



House of Commons  
Defence Committee

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**Future Anti-Ship Missile  
Systems: Joint inquiry  
with the Assemblée  
nationale's Standing  
Committee on National  
Defence and the Armed  
Forces: Government  
Response to the  
Committee's Thirteenth  
Report**

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**Sixteenth Special Report of  
Session 2017–19**

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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.

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### Contacts

All correspondence should be addressed to the Clerk of the Defence Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 5745; the Committee's email address is [defcom@parliament.uk](mailto:defcom@parliament.uk). Media inquiries should be addressed to Alex Paterson on 020 7219 1589.

## Sixteenth Special Report

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On 12 December 2018 the Defence Committee published its Thirteenth Report of Session 2017–19 [HC 1071] *Future Anti-Ship Missile Systems: Joint inquiry with the Assemblée nationale's Standing Committee on National Defence and the Armed Forces*. The response from the Government was received on 26 February 2019. The response is appended to this report.

## Appendix: Government Response

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The Government welcomes the joint House of Commons Defence Committee/Assemblée Nationale's report into the Future Cruise and Anti-Ship Weapon (FC/ASW). The United Kingdom and France have a long history of defence co-operation, and the Government remains committed to the statements enclosed in the various bilateral Summits between the French Président de la République and the British Prime Minister.

The Government's formal response to the Committees' recommendations and conclusions is set out below. The Committees' findings are in bold, with the Government's response in plain text. For ease of reference, paragraph numbering follows that in the "Conclusions and Recommendations" of the Committees' report.

**1. The industrial mutual dependence embodied by MBDA forms an important pillar of UK-France cooperation post-Lancaster House and this unique model of industrial cooperation has been to the benefit of both countries' industrial and skills bases. (Paragraph 28)**

This UK-French co-operation in the missile domain, known as 'One Complex Weapons', and formalised by the 2010 Lancaster House Defence and Security Treaty, builds on and reinforces our respective national approaches towards Complex Weapons; 'Team Complex Weapons' in the UK and 'Filière Missile' in France. These two approaches share common objectives of acquiring strategic military capabilities, retaining sovereignty, sustaining strategic industrial capability, achieving efficiency, reducing overall costs and supporting prosperity through co-operation and exports. The commonality of intent and approach in this domain – similar requirements, investment levels and technological capabilities, combined with industrial synergies through MBDA – allows the two nations to work closely together for mutual benefit across a range of missile capabilities. MBDA currently employs around 10,000 people across the group, of whom 3,500 are employed in the UK.

**2. There is a serious, and growing, risk of incidents between powers, incidents that themselves pose an increased risk of an escalation of violence. As a result, both of our countries need to be prepared, and equipped, for the prospect of high-intensity conflict in mind. (Paragraph 36)**

What makes the Lancaster House Treaties unique is that they exist precisely to prepare and equip our two nations for the prospect of high-intensity conflicts. This is why very high-end assets such as FC/ASW are an essential part of our bilateral relationship.

In parallel, the UK Government confirms that the UK is unconditionally committed to European security. The UK has a long history of successful collaboration at the forefront

of new technology. The threats we face do not recognise the borders of individual nations or discriminate between them. We must safeguard the practical co-operation we have developed and nurtured over decades.

**3. The continuation of the FC/ASW programme beyond the concept phase will require, after 2020, that new bilateral agreements be concluded between France and the United Kingdom. For political momentum around this programme to be sustained, the two countries' ability to resolve certain outstanding issues will undoubtedly be essential. (Paragraph 84)**

The UK and France have a long history of successful co-operation in the missile domain. The FC/ASW project is currently in its Concept Phase; this is the first phase of the equipment procurement process designed to scope the breadth of concepts and technologies available to meet emerging end user (military) requirements. As part of their national processes, the UK and France are co-operating on a Joint Concept Phase. Its purpose is to investigate both nations' emerging military requirements and the concept, technology and procurement options available to meet them. The Joint Concept Phase was launched in the summer of 2017 and is 18 months into its three-year timescale. This Joint Concept Phase is the earliest stage at which the UK and France have co-operated on a missile programme and the first time they have co-operated on delivering more than one requirement. Co-operation on FC/ASW is an identified part of the UK/French road map published at the January 2018 UK-French Summit, framed by the 2010 Lancaster House Defence and Security Treaty.

**4. For the Royal Navy to be an effective force its surface fleet must be properly equipped with a suite of offensive and defensive weapons. To date, this has included a specialist, heavyweight anti-ship missile capability, in the form of the Harpoon missile system. When Harpoon exits service in 2023, there will be a serious capability gap, until the potential entry into service of FC/ASW programme in 2030. This gap will not be adequately filled by the smaller and more lightweight anti-ship missiles that will be available from 2020 onwards on the Navy's Wildcat helicopters. (Paragraph 105)**

The FC/ASW programme will provide replacements for the Royal Navy's Harpoon and the Royal Air Force's Storm Shadow missiles, as well as France's Exocet and Scalp missiles. In the meantime, the Royal Navy has already extended the service life of Harpoon beyond 2018, and continues to investigate the options for a further extension and an interim capability if required. It is too early to comment on what these might be. A variety of other systems contribute to the UK's overall anti-ship capability and will mitigate any period of transition from Harpoon to its successor.

**5. We appreciate that the MoD will want to fill this capability gap, and there are a number of 'bridging' options available, varying in age, cost and capabilities. However, the MoD will need to weigh carefully the implications of any choice for both the FC/ASW programme and the broader state of UK-French defence relations, as well as for the UK industrial base. (Paragraph 106)**

As referred to above, a number of options are under consideration to provide the UK's anti-ship capability prior to the introduction of FC/ASW, but it is too early to comment on what these might be. Both the UK and France are refurbishing their SCALP / Storm Shadow missiles in a co-ordinated way to keep them in-service until 2032.

6. **It is clear from the evidence gathered by our joint inquiry that any decision to procure a ‘bridging’ system with long post-2030 life expectancy would not be viewed favourably in Paris and could pose a serious threat to the strong bilateral relationship that has developed since 2010. (Paragraph 107)**

Any decision on the UK’s anti-ship capability will take into account the longer-term plan to acquire a system provided by the FC/ASW programme.

7. ***Alongside the work being undertaken by the FC/ASW concept phase, the MoD should conduct a careful analysis of the various options for filling the capability gap. This analysis should include a technical assessment of: the potential for Harpoon’s lifespan to be extended; whether other existing capabilities could be augmented to provide a stronger anti-ship function; the various off-the-shelf options that exist, including the procurement of Harpoon Block II for the P8 Maritime Patrol Aircraft; and the potential procurement of Exocet as a surface-to-surface capability for the Royal Navy. (Paragraph 108)***

The Royal Navy has already extended the service life of Harpoon beyond 2018, and continues to investigate the options for a further extension and an interim capability if required. A number of options are under consideration to provide the UK’s anti-ship capability prior to the introduction of FC/ASW, but it is too early to comment on what these might be.

8. ***In making these assessments, the MoD should carefully balance the savings that could be made in procuring an existing system against the potential costs to the UK industrial base - in terms of jobs and skills and the UK’s sovereign capabilities - and to the UK-French defence relationship. (Paragraph 109)***

Any decision on the UK’s anti-ship capability will take into account the potential effect on the UK’s industrial base.

9. **Convergence on key operational and capability requirements will be essential to any successful move from the Concept Phase to a fully-fledged FC/ASW programme. One of the most important areas where convergence needs to be met is in the question of whether the programme should give precedence to supersonic or subsonic, but stealthy, missiles. (Paragraph 114)**

It has been identified we have broadly the same requirements for both Anti-Ship and Deep Strike capabilities but detailed requirements will not be fixed until much later in the programme. Part of the intention of doing a Joint Concept Phase is to allow us to mature our requirements together, informed by common work on concepts and technologies, so that we can maximise the opportunities for convergence. The UK and France are working together to assess the relative performance of stealthy long range versus high speed weapons against the respective national user requirements. This ‘survivability analysis’ will continue through the remainder of the Joint Concept Phase, and a recommendation on which concept or combination of concepts to procure will be made at Initial Gate.

10. **Reaching convergence on this matter may not necessarily require a zero-sum decision between stealth or velocity. One possible solution, that should be explored during the Concept Phase, should be a supersonic anti-ship missile accompanied by a stealthier deep-strike missile, both missiles sharing, nevertheless, a high degree of**

*similarity on certain components. Such an approach would build on the respective strengths of both countries in missile development and, as a result, could lead to a more efficient distribution of development and production work. (Paragraph 115)*

We believe we have broadly the same requirements for both Anti-Ship and Deep Strike capabilities but detailed requirements will not be fixed until much later in the programme. Part of the intention of doing a Joint Concept Phase is to allow us to mature our requirements together, informed by common work on concepts and technologies, so that we can maximise the opportunities for convergence. The Joint Concept Phase is considering the relative performance of different missile concepts to meet the full suite of national user requirements. This analysis will consider a range of concept combinations which will include the specific option suggested by the Committee.

**11. MBDA is a unique, UK-French enterprise with a substantial set of expertise and skills in the missile manufacturing process. That MBDA was chosen to conduct the concept phase is itself a vote of confidence in its abilities and we note the significance of the potential FC/ASW contract to the maintenance, and development, of MBDA's footprint in both the UK and France. If the final decision is indeed taken to award the main contract to MBDA without a competition, safeguards will need to be in place to ensure value for money for both countries. (Paragraph 120)**

MBDA is indeed the only company, both in France and in the UK, to be a sovereign supplier and one capable of delivering such a high-end weapon as the FC/ASW programme. It is to be noted that other sovereign suppliers are present in France and the UK (Thales Air Defence Ltd in Belfast; Safran ED in France) but they specialise in other activities.

The UK MOD and MBDA work jointly with the MOD Complex Weapons 'Customer' to manage the Complex Weapons requirements as a cohesive portfolio, driving in efficiencies such as Commonality Modularity and Reuse. This enables efficiency savings of circa £2billion per decade compared to stove-pipe contracts with MBDA, which in turn manifests itself as circa £1billion of savings compared to open competition. This has been independently assessed twice, by Deloitte in 2009/10 and Atkins in 2014/15, and it is intended that such assessments will continue to be conducted in advance of Strategic Defence & Security Reviews (nominally every 5 years) testing the ongoing value for money of the Portfolio Management Agreement approach.

In France, MBDA is the sole provider of high-end missiles (airborne deterrence, FC/ASW).

**12. We recognise that UK and French Governments have traditionally adopted different approaches to defence procurement and that reaching agreement might take some time. However, it is surprising that the two Governments appear not yet to have discussed the potential procurement process for the FC/ASW programme. While the concept phase was only launched in 2017, the swift turnaround envisaged following its conclusion in 2020 requires both Governments to be aligned on the procurement process. We recommend that both Governments begin discussions on the potential procurement process for the FC/ASW programme and reach a tentative agreement on such a process by the time the phase concludes in 2020. (Paragraph 121)**

Due to the very nature of the Concept Phase, it is premature to commit to follow-on phases beyond the joint Concept Phase. However, both nations have agreed to begin planning on a without commitment basis with the Assessment Phase anticipated to commence in early

2021. FC/ASW is known to be key to the sustainment of both UK and French key industrial capability/skills and, as such, agreeing national workshare within the Assessment Phase (and beyond) will be a key point of negotiation.

**13. It is essential that the FC/ASW is interoperable with a broad range of platforms deployed by the UK and France's allies. This is both for commercial and, more importantly, operational reasons. The FC/ASW will therefore need to be capable of being integrated with the F-35 Joint Strike Fighter and interoperable with the ALIS system and the MADL data link that enables F-35s to exchange sensitive information. (Paragraph 125)**

The UK assumptions are that missiles will be integrated onto the T26 Frigate and one fast jet, either F35B or Typhoon; France are assuming integration on frigate platforms (FREMM, FTI and potentially Horizon) and Rafale, with operational needs for anti-ship weapons on Maritime Patrol Aircraft. The UK assumption for the Joint Concept Phase is that 'one fast jet' means either the Typhoon or F35B and, as such, the FC/ASW solution will be designed to be compatible with both. Any requirement to fit missiles onto UK platforms of US origin will be managed in the established way.

The UK has considerable experience of integrating missiles onto US platforms; ASRAAM, Meteor and SPEAR 3 are being integrated onto F35B. Several successful ASRAAM test firings have taken place, Meteor and SPEAR 3 test firings will follow at appropriate times in their test programmes.

In the case of the F-35B, the US Prime Contractor (Lockheed Martin Aeronautics) has been contracted by the aircraft Joint Programme Office to integrate the UK weapons using funding provided by UK MoD. The vast majority of the integration effort is performed by the aircraft Prime Contractor with a subcontract placed on BAE Systems UK who have the lead for UK weapons integration the F-35. MBDA provides support and integration hardware (e.g. test missiles) under a subcontract to BAE Systems.

**14. Preserving our sovereign control on the future missiles is not incompatible with the priority given to the interoperability with the platforms used by our allies. Therefore, we urge both Governments and MBDA to explore, during the next half of the concept phase, how interoperability with allies such as the United States and with platforms that are primarily built by US companies, and or which rely on US software, can be provided. This can be done without prejudice to the UK's and France's sovereign control of the FC/ASW programme. (Paragraph 126)**

The UK requirement for the FC/ASW to be integrated on F35B jets and Mk41 launchers respectively will make them viable products for export to allies which use these US systems, whilst recognising that FC/ASW should encounter competition from US weapons on the export market. This would provide an element of interoperability through the use of similar systems. As importantly, the integration of such assets on UK or French platforms (T26, Rafale) will provide state of the art capabilities to those of our allies and partners they will equip.

However, interoperability through the sharing of missile stocks (i.e. loading UK or French platforms with another nation's weapons and vice versa) is very unlikely due to a number of technical and political considerations. Note however that the use between

allies of common engagement planning facilities, which are a fundamental aspect of these weapons systems, is already a well-trodden path and would provide another avenue for continued interoperability.

**15. This chapter has identified a number of important issues that need to be resolved for the FC/ASW programme to progress successfully after the concept phase concludes in 2020. Resolving these issues will require a spirit of pragmatism and compromise from both countries. However, while these issues are significant, they are not insuperable and, in light of the UK and France's long and strong relationship, we are fully confident in the capacity of our two countries to reach agreement. (Paragraph 127)**

The UK and France have been bound by mutual security commitments for over 100 years. We are now building an ever-closer bilateral defence and security relationship through the 2010 Lancaster House Treaties. In an increasingly unstable and uncertain world, this strong and enduring partnership between two great sovereign nations is more important than ever. Our history, interests, values, challenges and capabilities are so closely aligned, and so deeply interlinked, that it is the right strategic choice and plain common sense to work together to address the security challenges we face. Our two countries are the only European powers willing and able to deploy and sustain significant military capability when it is necessary. We can achieve more by continuing to work closely together on defence and security.

**16. Anticipating the effects of the ITAR regulations and, more broadly, any potential hindrance to the export of these materials will be essential for the FC/ASW programme. We recommend that, as part of the concept phase, both countries and MBDA explore the potential impact of the ITAR regulations on the FC/ASW programme and in doing so ensure that lessons are learnt from past experiences, such as the recent aborted SCALP export to Egypt. (Paragraph 166)**

One of the Joint Concept Phase objectives is to remove any ITAR or any other third party constraint on solutions produced. UK and French policy (and FC/ASW intent) is that export should be considered from the outset of procurement. Additionally, improving the export performance of the Complex Weapons Pipeline is a key enabler to long term affordability and sustainability.

**17. It is important to bear in mind that the concept phase still leaves the UK and French authorities with the best part of two years to reach an agreement on the continuation of the FC/ASW programme. We are, therefore, still at the beginning of the process, and there still remains time to refine the expectations and demands of the political and military authorities, both nationally and jointly. (Paragraph 167)**

The Joint Concept Phase has a number of major decision/governance points built into them to ensure that the activities within remain valid and that work is progressively focused onto those areas where evidence is showing the most promising. The major decision point is clearly at the end of the Joint Concept Phase in the form of the 'Initial Gate' for the UK and 'DOC' for France. It is only at this point that options will be definitively scrutinised and 'downselected' for the next phase. It should be noted that the current planning assumption is to hold a single Initial Gate for both requirements, however, this could



change as the Joint Concept Phase progresses and more evidence is available to support procurement choices. This will be assessed by the Joint Concept Phase and plans updated as required.

**18. It is nevertheless essential to realise that the FC/ASW may not succeed and to be aware of the potential consequences of such a failure. Should the FC/ASW programme not proceed after the concept phase concludes in 2020, either for technological or cost reasons, there could be significant consequences for UK-French cooperation and to the unique industrial partnership and skills bases that have emerged in both countries via MBDA. The strengthening of the Franco-British industrial and technological defence base, through the increasingly extensive integration of MBDA, has been one of the pillars of the Lancaster House agreement. (Paragraph 168)**

The Government shares the view of the committee that the success of the FC/ASW programme is key in sustaining the unique industrial partnership and skills bases that have emerged in both countries via MBDA. As such, this aspect will inform the decision-making process.

**19. However, such a scenario need not materialise. We are hopeful that both parties will work to achieve a successful outcome to the concept phase. The concept phase is, as mentioned above, still relatively young and it is clear that good progress has been made to date. While there are key issues that both parties need to resolve, we are certain that they can be resolved amicably and successfully. As Sir Simon Bollom pointed out in London, France and the United Kingdom have a very mature relationship built over the years and based entirely on compromise. This joint inquiry has been a testament to this strong and pragmatic relationship and is a mark of our interest in its continuing success. (Paragraph 169)**

A joint UK/FR 'Initial Review' was successfully completed in January 2018 and a joint 'Key Review' will be held in February 2019. The Initial Review was held six months after contract start and allowed both nations to take cognisance of the Government Furnished Information provided by both nations into the Joint Concept Phase and initial MBDA design studies.

The Key Review occurs 18 months after contract start and will take the more detailed technical evidence, now combined with information on weapon survivability and initial indicative development and manufacture costs and reduce the concept space. After the Key Review, the remaining concepts will be taken to a much higher degree of maturity and modelling in order to generate the necessary performance data to support the military effectiveness analysis at Initial Gate.

## Conclusion

The Franco-British relationship under the aegis of the Lancaster House treaties is unique in Europe. Since the signing of the Treaties in November 2010 we have been working together closely across the full spectrum of defence activity, including military, policy, equipment/capability and nuclear. In the equipment and capability sphere overseen by the High Level Working Group - Complex Weapons and specifically the FC/ASW is a core area of UK-France Defence co-operation. We want to sustain our deep and broad defence

and security relationship under the Lancaster House Treaties, while also working towards a deep and special UK/EU partnership for the future that contributes to the prosperity, security and global power of Europe.

This response has been agreed with the French Ministère des Armées.