

# Written Evidence submitted by the Royal Aeronautical Society (ISD0012)

## 1. About the Royal Aeronautical Society

- 1.1. The Royal Aeronautical Society (the Society) is the world's only professional body dedicated to the entire aerospace community. Established in 1866 to further the art, science and engineering of aeronautics, the Society has been at the forefront of developments in aerospace ever since. The Society seeks to: i) promote the highest possible standards in aerospace disciplines; ii) provide specialist information and act as a central forum for the exchange of ideas; and iii) play a leading role in influencing opinion on aerospace matters.
- 1.2. The Royal Aeronautical Society's Air Power Specialist Group is concerned with the practice of military air power. Its purpose is to increase the understanding of air power both within and outside the Society.

## 2. What is the purpose of a security, defence and foreign policy review?

- 2.1. The Integrated Review provides an opportunity to review global threats and risks, and to define the UK's role in the world. It provides the opportunity to address the breadth of defence capability required now that operations in the grey-zone have become commonplace. There is also the need to reflect more accurately aspects of the Government's industrial policy and prosperity agenda. In so doing, it will also be important to identify how the UK will interact with other states and international bodies, including the EU and NATO, and determine the circumstances under which this would be beneficial. Equally, it will be important to identify the areas where the UK should act independently or lead a coalition, and determine what capabilities are required for this.
- 2.2. It is also essential that the foreign policy ambitions identified are matched with defence capacity and capability. The alignment of the Integrated review with the Comprehensive Spending Review (CSR) provides an opportunity to ensure findings of the review take into account financial realities.
- 2.3. Although finance should not be the driver, the impacts of COVID-19 are inescapable. However, the review should be underpinned by the commitments the Government has already made to continue to adhere to the NATO target of spending 2% of GDP on defence, to commit 0.7% of GNI to international development, and to maintain an independent nuclear deterrent. As the RAeS has previously stated, these percentage commitments do not represent a critical threshold in the delivery of defence capability. By its own admission, NATO states that the "the 2% of GDP guideline alone is no guarantee that money will be spent in the most effective and efficient way to acquire and deploy modern capabilities, it remains, nonetheless, an important indicator of the political resolve of individual Allies to devote to defence a relatively small, but still significant, level of resources at a time of considerable international uncertainty and economic adversity."<sup>1</sup> The RAeS suggests that there might be an opportunity to assess the validity of the 2% of GDP figure and whether this should increase.

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<sup>1</sup> North Atlantic Treaty Organization. *Funding NATO*. [Accessed 19 March 2020]. [https://www.nato.int/cps/en/natohq/topics\\_67655.htm](https://www.nato.int/cps/en/natohq/topics_67655.htm)

**3. What is the purpose, and appropriate scope, for cross-Government collaboration in the review process? What is the best way to ensure it is effective?**

- 3.1. The characteristics of the modern battlespace is that it is increasingly more congested, automated, real-time and deeply complex. The main problem is that, against this novel scenario, military capability and even doctrine still tend to exist in silos. Activity in the grey-zone sees threats with different attributes that are hard to deter, ranging from the dissemination of fake news to the 'badgeless' application of low-level military violence. Much of the new technology used in warfare is now universally accessible across the globe, unlike the specialist technologies of yesterday. By integrating the review across Government departments, the 'silo problem' should be mitigated.
- 3.2. In regard to the scope of the review, military capability must be relevant across four aspects:
- 3.2.1. **Operational relevance:** Does capability give the UK a competitive advantage over potential adversaries? Does it do what is expected in the appropriate time-frame?
  - 3.2.2. **Economic relevance:** Is it affordable and value for money? Can it be procured without unduly distorting the equipment programme and support? Does it provide an economic benefit to the UK?
  - 3.2.3. **Political relevance:** Can it be employed within the legal and ethical framework of the nation and can its use in conflict be justified to Parliament and the people?
  - 3.2.4. **Industrial relevance:** Is it an area where we should sustain national capability, or is it one where the industrial context would better suit a collaborative approach?
- 3.3. The recent NAO study, *Defence Capabilities: Delivering What was Promised*<sup>2</sup> bears testament to the complexity of this challenge and the attendant need for agility. Of the MOD's 32 capability programmes, 10 are assessed as requiring urgent action to guarantee their delivery in the required timescale.
- 3.4. By bringing together Government departments, the Integrated Review should be able to address these four areas of relevance. In particular, it should take account of the lessons from operations in Iraq and Afghanistan which led ultimately to the cross-Government Comprehensive approach updated in the 2018 National Security Capability Review to become Fusion Doctrine: it should also ask whether these aspects are real or merely aspirational.
- 3.5. Equally, clarity is needed on how the Integrated Review will align with the CSR. The RAeS recommendation is that they should be developed alongside each other, to ensure the review's vision avoids the risk of turning-out to be unrealistic or unaffordable. However, the Integrated review should be completed just before the CSR to enable justification to the UK public of the difference in cost and spend. History is littered with inadequately costed Defence reviews, not least the Strategic Defence Review in 1998 where the Ministry of Defence subsequently played financial catch-up for the next decade.
- 3.6. The RAeS welcomes the postponement of the ISDFPR and CSR (but with MOD's underpinning policy work continuing), in-light of COVID-19, which will

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<sup>2</sup> National Audit Office. *Defence Capabilities: Delivering What Was Promised*. [Accessed 7 April 2020]. <https://www.nao.org.uk/report/defence-capabilities-delivering-what-was-promised/>

help ensure that the review is not rushed at the expense of a quality of analysis. The pandemic will inevitably have very significant economic, social and geopolitical impacts.

3.7. There have been reports that the review will seek to modernise defence capabilities whilst reducing costs in the long term. It is important that cost-cutting does not dominate the focus of the review to the detriment of being able to deliver the actions required as a result of the review. Such an approach has previously led to perverse outcomes such as the hollowing-out of support solutions, which leads to a decay in availability. The Integrated Review should focus more on getting value for money than cost-cutting. Fewer more agile capabilities brought to a higher level of readiness and effectiveness more quickly might better reflect the rapidly changing nature of the threat than stretching out big-ticket programmes to meet short-term budget limitations.

#### **4. How should existing and in-development defence capabilities be reviewed? Do assessments of equipment, non-equipment and personnel require different approaches?**

4.1. Defence budgets cover three categories of expenditures: personnel expenses and pensions; research, development and procurement of defence equipment; and exercises and maintenance. While these are all part of a system-of-systems, they need to be assessed both together and separately. It was for this reason that the 'Smart Acquisition' initiative of the 1990s brought-in the notion of 'Lines of Development'<sup>3</sup> by which to define capability.

4.2. Of note, National Audit Office reports show that there is a need to focus on project and programme management within the MOD, in order to ensure that projects are delivered on-time, on-budget and meet the defined specification. Here the key remains the removal of 'requirement creep', provision of stable and predictable funding, and alignment of authority and accountability, all of which have proved illusive in the MOD.

4.3. There will also be dilemmas over the significance of large, costly projects in the equipment programme. For example, the multi-year successor deterrent versus the challenge of the grey-zone, where the latter calls for the faster adoption of novel technology and greater agility in procurement, in the search for highly flexible solutions that can be fielded quickly and applied across a range of scenarios within a defensible legal framework.

#### **5. To what extent should defence reviews address defence procurement?**

5.1. Defence procurement has a number of facets which should be addressed within the review. There have been increased calls for the Government to invest in the UK's defence industrial base, in order to develop skills and innovation within the nation. The defence industry within the UK contributes over £22bn to the economy every year, with 140,000 employees, including 4,200 apprentices and over 7,500 SMEs in the supply chain.<sup>4</sup> The MOD is the sole domestic catalyst for the generation of UK defence capability. As such, it must recognise the impact of its procurement decisions on the nation's prosperity, an aspect in which the 2012

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<sup>3</sup> TEPIDOIL: Training; Equipment; Personnel; Information; Doctrine; Organisation; Infrastructure; Logistics.

<sup>4</sup> ADS Group. *Defence Procurement: Sovereign Capability Explained 2018*. [Accessed 26 March 2020]. <https://www.adsgroup.org.uk/blog/defence-procurement-sovereign-capability-explained/>

*White Paper - National security through technology*<sup>5</sup> was wide of the mark with its overly simplistic definition of value-for-money. It also needs to recognise the significance in the sense of 'operational sovereignty' of on-shore industrial capability with associated intellectual property, when it comes to providing rapid capability enhancement in the run-up to combat operations. The same applies to the incremental insertion of technology by which to spiral develop capability by integrating this activity into availability contracting.

- 5.2. The optimum business model is to stimulate inward investment so that UK-based (rather than necessarily UK-owned) companies create novel intellectual property on-shore which, in turn, can be turned into world-leading, technologically-driven capability for the benefit of both the domestic and export markets. That said, the past record of high-profile defence procurement problems has obscured both the reality that reform is underway and that defence systems are by their nature highly complex. Of note, many of the most 'difficult' programmes have been those at the high-end of the expenditure spectrum and are often UK-bespoke with limited export opportunities. This speaks to the need to design platforms and systems on the basis of open systems architecture with the ability for customers to adopt a 'plug-and-play' approach to meeting their sensor and weapon requirements. Of note, UK-based industry also has highly competitive export offerings in sub-systems such as radars and electronic warfare.
- 5.3. The notion of 'brand UK' is highly significant in export markets. The UK armed forces are regarded as being in the top bracket operationally and discriminating procurement customers who use their kit relentlessly on operations. The UK is also a world leader in support solutions involving incentivised availability contracting with industry, and is adept at novel financing and leasing approaches. For the UK Government more broadly, export sales also stimulate enduring security and intelligence relationships which can be of immense value in addressing future threats and in coalition building.

## **6. Which external stakeholders should be engaged in the review process? How?**

- 6.1. There should be engagement with the UK public, academics and industry, including the unions, in order to attempt to move-on from merely repeating the same arguments and approaches that have been made in the past. In a post COVID-19 world, the British public might have an altogether different view of the components of their personal security. As a result, a public consultation similar to that in 1998 would enable structure around this engagement, which could then be followed up with a series of roundtables or workshops. It is essential that engagement is wide-ranging and, in particular, reaches out to SMEs and businesses across the spectrum of capabilities as well as learned membership bodies, trade associations and think-tanks.
- 6.2. Additionally, the expansion of the scope from the SDSR to the ISDFPR, entirely legitimately, further politicises the review. It is therefore essential that engagement with parliamentarians takes place throughout the process.

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<sup>5</sup> Ministry of Defence. *National security through technology 2012*. [Accessed 26 March 2020]. <https://www.gov.uk/government/publications/national-security-through-technology-technology-equipment-and-support-for-uk-defence-and-security-cm-8278--2>

## **7. What role should international allies and multinational alliances play?**

- 7.1. Alliances are essential, and in some cases help the UK to: achieve global reach; lower costs; and enhance interoperability through joint exercises and through collaborative industrial partnerships. In many cases, it would neither be appropriate or viable for the UK to act in isolation: rather, it should contribute to a global approach to international threats.
- 7.2. It has long been noted that that economic interdependencies underpin security institutions, often making them successful in the long term<sup>6</sup>. Some studies have shown that economic interdependence and common membership of international organisations predisposes nations towards peaceful relationships.<sup>7</sup> Therefore, as the UK establishes its role in the world after leaving the European Union, it is important to consider that the trade agreements and foreign policy positions that are taken all play a role in the shaping the UK's defence model. The circumstances also lend themselves to an opportunity to seek a more coherent relationship with NATO allies to better align funding and investment priorities. Alongside this, it would be useful to assess how the UK's security approach, defence capabilities and foreign policy is perceived by other nations, and their likely appetite to partner with the UK.
- 7.3. There may be occasions when the UK wishes, or is compelled, to act alone or in a coalition that does not include the United States. The capability needed for such operations should be identified and assessed. It is essential that a realistic approach is taken to the UK's ambitions to act independently. For example, it is unrealistic to expect that a UK-led combat aircraft programme will achieve a critical mass of export sales when it is in the same space as a European programmes and likely US, Chinese and Russian competitors.
- 7.4. In seeking the solutions it would be helpful to recognise that reducing the cost of cutting-edge technology, and sharing the cost of R&D, play a key role in both independence and appeal to would-be-partners.

## **8. How can the results of the review best be reflected in a spending review?**

- 8.1. It is essential that the review is costed realistically: there have been multiple occasions where the Government's vision is not backed with the correct funds or the funding associated is not spent efficiently. The Public Accounts Committee have reported that the MoD lacked the ability to "accurately cost programmes" and that the shortfall in the equipment programme could reach £13.0bn by 2029.<sup>8</sup> As previously mentioned, the RAeS's recommendation is that the vision and expenditure plans should be developed alongside each other, to ensure the ISDFPR's vision avoids turning out to be unrealistic or unaffordable. However, the ISDFPR should be completed just before the CSR, to enable justification of the difference in cost-spend to the UK public.

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<sup>6</sup> Ikenberry, G.J. (2001). G. John Ikenberry, *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars*. Princeton, NJ: Princeton University Press; 2001. p. 162–214.

<sup>7</sup> Ikenberry, G.J., Russett, B.M. & Oneal, J.R. Triangulating Peace: Democracy, Interdependence, and International Organizations. *Foreign Affairs*. [Online] 2001; 80 (3), 131.

<sup>8</sup> National Audit Office. *Ministry of Defence: The Equipment Plan 2019-2029*. [Accessed 7 April 2020]. <https://www.nao.org.uk/report/the-equipment-plan-2019-to-2029/>

**9. What is required to ensure that the findings and outcomes of a review are implemented?**

- 9.1. There needs to be clear communication about how the review is being conducted, alongside advice on how individuals and organisations can engage with it. The review must be ruthlessly analytical and utterly realistic to avoid the risk of continuing the ‘conspiracy of optimism’ of old. Once the ISDFPR is completed, it will be important that there is a transparent communication plan for communicating the outcome to parliamentarians, the wider public, businesses and their workforces – and also civil servants.
- 9.2. In order for the benefits of an integrated review to be maximised, It would be worth considering running a series of engagement events for civil servants to raise awareness of the findings of the review, particularly given that it cuts across multiple departments. This could have an impact in reducing the siloed thinking which has historically hindered the execution of defence strategies within government, and could also encourage fruitful cross-departmental working.
- 9.3. As the review is a cross-government undertaking, it must be implemented as such. There must be a mechanism in place to hold the departments to account, and to assess progress over the full period of its implementation. It would also help to overcome initial hurdles. Given that the MOD regards itself as largely self-regulating, there will be a requirement for a strong co-ordinating role for the Cabinet Office.

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*7 April 2020*