



Ministry  
of Defence

## The Defence Equipment Plan 2013



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## The Defence Equipment Plan 2013

### Foreword

Last year, I was pleased to publish for the first time a report setting out our plans for the forward defence Equipment Plan. That report showed, in a new commitment to openness, the groundbreaking steps we had taken to establish a Plan that was realistic and affordable and which would deliver the vision set out in the Strategic Defence and Security Review.

It gives me great pleasure to once again place in the public domain a summary of our future Equipment Plan. The report sets out our plans to spend around £164Bn over the next ten years on new equipment, data systems and equipment support costs, including once again a healthy provision of £4.7Bn for contingency, as well as unallocated funding of £8.4Bn. Taken together, this demonstrates the stability, soundness and realism that underpins our management of the Defence Budget. This year, for the first time in many years, there has been no requirement for us to make short term cuts that undermine our long term plans, simply in order to live within our means. That is a huge testament to the work that this Government has done over the past two years firstly to get a grip on a Programme that was vastly overheated and unaffordable, and then to put in place stable and deliverable plans for the long term that will provide our Armed Forces with the equipment that they need.

An example of the robustness of our approach is that we had already made provision within our budget in anticipation of the increased costs of the Carrier programme set out in this year's Major Projects Report.

Today, the National Audit Office are publishing their independent assessment of the affordability of our Equipment Plan. I am delighted that their Report recognises the progress that we have made since last year, as well as pointing out where we must continue to improve and refine our processes in the future. We will work with the NAO over the coming years to increase the level of confidence that Parliament and the taxpayer can have in the robustness and affordability of the Defence Equipment Plan.

The outcome of ABC 13 demonstrates the results of our new approach to the short and long term management of the Equipment Plan which is based on the overriding principles of affordability and building rigour in our costings. We will continue to manage the Equipment Programme in line with these principles.

The Rt Hon Philip Hammond MP  
Secretary of State for Defence



12 February 2014

## The Defence Equipment Plan 2013

1. This is the second annual published summary of the Defence Equipment Plan. Building on last year's summary, it sets out our plans over the next ten years to deliver and support the equipment that our Armed Forces require. The Plan details our continuing commitment to delivering stability and improved performance in our equipment procurement, based on realistic costs and affordable budgets, in order to ensure that we have the well-resourced and well-equipped Armed Forces we need.
  
2. In line with our commitment to greater transparency and greater assurance, the National Audit Office (NAO) has again agreed to carry out an independent assessment of the Equipment Plan, and to give their view on the developing robustness of our financial data and planning processes.
  
3. The most significant change that has taken place this year is the disaggregation of responsibility for managing the bulk of the Equipment Budget from the Head Office to the four Front Line Commands (FLCs). This is in line with the principles of the Levene Report and means that delivery of the Core Equipment Plan is now being more directly managed and planned by the organisations that must make use of that equipment to deliver military capability. This will mean that the three Services will be better able to plan to meet their own requirements over the longer term. In addition, Joint Forces Command has been established, with responsibility for those parts of the Equipment Plan that do not belong specifically to any one Command. This includes Medical (including Chemical Biological Radiological and Nuclear (CBRN) defence), Special Projects, C4ISR<sup>1</sup> and Cyber capability areas.

### The Equipment Budget

4. All of the data summarised in this report and reviewed by the NAO is as at the end of the Department's Annual Budget Cycle 2013 (ABC13) which was finalised in March 2013 and covers the ten year period from Financial Year 2013/14 to 2022/23. There have been a number of changes in the way in which the Equipment Budget is managed this year, however, the underlying position has remained constant, in that the amount we expect to spend, year-on-year, on equipment has not changed significantly, as set out below.

	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
<b>End of PR12 Budget</b>	13,247	13,805	14,390	15,542	15,317	16,061	16,741	17,443	18,058	18,811		159,415
<b>Comparable PR12 Budget*</b>	13,240	13,779	14,324	15,431	15,157	15,898	16,575	17,273	17,884	18,633		158,194
<b>Actual End of ABC 13 Budget</b>		13,668	14,758	15,295	15,472	15,897	16,501	17,348	17,884	18,559	18,914	164,297
<b>ABC 13 Cost of Programme</b>		14,387	15,056	15,501	15,472	15,897	16,501	17,348	17,884	18,559	18,914	165,519
<b>Assessment of Programme Fade</b>		719	298	206								1,223

\* Comparable figures remove the costs associated with SAR-H, responsibility for which has been passed to the Department for Transport

<sup>1</sup> Command Control Computing Communications Information Surveillance Reconnaissance

5. The biggest substantive change in the overall Equipment Budget comes as a result of roll-forward (i.e. the difference between the budget in 12/13 which drops out of the plan and that in 22/23 which comes into it), which means that the total budget over the decade is now around £164bn. This includes provision made within our budget in anticipation of the increased costs of the Carrier programme set out in this year's Major Projects Report, which means that the increased costs can be accommodated without undermining the overall plan.

6. As a direct result of the action we took in Planning Round 2012 to place the whole Defence programme on a stable and affordable footing, for the first time in many years we have not had to make significant reductions in the scope of the Core Equipment Plan in order to maintain affordability. This means that the proportion of the Departmental budget allocated to equipment remains broadly in line with previous plans at 44% over the decade.

7. The underspend in financial year 12/13 against the planned Equipment Budget was around £1.2Bn. There are a number of factors which lead to planned equipment costs not arising in year, these include:

- Genuine cost savings arising from robust negotiation with suppliers;
- Programme slippage as a result of, for example, failure of suppliers to deliver to an agreed schedule and/or technical issues arising in the delivery of complex capability solutions;
- Risk provision being retired when it emerges that it is not required.

At this stage, the Department is not able to make a comprehensive apportionment between these factors. Improved data gathering arrangements have been put in place for FY13/14 which will provide more information on the programmes against which the underspend against the EP occurred and the reasons for it.

8. We now have in place a Quarterly Review of Programme Costings process, under which the costs of every project in the Equipment Plan are considered and reassessed at senior level every three months. This includes consideration of in-year spend to date and of the level and profile of risk funding held within the project. As a result of this level of scrutiny, we can be confident that, to the extent that the expected costs which did not fall in FY12/13 will reappear later in the decade, they have been identified and accounted for in our planning. We are looking into the practicality of multi-year budgeting and, separately, working to ensure that over future years the level of spend matches the budget and that where individual programmes underspend the consequences for the future programme are fully understood and addressed.

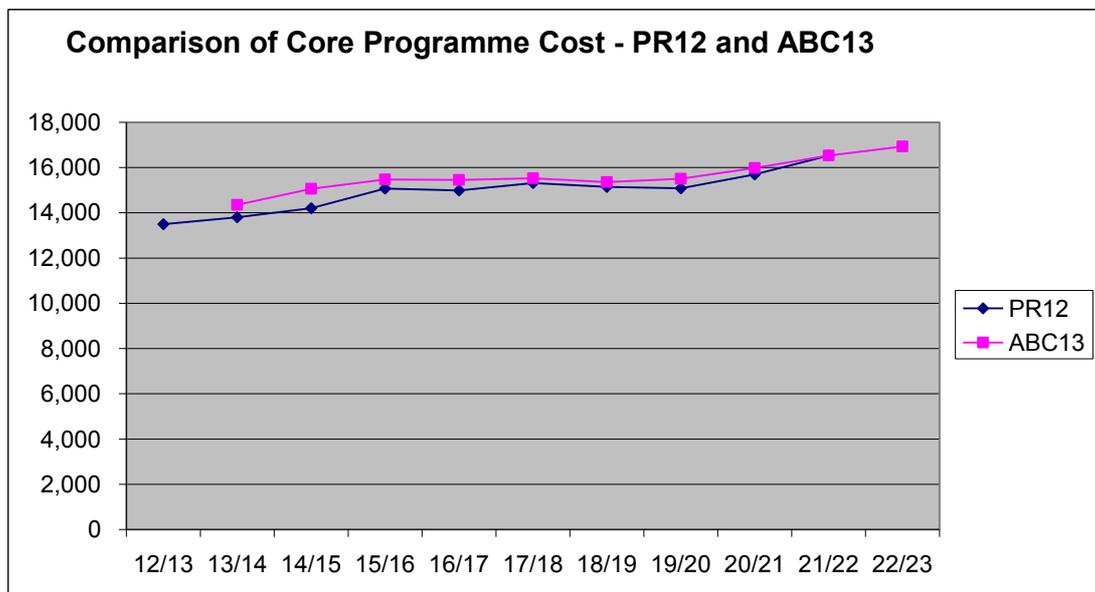
9. Against this background, we have assessed the likely level of spend over the next three years in recognition that a realistic estimate of the likely level of spend on the projects in those years suggests that it will be lower than the allocated budget. This means that there is within the affordable budget an opportunity to allocate funding (£700M in financial year 13/14, £300M in 14/15 and £200M in 15/16) to other projects and programmes, so as to maximise delivery. We judge that this is a sensible precaution against the background

of the Departmental underspend in financial year 12/13 and will protect against the potential for spend to fall short of the budget over the next three years.

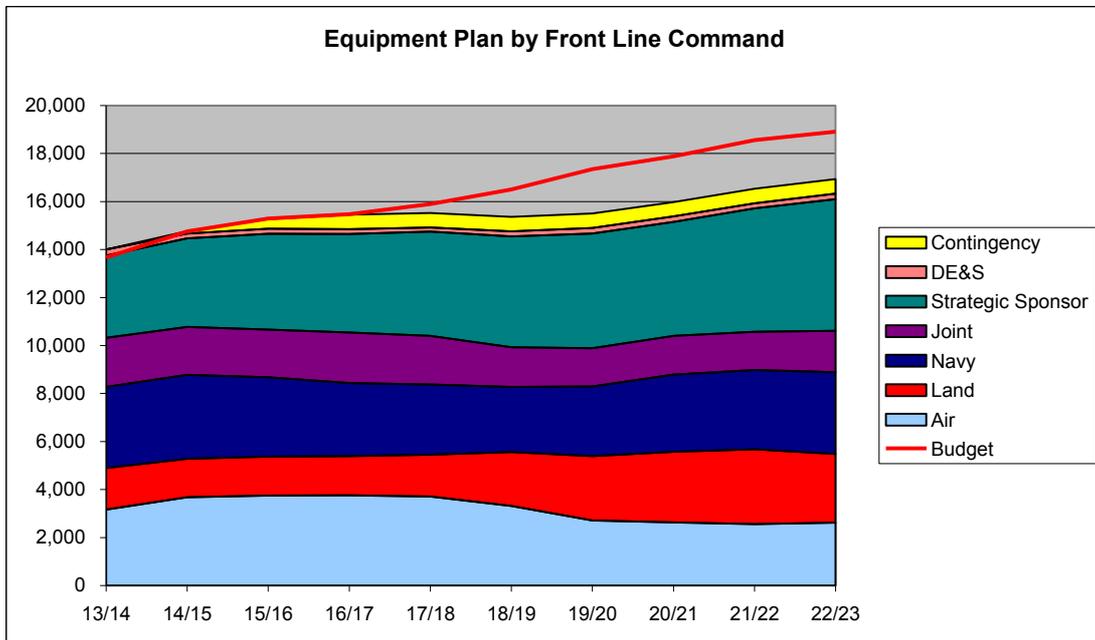
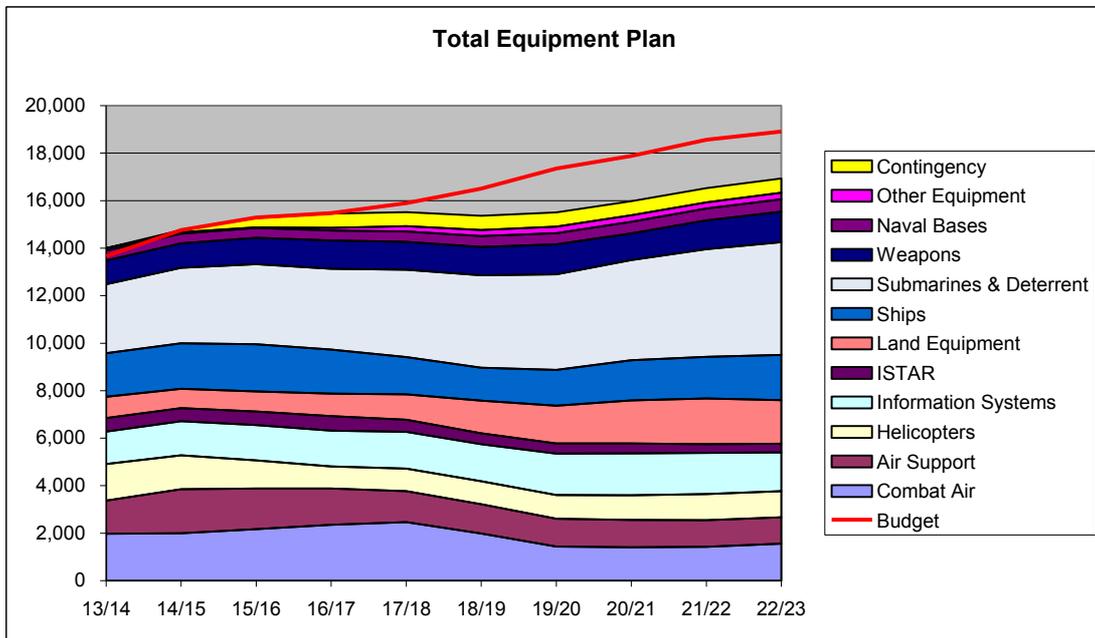
10. Continuing the work done in PR12 to ensure that the Equipment Programme remains affordable, this budget includes a Contingency provision of £4.7bn (£4.8bn in PR12). It also includes unallocated headroom that now totals £8.4bn (£8bn in PR12). The headroom is in addition to the funding required to deliver the Core Equipment Programme and will allow us to fund, incrementally and flexibly, a number of additional programmes that are a high priority for Defence, when they are required and we can be sure that they are affordable. There is, in addition, some £750m in the final year of the planning period which is earmarked for, but not yet allocated to, future long term equipment requirements.

### Summary of Equipment Spending Plans

11. On current plans, the Core Equipment plan will cost £156bn. Beyond that, we have a headroom provision of £8.4bn. A like for like comparison of the planned cost of the Core Equipment Plan (not including Headroom) at the end of Planning Round 12 and ABC13 is shown below. This shows the impact of the £1.4Bn additional capability enhancements approved during the course of ABC13.



12. This year we are presenting the data on the equipment plan to show not just planned spend by sector, but also planned spend on each of the Front Line Commands. The respective breakdowns are shown in the tables below.



13. In headline terms, over the next ten years we plan to spend:
- £64.5bn on the procurement of new equipment – this is an increase on last year’s figure principally due to the decision to fund an additional £1.4bn of additional capability over the next four years.

- £14.8bn on support arrangements for new equipment – this is a reduction on last year’s comparable figure of £16.4bn, which reflects the removal of support costs associated with the SAR-H programme, which is no longer managed by the Ministry of Defence, and the support costs associated with procurement projects which were removed from the Core Equipment Plan at the end of PR12.
- £72.3bn on support for our existing in-service equipment, including spending on routine spares and maintenance, ship refits, support arrangements for our communications and information infrastructure and the running costs of the nuclear propulsion and nuclear weapons production facilities. This is an increase on last year’s figure, partially representing the cost of running on some equipment which we are now intending to keep in service for longer. During the course of ABC14, in order to meet our Spending Round commitments we intend to drive down the costs of supporting In-Service equipment. An independent study is underway into the cost of equipment support which we expect to develop mechanisms for delivering the required cost reductions.
- A contingency provision of £4.7bn. A review conducted by the Cost Assurance and Analysis Service has concluded that the £4.8bn contingency provision created in PR12 was broadly sufficient. With some minor profiling changes, that contingency remains in place. It is intended to provide protection for the core programme against unexpected cost growth, in addition to the financial risk provision held in individual equipment project budgets. We will continue to maintain a centrally-held contingency provision, the level of which will be informed by an independent review of the costing and take into account the risk provision held within individual projects.
- Unallocated headroom of £8.4bn, which becomes available from 16/17 onwards. We have issued to each FLC indicative planning envelopes based on the headroom available. The FLCs will be required to set out how they plan to make use of this headroom and this will inform ABC14. We would expect that additional headroom will be available at the end of the decade and beyond, subject to future decisions on the Defence budget. This issue will be considered in subsequent ABCs.

14. Within the planned costs of the core Equipment Plan and in addition to the centrally held contingency, there is specific risk provision held inside individual project costings that totals £11.2bn over ten years. This is a significant increase on the previous year’s figure of £8.4bn (although not all of that increase has driven an increase in the cost of the programme, some of it is as a result of the reclassification of existing planned spend as risk-related), and represents the result of a continuing focus on risk identification and risk management throughout the annual cycle. Partly as a result of the increased risk provision, the level of commitment in the core equipment plan has fallen slightly. Around 70% of the plan is contractually committed in 13/14, falling to around 25% at the end of the decade.

	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Total Year 1 to 10
<b>Level of contractual Commitment</b>	71%	62%	49%	40%	34%	29%	26%	24%	23%	24%	37%

## Managing the Core Equipment Programme

15. During the course of ABC13, as a result of the increased rigour and discipline in our budgetary processes, we have been able to bring a number of additional capabilities into the core programme, as funds became available. Priority capabilities added to the core Equipment Plan as additional in-year investments include targeting pods for fast jets, 76 additional Foxhound patrol vehicles, better protection systems for Tornado GR4, additional precision-guided Paveway IV bombs and enhancements to Merlin Helicopters.

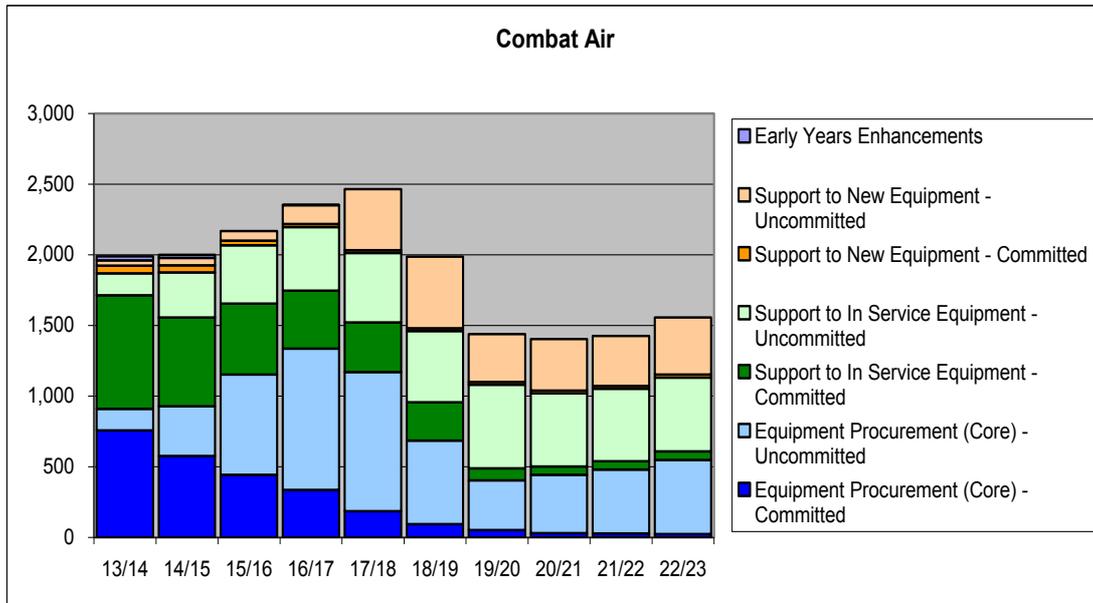
16. Over the slightly longer term, we have added to the core programme a number of capability enhancements that are required for contingent operations, as well as beginning the work of bringing UOR equipment into the Core programme. The cost of these additions to the core programme is around £1.4bn over the next four years. We can afford to do this because of the stability of our project costings, because the roll-forward of the contingency provision frees up around £450m over the first three years (shown below) and because our assessment of the rate of spend over the next few years indicates that additional activity can be accommodated within the allocated budgets.

	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
Contingency at end PR12	42	8	360	572	594	649	755	676	599	576		4,830
Contingency at end ABC 13		0	100	400	600	600	600	600	600	600	600	4,700
Funds available to core EP		8	260	172	-6	49	155	76	-1	-25		688

## Sector Analysis – Where does the money go?

### Combat Air

17. We plan to spend around £18.8bn in the Combat Air sector over the next ten years, in comparison to £18.5bn at the end of the previous planning cycle.

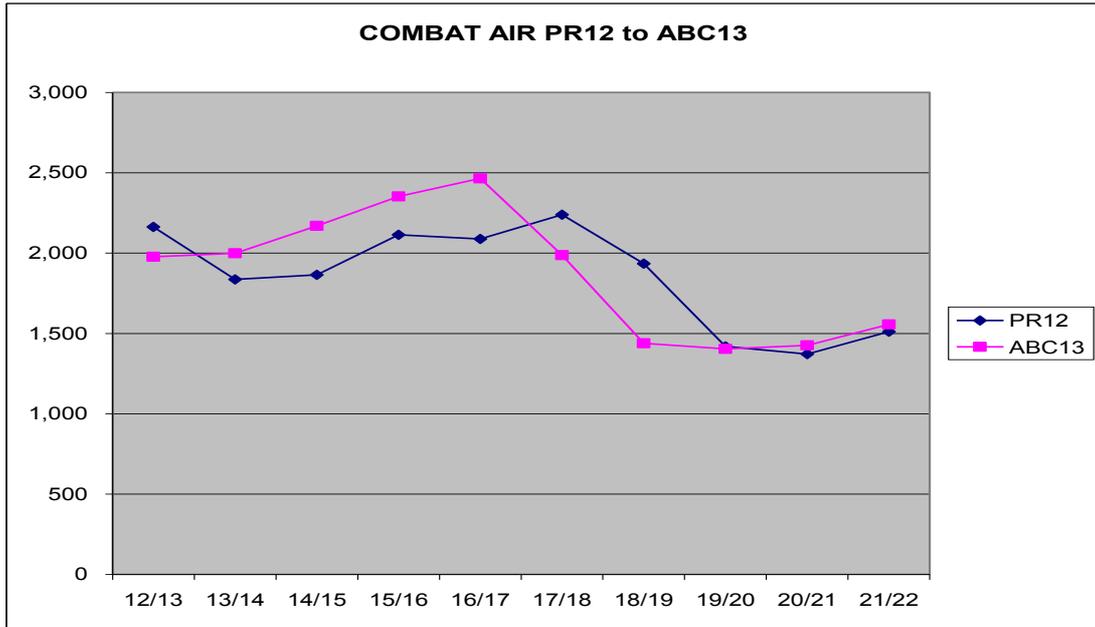


18. This sector covers fast jets, Unmanned Air Systems and military flying training, including procurement of training aircraft. This includes:

- Continuing investment in Typhoon capability including integration of a suite of weapons capabilities that will enhance its utility in the ground attack role;
- Investment in the Joint Strike Fighter programme, a critical element of our plans to deliver a high-end power projection capability for decades to come;
- Continuing investment in Unmanned Air Systems.

19. Since last year, we have:

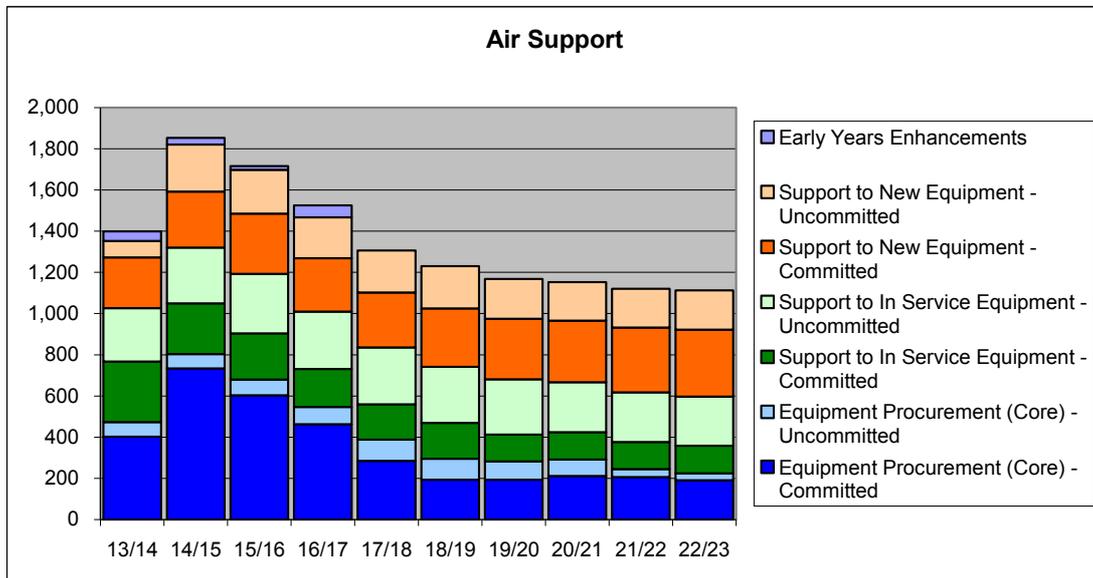
- Received the first two test and evaluation aircraft of the STOVL variant Joint Strike Fighter;
- Established an additional front-line Typhoon Squadron, bringing the total number to four;
- Using additional funds freed up in-year, purchased additional targeting pods to increase the capability of our fast jets;
- Invested in improved protection systems for the Tornado GR4.



20. The table above shows the planned costs in the Combat Air sector increasing in FYs 13/14 to 16/17, and reducing thereafter. These cost changes are driven by changes in the Typhoon and Joint Strike Fighter production schedules.

## Air Support

21. We plan to spend around £13.4bn in the Air Support sector over the next ten years, in comparison to £13.6bn at the end of the previous planning cycle.



22. This sector covers all large aircraft, including transport, air-to-air refuelling and large ISTAR platforms. This investment includes:

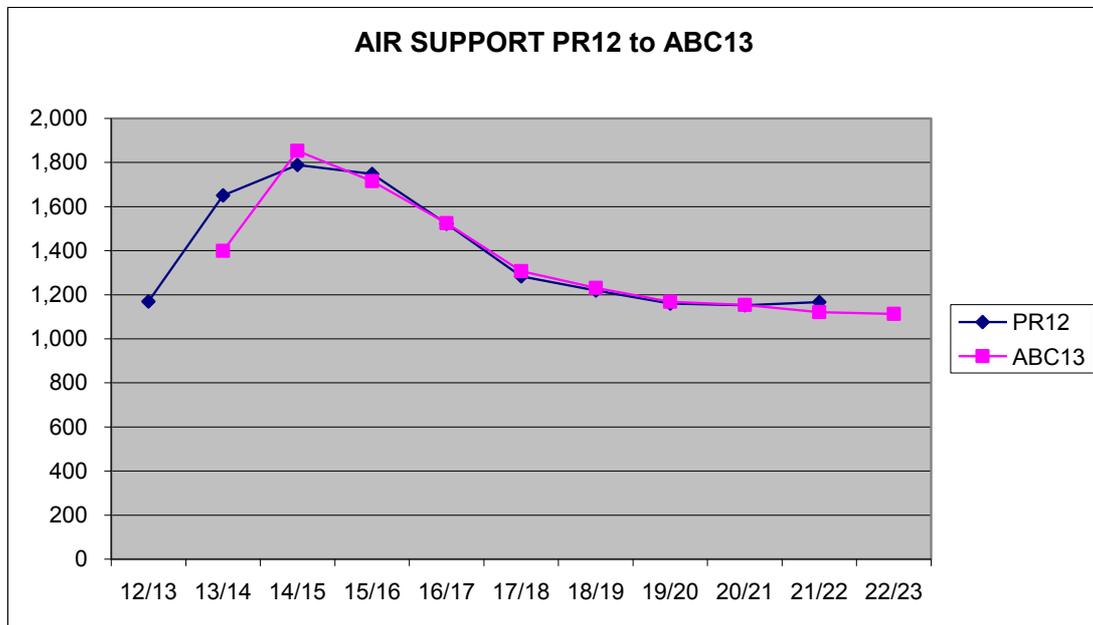
- The A400M future generation of strategic/tactical air transport aircraft;
- The continuation of the Voyager transport and air-to-air refuelling aircraft programme, which is replacing the VC10 and TriStar fleets;
- New Airseeker, Intelligence, Surveillance and Reconnaissance Rivet Joint aircraft to replace the Nimrod R1 and provide us with a state-of-the-art airborne SIGINT collection capability.

23. Since last year we have:

- accepted delivery of the eighth C17 into RAF service;
- made good progress building up core military capability of the Voyager air-to-air tanker and passenger transport aircraft continues to make good progress with six aircraft delivered so far. The Programme Plan remains on track and capability build up is in line with the retirement of the VC10, which went out of service in September 2013, and the Tristar.
- taken delivery of the first Rivet Joint aircraft, which is planned to enter service as part of the Airseeker capability in 2014.
- accepted into service two BAE 146QC transport aircraft, procured under an Urgent Operational Requirement.
- agreed a Training Service Support Contract, worth £226M over an 18 year period, for the delivery and support of a specialist training school for the A400M at RAF Brize Norton. Also in February 2013 a £70M contract was placed with Airbus Military to modify the UK A400M Atlas

aircraft to accept the RAF's preferred Defensive Aids Sub-System equipment.

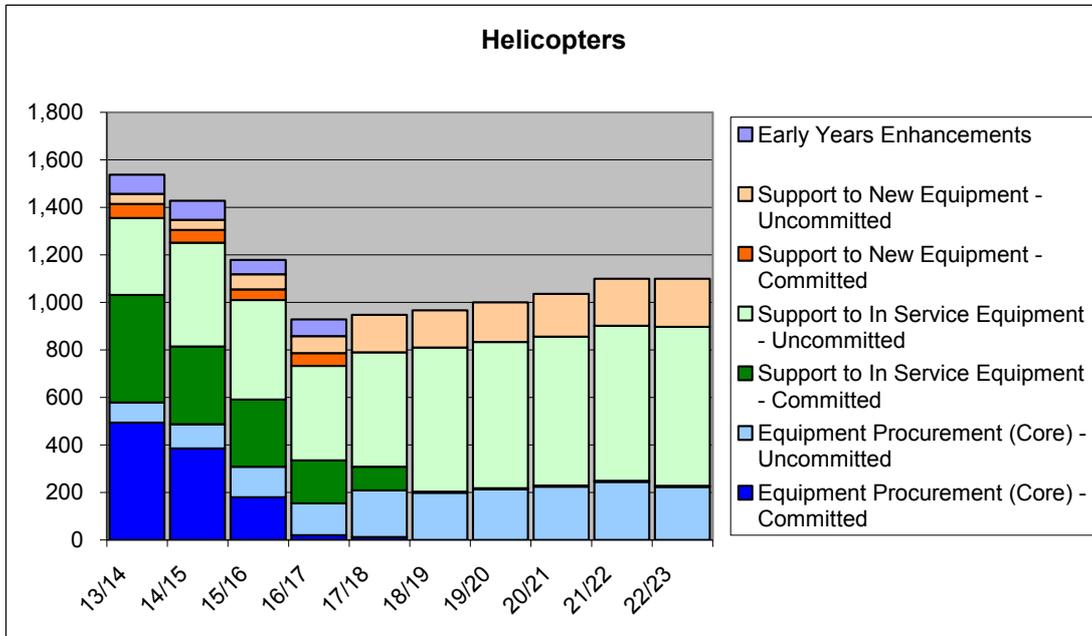
- A £80.5M single-source contract was placed in March 2013 with the US Contractor Northrop Grumman to support Large Aircraft Infra-Red Counter Measures for five years.



24. The principal difference between this year's and last year's figures is the drop in planned expenditure in 13/14 on the A400M programme. This is due to a change to the accruals schedule whereby an accrual that had previously been anticipated to fall in 13/14 was brought forward, so that the impact was actually scored in 11/12. This change has not increased the cost of the programme, and there is no change to the planned delivery of capability.

## Helicopters

25. We plan to spend around £11.2Bn on helicopter capability over the next ten years, in comparison to a revised figure of £10.8Bn for last year's plan, once the removal of the cost of the future Search and Rescue service has been reflected in the previous figure.



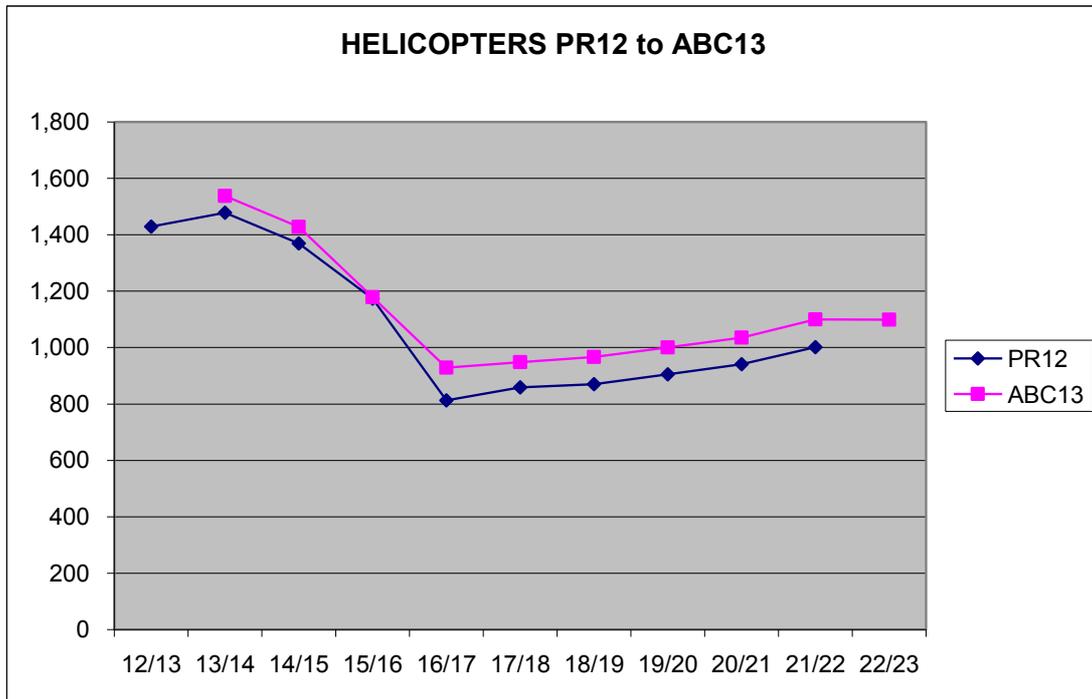
26. This sector covers spending on all helicopter procurement and support. Our plans in this area include:

- Over the longer term, rationalising to 4 helicopter fleets, Chinook, Merlin, Apache and Wildcat, which will be sustained until at least 2040;
- Progressing the Merlin Life Sustainment and ship-optimisation programmes, for which additional funding has been allocated over the next four years

27. Since last year:

- The first Wildcat helicopters were released to service with the Army in April 2012, meeting one of the milestones in the business plan. These aircraft provide more powerful engines, enhanced modern integrated avionics and a stronger and simpler fuselage structure than their Lynx predecessors. They will be used to perform a range of tasks, including reconnaissance, command and control, force protection and light transport.
- The modified Merlin Mk2 helicopter was released to service and the Royal Navy started initial training in January 2013. These modifications introduce updated cockpit avionics, an improved mission system and the ability for future upgrades to be quickly incorporated ensuring that the Merlin force will continue to make a vital contribution to Royal Navy operations.
- Project Julius has introduced to service a new integrated cockpit and avionic mission system on the Chinook helicopter. These

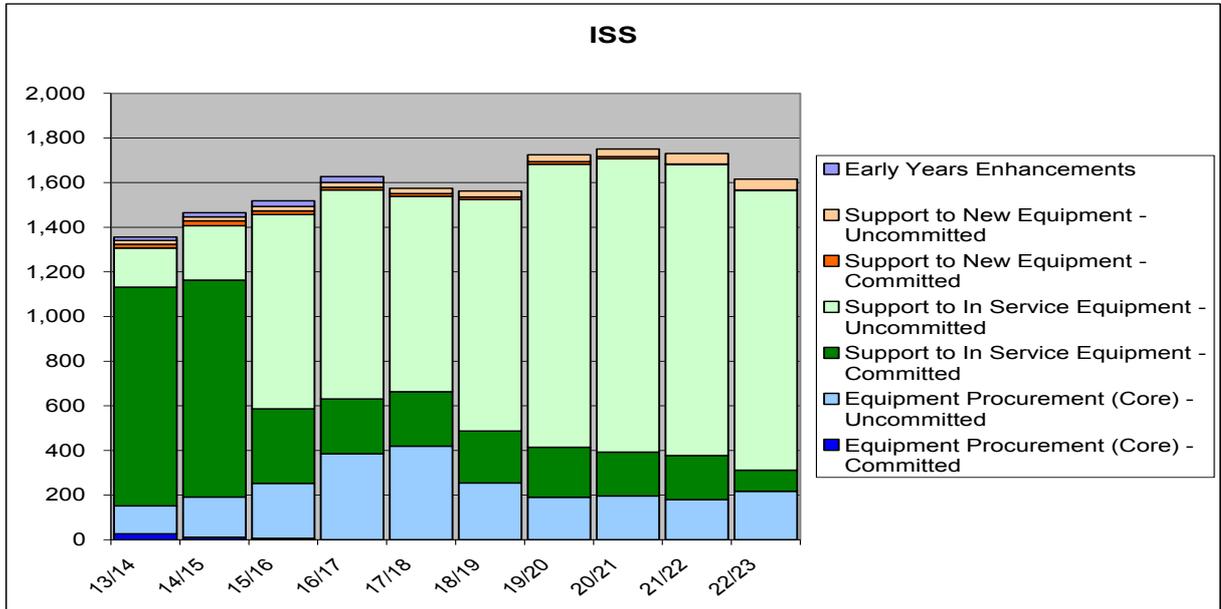
modifications reduce pilot workload and improve the ability to operate the aircraft, particularly at night. This capability has already been used to support the Department's contribution on operations in Afghanistan and to the security of the Olympics.



28. The principal driver for the increase in the anticipated cost of the programme is some additional investment in Rotary Wing Safety related enhancements, particularly in the early years.

## ISS

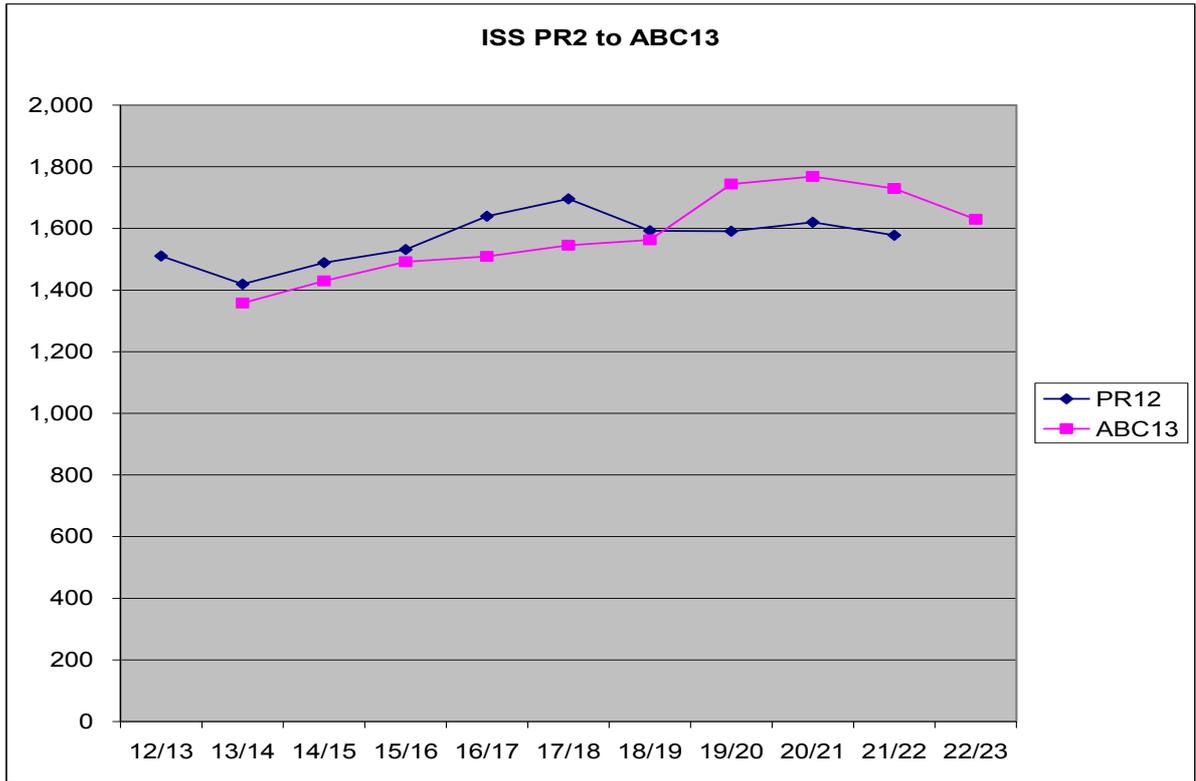
29. We plan to spend around £15.8bn on Information Systems and Services over the next decade. This is broadly unchanged from last year's figure.



30. This sector covers all of our expenditure on procurement of data and voice communications, secure and insecure, and the development and upkeep of all of our supporting network infrastructure.

31. Since last year:

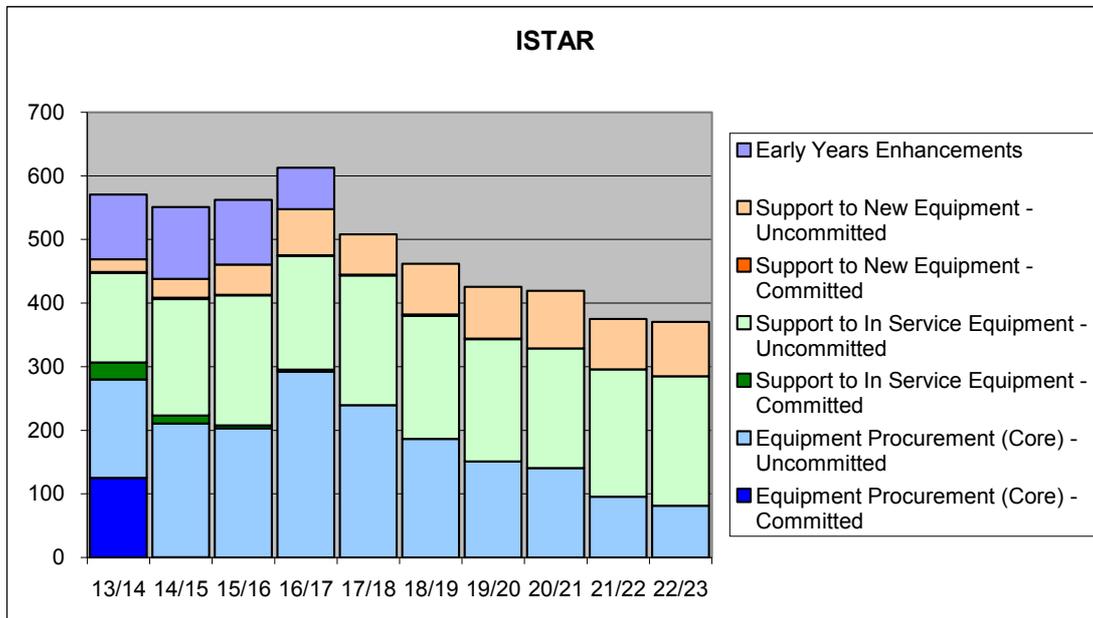
- The next upgrade to the Bowman, Common Battlefield Application Toolset, Infrastructure and Platform Battlefield Information System Application (BCIP) 5.5 (the tactical communications system which integrates digital voice and data technology) has been developed and integrated within cost and on time. It delivers significant improvements to the software elements of BCIP, in particular the Combat application and the commonality between software used in barracks, on exercise and on operations. The upgrade is expected to complete by March 2015.
- The first two increments of the BAE Systems supplied Falcon communications system were accepted into service by the Army and RAF on 1 October 2012. This system offers highly resilient, scalable broadband and voice communications across a theatre of operations.



32. A more detailed examination of capability requirements in the ISS area and other Joint Enablers is a priority for the new Joint Forces Command. We would expect the results of this work to be taken forward in ABC14.

## ISTAR

33. We plan to spend £4.9Bn on Intelligence Surveillance, Target Acquisition and Reconnaissance (ISTAR) over the next decade, compared to £4.4Bn last year.



34. This sector includes spend on CBRN detection and countermeasures and a range of Special Forces equipment. It is in addition to the considerable expenditure on operational surveillance systems funded through the UOR process and also excludes expenditure on air ISTAR<sup>2</sup> platforms including Airseeker and the Reaper UAVs.

35. During the last financial year the Cutlass Large Explosive Ordnance Disposal Remote Control Vehicle was accepted into service by the British Army. This new “bomb disposal robot” represents a step change in capability and will replace the Wheelbarrow system that has been used by the Army for decades. The Cutlass system has been designed and built in Coventry by Northrop Grumman.

36. ISTAR’s future profile is dominated by the Project MARSHALL programme. This is expected to amount to around £1.5bn over 22 years. MARSHALL is a wide ranging project for the provision of terminal air traffic management; essentially the provision of air traffic services to military and civil aircraft arriving at, departing from, and operating within the immediate vicinity, or confines, of government aerodromes in the UK and overseas, permanent and deployed.

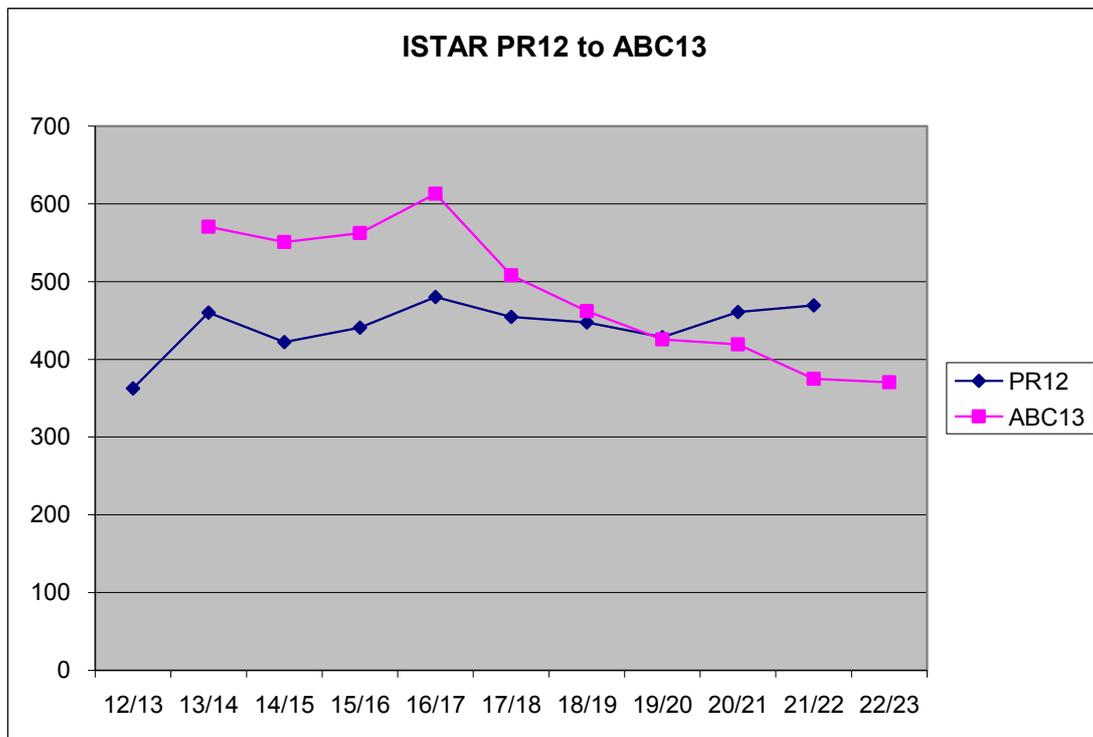
37. We have adopted an accelerated programme strategy for the CROWSNEST capability, re-allocating funding from later years. This should bring forward the Main Gate investment decision to early 2016, 18 months

<sup>2</sup> Intelligence Surveillance Target Acquisition Reconnaissance

earlier than planned. The re-profiling of CROWSNEST funding will also result in an overall saving to Defence of at least £22 million over the years 2013 to 2024.

38. Across ISTAR the main effort continues to be delivery of low value, strategically important capability to a number of specialist users. Last year's significant achievements were:

- The successful transition of the Joint Air Reconnaissance Intelligence Centre and other strategic and operational intelligence capabilities into a new facility – the Defence Geospatial Intelligence Fusion Centre at RAF Wyton;
- Procurement and fielding of more than 1,000 vehicle-borne electronic countermeasure suites and associated platform installation as part of the TRUST UOR; and,
- The achievement of the SHEPHERD in-service date. SHEPHERD delivers the Defence electronic warfare capability.

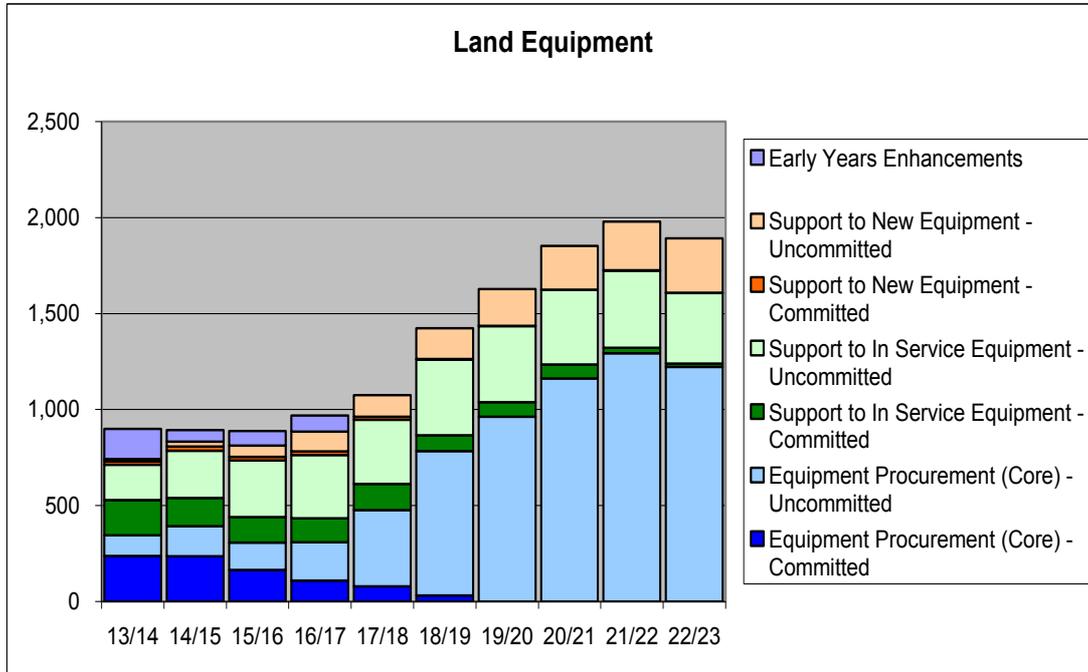


39. The key driver for the increase in the cost of the ISTAR programme is the early years enhancements package, which includes significant funding for enhanced CBRN protection and other ISTAR capabilities.

Erratum note of September 2021: A correction to the statement in paragraph 38 on the in-service date for SHEPHERD has been published and is available at this link: <https://www.gov.uk/government/publications/project-shepherd-update>

## Land Equipment

40. We plan to spend around £13.1bn on Land Equipment over the next decade, compared to £12.3Bn last year.



41. The Armoured Vehicles Pipeline plans are largely unchanged from last year and inflationary cost pressures have been accommodated. The major investments include:

- The Warrior Capability Sustainment Programme, delivering capability enhancements and an extended service life;
- The Challenger 2 Life Extension Programme; and
- The Scout Specialist Vehicle and Utility Vehicle programmes, which will replace a range of tracked armoured vehicles reaching the end of their viable lifespan.

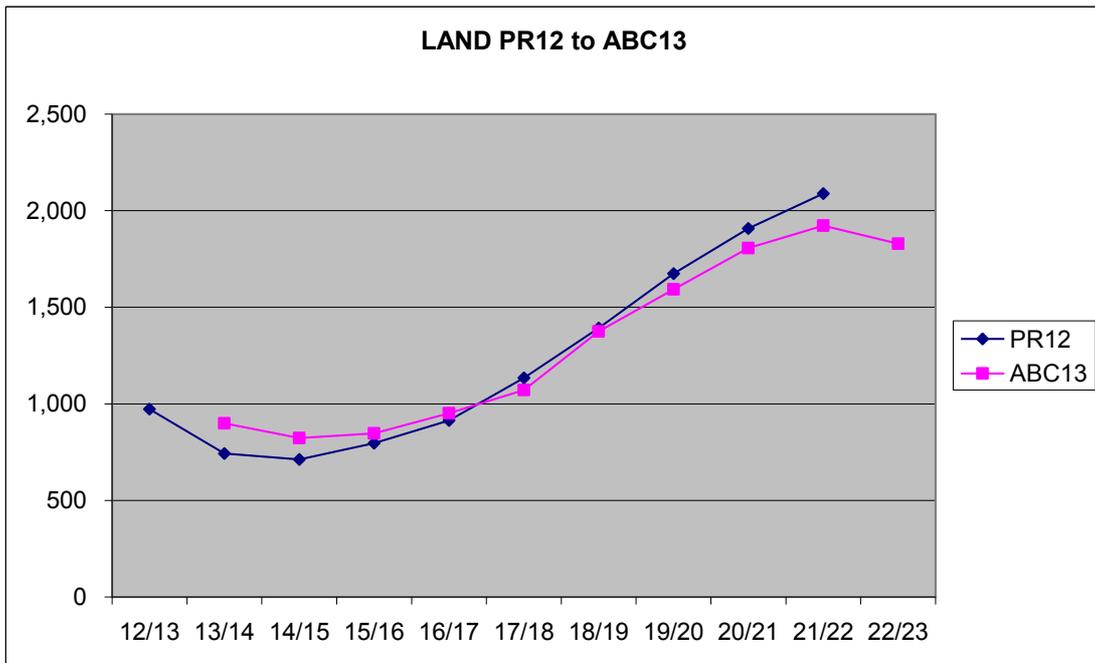
42. In addition to this investment, we have allocated funds to bring Land equipment, purchased as an Urgent Operational Requirement for Afghanistan into the core programme. These include Jackal, Coyote, Husky, Mastiff, Ridgback and Wolfhound wheeled vehicles, and the Warthog tracked vehicle, as well as a wide range of other equipment. These capabilities generated for effective operations in Afghanistan will be sustained for future operations in other theatres.

43. During the past year:

- An £80m contract to provide the Army with new boots was awarded in August 2012. Five variants of the new boot will replace the existing black and desert footwear.
- The success of the Foxhound vehicles in Afghanistan saw DE&S award a contract for the supply of an additional 76 Foxhound vehicles by General Dynamics Land Systems for use in support of current

operations. Purchase of a further 24 vehicles was also subsequently approved and announced in September 2013.

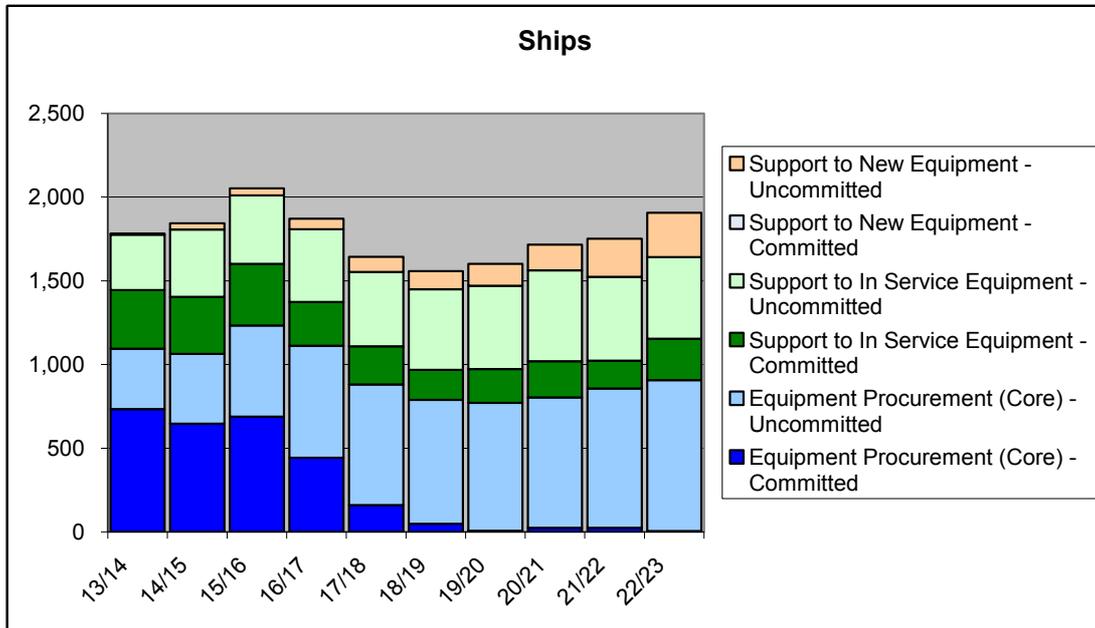
- A contract to provide the Armed Forces with more than 25,000 new Glock 17 pistols to replace the Browning was awarded in October 2012.
- TERRIER, the Army's medium weight armoured tractor, entered service in April 2013. The £386m contract will see a total of 60 vehicles in service.



44. The increase compared to last year's plan reflects two factors:
- A higher level of spend at the end of the decade to cover the costs of the Scout and Utility Vehicle programmes;
  - A significant proportion of the early years enhancements package has been allocated to the Land Equipment area to meet the initial costs of the work to bring UORs into the Core Programme.

## Ships

45. We plan to spend around £17.4bn on surface ships over the next ten years. This is unchanged from last year.



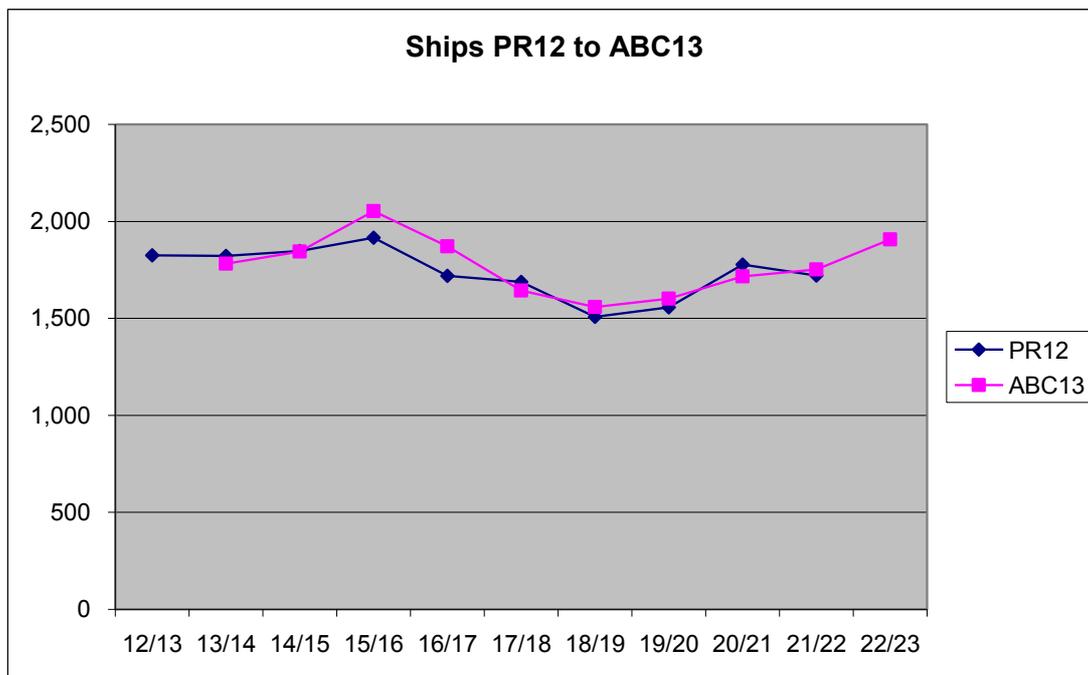
46. This investment covers:

- the completion of the two Queen Elizabeth Class aircraft carriers which, together with the Lightning II aircraft, will deliver a high-end power projection capability for decades to come;
- continuing delivery of the Type 45 Destroyers, with HMS DRAGON and HMS DEFENDER, the fourth and fifth Type 45 Destroyers, entering service with the Royal Navy, after successfully completing sea trials.
- Design and development of the Type 26 Global Combat Ship, which will replace the Type 23 Frigate;
- Signature of a £600M contract for the maintenance and repair of 17 different Sonar and Electronic Warfare Systems fitted across the Fleet, for the next 10 years.
- Four new Tide Class Fleet Tankers, to provide modern ships for the Royal Fleet Auxiliary from 2016. The contract for all four vessels was placed in 2012 and the first will enter service in 2016.

47. During the past year:

- The final piece of the external structure for the Royal Navy's future carrier HMS Queen Elizabeth was put in place and her ski ramp completed. Only the aircraft lifts and radar need to be added to complete outward construction of the 65,000-tonne ship in Rosyth ahead of her naming and launch in 2014.

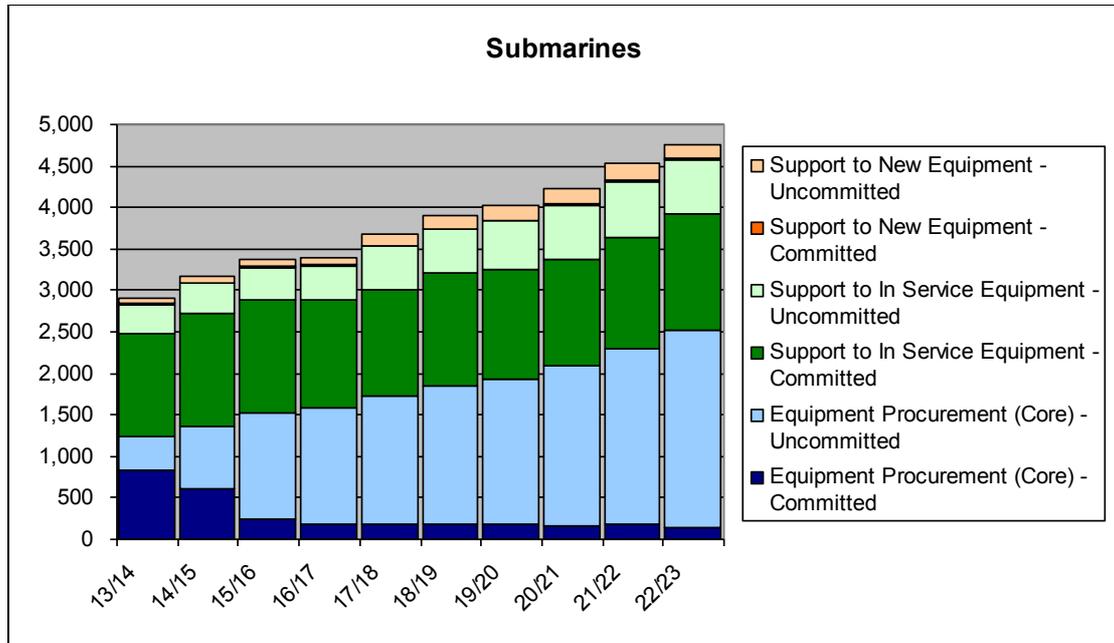
- A £65M contract, securing 600 jobs, was signed for the refit of HMS Ocean at Devonport Royal Dockyard which will be the largest upkeep programme of its kind to be carried out there in more than 20 years.
- The long term maintenance of the Royal Fleet Auxiliary Flotilla of naval support ships was secured for another five years with contract extensions worth £349M, following successful demonstration of Value for Money over the initial contract period.



48. The Secretary of State announced on 6 November 2013 that following a renegotiation with industry, the completion of the Queen Elizabeth Class Carriers would now cost £6.2Bn. This cost increase was anticipated in PR12, and provision for it made in the Equipment Plan budget. As such, the cost increase announced by the Secretary of State has not required any programming action to accommodate and does not impact on the affordability of the equipment programme.

## Submarines

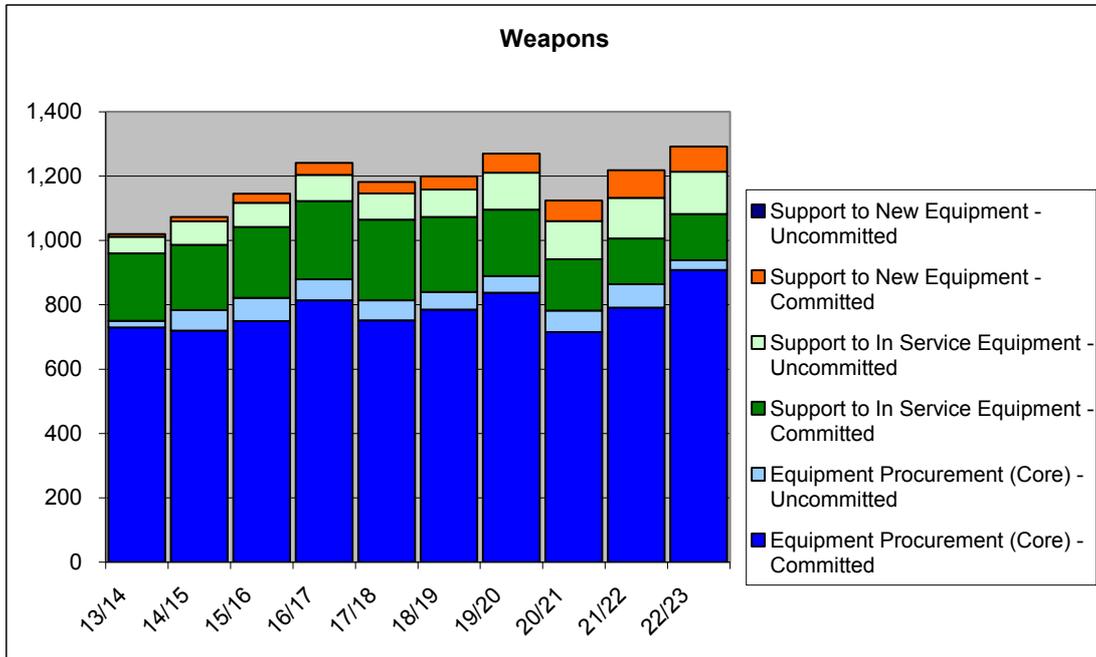
49. We plan to spend around £38bn over the next decade, in comparison to around £36Bn last year. This reflects the generally increasing trend of the spend profile as the planned production costs of the successor deterrent system reach their peak. In addition to the successor deterrent, this element of the plan includes the continued build of the Astute class and the support costs for all our in-Service submarines and the strategic weapon system.



50. During the past year, a £1.2bn contract was placed to build Audacious, the fourth submarine in the Astute class. The contract will safeguard 3,000 skilled jobs in Barrow-in-Furness and represents a significant step forward in the Submarine Programme. We also committed another £1.5bn to the remaining three submarines in the class, enabling early build work on the fifth submarine to begin and long lead items to be ordered for the sixth and seventh. These are the most technologically advanced submarines that the Navy has ordered and offer a step change in capability.

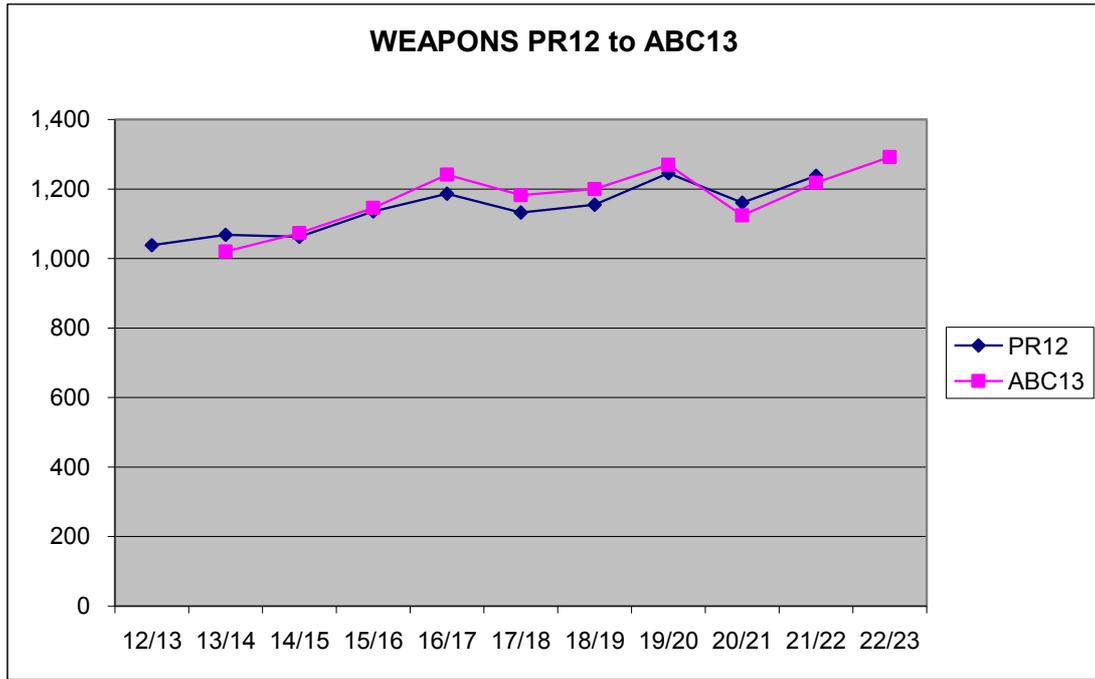
## Weapons

51. Over the next ten years, we plan to spend £11.6bn on the Weapons Programme. This is essentially unchanged from the previous year's figure.



52. Since last year, two contracts totalling c£38M were placed with Raytheon Systems Ltd UK in May 2012 and November 2012 for additional Paveway IV Precision Guided Bombs.

53. We continue to manage the majority of our procurement of our more sophisticated weapons through the Complex Weapons Pipeline arrangement. This is a wide ranging agreement with our industry partners, worth around £7bn over the decade, through which a range of complex weapons systems will be procured. This includes the development of families of weapons that capitalise on a pipeline approach by utilising common components and through the development and transfer of technologies between projects. Weapons families include the Common Anti-Air Modular Missile, which evolved from the Advanced Short Range Air-to-Air Missile and has been developed for the Future Local Area Air Defence System for the Maritime and Land environments. A contract was placed in 2013 for manufacture of the Maritime variant, known as Sea Ceptor, which will enter service on Type 23 Frigates in 2016. This arrangement will also deliver a new Future Air-to-Surface Guided Weapon, which will equip the Royal Navy's new Wildcat Helicopters. The Complex Weapons construct accounts for the unusually high level of commitment shown in the Weapons Sector figures, which is in practice a commitment to the pipeline concept rather than a contractual one.



**OTHER ELEMENTS OF THE EQUIPMENT PLAN**

54. Other elements of the Equipment Plan not individually broken down in this analysis total around £6.4bn. The majority of this (£4.5Bn) represents our planned spend on supporting our three naval bases. Also included in this area is spend on the Joint Supply Chain, Logistics & Commodities and other minor areas of spend.

## **IMPROVEMENTS IN MOD PROCESSES AND FUNCTIONS**

55. Following discussions with the NAO as part of their review of the affordability of Equipment Plan 12 (2012/13 – 2021/22), the Department has developed a forward programme of improvements in its data gathering and cost and risk management processes. Some of these will take time to mature but should, in future, provide the NAO with a greater level of assurance in the validity of our Equipment costings and therefore of the wider affordability of the programme. The key developments are set out below.

### **Equipment Support Costs**

56. In order to give the NAO the widest possible view of the Equipment Plan, we have this year included support costs in the data we supply in support of their review of major procurement projects. We have also included some programmes that fall entirely within the Equipment Support Plan (ESP). Over the past year, the Department has commissioned its independent cost management organisation, the Cost Assurance and Analysis Service (CAAS), to generate independent cost estimates for major support projects. This is mirroring the successful approach already implemented for Equipment Procurement Programme (EPP) projects. The ESP independent cost estimates are being used to inform budgetary planning in ABC14 and related approvals, driving a more robust estimating process within the Department through an independent challenge on Project Team (PT) costings, ensuring that support cost estimates remain taut and realistic. CAAS is also exploring the benefits of the use of the Operating and Support Cost Analysis Model (OSCAM) to provide additional assurance on support costs. OSCAM has been jointly developed with the US Department of Defense to estimate through life support costs and is being piloted for use in the Maritime, Air and Land environments.

57. In addition, we intend to conduct a further detailed investigation into our planned Equipment Support spend, to mirror the detailed investigations that have taken place into our procurement spend. We expect this independent study to start identifying realisable savings during the course of ABC14.

### **Risk Management**

58. The Department recognises the requirement for adequate risk contingency to be based on a sound rationale and included in project costings. The CAAS independent views of high value EPP projects have been used to inform Departmental agreements on contingency provision since May 2011.

59. In October 2012, building on its independent cost estimates put forward for the Quarterly Review of Programme Costs (QRPC1/13) CAAS provided its view on the cost of the ABC13 EPP. This view highlighted a variance between the Department budget allocated to projects based on the PT view and the CAAS view of project delivery costs of £4.4Bn over the ABC13 period (2013/14 to 2022/23); this should be set against the fact that the overall level

of funding held against the Equipment Plan includes a £4.7bn of contingency. The convergence of view between CAAS and the individual Project Teams over time, results from enhanced detail and greater understanding of project certainty. In some instances this has led to PTs increasing their costings to reflect the CAAS view, and in some instances CAAS decreasing its independent cost estimates. This maturing of the costing, through a greater understanding of the key underpinning project assumptions, complexities, contractual dependencies, CADMID stage and risk has been expedited through the QRPC process which has added further rigour to EP costing.

### **Cost maturity and control**

60. The Department accepts the need for a skilled, well-informed and well-resourced cost assurance function to challenge the realism of costings carried out by Project Teams, and since 2010, as part of the Capacity and Capability Development Programme, CAAS has been building its capability to include a key focus on the critical function of Cost Forecasting. As part of this programme, CAAS has developed and introduced new services, including a Quantitative Project Risk Analysis function, to improve the application of schedule risk and uncertainty. Furthermore, the independent views of high value EPP projects provide a level of confidence through an independent Realistic Outturn (ROT) view which takes account of the relevant stage of the CADMID cycle (i.e. highlighting where costs and schedules may be immature due to developing technologies in a concept phase versus a mature proven solution in manufacture subject to contractual obligations). Significant emphasis has been placed on ensuring that project risks are effectively quantified, both those which are included within costing and those that remain outside. A number of governance frameworks, such as the Business Case Review Board and the Investment Approvals Committee (IAC), exist to provide management scrutiny of project cost, schedule and risk, ultimately to ensure that project budgets provide adequate risk provision.

61. Following the circumstances of the West Coast Mainline tender the Department fully supported the subsequent HM Treasury review of quality assurance of Government analytical models. In light of the resulting report (Mar 2013) the Department reviewed its assurance processes for all business critical models (including financial models used for EP cost estimating). While existing guidance was found to be broadly fit for purpose, we have strengthened governance of these models to reflect best practice recommendations of the HMT report, e.g. SRO's are identified for each model.

62. Finally, we have put in place improved data capture arrangements which will, during the current financial year, enable us to track in-year spend performance against our plans. This data will be available to the NAO for their next review of the Equipment Plan.

## **HOW DEFENCE DOES CAPABILITY PLANNING**

63. The Department constantly assesses current operational risk and seeks to acquire additional capabilities which mitigate that risk as quickly as possible, either by re-prioritisation of in-year or early years funding, or through the UOR process. Longer term risks are exposed through annual Capability Audits, which are sequenced to inform decision-making during the ABC process. The Capability Audits use scientific analysis to measure any risks being taken between our Future Force 2020 ambition and the actual capabilities which we expect to be available at the front-line. In previous Planning Rounds (prior to the achievement of an affordable Equipment Programme), the Department struggled to find the financial headroom to address any such risks. Now, with an affordable programme, we have that opportunity.

64. The Capability Audits conducted in support of ABC13 highlighted a number of areas where additional equipment (beyond the Core Programme) could help mitigate the Department's capability risks. Concurrently, additional financial headroom was identified, as a result of release of contingency funding and underspend in the Core Equipment Programme. Work was done to ensure that the impact of any current underspend in the Core Equipment Programme would be manageable within the budget in later years, and to confirm that the revised spend profile would not affect planned capability delivery dates. Through the Quarterly Review of Programme Costing (QRPC) any revised spend profiles are reflected in the planned forward programme.

65. Capability risks and the financial headroom were correlated to produce a list of potential enhancements which offered the best balance between capability priorities, risk mitigation and funding availability, in both volume and profile. Candidate enhancements were tested with the DE&S for 'deliverability', to ensure that the project team resources and industrial capacity were in place to deliver the measures, should they be agreed. This work was conducted in concert with the Front Line Commands and governed through the MOD Military Capabilities Board, which agreed a proposed priority list.

66. In ABC13, this process identified that a significant shift in balance of investment in favour of joint enabling capabilities offered the most effective outcome for Defence. As a consequence, it was proposed that at least half of the £1.4Bn early years' additional investment should be allocated to Joint Forces Command. This proposal was endorsed by the AFC and then agreed by the Defence Board.

