

# House of Commons Defence Committee

# Restoring the Fleet: Naval Procurement and the National Shipbuilding Strategy: Government Response to the Committee's Third Report of Session 2016–17

Fifth Special Report of Session 2016–17

Ordered by the House of Commons to be printed 24 January 2017

### 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

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### **Powers**

The committee is one of the departmental select committees, the powers of which are set out in the House of Commons Standing Orders, principally in SO No 152. These are available on the internet via www.parliament.uk.

### **Publication**

Committee reports are published on the Committee's website at www.parliament.uk/defcom and in print by Order of the House.

Evidence relating to this report is published on the <u>inquiry page</u> of the Committee's website.

### **Committee staff**

The current staff of the Committee are James Davies (Clerk), Dr Anna Dickson (Second Clerk), John Curtis (Committee Specialist), David Nicholas (Committee Specialist), Eleanor Scarnell (Committee Specialist), Ian Thomson (Committee Specialist), David Gardner (Senior Committee Assistant and Carolyn Bowes (Committee Assistant)

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# Fifth Special Report

The Defence Committee published its Third Report of Session 2016–17, entitled Restoring the Fleet: Naval Procurement and the National Shipbuilding Strategy on 21 November 2016. The Government's response was received on 17 January 2017 and is appended to this report.

# Appendix: Government response

### Introduction

1. As an island nation, the importance of the Royal Navy to UK defence must not be underestimated. Our starting point in this Report is our conviction that the current number of frigates, destroyers and personnel inadequately reflects the potential threats and vulnerabilities facing the UK and its interests overseas. (Paragraph 11)

The 2015 Strategic Defence and Security Review (SDSR15) set out a clear plan for the Royal Navy. This included a commitment to maintain the fleet of 19 frigates and destroyers and develop a new class of General Purpose Frigate so that by the 2030s we can increase the size of the fleet. This is alongside the Government's commitment to:

- two new aircraft carriers, and eight new Type 26 Global Combat Ships
- new Dreadnought and Astute class submarines
- increase the number of Offshore Patrol Vessels
- improve the availability of our Type 45 Destroyers
- increase the size of the Royal Navy by 400 personnel

For the first time in a generation we are growing our Royal Navy and this major programme of investment will increase our nation's power and reach.

Careful and thorough consideration was given in SDSR15 as to what size, shape and capability we require across our Armed Forces to defend ourselves against the threats we face. This response addresses the issues raised by the Committee, and outlines the progress we have made in delivering on the commitments we made in SDSR15.

### The National Shipbuilding Strategy

2. We look forward to the announcement of the National Shipbuilding Strategy, which has the potential to deliver a more coherent and timely production line of ships for the Royal Navy. However, if that potential is to be realised, the Strategy must include strict timelines for the delivery of the new Type 26 class of frigates and an indicative timeframe for the General Purpose Frigate. Without this information, the National Shipbuilding Strategy will offer little more than aspirations for the future of the Royal Navy. (Paragraph 17)

Sir John Parker's independent report to inform the National Shipbuilding Strategy was published on 29 November 2016. The report is a balanced critique of the challenges faced by Government and industry in the naval shipbuilding sector in recent years.

Sir John's report includes 34 far-reaching recommendations to transform the UK's naval shipbuilding industry which will lay the foundations for a modern, efficient and competitive sector capable of meeting the country's future Defence and security needs. It also sets out how prosperity benefits for shipyards and their supply chains across the country can be delivered. These are for the Ministry of Defence (MOD), wider Government and industry to consider.

The Government welcomes Sir John's report and is committed to delivering a modern National Shipbuilding Strategy. We see it as a vital part of our Industrial Strategy focusing on increasing economic growth across the country and investing in a more skilled workforce. While many of the recommendations are for Government, the themes of Sir John's report (modern digital engineering, industrial innovation, competitiveness, focus on apprenticeships and jobs and exports) also show where industry, working with Government, needs to invest to increase opportunities for the Shipbuilding sector across the UK and enable it to thrive and grow. It also means using our shipbuilding expertise to become a leading producer of ships and designs for export.

3. We recommend that the National Shipbuilding Strategy sets out a detailed timeline for the delivery of the Type 26 frigates and the General Purpose Frigates alongside a clear description of how success will be measured in the coming years. We will expect the Strategy also to include a comprehensive assessment of the potential to build a new complex warship every two years, as well as a detailed schedule showing how each new frigate will arrive as each Type 23 frigate is withdrawn from service with the Fleet, so that no further reduction occurs in its already insufficient warship numbers. (Paragraph 18)

Sir John recognises the Type 26 Global Combat Ship (Type 26) as a critical project for the Royal Navy and the Nation. He recommends that, subject to finalisation of contract negotiations, the complete series of Type 26 should be contracted to BAE Systems. He also recommends that the new class of lighter General Purpose Frigate (Type 31e), should be given priority, both to maintain and then grow the number of frigates in the Royal Navy fleet and to stimulate exports sales. He recommends that the Type 31e should be built in a distributed fashion around regional UK shipyards via a lead shipyard or alliance. He believes that this should reduce the build time for the project in comparison with conventional construction in a single shipyard.

4. Furthermore, we expect the Strategy to set out the criteria against which the expansion of the UK's share of the export market in warships will be judged. (Paragraph 19)

A key component of Sir John's work was to examine how we can be more successful in the warship export market. Sir John made some specific recommendations on this, including that there should be a stronger national co-ordinated effort placed on the export effort for ship sales, project management, design, equipment and sub-systems. Work to better understand how we can use our shipbuilding expertise to become a leading producer of ships and ship designs for export has already begun.

5. It is clear to us that the delays in the construction of the Type 26 have had a negative impact on the development of the workforce on the Clyde. Apprenticeships are not

being offered at the necessary rate, and those currently undertaking apprenticeships are having their skills training disrupted. Furthermore, workers are being required to move from Scotland to Barrow in order for them to undertake meaningful work. We welcome the efforts made by the trades unions and BAES to retain the workforce during this period of uncertainty, but remain deeply concerned by warnings that further delay could be "catastrophic" for the skills base. (Paragraph 24)

The Government response is provided under recommendation 7.

6. The Government must, as a matter of priority, ensure that the UK retains the specialist skills necessary to deliver the National Shipbuilding Strategy. It can do this only if the National Shipbuilding Strategy provides a programme of work on which industry and the workforce can rely. This must include a timetable for both the Type 26 and the GPFF. If the UK is not building sufficient ships, the skills base will be depleted with long-term impacts on both our national security and the UK's defence industrial infrastructure. To ensure the future skills required for ship building it is essential that the Government does more to protect and secure the apprenticeship programme. (Paragraph 25)

Sir John also examined how to make best use of the UK industrial base. The Government is committed to ensuring that the UK retains the specialist skills necessary to deliver the National Shipbuilding Strategy. Sir John highlights the importance of a transparent Master Plan for naval shipbuilding that lays out Defence's procurement plans for each series of naval ships over the next 30 years in order to provide a programme of work on which industry and the workforce can rely. His recommendations on how to secure success in the export market also aim to increase the volume of work for UK industry and the supply chain. On skills and apprenticeships in particular, Sir John recommends that industry and the Government should, with the Trade Unions, support the creation and sustainment of high skilled jobs along with modern apprenticeships and expansion of Technician and Graduate recruitment, to drive performance, particularly via digital engineering.

It is important that the Government gives Sir John's work the full consideration that it deserves. Work is in hand both within Government and with industry, to examine the report and recommendations. The Government will then publish a full and considered response in spring 2017. This response will be the National Shipbuilding Strategy. The Strategy will provide further detail on how and when the Type 31e will be procured and how this will align with the Type 23 Frigate replacement programme and the Type 26 build programme.

### **Type 26 Global Combat Ship**

7. The Type 26 programme has seen a significant extension to its timetable with a thirteen month extension to the Assessment phase followed by an additional fifteen months to the Demonstration phase. (Paragraph 30)

SDSR15 set out the Government's commitment to build eight Anti-Submarine Type 26 ships to replace the in-service Anti-Submarine Warfare (ASW) Type 23 Frigates, and that construction of the Type 26 would be preceded by two additional Offshore Patrol Vessels

(OPVs). We also announced the intention to launch a concept study and then design and build a new class of lighter, flexible General Purpose Frigates to replace the general purpose Type 23 Frigates.

Since that announcement, we have continued to work with industry to develop an optimised schedule for the Type 26, in parallel with the work to mature further the detailed ship design ahead of the start of manufacture, invest in Shore Testing Facilities, and extend the investment in the wider supply chain. As announced by the Minister for Defence Procurement on 8 December, the contract for both OPV 4 and 5 has now been signed and work has begun on the construction of OPV 4 (HMS TAMAR).

It has consistently been our position that the timetable for starting manufacture of Type 26 would be determined by programme maturity. This includes design maturity of the ships, and this work is continuing. Having reached agreement in principle on the key programmatic assumptions that will underpin the programme, we were able to announce on 4 November that, subject to concluding the detailed contractual negotiations, we expect to start building the first batch of the eight planned Type 26 in the summer of 2017.

8. The MoD's announcement that the construction phase of the Type 26 will start in the summer of 2017 belatedly represents a step forward, but it raises as many questions as it attempts to answer. We are concerned at an apparent degree of complacency and lack of urgency on the part of the MoD and DE&S. The start date remains contingent on a successful conclusion to the negotiations between the MoD and BAES on both the design and the contract. Furthermore, even with a 2017 start date, the Type 26 programme will not be "fully underway" until 2019. If we are to have confidence that the Type 26 programme is back on track, the MoD must provide us with a detailed assessment of those design and contract issues which remain outstanding, the build programme for the Type 26 and the rate of output of the ships. (Paragraph 35)

The principles that underpin the agreement we have reached relate to the programme schedule, measures to achieve value for money for the taxpayer and ensuring that the build programme drives industrial performance. The need to secure an agreement that reflects the changes to the Type 26 programme announced in SDSR15, and at the same time achieves these strategic aims, has required intense effort on the part of the MOD and industry. We do not therefore accept the suggestion that the time taken to reach such an agreement is in any way the result of a lack of urgency on the part of either party.

Detailed negotiations to distil the agreed principles on schedule, value for money and industrial performance are now under way with the aim of reaching agreement on a contract for manufacture to start in summer 2017. While it is appropriate that the Government sets out in this response those issues that are at the heart of the negotiations with industry, the Committee should appreciate that the specific issues being addressed during the detailed contractual negotiations are commercially sensitive and providing further details in this response would likely prejudice the commercial interests of the parties involved.

9. The SDSR was announced alongside an increased Defence Equipment Budget, which the Government asserted would provide sufficient funding for the programmes contained within it. We are deeply disappointed that, only 12 months later, a key programme for the modernisation of the Royal Navy appears to be under severe

financial pressure. If the SDSR is to be more than a collection of aspirations, it has to be fully funded. As we warned in our Report on the Government's commitment to spend barely 2% of GDP on defence, the current funding settlement may not be enough. (Paragraph 42)

The 2015 Spending Review had a positive outcome, growing the Defence budget in real terms for the first time in six years, delivering on our commitment to spend at least 2% of GDP on Defence with the MOD budget growing 0.5% above inflation each year to 2020–21. There is sufficient money allocated in the Royal Navy budget to deliver the eight Type 26 Global Combat Ships outlined in the Strategic Defence and Security Review.

10. In its response to our Report, we will expect the Government to provide a clear timeline—with costings at each stage—for the Type 26 programme. In doing so we will also expect to receive clear statements that the necessary funds are available in this financial year and for subsequent financial years alongside details on the amounts spent on the programme as it progresses. Above all, we seek an absolute assurance that short-term financial limitations are not storing up for the future, large cost consequences caused by otherwise avoidable delays in the Type 26 construction programme. (Paragraph 43)

The Committee has asked that this response also includes a clear timeline – with costings at each stage for the Type 26 programme. As this response has explained, these issues are central to the on-going negotiations with industry and will not be available until later in 2017, when the timetable for replacing the current ASW variant Type 23s will also be clearer. We are confident that the agreement reached on the key programmatic assumptions, that form the basis of the detailed negotiations provides a strong framework for an affordable Type 26 programme and that we will be in a position to sign a contract that represents value for money by mid-2017 and start manufacture shortly thereafter.

In recognition of the high level of interest in the Type 26 programme, the MOD has kept Parliament and other interested parties informed of progress at the key points in the programme, including the level of financial commitment the MOD has made as the programme has progressed, and we will continue to do so going forward. The Committee can be assured of further announcements at key programme milestones to the timetable we have outlined.

11. The MoD's announcement of a summer 2017 start date for the Construction Phase for the Type 26 relies on a successful conclusion to negotiations on both the contract and the design of the ship. Should these not be concluded in time for construction to start in summer 2017, further delays will occur, inevitably increasing the overall cost of the Type 26 programme. Such additional costs would result in increased pressure on a Royal Navy budget which is already being squeezed. Furthermore, the pace of construction phase must not be dictated by the financial constraints of the MoD. The use of artificial delays to the programme as a way of managing an over-stretched budget would serve only to increase costs and to undermine further the UK's already severely depleted surface fleet. (Paragraph 47)

The Government's response is provided under recommendation 9.

12. We do not underestimate the importance of value for money to the taxpayer. However, this should not be to the detriment of the capabilities needed by the Royal Navy. With the surface fleet already smaller than ever before, the priority must be to

deliver the Type 26 programme in an expeditious manner. Slowing the pace of the programme just to squeeze out a marginally better deal will not deliver a much-needed capability, and will serve only to increase costs further down the line, especially if the promised infrastructure investment is not forthcoming. (Paragraph 48)

The Government's response provided under recommendation 10.

### Procurement Reform - Learning from Experience

13. There is a history of poor value for money caused by moving start dates being moved to the right and repeated delays in commencing construction. The MoD does not seem to learn from past mistakes and mismanagement of budgets through built-in delays. (Paragraph 49)

At paragraph 49 of its report, the Committee highlighted the importance of improving the way the MOD manages its major procurement projects. In 2012 we began a programme to fundamentally reform our acquisition organisations and processes. A lot has been achieved so far. Front Line Commands have been given control over budgets for the acquisition of the equipment and capabilities they require, and they are robustly held to account for the way in which this money is spent.

In 2014 Defence Equipment and Support (DE&S) became an arm's length body with separate governance structures and management freedoms. It has improved its capability to deliver projects to cost and time and is transforming into a world class acquisition and support organisation.

We are not complacent and know that there is more that we need to do to get better in many respects, while ensuring that all elements of the Acquisition System pull through to full maturity, but we have achieved a step change in performance through our reforms. Successive reports by the National Audit Office have demonstrated the improvements we have made and Lord Levene commented on our positive trajectory in his 4th annual report in November 2015.

We also recognise that there is more we can do improve our governance systems for naval ship procurement. In his independent report Sir John makes several recommendations on how we can inject a more robust sense of grip and pace into our procurement processes. Work is underway to examine and respond to his recommendations in this area.

### Transfer of Equipment from Type 23

14. The procurement of new equipment for the first Type 26 frigates has the potential to smooth the transfer of existing Type 23 equipment to the later Type 26 frigates. In its response, we recommend that the MoD provide further detail on the progress it has made on the manufacture and purchase of that equipment and the expected date of its completion. (Paragraph 51)

A key factor in bringing the Type 26 into service will be the maturity of the equipment it uses. That is why we decided to utilise and transfer proven equipment from the Type 23 Frigates to the Type 26 ships including the Sea Ceptor missile system, the Artisan 997 radar as well as some elements of the ship's communications and electronic warfare equipment. As we have already announced, the £1.9 Billion we have committed to the

Type 26 programme covers nearly all the equipment for the first three ships. The detailed arrangements for transferring equipment from the Type 23s to the remaining five Type 26 ships are being worked through as we develop the granularity of the programme schedule.

15. Given the apparent impracticality of extending the service life of the Type 23s, the importance of the Type 26 build schedule cannot be overstated: the replacement of the former by the latter must remain fully synchronised. (Paragraph 55)

The Government's response is provided under recommendation 18.

16. The delivery of the Type 26s to the Royal Navy has to be coordinated with the out of service dates of the Type 23s. The first Type 23 will come out of service in 2023 and the rest of class will follow on an annual basis. This means that one new Type 26 will have to enter service every year from 2023 onwards, if even the current total of 19 frigates and destroyers is to be maintained. Delivering the Type 26 class (and subsequently the GPFF) to match that timetable will be challenging. Extending the life of some of the Type 23s to accommodate the construction schedule of the Type 26 is not a cost-effective option and would risk diverting the funds available to the Royal Navy away from the Type 26 programme (or other programmes, such as the GPFF and the Carrier programme). The alternative—to decommission Type 23s before they are replaced—would represent a dangerous downgrading of the capabilities of the Royal Navy. Furthermore, it would signify a failure of the Government to honour its promise to maintain a surface fleet of even 19 frigates and destroyers—a figure which, we believe, is already woefully low. (Paragraph 57)

The Government's response is provided under recommendation 18.

### Offshore Patrol Vessel and Type 26 Coherence

17. The MoD has announced that construction of the OPVs will start shortly, with delivery of the vessels due in 2019. Whilst this is a welcome development we remain concerned that this programme has the potential to interfere with, and further delay, the construction of the Type 26. In its Response to our Report, we will expect the MoD to set out in detail, how the construction of the OPVs will be managed so as not to impact on the programme for the construction of the Type 26 frigates. (Paragraph 61)

The Committee has rightly highlighted the importance of a smooth transition from the programme to build the OPVs to the Type 26 manufacture phase. The MOD and BAE Systems are well aware of ensuring coherence between the two programmes. As we advised the Committee in written evidence on 6 July 2016, in addition to providing valuable capability for the Royal Navy, the OPV programme plays a vital role in sustaining shipbuilding skills and setting the entry conditions for a successful Type 26 build programme.

The build schedules for the OPVs and Type 26 have been developed to ensure coherence between the two programmes and to achieve a seamless transition from OPV to Type 26 build, taking full account of capacity and by having an experienced workforce who are appropriately skilled in the production and project management of complete warships.

Identifying mitigation measures to manage risk is standard practice in complex equipment procurement projects of this scale. Appropriate mitigation measures have been identified

to protect the Type 26 schedule should the risk highlighted by the Committee materialise: these measures include the option to complete a larger proportion of outfitting work at the Scotstoun site rather than at Govan. Such an approach will avoid any congestion at the Govan site and enable Type 26 construction to maintain its schedule.

### **General Purpose Frigate**

18. The production of the GPFF must be aligned so that it fits seamlessly into the Type 23 replacement programme both in terms of timing but more importantly in terms of capability. We recommend that the MoD sets out how the construction timetable for the GPFF will dovetail with that of the Type 26. We will also expect more detail on how the MoD will fund and deliver on its aspiration to increase frigate numbers by the 2030s. (Paragraph 72)

In SDSR15, the MOD committed to launch a concept study and then design and build a new lighter, exportable General Purpose Frigate (GPFF) to replace the five general purpose Type 23 Frigates. Sir John Parker has recommended that the GPFF should be named the Type 31e Frigate, where 'e' means that export flexibility is inbuilt, not a variant.

The programme is in its pre-concept phase. As we advised the Committee in written evidence in July, this work is considering the capability the ships will need based on their role, operating environment and the threats they will need to counter. It will need to ensure it is carried out in the context of complementary Defence capabilities, including those provided through the procurement of the Type 26 and OPVs.

The Government's response to Sir John's recommendations (i.e. the National Shipbuilding Strategy) will provide an update on the Type 31e and how this will align with the Type 23 Frigate replacement programme and the Type 26 build programme.

19. The GPFF has the potential to provide the Royal Navy with a modern, flexible frigate. It also offers the UK the opportunity to re-enter the highly valuable export market for warships. However, there is a balance to be struck between these two ambitions. On the one hand, the GPFF must be designed to provide the Royal Navy with the capabilities it requires. Yet, on the other hand, it may be that modular design of a "template" warship, will enable a greater number of basic hulls to enter service, with additional "plug and play" capacity being added incrementally at later stages. (Paragraph 73)

The MOD acknowledges the importance of the export potential of the Type 31e and that if the design is to be successful in the highly competitive international market, it will need to be attractive to a broad cross section of potential international partners.

20. We recommend that the MoD should set out the minimum capabilities required of the GPFF and how they differ from those Type 23s which they will replace. (Paragraph 73)

As this work is in its very early stages we are not in a position to provide details of the specific capability the ships will offer or the timetable for their delivery. However, our current planning assumption is that they will be simpler than the Type 26 and the Type 45, which although they have broad utility across the full spectrum of conflict, are designed specifically to protect the Continuous At Sea Deterrent and Carrier Task Groups. The

Type 31e will, nevertheless, be a globally deployable and suitably equipped warship able to undertake a wide range of military tasks to protect and defend UK interests around the world.

21. In addition, it is vital to know which European examples, whether it be the French Aquitaine-class, or the Danish Absalon-class frigates, the MoD has considered as being suitable templates for the GPFF. (Paragraph 74)

Work is being undertaken in the pre-concept phase to inform development of the requirement but this work does not include any designs as a template for the Type 31e.

### **Type 45 Destroyer**

22. It is clear to us that the under-testing of the engine was a key cause of the problems experienced by the Type 45s when they came into service. This is a serious failing of both the MoD and of the contractors. The MoD did not explain satisfactorily why there was no adequate clause in the contract with Rolls Royce specifying responsibility for repairs should the engines develop any further design faults because of the lack of testing time. In its response, we will expect a detailed explanation of why the testing period was truncated alongside a clear statement of how we can be reassured that this will not be able to happen in the future. (Paragraph 83)

The Integrated Full Electric Propulsion (IFEP) system selected for the Type 45 Destroyers represented a significant advance in propulsion design, delivering significant benefits in terms of increased fuel efficiency and operational flexibility, savings in maintenance and personnel costs, and a lower environmental impact through its operational life. As the then Defence Secretary, the Rt Hon Geoff Hoon MP, acknowledged at the time, his selection of the WR21 in preference to GEC's more mature LM2500 engine presented a greater degree of risk to the programme.

The MOD has previously advised the Committee that the system was subjected to a development and endurance testing programme totalling 8,000 hours and that this was judged by the MOD and industry to have mitigated the system integration and performance risks to a level commensurate with new-to-service equipment. Having made that judgement, based on a testing programme that was completed as planned, the MOD does not accept the Committee's characterisation of the testing regime as 'truncated.'

We have acknowledged that the Type 45 Power and Propulsion system did not deliver the expected levels of performance and reliability when the class first entered service in 2010 and the lessons learned have already been applied to future platform types. The adoption of a less complex, more robust design architecture and increased investment in earlier shore testing for the Type 26 propulsion design is clear evidence of this.

### Liability

On the question of liability, the decision in July 2000 to proceed with the IFEP system was taken in the knowledge that a new design with new technology inevitably involved a degree of risk, particularly the MOD's decision to adopt the WR21 Gas Turbine. It was judged however, that these risks would be outweighed by the system's long term performance benefits. As the issues now being addressed result from those earlier decisions liability for funding this work now rests with the MOD. Where industry had a demonstrable liability for performance they undertook design modifications at their expense.

### Design and Reliability

23. It is astonishing that the specification for the Type 45 did not include the requirement for the ships to operate at full capacity—and for sustained periods—in hot regions such as the Gulf. The UK's enduring presence in the Gulf should have made it a key requirement for the engines. The fact that it was not was an inexcusable failing and one which must not be repeated in the Type 26 and GPFF programmes. Failure to guarantee this would put the personnel and ships of the Royal Navy in danger, with potentially dangerous consequences. (Paragraph 86)

We do not accept the statement in the Committee's report that the design of the Type 45's IFEP system did not include the requirement for the ship to operate for sustained periods in hot climates. The system was designed, in accordance with naval engineering standards for worldwide operations, to operate in all climatic conditions from sub-Arctic to extreme tropical environments, throughout the year.

The issue has been the ability of the WR-21 gas turbine to maintain power output in line with the design intent in high air temperatures. The reduction in power output is not due to a specific fault but is an unavoidable function of air density decreasing as air temperatures rise, which adversely affects power output. This was accepted by the MOD when procuring the WR21 and does not compromise operations in the Gulf. The expectation was that the propulsion control system would manage this issue and allow power output to reduce gradually when operating for sustained periods in high temperatures. The system has not performed to the expected levels resulting in instances of total electrical failure.

The Power and Propulsion system has been modified to address this problem and allow greater control of the WR21 such that the gradual reduction in power is achieved and therefore no longer results in total electrical failures. The effectiveness of the measures taken to date to improve system reliability is evidenced by the improved performance of HMS DEFENDER where, in a nine month deployment to the Gulf, not a single operational day was lost to failures of the Power and Propulsion system.

The reliability and resilience of Type 45 Power and Propulsion systems are being addressed through the two strands of Project Napier: the Equipment Improvement Plan (EIP) is incorporating a series of design modifications to improve reliability and the Power Improvement Project (PIP) will improve resilience by increasing power generation capacity. The EIP is progressing well and delivering positive results, improving the reliability of the propulsion systems, and therefore improving the availability of the ships.

In accepting that there have been issues to address with the Type 45 Destroyer's Power and Propulsion system, it is worth re-stating that we have continued to deploy these warships on operations around the world, including routinely to the Gulf and the South Atlantic, where they have proved themselves in challenging conditions all year round. Type 45 destroyers have operated extremely effectively in these demanding environments, providing a world leading anti-aircraft capability, utilised in support of US and French Carrier Strike Groups.

24. The Type 45 has had a long history of significant engine failures. The MoD's Power Improvement Plan is designed to rectify these problems and put an end to the reliability issues which continue to limit the availability and dependability of the Type 45. The MoD has assured us that there are sufficient funds available for the refit programme. However, it has yet to set a start date. (Paragraph 93)

The Government's response on programme funding is provided under recommendation 26. The question of the start date is addressed in the response to recommendation 25.

25. In its response, we expect the Government to set out, in detail, the costings of this programme and a timeline for the refit across the class of ships. Furthermore, we recommend the MoD provide us with six-monthly progress reports on the programme. (Paragraph 93)

In common with all equipment procurement projects, the cost, start date and schedule of the Power Improvement Project will be determined at the main investment decision.

### Power Improvement Project Funding

26. In addition, the MoD must provide a detailed explanation of how the funds for the refit were sourced and identified as part of the SDSR process—in particular, whether these funds were a separate addition to the Royal Navy's equipment budget or were allocated from within it. As part of that explanation, we will require confirmation that no funds were transferred to the Type 45 from funding originally allocated to the Type 26 programme. (Paragraph 94)

In preparing SDSR15, the Government reviewed the military capabilities of all the Armed Forces and made choices about how it wanted to add to those capabilities. The decision to allocate funding to the Type 45 PIP was part of this overall review of investment plans and the MOD can confirm that the funding allocated to this programme was not money previously dedicated to the Type 26 programme. As with any comprehensive review of Defence spending, these programmes are part of an overall package of capability solutions and associated funding.

### Conclusion

27. The MoD is embarking on a major modernisation of the Royal Navy surface fleet. Notwithstanding the Committee's concerns that the number of ships is at a dangerous and an historic low, it is a programme which has the potential to deliver a modern navy with a broad range of capabilities, especially if the GPFF design proves versatile and sufficiently economical to increase the number of frigates in the Fleet. However, there are serious concerns about the funding available for the programme and the timetable to which the MoD is working. The delay to the construction of the Type 26 has had a negative impact on the skills of the shipbuilding workforce. If this situation is allowed to continue, it risks undermining the ability of the shipbuilding industry to deliver the Type 26s to the necessary timetable. The MoD must also demonstrate that it has learnt from the extraordinary mistakes in the design of the Type 45. (Paragraph 95)

The Government's response is provided under recommendations 1, 6 and 9.

28. The introduction of the Type 26 represents only part of the modernisation of the Royal Navy's frigates. Five of its existing Type 23 frigates will need to be replaced by the new General Purpose Frigate, the design of which is only in its infancy. The MoD must not allow this programme to experience the delays to previous Royal Navy procurement programmes. It also has to ensure that the General Purpose Frigate provides the Royal Navy with the capabilities it requires and is not a less capable ship which is there merely to meet the Government's commitment to 19 frigates and destroyers, and possibly to be suitable for export. Modular design and "plug and play" incremental acquisition could and should enable this to be achieved. Hulls can be designed and constructed to enable an increase in the number of platforms and subsequent augmentation of their equipment. Furthermore, the refit programme and associated costs for the Type 45 must not result in further delays to the frigate programmes. (Paragraph 96)

The Government's response is provided under recommendations 18 to 21 in respect of the General Purpose Frigate programme and recommendation 26 in respect of funding for the Type 45 Power Improvement Project.

29. The National Shipbuilding Strategy offers the MoD the opportunity to put its plans for the modernisation of the frigate fleet back on track. For this to happen, the MoD has to ensure that the Strategy includes a timed production schedule for the delivery of both the Type 26 and GPFF, in close co-ordination with the withdrawal from service of the Type 23s, and that both programmes are fully funded to proceed to that timetable. (Paragraph 97)

The Government's response is provided under recommendations 2 to 6 in respect of the National Shipbuilding Strategy and under recommendation 18 in respect of co-ordination of the Type 31e, Type 26 and how this will align with the Type 23 Frigate replacement programme.

30. At 19 ships, the Royal Navy's frigate and destroyer fleet is at a dangerous and an historic low. By giving a commitment to build "at least" five General Purpose Frigates, the SDSR implicitly acknowledged the need to increase this woefully inadequate total. The Government has now set itself a target date for the start of construction of Type 26. It now has to demonstrate that it can deliver these ships, and the GPFF/Type 31 frigates to the timetable set by the out-of-service timetable for the Type 23s. If the MoD does not, it will put at even greater risk our frigate numbers and the capabilities they provide. The SDSR 2015 undertook to modernise the Royal Navy, it is now time for the MoD to deliver on its promises. (Paragraph 98)

The Committee has expressed concern at what the report refers to as the "financial constraints of the MOD." It is important to put this concern into its proper context, Overall, SDSR15 achieved a positive and balanced outcome, growing the Defence budget in real terms for the first time in six years, delivering on our commitment to spend at least 2% of GDP on Defence and enabling us to invest £178 Billion in new equipment for our Armed Forces over the next decade, an increase of £12 billion on previous plans.

We are growing the Royal Navy for the first time in a generation with new aircraft carriers, submarines, frigates, patrol vessels and aircraft all on their way. 2017 is the start of a new era of maritime power, projecting Britain's influence globally and delivering security at home.

The Type 26 programme is a key element of our investment plans which together with the Type 31e programme has put us on a trajectory to maintain and then grow the Royal Navy's frigate fleet by the 2030s, investing billions in UK shipbuilding over the next decade. This investment will sustain shipbuilding skills at the shipyards on the Clyde and continue to provide opportunities in the wider supply chain around the UK.

The continuing modernisation of the Royal Navy in the coming years through this planned investment will be underpinned by a National Shipbuilding Strategy, which will aim to put naval warship building on a sustainable long term footing. As the Government made clear on receipt of the recommendations made by Sir John Parker, it is committed to delivering a modern shipbuilding strategy, as part of an industrial strategy that focuses on increasing economic growth across the country and investing in a more highly skilled workforce.

We are also continuing to invest in our current capabilities, ensuring they continue to meet the demands we place on them and maintain their operational edge. As we have already advised, the investment in the current ASW capability provided by the Type 23s will maintain their operational capability and enable them to continue to deliver their world leading ASW capability until the Type 26 enters service. Future planned improvements include new radar and missile systems, upgraded boats, modern close range guns and more efficient power generation systems.

The Committee has expressed its concern about the size of the Royal Navy and its ability to fulfil its historic role in protecting the UK's global interests. At the peak of activity in 2016, Naval service personnel were involved in 22 operations at home and abroad, serving on almost 30 ships and submarines across the globe - over 8,000 men and women in all. The Royal Navy continues to meet its standing commitments, including supporting British overseas territories in the Caribbean and the Falklands. A ballistic missile submarine is on patrol 24 hours a day, seven days a week, deterring threats against the UK and our NATO allies, as it has been for the last 47 years.

In Northern Europe and the Baltic, we are responding to the highest level of Russian naval activity since the end of the Cold War. In the Mediterranean and the Aegean, we continue to work alongside our European partners to counter people smuggling and provide training for the Libyan Coastguard. In the Gulf the Royal Navy supports the international coalition against Daesh and continues to protect international trading routes which are vital to the UK's economic security. This Government's continuing investment will ensure that we have a modern, well equipped Royal Navy that continues to meet the challenges of the 21st century