

PO-CH/NL/0501

PART A

Part A.

SECRET

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PT. A.

Chancellor's (Lawson) Papers:
New Tanks For The Army

DD's: 25 Years

D. Adelman

23/2/96

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cc:
Chancellor
Mr Anson
Mr Burgner
Mr Turnbull
Mr Robson
Mr Sutton
Mr Evans
Mrs Edwards
Mr Call

Treasury Chambers, Parliament Street, SW1

Brian Hawtin Esq
Private Secretary
to the Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
London
SW1

12 July 1988

Dear Brian,

CHIEFTAIN REPLACEMENT

The Chief Secretary has seen your Secretary of State's minute of 8 July to the Prime Minister.

The Chief Secretary fully shares your Secretary of State's view that Ministers need to be in a position to make a properly informed decision on this issue. The Chief Secretary considers that this will involve, inter alia, a clear analysis of the cost-effectiveness of replacement by comparison with the alternative of enhancing Chieftain.

On this basis the Chief Secretary has no comments on the draft letter to Sir David Plastow.

I am copying this letter to the Private Secretaries to the Prime Minister, David Young and Sir Robin Butler.

Yours,
Jill Rutter

JILL RUTTER
Private Secretary

FROM: ECONOMIC SECRETARY
DATE: 10 August 1988

PRIME MINISTER

A NEW TANK FOR THE ARMY

In John Major's absence I am responding to George Younger's minute of 4 August.

2. As George makes clear, a decision to replace Chieftain represents an investment of £1½-2 billion and of another £½ billion if existing Challengers were retrofitted with a new gun and turret. As made clear in John Major's private secretary's letter of 12 July, it will be important that such a decision is taken on a properly informed basis.

3. A key question is the extra effectiveness which would be obtained for our Armed Forces by making this investment. This can only be established by comparing the capability we would have if the investment were made with the capability we would have without the investment. The latter capability is represented by the option of retaining the enhanced Chieftain.

4. Until this analysis has been done, the retention of enhanced Chieftain must remain an option. The operational analysis which my officials have seen so far suggests that the replacement of Chieftains provides very little increase in capability and does not appear to be cost-effective. I understand this analysis may be further refined, and the final results could be different, but retention of enhanced Chieftain is the appropriate baseline for analysing the costs and benefits of the other options as well as, possibly, the preferred solution.

5. As regards the issue posed in George's paragraph 17, it seems to me inappropriate to take a view on these matters until we have a full and clear analysis of the relative cost-effectiveness of the

various options. For the same reason, I would not favour ruling out at this stage the solution based on Leopard. I do take George's point that the cost in training and logistics will vary considerably between the options. It will be important that these are examined on the basis of their full through life costs.

6. I am copying to members of OD and to Sir Robin Butler.

111
PETER LILLEY

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CHIEF SECRETARY

*Ch. You have penins
pp. of 18/11*FROM : S A ROBSON
DATE : 18 NOVEMBER 1988c.c. Chancellor
Sir P Middleton
Mr Anson
Mr Sutton
Mr Call**OD : NEW TANK FOR THE ARMY**

November
This is the brief for the OD meeting on 24 ~~October~~. The MOD paper is not yet available but a copy of the final draft is attached.

2. The submission recommends that your objective is to avoid any decision on the number of new tanks. On the choice between the UK tank, Challenger 2, and the US tank, Abrams, the submission concludes in favour of the latter.

3. The submission is ordered as follows :

- 1) background
- 2) analytical issues
- 3) tank options
- 4) way forward

1. Background

4. The UK Army currently has two tanks, Chieftain and Challenger (referred to in the paper as Challenger 1). There are some 590 Chieftains and 490 Challenger 1s in service, or coming into service by 1990.

5. The main purpose of tanks is to hold up, and ideally turn back, a Soviet ground attack. This attack will be based on the Soviet tanks and so a key measure of the effectiveness of our tanks is their likely ability to "kill" Soviet tanks.

6. It is important to recognise from the outset that we do not just use tanks to kill tanks. We use a range of weapon systems to

page 1

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*OD paper
now
circulated
Draft not attached*

kill tanks. These are set out at the Annex. You will see there are currently six such systems in addition to Challenger and Chieftain and, looking to the future nine further systems in the pipeline costing over £7 billion.

7. The central proposition in the MOD paper is that Chieftain has to be replaced. Chieftain was introduced in 1965 and is showing its age. A number of improvements are planned, including an improved gun (called CHARM) but, tank for tank, Chieftain is unlikely to be a match for the Soviet tanks beyond the year 2000. Mr Younger concludes by offering the two replacement options of Challenger 2 and Abrams but gives no recommendation. His officials claim not to know his mind. His Equipment policy Committee has recommended Abrams.

8. Mr Younger is also seeking agreement to make improvements to Challenger 1, including the CHARM gun. This is not contentious and can be agreed.

9. A complicating factor in the issue is the nature of the gun on the tank. Our present tanks have rifled bore barrels (like rifles). Challenger 2 would have such a barrel. The new US tanks have smoothbore barrels (like a shotgun) as do the new German ones. More generally NATO has a mix of bore types. There is also a mix of gun size. We use 120mm, others use 120mm or 105mm. NATO commanders are keen to move towards uniformity in gun size and bore. Uniformity will in the end take the form of smooth bore. A move by the UK now towards smoothbore replacement for Chieftain (i.e. Abrams) would help that process but would involve logistical costs to the UK Army of operating smooth bore tanks alongside the rifle bore Challenger 1. These costs are reflected in the costings of Abrams and Leopard 1. I do not see this as a critical issue.

2. Analytical Issue

10. This is very simple. Do we need to improve our prospective capability against a Soviet tank attack and, if so, how?

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Unfortunately MOD have failed to analyse this issue. Mr Younger's desire to replace Chieftain is an act of faith.

11. We do have some insights. The MOD Balance of Investment Working Group (BIWG) - on which you secured a Treasury representative as part of the EFA deal - has established that, even if we do not replace Chieftain, the capability of our prospective range of anti-tank weapons in the late 1990s would produce 50% more kills against the prospective Soviet tanks and support than our present range of weapons against present Soviet tanks and support. The military contest this figure but even they see a 25% increase in kills. The analysis also showed that replacing Chieftain produces little or no increase in effectiveness over this timescale.

12. On the face of it this suggests we need not invest another £1½-2 billion (the amount at stake in the proposition before OD) in Chieftain replacement, or in further anti-tank systems. The issue is not quite that simple. First, there is inevitably uncertainty about whether our prospective systems will be delivered on time and will perform as well as anticipated (even though the analysis assumed they would not perform to the standards their proponents specify). Second, and more important, what happens beyond the year 2000?

13. Until about a year ago, MOD assumed a completely new tank, probably developed by NATO collaboration, would come into service about that time. They now think the technology of such a tank is unlikely to be in place before 2010 or even later.

14. Clearly MOD need to extend the BIWG analysis forward in time. This is the analysis MOD have not done. This means we do not know the effectiveness of our overall anti tank capability beyond 2000, the increment to this effectiveness that Chieftain replacement would produce and the way such an increment compares with putting some, or all, of our money into other anti-tank weapons.

15. All that MOD have done is to show that, if tanks are taken in isolation from other weapons, replacing Chieftain gives a 45%

improvement in the ratio of Soviet tanks killed per British tank killed. This ratio is not based on the likely mix of Soviet tanks facing us in 2005 but on the most capable Soviet tank then expected to exist. The combination of looking at tanks in isolation, and focusing on the best likely Soviet tank, puts the very best possible (and quite unrealistic) value on the benefit of replacing Chieftain.

16. We could argue against taking any decision until MOD do this work. We have made plain the need for proper analysis of incremental effectiveness. Your private secretary wrote on this point on 12 July. The Economic Secretary made the same point in his minute of 10 August (both attached)

17. This is unlikely to be practicable and before considering the way forward it makes sense to examine the replacement options.

3. Tank Options

18. There are two real contenders - Challenger 2 (option 1 in the paper) and Abrams (option 3). The Germans, Leopard 2 (option 2), has no advantages over the Abrams, is more costly and involves more risk. The paper also mentioned a range of options (numbers 4-7) which involve putting a smoothbore gun on Challenger which are rightly rejected on grounds of cost and risk.

19. In choosing between Challenger 2 and Abrams our criteria should be affordability (against the provision in MOD's long term costing), cost-effectiveness and risk.

20. Abrams is the cheaper tank to buy; £1.66 million per tank v £1.76 million for Challenger 2. We need to look also at running costs. Taking acquisition and running costs together we have (£ million, undiscounted constant 1988-89 prices) :

<u>Cost to 1999</u>		<u>Lifetime Costs</u>	
VAT inclusive	VAT exclusive	VAT inclusive	VAT exclusive

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Challenger 2	1868	1632	2398	2095
Abrams	1681	1637	2133	2116

The costs to 1999 relate to the LTC period. This is the immediate test of affordability. The lifetime costs look over the entire life of the tanks. The significance of VAT is as follows. Tanks made in the US and delivered direct to our forces in Germany do not attract VAT (but ones delivered to the UK do). Tanks made in the UK do, regardless of where delivered. In fact this may be less significant than it appears. Abrams are talking about 100% offset. If this included manufacture of part of their tank in the UK, this part would then attract VAT and close the gap on VAT inclusive costs.

21. The costs are very close and, given the problems of estimating running costs over these timescale, I do not consider they can be seen as significantly different. Discounting the figures to a net present value would not alter this assessment. Either tank is affordable within the LTC provision.

22. On cost-effectiveness, the draw on cost means any difference turns on relative effectiveness. MOD assesses that both tanks give the effectiveness the Army wants. Abrams give effectiveness over and above this level, although the paper fails to mention this. You should seek to get Mr Younger to acknowledge this at OD. It is important to us. When MOD do a proper assessment of the balance of investment, Abrams superior effectiveness should show up in a need for smaller numbers of these tanks than of Challenger 2.

23. On risk the issue is complicated. Challenger 2 does not yet exist. It needs more development work. This development carries technical and financial risks. It also risks delaying the date the tank comes into service (which is already expected to be 10 months behind Abrams). By contrast Abrams exists and is proven. Some improvement work is being done by the US Army but they carry the financial risk.

24. There are however three risks with Abrams :

- (a) contract. A draft contract already exists with Vickers for Challenger 2. There is no contract with General Dynamics, (GD), the makers of Abrams - see end of paragraph 15 of paper. Clearly there is a risk of GD driving hard contract terms once they know they are the preferred option. We had a draft contract with Boeing when the decision was made to buy AWAC;
- (b) exchange rate. The GD price is in \$ and has been converted to £ at an exchange rate of 1.76. Annex F of the paper shows the impact of varying the assumed rate. We have pressed MOD to get a £ price from GD, as we had from Boeing on the AWACS;
- (c) Intellectual property right (IPR). When Vickers bought the Leeds tank factory from Royal Ordnance, they obtained the IPR in Challenger. Improvement of Challenger 1 requires the agreement of the holder of these rights. If Abrams were bought, Vickers might close both their tank factories and so be unable to do Challenger 1 improvement work beyond that for which contracts already exist. We would then need to buy the IPR from them to enable an alternative contractor to do such work. Vickers would be in a position to drive a very hard bargain as the alternative to improving Challenger 1 would be the expensive business of replacing it.

25. DTI will see a further industrial risks. If Abrams is chosen 1600 jobs will be at risk at Vickers and 6000 jobs at their sub contractors. In addition the UK could effectively be out of the tank business. If the UK Government does not buy Vickers tanks, nobody else is likely to so. The demise of our tanks capability would rule us out of collaboration on the next NATO tank.

26. At a technical level there is no need for the UK to be in tanks. For the foreseeable future there are likely to be tank

producers in Germany, France and the US so we will not be held to ransom by a monopoly supplier. The policy to reduce defence R&D requires us to switch away from domestic development and production to purchase off-the-shelf overseas. Keeping out of the development of the next tank would fit with this need.

27. DTI may also refer to the loss of future tank export orders. A good deal of uncertainty surrounds the overseas market for the tanks. It is quite possible that resources which were released from UK tank production would move into more internationally competitive business.

28. These industrial risks may not be this bleak. GD have indicated that, if Abrams is chosen, they are ready to involve Vickers in Abrams work. They are also interested in involving Vickers in future tank development. For obvious tactical reasons Vickers have so far rejected these ideas but they might well change their tune if Abrams were chosen. If they did, the position on jobs, collaboration and exports would be eased. If Vickers maintained their refusal to become involved with GD, they, rather than the Government, would have to shoulder some of the blame on jobs, collaboration and exports.

4. Way Forward

29. Our main objective must be to avoid any commitment to a high level of expenditure on tank replacement at least until MOD have done the analytical work which demonstrates this is a cost-effective way to spend money. Mr Younger's paper is not very clear on the number of replacement tanks he wants, but the costing assumes Chieftain is replaced on a 1 for 1 basis i.e. the purchase of some 600 replacement tanks.

30. You should argue this is premature in the absence of this analysis. A decision should be restricted to a first batch of 200 (the size of the first batch in the contract with Vickers). Ministers should consider the case for further batches when MOD have analysed the most cost effective mix of investment in our range of anti tank weapons. This work should be done by the BIWG.

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This is an important point as it would mean the Treasury would be fully involved in the work.

31. This approach would commit us to 200 new tanks. As already mentioned, there is a case for opposing any replacement until the analysis has been done but I think it is impractical. In addition, our range of anti tank weapons are interdependent and, if the tank element is not robust, the other weapons will be less effective. This means that when the analysis is done, some level of replacement will almost inevitably be required.

32. On the choice between Challenger 2 and Abrams, I believe we should go for the latter. If we are to get better value for money in defence procurement, we need to break the "Buy British" mentality in MOD. At present over 90% of equipment is processed in the UK. Buying overseas is usually lower risk, cheaper and more cost-effective. A decision to procure tanks overseas would send an important general signal throughout the Procurement Executive.

33. In the particular case of tanks the choice is relatively closely balanced. I believe that the development risk with Vickers is significant. It is a mistake to consider that there is an easy option of doing more work within Vickers and pulling out at a later stage if the work does not bear fruit. A decision to go with Vickers at this stage, particularly against the background public interest, will be very hard to reverse later. It is unlikely that Vickers will demonstrably fail. They are more likely to show partial success and need more money. There is a real, slippery slope here as we have seen on so many UK defence projects.

34. Lord Young may argue that to go down this route only involves spending some £57 million on 11 months project development. If this view looks as though it will win the day, I suggest you propose a wrecking amendment - namely that this cent should not be paid by the taxpayer but by Vickers themselves as evidence of their confidence in their plans. This card should only be used in extreme circumstances.

35. There are risks with the Abrams, as set out in paragraph 24. The IPR risk would diminish if, as is possible, Vickers decided to do work on Abrams under licence from GD. GD are ready to do this but Vickers, for obvious tactical reasons, have so far refused to consider the idea. If Vickers did collaborate in this way with GD, it could also secure them a role in the future NATO tank. GD's readiness to involve Vickers should also give DTI some comfort on its industrial concerns.

36. The exchange rate risk should be settled by getting a £ price. Any decision in favour of Abrams should be conditional on a satisfactory £ price and on a satisfactory contract. This contract point must be made clear in announcing any decision so we retain some leverage in GD. Handled this way Abrams is superior on risk as well as cost-effectiveness.

5. Summary

37. This is a major, costly decision. Tanks are one element in our range of anti tanks weapons. MOD have not addressed the question of the level and balance of investment in this range of weapon to deliver maximum effectiveness. They cannot therefore show the increment in effectiveness which we gain from replacing Chieftain.

38. Some level of replacement is likely to be recovery. The most practicable approach is to agree to the purchase of a first batch of MOD replacement tanks. Before any further batches are agreed, MOD's BIWG to do the work on the level and balance of investment.

39. On the replacement option, Challenger 2 carries a development risk which could be costly. A proposal to do some more work with Vickers, but with no commitment to buy Challenger 2, is seductive but should be resisted. In practice it would be very difficult to disengage from Vickers at a later stage.

40. As a general matter we want MOD procurement to switch towards foreign, off-the-shelf equipment. A decision for Abrams would be an important signal in this respect.

41. There is nothing to choose between Challenger 2 and Abrams on cost. Both are affordable. Abrams is the more cost-effective. Both have risks but I rate Challenger 2 risks as greater if we can get a reasonable £ price and contract from GD.

42. I recommend:

1. You press to limit initial replacement to 200. BIWG to do work on the balance of investment in anti tank weapons before any further tanks are ordered.

2. You favour Abrams option subject to a satisfactory £ price and contract terms. Abrams must also agree to provide any further batches on terms no more than the first batch.

3. You agree to the improvement of Challenger 1.

43. I attach a draft speaking note.

44. This submission is based on the work of Mr Sutton and Mrs Edwards.

SAK

S A ROBSON

DRAFT SPEAKING NOTE

A. Tank Replacement

1. This is a major, and costly, decision. As such it merits full and careful analysis. I am not satisfied that this has been done.

2. The issue is simple. Does the additional effectiveness of our Army which would result from replacing Chieftain justify the cost of some £1½ billion. Unfortunately we do not know how much extra effectiveness we get.

3. We cannot look at tanks in isolation. At present, the Army has six major weapons systems, other than tanks, to kill Warsaw Pact tanks. There are a further nine systems in the pipeline. These will cost some £7 billion over and above the £1½ billion cost of replacing Chieftains.

4. We need advice on the balance of investment in these anti-tank systems which gives the Army the best capability. The paper before us does not address this issue, despite the fact that a year ago the MOD Equipment Policy Committee identified it as a key question.

5. While we do not know what extra effectiveness replacement would provide, we do know that our capability in this area is set to improve more rapidly than the Warsaw Pact threat. MOD work suggests that the weapons we will have at

the end of the next decade will kill 25-50% of the Warsaw Pact tanks of that time, than our weapons today would kill their tanks of today.

6. Can see that there are operational problems as Chieftain gets older and we are now talking about a tank lasting through the first decade of the next century. In view of this I am prepared to accept that replacement is necessary but I would be opposed to any commitment on the numbers of new tanks. I suggest the analysis I have described should be undertaken by MOD's Balance of Investment Working Group and the results brought back to this Committee. In the meantime I suggest our contract for replacement tanks is limited to a first batch of 200.

Tank Option

1. There are two options - Challenger 2 and Abrams. There are three criteria - affordability, cost effectiveness and risk.
2. Both are affordable. I see no significant difference in cost given the uncertainties of estimating over these long timescale.
3. I understand Abrams is the more effective tank. As performance exceeds the Staff Requirement. It follows that it is the most cost effective.

4. On risk, Challenger 2 has significant technical and financial risks associated with the development work. It would be a mistake to believe we could simply do more work with Vickers and withdraw later if this proved unsuccessful. History shows how hard it is to withdraw from defence projects even when they go wrong.

5. Abrams is a proven tank. It is being improved but the US is carrying the risk. We need a f price and a satisfactory contract.

6. I understand General Dynamics are prepared to offer Vickers work in relation to this order, and to discuss future collaboration. Vickers have so far rejected this for obvious tactical reasons. If Abrams is chosen, they may change their tune. If so it will ease the impact on jobs on future collaboration on tanks and on intellectual property rights. If Vickers were to continue to refuse to become involved with General Dynamics they would have to carry the blame for the impact on industry.

7. Overall Abrams is more cost effective, will be available to our troops earlier and carries lower risks.

ANTI-ARMOUR CAPABILITY: CURRENT MOD PROJECTS

<u>CURRENT</u>	Treasury Approval to Date	Possible Total Cost	ISD	Nature
Existing Project	Stage			
TOW				Helicopter borne anti-tank guided weapon
IBL 755	Production			Improved Anti-Armour Weapon for Harrier GR3, GR5 and T4, with possible use with Tornado and Jaguar
Milan				Infantry man-portable Anti-Armour guided service weapon
Bar mine	Production			anti-tank mine
French off-route mine	Production			anti-tank mine
Challenger				Main Battle Tank fleet of 490
Chieftain				Main Battle Tank fleet of 590
Law 80	Production			Disposable, man-portable, free flight, short range, anti-armour missile system.
<u>FUTURE</u>				
MIRS I	Production	£529.42m (LTC 85 prices)	1992	Multiple Launch Rocket System (MIRS) replaces M107, currently in service
MIRS II	Production	£1021.18m (LTC 87 prices)	1992	A scatterable Anti-tank Mine Warhead rocket for the MIRS
MIRS II	Component Demonstrator Stage	£853m (LTC 86 prices)	1996	Terminally Guided Sub-Munition Warhead Rocket for the MIRS
ACEAEM Mines	Development	<i>never yet known cost source.</i>	1990's	anti-tank mine

Trigat MR	Development		1996	Dev £82.6m Prod £770.2m	3rd Generation anti-tank man-portable guided Weapon System (Medium Range) replaces Milan, ATGW
Trigat IR	Development		1998	Dev £232.3m Prod £1344.3m	3rd Generation anti-tank, Vehicle-mounted, or helicopter - borne guided weapon system (Long Range) replaces TOW ATGW
AST 1238	Project Definition	£18m	1994	£1,139,5m	A line of sight airborne anti-armour weapon
LAH	Collaborative Feasibility/Definition study	£3m	1998	£750m	Light Battlefield Helicopter for the 1990's
ST(A)1241	Concept Studies	£1m		Not known until requirement settled	Modular stand-off anti-armour weapon

Note : there is no current air-borne anti-^{tank} system

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Handwritten initials

FROM T J SUTTON
DATE 23 November 1988

1. MR ANSON *23/11*
2. CHIEF SECRETARY

cc Chancellor
Sir P Middleton
Mr Robson o/r
Mr Call
Mrs Edwards

OD : A NEW TANK FOR THE ARMY

As requested at our briefing meeting yesterday, I attach revised speaking notes (annex A).

2. You also asked for a breakdown of recent large contracts showing how many had been let in the UK, collaboratively or overseas. Of 33 let since 1 January 1986, the score is UK 25, collaborative 7 and overseas 1 (the AWACS deal). Detailed list at annex B.

3. Finally you asked how the offset arrangements for the AWACS deal were guaranteed. They were a separate agreement but linked legally to the contract. MOD and Boeing signed a Letter of Agreement committing Boeing to the offset arrangements. The purchase contract was dependent on Boeing entering into the offset agreement, and breach of that agreement would be deemed breach of contract. Progress on the offset arrangements is monitored every six months. If the decision goes that way, Levene should be able to get the same terms out of General Dynamics.

Handwritten signature

T J SUTTON

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TANKS : SPEAKING NOTES

Introduction

Agree only two options: Challenger 2 and Abrams M1A1.

Relevant questions are:

i) Do we need 600 new tanks (ie 1-for-1 replacement)?

- cannot say yet; operational analysis of anti-armour mix not complete
- work done shows 50% improvement in kill rate by 2000 AD (25% according to military) without a Chieftain replacement
- this comes from other weapon systems existing & planned (MLRS, TRIGAT, Light Attack Helicopters)
- Must carry on this work in BIWG beyond 2000 AD.
- Meanwhile only need order 200 now. Decide on balance after analysis completed.
- [Since Abrams exceeds the Staff Requirement, need fewer Abrams than Challenger 2 whatever the analysis shows]

ii) Abrams or Vickers? (see below)

SUTTON
TO
CST
23 NOV

GD ABRAMS M1A1 BLOCK 2

Case for

low risk (and US bear what risk there is)
available a year earlier
cost-effective (more than meets Staff Requirement)
a proven system (in use with US Army)
the Army's preferred option (it won the 1985 & 1987 gunnery trials when we came last)

Contract requirements

100% offset

- what contracts? (assembly/development of Block 3/other GD work)
- when?
- how definite?

Price & Risk

fixed price in sterling
initial batch 200 only
agree price of subsequent batches
agree price of spares & lifetime support
get Heads of Agreement signed to cover all this

Snags

if announce preference for Abrams before Heads of Agreement,
weaken negotiating position

CHALLENGER 2

Case for

Do not know how many tanks needed, so commit only to 200

Contract conditions

fixed price

all cost overruns paid by VDS

£57 million for PD2 paid by VDS

Firm break point at end of PD2 to reassess choice between Challenger 2 & Abrams

Snags

Challenger 2 not yet developed so how can we be sure it is a "weapon that works"?

ISD over a year later than Abrams

Once committed to PD2 very difficult to drop VDS even with cost & time overruns

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TANKS: TIMESCALE

ABRAMS		CHALLENGER 2	
Jan 89	Formal Contract negotiations begin	Dec 88 - Jan 89	PD2 Contract let
		Jan 89	PD2 starts
		Dec 89	PD2 ends
Jan 90	Contract let and trials start	Jan - March 90	PD2 assessed
		Spring 1990	Full Development starts
1991	Trials end		
		Mid 1992	FD ends: User Acceptance
Dec 92	First off Production		
		May 1993	First off Production
April 93	In Service Date 74 tanks delivered		
		Oct 1994	In Service Date 74 tanks delivered

NOTES:

a). Project Definition 2 (cost £57m): has prime objective of ensuring that Challenger 2 meets Staff Requirement. Includes working up a Development Cost Plan and subject to further negotiations. Also includes building of Prototypes, hardware integration at bench level and assessment of technical, time and cost risks likely to be encountered in development and production;

b). Full Development (cost £36m): includes weapon system integration into tank and testing the gun, a seven month user trial and reliability testing.

c). Abrams trials: these determine and prove the alterations necessary to bring US tank into line with UK needs, eg., logistic support.

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**MINISTRY OF DEFENCE PROJECTS GRANTED TREASURY APPROVAL
FOR EXPENDITURE OVER £100m SINCE JANUARY 1986**

Summary

Of 33 major contracts let since 1 January 1986
 25 were let to UK prime contractors
 7 were to collaborative consortia
 1 (AWACS) was let to overseas supplier

Note:

P.C. = Prime Contractor

Project	Treasury Approval Given	Total Estimated Cost	Status
Rapier FSC	£1,395.00m	£1,395.00m	Home P.C.
Rapier FSB2	£345.80m	£605.10m	Home P.C.
Law 80	£237.88m	£392.00m	Home P.C.
Ptarmigan	£517.60m	£517.60m	Home P.C.
Ptarmigan	£847.00m	£847.00m	Home P.C.
Nimrod MR2	£835.50m	£835.50m	Home P.C.
CADWS (HVM)	£247.90m	} £646.62m	Home P.C.
CADWS (Javelin)	£107.80m		Home P.C.
Boxer 2	£145.90m	£145.90m	Home P.C.
AOR 01	£128.70m	£147.00m	Home P.C.
TDHSI 2	£102.00m	£102.00m	Home P.C.
VLSW	£390.40m	£400.50m	Home P.C.
SSK-01	£159.80m	£297.80m	Home P.C.
ADCIS	£137.02m	£137.02m	Home P.C.
SRMH (4 ships)	£118.60m	£118.60m	Home P.C.
Trident Sub	£476.90m	£476.90m	Home P.C.
FOXHUNTER Radar	£277.92m	£788.20m	Home P.C.
FOXHUNTER Radar Recovery	£155.00m	£788.20m	Home P.C.
Alarm	£308.00m	£308.00m	Home P.C.
Sea Harrier MLU	£406.60m	£406.60m	Home P.C.

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Wavell	£112.20m	£112.20m	Home P.C.
Tristar Tankers	£127.20m	£127.40m	Home P.C.
Type 23 Frigates	£334.00m	£334.00m	Home P.C.
Lt Wt Seawolf	£128.90m	£128.90m	Home P.C.
Aldermaston	£974.00m	£974.00m	Home P.C.
Harrier GR5	£1,372.00m	£1,372.00m	Collaborative P.C.
MLRS I,II,III	£547.15m	£667.12m	Collaborative P.C.
Harrier GR5 2nd Buy	£370.00m	£370.00m	Collaborative P.C.
Trigat LR	£232.30m	£1581.15m	Collaborative P.C.
Tornado	£580.00m	£580.00m	Collaborative P.C.
EFA	£1735.00m	£6500.00m	Collaborative P.C.
EH101	£415.80m	£1600.00m	Collaborative P.C.
AWACS	£860.00m	£860.00m	Abroad P.C.



10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

13/12

CH/EXCHEQUER	
REC.	13 DEC 1988
ACTION	CST
COPIES TO	

12 December 1988

Folioter for OD in Ministry

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.

POWELL
TO
HANTIN
12 DEC

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

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.

SECRET

SECRET/UK EYES A
COMMERCIAL IN CONFIDENCE

(Arrived 6.15 pm on 16/12)

cc: CST
Sir P Middleton
Mr Anson
Mr Robson
Mr Sutton
Mrs J Edwards
Mr Call

PRIME MINISTER

A NEW TANK FOR THE ARMY

16/12/88.

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 contractual conditions which George proposes at paragraphs 13(a)-(c). I am content with these.

LDY
→ PM
16/12

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.



the department for Enterprise

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

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

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."

- 1. MR ROBSON
- 2. CHIEF SECRETARY

SAB (6-12)

Ch. Since this brief has prepared, Lt Yang has sent round a note (flagged "LdY -> PM 16/12"). We shall get supplementary briefing on this on Monday.

16/12

FROM : T J SUTTON
 DATE : 16 DECEMBER 1988

c.c. Chancellor
 Sir P Middleton
 Mr Anson
 Mrs Edwards o.r.
 Mr Call

OD(88)12 : A NEW TANK FOR THE ARMY

OD meets on 19 December for a second attempt to resolve this in time for an announcement before Christmas. The Chancellor is attending as well, so this submission recaps events so far before setting out developments since the last meeting, our objectives for this meeting and examining MOD's latest paper.

1. Background

2. Mr Robson's submission of 18 November sets out the detailed background to this major procurement decision. In short :

- need for up to 600 new tanks to replace ageing Chieftains at an acquisition cost of over £1½ billion and a lifetime cost of over £2 billion (undiscounted, constant 1988-89 prices);
- choice between UK option - Challenger 2/2 from Vickers Defence Systems (VDS), or US option - Abrams M1A1 from General Dynamic (GDLS);
- Challenger 2/2 still on the drawing board with £100 million or so of development needed before we know if it is a "weapon that works";
- options very close on cost but Abrams has lower risk, greater effectiveness and earlier In Service Date (ISD).

SUTTON
 TO
 CST
 BRIEF
 16 DEC

- VDS claim they would close their Leeds factory if they lose with a loss of some 10,000 jobs if sub-contractors are included;

- tanks only one of a wide range of anti armour weapons; MOD have not properly assessed the correct balance of investment between tanks, missiles and helicopters.

3. The Treasury's position has been :

- (a) to avoid any decision now on the number of replacement tanks and to insist that proper analysis be undertaken on the optimum mix of anti tank weapon systems before any such decision;
- (b) to favour the Abrams tank on grounds of greater effectiveness (which should mean we need fewer in number) and lower risk.

4. In his last OD paper - OD(88)11 - Mr Younger made no recommendation on the choice between Challenger 2 and Abrams. At OD on 24 November - OD(88)5th - he failed to state a preference. As a result Lord Young's predictably strong preference for the UK solution swayed the meeting. The Prime Minister was concerned about the impact on the balance of trade of the loss of overseas sales of UK tanks. It was agreed that Mr Younger should approach Vickers to examine the possibility of "giving [them] an opportunity to demonstrate they were capable of overcoming the technical difficulties and of delivering an acceptable tank to time and to cost".

2. Developments since the last OD meeting

5. OD(88)12 is Mr Younger's response to this remit. The response is at two levels. At the more predictable level he puts forward a proposal to spend some £90 million over the period 1989 to 1990. The bulk of this is a package of £78 million of further development work over 18 months by Vickers and paid for by MOD. At the end of this period there would be a clear break point (the

"Major Review"). Criteria have been agreed with Vickers to measure success or failure at the Major Review, and there will be interim reviews to check progress. The price is firm. There would be a further £20 million of development work still to take place after the review.

6. This is all satisfactory. The outcome of this development work is likely to be something less than clear and total success. It is likely to be grey with extra costs and/or delay. The safeguards are, however, reasonable. Mr Younger makes clear that contract with Vickers will say that failure will lead to termination of the Challenger 2 project.

7. So far, so good. The trouble is that Mr Younger does not stop at this point. He goes on to set out three important issues, of which two are quite new to OD. All three strengthen the case for Abrams but Mr Younger does not present them in this way. They are :

- (i) ammunition - MOD have always insisted that the new tank must be able to deal with the best Soviet tanks even though they will not be the majority of the opposing forces until well into the next century, if then. To cope with the Soviet tank FST 2 (expected in service any time after 1995) the ammunition for the CHARM gun on Challenger 2/2 will need a major redevelopment (called CHARM 3). This has been estimated to cost £35 million. The paper describes this as a "high risk" project and makes clear that, even if Challenger 2 is developed satisfactorily by VDS, it would still have to be cancelled if the CHARM 3 project proved unsatisfactory; CHARM 3 was not even mentioned in the previous OD paper. The US tank will also need improved ammunition but the US programme of improvement is already well established and their new round is expected in service in 1992, which is 4 years ahead of CHARM 3. In short we have a high risk project which could be a showstopper for Challenger 2 and which we could avoid with Abrams.

- (ii) R&D ceiling - if the new tank is to last to 2010-2020 and keep up with assumed Soviet improvements, MOD have always argued it may need a bigger gun to replace CHARM. Plans are afoot for a NATO collaboration on this but decisions are many years off and there are no costings. MOD are raising now the R&D costs (over £100 million over 10 years) of adapting (called "retrofitting) Challenger 2 to take the new gun. This is quite separate from the cost of developing the gun. Mr Younger is demanding that, if Challenger 2 is chosen, his R&D ceiling be raised now to accommodate the R&D of retrofitting. This at least is what he says in paragraphs 7 and 17. But by the conclusion (paragraph 20g) he seeks to increase the R&D ceiling to meet the R&D costs of "replacing Chieftain". This could mean both the R&D of retrofitting (the £100 million plus) and the R&D of developing Challenger 2 (a further £130 million). If Abrams were chosen the US would carry the R&D of refitting and the development R&D amounts to only £49 million.
- (iii) Vickers production gap - this was at least mentioned in the previous OD paper. If Challenger 2 were selected production would begin in 1992. Vickers will run out of other production work well before then. They are insisting that MOD fill the gap by bringing forward orders for tank-based Armoured Rescue and Recovery Vehicles (ARRVs). MOD propose tamely to agree. 30 ARRVs are already being produced by Vickers under a contract let in 1985. At that time MOD saw a further need for a further 60 but did not seek Treasury agreement as no order was being placed. Vickers are now insisting on an order for 77. MOD say they have a need for this number and have the money, but even they agree the ARRVs are not needed on this timescale. We doubt the need. If Abrams were chosen this issue would not arise.

8. What is Mr Younger's game? It seems to be to get as much past the Treasury as he can. The thrust of the paper is to try and make it appear that other Ministers are forcing him to choose Challenger 2 against his better judgement. For example, in paragraph 18 he says :

"If therefore colleagues decide that VDS should undertake Challenger 2, I must ask for my R&D ceiling to be adjusted..."

A similar tone is apparent in paragraph 13.

9. This approach rings hollow given the way he sat on the fence in his previous paper and at the last OD meeting. This paper does at least say (paragraph 13) that "my Department's firm preference on military and procurement grounds.... is Abrams". Paragraph 17 virtually admits that Abrams is the better tank.

10. In short he is trying to have his cake (an easy political ride as a result of OD choosing Challenger 2) and eat it (push through the Treasury an increase in the R&D ceilings and 77 ARRVs).

3. Objectives

11. Your objectives at OD are as before :

- (i) avoid any commitment on number of tanks;
- (ii) insist that MOD's Balance of Investment Working Group (On which the Treasury is a member) examines the best mix of anti tank weapons before any decision on numbers;

In addition, in the light of OD(88)12 :

- (iii) to see if the issue of Abrams v Challenger 2 can be reopened;

failing this

- (iv) to limit the damage. This means avoiding any increase in the R&D ceiling, avoiding or minimising the ARR order and limiting the degree of commitment to Challenger 2 after the end of the development work.

12. The first two of these objectives should not be difficult. If the Challenger 2 route is favoured, there can be no question of deciding numbers until we see if the development work is a success. If by chance Abrams came back into favour, you could agree to an initial order of 200 ahead of the work under the second objective. On this objective, I understand Mr Younger is ready to concede if pressed.

13. As regards Abrams, a lot will turn on the Prime Minister's attitude. The Policy Unit are surprised and angry with the way Mr Younger is bringing new issues to the table. I suggest you test the water by expressing surprise (speaking note Annex A) :

- (a) that wholly new issues have emerged, notably the bid to increase the R&D ceiling and the dependency of Challenger 2 on the high risk CHARM 3 project;
- (b) that these matters were not mentioned in the last OD paper or at the meeting;
- (c) about the tone of Mr Younger's paper with its implications that Challenger 2 is somehow being forced on him. Contrast this with his lack of preference between the options.

14. If the Prime Minister shows any interest in this line of attack, you may have an opportunity to argue that Abrams is the best tank in terms of effectiveness and risk (speaking note Annex B). Somebody may say the price of Abrams has gone up over £200 million since the last paper. This is more apparent than real. The previous paper quoted an estimated price. This paper has a maximum firm price. MOD asked GD to quote a maximum price and, understandably, GD have assumed the worst, notably a small order

of Abrams from the US Army. As the paper makes clear (Annex D footnote 5), the estimate in the previous paper is a better measure of the eventual cost.

15. If there is no enthusiasm for Abrams, we left to limit the damage (speaking note Annex C) :

- (i) ARRVs - it is hard to accept that we have to bribe Vickers with a £150 million order in order to persuade them to carry forward Challenger 2. If Vickers have no immediate work, they should lay people off and recruit when people are needed to produce Challenger 2. There is no Treasury agreement on the need for these ARRVs and even MOD do not want them this quickly;
- (ii) commitment to Challenger 2 - Mr Younger proposes (paragraph 20d) that, if Vickers are successful at the major review and CHARM 3 is going satisfactorily, Vickers would get a contract for development and, possibly, production subject only to "the circumstances of the time". It would be much better to take a fresh look at both options after the Major Review. It is unlikely that Vickers will be unambiguously successful. We should therefore, limit our commitment now to Vickers. This would also keep the competitive pressures in play. As regards the draft statement (Annex E of OD paper), this would mean replacing the last 9 words of paragraph 6 with "At the end of the development phase ^{the Government} will re-examine its options. There is at present no presumption in favour of any option". If this amendment cannot be delivered, it will be essential to ensure that Mr Younger's words "subject to the circumstances of the time" are retained.
- (iii) R&D limit - it is highly desirable to avoid an increase. MOD got an increase with EFA. The case here is much weaker. Two points. First, the R&D costs of refitting a future gun are not unique to the Challenger 2 solution. The gun will need to be fitted to

Challenger 1, which will remain in service whether Abrams or Challenger 2 is chosen. It is therefore not legitimate to link this R&D to a decision in favour of Challenger 2. Mr Younger may say that, with the more capable Abrams, it might be decided that Challenger 1 did not need to have the new gun. "Might" is not good enough to make a unique link between this R&D and a decision in favour of Challenger 2. MOD paper to the Equipment Policy Committee envisaged fitting the gun to Challenger 1. Second, simply undertaking the proposed 18 month development work with Vickers does not mean Ministers are now deciding to buy Challenger 2; Vickers may fail to pass the major review. As there cannot now be a final decision to buy Challenger, the question of the long term R&D consequences of such a decision do not now arise. What may arise are the immediate R&D costs of developing Challenger 2 itself i.e. the £137 million shown in Annex D less the £49 million Abrams R&D i.e. £88 million. If Mr Younger raises this, you should object that he did not raise it at the last OD meeting and that the body of his paper (paragraphs 7 and 17) links an increase in the R&D ceiling only with fitting the future gun.

4. Other Points to Watch

New German Proposals

16. The paper reports a new offer from the Germans, whose Leopard tank was the third contender, rejected because its frontal armour is less effective. The offer has two parts : a price cut and a linked offer to "concede preference" to a UK option for a 155 mm Self Propelled Howitzer.

17. A cheaper tank is no use if it is inadequately protected Mr Younger rightly shows no enthusiasm for Leopard. But there could be a catch for us in the way MOD word their response to the Germans on the Howitzer. Like the tanks issue, the howitzers issue (which is likely to come to a head next year) is a choice between a UK developed solution and an off the shelf American solution. The total cost is around £500 million. MOD want the UK

option (called AS90). The Treasury position is reserved but we are inclined towards an improved version of the American howitzer. The proposed reply to the Germans (paragraph 16 of the paper) must be cleared in draft with us to ensure MOD do not use it to close off the US option. Mr Younger is ready to agree to clear the draft if asked.

Offset Arrangements

18. Though this will not matter if the decision remains in favour of VDS, the paper reports improved offset, joint production and shared foreign sales arrangements for the Abrams tank. The point to stress, as last time, is that the offsets be properly monitored as in the AWACs deal with Boeing, and that this be sorted out as part of a contract with GD.

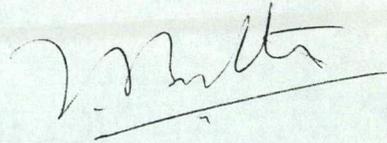
Contract Negotiations with GD

19. Even if it is decided to do the development work with Vickers, MOD want to spend \$1m on contract negotiations with GD during the next 18 months in case VDS fail the development tests. This is a sensible insurance and you should not object. If you get the announcement made more even handed on the options after the Major Review, this contract will help keep the competition tensions in play.

Exports

20. As mentioned earlier, the Prime Minister was very concerned about the loss of tank exports "at a time when the balance of trade is predicted to be highly unfavourable". There is nothing in this. Even the MOD own sales people describe Challenger 2's export prospects as "limited". OD(88)12 mentioned 400 tanks worth, with spares, £4 billion. MOD see this is the maximum possible figure.

21. As Challenger 2 will not be in production until late 1992, no sales proceeds will flow before 1993, and more likely the mid 1990s when foreign buyers will have some evidence of the tank's performance with the British Army. It is not correct to believe that the balance of trade is expected to be "highly unfavourable" in the mid 1990s.



T J SUTTON

Get on view minute



Major procurement docⁿ,
running into billions

No. of tanks req'd uncertain!
need to assess overall anti-tank
mix

GY: "my Dept's firm
preference on military
and procurement grounds...
to go Abrams" (para 13)
(see n extract)

Must support this.



Challenge 2) ^{They advised}
~~Administrative~~

a high work program -

~~to be done on paper~~

now you develop -

but the lot now can

be added work ~~and~~

over the ammunition ~~the~~

CHARGE 3 :

City's paper says (para 6)

that there "is at present

no more than a paper

proposal and we have a high

work program." (unreliable cost)

YET CHARGE 2 useless without it



Trinity, on trust =
Anson's grounds,

Gen dynamics offer
100% effort plus

parting out in expense

sales.

(Challenge 2's report potential
v. (Anson)).

Go for - that contract was
can for

- 7 page
- agreed terms for lifting
- spans & supports
- initially 200, with options



Vindex

para 4(c) outlay -
(£150 m for 77 armoured
recon vehicles, etc. not
mentioned in the timescale
& probably not at all)

no mention of Red Army
(Americans not to have
one; & whole programme)

Vindex wants for budget
scale: a 10% cut
elsewhere.

armoured stations

ANNEX
A

SECRET

ANNEX A

Speaking Note : New Issues

Surprising paper. Raises substantial new issues, notably the dependence of Challenger 2 on the high risk CHARM 3 project and the proposal to raise the R&D ceiling.

2. Also surprised by the tone of the paper which suggests George feels Challenger 2 is being forced on him against his best judgement. As I recall his previous OD paper made no recommendation on the choice between Abrams and Challenger 2. George himself made no recommendation at our last meeting. Have an uncomfortable feeling that the goalposts are being moved. May be we need to look again at Abrams.

SECRET

ANNEX B

Speaking Note ; Abrams

Abrams appears the best buy on grounds of risk and effectiveness. There seems little to choose on price. Apparently George's department's has a firm preference for it.

Abrams is

- low risk (and US bears what risk there is)
- available a year earlier
- a proven system
- more effective

To go ahead with Abrams we would need :

- an acceptable contract
- a f price
- an initial batch of no more than 200 and an option to take further batches on terms which are no worse than this first batch
- agreed terms for lifetime spares and support

Challenger

- not yet developed
- later in service
- risky in itself and critically dependent on the high risk CHARM 3 project

ANNEX
C

SECRET

ANNEX C

Speaking Note : Damage Limitation

Recovery Vehicles

Hard to see why we have to give Vickers an order worth some £150 million for 77 armoured recovery vehicles to persuade them to carry on work at the Government's expense on Challenger 2. I thought they wanted the tank order.

2. There is no agreement between the Treasury and the MOD that these recovery vehicles are needed. Even MOD acknowledge they are not needed on this timescale. If Vickers have a gap in production they should do what other companies do, lay people off. Not try and blackmail the Government.

Announcement

We need to keep all options open. We should avoid any presumption that Vickers are now our preferred solution.

2. Recognise George has sought clear and precise criteria by which to judge Vickers work in the development phase. But in the nature of such work, it is most unlikely to result in a clear pass or fail. The outcome will almost certainly be in a grey area. We must be in a position to withdraw from Vickers in such circumstances if we see fit.

3. I would like to ~~suggest~~ replacing the last 9 words of paragraph 6 of the draft announcement with "At the end of the development phase, the Government will re-examine its options. There is at present no presumption in favour of any option". As well as giving us more room for manoeuvre, this will also help keep the competitive tensions in play between Vickers and General Dynamics.

R&D

Very surprised by George's proposal. There was no hint of it in his previous paper, or at our previous meeting.

2. The R&D mentioned in paragraphs 7 and 17 is that required to fit a future gun to Challenger 2. This gun does not exist. All that exists is a letter of intent signed in 1988 by the UK, France, Germany and the US, to start work on the parameters of such a gun. It is odd, therefore to be talking about R&D of fitting this gun to the tank.

3. It would only be legitimate to raise this R&D if we had decided to buy Challenger and if the R&D only arose with the Challenger 2 option. Neither condition is met. We have not agreed to buy Challenger 2. We have agreed to do some development work. If this is not a success we will not buy Challenger 2.

4. The R&D to fit the future gun applies to Challenger 1 as much as Challenger 2, as was made clear in a paper taken in October by George's Equipment Policy Committee. So, contrary to paragraphs 7 and 17 of George's paper this R&D is not a cost which only arises if Challenger 2 were bought. Challenger 1 would continue in service if Abrams were chosen.

5. In short this issue is not relevant to the matters before us today. The R&D ceilings should stand unaltered.

Germans

Important that the letter is cleared in draft with the Treasury and does not limit our options in the choice of a new howitzer.

If pressed on R&D of developing Challenger 2 - this was not raised in George's previous paper, or at our last meeting when George simply said the choice of Abrams would allow him to live "more easily" within the ceilings. What has changed? We are talking about some £90 million of R&D spread over 3-4 years against a ceiling of £2-2½ billion a year. These R&D costs have long been known by MOD and they should absorb them.

SECRET

[Supplementary note,
as promised]

FROM T J SUTTON

DATE 19 December 1988

- SAR 19.12
1. MR ROBSON
 2. CHIEF SECRETARY

cc Chancellor
Sir P Middleton
Mr Anson
Mrs Edwards
Mr Call

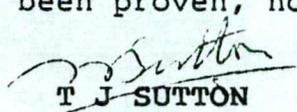
OD(88)12 : A NEW TANK FOR THE ARMY

Lord Young's minute of 16 December proposes changes in the announcement tomorrow. You should resist these firmly, in line with the recommendations on damage limitation in your brief (para 15 (ii) and Speaking Note C in my submission of 16 December).

2. Lord Young wants to describe the development contract as "the first stage of procurement" and to drop the idea of reassuring words to the Germans and parallel negotiations with the Americans. We have recommended you press for a more open-ended formula at the end of para 5 of Mr Younger's draft announcement.

3. Even if you do not get the amendment we have proposed, it is essential to get the DTI redraft rejected. If Lord Young's minute becomes the focus for discussion, key points are:

- cannot confirm our choice until we know Challenger will work; that way lies another NIMROD, especially given the risks George now highlights; *This remains a risky project;*
- even if Challenger does pass, need to keep competitive pressures on VDS to get the best price for production;
- export prospects rest on the development phase succeeding, not on premature commitments by Ministers;
- not "indecisive or timorous" to make clear we have learnt from experience, and will take the final decision when reliability and performance have been proven, not before.


T J SUTTON

SECRET