standards.

Industry strongly believes that if David Plastow and his team are given the backing and remit they deserve the results will not just be good **they will be excellent.**

Yours sincerely

Anthony Cowgill

AWC/EAEP
22 November 1988

Copies to : The Rt Hon Lord Young, Secretary of State for Trade and Industry

Charles Powell Esq, Private Secretary to the Prime Minister

CONFIDENTIAL
COMMERCIAL IN CONFIDENCE

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PRIME MINISTER

c Sir Robin Butler

FUTURE REQUIREMENTS FOR SUPPORT HELICOPTERS
OD Meeting at 9 30 am on Thursday 24 November

CONCLUSION

Subject to discussion, the Committee might be guided to invite the Secretary of State for Defence to recommend by the end of 1989, with a view to further collective discussion, on a choice of helicopter for the medium support role.

BACKGROUND

2. Ministers considered in early 1987 possible ways of giving Westland additional defence work to fill the production gap until the commencement of the Anglo-Italian EH101 naval helicopter programme in the mid-1990s. It was eventually agreed at your meeting on 18 March 1987 that the MOD should place orders for:

a. an initial package of 25 utility variants of the EH101 for use in the medium support role, largely in the Central Region, to an in-service date of 1992 (with a view to a subsequent order which would bring the total up to 59);

b. 16 Army Lynx helicopters to an in-service date of 1990.

COMMERCIAL IN CONFIDENCE
CONFIDENTIAL

In his minute of 3 November, the Defence Secretary reported that Westland have underestimated the ability of the EH101 to meet the Army requirement (to carry a platoon over a radius of action of 120 km); that the EH101 engine and transmission system will have to be uprated for this purpose; and that the upshot will be a 25% increase in cost and a four year slippage. Not only will the increased cost exceed the provision made in the forward defence costings, but an alternative option - a mix of Chinook and Black Hawk - for the medium support role may also be cheaper. In the meantime, Westland's management and longer term stability have improved, now that GKN have acquired a sizeable stake in the company, with a view to eventual control, and there are hopes of a Saudi order for Black Hawk.

3. The Defence Secretary therefore proposed to limit an initial commitment to the utility EH101 to the first stage of Project Definition, which will further refine the costings; to study alternative means of meeting the support helicopter requirement; and, in the light of this work, to put recommendations to Ministerial colleagues on the way ahead towards the end of next year. You agreed to this - Mr Powell's letter of 9 November - as did other Ministers; but you expressed the hope that the Defence Secretary would bring strong pressure to bear on Westland to improve their performance. This change of approach was announced to the House of Commons in a written reply on 9 November (text attached). Although the Westland issue has tended hitherto to be considered by E(A) or by a restricted ad hoc group of

Ministers under your Chairmanship, the Defence Secretary has been asked to make an oral report to this week's meeting of OD.

HANDLING

4. Time is unlikely to permit more than a brief discussion. After the Defence Secretary has introduced the item, the Secretary of State for Trade and Industry, Chief Secretary and Foreign Secretary should be invited to comment. Thereafter, discussion might cover the following aspects:

a. Performance of Westland

Westland's failure to appreciate the extent of the work needed to convert the EH 101 to the medium support role does not inspire confidence. How can pressure best be exerted on Westland to do better? The Defence Secretary and Trade and Industry Secretary should comment.

b. Implications for Westland

Sir John Cuckney seems to have reacted philosophically. How serious will be the implications of this postponement for Westland's production loading? When is the prospective Saudi order for Black Hawk likely to materialise and how large will it be? Is it more than a gleam in the eye? (Defence Secretary).

c. Prospects for sale of EH101

The Trade and Industry Secretary - his letter of 9 November - has (like Sir John Cuckney) expressed concern about the possible impact of the latest developments on the sales prospects for the EH101

(including the civil version). There is Canadian and Egyptian interest in the utility variant. What can be done to minimise any such impact? (Defence Secretary)

d. Military requirement

The Trade and Industry Secretary has asked whether there is any element of "gold plating" in the military specification for the medium support helicopter. The Defence Secretary should comment. How will he deal with the excess of the eventual cost over budgetary provision? Might numbers have to be reduced?

P J WESTON

22 November 1988

EH101 Helicopters

Mr. Menzies Campbell: To ask the Secretary of State for Defence if he will report on progress made by his Department in defining requirements for the EH101 helicopters which he announced he intended to order in April 1987.

Mr. Sainsbury: My right hon. Friend, the Secretary of State for Defence, announced to the House last year the MOD's intention to order, subject to the satisfactory resolution of contractual and other issues, a utility variant of the Anglo/Italian EH101 helicopter for the RAF to meet the requirement for additional support helicopters in the central region.

Following that announcement, work was set in hand to define more precisely the RAF performance requirements. This work has been carried out in close consultation with EH Industries Limited, the main contractor for the EH101 project, and its parent companies, Westland and Agusta. We will now start the formal project definition stage which will examine in detail the RAF's foreseen requirement against a range of options and establish more firmly the costs and risks involved.

3a-m

SECRET

PRIME MINISTER 18 NOVEMBER 1988

A NEW TANK FOR THE ARMY

There is a real dilemma here. Buying a foreign tank would affect the UK's ability to design and build tanks in the future. Opting for Challenger 2 (an unproven design) would run the risk of locking us into a project that might be vulnerable to time and cost overruns.

Natural instincts will be to buy British. But one should also bear in mind what the House of Commons Defence Committee said in a recent report: "We would expect MoD to be prepared to purchase the Abrams or Leopard if either tank offers a combination of clear cost, availability and performance advantages."

BACKGROUND

The history of the British tank industry has not been an altogether happy one. As John Keegan wrote recently in the Daily Telegraph: 'though the British invented the tank, they have succeeded only once in equipping the army with a good one. That was Centurion, and poor planning fated even that stalwart to arrive too late.'

The UK tank fleet consists currently of 420 Challenger 1 and 600 Chieftains. Both have performed so badly in the Canadian Army Trophy (when pitched against the German Leopard tank and the Abrams) that the army has withdrawn from future competition.

MoD's original plan was to make improvements to the rifle-bore gun (the CHARM programme) and fire-control systems (the CHIP programme) of both tanks. Improved

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Chieftain was then to have been run on alongside Challenger I and replaced by the year 2000. By then a new generation of significantly more capable tanks was expected to become available.

MoD now want to start replacing Chieftain from 1993. What has changed?

First, MoD say that the technological breakthrough to justify an entirely new tank is not now expected before 2010 at the earliest. You may want to confirm at OD that this is a common view within Nato.

Second, they assess that the Soviet military capability over the next decade will be greater than had been assessed previously. This assessment is shared by our Nato allies.

Although MoD have considered 8 options in total (including retaining Improved Chieftain) the choice rests effectively between the British Challenger 2 with rifle-bore gun and the American Abrams. Under both these options Challenger 1 would be improved as planned originally.

So far departmental battlelines have been drawn as follows:

George Younger is reserving his position until the OD meeting itself. The US option has, however, gained strong backers within the MoD (receiving the endorsement of the Equipment Policy Committee). Peter Levene in particular sees this decision as a test-case of whether the Government means what it says; that there will be "no more Nimrods".

- Treasury have hitherto favoured the cheapest option of Improved Chieftain. They argue that operational analysis shows that replacing Chieftain does not improve

our overall anti-armour capability sufficiently to warrant the cost of investment.

- The Foreign Office have shown most concern with the issue of interoperability within Nato. This would point to either foreign purchase or fitting a smoothbore gun to Challenger.

- DTI have focussed on the industrial implications for Vickers of a foreign buy, and have been pressing the claims of Challenger 2.

OD needs to address six key questions.

DO WE NEED A NEW TANK?

The arguments in favour of replacing Chieftain are decisive. It is now an Austin 7 in the age of the BMW.

Analysis shows that if tanks are taken in isolation a Chieftain Replacement (meeting the Staff Requirement) would improve the ratio of our losses to enemy losses in the period up to 2002 by 45 per cent compared with Improved Chieftain. The principal reasons for this improvement are:

- Improved Chieftain is given only a 50 per cent chance of completing a day on the battlefield without breakdown;

- the protection of its turret falls short of the Staff Requirement (SR) by 95 per cent;

- It takes over twice as long as a tank meeting the SR to acquire and engage a target;

- It is 33 per cent less mobile than required by the SR.

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The cost of trying to put these deficiencies right would be almost as expensive as replacing Chieftain.

HOW MANY NEW TANKS DO WE NEED?

The analysis carried out by MoD demonstrates the case for replacing Chieftain. It does not, however, provide an adequate basis for deciding how best to replace Chieftain.

The army are working on the assumption of a one-for-one replacement of Chieftain. This assumption fails to take adequate account of the introduction of new (non-tank) technology over the next decade. This will provide a greater capability to kill enemy tanks from beyond visual range - before the close contact battle is joined.

The anti-armour capability of 1 (BR) Corps in Germany is based on layered defence of which tanks are only one part. Other components include anti-tank mines, guided missiles and helicopters. Investment in these weapons (including Trigat, MLRS and the Light Attack Helicopter) worth nearly £7 billion is in the pipeline over the next decade.

Only last December MoD were saying: "While an effective main battle tank (MBT) is essential to the land battle it could well be that the judgement on the overall numbers of MBT required post 2000 will change in the 1990s when the effectiveness of the other anti-tank weapons can be more accurately assessed."

The Defence Operational Analysis Establishment (DOAE) carried out a study designed - in part - to answer the question of whether our overall level of anti-armour investment was adequate. And in June an internal MoD report stated that this DOAE analysis "offers the best evidence on which to deduce the answer to that question".

Amongst the DOAE's key findings are:

- our anti-armour capability against the threat (even if we do not replace Chieftain) will improve by at least 50 per cent over its present level by the end of the century. The military dispute this figure, but even they put the increase at 25 per cent;

- the proportion of enemy losses accounted for by longer range systems (eg Trigat) will increase from 20 per cent to 40 per cent.

The MoD have since changed their tune. They now claim that the DOAE analysis "runs the risk of obscuring the overall (anti-armour) structure."

Fresh analysis was, therefore, commissioned. But it is deficient in two respects.

- First, the analysis fails to address the key question of what is the optimum balance of investment at Corps level across the whole range of anti-armour weapons. It focusses instead on the more narrow battlegroup scenario. Inevitably in this shorter-range scenario the role of the tank is played up at the expense of longer range systems.

- Second, the analysis does not provide any proper measurement of the relative cost-effectiveness of the alternative tanks to replace Chieftain. The standard taken was a tank that meets the army's Staff Recruitment. The Abrams however, appears in some respects superior to the Staff Recruitment. (This is dealt with more fully in the following section.) No quantitative assessment of this greater effectiveness has been carried out. Will a force of Abrams be more

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effective than an equivalent force of Challenger 2 s? If so by how much? MoD have not done a proper analysis to answer these questions. Perhaps they hope no-one will raise them. They cannot have been unprofessional enough not to have asked themselves these questions.

There are echoes of EFA in this.

MoD will argue that a decision on numbers is not required now. An off-the-shelf American purchase would, however, commit us to numbers immediately.

Whichever the preferred choice, MoD should be instructed to carry out proper analysis to establish the number of tanks required and the optimum balance of investment.

WHICH IS THE MOST COST-EFFECTIVE TANK?

MoD say there is little to choose between the tanks - except gun penetration. Yet on the three broad measures of a tank's capability - protection, mobility and firepower - Abrams appears to offer a clear cost-effective advantage. Although it is difficult - for the reasons stated above - to assess how great is the military value of this advantage:

- Cost the acquisition costs of the Abrams tank are nearly 13 per cent cheaper than those of Challenger 2. And the through - life costs - which take account of the extra logistical, maintenance and training costs of foreign purchase - are broadly similar. There is one caveat to all of this. General Dynamics have quoted a dollar price for the Abrams tank. It is, therefore, open to a degree of exchange rate risk. For example, if the dollar falls to 1.60 against the pound the acquisition costs of Abrams would rise by over £100m. Equally if the dollar rose to 1.80 the costs would fall.

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- Mobility: Nato is faced by superior numbers of Soviet tanks. A war of attrition is, therefore, not practicable. Mobility will be crucial to offsetting the Soviet numerical advantage. In this area the Abrams enjoys an advantage over Challenger 2 which is as great as Challenger's advantage over the inadequate Chieftain.

- Protection: As part of the US army's package of improvements, the Abrams tank is being up-armoured. This will be completed by 1992 - a year before our required in-service date. Challenger 2 will not begin to approach Abrams level of protection until 1996 - and even then it still looks inferior by a wide margin.

- Firepower: It appears that Abrams will not only have a gun with greater hitting power; it will have it earlier. Over the next decade the Soviets will be introducing progressively more capable tanks. A series of improvements to both the Abrams 120mm smoothbore gun and the Challenger 2 CHARM gun will, therefore, be required to make them effective against the evolving threat.

  The CHARM gun is not expected to achieve until 1992 the penetrative power which the Abrams gun has now. And further development of the CHARM gun is running some 4-5 years behind the smoothbore. Moreover at each stage of improvement its level of performance is expected to fall below that achieved by the smoothbore.

WHICH TANK INVOLVES THE MOST RISK?

The main difference between the two tanks is the stage of development reached.

The US are spending over $750m bringing the Abrams tank up to the standard it requires. Vickers propose to spend £128m

in developing Challenger I. They are, therefore, proposing to produce a similar tank with less R&D. This must be a measure of risk.

The Abrams is already in service, proven and reliable. Gun developments are well advanced. And the general enhancement programme for Abrams is in full development. The US Army expect these improvements to be introduced by 1992 - a full year before we require the first replacement for Chieftain. Any financial risk in this programme will be carried by the US Army.

Challenger 2 is at a comparatively early stage of development. Its chassis and automotives will be the same as Challenger I. But its turret - and the electronic systems within it - will be completely re-designed. The main areas of risk are:

- systems integration: Vickers have limited experience as a systems integrator;

- gun development: whereas development of the smoothbore gun to the final standard required by the mid-1990s is well under way, the enhancement of the CHARM gun (ie CHARM 3) is still only a gleam in the eye.

If we opt for Challenger 2 Vickers will be given 11 months to prove that their equipment works. MoD would then spend a further 3 months assessing whether they had been successful.

There is a danger that even if problems had revealed themselves the political pressures to allow Vickers just a little more time would be immense - as with GEC and Nimrod whose six month extension cost the tax payer in the region of £25m.

An indication of the risk involved is that even if the development of Challenger 2 proceeds without hitch, it will still miss the in-service date by 10 months. This could be important. Part of the case for replacing Chieftain is the dip in our capability that is expected in the early 1990s.

HOW IMPORTANT IS INTEROPERABILITY?

Achieving greater ammunition commonality with our allies is desirable. But surely the first priority is to choose a tank which works.

The interoperability arguments in any case cut both ways. If we buy a foreign tank we achieve greater - though not total - interoperability with our allies. But we lose interoperability within 1(BR) Corps.

This need not present insurmountable problems. But it would exact a price in greater logistical costs. This is reflected in the fact that although the acquisition costs of Abrams are cheaper, its through-life costs are about the same as Challenger 2.

It must be doubtful whether SACEUR sees any immediate benefit from a move by the UK to smoothbore for half its fleet. It is more likely that he sees it as a strategic driver which may push others to grasp the nettle in the longer-term.

In the end a more decisive factor in the interoperability debate could be the introduction of a larger calibre (and more capable gun) after the turn of the century. This would inevitably be a difficult and costly project involving a redesign of existing tank turrets. In those circumstances there would be advantages to riding on US coat-tails.

WHAT ARE THE INDUSTRIAL CONSEQUENCES

On the face of it a foreign purchase would seem to signal the end of the British tank industry. This is, however, by no means clear.

Vickers have said they would not manufacture an American Tank under licence. But they would say that wouldn't they? This may just be a negotiating gambit.

General Dynamics have offered to provide work on Abrams for UK firms under licence. Vickers might find it difficult to turn its back on a potentially lucrative joint venture. And other UK companies - GKN, Alvis and VSEL among them - have all expressed interest in such an arrangement.

If Vickers did collaborate in this way it could make a considerable difference to the political acceptability of a decision to buy an American tank:

- the industrial property rights risks referred to in the OD paper would diminish;

- it could offer the prospect of a share in exports;

- it could secure for Vickers a role in the next generation of Nato tank (which will in any case be collaborative);

- it would alleviate the jobs problem.

MoD officials are in the United States at the moment exploring further these possibilities. OD will want to examine these opportunities carefully before reaching its

final decision - and in particular whether they would involve any cost-premium or time delays. But if at the end of the day Vickers were to turn their back on a joint venture, would not they rather than the Government be bringing about the demise of the British tank industry?

CONCLUSION

The relative cost effectiveness of the two contenders does not appear as finally balanced as Mr Younger's paper makes out. Equally the industrial - and hence political - consequences are not as clear cut as might first appear.

There are three objectives in selecting new tanks. Foremost is the best defence of the realm. Next that they should be provided as economically as possible. Finally that British industry should be supported if those two conditions are met.

The evidence suggests that the American Abrams is the most cost-effective solution. The absolute military worth of that advantage has not been demonstrated because the ultimate capabilities of a re-designed Challenger have not been set down beside the Abrams.

The political stakes are high. Britain invented the tank. The tank is equal with frigates in the minds of the public as a symbol of our national defence. A decision to buy a foreign tank would put at risk our capability to design and build tanks. Our critics would claim that the Government had signed a death-warrant for the British tank industry.

The challenge before the Government is, therefore:

- how to go for the best value for money and still retain as much tank building capacity, future servicing and employment in this country as is possible.

It would seem appropriate, therefore, to consider supporting British industry by giving Vickers some time - up to say 12 months - to establish whether Challenger could meet the specifications. However, there is no argument for the taxpayer financing this further project definition stage when there is already a more cost-effective alternative available.

If Vickers are confident that they can deliver the goods then they should be prepared to take on the risk of funding the initial 'proving phase'. Vickers has access to the resources to fund this phase. Yet in all likelihood they would not be prepared to risk one years earnings against even the prospect of winning such a lucrative order. But during negotiations Vickers should be prepared to take on a greater burden of the financial risk (say 50 per cent). Why should the Government underwrite all of it?

There are also political attractions in this approach: if Vickers refuse to take on the risk they - and not the Government - will be delivering their own vote of no confidence in their capacity to contain the project within cost and to time.

The sensible options are, therefore, between:-

1) Contracting for the American Abrams now and seeking to obtain maximum involvement by Vickers (or other domestic companies) in manufacturing under licence;

2) Inviting Vickers to put forward within one year a complete and detailed proposal funded (or partially funded) out of their own resources.

Andrew Dunlop.

ANDREW DUNLOP

Annex

COMPARISON OF EFFECTIVENESS

Mobility

	SR	Improved Chieftain	Challenger 2MK2	Abrams M1A1
Power-to-Weight (KW/T)	14.4	9.5	14.4	19.2
Top Speed (KPH)	56	43	56	66.8

Protection

(mm of rolled homogeneous armour)

	ABRAMS	Challenger 2
BY 1992	650mm	
BY 1993		500mm
BY 1996		600mm

Firepower

(mm of rolled homogeneous armour)

	Abrams + 120mm SB		Challenger 2 + CHARM	
	a) Penetration	b) ISD*	a) Penetration	b) ISD*
Basic	580mm	Now	585mm	1992
1st Improvement	690mm	1989	605mm	1994
2nd Improvement	755mm	1994	700mm	1996

* ISD = in-service date.

18. XI

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COMMERCIAL IN CONFIDENCE
SECRET - UK EYES A

B.0276

PRIME MINISTER

c Sir Robin Butler

A NEW TANK FOR THE ARMY
OD Meeting at 9.30am on Thursday 24 November

CONCLUSION

If, after full discussion, agreement cannot be reached that an improved version of the Abrams M1 tank should be chosen to replace Chieftain, the Committee might be guided

a. to agree that work on Challenger 2 should proceed to Project Definition Stage 2, with a view to further consideration by the Committee of the question of the Chieftain replacement in a year's time; and, in either case,

b. to agree that Challenger 1 should be retrofitted with CHARM and CHIP;

c. to invite the Secretary of State for Defence

i. to report the Committee's decision to the Cabinet immediately following for their endorsement;

ii. to arrange for the decision to be announced to Parliament as soon as possible thereafter.

COMMERCIAL IN CONFIDENCE
SECRET - UK EYES A

BACKGROUND

2. The Defence Secretary's memorandum OD(88)11 addresses two interconnected issues: the replacement for the Army's 600 Chieftain tanks; and the improvement of the gun, ammunition and fire control system of the 420 Challenger 1s that constitute the remainder of the British tank fleet.

3. Chieftain entered service 23 years ago and is now inadequate against the threat and mechanically unreliable. The Treasury has argued for its enhancement, through fitting an improved rifled bore gun (CHARM) and fire control system (CHIP), now being developed by Vickers Defence Systems (VDS) for Challenger: this would be much cheaper than replacement but would not overcome Chieftain's other major deficiencies.

4. The memorandum addresses this and seven other options (summarised at Annex A of the memorandum). An important factor in the equation is whether or not the Army should relinquish, in whole or in part, the traditional rifled bore gun in favour of the smoothbore gun in service in US, German and Dutch tanks. Four other options, which would involve fitting Challenger 1 or 2 (or both) with smoothbore guns, are dismissed fairly swiftly: two (5 and 6) on engineering grounds; and two (4 and 7) because they would entail major redesign which would delay the new tank's in-service date. The remaining three assume enhancement of Challenger 1 with CHARM and CHIP. Replacement of Chieftain by the German Leopard 2 (option 2) is rejected because of

the tank's vulnerability. The basic choice to replace Chieftain thus lies between Challenger 2 with CHARM and CHIP (option 1); and an improved version of the US Abrams with a smoothbore gun (option 3).

5. In terms of notional performance, there is in general little to choose between the two. But Challenger 2 is still on the drawing board; and because of the Abrams' proven performance and the element of risk in the Challenger 2 programme, particularly in integrating systems into the turret, which could lead to slippage in the in-service date, the MOD's Equipment Policy Committee has recommended in favour of Abrams. However, choice of Abrams would have worrying implications for the future viability of VDS, and could entail the loss of an indigenous tank development capability as well as foregoing any future prospects of overseas tank sales; and the cost of Abrams, which is cheaper to acquire but marginally dearer to run, is sensitive to any deterioration in the dollar exchange rate.

6. The issues are thus not clear-cut. The Foreign Secretary is likely to support the Defence Secretary in favouring Abrams, on the grounds that it will bring partial interoperability, on which SACEUR is keen, between tank fleets in the Northern Army Group (NORTHAG) (albeit at the cost of lack of interoperability with the remainder of the tank force within 1 British Corps (ie Challenger 1 and the Chieftains being phased out)). The Chief Secretary is likely to opt on balance for at least an initial purchase

(say, 200) of Abrams, because of the risk attached to Challenger 2; but he will be uneasy about Abrams' vulnerability to the exchange rate, the absence of a draft contract with the manufacturers (General Dynamics Land Systems - GDLS) and the risk that VDS will refuse to make available design rights when it comes to uprating Challenger 1. The Secretary of State for Trade and Industry will argue strongly for Challenger 2 on domestic industrial grounds - he is particularly concerned to avoid the effective abdication in the Americans' favour of an indigenous tank manufacturing capability - and because of the potential - and possibly irrevocable - loss of sales. The risk inherent in the Challenger 2 development might indeed seem to argue for Abrams, bearing in mind the experience of NIMROD AEW and ALARM. If however there is no consensus for this, it may be possible instead to get agreement, as an interim step, to finance the next phase of Project Definition (PD2) of Challenger. This would enable the Committee to reconsider the matter in a year's time when there should be clearer evidence of VDS's ability to meet the requirement.

ATTENDANCE

7. All members of the Committee will be present, except for the Chancellor of the Exchequer, who will be represented by the Chief Secretary. The Secretary of State for Northern Ireland and the Chief of the Defence Staff have been invited to attend.

HANDLING

8. After the Defence Secretary has introduced the paper, you may like first to establish that all options bar 1 and 3 need be considered no further. In particular, is the Chief Secretary now content that option 8 (enhancement of Chieftain) should be eliminated? Does the Foreign Secretary accept that Leopard (option 2) is to be ruled out as a replacement for Chieftain because of its vulnerability, which will not be totally remedied even by the current German armour enhancement programme?

9. Thereafter, discussion should cover the following aspects:

a. Capability against Soviet threat

The Soviet tank improvement programme continues, including the enhancement of armour. How long will a 120 mm gun, proposed (either in a rifled bore or smoothbore format) for both options, be capable of knocking out Soviet tanks? Paragraph 13 of the memorandum refers to a possible eventual need to fit a new gun of a larger calibre. (We are involved in a joint programme with the US, France and Germany to develop a 140 mm tank gun by the turn of the century.) Is there likely to be any technical difficulty about retrofitting this in either Abrams or Challenger 2 and would it be costly? If the technical problems proved insuperable, could the need to improve the gun actually entail the premature replacement of whichever tank is selected? Is there a case for postponing a decision on the Chieftain replacement until the late 1990s? (Defence Secretary, Chief of the Defence Staff).

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b. Relative performance

The memorandum indicates that the major difference between the two options lies in the penetrative power of the ammunition, where the US enjoy a technical lead. Will CHARM 1 (the first version of CHARM) be available by 1993, as predicted; and will it satisfy the operational requirement? If not, is the MOD confident that VDS will be able thereafter to boost sufficiently its penetrative power? (Defence Secretary, Chief of the Defence Staff) The paper suggests that the Abrams ammunition may be less effective than CHARM against certain types of predicted Soviet armour? How worrying is this? (Defence Secretary, Chief of the Defence Staff)

c. Numbers

The Chief Secretary may query the case for replacing Chieftain on a one-for-one basis. Given the greater capability of the new tank, can numbers be reduced? Or can the capability be provided by other means, eg artillery (although Annex B, paragraph 2 suggests not)? (Defence Secretary, Chief of the Defence Staff).

d. Logistic implications

Although SACEUR would welcome greater ammunition interoperability within NORTHAG how important would this be in practice? Selection of Abrams with its smoothbore gun would result in a loss of inter-

operability within 1 British Corps. How serious are the logistic implications (Annex D)? (Defence Secretary, Chief of the Defence Staff) The Abrams is thirsty in fuel. Could this prove a serious constraint in an intensive and mobile tank battle? (Defence Secretary, Chief of the Defence Staff)

e. Technical risk

Challenger 2 is not yet proven; in particular, integration of the fire control system within the turret has yet to be achieved. How serious is the danger that, as with NIMROD AEW, technological difficulties will lead to delay and increases in cost? How confident is the Defence Secretary of VDS's ability to deliver on time and to budget? The Secretary of State for Trade and Industry should be invited to comment. Is the Abrams programme itself totally risk-free? (Defence Secretary)

f. Budgetary implications

In general, there is little difference in the cost of the two options. The initial purchase of Abrams is cheaper when VAT is taken into account -if tanks were imported direct from the US to Germany none would be payable, although if any were built in the UK under licence this advantage would be eroded - but, largely because of the logistic implications within 1 British

Corps of the lack of ammunition interoperability and the Abrams' greater fuel consumption, it would be marginally more expensive over its running life. But:

i. Exchange rate

The cost of Abrams assumes an exchange rate of $1.76 to the pound. Three years ago the rate averaged $1.30 to the pound (and even dropped as low as $1.12). If the relative value of the pound were to sink the price advantage of an Abrams purchase would be eroded. What is the prognosis for the future exchange rate? Is there any means of insuring against deterioration (eg by purchasing in sterling)? The Chief Secretary should be invited to comment.

ii. Completeness of estimate

Is the MOD confident that the price quoted by GDLS covers every element of the programme, including the next tranche of improvements to the Abrams (known as Block 2)? And is there any possibility that the German manufacturers of the smoothbore gun, which is built in the US under licence, will seek to exact a levy? (Defence Secretary)

g. Industrial implications

The implications for VDS of failure to purchase Challenger 2 could be severe, given their repeated threat that, in that event, they will not manufacture US tanks under licence and will relinquish this area of business. The Defence Secretary and Secretary of State for Trade and Industry should be invited to comment generally on the industrial aspects. How serious is VDS's threat? If it were put into effect, how serious would be the loss of an indigenous tank production capability? How would the Defence Secretary propose to preserve a tank design and, given that Challenger 1 will remain in service for many years, enhancement capability? Would it be difficult to persuade VDS to release design rights? GDLS are said to be prepared to seek 100 per cent offset. How much faith can be put on this, bearing in mind the limited success so far achieved by Boeing in making good their pledge of offset for the AEW contract? (Defence Secretary)

h. Research and development

Selection of Abrams would result in much cheaper R&D costs, in connection both with the initial purchase (£14M compared with £93M) and with subsequent modification to take a larger calibre gun. This will ease the MOD's task of complying with the requirement to reduce the overall level of defence R&D expenditure. What would be the effect on the

national R&D effort, both within the defence scientific establishments and in industry? Is this a cause for concern? (Defence Secretary)

i. Sales prospects

The potential world market for main battle tanks is put at 1,400. The paper suggests that, if Challenger were selected, VDS might sell 400 which, taking spares and ammunition into account, could be worth £4 billion. What calculation underlies the 400 figure? Even if Challenger 2 were not selected and VDS decided in the event to remain in the tank business, are the prospects of future tank sales abroad totally to be ruled out? (Defence Secretary, Secretary of State for Trade and Industry)

j. Procurement strategy

If Challenger 2 were selected, the Defence Secretary would propose to place contracts on a step-by-step basis. The position could be reviewed in 11 months after the completion of PD2. The Defence Secretary says that, even so, it would be politically difficult to abandon the project. But this was done in the case of AEW, after a much longer period. Could the terms not be spelled out sufficiently clearly to head off, or at least provide a basis for rebutting, subsequent recriminations? (Defence Secretary) VDS will proceed with further work on Challenger only if the production gap at Leeds (following the completion of the fifth Challenger 1 Regiment) is plugged by an award of a

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further contract for Challenger ARRVs (Armoured Repair and Recovery Vehicles). Would this have any serious budgetary implications? (Defence Secretary)

k. Announcement

The Defence Secretary should be asked for his views on the timing of an announcement of a decision. Given the intense media speculation, and the continuing lobbying by the rival firms, a statement should be made to Parliament as quickly as possible (following Cabinet endorsement of the OD decision). If it were to be made on the day of the meeting, the Speaker's Office would have to be given notice by midday.

P J Weston

18 November 1988



SRWBRB

/A-B

SECRET

PRIME MINISTER

A NEW TANK FOR THE ARMY

OD is to discuss the choice of a new Tank for the Army next week. You may want to familiarise yourself with the papers over the weekend.

The MOD's Equipment Policy Committee have recommended purchase of the American Abrams tank. The Defence Secretary's paper for OD is ostensibly neutral between the Abrams and Challenger 2, and admits that both tanks can meet the specifications. But most of the arguments - performance, availability, lack of risk, inter-operability, purchase price - come out in favour of the Abrams. The Americans are prepared to offer 100% offset. The great difference is that the Abrams already exists, there is minimal risk and its research costs have been largely written off. The Challenger 2 exists only on paper, and at least another year is needed to demonstrate that it can actually meet the specifications in practice as well as on paper.

The main arguments for Challenger 2 are the industrial and employment implications of going for the American option: the possible loss of overseas sales: the abandonment of the capability to produce tanks in the UK: and uncertainty about how changes in the £/$ exchange rate could affect the price of the Abrams.

The military and procurement experts will argue hard for the Abrams, saying that it is a test of your resolve to apply a 'no more Nimrods' policy. The Foreign Secretary will suggest the Abrams on political grounds.

The Treasury may argue that it is better to delay a decision - or do a minimum of modernisation of existing tanks - while we see whether there are important new technological developments in the next few years. Failing that, they will almost certainly opt for the Abrams as the safer bet, less likely to

development expenditure in relation to production costs. Moreover there is no allowance in the defence programme (even taking into account the most recent PES settlement) for the ASM project. The Defence Secretary has accordingly concluded, following the firm advice of the Defence Staff, that the ASM programme could not be funded without unacceptable penalty elsewhere in the defence programme, and that accordingly the UK should withdraw from the project.

The strong advice of our Embassy in Washington has been that we should inform the US Administration of this decision as quickly as possible, firstly in order to ensure that the Department of Defense does not reach conclusions on the future of the programme on the false assumption that the UK is likely to participate, and secondly in order to pre-empt withdrawal becoming an issue under the Bush Administration. Mr Sainsbury has accordingly written, with the Defence Secretary's agreement, to the US Navy (Lawrence Garrett) confirming our withdrawal, but stressing that this reflects an assessment of relative priorities and that we will retain a long-term interest in mine warfare techniques. Although this news will not be welcomed in Washington, we believe that the US will recognise the importance of safeguarding other, more critical elements of our contribution to NATO. The Embassy will be briefing its contacts in Washington to emphasise this point.

If the issue is raised in the course of her visit to Washington, the Prime Minister may wish to stress that the decision has proved necessary in order to safeguard key elements of Britain's contribution to NATO. It does not represent any basic reduction of British interest in defence equipment collaboration.

Copies of this letter go to Stephen Wall (Foreign and Commonwealth Office) and to Trevor Woolley (Cabinet Office).

Yours sincerely,

John Colston.

(J P COLSTON)
Private Secretary

15. XI. AM 8

cc PC (2)

Prime Minister
No need to read the full report. It is covered in the summary.
CRSP 14/xi

MO 26/3/1E

PRIME MINISTER

RN SHIP REFITS

It is now some 18 months into the 7 year Term Contract for the commercial management of the Royal Dockyards at Devonport and Rosyth, and just over a year since I reported on the performance being achieved in refitting RN vessels to time and cost. I attach a full report with statistics on the refits completed since last year, but I summarise here the main points:

- It has been a period of major transition in which the programme load has reduced faster than anticipated, causing accelerated job losses particularly at Devonport. Full value for money benefits will take time to work through. Nevertheless, both managements are making progress in changing attitudes, introducing flexible working, and on programmes to improve efficiency.

- All 50 vessels completed last year have been accepted back into operational service. 68% overran their planned time, and 42% overspent: compared with 71% and 62.5% respectively over the 3 previous years. The average percentage overrun was 12% on time and 1% on costs. An analysis of causes is included in the Report.

- 75% by value of all Dockyards contracts are being priced on the basis of risk or other incentive to the Contractor, as opposed to the cost plus method.

- The overmanning endemic in the old Dockyards is being effectively squeezed out as a result of current redundancy programmes. Devonport, affected by the severest drop in load, will have reduced by April 1990 to 6,000 from over 11,000 at Vesting Day.

- Industrial relations have been good at both yards, although currently (and not surprisingly) under some strain at Devonport in the face of some compulsory redundancies.

- Both contractors are seeking to market themselves vigorously to win commercial work, but feel constrained by the cost of leasing the assets. We are reviewing the licence fee.

2. I remain confident that the value of commercial management will be amply demonstrated before the end of the term contract but it will take longer to reduce unit costs against the steeper decline in workload. I will continue to receive regular reports on refit performance and intend to monitor the situation closely.

G.Y.

Ministry of Defence
11th November 1988

RN SHIP REFITS 1987/88

(Note by the Ministry of Defence)

1. Attached as annexes to this note is an analysis of the refits and dockings completed between 1 September 1987 and 30 September 1988 - a 13 month period owing to a realignment of quarterly datum points to match the financial year.

Background

2. In April 1987, our contractors, Devonport Management Ltd and Babcock Thorn Ltd faced a number of problems, not least a steep learning curve as the opportunity for parallel running before Vesting Day had been limited owing to trade union intransigence. The period since then has been one of great transition, with the contractors attempting to manage a change in attitudes and working practices against an MOD programme reducing faster than had been anticipated and causing accelerated job losses; particularly at Devonport where the surface ship programme has borne the brunt of the cutbacks. We are still very much in that period of transition and the full value for money benefits will take time to work through.

3. As the NAO have recognised in the report on Commercialisation of the Dockyards earlier this year (NAO Report No. 359 dated 3rd March), it is not now practicable to compare pre- and post-Vesting Day performance in cost effectiveness terms. This is partly because we have no means of assessing how continued MOD management might have fared in coping with the currently much reduced refit programme, and partly due to necessary accounting changes.

Performance Analysis

4. Ship refitting is a long term business. Indeed, many vessels included in the analysis were taken in hand under the old regime at a time of great uncertainty, with management preoccupied with the future rather than the task in hand and, it must be said, some slackness in the attitude of the workforce. Given the length of refits, our data base is still too shallow to permit full statistical analysis comparing performance on refits of the same type and class over time. In the meantime, we can only present a relatively crude global analysis of timekeeping and cost control. Annex A lists every refit over £1M which has been completed since last year, assessing any overruns in time or cost and the underlying reasons. At Annex B we have tabulated this data to analyse the overruns by Dockyard and broad type of vessel. This analysis is displayed graphically in the associated histograms and pie-charts.

Refits Completed

5. All 50 vessels refitted since last year have been accepted back into service and are operational. In the 3 years covered by the last report 71% were not finished in the planned time and 62.5% overspent the planned budget. Last year 68% overran and 42% overspent. The slight shift in timekeeping performance cannot be regarded as statistically significant, but we shall be looking for real improvement in this regard over the next year. The average percentage overrun was just under 12% of the planned time. It is important to identify the reasons for delays; the analysis in the appendices to Annex B shows that 15% of the total delay, and 30% of the cost overrun, was directly the result of additional requirements, or late changes to requirements, for operational reasons, for example for the ARMILLA/CIMNEL ships fitted with extra sensors, decoys and communication equipment. The greater proportion of the overruns,

however, arose because the amount of "emergent" work discovered in the course of refit was greater than allowed for in planning estimates. This category accounted for 41% of the delays and 37% of the unbudgeted costs incurred.

6. The picture on costs is encouraging. The lower number of projects overspending, and the relatively small amounts involved, taking underspends into account, reflect the contractors' greater emphasis on control of costs. With the clarity introduced by the contractual customer/supplier relationship, non-essential work is no longer performed and the Dockyards now work to tightly drawn specifications for the work. The figures also reflect a fundamental shift in the pricing of refit contracts which, increasingly for the labour element, is agreed on the basis of risk or other incentive to the contractor. It is estimated that 75% by value of all Dockyards contracts placed over the last year will have been risk or incentive priced as opposed to the cost plus method. The changes have also imposed greater disciplines on Ministry staff. The need to produce tight specifications and to make more detailed cost evaluations as a basis for contract negotiation means that refits are being started on a much sounder footing. Like the contractors, MOD staff are also going through a learning process.

Refits in hand

7. Turning to refits currently in hand, there are a few major projects started under the old regime which are likely to distort our future statistics. The submarine side at Rosyth is facing particular problems. Age-related defects in the steam generating plant on older nuclear submarines are likely to extend current and future refits, particularly because of a related safety requirement to reduce radiation levels by more thorough decontamination of the reactor compartment. Also, two O-class conventional submarines have suffered

from repeated quality failures in main engine refurbishment, capped in criminal charges. Whilst Devonport too is faced with the steam generator and decontamination difficulties, DML's performance on submarines has generally been good.

8. On the whole the surface ship refit programme is progressing satisfactorily, with Devonport giving greater confidence overall that they can deliver the programme. One area of particular difficulty is performance on minor war vessels which in Rosyth may have suffered from the higher priorities given to the strategic deterrent and other submarines. The important refit of the carrier HMS INVINCIBLE is approaching completion and recently achieved the key "ready for sea" milestone.

Other areas of change

9. The following areas of progress are worthy of note.

- Reduction in manning. Against the background of a reducing core programme, Devonport have shed over 2000 jobs since Vesting Day and in an accelerated programme will have reduced the workforce by another 3,300, to 6,000, by April 1990. Rosyth, with a steadier programme of work, will be reducing by an average of at least 200 a year. Within this relatively short period since Vesting Day we have effectively squeezed out the overmanning endemic in the old Dockyards.

- Efficiency improvements With a reducing volume of work it will be more difficult for the contractors to achieve reductions in unit costs. It is of course difficult to bring down overhead costs in line with director costs when workload is falling. Nevertheless, both contractors are putting a high

priority on productivity improvements and making progress on the changes to working practices needed to achieve them. Especially at Devonport much will depend on progress with restructuring, and with disposal of unnecessary capital assets.

- Industrial relations have been good at both yards, with the contractors placing emphasis on good communications and the union side recognising the value of dialogue. There have been no significant disputes at Rosyth, where management has signed a comprehensive pay, productivity and flexibility agreement with the trade unions. The relationship at Devonport, however, is currently under the strain of impending compulsory redundancies. The scale of the job losses has hindered negotiations on working practices but DML are close to securing a package deal similar to that in Rosyth. The advantages of conducting Dockyard industrial relations at local level and outside the wide Civil Service ambit are already clear.

- Rationalisation of the capital assets. Both DML and BTL are developing plans to modify the dockyard infrastructure, although we have to provide the funds for this and need to ensure that the investment proposals are cost-effective.

- Commercial accounting is now fully in place. The number of separate cost centres has been reduced and structured for competition; the less sophisticated facilities that might be expected to support incoming commercial work no longer bear the burden of a share of the costs of the more expensive facilities largely devoted to warship work.

- Commercial work. DML in 1987/88 exceeded its target for winning non-MOD work, achieving some £6M by value. Both contractors are seeking to market themselves vigorously.

- The licence fee charged for the use of the assets in order not to subsidise the contractors vis a vis their private sector competitors, is seen by both companies as an unfair and unrealistic impediment to winning more commercial work or a share of the naval load put out to competition. It is important for morale and the success of commercial management that our contractors carry no unreasonable costs. We are reviewing this with the Treasury.

Competition

10. It is in the surface fleet that the greatest scope is seen for gradually increasing our use of competition in the drive for greater value for money. Although the programme reductions have narrowed the opportunity in the short term, our forward planning increases the proportion of shipwork to go out to tender beyond the end of the first term contracts. Rosyth has already demonstrated that it can compete by winning the refit of RFA BRAMBLELEAF from the private yards (albeit, we believe, as a loss leader); and Devonport gained the refit of the Omani Royal Yacht the El Said against stiff international competition.

11. Finally, the Fleet Maintenance and Repair Organisation, Portsmouth, has fulfilled an important role in the transitional period, conducting a very high proportion of unprogrammed work, include a high volume of enhancements for the ARMILLA/CIMNEL operational in the Gulf, while successfully undertaking a small but important share of the refit programme. Cost comparisons with the commercially managed Royal Yards are being obtained as part of a study into the future of the refit and repair element of the Naval Base's task. The FMRO has achieved a good standard of quality and timekeeping, and has completed its overall programme within budget.

Enclosures:

Annex A: Data serials for completed refits over £1M, by Dockyard.

Annex B: Analysis of refits completed 1 Sep 1987 - 30 Sep 1988

Appendix 1: Analysis of time delays (with graph)
Appendix 2: Analysis of cost overruns (with graph)

REVIEW OF SHIP REFITS AND DOCKINGS (OVER £1M COST): 1 SEPTEMBER 1987 - 30 SEPTEMBER 1988

GLOSSARY OF ABBREVIATIONS AND DEFINITIONS

Reasons for Time and Cost Overruns

A - Operational Reasons (including late changes to requirement, BOM/UOS action, effects of Programme changes, and effects of Opdefs to other vessels).

B - Material Reasons (including supply of late and/or defective equipments, and Storerob to meet the requirements of other vessels).

C - Contract Management (including overruns arising from imprecise specifications or contractual difficulties).

C1 - Emergent Work

D - Dockyard/Contractor Management (including management failures and industrial problems).

D1 - Weather

Contractual Arrangements

Explanatory

"Contract Type" refers to the Pricing regime for refit labour. Services are at agreed rates and other elements (materials and sub-contracts) are generally on a Cost Plus basis.

Definitions

FIRM - Firm Price
CPIF - Cost Plus Incentive Fee
FPIF - Fixed Price Incentive Fee
CPFF - Cost Plus Fixed Fee
SC53 - Priced on Ascertained Costs

Definitions

NOT - Non Operational Time, defined as the time from CSD to CAD
CSD - Contract Start Date
CAD - Contract Acceptance Date

Explanatory

"Original Planning Figure" for NOT and "Original Planned" Cost are taken from the original Refit Initiation Approval.

"Approved at CSD" for both NOT and Cost purposes give the approved figures at the time the Contract was started. This forms the "Baseline" from which performance has been judged. For refits which started before Vesting Day (VD) (6 April 1987) CSD is taken as VD.

LEGEND

SSBN - Polaris Submarine
SSN - Nuclear Hunter-Killer Submarine
SSK - Conventional Diesel Submarine
CVS - Aircraft Carrier
LPD - Assault Ship
DD - Destroyer
FF - Frigate
MWV - Minor War Vessel
RFA - Royal Fleet Auxiliary

Annex A

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
Part 1: Rosyth - Refits Completed in Period											
ODIN (SSK)	DED	24 Sep 87 FIRM	10	10	+ 4	A = 2 C1= 2	Neg/1.2	1.2	+0.2	A = 0.1 C1= 0.1	Delay due to extensive emergent work on hull and rudder resulting in increased costs. The implementation of a small A&A package by UOS action also contributed to the increase.
BIRMINGHAM (DD)	RR	2 Oct 87 FIRM	91	91	+29	D	16.1/27.8	27.8	+2.6	D	VD Spanner. Problems with propulsion plant and testing GWS 30.
LIVERPOOL (DD)	DED	9 Sep 88 FIRM	16	17	+12	C1=12	7.7/3.6	3.6	+2.2	C1	Major emergent work for shaft repairs.
JUPITER (FF)	Refit	2 Oct 87 FIRM	32	34	+ 2	B	1.5/8.7	8.7	-0.3	-	VD Spanner. Delay arising from defective GWS 25 barrels.
HERMIONE (FF)	Refit	10 Jun 88 FPIF	32	36	+ 4	C	1.0/7.8	7.9	-	-	Budgetary Control too tight at start of refit due to late agreement of contract terms.
JERSEY (MWV)	Refit	8 Sep 87 FIRM	30	30	+ 4	D	0.2/1.6	1.6	-	-	VD Spanner. Delay due to late completion of work on main engines.
SENTINEL (MWV)	Refit	18 Sep 87 FIRM	17	21	+ 4	B = 1 C1= 1 D = 2	0.4/2.7	2.7	-0.2	-	Late delivery of MSM. Main engine and hydraulic problems.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks)				Cost (£M)				Remarks
			Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	
LEDBURY (MWV)	Refit	6 Nov 87 CPIF	28	28	+ 3	C1= 1 D = 2	0.3/2.9	2.9	-0.7	-	Difficulties with preservation of GRP hull.
SHERATON (MWV)	Refit	13 Nov 87 FIRM	26	26	+ 9	A = 2 C1= 5 D = 2	0.5/1.8	1.8	+0.2	A = 0.1 C1= 0.1	Delays arising from: A."CIMNEL" work C.Undue emergent work- Engine misalignment and WT equipment. D.Contractor's learning curve.
ORKNEY (MWV)	Refit	25 Mar 88 FPIF	22	29	+ 3	D	0.2/2.2	2.2	-0.4	-	Delay arising from failure of syncrolift. Labour rates and emergent work less than provisioned.
UPTON (MWV)	Refit	13 May 88 FIRM	19	19	-	-	0.2/1.8	1.8	-0.8	-	Revised tariff rate; emergent work less than provisioned.
BRERETON (MWV)	Refit	30 May 88 FIRM	23	23	+ 7	C1= 5 D = 2	0.2/2.2	2.2	-0.7	-	Emergent work less than provisioned. Delay due to shaft misalignment and steering gear problems.
HUBBERSTON (MWV)	Refit	13 May 88 FPIF	34	34	+ 3	C1= 2 D = 1	0.4/3.6	3.6	-1.5	-	Emergent work much less than provisioned. Delay due to keel repairs.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
LEEDS CASTLE (MWV)	Refit	22 Jul 88 FPIF	27	27	+ 1	A	2.1/3.7	3.6	-	-	Delay due to Design Authority problems with provision of Radar Absorbent Material (RAM) for 994 radar.
OLNA (RFA)	Refit	2 Oct 87 FIRM	14	14	+ 1	D1	0.3/7.5	7.5	-0.2	-	Adverse weather.
GOLD ROVER (RFA)	Refit	5 Dec 87 FIRM	10	10	-	-	0.1/3.5	3.3	-0.4	-	Emergent work less than provisioned.
SIR TRISTRAM (RFA)	Refit	23 Feb 88 FIRM	11	11	+ 1	D	0.2/3.3	2.0	-	-	
SIR GERAINT (RFA)	Refit	11 Jul 88 FIRM	7	7	+ 1	C1	0.1/2.1	2.1	-	-	Emergent work extended dry dock time.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
Part 2: Devonport - Refits Completed in Period											
CONQUEROR (SSN)	DED	11 Sep 87 SC53	16	16	-	-	0.8/5.0	4.8	+1.1	C1= 0.8 D = 0.3	More emergent than provisioned. DED undertaken in more expensive dock than normal.
SCEPTRE (SSN)	Refit	8 Oct 87 CPFF	119	115	-	-	29.9/69.5	79.8	+1.0	C	VD Spanner. Cost increase due to rise in Dockyard Nuclear overhead costs.
TIRELESS (SSN)	DED	13 Nov 87 SC53	14	14	-	-	0.5/4.2	4.2	+0.4	C	Cost increase due to rise in Dockyard Nuclear overhead costs.
TRAFALGAR (SSN)	DED	19 Feb 88 CPFF	16	16	+ 3	A	0.6/4.1	4.7	+0.2	A = 0.1 C = 0.1	Delay due to extra work on reactor/ propulsion. Cost increase due to extra work and Nuclear overhead cost rise.
SWIFTSURE (SSN)	DED	27 May 88 CPIF	14	15	+ 2	C1	1.5/5.4	5.3	-0.2	-	
SUPERB (SSN)	DED	7 Sep 88 CPIF	14	14	+ 1	C1	1.1/5.0	5.0	+0.8	C = 0.3 C1= 0.5	Delay due to emergent work. Cost increase due to emergent work and rise in Nuclear overhead costs.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
BEAVER (FF)	DED	28 Oct 87 SC53	15	17	+ 4	A	2.2/1.7	1.7	+0.8	A	Delay and cost increase resulting from Machinery Raft installation.
ALACRITY (FF)	RR	5 Nov 87 FIRM	81	81	+ 3	C1	3.6/16.4	16.5	+0.1	A	VD Spanner. Delay due to machinery problems encountered during sea trials.
CLEOPATRA (FF)	Refit	8 Apr 88 CPFF	37	37	+23	C1=21 D = 2	0.2/7.5	7.7	+1.5	C1	VD Spanner. Budget increased by £1.5 and non operational time by 21 weeks to permit essential structural strengthening and repairs, and to allow for emergent defects from Trials.
AVENGER (FF)	RR	26 Apr 88 CPFF	80	84	+ 2	A	1.1/18.0	17.8	-1.4	-	VD Spanner. Delay due to outstanding work.
AMAZON (FF)	DED	8 Jun 88 SC53	18	21	+ 6	C1	2.5/2.1	2.1	+0.5	C1	More emergent work than provisioned.
PENELOPE (FF)	DED	16 Jun 88 FPIF	10	16	-	-	Neg/0.7	1.1	+0.3	C	Cost increase due to changes in charging arrangements/rates for dock usage.
BRILLIANT (FF)	RP1	26 Aug 88 SC53	55	55	-	-	3.2/7.5	8.1	+3.3	A	Cost overrun due to Armilla Patrol enhancements.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks)				Cost (£M)				Remarks
			Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	
ENDURANCE (MWV)	Refit	25 Sep 87 SC53	52	67	+ 1	D	4.9/17.1	17.1	-	-	VD Spanner. Poor material state of vessel.
HERALD (MWV)	Refit	30 Oct 87 CPIF	21	21	+ 5	A	Neg/4.8	4.8	-2.7	-	Time extended due to late addition of A&A package. Cost reduction due to change in upkeep cycle.
BRITANNIA (MWV)	Refit	3 Nov 87 SC53	42	42	-	-	1.3/15.1	15.1	+0.3	D	VD Spanner. Poor material state of vessel and asbestos related health and safety problems.
FAWN (MWV)	Refit	5 May 88 FIRM	15	15	+ 2	A = 1 D = 1	0.1/1.6	1.6	-0.4	-	Cost reduced as emergent work less than anticipated and due to lower than expected labour rates. Refit extended by additional work and delays in machinery installation.
ORANGELEAF (RFA)	Refit	30 Nov 87 CPIF	8	8	+ 2	D1	0.1/4.8	4.8	-1.4	-	Exceptionally bad weather. Emergent work less than provisioned.
FORT GRANGE (RFA)	Refit	6 Jan 88 CPIF	13	13	+ 3	D	0.3/6.9	6.0	-0.7	-	Delay due to Contractor failing to allow for extensive cleaning and final completion of specified work.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
SIR PERCIVALE (RFA)	Refit	22 Feb 88 CPIF	7	9	+ 2	D	0.1/2.6	3.5	-0.4	-	Delay due to Contractor requiring extended period for tank coatings, general cleaning and completion of other specified work.
GREEN ROVER (RFA)	Refit	18 Mar 88 FIRM	10	10	-	-	Neg/3.0	3.0	-	-	
SIR BEDIVERE (RFA)	Refit	24 May 88 FIRM	8	8	+ 2	C1	0.1/2.5	2.5	+0.2	C1	More emergent work than anticipated.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD)	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V1)	Approved at CSD V1 only	Outturn O/U'spend V1 +/-	Reasons	Remarks
Part 3: Portsmouth - Refits Completed in Period											
ONSLAUGHT (SSK)	DED	12 Feb 88	15	20	-	-	Neg/1.3	1.3	+0.3	C1	Overspend mainly caused by larger than anticipated volume of emergent work.
OTUS (SSK)	DED	12 Aug 88	10	15	+ 2	A	Neg/1.3	1.3	-	-	Delay due to design authority decision on pressure hull plating.
SOUTHAMPTON (DD)	DED	30 Oct 87	16	16	-	-	7.1/2.1	2.1	+0.9	A	Cost increase due to late addition of an A&A package under UOS arrangements for Armilla deployment.
NEWCASTLE (DD)	RR	29 Jan 88	91	91	+ 5	A = 2 C1= 3	14.4/27.2	27.2	-2.4	-	Delay arising from transfer of labour to ILLUSTRIOUS opdef and emergent shaft work.
APPLELEAF (RFA)	Refit	30 Mar 88	8	11	-	-	0.1/1.5	3.2	-	-	Original estimate based on assumption that refit would not be undertaken in a Dockyard.

Period: 1 September 1987 - 30 September 1988

Vessel	Type of Refit	Contract Acceptance Date (CAD) and Type	Non Operational Time (NOT) (Weeks) Original Planning Figure	Approved at CSD Baseline	Outturn +/- Baseline	Reasons	Cost (£M) Original Planned (V2/V5)	Approved at CSD V5 only	Outturn O/U'spend V5 +/-	Reasons	Remarks
Part 4: Private Yards - Refits Completed in Period											
BAYLEAF (RFA)	Refit	9 Nov 87 FIRM	12	12	+ 4	D	0.1/1.9	1.9	+0.6	D	Contract with Gibraltar. Industrial action at GSL.
OLWEN (RFA)	Refit	24 Mar 88 FIRM	15	15	-	-	0.3/3.0	3.5	+0.1	C1	Contract with Smiths.
OAKLEAF (RFA)	Refit	25 Apr 88 FIRM	8	8	+ 1	D1	Neg/1.5	1.4	-	-	Contract with Falmouth Shiprepairers.
REGENT (RFA)	Refit	27 May 88 FIRM	18	15	-	-	0.2/4.0	2.7	-0.1	-	Contract with Tyne Shiprepairers(TSL)
GREY ROVER (RFA)	Refit	2 Aug 88 FIRM	14	12	+ 1	B	0.3/1.7	1.7	+0.3	C1	Contract with Smiths. Delay due to late supply of materials.

REVIEW OF SHIP REFITS AND DOCKINGS: 1 SEPTEMBER 1987 - 30 SEPTEMBER 1988

REFITS/DEDS COMPLETED

NON OPERATIONAL TIME

REFIT/DED COMPLETIONS	ROSYTH		DEVONPORT		PORTSMOUTH		OTHER YARDS		Submarine Total (Note 1)	Ship Total	TOTAL
	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship			
On Time or Early		2	3 (3)	4	1 (-)	2		2	4 (3)	10	14 (3)
Less than 10% Overrun		5	1 (1)	3		1		1	1 (1)	10	11 (1)
More than 10% Overrun	1 (-)	10	2 (2)	9	1 (-)			2	4 (2)	21	25 (2)
TOTAL	1 (-)	17	6 (6)	16	2 (-)	3		5	9 (6)	41	50 (6)

COST

REFITS/DEDS COMPLETED	ROSYTH		DEVONPORT		PORTSMOUTH		OTHER YARDS		Submarine Total (Note 1)	Ship Total	TOTAL
	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship			
To or Below Planned Cost		14	1 (1)	8	1 (-)	2		2	2 (1)	26	28 (1)
Less than 10% Overrun		1	3 (3)	3				1	3 (3)	5	8 (3)
More than 10% Overrun	1 (-)	2	2 (2)	5	1 (-)	1		2	4 (2)	10	14 (2)
TOTAL	1 (-)	17	6 (6)	16	2 (-)	3		5	9 (6)	41	50 (6)

Note 1: Figures in brackets ( ) denote number of Nuclear Submarines included in totals.

Annex B

REVIEW OF SHIP REFITS AND DOCKINGS: 1 SEPTEMBER 1987 - 30 SEPTEMBER 1988

REFITS/DEDS COMPLETED - ANALYSIS OF DELAYS IN REFIT COMPLETIONS (in Weeks)

	ROSYTH		DEVONPORT		PORTSMOUTH		OTHER YARDS		Submarine Total (Note 1)	Ship Total	TOTAL
	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship			
Operational Reasons	2 (-)	3	3 (3)	12	2 (-)	2			7 (3)	17	24 (3)
Material Reasons		3						1		4	4 (-)
Contract Management		4								4	4 (-)
Emergent Work	2 (-)	27	3 (3)	32		3			5 (3)	62	67 (3)
Dockyard Management		46		9				4		59	59 (-)
Weather		1		2				1		4	4 (-)
Total Delay	4 (-)	84	6 (6)	55	2 (-)	5		6	12 (6)	150	162 (6)
Early Completions											
Nett Delay	4 (-)	84	6 (6)	55	2 (-)	5		6	12 (6)	150	162 (6)
NOT approved at CSD	10 (NIL)	457	190 (190)	504	35 (NIL)	118	NIL	62	235 (190)	1141	1376 (190)
Nett delay as % of approved NOT	40.0 (N/A)	18.4	3.2 (3.2)	10.9	5.7 (N/A)	4.2	N/A	9.7	5.1 (3.2)	13.1	11.8 (3.2)

Note 1: Figures in brackets ( ) denote Nuclear Submarine sub-totals.

Appendix 1 to Annex B

REVIEW OF SHIP REFITS AND DOCKINGS: 1 SEPTEMBER 1987 - 30 SEPTEMBER 1988

REFITS/DEDS COMPLETED - ANALYSIS OF COST OVERRUNS / FORECAST OVERRUNS (IN £ M)

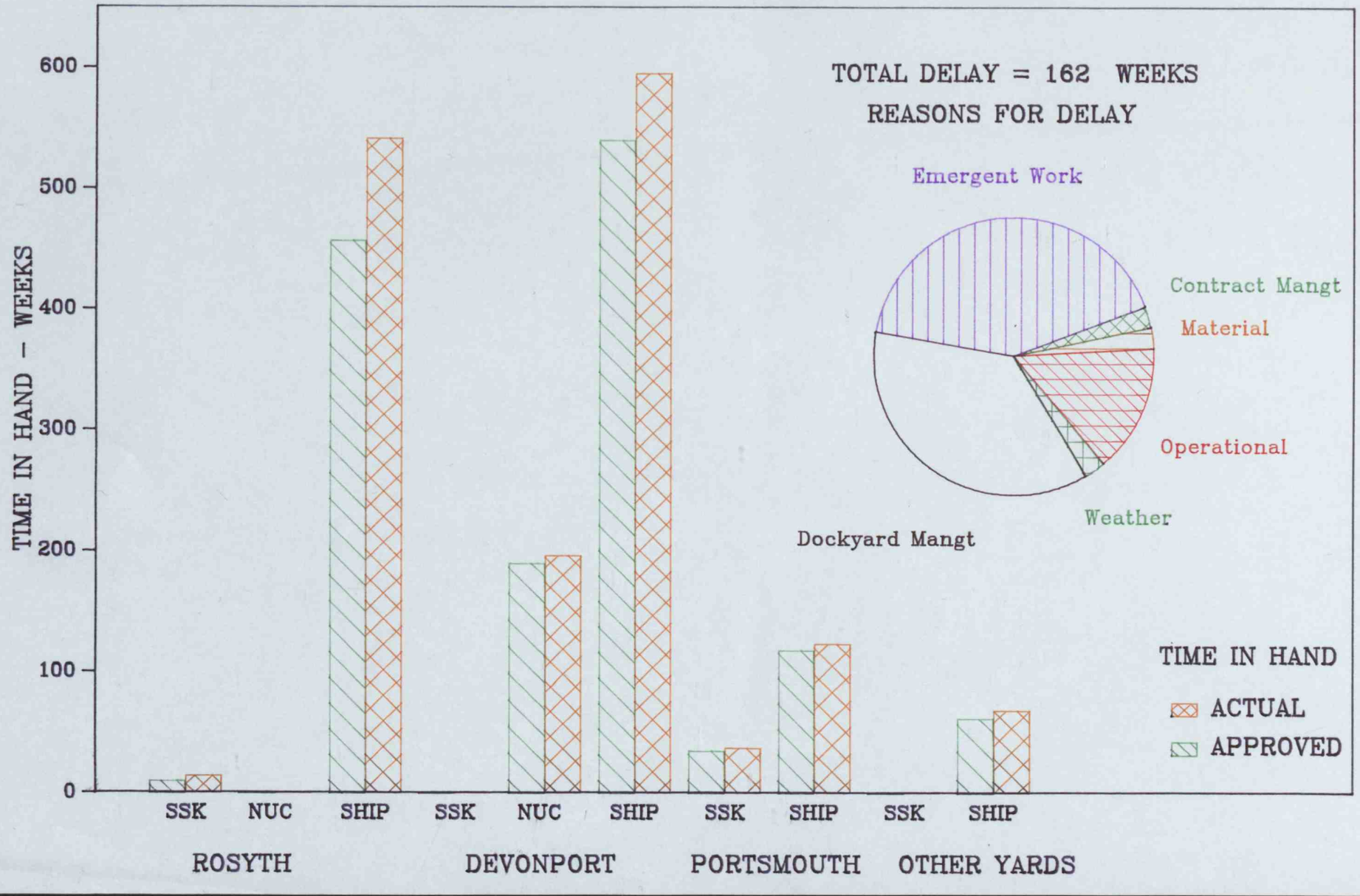
	ROSYTH		DEVONPORT		PORTSMOUTH		OTHER YARDS		Submarine Total (Note 1)	Ship Total	TOTAL
	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship	Submarine (Note 1)	Ship			
Operational Reasons	0.1 (-)	0.1	0.1 (0.1)	4.2		0.9			0.2 (0.1)	5.2	5.4 (0.1)
Material Reasons											
Contract Management			1.8 (1.8)	0.3					1.8 (1.8)	0.3	2.1 (1.8)
Emergent Work	0.1 (-)	2.3	1.3 (1.3)	2.2	0.3 (-)			0.4	1.7 (1.3)	4.9	6.6 (1.3)
Dockyard Management		2.6	0.3 (0.3)	0.3				0.6	0.3 (0.3)	3.5	3.8 (0.3)
Weather											
Total Actual/ F'cast Cost Overrun	0.2 (NIL)	5.0	3.5 (3.5)	7.0	0.3 (NIL)	0.9		1.0	4.0 (3.5)	13.9	17.9(3.5)
Cost Underrun		5.2	0.2 (0.2)	7.0		2.4		0.1	0.2 (0.2)	14.7	14.9(0.2)
Nett Cost Overrun	0.2 (NIL)	-0.2	3.3 (3.3)	-	0.3 (NIL)	-1.5		0.9	3.8 (3.3)	-0.8	3.0(3.3)
Cost Approved at CSD	1.2 (NIL)	85.3	103.8 (103.8)	113.4	2.6 (NIL)	32.5	NIL	11.5	107.6 (103.8)	242.7	350.3 (103.8)
Nett Overrun as % of Approved Cost	16.7 (N/A)	-0.2	3.2 (3.2)	0	11.5 (N/A)	-4.6	N/A	7.8	3.5 (3.2)	-0.3	0.9 (3.2)

Note 1: Figures in brackets ( ) denote Nuclear Submarine sub-totals.

Appendix 2 to Annex B

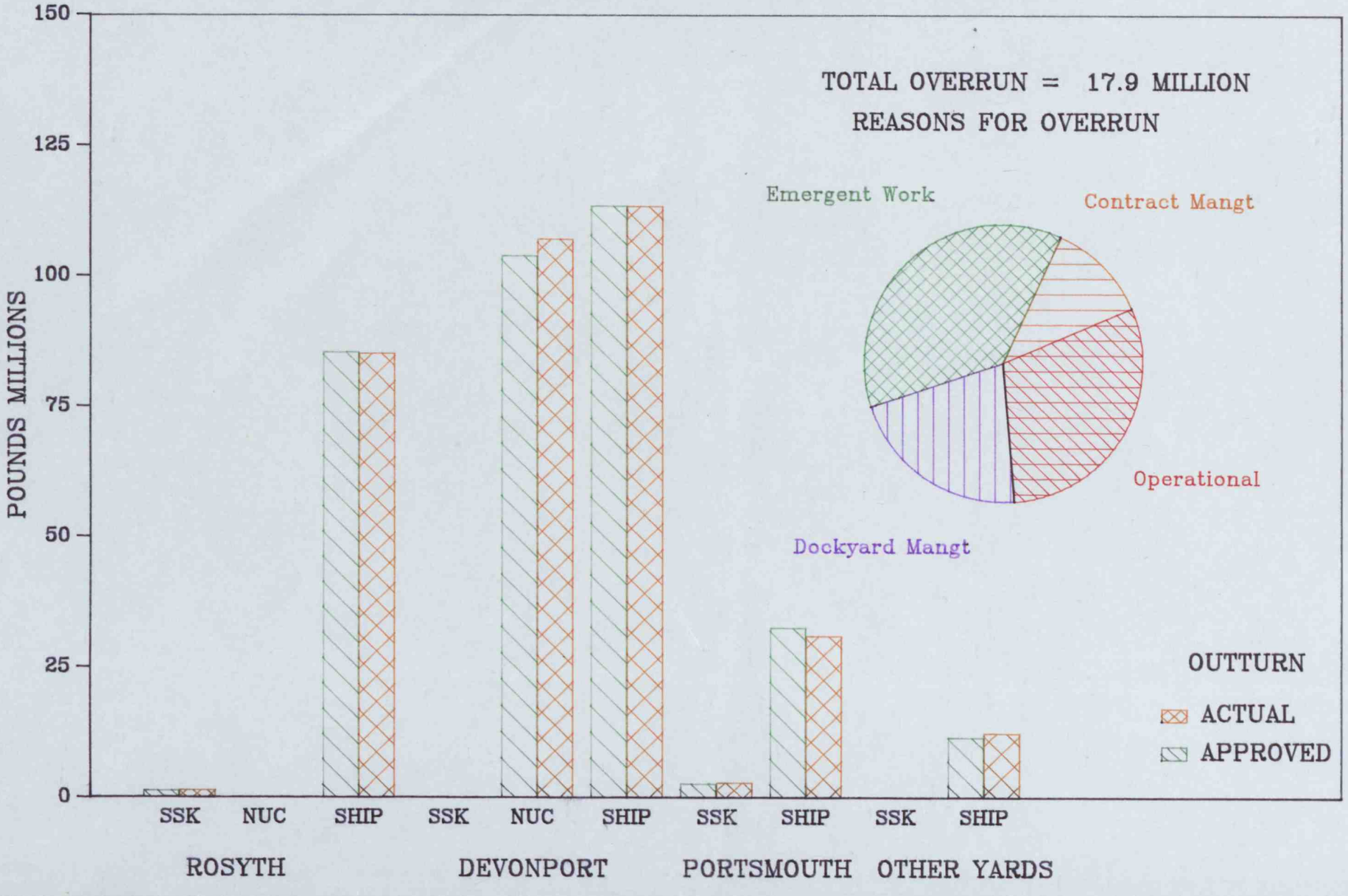
DELAYS TO REFITS COMPLETED

1 SEPT 1987 – 30 SEPT 1988



COST OUTTURNS – REFITS COMPLETED

1 SEPT 1987 – 30 SEPT 1988



PERSONAL AND CONFIDENTIAL

UNITED KINGDOM PERMANENT REPRESENTATIVE
ON THE NORTH ATLANTIC COUNCIL
OTAN/NATO
1110 BRUSSELS
TELEPHONE 2426775

11/xi

11 November 1988

Charles Powell Esq
10 Downing Street
London SW1

Dear Charles,

CHIEFTAIN REPLACEMENT

We spoke on the telephone a few weeks ago about the Chieftain replacement. I gather matters are now approaching the point of decision. I should be grateful, therefore, if you could put the enclosed personal letter from me to the Prime Minister in her box at some suitable moment.

Yours ever

Michael.

Michael Alexander

The face must be particularly severe at the moment — though you always succeed in looking unruffled!

PERSONAL AND CONFIDENTIAL

UNITED KINGDOM PERMANENT REPRESENTATIVE
ON THE NORTH ATLANTIC COUNCIL
OTAN/NATO
1110 BRUSSELS
TELEPHONE 2426775

11 November 1988

The Rt Hon Margaret Thatcher MP
Prime Minister
10 Downing Street
London

Dear Prime Minister,

CHIEFTAIN REPLACEMENT

I understand that a probably definitive discussion on the issue of the replacement for the Chieftain tank will be taking place in OD on 24 November.

The decision is self-evidently important and inevitably controversial. You will of course be receiving all the usual paper as well, I am sure, as representations from interested parties outside government.

I have no wish unnecessarily to repeat arguments being made by others. But there are two points which may be worth underlining:

(a) for almost the first time (and perhaps somewhat to their own surprise) the Ministry of Defence and the Army have carried through a genuinely objective analysis of a major weapons procurement decision. The Nimrod saga has evidently had its effect - as has the presence of the admirable Peter Levene. Those responsible (including all the relevant military personnel) have come up with a clear recommendation: the lonely doubts of the export sales people seem to me to be based on some extraordinarily optimistic assumptions about markets in which we have not sold tanks for many years. That recommendation is to go for interoperability and to buy American. It would in my view be very damaging to the development of this new, more cold-eyed and very welcome attitude in the Ministry of Defence and in service circles if their recommendation were to be set aside;

(b) this seems to me a particularly good moment to be signalling that even where such a costly weapons system as our main battle tank is concerned, the UK is willing to

/give

give the requirements of operational efficiency in NATO (and therefore of our own national security) precedence over those of domestic industry - compelling though these last obviously are. I myself regret that Leopard II could not meet the Army's requirements. But, given that the Abrams clearly can, the rationale for a decision to buy American, the political significance of our willingness to act on that rationale, and its importance in the burden sharing context will undoubtedly impress our Allies and SACEUR. We can live with the sniping that will no doubt come from eg the French, Dr Owen and others.

It follows that I very much hope you will be able to steer OD in the direction of endorsing the recommendation that the replacement for Chieftain should be the Abrams M1A1.

Yours ever

Michael.

Michael Alexander

Many congratulations on the success of your visit to Poland and - if I can put it that way - on the outcome of the US Presidential elections!

PART 6 ends:-

#.7 MOD to COP 26.10.88

PART 7 begins:-

M. ALEXANDER to COP 11.11.88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