

# **TICKING THE MISSION BOXES:**

## **FORCE STRUCTURE AND THE ROYAL NAVY**

**By Professor Geoffrey Till**

### **A. Summary**

- The UK ambition for the Navy over the next 20 years should be aimed at contributing to 'competitive cooperation' with China and the containment of Russian truculence.
- Industrial and budgetary limitations mean this has to be a combined and joint enterprise
- Properly preparing for a sustainable relationship with China will provide the maritime wherewithal to handle the Russian threat.
- Force structure design should be driven by strategic requirement, technical development and the extent, nature and prospective use of Chinese maritime power. .

### **B. Author of Submission**

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### **C. The Submission:**

#### **Part 1: The Threat Horizon**

1. HMG ambition for the future Royal Navy will be based on constructing a sustainable relationship with a potentially extremely ambitious China, while containing the strategic truculence of an aggrieved Russia. The FCO mantra that where Russia is bad weather, China is climate change is absolutely right. The scale of China's economic resurgence, its maritime potential, its strategic coherence, its

cultural proclivities ('All Under Heaven') and its current foreign policy behaviour underline the point that it is potentially far more of a threat to the international order than Russia. Russia on the other hand is preoccupied with its fixation on 'great powerness,' and seeks to roll back what it sees as Western strategic gains and to improve the local balance of power. The weapons at Mr Putin's disposal are a disregard of the rules, access to asymmetric tactics, home-grown hyper-nationalism, threatening rhetoric and aggressive posturing on land and sea. China adds its vast economic power to the mix but its rhetoric is more calculated. Coping with the slightly longer term Chinese global challenge will position us well to deal with the immediate regional challenge posed by Russia.

2. Both challenges require a naval response interwoven with all other forms of government action in an all-of-nation approach. For this, a Balanced Fleet is necessary, implying the capacity to respond usefully across a spectrum of threat ranging from low-level criminal activity at sea at one end to high intensity conflict with peer adversaries at the other. Meeting such a wide range of contingencies demands an equally diversified range of platforms, weapons, sensors, systems and the people to design, construct, maintain and operate them. In a world of constantly changing threats, ensuring that the fleet balance remains fit for purpose, requires a process of continuous tinkering in all aspects of force structure design, and not just those relating to the technical mix of platforms.

## **Part II: Naval Procurement and Support : General principles**

3. The most obvious driver in force structure design is the scale and nature of the particular threats that need to be addressed. These change all the time, but can be reduced to a set of nine along two axes (See Fig 1). The first axis is of intensity, namely

- Major Conflict/Peer competition, [Russia, China]
- Medium/minor stabilisation operations,[Iran]
- Maritime Security and Humanitarian interventions to defend good order at and from the sea (HADR)

The second axis is temporal, often forgotten and a matter of time and sequence, namely,

- Preliminary, precursor phase
- Operations phase

- Post-operation/ settlement phase.

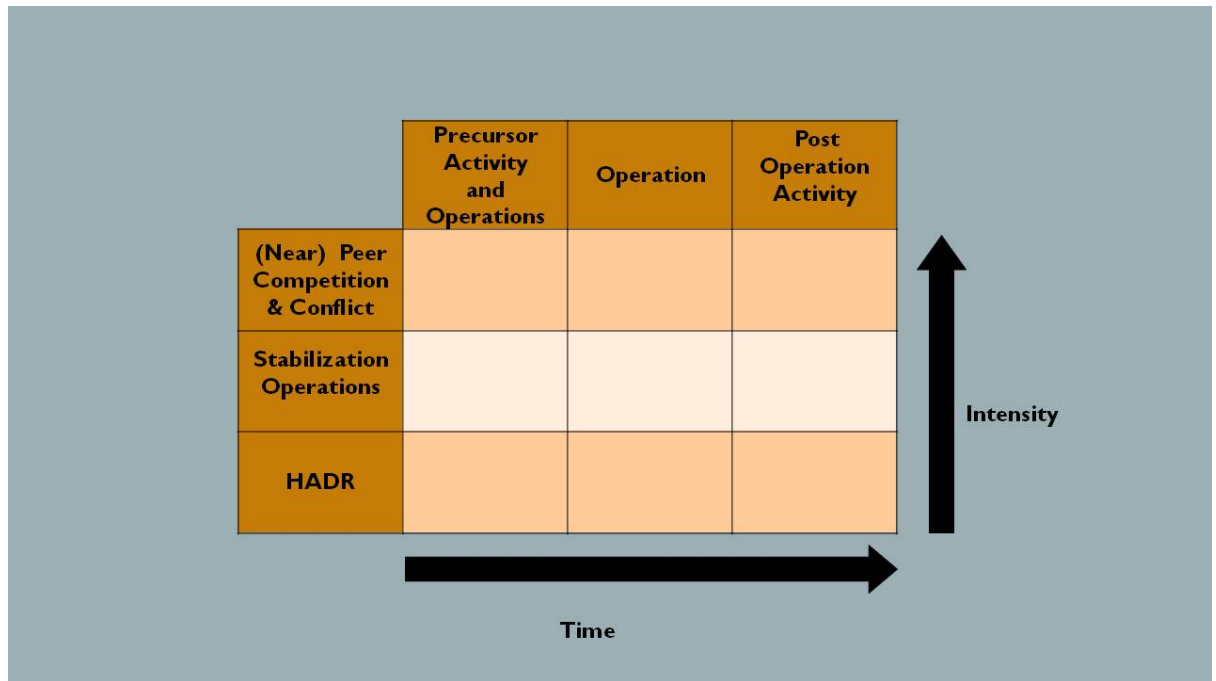


Fig 1 Mission Boxes

All of these need to be prepared for. All shade into one another.

4. Operations against a peer competitor are not the only show in town. The size and shape of the fleet has to reflect the competing needs of three scenarios of intensity since their demands on the size and shape of the fleet may well differ widely. Across all three scenarios, the sequence of events needs to be catered for, namely what comes before and what comes after the conduct of main operations in all three scenarios of intensity.

5. For instance the recently departed Carrier Strike Group, will be able usefully to contribute to all nine intensity/temporal mission boxes, but there is a case that its regular deployment for low-intensity MARSEC operations would be cost-ineffective mission over-kill compared to smaller vessels persistently available in theatre. Other sceptics worried about Chinese A2/AD might think that in a conflict these threats would first need to be reduced to manageable proportions, rather in the manner of the pre-cursor operations of the 1980s in Europe's northern waters, before being directly engaged in sea control operations in the Western Pacific.

6. In designing naval force structure, the utility of every affordable maritime package needs to be tested against this intensity/temporal matrix. Coping in conjunction with allies and partners against the greater challenge of Chinese maritime power, will secure us against the lesser if more immediate Russian one.

### **Part III Naval Procurement and Support : 20 Specific Recommendations**

7. The author of this submission is not in a position to offer authoritative judgements on the possible consequence of reduction in F-35 orders, T45 propulsion issues and delays in the Crowsnest, FSS and Astute programmes for planned RN deployments. Obviously they all reflect problems in the acquisition cycle that are common in all navies and need to be rectified.

8. Platform Numbers. Addressing these issues successfully will increase confidence that the T26 and T31 programmes will meet minimum essential frigate force levels. The currently opaque T32 programme offers the welcome prospect of an ultimate increase in FF numbers. Alongside this, opportunity should be taken to explore more radical options of increasing platform numbers , as identified in the current US debate over BattleForce 2045. These include unmanned systems, smaller combatants and non-platform -centric systems.

9. Unmanned systems. The idea that conventional platforms should be regarded as mother ships for unmanned systems that extent the range and quality of their operational effectiveness and deal with some of the dull, dangerous and dirty aspects of naval operation appear to be well appreciated. The RN's innovative exploration of the potential of unmanned underwater systems in helping it make the most of the limited numbers of submarines available, in particular is to be applauded. Whether enough money is being spend on this is an open question.

10. Smaller combatants have considerable advantages for many of the intensity/temporal mission boxes described earlier. They include:

- Greater numbers of smaller, speedier ships provide tactical agility, increasing the adversary's detection problems and if sufficiently well armed can offer multiples axes of attack. The effectiveness in the Syrian civil war of the Russian *Stereguschiy* and *Gremyashchiy* light frigate/corvettes( Projects 20380 and 20385 respectively) armed with 2500 km Kalibr 3M-14 land attack missiles could be a model here. They would fit the notions of Distributed Maritime Operations and Expeditionary Advanced Base Operations being developed in the United States in the initial phase of any battle for sea control in the Western Pacific, and in other highly contested areas such as the Baltic and Black seas.

- Smaller faster but effective craft can provide a means of 'out-swarming the swarms' - as the Sri Lankan Navy was finally able to do with such success against the Tamil Sea Tigers. This could be of special value in the Gulf.
- They offer more tactical options when responding to the 'onion ring' approach of the Chinese in the South China Sea who make effective use of fishing boats, People's Militia Craft, small and large Coast Guard vessels and warships in establishing escalation dominance. It can be assumed that they will be adding unmanned systems to the mix as well. In responding to such provocations, a force only comprising large but physically fragile/expensive warships could be at some disadvantage in shouldering incidents (as in the Icelandic Cod wars) and the like.
- Moreover smaller craft more readily available could provide a easier fit for inter-operations with local allies and partners. This is important as securing and maintaining local support is a critical prerequisite for many of the missions identified earlier and is still a substantial source of advantage over Russia and China. Winning the influence war by such means should make winning kinetic ones unnecessary.
- Smaller craft would be easier to deploy forwards for longer periods of time possibly with a sea-based mother ship, and so prove well suited to aspirations for persistent presence.
- Finally access to vessels of this sort deployed forward further increase opportunities for command and should restore some of the reduced sense of naval adventure.

The option of up-arming the River class type of platform and working to increase their number is an option that should be considered seriously. The appearance of heavily armed corvettes like Israel's Sa'ar 5 and 6 show that such smaller vessels can pack significant punch and offer significant operational, industrial and personnel advantages.

11. Non-platform-centric systems . Conceptions of the main battlefleet can be too platform-centric. In an age of enhanced sea denial/ A2/AD capabilities (in the shape of shore based anti-ship missiles, mines, quiet coastal submarines and the like there is much to be said for the concepts of 'distributed lethality' and 'distributed

maritime operations' since dispersal reduces vulnerability. In compensation, modern communications systems, cyber capabilities, space based surveillance, Artificial Intelligence, unmanned systems, etc, etc, mean that a dispersed fleet can nonetheless generate decisive concentrated force. The result between peer/near peer adversaries such as Russia or China will be a high-intensity conflict between opposing battle systems, in which manned platforms (whether big and small ships, submarines or aircraft) are just a part, and not necessarily always the decisive part. They are however key to all other contingencies. Moreover, many of these systems are currently untested. There is much to be said for the RN being a 'fast follower' like the Chinese rather than a risk-taking pioneer in this respect.

12. Platform Lethality. There is a marked inclination towards the provision of platforms that are bigger and usually more expensive than their predecessors. While on paper they seem to reflect a focus on high intensity operation, in reality reports suggest they often seem decidedly under-armed and with worryingly limited magazines when compared to their Russian and Chinese equivalents. Even the Australian version of the T26 appears to be a more capable ship than the RN's original. If this impression is justified, rectification seems called for. British naval history is littered with examples of the consequences of not doing so. It is to be hoped that their open architecture will allow up-arming in due course, and that this requirement is built into the all-important design stage.

13. Sustainment. Forward presence and global reach in the Indo-Pacific, demand global sustainment, especially where places or bases are less than wholly available. Delays in the FSS programme are therefore worrying. The continued modernisation, navalisation and possible expansion of the RFA support fleet has much to recommend it, especially if these are armed and equipped with weapons and sensors that support the concept of distributed lethality.

14. The Undersea Dimension. Submarines are of especial value in highly contested areas. Although there would be obvious advantages in re-acquiring SSKs for operations in the immediate European theatre, it is accepted that the global range expected of the RN requires SSNs instead. It is further accepted that their great cost, continuing delays in the *Astute* programme and the need to focus on the acquisition of the *Dreadnoughts* make it unlikely that the submarine fleet can be expanded or diversified into SSKs in the foreseeable future. Unmanned systems will help. The eventual re-acquisition of effective (un)manned SSKs may be thought a reasonable aspiration.

15. Sea-land Operations. General Berger's vision of the future role and operating style of key elements of the US Marine Corps, suggests convergence with, and a justification for, the traditional focus of the Royal Marines, which have rarely been as critical to wider fleet success than it is now. Berger and his entourage are also talking, however, about the need to adapt for operations in a more contested littoral environment with faster, smaller but well armed amphibious ships. These could also be a key component in networked fleets working in support of the notion of distributed lethality.

#### **Part IV : Concluding Observations**

16. Joint. By definition, maritime means more than the merely naval, although the focus on the sea means naval predominance in many circumstances. The US emphasis on multi-domain operations, echoes the aspirations of our main adversaries in developing higher level operational synergies with the other services. It also underlines the point that navies are of most strategic significance for their effect upon the land. For this seamless cooperation with the Army and the RAF are essential. Such cooperation needs to be a high priority for the other services too. The disastrous consequences of the adversarial manner in which Dual Control of the Fleet Air Arm was conducted in the interwar period should act as a terrible warning for all concerned.

17. Combined. The RN will rarely be operating as a totally independent actor. Most problems in low-intensity Maritime Security are transnational and so require transnational responses. Against our main adversaries, we have a host of like-minded allies and partners - and a vast audience of the wary but potentially sympathetic by-standers. Winning and developing the support of both groups in the 'influence battle' is critical and that requires the RN to do its part by forward deployment and constant engagement. In operational wear-and-tear for the fleet and its people, this is unavoidably expensive - but, nonetheless, it is a key part of the UK's investment in its future. As such, the ability to maintain the capacity for persistent forward operations remains a major driver in force structure design.

18. The Fleet's People are a deployable asset even when they don't have a warship to go with them. The extent to which they are available to serve in international headquarters, diplomatic missions abroad, the staff in Washington and places like the Information Fusion Centre in Singapore is an invaluable source of soft

power through the respect they always earn, the relationships they develop and the information they glean. Even though they are undeniably expensive, Global Britain needs more of them. The fleet's people are probably the most important investment priority of all.

19. A Whole of Nation Enterprise . An integrated and holistic all-of-nation policy towards a maritime policy that seeks and encourages synergy across the whole range of naval, commercial, industrial and social policy. The sea has no natural boundaries and nor should policy towards it. Chinese experience shows that 'always connect' is the mantra for successful maritime enterprise.

20. A Balanced Approach to a Balanced Fleet. Designing an effective and balanced fleet requires striking subordinate balances between its missions, its platforms, weapons, sensors and systems, its people. It also requires setting today's readiness against tomorrow's, the 'teeth' against the 'tail', naval forces against other forms of maritime leverage. But most of all it requires balancing devoted resources against the scale and nature of perceived threats. It is a never-ending process, to which there are no easy answers - and certainly no permanent ones.