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Conference Report

Sea Power Conference 2021

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Sea Power Conference 2021

ON 25 FEBRUARY, RUSI held its annual Sea Power conference, which this year examined the ways in which navies will need to evolve in an age of persistent competition. Over the course of the day, speakers discussed some of the key trends that will shape the 21st-century operating environment, as well as the trade-offs that maritime forces will need to make moving forward. Several key themes emerged:

- Western resolve will be challenged by adversary approaches which seek to exacerbate the inherent difficulties of power projection. Asymmetries of interest between regional revisionist powers and extra-regional status quo states, as well as the difficulties inherent to sustaining forces at reach, are the strategic and operational centres of gravity at which competitor approaches are aimed.
- The ability to compete in the 21st century will require naval power to be integrated with a range of tools from across government.
- Maritime forces will face a trade-off between structuring themselves to compete or to fight at high intensity. The capabilities needed to perform each task are not identical and, indeed, may come to be fundamentally different. As such, the assumption that preparation for the high-end fight amounts to preparation for everything else is no longer sound.

A thread which ran through the conference was a reformulation of Clausewitz's dictum that war is politics by other means. The keynote address from Vice Admiral Jerry Kyd, Fleet Commander Royal Navy, noted that competition at sea is in many ways governance by other means. The day-to-day management of the maritime commons, the protection of key infrastructure and the engagement of partners for purposes such as capacity building all represent examples of the steady drumbeat of nondescript activities through which competitive advantage is secured. Persistent engagement to defend the rules-based order at sea are central to the survival of an open, liberal model of governance of the maritime commons. Yet this drumbeat of steady activities coexists with the possibility of a Mahanian clash at sea. It was, after all, the West's ability to prevail in any high-intensity scenario that allowed it to shape the post-war order in the global commons. Today, however, distinct force structures, postures and relationships between navies and the other arms of government will best serve each end. The tension between the Mahanian imperative of commanding the sea in wartime and the requirements of persistent competition was a key insight that emerged from the event.

In the first panel of the day, the audience heard how adversaries are posturing themselves to compete and fight in the 21st-century operating environment. Panellists agreed that broad frameworks such as anti-access area-denial (A2AD) do more to confound than clarify. Michael Kofman of the CNA argued that using an A2AD framework to understand Russian naval strategy leads to simplistic analysis. While Russian planners do intend to erect a layered defensive system

around Russia's shores in wartime, this represents an attempt at damage control – stopping a devastating air and missile strike on the Russian homeland. Notably, Russian strategists do not envision the ability to create bubbles of absolute sea denial – something they deem unlikely given their resources – but rather aim to mitigate the effects of Western maritime superiority. More importantly, the A2AD framework obscures some of the Russian navy's other strategic functions. The navy, uniquely among the services, possesses the strike capacity to conduct a full range of operations, from conventional precision strikes through to tactical and strategic nuclear use. As such, the Russian navy is critical to Moscow's strategic framework for using the threat of countervalue attacks (strategic deterrence in Russia's lexicon) to control escalation in local wars with Russia's neighbours by deterring allied intervention. James Holmes of the US Naval War College noted that China's strategic framework also seeks to localise conflicts on its periphery, but differs somewhat in its approach. Chinese strategists are acutely aware of the challenges faced by a US navy that is operating at reach and seek to exacerbate these difficulties. The logistical nodes on which power projection depends will come under particular pressure in a conflict with China, as will the command-and-control architecture and infrastructure that underpins the US navy's capacity for maritime sustainment.

It is notable, despite significant differences, that both China and Russia share an interest in localising conflict at sea. Indeed, both have adopted the language of fighting local wars (or local wars under informatised conditions in the case of China). While the blanket A2AD rubric obscures important differences in how each country intends to fight, there is at least one strategic thread that binds them: exploiting the seams between allies. While China aims at the physical nodes which underpin an alliance response to its activities, Russia emphasises countervalue attacks targeting an alliance's political cohesion. Both historically continental powers nonetheless seem to have reached the conclusion that alliances – traditionally the strength of maritime powers – are also a source of vulnerability. As Holmes noted, boosting alliance cohesion and technical integration between allied navies and generating a distributed force not dependent on single points of failure will be key to building the resilience needed to circumvent this challenge.

In the same panel, Anthony Cordesman of CSIS highlighted the historical difficulties of meeting the shipbuilding targets set by navies and governments, as well as the risk that an emphasis on warfighting draws attention away from more muted but also more likely sub-threshold strategic challenges.

Cordesman also noted that the US and Europe have struggled to generate mass at sea, and that recent studies of Joint All Domain Warfare in the US have underscored the lack of integration between sensors and shooters. It appears likely that these resource constraints will become more acute.

Moreover, Cordesman pointed out that the competitive strategies of adversaries such as China emphasise economic and geopolitical coercion through steps short of warfare. The territorialisation of the South China Sea and projects such as the Maritime Silk Road have the potential to undercut Western efforts to sustain an open maritime order without a shot being fired. Indeed, given its relative dependence on stability for sustained growth, Beijing would

have serious reservations about warfighting at scale. While not as reliant on global economic stability as China, Russia still needs international prosperity to sustain its energy exports.

Thus, the question of if or when competitors would actually resort to high-intensity conflict is key. One might argue that to gain advantage through actions short of war, states need to be able to win any high-intensity conflict that might occur at sea. Insofar as maritime competition occurs against the backdrop of potential war, failure to focus entirely on sub-threshold competition leaves a country open to catastrophe should an opponent escalate unexpectedly. However, an overemphasis on low-probability, high-impact scenarios could disadvantage a state facing persistent low-level competition. In many ways, this resembles Glenn Snyder's stability–instability paradox – the harder it is to escalate, the more likely countries are to opt for low-level competition. However, if one state or alliance shifts its force structure to optimise for low-intensity competition, it becomes easier and more appealing for its opponent to escalate.

The second panel discussed what low-intensity competition might entail for militaries and navies in particular. The panel stressed the importance of imposing strategic paralysis on an opponent in the areas below the threshold of warfare and obviating adversary efforts to do the same.

RAND's Linda Robinson noted that in modern political warfare, militaries will find themselves the *supporting* rather than the *supported* force alongside partner forces and civilian agencies. This makes strengthening engagement with partner forces critical. This would be facilitated by a shift from episodic deployments to a more consistent regional placement of forces, coupled with more regular exchanges with partners. Robinson described an organisational shift underway in the US to incorporate the activities of agencies such as the State Department and Commerce Department into an overarching competitive framework. At a regional level, country teams will increasingly need to act in an integration function – facilitating information flows and coordinating the activities of disparate agencies – though Robinson suggested they have more to do in this regard.

Developments in the US broadly mirror the emphasis on fusion in the UK, and raise the parallel question of what mechanisms the UK will use to integrate the activities of forces on the ground with partners and other arms of government. While the appointment of lead Whitehall departments on a scenario-specific basis has seen some effectiveness in the context of crises such as the 2019 events in the Strait of Hormuz, a more systematic form of engagement is needed – for example, there could be an intermediate link between Senior Responsible Owners in Whitehall and locally available assets from both within and outside the military.

The sentiment that militaries will increasingly find themselves operating in tandem with, and often in support of, other agencies and entities was echoed by Nina Kollars of the US Naval War College. Critical enablers such as cyber are, as Kollars noted, civilian dominated. Navies will need to adapt their organisational structures to engage with and incorporate the work of a range of actors – including some that are non-governmental. A series of fluid and perhaps uneasy transactional partnerships with actors in the private sector, contractors and other players in this space will become necessary.

This is not, however, to say that military assets cannot play an important role in constraining and shaping adversary behaviour in circumstances short of warfare. Colonel Simon Rogers, assistant chief of staff at the Royal Navy's Special Operations Cell, noted that the recent elevation of special operations to a core activity in the Royal Navy's thinking reflects a consensus that the assets at the Navy's disposal can contribute to a range of tasks. For example, the raft of capabilities onboard a naval vessel, from sensors to electronic warfare assets, can meaningfully contribute to efforts to discretely constrain opponents or enable partners. Colonel Rogers stated that the Royal Navy will endeavour to embed its work with that of the UK's overseas network, including its intelligence agencies. As this occurs, the Navy will need to contemplate how it can benefit from the situational awareness created by assets abroad but also reinforce the activities of this community.

The array of capabilities on key platforms can certainly contribute to this. Equally, however, the Navy will need a flexible repertoire of cost-imposing options that allow it to act in support of partners overseas within the boundaries of what is politically viable in a sub-threshold context. It was noted by Colonel Rogers that the evolution of the Royal Marines has allowed it to perform tasks historically associated with special forces and can add to the UK's capacity in this space. This frees up traditional special forces assets from certain missions, such as boarding operations against suspect vessels. A key point that both Colonel Rogers and Robinson made was that the imposition of costs below the threshold of warfare would increasingly become a part of the military repertoire, requiring a range of non-kinetic and limited kinetic response options to impose multiple dilemmas on opponents. At the tactical level, there may be a greater emphasis on electronic warfare systems, directed energy weapons and other tools which provide non-lethal means of destruction.

However, in addition to their role in persistent sub-threshold engagement, persistently engaged forces will need to be able to set the terms of any escalation to warfighting and act as the enabler for other assets to enter the theatre should a conflict escalate. This was discussed at length in the third panel by Brigadier Tony Turner, deputy commandant general of the Royal Marines, and Bryan Clark of the Hudson Institute. Clark argued that the long-range strike capabilities fielded by peer competitors creates an escalation advantage for regional opponents, who can choose to escalate from competition to warfighting at relatively short notice. Moreover, the information advantage enjoyed by opponents against large, visible naval formations can allow them to engage in limited kinetic action followed by attempts at de-escalation. By contrast, in order to operate safely within this threat environment, Western navies need to field large formations and in all likelihood conduct strikes against an opponent's homeland. This represents a Hobson's choice: warfighting at scale (which, as noted by previous panellists, both Western forces and their opponents wish to avoid) or the viable option of backing down.

In effect, forces operating in forward positions are at a decision-making disadvantage against opponents who can dictate the tempo of competition. The palliative proposed by Clark is based on the distribution of assets and the imposition of uncertainty on an opponent. This would entail a shift towards recomposable forces comprised of larger numbers of unmanned or optionally manned assets, coupled with a greater emphasis on the use of AI to generate courses of action

for commanders in theatre and to enable the force to be rapidly recomposed to impose multiple dilemmas on an opponent. This would force opponents to escalate to higher levels of intensity than desired to suppress such a force – essentially removing the option of limited kinetic strikes from their repertoire. Moreover, should opponents opt to escalate, a distributed force would prove a harder target to disable with fewer single points of failure. This force could degrade an opponent's reconnaissance strike complex to enable larger assets such as aircraft carriers to enter a theatre. In effect, deterrence by denial as opposed to the threat of massive punishment would be central to this framework.

Brigadier Turner concurred with the point that forward-deployed amphibious forces would need to change to meet the needs of presence, deterrence and the enablement of follow-on forces should conflict escalate. Discussing the Future Commando Force, Brigadier Turner noted that activities below the threshold of conflict, conducted through littoral response groups' Support Augment Liaison and Training and Maritime Liaison and Assessment teams, will be key to gaining both strategic and operational decision-making advantage through access to regional information networks prior to any conflict. As competition escalates, the future littoral strike capability will need to be rapidly scalable – an imperative that will be achieved by combining the two littoral response groups into a littoral strike group. The force will have access to organic tactical fires as well as non-kinetic capabilities to generate effects across domains. They will also field a variety of airborne surface and sub-surface unmanned assets in order to conduct activities distributed across a theatre. As a force capable of presence without commitment, and rapidly scaling up to tailor itself to the contours of a competition, it will respond to the need to grapple with the inherent uncertainty of the operational environment described by previous speakers and, as Clark alluded to, impose greater uncertainty on opponents.

The day's final panel focused on the nature of the highest levels of conflict in which Western and allied navies might find themselves. Lieutenant Colonel Frank Hoffman discussed some of the transitional steps between sub-threshold competition and high-intensity conflict. Even in a scenario in which Western navies and opponents both wish to constrain the character of competition, there are several paths by which actors might lurch inadvertently towards large-scale conflict. A misreading of adversary resolve, for example, might result in an attempted land grab by an opponent that crosses Western red lines in a region such as the Baltics or the South China Sea. The Falklands War is illustrative of this – though neither party wanted conflict, mutual misperception led to precisely this eventuality. Alternatively, Western forces might misread a greyzone provocation as the first step towards a full-fledged assault on a Western interest. For example, consider how a sudden uptick in Chinese provocations off the coast of Taiwan might be interpreted in the US. Additional pathways might include the perceived need to defend an ally or partner which an adversary deems too peripheral to be worth fighting over – as was the case in the events leading up to the First World War. In essence, as Hoffman noted, greyzone competition is inherently fraught with escalatory risk given that continued restraint is dependent on both parties accurately calculating the other's intentions and thresholds – calculations that have historically been fraught with uncertainty.

Should high-intensity conflict occur, a number of technological changes will ensure that its character will be very different from warfighting at sea in previous eras. Colonel Thomas Hammes noted that interrelated trends in additive manufacturing, autonomy and the spread of ISR capabilities to a range of state and commercial actors will ensure an increasingly congested and contested maritime battlefield. Vessels on a more transparent ocean surface will be challenged by a range of strike assets from high-end systems such as hypersonics to mass-produced UAVs and loitering munitions. This poses challenges for traditional power-projection forces based around single points of failure such as aircraft carriers. However, these technological shifts also create certain strategic opportunities. For example, the geography of the first island chain in the South China Sea makes it viable for a range of strike capabilities and distributed unmanned assets to bottle China's navy within chokepoints and deny it access to key stretches of the sea. The proliferating assets which constrain Western power projection can also be used to exacerbate the challenges faced by geographically constrained competitors. Indeed, the accessibility of strike assets may make it possible to empower smaller regional allies to assume some of the costs of their own defence and invert the anti-access challenge against peer competitors. This assessment of the challenges and opportunities posed by maritime geography was seconded by Vice Admiral Yoji Koda. In his discussion of the maritime geography of the Western Pacific, Vice Admiral Koda highlighted the critical importance of the ability to control key chokepoints such as the Bashi Channel and the Lombok Strait. Constraining Chinese submarines' ability to access and deny these chokepoints will be of arguably greater salience than projecting power into the first island chain.

Rear Admiral Chris Parry suggested that an overemphasis on competition could impede the necessary transformation of maritime forces, limiting their ability to fight effectively in high-intensity scenarios. Rear Admiral Parry posited that key parameters by which the warfighting capability of a force might be judged – including strike capacity, the ability to sustain damage and to operate safely in a theatre – have been overlooked in recent defence thinking. Moreover, in his view, exercising in preparation for high-intensity warfighting at scale and creating the industrial infrastructure to replace losses all require more sustained thinking on the subject of warfighting – something that adversaries have placed far greater emphasis on than Western countries.

A key lesson from this panel was that the force structures, posture and mentality needed for warfighting differ in key ways from those needed for competition. While deterrence depends in part on visible presence and engagement, future warfighting at sea will increasingly depend on less visible, more survivable forces that are built and postured to deny key chokepoints to adversaries and conduct long-range strikes against their assets.[1]

1. A similar trade-off was noted in studies comparing the utility of less-visible assets, such as SSGNs, and manned aircraft. Visible assets were more vulnerable to suppression and surprise attacks, but also contributed to crisis stability while assets such as SSGNs had the opposite effect, being less useful in peacetime given the inherent uncertainty of their location but highly valuable once the shooting starts. See Forrest Morgan, *Crisis Stability and Long-Range Strike: A Comparative Analysis of Fighters, Bombers, and Missiles* (Santa Monica, CA: RAND, 2013).

There were, however, points of convergence on competition and warfighting. An emphasis on integrating military activity with a whole-of-government approach might come to encompass not only circumstances in which the military acts as the supporting force but also, as both Colonel Hammes and Rear Admiral Parry suggested, scenarios in which sectors of society such as industry must be prepared to meet the needs of sustained warfighting. Similarly, a juxtaposition of discussions from the penultimate and final panel suggested that a distributed and survivable force that has engaged local partners in peacetime will be key to both engagement and warfighting. Situational awareness, access to logistical support and the availability of credible partner forces will become more critical especially if, as Colonel Hammes suggested, it will be increasingly viable to enable smaller allies to set up their own anti-access bubbles and impose costs on peer competitors independently. However, it is nonetheless apparent that countries will need to contemplate certain key trade-offs as they develop their maritime force structures.

Conclusions: Towards Functional Specialisation

One potential lesson which emerged from the conference is that alliances might produce advantage through functional specialisation. While individual navies may struggle to generate the sometimes divergent force structures needed to meet the needs of different levels of competition, greater role differentiation among allies could alleviate these challenges.

For example, locally positioned partners with access to proliferating sea-denial capabilities might be better positioned to engage in the strike and sea-denial missions that many speakers deemed critical to warfighting at scale. If an exponential shift in industrial capacity and the sophistication of these assets does make generating them en masse more viable, Western militaries might posture themselves to act as ‘arsenals of democracy’ providing both strike assets and, perhaps, the ISR to cue them.

Similarly, given that the US Navy and Marine Corps appear to be optimising their force structure towards high-end contingencies in the Indo-Pacific, this might create a niche for European and allied navies to more heavily emphasise the sub-threshold competition described in previous panels and to shape the contours of the interaction between their armed forces and the rest of government accordingly. One might, by way of an analogy, consider the tacit division of labour between the US and allies such as Japan that has emerged in the area of geoeconomic competition with China. The US pressures China across the board while Japan has focused on more subdued but strategically important initiatives, such as the extension of infrastructure support to counter the Belt and Road Initiative. A maritime equivalent might see the US Navy postured primarily (but not exclusively) for high-end competition, complemented by more balanced middle-power forces engaging in the sub-threshold space.

This, in turn, might enable a more balanced force structure for navies such as the Royal Navy which seek to maintain a capacity for both presence and warfighting. This could orient the maritime component of partner engagement – developing partner capabilities to contest key access points and support the contact layer described by Brigadier Turner as it seeks to enable theatre entry. Moreover, not every aspect of future maritime strategy represents a trade-off.

Certain capabilities, such as links with partners and the cultivation of information networks, will have value in most contingencies and the forward-positioned forces that generate these capabilities can be sufficiently scalable to have a role across the spectrum of conflict.

Nonetheless, there will be trade-offs between presence and warfighting. Ultimately, all military forces are built to meet worst-case contingencies. The key trade-off they will need to contemplate is the degree to which preparing for these contingencies is prioritised over posturing for the more persistent challenge of muted strategic competition. Managing these trade-offs will be the central challenge for navies in the 21st century.

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