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Capabilities Review: Squaring Naval Ambitions, Priorities & Resources

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Summary

The British Armed Forces are in trouble as the realities of an over-ambitious defence strategy, an underfunded equipment plan and a constrained economy bite. A closed session National Security Capabilities Review has been under way for three months, tasked with reprioritising security spending. While Defence Secretary Sir Michael Fallon lobbies for more money, major cuts to the Royal Navy's amphibious warfare capabilities are rumoured to be in the pipeline as the quid pro quo for the enormous costs of introducing two new aircraft carriers. The Year of the Navy seems likely to end in tears and recriminations.

This briefing analyses the importance of amphibious warfare and global maritime power projection in UK military strategy, the likely actual costs of introducing the two new carriers, their aircraft and accompanying vessels, and the unaddressed manpower challenges that stymie naval development. It locates these challenges in the context of the larger planned investment in renewing and upgrading the UK's submarine-based nuclear weapons system. It finds that an exceptional and unrealistic level of ambition for global military influence is central to the UK's current dilemmas. Brexit may exacerbate the

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problems, but their roots reach deep into Britain's maritime imperial history and identity.

Introduction

Much speculative ink has been spilled by the press this month over the outcomes of the UK's National Security Capabilities Review, particularly its drastic mooted impact on the size of the Royal Navy and Royal Marines. Rumour has it that this may see the Navy lose all its dedicated amphibious warfare vessels while the Marines may lose 1,000 personnel or so. Commentary has been split between those who decry the constraints of a defence budget pegged to the historically low 2.0% of GDP, those who blame the devaluation of sterling since the Brexit vote, and those who see the new aircraft carriers and their F-35B joint strike fighters as draining all resources from the rest of the Senior Service.

The truth, as ever, lies somewhere between these positions, but also beyond this narrow framing. The short response is that the government got its sums significantly wrong when it drew up the [Strategic Defence and Security Review](#) (SDSR) and expanded the associated spending commitments of the [Defence Equipment Plan](#) (2016-2026) to £178 billion in late 2015. Neither wishful thinking about cutting billions in administrative costs nor the impact of sterling's depreciation on £21.2 billion of foreign currency-pegged orders has helped. Whether a new generation of nuclear-powered ballistic missile submarines really can be built within budget is also likely to be the cause of lost sleep at the MoD and Admiralty.

The Treasury and National Audit Office are [worried](#). Notwithstanding the official rhetoric of evolving threats to the UK, that is why the Capabilities Review

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was quietly initiated by the Cabinet Office in late July. Its mandate is to make the SDSR plan conform to the financial realities of Brexit Britain. This is no mean challenge: how to fly the flag in more places for less money while not renegeing on commitments to Britain's key ally, the United States. Since its operations are essentially secret, neither public nor parliament know what the review is considering, what (if anything) it has decided, nor exactly when the government will announce its conclusions. However, the flood of leaks from the MoD this month suggests that its work is gathering pace and that the implications for the Naval Service may be severe.

Amphibious Challenges

The word on Whitehall is that the Navy is to carry the can for the huge cost of bringing the two new Queen Elizabeth class supercarriers into service and will be made to compensate through the loss of its two landing platform dock (LPDs) vessels, HMS Albion and HMS Bulwark. One of these is already held in reserve due to shortage of crew. This is in addition to the planned early retirement next year of the Navy's sole helicopter carrier, the recently refurbished HMS Ocean, whose crew are needed for the new carriers. This would leave amphibious operations to the Royal Fleet Auxiliary's three remaining Bay Class dock landing ships, which are not equipped or intended to go in harm's way. The new carriers are envisaged to supersede HMS Ocean in the heliborne assault role but not to replace the LPDs as they cannot carry or launch landing ships. That probably means that the Navy could get Marines on to shore but not their heavy equipment.

This is something of a non-starter for amphibious operations against any serious adversary, and very far from the bespoke amphibious capabilities that France and Italy have been building for a fraction of the cost. In this

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context, reducing the strength of the Royal Marines would be logical. Yet the Marines are central to the maritime power projection capabilities that the SDSR prioritises and which appear to underpin Theresa May's government's current plans to expand the British military presence not just [east of Suez](#) (that was David Cameron's plan) but [east of Singapore](#). As the UK's dedicated Arctic and amphibious warfare force, they are also central to plans to bolster the defence of northern Europe through NATO, the [Northern Group](#) and the UK [Joint Expeditionary Force](#). Finally, they are disproportionately important in generating personnel for the special forces units on which British (and US) overseas remote warfare operations increasingly depend.

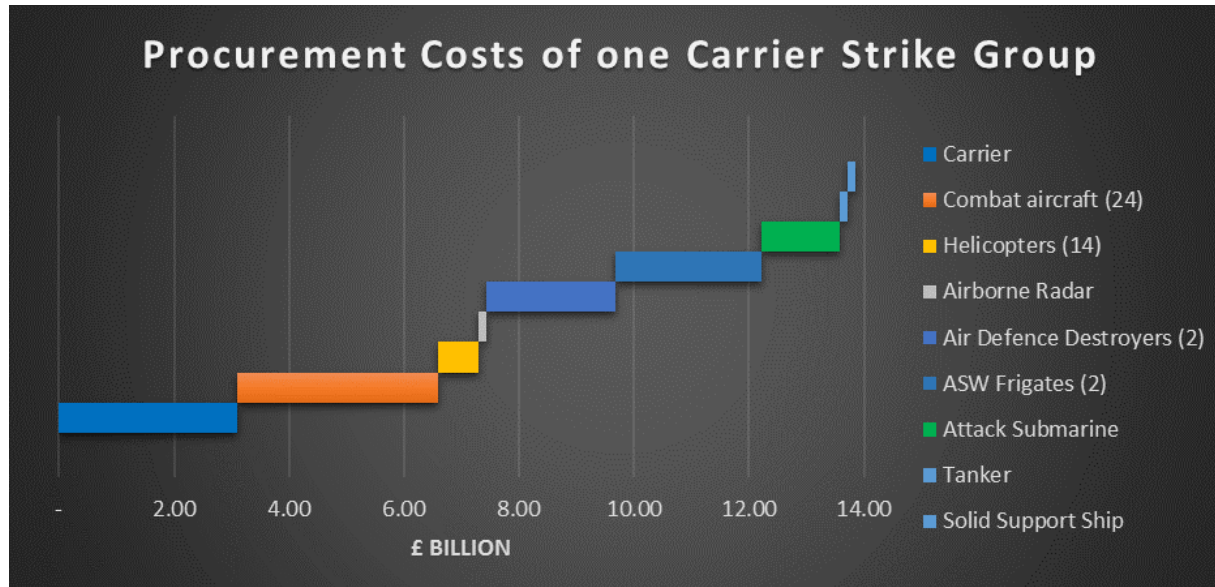
All of this is a rapid turnaround from the triumphalism of August, when the arrival of HMS Queen Elizabeth at Portsmouth and the confirmation of plans for two new classes of frigate were heralded as part of a [Year of the Navy](#). At least two rather obvious factors ought to have restrained the Sea Lords and ministers from their late summer hubris.

The Costs of Carrier Strike

The first is the costs to the Navy not of the carriers themselves, nor even their controversial F-35B fighter aircraft, but of operationalising the concepts of [Carrier Strike](#) (one carrier) and Carrier Enabled Power Projection (CEPP; two carriers) over the next nine years. As *Figure 1* shows, the carriers are certainly costly to build, at £3.1 billion each, but a larger sum must be spent on aircraft in order for them to actually operate as aircraft carriers. Thus, each carrier including its air wing and airborne early warning radar will have a purchase cost of about £7.4 billion. This is for a more limited operating capacity of one squadron of 12 F-35Bs per carrier. To reach their notional capacity of three fighter squadrons each would require many more billions (government is

unable to commit to **actual figures** but I would estimate £9-10 billion) to be spent on the planned (but not yet authorised) purchase of an additional 90 F-35Bs.

Figure 1: Procurement Costs of one Carrier Strike Group



Note: The figure for 24 F-35B combat aircraft is effectively the cost to equip a carrier with a squadron of 12, as some will be held ashore for training/evaluation, in deep maintenance or reserve.

Moreover, aircraft carriers do not operate alone. They are only one part of a larger system called a Carrier Strike Group, which provides defence of the carrier against other ships, submarines and aircraft. In any serious deployment to potentially hostile waters this would **normally be** two air defence destroyers, two anti-submarine frigates, one nuclear-powered attack submarine and one or

two supply ships. This adds about £6.4 billion to the cost of each carrier for a total procurement cost of about £13.85 billion per Carrier Strike Group, or £27.7 billion to reach CEPP. While some of this equipment is already in the fleet (e.g. Type 45 destroyers, Astute class submarines), it has mostly been designed around the global support needs of the carriers, which demand extraordinarily high standards (speed, range, weaponry, survivability) and thus costs. The new [Type-26](#) anti-submarine warfare (ASW) frigates, ordered last month and each costing about £1.25 billion, are a case-in-point. This is more than double what France and Italy are paying for their similar sized and roled FREMM frigates.

Such concern for quality of kit clearly has an implication for the size of the fleet. The Royal Navy of the 2020s is only projected to have sufficient frontline vessels in service to mount one carrier strike group patrol plus safeguarding the Continuous at Sea Deterrent (i.e. a submarine, heavy frigate and minesweepers to protect approaches to [HMNB Clyde](#) nuclear submarine base) plus one light frigate to escort potentially hostile vessels passing by UK waters and another forward deployed to [Bahrain or Singapore](#). Compared to the early 1980s, when the last class of three aircraft carriers came into service, the Navy's ratio of frigates and destroyers per carrier has halved to 9 or 10, of which only 3 or 4 would normally be available for operational deployment. This is because two-thirds of the fleet is normally occupied at home with rest, refit, maintenance and training.

Burdened with protecting the carrier(s), this will be a less flexible Royal Navy, less able to mount the wide range of duties currently expected of it. While ships from NATO allies could escort the British carriers, and interoperability with US carrier strike groups is inbuilt, it is debatable whether the Royal Navy alone

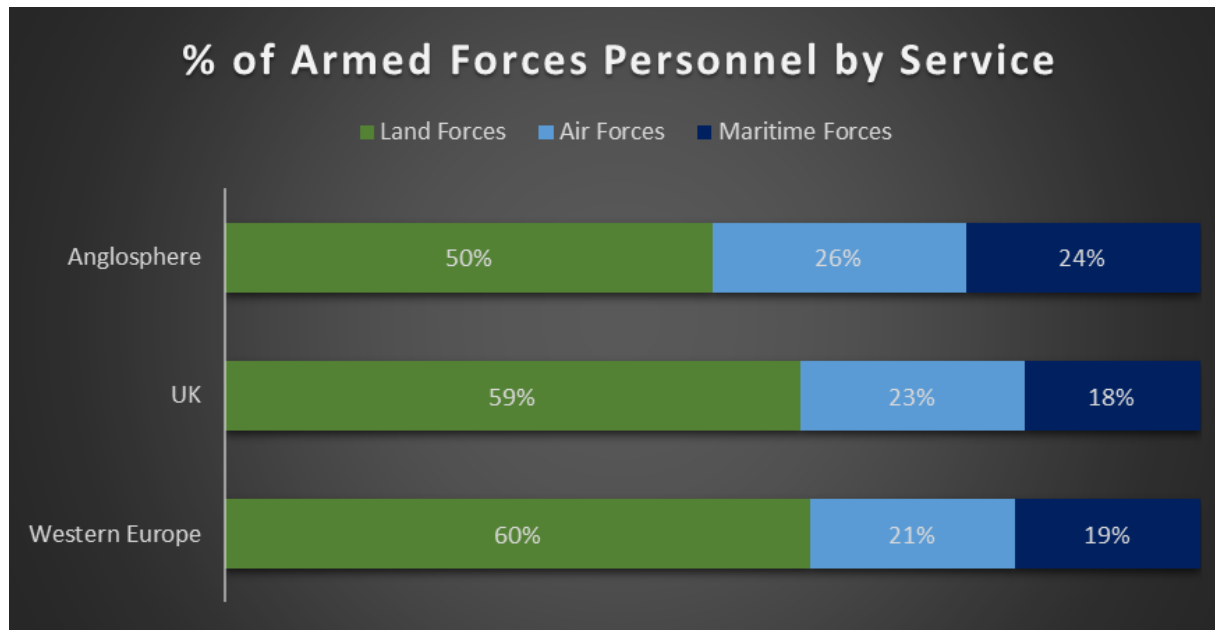
could support both a carrier battle group and a major amphibious landing simultaneously. Put another way, this *will* be a Royal Navy more integrated with and able to support US naval and amphibious operations globally but, as junior partner, will not necessarily exercise much political control nor enjoy reciprocal support for its priorities.

Manning Maritime Power Projection

The second significant problem for the Navy is that the SDSR expanded the role and equipment of the Navy without rebalancing the overall armed forces personnel mix necessary to operationalise the desired return to a global maritime expeditionary presence. That is to say, there are too few sailors (relative to soldiers) to man the new ships at the level of ambition envisaged. This would be the case even if the Royal Navy could recruit and retain its full allocation of personnel. It is also independent of the acknowledged shortage of key specialists necessary to engineer and operate such complex warships.

Looking at the distribution of manpower between land (including marine infantry), air and maritime forces within the British armed forces, one finds that the current and envisaged British ratio of 59% soldiers, 23% airmen, 18% sailors maps very closely to the average of Western European maritime peers (i.e. Norway, Denmark, Netherlands, France, Spain, Portugal, Italy). Indeed, despite its greater blue water traditions and ambitions, the UK is slightly below these allies' average of 19% sailors, even when including 2,000 Royal Fleet Auxiliary civilian sailors.

Figure 2: % of Armed Forces Personnel by Service



Note: Figures exclude personnel allocated to joint service structures (e.g. military health, police or logistic support). Land forces include Marine infantry. Anglosphere and Western European totals exclude UK data.

Compare this to the near uniform ratio of manpower within the armed forces of the UK's Anglosphere allies (US, Canada, Australia, New Zealand): 50% soldiers, 26% airmen, 24% sailors. These are countries that do not expect to do any fighting on their home territories nor even home continents. Part of the problem for the UK is that it has set out a defence concept and equipment plan for a post-European future that is not underpinned by a reallocation of manpower from Army to Navy. With a total armed force of 150,000, a shift from European to Anglosphere force structure would mean an additional 9,000 sailors for the Royal Navy, one-third more than present strength.

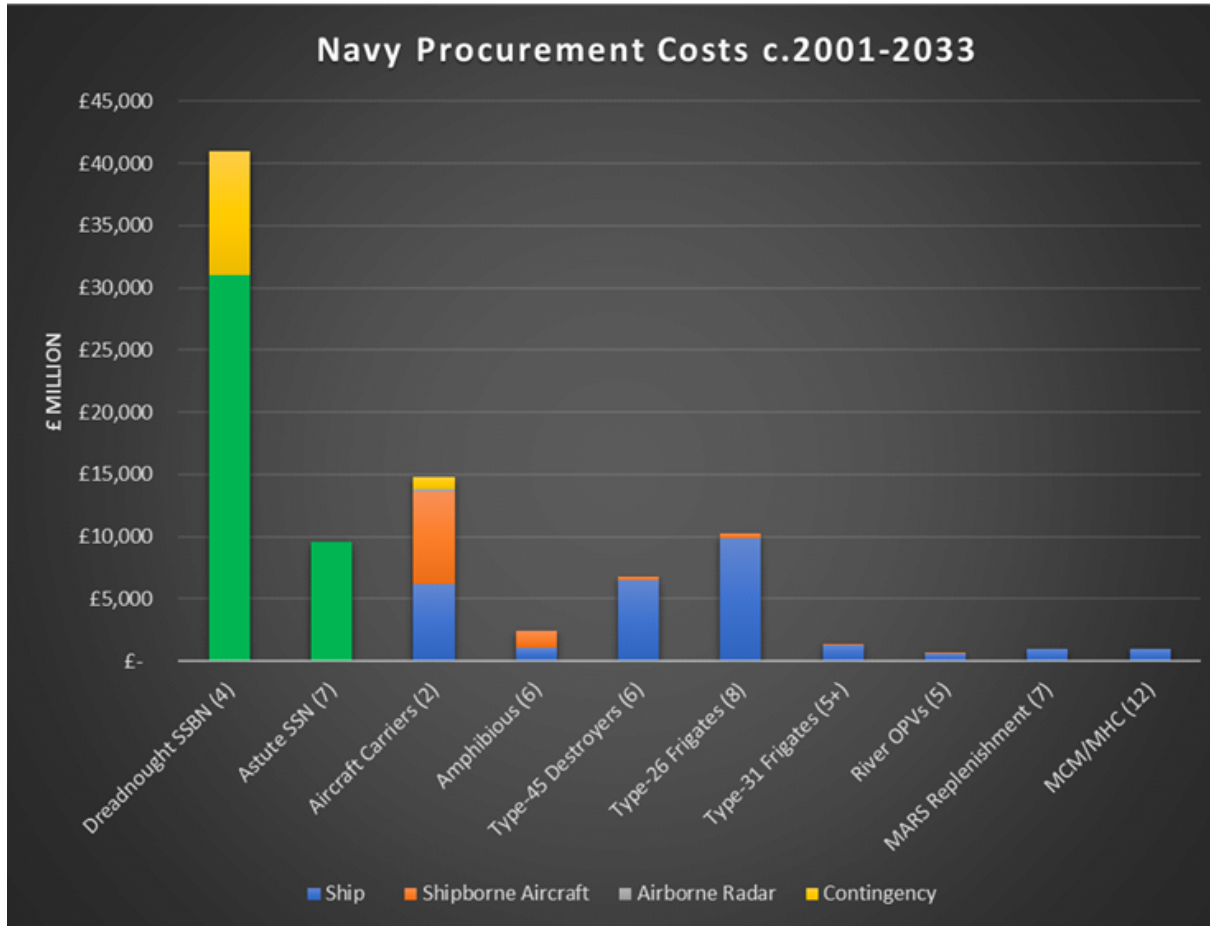
None of this is to argue that such a maritime expeditionary force structure is desirable for the UK. Dominant in the two or three centuries of maritime empire up to the early 1970s, such a role is not intrinsic to Britain's island geography. The continent 33 km to the southeast is not wholly at peace and the Cameron and May governments have accompanied the withdrawal of land forces from Germany with new deployments to Estonia, Poland, Romania and the Mediterranean. Other than the US and France, no other state – not even China or Russia – currently expects to operate militarily as far from home territory as the UK. British military ambition remains exceptional.

Strategic Priorities

Finally, there is the overlooked question of prioritisation relative to the far costlier new [Dreadnought class](#) of nuclear-powered ballistic missile-armed submarines (SSBN) to carry the UK's Trident nuclear weapons. As *Figure 2* shows, whether one considers the costs of the carriers alone, carriers plus aircraft, or carrier battle groups, the cost of carrier strike is still far lower than that of the new SSBNs. The construction budget for the Dreadnought class is currently set at £31 billion with an additional £10 billion contingency reflecting prior cost inflation and the high level of uncertainty over eventual costs.

Indeed, the government's Infrastructure and Projects Authority has given steadily worsening assessments of its confidence in bringing this mega project in on time and budget. Its [July 2017 assessment](#) rated the overall project as Amber/Red (major risks; doubtful success) and the nuclear reactor power plant as Red (unachievable). Like US investment in the troubled F-35 project, the Dreadnought project is probably too big to be allowed to fail, which just means ever more resources being diverted to "fix" its problems.'

Figure 3: HM Naval Procurement Costs c. 2001-2033



Note: Figures include all Royal Navy, Royal Fleet Auxiliary, and Royal Marines vessels above 110 tons built or currently planned to be built between 2001 and 2033, as well as all Fleet Air Arm helicopters and the first 48 F-358 aircraft designed for Fleet Air Arm use but owned jointly with the RAF. It excludes Army Corps or RAF helicopter that may operate off the carriers and RAF P8-A maritime surveillance aircraft that will support carrier and submarine operations.

Even if the Dreadnoughts defy expectations and are delivered without touching their contingency fund, they will still have cost more than the entire Navy surface fleet of 50+ ships and almost 100 associated helicopters. To occlude this detail from the debate on Royal Navy spending priorities is incredible. In strictly cost terms, one might as accurately talk about axing the Dreadnoughts to double the size of the surface fleet (perhaps proportionate to the needs of a two-carrier navy) as axing amphibious capabilities to save the carriers. Clearly the SSBNs are intended to do something very different to the surface fleet (as submerged missile bases they may not even be correctly described as maritime warfare assets), but this is equally true of the carriers, which are floating air force bases, or the amphibious ships, which are afloat bases for specialised land forces.

Boats Against the Current

As was already [obvious in 2015](#), the SDSR is torn between the UK's commitment to reinforce its military presence in northern and eastern Europe against a more assertive Russia and its desire to resume a more assertive maritime role of its own in the Middle East and Asia, while renewing and upgrading its nuclear strike capabilities. Uniquely, the benefit and burden of all three priorities of this full spectrum approach fall upon the Royal Navy.

Brexit has exacerbated these burdens by making dollar-denominated new equipment (particularly F-35Bs) more expensive and by bolstering the government's resolve to use the Navy for 'defence diplomacy' tasks in the Middle East and Asia. But these are not the fundamental problems of the Navy. Almost all Royal Navy ships, submarines and helicopters will remain British-built and the intention to resume a global military presence predates Brexit.

The real problem, then, for both the Navy and the Ministry of Defence is a surfeit of ambition to deploy military force relative to both fiscal resources and strategic reality. One approach would be, as the [Defence Secretary](#) and [Commons Defence Committee Chair](#) have begun advocating, to increase the defence budget above the 2.0% of GDP threshold that formed the [consensus](#) among major parties at the recent general election. Plenty of Conservative MPs and their Democratic Unionist Party allies would back this, but not necessarily a clear majority of MPs or the cabinet. The UK is already an [outlier](#) in Western Europe due to relatively high military spending.

Moreover, increasing spending would not resolve the strategic dilemmas at the heart of the SDSR. One is whether increasing the level of UK military engagement with the rest of the world makes the UK (let alone the rest of the world) more secure. The experience of the last 16 years certainly gives cause to query this hypothesis. Since the golden era of [gunboat diplomacy](#), British strategic thinking has rested on the almost unquestioned assumption that UK defence relates to British “interests” rather than territory and thus demands and legitimates a credible global offensive capacity to strike whoever threatens those interests. It is not incidental that the key terms associated with the carriers are “strike” and “power projection”.

A second dilemma relates to this issue of credible capacity. Can the UK realistically hope to increase its global influence while in a period of sustained relative decline of its economic importance? Putin’s Russia and Trump’s USA believe their countries can use military spending to reverse or offset such decline; the global consequences of such nostalgia appear profound. The UK has yet to match its engorged ambitions with inflated funding. If it sets this

course, like Jay Gatsby, the Royal Navy seems bound to “beat on, boats against the current, borne back ceaselessly into the past.”

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About the Author

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