Submission On The Royal Navy's Aspects In The United Kingdom's Integrated Defence Review

This is a DefenceSynergia (DS) submission for the House of Commons Defence Committee. DS was formed ahead of the Strategic Defence and Security Review 2010 to research and expose incoherence and weakness in the United Kingdom's (UK) Defence and Security Strategies. In the intervening decade DS has made numerous inputs to several House of Commons and Joint Committees in respect of the lacunae in successive governments' understanding of the requirement to articulate and then adequately fund UK Defence Strategy. In this way to answer on behalf of the Chiefs of Staff (who may not enter the political field publicly) and the British public (who, on the whole, remain unclear about the UK's posture and operational capabilities) the 'when', 'where', and 'why' questions that dictate what military ends, ways and means are required to defend our enduring National Interests.[1]

INTRODUCTION

While it is important to consider the overall validity of the Royal Navy's (RN) Order of Battle (OOB), DS believes that the aspect most worthy of attention is the operational capability (OC) of the Carrier Strike Group (CSG). Why is this? DS recognises that overall fleet numbers have steadily declined over the various reviews since Strategic Defence And Security Review 1998 (SDSR 1998); perhaps the most recent realistic contemporary assessment of the UK's defence forces' requirements at that time. Whilst maritime threats have steadily escalated since then, the UK's maritime forces have steadily reduced very significantly and the advent of CSGs have and will continue to "absorb oxygen" from the remaining naval requirements and commitments. DS believes this to be unequivocally so since dangerous threats have been emerging steadily from the Atlantic to the Far East while, over the same period, assets have been reducing. As a result, the Royal Navy cannot be expected to be at all these places at the same time in order to counter challenges to maritime trade and maintain the security of allies.

This submission will concentrate on the justification for the UK's CSGs and assume that the government's decisions as to their use will be underpinned by effective operational capability that is and can be continuously updated over the lifetime of the aircraft carriers. Presently, DS believes the CSGs to be far from optimal and is saddened to be able to justify that claim.

We continue in the format requested; the subjects appear in bold italics, the comment in plain text.

DS would welcome giving oral evidence to provide more detailed responses and amplifications to the Committee's questions.

Part 1 – What is the UK's ambition for the Navy's role over the next 20 years?

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1 ***We have no eternal allies, and we have no perpetual enemies. Our interests are eternal and perpetual, and those interests it is our duty to follow. Lord Palmerston*** Speech, House of Commons, 1 March 1848

1. ***What naval threats is the UK likely to face and what standing commitments, including for NATO and UK Overseas Territories, does the government intend the Navy to undertake?***
    - ***In particular what is the implication of a tilt to the Indo-Pacific?***

Threats that arise from hostile states are principally from China, Russia, Iran and North Korea, but could be local disputes with countries such as Argentina, France and Spain whose maritime aspirations clash with our own. Tasks are myriad and include protection of trade, responsibilities to defend British Overseas Territories, evacuation, humanitarian responses and diplomacy.

It can be deduced from this diversity that these tasks must demand global activity by the RN; it is DS's contention that the RN's assets are inadequate in numbers and structure to cope with the range of threats that might very well coincide. In particular, the "tilt to the Far East" exacerbates this situation whilst the threat and its political implications demand it

2. ***What naval forces (vessels, capabilities and bases) are required to combat these threats and to deliver these standing commitments?***

    - ***What are the implications of cooperation with vessels from allied nations, for example allied vessels participating in carrier strike groups?***

Since it is increasingly clear that the UK's naval assets are so thinly spread that they must be able, and must, undertake NATO and national tasking in conjunction with allies whilst maintaining reserves to address existing, emerging and 'unknowable' threats. As a result, the RN's capabilities to counter threats must mesh much more effectively than hitherto with allied resources.

DS is sure that important, nay vital, capabilities which have been omitted for reasons of cost rather than operational capability should be restored in a timely manner. Any analysis of the CSG capability to match existential threats demands that CATOBAR restoration in our Aircraft Carriers must be a top priority.

To enable an effective counter threat, facilities for forward basing will be essential to influence and react in a timely fashion. The facilities at Gibraltar, Falklands, Bahrain and Singapore will probably require reassessment to enable this; other options need to be explored.

Cooperation with Allies has always been beneficial to UK maritime forces and leads to increased influence. Any arrangements to keep fully operationally connected with United States and other allied systems is clearly a price worth

paying to achieve mutual support. Having trained and participated in exercises with allies invariably pays dividends when crises arise. Timely deployments will be vital since any engagement must be fought with resources to hand at the outbreak where resilience will aid deterrence in the first instance.

Part 2 – Are naval procurement and support plans delivering the capabilities required for this role?

Any analysis of the RN's OOB since SDSR 1998 would demonstrate just how less flexible and, in the round, less capable the current RN is in pretty well every area of responsibility. Yes, we are developing a CSG capability but not in a properly effective way to counter existing let alone future threat levels. Given the number and make up of naval assets, it is impossible to see how world wide commitments can be met if "sods law" prevails and requirements demand coincident deployments.

Procurement and support plans have not delivered the capabilities required for the RN's roles over many years. The reasons are almost entirely cost driven but are generally not widely understood to either politicians, the media or the general public. Hence there is minimal influence to affect the processes, relationships or the reasons that the Armed Forces arrive at every conflict in the last 100 years far less well able to fight and intrinsically more vulnerable. (As an example, the losses in the Falkland war could have been far fewer had .equipment, procedures and training been more carefully considered). In this respect the Defence Committee may consider it prudent to widen its inquiry with a view to future proofing current weapons platforms against technology degradation in all 3 services. Specifically for the RN the area of new high energy weapons and sensor technology is problematic. It will be necessary to investigate how the extra power required to operate these systems is to become reality. For example (as referred to in paragraph 3 below) the Type 45 power generation is already a known limiting factor?

A more intimate relationship with defence industry that promotes closer understanding and knowledge is vital to avoid waste. This course will require time to achieve and require effort by both parties. MOD appear to be willing while Industry seem unsure at present.

There are several expected pinch points in equipment that pose a risk to the Navy's ability to deliver planned capabilities. The inquiry will examine where risks to specific programs could threaten the Navy's overall effectiveness, with particular focus on the following areas:

1. ***Concerns have been raised over some core equipment and enabling capabilities for the carrier strike program: the withdrawal and removal of partners from the F-35 program has led to speculation***

that the UK will cut its order; the Public Accounts Committee reported in November that the Crowsnest radar system had been delayed by 18 months because of poor contractor performance and inadequate departmental oversight; and the tendering process forthe Fleet Solid Support Ships (FSS) has been delayed multiple times with the current Solid Support Ships expected to retire between 2023-2025. How will this affect plans for Carrier Enabled Power Projection?

A CSG is a sum of many parts, each of which can suffer from a number of weaknesses. Starting with the ships themselves, DS intends to consider the strengths and weaknesses inherent in each.

There is little doubt that QUEEN ELIZABETH and PRINCE OF WALES are, fundamentally, very good platforms upon which to base a miscellany of aircraft necessary for a wide range of operational tasks. They do have, however, some significant weaknesses. The CVF is one of the first RN warships to be constructed to Lloyds Register Naval Ship Rules. This is a development of the safety certification system used for commercial shipping and sets standards for hull construction, propulsion and machinery, electrical power generation and distribution, automation, alarms and safety systems. However, the ship exceeds these standards in order to match operational requirements: "Specific naval and defence standards (DEFSTAN) have also been retained in other areas where a commercial equivalent is not appropriate such as the magazines. Remember that the size of the vessel alone does give a degree of protection and this has allowed us to make pragmatic adjustments to the design.".

MoD is asking the RN to operate with sub optimum resources. The choice of a Carrier with no CATOBAR has led to the Aircraft Early Warning (AEW) Crowsnest system being less than an adequate operational solution since its range is very limited due to it being helicopter mounted and that the system is "past its sell by date". Other deficiencies include the absence of Cooperative Engagement Capability (CEC) and this degrades the unanimity of the force in understanding the entire operational picture; without this the command and individual units of the CSG have only partial views of the operational scene at any one time. Add to this a very minimal bandwidth (currently, most of the Royal Navy's frigates, destroyers and aircraft carriers have less bandwidth available to them than many domestic consumers enjoy at home, or many commercial vessels afford their crews). This severely downgrades (slows up) data-links,

In terms of logistics, an almost total lack of timely Fleet Support Ships (FSS) that will not have heavy jackstay capability thus eliminating the ability to transfer aircraft engines at sea. This in spite of a demonstrator of this system that was in operation in 2014 at a naval establishment. Whilst current deployments may get round this issue of lack stores support by loading the carriers themselves in the empty volumes resulting from low aircraft numbers, war conditions will not afford this luxury. Thus, FSS build is an important priority since the recent fire in Fort Victoria might have wakened people up to the

urgency of the situation. Given the present time scale, these ships will not be available for at least five to six years for first of class. DS understands that Fort Victoria will not be available for most of next year.. Surely not an operationally satisfactory situation which merits close questioning.

Although much hyped as a fifth generation aircraft, the F35B Lightning has so many drawbacks as to question its operational capability within the CSG role. The aircraft's range of operation is limited by being a Short Take Off and Vertical Landing (STOVL) aircraft and this determines the positioning of the CSG which, in its turn, assists in determining its vulnerability. Suffice it to say, the greater the stand off from the enemy, the safer the force is likely to be. At least as debilitating is the non appearance of an Autonomic Information Logistics System (ALIS) or the Operational Data Integrated Network (ODIN). DS believes that the latter is replacing the former but neither is anywhere close to being installed in spite of it being an operational imperative that allows the F35B to be maintained and supported to an operational standard and to function at all operationally in a full threat environment.

2. ***Delays to the Astute class submarine program have been a long standing area of concern, with the late hand over of HMS Audacious likely to have extended delays further down the tranche. How will these delays affect the replacement timeline for the Trafalgar class and the cost of the program?***

    - ***What impact will delays to Astute have on the Dreadnought program, as some of the same production facilities are required for both models?***

From detailed analysis over some time, DS has argued that a minimum force of 12 SSNs is necessary to fulfil commitments, maintenance, repair and refit requirements. Once again, due to savings measures, time delays and the effects thereof, there have been significant delays in production exacerbated by there never having been an efficient relationship between the MoD and her suppliers. There appears to be a "wall" between them ensuring that the degraded operational requirement emerging from a fractured build sequence has to be glossed over and added to the burden on operational submarines that will have to run on well past their planned lifetimes.

DS is not in a position to judge the effect of current delays on the DREADNOUGHT class nor the timeline for replacement of the the TRAFALGAR class but would opine that, in both cases, severe effects on, in particular, the operational availability and capability of their predecessor submarines will suffer. In this context, it is worthy of note that the reason given for the delay in the Astute programme given to the NAO was "that it would allow a seamless transition from Astute to the SSBN building".6

We now find that with boats 5, 6 and 7 yet to complete, both Dreadnought and Valiant are nevertheless currently under construction at Barrow.

3. ***The time at sea for the Type 45 destroyers has been limited in previous years due to long-term difficulties with cooling, propulsion and manpower. What is the status of efforts to address this, like the Power Improvement Program, and what impact will the Type 45's readiness levels have on Navy capabilities over this period?***

Were MOD procurement more like that in the Health Service, the situation that 4 out of 6 Type 45 destroyers have been laid up in an inner dock in Portsmouth Harbour might have led to much earlier action. As things stand, the UK's readiness levels are severely reduced to the extent that a CSG deployment probably negates Type 45 availability should other Anti Air/ Air Defence threat requirements appear.

A remedial programme over many years has just started. Operationally the consequence is that the most efficient maritime Air Defence radar in the world is only deployed in a minimal fashion; this can only hazard the RN's ability to protect CSG's and limit deployment to maritime interests elsewhere.

4. ***The UK is likely to face a "frigate gap" until at least the early 2030s. The current Type 23 frigates will begin to leave service on an annual basis from 2023. There are concerns over the extended retirement dates, especially with regards to the integrity of certain hulls and lack of spare part packages across the board. The first replacement Type 26s and Type 31s are not expected to be in service until at least four years later. What capabilities will the Navy lose or need to deliver through other means as a result? How realistic are production plans for the Type 31s (already described as "aggressive" and including an ambitious delivery rate of one every 8-12 months, compared to 18 months for comparable European programmes for similar vessels)?***

Delays in retirement have operational, budget and personnel consequences: the ever increasing material upkeep makes significant demands on both ships' companies and maintainers, increases running costs and hazards operational deployments. Planning a deployment such as CSG21 takes many years and is affected by ever changing threats and political decisions by government. Over time these have become more numerous as threats develop and budget priorities change. Warship building in the UK for the RN has been one of erosion of skills, insufficient investment, stuttering order books and remedial action being required in many of the recent deliveries. Other countries such as Italy, South Korea, USA, and Japan build faster and deliver better value for money vessels. In submarine construction, the uneven flow in building has led to a lack of skills and uncertainty for younger people to take up the

engineering careers necessary to match the nuclear submarine requirements for clandestine operation that is essential to maritime security and defence. This must be a significant cause for concern.

5. ***The Navy's Hunt and Sandown Mine Counter Measure Vessels will be replaced by an Autonomous Mine Hunting Capability (AMHC) currently under development. How likely is this to be able to replicate the vessels' full contribution, including to partnerships with allies through deployments like Op KIPION, by the time they reach retirement in the early 2030s and what are the implications if it does not?***

    - ***What other progress is being made on integrating UAVs into the Navy?***

MoD people are generally risk averse but AMHC seems a good possibility and when successful has considerable operational advantages and financial savings.Whilst DS believes this to be very much the best future development, timely and proper priority will need to be given to progressing these projects at a proper pace.

6. ***Is the UK's domestic shipbuilding industry able to fulfil its role in delivering the country's naval capabilities? What has been the effect of the National Shipbuilding Strategy? Does the government's decision in the Defence Industrial Strategy to determine whether to invite foreign competition on a case-by-case basis (rather than just for warships) increase or decrease the opportunities for UK shipbuilding? What will industry need to see in the government's forthcoming update to the National Shipbuilding Strategy and 30-year plan for Naval and other government-owned vessels?***

DS remains doubtful unless the government devises, publishes and implements a clear policy. NSS seems to have been a concept that has not progressed much since publication. The Secretary of State for Defence, as the responsible authority, does not seem to the public to have put energy into the NSS. Perhaps this is a well-kept MoD secret. Public transparency from both MoD and the shipbuilders could give greater confidence that business is meant.

7. ***How realistic are proposed exports of Type 26 and Type 31 frigate designs and what effect would they have on costs of the frigates for the UK? Since most foreign buyers will seek to produce ships domestically, how much value are these export deals likely to deliver to UK shipbuilding?***

DS does not understand this question fully. Are you asking about the export of designs only or design and build? The export of the latter will, when set

against the track record of foreign shipbuilders, give significant savings in costs. Exports of designs are important to promote operational interoperability as well as giving value opportunities in the support markets to increase trade. Most countries prefer to build locally in order to promote employment, investment and reduce trade imbalances so, unless the UK can compete on price in both considerations, UK shipbuilding will not benefit.

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8. ***The government's Defence Industrial Strategy promises up to five Type 32 frigates and a new class Type 83 destroyer but no further details on these ships' designs and roles have been provided: how can the government learn from previous programs in designing and delivering these two ships?***

The lessons from previous procurements are many and repetitive. In simple terms they can be summed up by saying that most shipbuilding projects have been delayed by "changes in requirements" and/or "savings measures". So, a lack of trust and understanding, between operators, civil servants, politicians, and commercial suppliers has proved near disastrous in costly overruns and timely completions. Defence procurement is a structure that would benefit from scrutiny and radical change. The time and money expended over the years by MoD in trying to "fudge" operational capability in order to curtail expenditure has been immense, fruitless and a public scandal. Sadly, when challenged, the MoD relies on the so called security excuse of "you do not need to know" whilst relying on the age old adage that there are no votes in Defence!

A change of mindset across Parliament, MoD, and Industry is required. The importance is such that the National Security Council should be tasked to drive the task of provision of Operational Efficient Protection Forces that are directed by a clear National Security Policy supported by more detailed plans for MoD to execute. There needs to be involvement of a number of departments of state to ensure integrated value for investment outcomes.

The deadline for written evidence submissions is 30 May 23:59