



House of Commons  
Defence Committee

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**Defence Equipment  
2010: Government  
response to the  
Committee's Sixth  
Report of Session  
2009–10**

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**Fourth Special Report of Session  
2009–10**

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## The Defence Committee

The Defence Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Ministry of Defence and its associated public bodies.

### Current membership

Rt Hon James Arbuthnot MP (*Conservative, North East Hampshire*) (*Chairman*)  
Mr David S Borrow MP (*Labour, South Ribble*)  
Mr David Crausby MP (*Labour, Bolton North East*)  
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Richard Younger-Ross MP (*Liberal Democrat, Teignbridge*)

The following Members were also Members of the Committee during the Parliament.

Mr Colin Breed MP (*Liberal Democrat, South East Cornwall*)  
Derek Conway MP (*Conservative, Old Bexley and Sidcup*)  
Mr Kevan Jones MP (*Labour, Durham North*)  
Mr Mark Lancaster MP (*Conservative, North East Milton Keynes*)  
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Mr Desmond Swayne MP (*Conservative, New Forest West*)

### Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the Internet via [www.parliament.uk](http://www.parliament.uk).

### Publications

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at: [www.parliament.uk/defcom](http://www.parliament.uk/defcom).

### Committee staff

The current staff of the Committee are Mike Hennessy (Clerk), Georgina Holmes-Skelton (Second Clerk), Karen Jackson (Audit Adviser), Judy Goodall (Inquiry Manager), Richard Dawson (Senior Committee Assistant), Christine McGrane (Committee Assistant) and Miguel Boo Fraga (Committee Support Assistant).

### Contacts

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## Fourth Special Report

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The Defence Committee published its Sixth Report of Session 2009–10 on *Defence Equipment 2010* on 4 March 2010, as House of Commons Paper HC 99. The Government's response to this Report was received on 24 March 2010. This is appended.

## Government response

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This is the Government's response to the House of Commons Defence Committee's report on Defence Equipment 2010 (Sixth Report of Session 2009–10 (HC 99)), published on 4 March 2010. The Committee's conclusions and recommendations are set out in bold.

### Overall performance

**1. (Recommendation 1) The ability of DE&S to deliver the equipment programme is overshadowed by the existence of a funding gap which the NAO estimates could be as much as £36 billion over the next ten years. The management of this funding gap, in particular the practice of delaying projects already underway, is a major factor in the slippage of time and costs, and makes it difficult objectively to assess the performance of DE&S. It has been suspected for some time that this situation existed. We welcome the public acknowledgement of the issue and the provision of data about the extent of the problem. We accept the NAO's analysis and wish to record our disappointment that it has taken the MoD so long to admit to the problem. The evidence we have received indicates that the MoD's responses to our questions about the funding gap in our Defence Equipment 2009 inquiry were at best confused and unhelpful and at worst deliberately obstructive. (Paragraph 10)**

The MoD does not accept that its responses to the Committee's questions during the 2009 Defence Equipment inquiry were confused, unhelpful or obstructive. At the beginning of that inquiry the Equipment Examination was ongoing and it would have been inappropriate to speculate on its progress or outcome. At the conclusion of the Equipment Examination on 11 December 2008, the then Secretary of State announced a series of measures which helped bring the MoD's equipment programme more closely into balance and also stated that further work would be taken forward into the Planning Round. The Minister for Defence Equipment and Support then discussed the Equipment Examination at length at his evidence session with the Committee on 16 December 2008.

While we did not at the time provide details of the financial implications, this was consistent with our policy not to comment on internal planning assumptions unless it was appropriate to do so. Some costs were also subject to commercial negotiation with industry.

The Department's estimate at the end of the 2009 Planning Round of a £6 billion shortfall over 10 years assumed that the budget would remain constant in real terms i.e. would include an annual increase for inflation. The £36 billion figure in the NAO report assumed that it remained constant in cash terms. Defence spending from 2011/12 onwards has yet to be settled, and any estimate of the shortfall between budget and the estimated cost of the programme is therefore somewhat speculative. This will be an issue to be addressed in the forthcoming Defence Review.

### Progress on key programmes

**2. (Recommendation 2) There has clearly been a change of direction with the armoured vehicle strategy, although it is not evident whether this is just a change of priorities and**

**programme name, or whether there has also been a more fundamental shift in strategy. It is also unclear whether the change in direction is purely a result of the funding gap, or whether it is because of a considered analysis that the original concept is no longer appropriate. We have tried on many occasions in the past to elicit details about FRES from the MoD without ever receiving clear answers. We conclude, with regret, that the MoD has none to give. The MoD must provide us with a written statement of its armoured vehicles strategy, together with a schedule of the key events and decisions to be taken in the next year and an indication of the required delivery dates of each part of the programme. (Paragraph 20)**

The FRES concept was to deliver a medium-weight armoured vehicle fleet with higher levels of deployability and protection than the current in-service fleet, and with potential to accommodate future advances in technology. We also incorporated lessons from operations in Iraq and Afghanistan that underlined the requirement for vehicles that are both manoeuvrable and well protected. Under the original FRES construct, our aim was to have integration and coherence across the entire FRES fleet. This was a response to the present situation where we have a very large range of vehicles, lacking commonality and so each requiring a separate set of spares, separate maintenance regimes and separate training for users and maintainers. The Department now accepts that this was too ambitious an approach.

We are now pursuing a recast armoured vehicles programme in which, instead of a single programme with a complex procurement strategy, we have a coherent set of constituent projects, namely: the Specialist Vehicles; the Utility Vehicles; and the Manoeuvre Support Vehicles. These projects will still deliver medium-weight armoured vehicles with higher levels of deployability and protection than the current in-service fleet, and will have the potential to accommodate new advances in technology. They will also provide the high degree of integration and interoperability essential on the modern battlefield, with commonality within each vehicle family. The cost of this strategy will be less commonality between the different vehicle families, but it will still be a vast improvement on the current situation. DE&S will ensure a whole systems approach across all Land systems through its Systems Engineering and Architecture Design function.

The Specialist Vehicle programme will incrementally deliver a medium-weight armoured fleet to the UK Armed Forces in blocks of vehicles. There are two families of Specialist Vehicles; Reconnaissance and Medium Armour. The first increment to be delivered will be Reconnaissance Block 1, this includes the Scout vehicle, the replacement for Combat Vehicle Reconnaissance (Tracked) Scimitar and the cornerstone of the Reconnaissance family.

The procurement strategies for the individual vehicle projects will be more straightforward than the original FRES procurement strategy, as they will focus on existing armoured fighting vehicles that are considered the best in their class. This approach will deliver the highly capable armoured fighting vehicle fleet that the Army needs. The new approach has already had significant success in the Specialist Vehicle project and we expect to select a Specialist Vehicle Provider in the near future and sign a contract for Scout and its initial support vehicles, and for a Common Base Platform on which the other Specialist Vehicle variants will be based.

The key event during the next year will be the Main Gate 1 approval for the Specialist Vehicle project to enter into a Demonstration Phase with a down-selected prime contractor. When considering the Committee's request for an indication of the required delivery dates of each part of the programme, the Committee will be aware of the MoD's policy of not releasing this information until the main investment decisions are taken.

**3. (Recommendation 3) With regard to the FRES programme, we received no evidence of any systematic attempt by the MoD to understand the reasons for past mistakes or to consider how they could be avoided in the future. We call upon the MoD to ensure that the lessons of the FRES programme are fully identified, understood and set out in response to this Report, and ask the MoD to provide an explanation as to how it will take heed of these lessons. (Paragraph 21)**

The main lessons to be learned are about risk to delivery where a project is over-specified (in this case because a perfectly integrated solution was sought when a less ambitious approach would have been more effective) and when over-elaborate procurement approaches are adopted. These are not new issues, but the learning from the FRES project will be reflected in future procurement practice and in implementing the recently published Strategy for Acquisition Reform.

As regards the armoured capabilities programme itself, we have focussed clearly on the delivery of capable vehicles as the priority, rather than pursuing perfect fleet integration. The new approach will deliver blocks of capability to our armed forces as soon as possible.

In addition, the Acquisition Strategy has been simplified from a complex alliance structure with multiple competitions. The Specialist Vehicle competition is looking to appoint one prime contractor to act as a single point of accountability for the complete capability. This approach has enabled industry to form their own team to develop and deliver the solution.

**4. (Recommendation 4) The delivery schedule of the A400M has been delayed by at least three years because of technical problems and ensuing contract renegotiations. The MoD told us that planning is in place to address the capability gap. While the announcement of an additional C17 is welcome, and will ease the airbridge fragility, it does not answer the question of how the capability gap arising from the delay of 25 A400Ms to replace the remaining C130Ks, which were procured in the 1960s and are already incrementally being withdrawn from service, will be addressed. The MoD should give us sight of its contingency plans, as soon as the way ahead for the A400M programme is decided. (Paragraph 26)**

The MoD keeps its current and future airlift requirements under constant review. The main effort is to ensure that the Armed Forces have the best equipment to sustain current operations. We have studied the impact of the delay to the A400M programme. We have concluded that, after completion of the second runway at Bastion in 2010, by investing in a package of enhancement measures to maximise the use of the existing fleet of 24 Hercules C-130J, (such as enhanced contractor support and an additional hangar at RAF Brize Norton), we can sustain anticipated intra-theatre airlift tasking on current operations until A400M enters service. We fully recognise that beyond the support to current operations, we will be constrained in the ability to undertake tactical airlift taskings until A400M enters service. Although the small fleet size means that using the full tactical capabilities of the C-

17 would lead to significant growth in support costs, it can be employed intra-theatre on paved runways. As well as boosting the UK's strategic airlift capability, procurement of the seventh C-17 aircraft will therefore also contribute to reducing the risk to the delivery of tactical airlift operations when it enters service in March 2011.

**5. (Recommendation 5) It is encouraging that the first A400M flights have taken place, although it remains to be seen whether the project can be put back on course. Negotiations are difficult because of the need to accommodate the demands and different governance arrangements of all seven partner nations. The A400M submission for Main Gate approval did not appear to incorporate the lessons of earlier multi-national projects and we ask the MoD to explain why not. The MoD should provide to us by the end of September 2010 a written evaluation of the lessons learned from the A400M experience which will establish the most effective basis for future collaborative projects. (Paragraph 27)**

Although the A400M Main Gate submission did not explicitly incorporate the lessons of earlier collaborative programmes, it did recognise a number of collaborative risks and included risk mitigation for key collaborative challenges. It identified in generic terms that all risks were further compounded by the large number of nations involved in the programme and the contracting route through OCCAR. It also recognised what it referred to as “collaborative drag” which indicated that decision-making in a collaborative environment may be slower than a national programme and included an adjustment to the target In Service Date to allow for this. The programme was also launched as a single phase (i.e. development and production under one contract), avoiding the risk of national approval delays at critical programme phases that had caused delays on previous collaborative programmes.

Risks associated with workshare were also considered. The A400M proposal was based on a Global Balance approach, which aimed to allocate workshare on the basis of capability, expertise and value for money. Global Balance is not a rigid workshare arrangement of the type employed on other programmes such as Tornado or Typhoon.

It should be noted that the problems that have hit A400M in recent months fall into two main categories, primarily the company's lack of awareness of technical risk and their lack of adequate programme governance and financial control. Neither of these has been materially exacerbated by the programme's collaborative arrangements. In fact nations have collectively sought to influence Airbus Military to raise their game. Partner nations have worked well together in negotiations, admittedly with occasional differences but ultimately converged on a solution which was acceptable to all.

We will provide an evaluation of the lessons identified from the collaboration, including the renegotiation, by the end of September 2010.

**6. (Recommendation 6) The delay to the Future Carrier schedule has achieved short term savings but bigger long term cost increases. The £674 million cost of delay, which itself omits substantial elements of the true amount, represents over ten per cent of the current estimated total cost of £5.2 billion for the carriers. Such cost increases in order to reschedule the equipment programme are unsustainable in the context of a**



**tightening budget situation and illustrate precisely the reasons why the equipment programme has become out of balance with the budget. (Paragraph 34)**

The decision to delay the project was taken to help address issues of affordability in the programme and to prioritise investment for equipment which was essential to support current operations. The Government accepted that this decision would increase the overall cost of the project and add to cost pressures in later years but is committed, with the Aircraft Carrier Alliance, to seeking and taking opportunities to drive out cost from the programme as it proceeds.

**7. (Recommendation 7) The original announcement indicated that the carrier schedule had been delayed in order to bring it into line with the schedule for the Joint Strike Fighters. The Minister for Defence Equipment and Support has now confirmed that the decision was also driven by a need to make short term savings in the equipment programme. We also note that there still appear to be outstanding issues concerning technology transfer for the JSF, which are of key importance to the success of the programme. The MoD should provide us with details of its carrier transition programme when it is complete, highlighting any areas where there is a risk of a capability gap. (Paragraph 35)**

The objective of the Equipment Examination was to reprioritise investment to ensure that we delivered those capabilities of the highest immediate urgency, while continuing to invest in capabilities needed to respond to future threats. That was what it achieved. In the case of the decision to delay the Carrier programme, the delay also smoothed the industrial workload, as well as bringing the programme more closely into line with the planned timescales for the Joint Combat Aircraft/ Joint Strike Fighter.

On the issue of technology transfer for the Joint Strike Fighter (JSF), the UK has all the information it requires at this stage of the programme. The Department continues to work closely with the US to secure the commitments required on operational sovereignty - that is to say the ability to operate, repair and maintain UK assets at a time of its choosing and through life. Progress is being made in this area by the UK's inclusion in the JSF Operational Test and Evaluation development planning, continued presence and increased access of UK expert personnel within the JSF programme in the USA, and proposals to increase the level of access to JSF information for UK industry. The Department is fully aware of the interdependence of Joint Combat Aircraft to the new carriers and other equipment capability. We are of course content to share transition information with the Committee and envisage that the time to do this would be following our main investment decision on JSF.

**8. (Recommendation 8) Although the MARS programme is in danger of overtaking FRES as the longest running programme failing to deliver any equipment, we consider that the MoD is right to take advantage of the current availability on the market of double hulled tankers. The new procurement competition is seeking a less highly specified tanker. We look to the MoD for an assurance that it has assessed any possible loss of capability arising from this reduced specification and has made any necessary alternative provision. The MoD should provide us with a clear programme for the MARS fleet tankers against which we can monitor progress. (Paragraph 38)**



The original competition for the fleet tanker element of the Military Afloat Reach and Sustainability (MARS) programme was launched in 2007 but was cancelled in 2009. The procurement strategy was reviewed and it was concluded that a more open approach which considered a broader range of possible solutions was likely to provide the best value for money. Pre-Qualification Questionnaires have been received and are being evaluated. The process is nearly complete and once it has been finalised invitations to submit outline proposals will be issued. The aim is to award the contract to the successful bidder in 2012.

Until the successful bidder has been identified and the contract placed it is not possible to provide a clear programme for delivery with any degree of confidence without prejudicing the competition. The MoD will ensure the successful bidder's proposal provides the essential capability required to support the Royal Navy and is delivered in an appropriate timeframe, and that any capability trade-offs are appropriately assessed and managed.

**9. (Recommendation 9) We expect the MoD in its response to this Report to tell us exactly when HMS Daring will have full PAAMS capability, following all appropriate tests and trials, and to set out the extent to which the lack of this full capability is a liability in terms of the defensive capability of the vessel. (Paragraph 42)**

The MoD is not yet able to confirm when HMS DARING will have full Principal Anti Aircraft Missile System (PAAMS) capability. Technical investigations into issues observed during PAAMS test firings from the Longbow barge last year are progressing well, but they have not yet reached a conclusion. The PAAMS weapon system is complex and conducting a necessarily comprehensive investigation and developing a robust solution is therefore taking time. Depending on the outcome of the investigation, time will also need to be factored in for any re-work required to elements of the weapon system that have already been delivered. The Department continues to plan, however, on the basis that the issues can be resolved and the subsequent PAAMS test firings completed in time to enable the first firing from a Type 45 Destroyer to go ahead, as previously planned in late 2010, from HMS DAUNTLESS.

Lack of an operational PAAMS capability would prevent HMS DARING from being tasked in its primary area air defence role. HMS DARING will retain a self defence capability and, should the threat environment allow, could be tasked to support a number of other operational requirements including Command and Control, support to an embarked military force and Maritime ISTAR (Intelligence, Surveillance, Target Acquisition and Reconnaissance).

**10. (Recommendation 10) We are not convinced by the MoD's explanation that the reduction in the required number of Type 45s from twelve to eight and then eight to six was due to a better understanding of the capabilities of the ship. Any one ship can only be in one place at a time. Whilst new technology may well have provided some better than expected capabilities, the spiralling costs of the ship and the pressure on the equipment programme budget suggest that the reduction in numbers was in fact primarily down to affordability. The misleading explanations provided by the MoD in this case are another example of the unhelpful nature of MoD responses to our questions. We expect that our successor Committee will in the next Parliament continue to monitor the Type 45 programme until the associated air defence missile system is successfully delivered. (Paragraph 43)**

The Type 45 is an Air Defence Destroyer providing protection from air attack for a task group in addition to other roles. The Type 45, with its Principal Anti Aircraft Missile System, Sea Viper, and the Samson Radar is arguably the most effective Anti Air Warfare platform in the world. The large flight deck allows the ship to carry a Lynx, Merlin or Chinook helicopter which means that the ships can also be used in a number of other roles such as anti-ship or anti-submarine operations.

The original planning assumption for Type 45 was for twelve ships but in 2004 the “Future Capabilities” White Paper stated that the assessment of the nature of the threats facing the UK had changed and that eight Type 45s were sufficient to meet the UK’s strategic objectives.

Since then knowledge of the capabilities of the Class has improved as the design and build of the ships have progressed and the programme to fit the Co-operative Engagement Capability system took shape. The Department therefore revisited the requirement for eight ships and concluded that six vessels were sufficient to meet the most likely operational scenarios. As was made clear at the time, this decision was a difficult one, but it allowed resources to be invested in higher priorities while still delivering leading edge capability to the Royal Navy.

**11. (Recommendation 11) The MoD did not send us a copy of its Future Rotary Wing Strategy Statement until after the start of our oral evidence session with the Minister for Defence Equipment and Support, despite having previously briefed the press and circulated the announcement in public. It is unacceptable for a Departmental Select Committee to be the last to receive a Department's announcement. (Paragraph 49)**

It is our practice to email Written Ministerial Statements to the Committee at the same time as they are sent to Parliament for release. This practice was followed in this case, but the Department greatly regrets that the Written Ministerial Statement was not sent until after the Committee’s evidence session on 15 December 2009 had started.

**12. (Recommendation 12) The Merlin upgrade is a complex programme involving changes of use and transfer of aircraft between Services. The success of the programme is dependent on the satisfactory completion and coordination of all of the Defence Lines of Development, not just the technical upgrade of the aircraft. The failure of any part of the programme impacts the capability delivery, as has been shown in the case of shortages of spare parts for Merlins currently in theatre. (Paragraph 50)**

We agree that the success of the life-extension and ship-optimisation of the Merlin Mk3/3a aircraft is dependent on the satisfactory completion and coordination of all the Defence Lines of Development (DLOD). This requirement to coordinate and ensure coherence in DLOD delivery is a key tenet of the Department’s “Capability Delivery” agenda. We have therefore established a Merlin Project Board, with empowered representatives from each DLOD, to ensure the change and transfer of use of the Merlin aircraft is delivered successfully.

The number of Merlin Mk3 operational days lost awaiting delivery of spares has reduced year-on-year since the Integrated Merlin Operational Support Contract started. Work is ongoing to maintain this positive trend, to reduce the level of scheduled and unscheduled maintenance and further improve the serviceability of this platform. Over the last 3

months in theatre Merlin Mk3 aircraft have met their operational targets and exceeded their allocated flying hours.

**13. (Recommendation 13) We remain unconvinced of the financial or operational merits of the Puma Life Extension Programme. We believe that the MoD has underestimated the technical and operational challenges of the Puma programme, and that there is insufficient evidence to support the MoD's assurances of the crashworthiness and the likely delivery dates of the updated aircraft. We ask the MoD to provide further evidence to demonstrate that a full risk assessment has been carried out on the survivability characteristic of the Life Extended Pumas. (Paragraph 51)**

We do not agree that we have underestimated the technical and operational challenges of the Puma Life Extension Project. It has been constructed to minimise the technical risks including measures such as all major new systems already being successfully implemented by Eurocopter on Puma aircraft for other customers. Furthermore, in line with our schedule, we have recently conducted a Critical Design Review on the air vehicle and avionics systems that has successfully demonstrated a high level of design maturity thus enabling the start of the manufacturing phase.

The first aircraft is now with Eurocopter and has been stripped down ready for conversion. The level of emergent work to the aircraft structure during this process has been substantially less than anticipated and is testament to the very high standard to which these aircraft have been maintained by the RAF. The project remains on track to commence ground test on the Trial Installation aircraft later this year; to deliver 14 aircraft by the end of 2012 and all aircraft by June 2014.

The Puma HC Mk2 Safety Strategy was independently assured as part of the project approval and remains under regular review. A key component of this strategy is a safety analysis to assess the risk of technical failures resulting in accidents. This will provide evidence of the level of compliance of Puma HC Mk 2 to the UK aircraft safety target and confirm that all identified risks have been reduced to a level which is As Low As Reasonably Practicable (ALARP) and tolerable.

The Puma project is a key component of the Rotary Wing strategy delivering vital lift capability in time to sustain the necessary helicopter support to operations as the other elements of the strategy are delivered (in particular the modification of the Merlin Mk3/3a fleet, draw down of Sea King and the delivery of new Chinook). As the Committee has previously been informed, the Minister for Defence Equipment and Support requested a review of the MoD's planning assumptions last summer to assess whether there was a way to deliver the required capability without recourse to the Puma LEP. It was concluded that not proceeding with the LEP would involve an unacceptable risk to operational commitments.

In endorsing the Puma project, we concluded that within the available funding and required timescales it represented the lowest risk to sustaining the necessary helicopter support on operations. Furthermore, its new engines and avionics systems will mean that it will be suitable for the operating conditions currently experienced in Afghanistan.

**14. (Recommendation 14) The cancellation of the Future Medium Helicopter programme will release a significant number of MoD staff and we ask the MoD to**

**provide details of its plans for re-deploying this workforce. In the context of the cancellation of the Future Medium Helicopter and the MoD's decision to purchase Chinooks from the USA, we ask the MoD to explain what steps it plans to take to maintain a UK capability to support and upgrade helicopters, in accordance with the Defence Industrial Strategy. (Paragraph 52)**

The small number of staff that were working on the assessment phase activity for the Future Medium Helicopter project have principally been redeployed to work on the Puma Life Extension Project and the new-buy Chinook project.

The Defence Industrial Strategy (DIS) clearly stated that we would look to the global market place to satisfy our future helicopter requirements and there was therefore never any guarantee of UK work content based on the Future Medium Helicopter.

Our analysis, conducted jointly with AgustaWestland under the Strategic Partnering Arrangement, has demonstrated that the volume of work on Lynx Wildcat and long-term support contracts will sustain key skills at Yeovil in the near-term. Work on Urgent Operational Requirements and the planned upgrades and modification of our Merlin helicopters under the Rotary Wing Strategy will also help sustain both engineering and manufacturing skills at AgustaWestland. In the longer term we continue to work closely with the company to bring about business transformation to reduce their reliance on orders for new MoD helicopters to sustain the design engineering skill base. In this regard we are delighted that AgustaWestland have successfully secured export orders and are exploring other means to sustain skills.

Turning specifically to the UK Chinook fleet, the depth maintenance of this fleet is performed by Vector Aerospace based in Gosport under the successful Chinook Through Life Contractor Support (TLCS) Prime Contract with Boeing. Boeing has also established an on-shore engineering capability to enable them to design modifications to UK Chinook aircraft and capability modifications have also been performed on-shore both by AgustaWestland and Vector Aerospace.

While industrial factors were considered in taking the decision to buy new Chinook, it was made principally for cost, capability and operational reasons given the aircraft's outstanding all-round performance. For the reasons set out above we are confident that this decision does not undermine the UK skills base required to support and upgrade our UK designed aircraft.

**15. (Recommendation 15) During our Helicopter Capability inquiry we expressed concern that commanders in the field were hampered by a lack of helicopters but the MoD would not accept that its helicopter fleet size was too small. Whilst we now welcome the greater clarity provided on the future helicopter fleet strategy and the recent decision to procure an additional 22 Chinooks, we note that this additional operational capability will be funded from the MoD's core budget and so has necessitated cuts from other parts of the equipment programme. Adding numbers to the fleet is only one aspect of delivering additional capability which also requires adequate manpower, training and support. We understand that having more Chinooks in theatre will require more support helicopters in the fleet and we have not yet seen how these will be provided. It will also stretch an already tight system where there are**

**insufficient pilots and ground crew and a budget for helicopter hours, and we seek assurance from the MoD that all of the Defence Lines of Development for the Chinooks have been properly planned. We believe that the estimated delivery date of 2012 is optimistic and ask the MoD to provide details of the planned transition arrangements. (Paragraph 53)**

We agree with the Committee's comments that adding numbers to the fleet is only one aspect of delivering additional capability, which also requires adequate manpower, training and support. To this end, the Rotary Wing Strategy not only increases the Chinook airframe numbers by 22 but also includes the provision for 36 additional Chinook aircrews and will make sufficient enhancements to the support package to deliver over 8000 additional flying hours per annum. However, the number of crews across Defence will not increase as there will be comparable reductions in the Sea King force in a similar timeframe; the size of the Merlin Mk3/3a force (albeit transitioning to the Royal Navy) is not forecast to change.

The additional 22 Chinook are funded from the core MoD budget. Among other things, funding is provided via the early retirement of the Sea King fleet and the cancellation of the Future Medium Helicopter project. This approach has enabled us to deliver significantly greater capability from the same capital investment, while also delivering significant through life cost reductions.

The purchase of the 22 Chinook is a Departmental priority and we firmly agree with the Committee's view that the military effect cannot be delivered by just the equipment, the other DLODs are critical too. The establishment of a Rotary Wing Programme Board, as part of the "Capability Delivery" agenda demonstrates the importance we place on Through Life Capability Management across DLODs. We are developing the pan-DLOD plans for the acquisition of the new Chinook and the cost and time for delivery will be agreed later this year as part of our normal approval process.

## **The funding gap**

**16. (Recommendation 16) The evidence suggests that at the time that MoD witnesses gave evidence to our Defence Equipment 2009 inquiry, the MoD was in the process of taking steps to manage a funding gap of £21 billion. Witness denials at that time of the existence of such a gap now appear disingenuous. The Minister for Defence Equipment and Support told us he could not provide any information about how the gap was reduced to £6 billion, nor the proportion of expenditure which was merely postponed beyond the planning period. When we pressed in writing for further details, the MoD provided little extra information. We reject the MoD's arguments for refusing to disclose the measures it took in order to reduce the funding gap to £6 billion. We cannot fulfil our scrutiny role if the MoD refuses to provide such information about its activities. We note that the Gray report made recommendations about public scrutiny of the equipment programme and we return to this issue in paragraph 87. (Paragraph 58)**

In providing further information on how the defence budget shortfall was reduced in the 2009 Planning Round, the Department provided a significantly greater level of detail than had hitherto been made public, recognising the importance of the Committee's scrutiny



role. However, it also needs to take into account that the disclosure of internal planning assumptions can preclude the full and frank discussion of planning options and the provision of advice that is essential for Ministers to make fully informed decisions, as well as affecting our commercial negotiations with industry. Following the forthcoming Strategic Defence Review and to help further improve transparency, as also highlighted by the Bernard Gray report, we expect to publish an assessment to Parliament each year of the affordability of our equipment plans against 10-year funding assumptions agreed with the Treasury, with the NAO auditing the methodology used.

### Cost of delays

**17. (Recommendation 17) According to the NAO, in recent planning rounds the MoD's strategy for managing its unaffordable equipment plan has been to re-profile expenditure by delaying projects so as to reduce costs in the early years of the plan. However this practice increases overall procurement costs and represents poor value for money. It is clear from NAO data that the 2008–09 re-profiling exercise added £733million to the future costs of the core equipment programme. (Paragraph 64)**

While the NAO reported that decisions to delay certain projects had added £733 million to future costs of the equipment programme, they also reported that the Equipment Examination and other 2009 Planning Round measures reduced the defence budget's overall forecast overspend by £15 billion. The Department accepts that decisions to delay projects can add to through life costs, but in this case the measures taken were seen as the best available to improve the affordability of the programme and enable more resources to be directed at higher or more immediate priorities, in particular those relevant to support for current operations. The Department is determined to bring the equipment programme into better balance, and sees the forthcoming Strategic Defence Review as an opportunity to do so.

**18. (Recommendation 18) The Gray report estimates that the 'frictional costs' of delays within the equipment programme are in the range £900m to £2.2 billion a year. Although some of the DE&S witnesses did not accept these estimates, they were unable to provide alternative figures. The MoD is spending hundreds of millions of pounds a year on unproductive activities because it has commissioned more work than it can afford to pay for. It is shocking that the MoD has apparently made no attempt to calculate the extent of such costs and that it has therefore taken decisions to delay projects without understanding the full financial implications. The MoD must develop a system for calculating the full extent of the cost of delays and that such costs are explicitly documented in all future revisions of the equipment plan. The MoD should confirm that the full extent of the cost of delays will be explicitly documented in its annual reports to Parliament of the cost and affordability of the equipment and support programmes against the ten year planning horizon agreed with HM Treasury. (Paragraph 65)**

The Department accepts the over-arching conclusion of the Gray report that delay can add to costs and that delaying major projects for reasons of short-term affordability should be avoided as far as possible. The Strategy for Acquisition Reform is founded on the recognition that the Defence equipment programme needs to be brought into better balance.

We will, however, continue to face tough choices in managing the programme. Delay may sometimes be a sensible option, if for example we need to focus more of our resources on higher or more immediate priorities, such as support to current operations. Decisions of this kind have always been made taking full account of the direct financial consequences. The Gray report, however, sought to go beyond these direct costs by postulating and seeking to quantify a wider range of indirect and, necessarily, more subjective financial consequences of delay. In doing so, however, it recognised (page 38) that:

....there are a variety of different judgements which might legitimately be made in forming a view about [frictional] costs'; and: '...this is not a precise science. Further work might refine these numbers, but even with perfect management information, it would not be possible to ascribe a single value to these costs.

Acknowledging these limitations, however, as part of our efforts to improve the fidelity of costing information, we will be seeking to enhance further our understanding of the indirect costs of any future changes to project timescales.

## Defence research spending

**19. (Recommendation 19) The research budget appears to be another casualty of the MoD's short term efforts to manage its equipment programme funding gap. We were told that cuts had been made to balance the budget and that such difficult sacrifices were necessary in order to continue to deliver the highest priority defence capabilities. We believe that spending less on research and technology will make the UK Defence Industrial Base progressively less competitive and will make the Defence Industrial Strategy inoperable. To compromise the future development of defence technology, in order to make proportionately small short term contributions to the management of the equipment programme funding gap, is ill-judged. The research programme cannot be turned on and off at short notice and the benefits can only be realised with a consistent and long term commitment of resources. We are sceptical about the implication that the MoD can balance cuts in its own research budget by making greater use of civil research and ask the MoD to explain its proposals for doing this. (Paragraph 69)**

The MoD regularly re-examines the budgetary allocations made to different activities and adjusts them to reflect the need to ensure funds are spent on those activities which are of the highest priority. The research budget was adjusted as part of this process, with the Department making a judgement that a re-allocation of this sort provided the best outcome for the defence programme as a whole.

We spend the bulk of our around £2 billion a year investment in applied R&D with industry. We work closely with the National Defence Industry Council (NDIC) and in particular the NDIC R&D sub-group. Following the split of DERA into Dstl and QinetiQ in 2001, the Department's research programme has been progressively opened to competition. Only research activity which, by its sensitive, operationally critical or international nature, is carried out by government and not put out to tender with industry or academia.



In May 2008, MoD launched the Centre for Defence Enterprise (CDE) to overcome traditional barriers to innovation within the defence environment and for the rapid delivery of cutting edge research and development in support of the front line. By encouraging anyone with a good idea to step forward, the CDE provides a unique and innovative entry point into the defence market. The CDE portal provides a ‘competition of ideas’ approach to solving MoD’s capability problems innovatively.

MoD was the first Department to publish its Innovation Procurement Plan, which draws on the Defence Industrial Strategy, the Defence Technology Strategy and the Department’s Innovation Strategy. Innovation is pursued through initiatives such as the Grand Challenge and is at the forefront of the Government’s Small Business Research Initiative (SBRI). The Department also addresses crosscutting areas of S&T, where it is applicable for the Department to be involved.

## Background to the Gray review

**20. (Recommendation 20) We commend the Government for commissioning, and then publishing, the Gray report. In doing so the Government was being refreshingly open. We hope that the MoD will follow this approach on other occasions. (Paragraph 71)**

We note and appreciate the Committee’s conclusion. We remain committed to being as open as possible in the future.

## DE&S response to the Gray report

**21. (Recommendation 21) The Gray team attempted to establish a basis of agreed facts with the MoD, but, despite the fact that MoD staff provided the data to the review team and were given the opportunity to review early drafts of the report, some key senior individuals in DE&S told us that they did not accept the data presented in the report. Whilst we welcome the willingness of DE&S openly to consider the qualitative recommendations of the Gray report, we are concerned that the lack of agreement within MoD on the extent of the problem forms a poor basis on which to build effective reform. We return to the issue of implementation of Gray’s recommendations in paragraph 113. (Paragraph 76)**

We accept Mr Gray’s overall analysis of the problems we face. His report makes two major points: we need to bring the equipment programme into balance with available resources and we need to improve our management of that programme. The whole ministerial team and senior Head Office and DE&S officials accept this analysis.

**22. (Recommendation 22) The Gray report concluded that the MoD’s budget is insufficient to deliver its planned procurement programme, and that there is an accelerating issue of the problems of prior years compounding to produce an increasing rate of delay and cost increase. Witnesses from the MoD and from industry accepted this analysis and the need for urgent action to rebalance the equipment programme. (Paragraph 82)**

The Department recognises that it needs to bring the equipment programme into line with resources and to increase its agility. This is a central theme of the Strategy for Acquisition

Reform, and will be addressed through a number of its actions, such as the Defence Board Sub-committee on Equipment's role in overseeing the strategic direction and affordability of the equipment programme.

**23. (Recommendation 23) We welcome the commitment from MoD ministers to establish regular Strategic Defence Reviews in order to maintain an up-to-date strategic context for the equipment programme. There is a risk that more frequent SDRs could undermine the longer term planning of the equipment programme and the MoD must establish ways to manage this inevitable tension. We note the concerns of industry representatives that the next SDR and the next version of the Defence Industrial Strategy will be focused too narrowly on procurement reform, and urge the MoD to ensure that wider capability and industrial issues are also addressed, so as to ensure that industry can make the necessary long term commitments to technology, skills and resources. We would welcome more information on the extent to which the industry partnering proposals set out in Chapter 6 of the Defence Acquisition Strategy have already been developed, and the anticipated scope of their contribution to achieving greater value for money in defence. We also request an explanation as to how the partnership arrangements will be reconciled with the commitment given in the Green Paper for greater transparency. Our successor Committee may wish to return to this issue and to consider the implications of such industry partnerships for the future role of Parliamentary scrutiny. (Paragraph 83)**

We accept the importance of avoiding any unnecessary instability in the equipment programme in respect of Strategic Defence Reviews. But, as the Committee recognises, we need to ensure the programme keeps sufficient pace with the evolving strategic context.

As we set out in the Strategy for Acquisition Reform, the Defence Industrial Strategy will be updated to reflect the outcome of the SDR in the light of our future military capability requirements. We will then be in a position to set out the robust long term equipment programmes essential for supporting those capability requirements. This will give industry longer-term certainty and allow them to invest with confidence.

The various forms of partnering with industry are valuable business tools that can be used to help customer and supplier work together for specific purposes, in particular to deal with complex, partially defined, or uncertain issues over a period of time. Partnering arrangements can include long-term agreements that underpin industrial capability and capacity with an agreed minimum workstream, in return for economies, rationalisation and transformation benefits. These arrangements can also provide significant flexibility within the agreed scope, by allowing trading between what would otherwise have been individually contracted projects.

Long-term partnering arrangements are a feature of a number of the industrial sector-level strategies which have been implemented since the Defence Industrial Strategy was published in 2005. These have taken a number of different forms: The AgustaWestland Strategic Partnering Arrangement has delivered a 50% improvement in the on-time delivery of spares and improvements in rapid insertion of new capabilities, through a joint modification service, all underpinned by strong joint working between co-located MoD and AgustaWestland teams. The BAE Systems Surface Ship Terms of Business Agreement will sustain the industrial capabilities for the MoD's surface shipbuilding requirements

over the next 15 years, and it is designed to deliver in excess of £700M benefits to the MoD over the length of the contract. There are a range of other partnering arrangements in place with industry across a number of capabilities, including the Submarine Enterprise Performance Programme, the Apache Integrated Operational Support arrangements and various projects based on Contracting for Availability or Private Finance Initiative.

Partnering arrangements have the potential for greater transparency and openness in respect of business objectives by increasing confidence between the parties, thus allowing them to plan more effectively and incentivise pricing arrangements and performance.

**24. (Recommendation 24) We accept that there are wider constraints which limit the Government's ability to make a firm ten year commitment with regard to the MoD's budget. We consider, however, that the fact that other Government departments would demand the same treatment would not be a reason for the Government to resist it. The scale and nature of MoD contracts is quantitatively and qualitatively different from other Government procurement. It is clear that greater financial stability could help to control and reduce the hundreds of millions of pounds of unproductive costs which are incurred annually to keep the equipment programme spend within each year's budget. We welcome the proposal to introduce a ten year planning time-frame for equipment expenditure but we doubt that the proposed ten year planning horizon will provide sufficient certainty to stabilise the equipment programme. We recommend that our successor Committee returns to this issue when further details about HM Treasury's agreement with the MoD are made available. (Paragraph 86)**

We note the Committee's comments on the need for greater financial stability but are confident that the new planning horizon will provide significant benefits to the planning and management of the Defence equipment programme.

**25. (Recommendation 25) The MoD told us that it had asked the NAO to audit its assessment of affordability of the equipment programme. We welcome this and seek an assurance from the MoD that the NAO will be given access to all of the relevant technical and commercial data necessary to do this job properly. DE&S has accepted that its cost estimating has been poor and such independent scrutiny will be necessary to provide evidence that the new iteration of the equipment programme resulting from the SDR is closely matched to available resources. (Paragraph 89)**

We will discuss the detailed arrangements for the audit with the NAO. However, it is clearly in both the MoD's and the NAO's interests to ensure they have access to all the relevant technical and commercial data in order to form a proper judgement.

**26. (Recommendation 26) Whilst we also welcome the commitment by the MoD that it will annually share its assessment of affordability with us, we note that this falls well short of the Gray report's recommendation that the annual audited assessment should be made public. Transparency is not a practice which has traditionally been embraced by the MoD. Although the MoD has identified increased transparency as one of the commitments in its strategy for acquisition reform, it has provided no details of any concrete steps or milestones for realising that ambition. We ask the MoD to provide us with a description of the specific measures it plans to take in order to ensure greater transparency. We also ask the MoD for an undertaking that it will provide our**

**successor Committee with accurate and complete responses to its requests for information. (Paragraph 90)**

We welcome the support given to the Strategy for Acquisition Reform by the Committee. However, it is not true to say that we have not provided details of steps or milestones to introduce greater transparency. The Strategy for Acquisition Reform contains an action plan, including a range of firm commitments and milestones. For example, our action plan identifies that the commitment to provide Parliament with annual assessments of the affordability of the equipment and support programme will be underpinned by an independent assessment by the NAO, the detailed methodology for which we will be working through with them, and will be implemented following the Strategic Defence Review.

As part of our update to the successor Committee later this year, we will provide further detail on how these commitments are being implemented.

**27. (Recommendation 27) The Gray report proposes that development risk, and hence time and cost overruns, could be reduced by introducing equipment into service with an initial operating capability which could then be upgraded. Industry witnesses agreed that acquisition could be faster, provide better value for money and greater export potential if this approach were to be taken, provided that steps were taken to ensure that the engineering industry skill base was maintained. We recommend that the MoD provide us with an evaluation of the scope for using an incremental approach, setting out the steps it will take to overcome the obstacles to this approach which were outlined in the Gray report. (Paragraph 93)**

The Strategy for Acquisition Reform committed to:

Examine the scope for managing technology and innovation better so that we can provide and update defence equipment more quickly, and at a price we can afford. This includes using incremental and modular approaches so that we can keep pace better with evolving threats.

We will take this forward through our Science & Technology (S&T) community in particular. We recently announced changes to the internal arrangements for formulating and delivering S&T to the UK Armed Forces, which will enable a clearer organisational structure for Defence S&T. We will provide an update on this, as part of our brief to the successor Committee later this year.

**28. (Recommendation 28) One of the three key areas of weakness identified by the Gray report was the lack of clarity and leadership from those in charge of the MoD, which resulted in poor decision making processes and an inability properly to keep the equipment programme under control. The Gray report concluded that, even if the equipment programme were to be brought back into balance by the next SDR, poor leadership and decision-making processes would soon cause old problems to return and the programme again to become unbalanced. We note that the Defence Acquisition Strategy includes a number of specific actions to improve leadership and decision-making and the MoD should provide us with a progress report on these activities. (Paragraph 97)**

We note the committee's comments on the need for improved decision making within the MoD and are taking steps to address this. For example, we have created a new sub-committee to the Defence Board which is responsible for overseeing the strategic direction and affordability of the equipment programme.

We will be providing a progress report on these activities in our response to the committee later this year.

**29. (Recommendation 29) The Gray report recommended that the MoD's aspirations for Through Life Capability Management (TLCM) be reappraised. Witnesses from industry and the MoD were unanimous that TLCM was the right way to proceed, in order to support the making of sound decisions. However, evidence from the Gray review and from industry indicates that the MoD's TLCM approach is incomplete and over-ambitious. We note that both the Gray report and the NAO identified a lack of financial tools and data as significant factors affecting the implementation of TLCM. We ask the MoD to provide a report setting out the progress it has made in addressing these issues, and in particular the progress made on the specific activities described in the relevant section of the Defence Acquisition Strategy. (Paragraph 100)**

The MoD is driving forward the simplification of Through Life Capability Management (TLCM) as detailed in Chapter 5 of the Strategy for Acquisition Reform. Led by a senior Governance Board, the approach is being applied to the forthcoming Planning Round and Strategic Defence Review. In particular, we are improving the financial tools and management information in support of TLCM.

Programme Intranet Sites were rolled out in July 2009 to meet the need for central management of, and broader access to, key programme documents and information.

We are also developing management information modules covering critical information requirements. These include a tool that enables key milestones to be described, target dates recorded and progress mapped accordingly, and tools looking at dependencies and assumptions, risks and issues, and spend versus budget.

In addition, a new through-life finance tool set has 'rolled out' in March 2010 to improve financial information needed for decision making.

A further update on progress will be provided as part of our update to the successor Committee later this year.

**30. (Recommendation 30) Over the years we have highlighted the need for key skills in acquisition and procurement, and have received reassurances from the MoD that appropriate training programmes were in place. However, we are unconvinced that DE&S has a properly effective strategy for the training and education of its staff, and believe that it has failed to prioritise this issue. Project leaders in DE&S must have an understanding of all of the military, technological, industrial and political issues which impact on their projects. What is required is not only the provision of appropriate training, but also a longer-term commitment to career management which is organised to suit efficient acquisition, not just military needs, and a recognition that key project staff have to be released from time to time to attend proper education and training. The MoD should provide an update on the progress it has made with regard to the actions**



**described in the Defence Acquisition Strategy to achieve the necessary levels of staff skills. (Paragraph 112)**

The Department does not accept the Committee's assertion that DE&S has failed to prioritise the training and education of its staff. DE&S has made major and successful efforts to upskill its personnel, as a key part of the Performance Agility Confidence Efficiency (PACE) programme. The "6+4" initiative requires all DE&S staff to undertake a minimum of 6 days training per year, with a further 4 days required for those staff in designated professional posts; a group of senior DE&S staff act as Skills Directors to champion talent within their professional disciplines; and staff in critical skill areas, including the project and programme management, finance, commercial and engineering disciplines, are now required to obtain professional qualifications from external accreditors. In total, DE&S plans to spend some £10 million on such professional training each year over the next four years. These efforts are having an impact – recent independent benchmarking against 50 leading companies and Government organisations internationally puts DE&S in the top quartile of major public and private sector organisations managing high complexity projects.

The Defence Acquisition Reform Programme (DARP) builds on and seeks to accelerate these existing efforts in DE&S, especially in relation to cost assurance (comprising cost forecasting, cost estimation and cost validation). As announced in the Strategy for Acquisition Reform, the Department plans to invest a further £45 million over the next four years to improve skills and capacity in this area, including by working with private sector partners. Also as part of DARP, DE&S is recruiting additional senior financial controllers to provide extra financial support to its most complex areas of business; continuing to improve systems engineering abilities; increasing the skills of commercial staff through higher levels of qualification and better business awareness; and examining how external expertise might assist with further improvement of programme and project management.

For military staff (less than 25% of DE&S personnel) the Military Acquisition Stream (MAS) aims to ensure that suitably qualified and experienced military officers are placed in the right appointments across acquisition. Under MAS, DE&S sponsors a series of defence acquisition courses at the Defence Academy for a mix of military and civilian students. Our objective is to grow a cadre of military officers with acquisition knowledge and skills who are more readily employable in acquisition appointments, complemented by front line service throughout their careers. The MAS programme is also undertaking a skills audit of the Capability Sponsor which will ensure that new entrants and those returning to Capability Management appointments have the necessary skills and knowledge required for those roles.

**31. (Recommendation 31) It is quite clear that some senior individuals in DE&S do not accept the need for radical reform, and that they are only reluctantly involved in the reform process. Whilst it might be possible to write a good reform strategy in isolation, it would clearly not be possible to implement it without united commitment from the leadership within DE&S. With the publication of the Gray report, the MoD has come clean about the extent of its problems with the equipment programme, but the Department will have to work hard to persuade people that it will not return to business as usual. (Paragraph 117)**

We do not accept the Committee's suggestion that the DE&S leadership are not fully committed to implementing radical reform. The whole senior leadership team – in DE&S and Head Office—accept Mr Gray's overall analysis and are united over the need for radical reform. We will work hard to ensure that the Strategy for Acquisition Reform is implemented in full.

**32. (Recommendation 32) The MoD's Defence Strategy for Acquisition Reform explicitly accepts Gray's broad analysis of the difficulties faced by the Department with regard to defence acquisition, and includes a summary of objectives and key actions which it intends to take to address those difficulties. Some of the key actions correspond with recommendations we have made in this Report, although we await the further details which we have requested on a number of points. We expect the MoD to make a statement to the House by summer 2010, updating it on progress with acquisition reform. We hope that the NAO will report on acquisition reform progress as part of its Major Projects Report 2010, and we recommend that our successor Committee returns to this issue later in 2010. (Paragraph 118)**

We are happy to undertake to provide an update to the House on acquisition reform later this year.

We note the Committee's suggestion that the NAO should report on acquisition reform as part of its Major Projects Report 2010; this is a matter for the NAO to decide.



