

FIRST SEA LORD'S **SEA POWER** CONFERENCE 2024

Lancaster House, St James's, London | **14th-15th May 2024**



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Foreword



It is my great pleasure to welcome you to Lancaster House and my 2024 Sea Power Conference. This event, and those happening across London this week, are feats of planning and I am grateful to the Council on Geostrategy, King's College London, and all those who have given of their time and energy to bring them together. As part of a week of events in this year's London Seapower Series, the Royal Navy has also co-hosted a conference celebrating NATO's 75th anniversary, reflecting on the Alliance's past and looking to the future and the challenges ahead.

Over the coming two days I look forward to exploring some of the most pressing and multifaceted challenges and opportunities facing those of us with an interest in the maritime domain. The maritime really matters. The United Kingdom is not just an island-nation, but a maritime nation. Our history, and our future, depends on the sea and access to

the trade, energy and data that flows on or under it. Maritime security, from the Euro-Atlantic across every ocean to the Indo-Pacific, will matter more than ever as we look to the 2040s and beyond.

But the maritime domain is increasingly under threat, as all here recognise. More than two years on from Russia's invasion of Ukraine, the world is forever changed. The norms of behaviour upon the seas which have enabled globalisation to flourish, and the wider open international order of which they are a part, are increasingly under threat. Whilst Russia's Army is being greatly diminished, it will likely emerge from Putin's illegal war with its navy and nuclear forces broadly intact. We should be as prepared for a Chinese tilt to the West, as we are steadfast in sustaining our own position in the Indo-Pacific, and there is an underlying risk of escalation in the Middle East where terrorism and Iranian state-sponsored proxies seek to upend a delicate balance. We are working closely with our allies to promote regional stability as well as supporting the opening of a maritime corridor for humanitarian assistance to Gaza.

Amidst the many challenges, all is not gloom. The ongoing re-capitalisation of the Royal Navy is driving a revival of maritime manufacturing in the United Kingdom. And I believe we have a generational opportunity if we can unlock the potential for unprecedented technological advantage through a truly international collaboration between militaries, industries, and academia. Our nation can, with our allies and

partners, provide thought leadership through our world-class universities and think tanks. And the United Kingdom has one of only three £1 trillion science and technology sectors globally. We have the chance to complete a transformation of the Royal Navy as significant as the one from sail to steam, or coal to oil. As the Royal Navy looks ahead and prepares to fight and win, 2040 is our headmark.

I look forward to our discussions over the next two days as we improve our understanding, reflect on new ideas and develop our thinking as partners and allies drawn from around the world and across our broad maritime community. My intent is that this conference proves to be a powerful contribution to charting a way through the many challenges we face, but also the opportunities that we have.

Admiral Sir Ben Key KCB CBE ADC

First Sea Lord and Chief of the Naval Staff, Royal Navy

Welcome word



We are honoured and delighted that the Council on Geostrategy is hosting the First Sea Lord's Sea Power Conference 2024, the flagship event of the Royal Navy, for the second year in a row.

As the world becomes more volatile, there is no doubt that the Royal Navy will be key to shaping the future international environment, deterring adversaries and defending Britain's interests in the decades to come. But to do this effectively, the navy will have to work closely with allies and partners, continue to strengthen relations with the wider nation and invest in its own people, technologies and skills.

Therefore, this year's conference is organised around a future-looking theme: **'Future navy:**

Maritime in the 2040s'. Over the next two days, more than 300 senior naval personnel, alongside key leaders and national and international stakeholders, will convene with an aim not only to articulate, but also to deliver, the foundations of a vision for the Royal Navy for 2040.

In order to achieve this, we will be guided by four keynote speeches, seven interactive panel sessions and one report launch at the magnificent Lancaster House. Our conference programme will also be complemented by an official black-tie dinner and three thematic dinners in central London.

We are thrilled to continue to nurture maritime talent and skills among younger practitioners with our 'Future Maritime Leaders' Laboratory', developed in close collaboration with Prof. Alessio Patalano and the world-leading university, King's College London.

Building on last year's success, we are excited to launch our partnership with a consortium of British universities and colleges, including the University of Cambridge, University of Lancaster and City College of Glasgow, to deliver a series of seminars on specialised topics of crucial importance to the Royal Navy and the maritime endeavour.

We would like to express our deepest gratitude to the Royal Navy for not only having faith in us to make this conference a success once again, but also for allowing us to expand it. And we would like to sincerely thank our corporate partners – all 22 of them – for their important contribution in making this event possible.

We hope you enjoy the First Sea Lord's largest flagship conference to date and join the effort to build a vision for the future navy. This conference is a practical example of the navy's central position within the national enterprise.

James Rogers and Viktorija Starych-Samuoliene
Co-founders of the Council on Geostrategy

Future navy: Maritime in the 2040s

The Royal Navy of the 2020s was conceived at the turn of millennium – 25 years ago. That means the navy of the future will be designed today. But the world of the future most likely will be very different to the relatively benign world of the late 1990s (albeit transnational crime will continue to be a problem).

The international order is becoming more contested as rivals such as Russia and, particularly, the People's Republic of China, build up their fleets and attempt to 'territorialise' parts of the maritime commons. Their naval modernisation programmes mean that the Royal Navy and the navies of allies and partners may not hold the same degree of command of the sea which they have held in recent decades, nor the ability to project force into the littoral or onto land. In addition, critical maritime infrastructure is becoming more important, not least in terms of offshore power generation, energy pipelines, and fibre optic cables, to the extent that its restriction may cause significant economic impact. Environmental security issues, such as melting ice in the Arctic and Antarctic, sea-level rises, storm surges and recurrent floodings, are also causing new dilemmas and issues. Finally, new technologies – from fuel sources and weapons, to autonomy and artificial intelligence – will have a significant impact on the future of maritime power, and Britain may not remain in the lead.

It is this emerging and future maritime environment which informs the First Sea Lord's Sea Power Conference 2024 focus on the 'Future navy: Maritime in the 2040s'. The conference will look out to 2040 to anticipate the geopolitical, geoeconomic and technological changes which will afflict naval power, while focusing on how the Royal Navy, as well as allied and partner navies, can respond. In short, it will attempt to create the foundations of a vision for the Royal Navy for 2040 – a date which seems distant, but is in fact only 16 years away.



Agenda

Day 1 | Tuesday 14th May 2024

- 09:00-10:00 Arrival, registration and tea/coffee at Lancaster House
- 10:00-10:15 Welcoming remarks – Viktorija Starych-Samuolienė, Co-founder and Director of Strategy, Council on Geostrategy
- 10:15-10:25 **Keynote speech** by Arsenio Dominguez – Secretary-General, International Maritime Organisation
- 10:25-11:20 **Panel 1:** Protecting our economy in the 2020s: Keeping trade routes open and safe
- 11:25-11:30 Introduction of The Rt. Hon. Grant Shapps MP by Adm. Sir Ben Key KCB CBE ADC, First Sea Lord and Chief of the Naval Staff, Royal Navy
- 11:30-11:45 **Keynote speech** by The Rt. Hon. Grant Shapps MP – Secretary of State for Defence
- 11:45-12:10 **Question and Answer session** – The Rt. Hon. Grant Shapps MP
- 12:10-12:35 **In Conversation:** Adm. Sir Ben Key KCB CBE ADC and Hon. Capt. Dan Snow
- 12:35-13:40 Lunch (State Drawing Room)
- 12:40-13:20 **Side Event:** Policy Paper launch for 'A more lethal Royal Navy: Sharpening Britain's naval power' (Green Room)
- 13:40-14:35 **Panel 2:** Protecting our economy in 2040: Securing critical maritime infrastructure
- 14:35-14:50 Coffee Break (State Drawing Room)
- 14:50-15:45 **Panel 3:** Maritime operations by the 2040s: Shape, deter, defend
- 15:45-16:00 Coffee Break (State Drawing Room)
- 16:00-16:55 **Panel 4:** Stronger together: A 2040 vision for the Royal Navy and partners
- 16:55-17:05 **Awards ceremony:** First Sea Lord's Essay Competition 2024
- 17:05-17:15 Departures

Agenda

Day 1 | Dinners (Invitation-only)

- 18:30-23:00 Black tie dinner at Lancaster House – *With a speech from Hon. Capt. Dan Snow*
- 18:30-22:00 On a mission to help the Indo-Pacific – *Sponsored by the Coalition for Global Prosperity*
- 18:30-22:00 Rebuilding capacity – *Sponsored by Modini*
- 19:00-22:00 AUKUS and technology collaboration: Embracing Pillar II – *Sponsored by QinetiQ*

Day 2 | Wednesday 15th May 2024

- 08:15-09:00 Arrival, registration and tea/coffee at Lancaster House
- 09:00-09:20 **Keynote speech** by The Rt. Hon. Anne-Marie Trevelyan MP – Minister of State for Indo-Pacific
- 09:20-10:20 **Panel 5:** The national enterprise in 2040: The maritime contribution
- 10:20-10:40 Coffee Break (State Drawing Room)
- 10:40-11:40 **Panel 6:** Future sailor 2040: Developing the skills of the future
- 11:40-12:00 Coffee Break (State Drawing Room)
- 12:00-13:00 **Panel 7:** The Atlantic-Pacific: The maritime operating environment of the 2040s
- 13:00-13:10 **Closing remarks** by Adm. Sir Ben Key KCB CBE ADC
- 13:15-13:30 Departures



Agenda

RFA Proteus and Archer Class P2000

RFA Proteus and an Archer Class P2000 will be docked on the River Thames for London Sea Power Week. RFA Proteus will be moored alongside HMS Belfast, and a P2000 vessel will be docked at HMS President.

RFA Proteus is the first of a new generation of survey and surveillance ships harnessing leading-edge technology and dedicated to monitoring underwater in areas of UK sovereign interest. With a crew of around 85 Royal Fleet Auxiliary and Royal Navy personnel, RFA Proteus acts as the launchpad for remotely-operated vehicles and a suite of specialist capabilities similar to those found in the oil and gas industries monitoring waters vital to Britain's interests.



The Archer Class P2000 fast patrol boats are essential for mine hunting, safeguarding maritime security and ensuring the safe navigation of coastal waters. Due to their unique ability to operate in ports and confined waters not traditionally accessible to large warships, they can conduct several roles, including safeguarding Britain's nuclear fleet, maritime security, force protection, support to overseas NATO operations and training.



University engagement

As part of the First Sea Lord's Sea Power Conference 2024, the Council on Geostrategy and the Royal Navy are hosting three additional events at universities across the country:



30th April 2024



8th May 2024



13th June 2024

Policy Paper launch: A more lethal Royal Navy: Sharpening Britain's naval power

The Council on Geostrategy's Strategic Advantage Cell will be launching its latest paper on Britain's naval power with the authors, William Freer and Dr Emma Salisbury.

- William Freer, Research Fellow (National Security), Council on Geostrategy;
- Dr Emma Salisbury, Associate Fellow, Council on Geostrategy;
- R. Adm. James Parkin CBE, Director of Development, Royal Navy;
- Prof. Basil Germond, Chair, International Security, Lancaster University.

This panel will be moderated by Patrick Triglavcanin, Research Officer, Council on Geostrategy.



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Keynote speakers



Admiral Sir Ben Key KCB CBE ADC

*First Sea Lord and Chief of the Naval Staff,
Royal Navy*

Educated at Bromsgrove School, Ben Key joined the Royal Navy in 1984 as a University Cadet, subsequently graduating in Physics from Royal Holloway, University of London. He qualified as both helicopter aircrew and as a Principal Warfare Officer and as a junior officer saw service around the world in a variety of frigates and destroyers.

He has been privileged to command four ships: the mine hunter HMS Sandown, the frigates HMS Iron Duke and HMS Lancaster, and the aircraft carrier HMS Illustrious. Shore appointments have included Resources and Plans in the Ministry of Defence, an advisor to the Iraqi Director Joint Staff in Baghdad, the UK's Permanent Joint Headquarters, and Headquarters Air Command.

He has also served as Principal Staff Officer to the Chief of Defence Staff. From April 2013 to July 2015 he was Flag Officer Sea Training, responsible for recruiting as well as individual and operational training across the Royal Navy. Promoted to Vice Admiral in February 2016, he was the Royal Navy's Fleet Commander from then until March 2019. He then served as the Chief of Joint Operations, prior to his appointment as First Sea Lord in November 2021. He was awarded the US Bronze Star in 2006 for his service in Baghdad, appointed CBE in 2016 and KCB in 2021.

Keynote speakers



Arsenio Dominguez

Secretary-General, International Maritime Organisation

Arsenio Antonio Domínguez Velasco was first appointed as the tenth Secretary-General of the International Maritime Organisation (IMO) during the 33rd Assembly in December 2023. His initial term will be for a period of four years from 2024 to 2027.

Mr. Dominguez holds degrees from Veracruzana University, Mexico, an MBA from the University of Hull, and an executive qualification in International Law and European Politics from Birkbeck University.

He served as the Ambassador of Panama to the IMO, during which time he was elected as Chair to the Marine Environment Protection Committee, the Technical Committee of the 29th Assembly, and the Maritime Security, Piracy and Armed Robbery Group at the IMO, as well as a number of Vice-Chair and Board member roles.

In 2017, he became Chief of Staff at the IMO, before being appointed as Administrative Director, leading the organisation through the Covid-19 pandemic. Before being elected to Secretary-General, he acted as the Director of the Marine Environment Division.

Keynote speakers



The Rt. Hon. Grant Shapps MP *Secretary of State for Defence*

The Rt. Hon. Grant Shapps MP was appointed as Secretary of State for Defence on 31st August 2023. Grant was first elected as the Conservative MP for Welwyn Hatfield in 2005. Shortly after, he was appointed as Vice Chairman of the Conservative Party, before being made Shadow Housing Minister in June 2007.

Following the 2010 election, he served as Minister of State for Housing and Local Government in the Department for Communities and Local Government. Grant was appointed to the Privy Council in June 2010. In September 2012, he was appointed as Co-chairman to the Conservative Party. At the same time he held the position of Minister without Portfolio at the Cabinet Office. In 2015, Grant was appointed a Minister of State in the Department for International Development.

Following the 2019 election, Grant was appointed Secretary of State for Transport, a role he retained until 2022. After serving as the Home Secretary during 2022, Grant was appointed the Secretary of State for Business, Energy and Industrial Strategy, becoming Secretary of State for Energy Security and Net Zero after the creation of the department.

Before being elected, he founded PrintHouse Corporation, a design, print, website creation and marketing business in London. Grant studied at Cassio College, Watford before graduating from Manchester Polytechnic with a business and finance diploma.

Keynote speakers



The Rt. Hon. Anne-Marie Trevelyan MP *Minister of State for Indo-Pacific, Foreign, Commonwealth and Development Office*

The Rt. Hon. Anne-Marie Trevelyan MP was appointed as a Minister of State in the Foreign, Commonwealth and Development Office on 26th October 2022. Anne-Marie was previously Secretary of State for Transport between 6th September 2022 and 25th October 2022. She was Secretary of State for International Trade and President of the Board of Trade from 15th September 2021 to 6th September 2022.

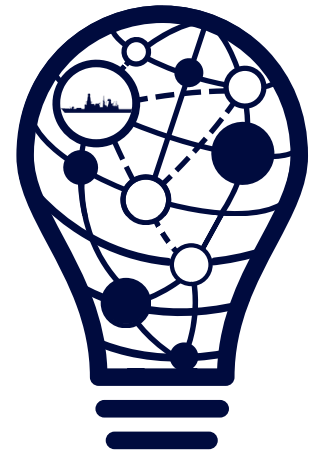
Previously, Anne-Marie was the UK International Champion on Adaptation and Resilience for the COP26 Presidency between 7th November 2020 and 6th September 2022. She was Minister of State (Minister for Energy, Clean Growth and Climate Change) at the Department of Business, Energy and Industrial Strategy from January 2021 to September 2021.

She was the Secretary of State for International Development from February to September 2020. She was Minister of State for the Armed Forces from 17th December 2019 to 13th February 2020, and Minister for Defence Procurement from 27th July 2019 to 16th December 2019. Anne-Marie was first elected as Member of Parliament (MP) for the Berwick-upon-Tweed constituency at the 2015 general election.

Future Maritime Leaders' Laboratory

The Future Maritime Leaders' Laboratory is co-hosted by the Centre for Grand Strategy and the Council on Geostrategy, at Bush House, King's College London. The event is designed as a policy game and aims to cultivate a close-knit network of young professionals working on maritime affairs to create a wider community of practice.

In light of events in Ukraine and the Red Sea, the prospect of the British Armed Forces contributing to a variety of crises nationally or in a multinational coalition is increasingly likely. Therefore, the Laboratory's vision can be summarised in three key words: interrogate, develop, act. It focuses on an interactive investigation of the risk sequential crises would have on the United Kingdom's maritime capabilities and force structure.



The event includes 60 next generation maritime leaders, drawing from a broad network of academics and practitioners. It reflects upon the complex nature of international politics, to learn about the processes of policy-development and decision-making, and to test crisis management skills and enhance strategic thinking.

The participants are divided into three groups. Each group is led by a facilitator whose main role is to ensure that conversations and debates are translated into policy actions. Groups are asked to formulate policy actions on the basis of given resources and specific objectives.

The lines of action and deliverables undertaken by each group will inform a seven-minute long group presentation during the final plenary session. Groups decide how to deliver the presentations and receive additional feedback from the facilitators and other groups.

The policy game interrogates how multiple crises might represent both an opportunity for a versatile and agile maritime-focused posture to offer valuable policy responses, as well as a challenge to the allocation of resources in a sustainable fashion.

The Future Maritime Leaders' Laboratory has three objectives:

1. To foster strategic fluency by interrogating the policy implications of choices made in the present to meet the challenges of tomorrow;
2. To develop a shared cultural competency within a wider early career community in national security; and,
3. To act by nurturing a close-knit network of young professionals within the United Kingdom and Europe, working on naval and maritime affairs.

The insights gained during the policy game will be shared with the moderators of each panel at the First Sea Lord's Sea Power Conference 2024 and will inform each panel. The work conducted by the participants of this year's Future Maritime Leaders' Laboratory will feed directly into the deliberations and questions set before the speakers at the conference.

Agenda

13:00-13:30 Arrival and registration at Bush House, King's College London

13:30-14:00 Briefing

14:00-15:15 Act one

15:15-15:30 Coffee break

15:30-16:45 Act two

16:45-17:30 Presentations

17:30-19:00 Drinks and networking reception



The Future Maritime Leaders' Laboratory is sponsored by Shell.

First Sea Lord's Essay Competition 2024

The Council on Geostrategy was delighted to hold the First Sea Lord's Essay Competition 2024 for the second year in a row. The winners received a cash prize and in-person invitations to the First Sea Lord's Sea Power Conference 2024 and will have a prize presented by the First Sea Lord at the conference.

To be considered for the prizes, entrants were tasked with writing a 1,250 word essay answering one of the following questions:

1. How should the UK apportion its naval resources across the globe?
2. What lessons are there from naval operations in the Black Sea and/or Red Sea since February 2022 for the Royal Navy?
3. How will the proliferation of autonomous, uncrewed and minimally crewed systems change naval warfare by 2040?



We are delighted to announce the winners of the competition were **Nicholas Fryer** (Gold), **Karen Coutts** (Silver), and **Lt. S. R. Hollingsworth** (Bronze)

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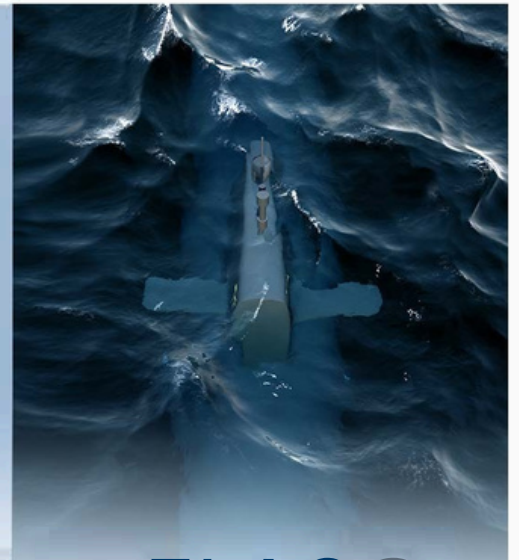




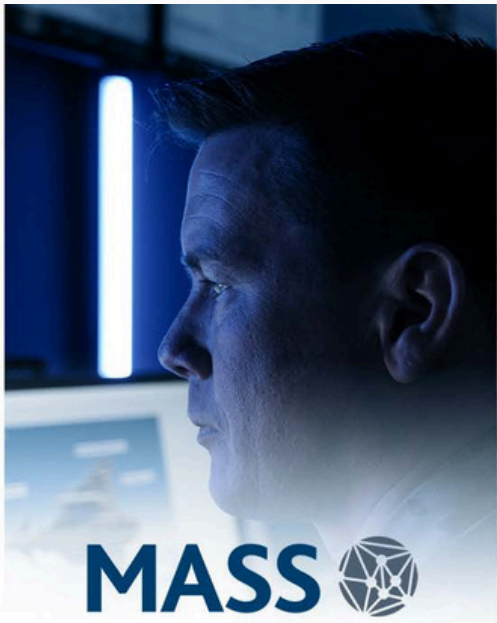
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Panel 1

Protecting our economy in the 2020s: Keeping trade routes open and safe

The maritime domain makes a significant contribution to the economic prosperity of the United Kingdom. This panel will look at the role of maritime power, both civilian and military, in making the most of opportunities and protecting against threats. It will investigate whether disruptions like those seen in the Red Sea are set to proliferate, and if so, if global maritime trade is prepared.



Professor Alessio Patalano

Professor, War Studies Department, King's College London

Prof. Alessio Patalano is Professor of War and Strategy in East Asia at the Department of War Studies, King's College London. He specialises in maritime strategy and doctrine, Japanese military history and strategy, East Asian security, and British defence policy towards the Indo-Pacific. Alessio is also an Associate Fellow at the Council on Geostrategy.



Vice Admiral Andrew Burns CB OBE

Fleet Commander, Royal Navy

V. Adm. Andrew Burns CB OBE has been Fleet Commander since September 2021 and commands all operational arms of the Royal Navy. He joined the Royal Navy in 1989 as a University Cadet, and graduated from the University of Durham. He has commanded HMS Berkeley, HMS Somerset and HMS Bulwark. He has attended the Royal College of Defence Studies as an Associate Member and is a graduate of the Advanced Command and Staff Course (MA in Defence Studies, King's College London) and the Higher Command and Staff Course.



Amelia Gould

Managing Director, Helsing UK

Amelia Gould is the Managing Director of Helsing UK. Previously, Amelia worked as an Engineering Officer in the Royal Navy before she moved to BAE Systems where she undertook a range of engineering roles as well as Chief of Staff to the Chief Executive Officer, and finally led the Maritime Combat Systems business. Amelia is a WISE Woman in Industry Award winner (2017), a Chartered Engineer and a non-Executive Director on the Maritime UK Solent Board.



Dr David Morgan-Owen

Department of Defence Studies, King's College London

Dr David Morgan-Owen is a Reader in the History of War at the Department of Defence Studies at King's College London. He has published widely on war at sea and is currently working on a book about sea power and the First World War. David has held fellowships at the National Museum of the Royal Navy and the National Maritime Museum, and won the Julian Corbett Prize in Modern Naval History (2016).

Panel 2

Protecting our economy in 2040: Securing critical maritime infrastructure

Following on from Panel 1, this panel will explore how different the maritime economy will look by the 2040s. It will cover key themes including climate change, undersea communication lines and energy infrastructure, food insecurity, and the movement of goods. Panellists will be asked how they believe international maritime norms will have changed by 2040, what Britain can do to react to potential problems, and how the country might be able to get ahead of them.



Suzanne Raine

Centre for Geopolitics, University of Cambridge

Suzanne Raine works at the Centre for Geopolitics at the University of Cambridge and is a Visiting Professor at King's College London. She served for 24 years in the British Foreign and Commonwealth Office on foreign policy and national security issues, including postings in Poland, Iraq and Pakistan. She is Deputy Chair of the Board of Trustees of the Imperial War Museum, and a member of the Board of Trustees at the Royal United Services Institute and the International Bomber Command Centre in Lincoln.



Admiral Nicolas Vaujour

Chief of the Naval Staff, French Navy

Adm. Nicolas Vaujour was appointed as the 63rd Chief of Staff of the French Naval Staff in September 2023. He joined the French Naval Academy in 1989 and has held multiple roles including Military Assistant, Deputy Commander of the French Maritime Rapid Reaction Force, Deputy Chief of Staff for Naval Air Operations and Chief of Staff 'Operations' of the Armed Forces. Adm. Vaujour is an Officer of the Legion of Honour, a Commander of the National Order of Merit, and holds the Military Valour Cross.



Professor Christian Bueger

Professor, University of Copenhagen

Prof. Christian Bueger is a Professor of International Relations at the University of Copenhagen. His current research focuses on political responses to maritime insecurity and the knowledge, resources, and technologies required to govern the oceans. Previously, he was a Professor of International Relations at the University of Cardiff. Christian holds a PhD in Political and Social Sciences from the European University Institute.



Harry Holt

Chief Executive, Nuclear, Babcock

Harry Holt is the Chief Executive Officer of Babcock Nuclear. Prior to joining Babcock, Harry spent over ten years with Rolls-Royce including seven years on their Executive Team in a number of senior roles, including President of its Nuclear Division and latterly as Chief People Officer. Before working in the private sector, Harry had a career as an Officer in the British Army.

Panel 3

Maritime operations by the 2040s: Shape, deter, defend

Looking ahead to the future shape of naval operations, this panel will focus on what changes could occur across the rest of the 2020s and the 2030s, and how this will impact the realm of military operations in the 2040s. The panel will reflect on the full spectrum of operations, from peacetime to wartime activities, including topics such as Carrier Strike Groups, littoral operations, and the support elements which are key to sustaining naval activities.



Dr Emma Salisbury

Associate Fellow, Council on Geostrategy

Dr Emma Salisbury is an Associate Fellow in Military Innovation at the Council on Geostrategy. She holds a PhD from Birkbeck College, University of London, where her research focused on the military-industrial complex and defence innovation. Emma is a senior staffer to an MP, as well as an Assistant Editor at *War on the Rocks*.



Professor James Bergeron

Political Advisor, NATO Allied Maritime Command

Prof. James Bergeron is the Political Advisor to the Commander in the NATO Allied Maritime Command. He has served as a foreign policy advisor to ten senior US and NATO Commanders in the fields of maritime and joint expeditionary operations, including as the advisor to Naval Striking and Support Forces in NATO. He is regularly consulted on NATO maritime strategy, NATO-EU relations, and was one of the drafters of the Alliance Maritime Strategy.



Major General Rich Cantrill OBE MC

Commander Operations, Royal Navy

Maj. Gen. Rich Cantrill OBE MC is the Royal Navy's Commander Operations. He joined the Royal Marines in 1996 and by 2010 became Military Assistant to the Deputy Chief of Defence Staff for Military Strategy and Operations. In 2014, Maj. Gen. Cantrill was made commanding officer of 42 Commando before serving as Chief of Staff for the Commander UK Amphibious Forces. In 2018, he joined the Ministry of Defence as Assistant Head, focused on counter-terrorism and UK Operations. Two years later he assumed command of 3 Commando Brigade before he was appointed as Assistant Chief of Staff Operations at the Permanent Joint Headquarters.



Vice Admiral (rtd.) Tom Rowden USN

Vice-President, International Strategy and Business Development, RMS, Lockheed Martin

V. Adm. (rtd.) Tom Rowden USN is Vice President of International Strategy and Business Development for Rotary and Missions Systems (RMS) at Lockheed Martin. Previously, he served as Director of India and Strategic Campaigns for RMS. Prior to joining Lockheed Martin, Tom served in the US Navy for 36 years, retiring from his position as Commander, Naval Surface Forces in the US Pacific Fleet. Significant shore assignments include Director of Surface Warfare Division and on the staff of the Chief of Naval Operations.

Panel 4

Stronger together: A 2040 vision for the Royal Navy and partners

This panel will consider what the geopolitical environment may look like by the 2040s and how, in this context, the Royal Navy can adapt and be prepared for the future challenges it may face. It will focus on who Britain's key allies and partners may be and how together, through both sovereign capabilities and collaboration, they can secure strategic advantage.



Ashlee Godwin

*Head, International Affairs and National Security,
House of Commons*

Ashlee Godwin is Head of the International Affairs and National Security Hub at the House of Commons. Previously, she ran a team working in support of all international-facing Select Committees. From 2020 to 2021, she worked as a member of the No. 10 Integrated Review Taskforce. She is an Honorary Professor in International Security at the University of Nottingham, as well as a Fulbright Scholar in US national security policy-making.



Admiral James Kilby USN

Vice Chief of Naval Operations, United States Navy

Adm. James Kilby USN has served as the Vice Chief of Naval Operations in the US Navy since January 2024. Previously, he was Deputy Commander of the US Fleet Forces Command. Adm. Kilby graduated from the US Naval Academy in 1986. His major command was aboard USS Monterey (CG 61) and included its maiden Ballistic Missile Defence deployment in 2011.



Vice Admiral Martin Connell CBE

Second Sea Lord, Royal Navy

V. Adm. Martin Connell CBE has served as the Second Sea Lord in the Royal Navy since January 2022. He is responsible for the delivery of the Royal Navy's future capabilities, strategy and long-term programme and is the Royal Navy's Principal Personnel Officer. He has previously served as the Royal Navy's Force Generation Director, Rear Admiral Fleet Air Arm and Senior Responsible Owner of the Queen Elizabeth Class aircraft carrier programme.



Air Vice Marshal Fin Monahan OBE DFC RAF

Director, Development, Concepts and Doctrine Centre, Ministry of Defence

AVM Fin Monahan OBE DFC RAF is Director of the Development, Concepts and Doctrine Centre, the independent think tank of the Ministry of Defence. AVM Monahan has served in the Royal Air Force since 1992. More recently, he took part in the NATO response to the invasion of Ukraine as an augmentee Director of the NATO Joint Force Air Component directing air operations across Europe. He has a PhD in Military History and Military Organisational Culture.

Panel 5

The national enterprise in 2040: The maritime contribution

The maritime domain and the national enterprise are inextricably linked, and will continue to be so in the 2040s. This panel will seek to define this relationship and ask how cooperation can be optimised between the branches of the armed forces, industry, government, and academia. In particular, the panel will address how we can create, package, and enact a mutually reinforcing vision which all stakeholders can support.



Viktorija Starych-Samuoliene

Co-founder and Director of Strategy, Council on Geostrategy

Viktorija Starych-Samuoliene is Co-founder and Director of Strategy at the Council on Geostrategy where she is responsible for the organisation's strategy and growth. Her previous experience includes research and external affairs roles at the Henry Jackson Society. She is also a Fellow of the Durham Institute of Research, Development, and Invention.



Dr Robert Johnson

Director, Secretary of State's Office for Net Assessment and Challenge, Ministry of Defence

Dr Robert Johnson is the Director of the Secretary of State's Office for Net Assessment and Challenge. Previously, he was the Director of the Oxford Changing Character of War Centre and a Senior Research Fellow at Pembroke College, Oxford. He has advised and delivered direct support to governments and armed forces in defence and security matters, including the US, Europe and Australia.



Rear Admiral James Parkin CBE

Director of Development, Royal Navy

R. Adm. James Parkin CBE is the Director of Development in the Royal Navy. He has commanded several notable joint operations overseas, including the multinational Baltic Protector deployment to Northern Europe in 2019, and the International Maritime Security Construct in the Middle East in 2020.



Geoff Searle

Programme Director, Future Business and Technology, BAE Systems Naval Ships

Geoff Searle is the Programme Director of Future Business and Technology at BAE Systems Naval Ships. Previously, he was the QEC Programme Director at BAE Systems, followed by roles as the Programme Director for the UK Type 26 frigate and Australian Hunter Class frigate programmes. Before joining BAE Systems, Geoff trained as a naval architect working in design, project, and programme management for VT Shipbuilding.



Andrew Thomis

Chief Executive, Cohort plc

Andrew Thomis is the Chief Executive of Cohort plc. Andrew worked in the creation of Cohort plc as acting Finance Director, before he became Managing Director of Cohort's subsidiary MASS. Previously, Andrew spent nine years working in the Ministry of Defence. He is a Fellow of the Institution of Engineering and Technology and holds a MEng from Imperial College London.

Panel 6

Future sailor 2040: Developing the skills of the future

Despite increasing automation, personnel remain vital and getting recruitment and retention right is crucial to the Royal Navy carrying on with its work. Panel 6 will therefore explore how automation and innovation might affect recruitment requirements and what further resources are needed for the Royal Navy to appeal to, train, and retain the people it needs. In addition to these questions, the panel will ask how industry, academia, and the armed forces – including between branches – can work together to get the most out of people.



Dr Kevin Rowlands

Head, Royal Navy Strategic Studies Centre

Dr Kevin Rowlands is the Head of the Royal Navy Strategic Studies Centre, an internal Ministry of Defence think tank. He enjoyed a 30-year naval career, of which 20 were at sea, and left in the rank of Captain. He has been the Secretary to the Chiefs of Staff Committee and other senior Ministry of Defence boards and committees, and was the Course Director for the UK's Advanced Command and Staff Course. Kevin is also an Associate Fellow at the Council on Geostrategy.



Baroness Anderson of Stoke-on-Trent
*Shadow Spokesperson (Defence), His Majesty's
Opposition*

Baroness Anderson of Stoke-on-Trent is a working peer and a Shadow Minister. She is also the Chief Executive of Index on Censorship, an international campaign launched in 1971 to provide a platform for Soviet dissidents. Ruth was the Labour MP for Stoke-on-Trent North and Kidsgrove from 2015–2019 and before that worked in the trade union, third sector and private sectors.



Chris Keenan
*Dean, Faculty of Nautical and STEM, City of
Glasgow College*

Chris Keenan is the Dean of the Faculty of Nautical and STEM at the City of Glasgow College. Chris began his career as an Apprentice Engineer and later as an Aero Engine Repair Engineer with Rolls Royce. Before joining City of Glasgow College, Chris worked as a Senior Manager with Allianz Insurance and as Faculty Director at Fife College.



Nynne Scheuer
Head, Marine People and Culture, MAERSK

Nynne Scheuer is a Senior Director and the Head of Marine People and Culture at MAERSK, where she is responsible for approximately 13,000 seafarers. Previously, Nynne worked for Vestas in Government Relations, and in different international business organisations including the International chamber of Commerce. She holds a MSc in Political Science from Copenhagen University.



Rear Admiral Jude Terry OBE
Director of People and Training, Royal Navy

R. Adm. Jude Terry OBE is the Director of People and Training in the Royal Navy. R. Adm. Terry joined the Royal Navy in 1997 after graduating from Dundee University. She served as Military Assistant to Chief of Joint Operations from 2014, after which she became the Logistics Branch Manager at Navy Command, handling personnel management. She played a significant role in managing the Strategic Command Portfolio through the Integrated Review, Spending Review, and budgetary cycles.

Panel 7

The Atlantic-Pacific: The maritime operating environment of the 2040s

This panel will analyse the geostrategic importance of the Euro-Atlantic and the Indo-Pacific and explore the interconnectedness of the two regions. The conversation will explore how adversaries are expected to exploit the sea to their advantage, which minilateral groupings, such as the Joint Expeditionary Force, will play a key role, and, in light of these factors, what role Britain should play in both regions.



James Rogers

Co-founder and Director of Research, Council on Geostrategy

James Rogers is Co-founder and Director of Research at the Council on Geostrategy, where he specialises in geopolitics and British strategic policy. Previously, he held research positions at leading think tanks and academic organisations, including the Baltic Defence College and the European Union Institute for Security Studies.



Admiral Ryō Sakai
Chief of Staff, Japanese Maritime Self-Defence Force

Adm. Ryō Sakai is the Chief of Staff of the Japanese Maritime Self-Defence Force. Adm. Sakai's assignments include Chief of Annual Programming Section and Plans and Programmes Section, and the Director General of Operations and Plans Department. He has been Commandant of the Ominato District, as well as of Kure and of Yokosuka.



The Rt. Hon. Anne-Marie Trevelyan MP
Minister of State for Indo-Pacific, Foreign, Commonwealth and Development Office

The Rt. Hon. Anne-Marie Trevelyan is the Minister of State for Indo-Pacific at the Foreign, Commonwealth and Development Office. Anne-Marie has held various Ministerial positions including Secretary of State for International Development, Minister of State for the Armed Forces and Minister for Defence Procurement.



Dr Una Aleksandra Bērziņa-Čerenkova
Head, China Studies Centre, Riga Stradins University

Dr Una Aleksandra Bērziņa-Čerenkova is Head of the China Studies Centre at Riga Stradins University. She is also Head of the Asia Programme at the Latvian Institute of International Affairs. She has held fellowships at Fudan, Stanford, and Oxford Universities, and is affiliated with King's College London and MERICS.



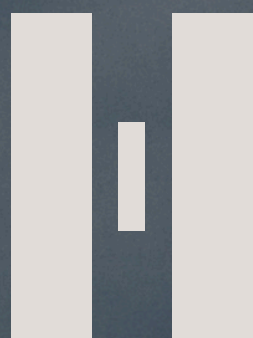
Dr Balkan Devlen
Director, Transatlantic Programme, Macdonald-Laurier Institute

Dr Balkan Devlen is a Senior Fellow and Director of the Transatlantic Programme at the Macdonald-Laurier Institute and an expert forecaster and Senior Consultant for Good Judgment, a geopolitical forecasting company. He is also an Adjunct Research Professor at the Norman Paterson School of International Affairs at Carleton University.



Charles Parton OBE
Distinguished Fellow, Council on Geostrategy

Charles Parton OBE was a long-serving career diplomat, spending 22 years working in or on China, Taiwan and Hong Kong. In his final posting he was seconded to the European Union's Delegation in Beijing as First Counsellor until late 2016. In 2017, he was chosen as the House of Commons Foreign Affairs Select Committee's Special Adviser on China.



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Big Ask

How should the Royal Navy look and operate in the 2040s?

The Council on Geostrategy regularly publishes Big Asks that gather experts together to provide a short response to topical geopolitical questions. As part of this year's First Sea Lord's Sea Power Conference, we asked 11 experts to provide a short response to the question of how the Royal Navy should look and operate in the 2040s.



Robert Bassett Cross
Chief Executive Officer and Founder, Adarga

Focused investment in modern 'unified data infrastructure' today will ignite the most significant evolution of organisation, culture, lethality, and precision in the Royal Navy's history, providing the technological underpinning for the force to harness the explosion of potential in artificial intelligence (AI).

A truly software-defined, data-driven navy of the 2040s will be operating in an Indo-Pacific orientated, mature information age, where global shipping volumes may have tripled. Continuous innovation and adaptation will be propelled by an intimate, symbiotic relationship with industry. Responsible autonomy will be the norm, enabling leaner crewing and the seamless synchronisation of crewed and uncrewed systems across all domains, interoperable with allies and other joint force elements to deliver substantial mass and effect.

Individual platforms will deliver much greater impact in terms of the physics of warfare – operating sustainably over greater distances, with lower logistics burden, and packing significantly greater 'punch'. AI will drive decision advantage with rapid targeting cycles and a pre-emptive edge in the information domain. Effective strategic deterrence will be as much about rapidly developing and fielding emergent AI models as warheads on undetectable submarines. The AI-enabled, software-driven Royal Navy of the 2040s will be disproportionately more effective, not materially larger.



Hillary Briffa

Assistant Director, Centre for Defence Studies, King's College London. Associate Fellow, Council on Geostrategy

They say no man is an island, but looking to the 2040s, the Royal Navy can certainly enhance its reach and impact by collaborating with some island states.

Collaboration with small island developing states (SIDS) should be prioritised through capacity-building initiatives, joint training exercises, and information sharing agreements. By providing training and technical assistance, the Royal Navy can help partners to develop their sovereign maritime security capabilities, improve coastal surveillance, and combat transnational threats such as piracy, illegal, unreported and unregulated fishing, and drug trafficking.

However, assistance does not have to be limited to naval capabilities or combatting illegal activity, but can extend to sharing best practices on coordination. For example, as Fiji is instituting its inaugural Maritime Security Committee and working to develop a maritime security strategy, drawing on the longstanding expertise of the United Kingdom (UK) can help to enhance this strategic capacity.

In turn, the Royal Navy also stands to learn and receive support, given SIDS' influence and leadership in the maritime domain. As stated by Aiyaz Sayed-Khaiyum, then Attorney-General of Fiji, in 2020:

...there's nothing small at all about Fiji's responsibilities. We are actually a "large ocean state" with over 1.3 million square kilometres of sea under our protection. And we've led the global ocean's management movement from its inception.[1]

Whether through holding the presidency of COP23, leading the Commonwealth's Ocean and Climate Change Group, or having a Fijian diplomat currently serving as the United Nations Special Envoy for the Ocean, the country is seen as a global leader in protecting the ocean. SIDS are thus ideally positioned to support the Royal Navy with its own sustainability ambitions, demonstrating the empowering potential of genuine and equal partnership.



Neil Brown

Geopolitical Strategist, CQS. Distinguished Fellow, Council on Geostrategy

The Royal Navy should be contributing to Britain's nuclear and conventional deterrence of the adversaries identified in the Integrated Review and its Refresh, having improved operational performance through organisational transformation to maximise a 2025 spending round which finally reflected the grim global outlook and reversed decades of underinvestment and inefficiencies.

Prioritisation of expeditionary capability should lead to investment in more platforms to be forward deployed nationally, under AUKUS, or the Joint Expeditionary Force (NATO's High North anchor). These will deliver improved access, presence and intervention options for HM Government, and promote the economic and security benefits of good governance at sea, leveraging technology as a force multiplier.

Long-term strategic commitment aligned to organisational improvement should give the UK an increased leadership role, and its defence industry and private sector the confidence to invest in production capacity and optimise supply chains and market access to improve efficiency, availability and lethality. The reinvigorated industrial base and its national workforce should enable the Royal Navy and defence to flex specialists across a more resilient workforce, including a reconfigured reserve. Prioritisation of deployed capability should drive procurement, training and operational partnerships with allies, sister services, agencies and industry focused on optimising presence in the Atlantic, High North and Western Indo-Pacific and beyond, as required.



Joanne L. Fallowfield

*Head of Musculoskeletal Injury Mitigation and Nutrition,
Royal Navy*

Under-recruitment and workforce outflows are degrading the Royal Navy's pool of trained personnel and the service's expertise.[2] Moreover, poor health behaviours in the 21st century – which increase non-communicable disease prevalence and contribute to poor-health conditions at work – are disproportionately affecting service entrants.[3] These trends will continue into the 2040s, presenting the Royal Navy with recruitment and retention challenges now and in the future.[4]

Exclusively focusing upon lean crewing and digital-automation technologies – which transfer risk and seek to compensate for workforce gaps through improving efficiency – will introduce new cyber vulnerability and platform resilience challenges. People can be an organisation's most adaptable and agile asset, but employers must transform to break patterns of poor health in the workforce; supporting employees to remain 'well-in-work'. [5] Military approaches to addressing interconnected health problems have historically focused upon the symptoms experienced by individuals, rather than organisational root causes.[6]

Adopting a 'whole system approach' – recognising both individual and organisation responsibilities – provides a model for tackling these complex and interconnected health problems.[7] The operational maritime environment presents a setting which could be strategically managed to support good health in sailors; preventable, workforce-impacting poor health outcomes could be effectively targeted through adopting person-centred, context-relevant, community-based interventions.[8] Thus, a maritime 'system for health', which is directed by the leadership and coordinated through the Chain of Command, could assist in ameliorating the Royal Navy's workforce capacity and capability challenges, today and out to 2040.



Monica Kohli

*President, Women's International Shipping and Trading
Association, UK*

Over the next 15 years, I would expect the Royal Navy to be reflective of British society. As per the UK Armed Forces Biannual Diversity Statistics, in October 2023, 10.7% of the regular forces and 16.2% of reserves were female.[9] In 15 years, I would like these figures to reach 50% – a proportion which would accurately reflect the female population of the British Isles.

We should want all aspects of the bodies which represent us to be reflective of society. Hence, in 2040, I would also expect to see more ethnic diversity in the Royal Navy, as well as greater representation from people of disadvantaged backgrounds. And this is not just about representation: in today's more diverse Britain, we need cultural awareness, cultural sensibility and an ability to predict and resolve internal issues before they become a greater threat to internal cohesion. This is best done by having people who have a comprehensive understanding of different cultures and backgrounds.

The Royal Navy also needs to continue being a deterrent, even more than it is today. It needs to be available and ready to be mobilised when there is a threat to our seafarers and to our merchant marine, including piracy, disruptions by non-state actors, or vessels being caught in the middle of proxy wars. It therefore needs to be well funded, well trained and carry on standing as a beacon of safety and trustworthiness for the maritime community. The Royal Navy is one of the leading flag bearers for safety and training worldwide – it is uniquely placed to lead in the guidance and education of other navies. This puts the Royal Navy in a unique position to build collaboration, forge close and direct contacts and foster greater understanding in order to prevent conflicts, both now and in the future.



Andrew Lambert

Laughton Professor of Naval History, Department of War Studies, King's College London

In 2040, the Royal Navy's core missions will endure: providing effective, targeted maritime security across the globe, and maintaining world class war-fighting skills and capabilities, including continuous at sea deterrence (CASD), whether working alone or with allies. Current alliances and partnerships look likely to endure; they enhance national security and share burdens in an uncertain age.

With new routes across the high north and the phasing out of hydrocarbons, along with additional resource pressure on obvious choke points, trade flows may change. The Royal Navy has a solid record of anticipating and adapting to change, skills which will be tested by an evolving world order. Some current concerns will persist, others may fade and be replaced by new hot spots. The (relatively) unexpected is always possible, with the Falklands conflict of 1982 emphasising the need for a substantial fleet, with a wide range of capabilities. The fleet moved away from a 'Cold War' posture across the next two decades, acquiring new carriers, and a relatively full spectrum for capabilities. Britain will continue to depend on imported food, raw materials and international trade, while global exchanges enrich British society.

While key elements of the Royal Navy's current fleet will remain in the 2040s, there is an opportunity to extend the reach and impact of naval presence, the core of Britain's global maritime posture.



Jennifer Parker

Adjunct Fellow in Naval Studies, University of New South Wales (Canberra). Associate Fellow, Council on Geostrategy

Since the announcement of the UK's Indo-Pacific 'tilt' in 2021, the Royal Navy has been central to Britain's Indo-Pacific strategy, as has its relationship with Australia. While many might think the 2021 AUKUS agreement between Australia, the US and the UK can be put down to Australia turning back to its strategic and cultural roots, and some convenient cost sharing on the Astute-class submarine replacement, it is much more.

For reasons of demography, global gross domestic product, not to mention the People's Republic of China's (PRC) attempts to remould the global order, Indo-Pacific security is central to Britain's security, despite the geographic distance. And geographically central to the Indo-Pacific is Australia.

The recognition in London of the importance of Indo-Pacific security and stability to the UK's national interests is also de facto recognition of the growing importance of Australia to the Royal Navy as a strategic hub which allows protected access to the region. This is clear in the Royal Navy's decision to rotate an Astute class submarine out of HMAS Stirling as part of AUKUS Pillar I from 2027. But beyond AUKUS, Australia's geography, while not as impenetrable as it once was, will increasingly become an important staging base for Royal Navy operations in the Indo-Pacific, as the South China Sea, and waters surrounding bases such as those in Singapore, become increasingly contested.



Prof. Alessio Patalano

*Professor, War Studies Department, King's College London.
Associate Fellow, Council on Geostrategy*

Looking at the next two decades, it is not unreasonable to assume that threats to freedom of navigation and the use of coercive actions to manage competing claims and unsettled disputes will continue to undermine the global order at sea. In particular, state-on-state competition is likely to keep the lines separating law enforcement activities from military projection blurred, and authoritarian regimes and their proxies more inclined to disrupt maritime connectivity to hold open economies hostage to their ambitions. For these reasons, the risk of contested sea control in times of crises or war should be regarded as a core assumption.

Within this context, as the UK aims to retain the ability to influence events at sea – alone and in coalition – to ensure its prosperity, the Royal Navy should strive to look as a primary tool of British statecraft fit for a contested age, committed to credible deterrence and, failing that, ready to meet military threats. This means that the Royal Navy should strategically seek to regularly operate from forward positions in key theatres in Europe and beyond, retain the current level of base access, and ensure that it fully implements sustainable rotational deployment in new places such as Japan and Australia. It should also operate on a logic of interchangeability with key partners to maximise the strategic effects of its mass.

Operationally, the Royal Navy's force structure should be maximised for coalition-centred high-end warfighting, and national and multilateral expeditionary action in contested spaces under challenging environmental conditions. Its force should also be able to meet issues in the undersea environment, and integrate technology to streamline support, and facilitate the fleet's sustainability.



James Rogers

*Co-founder and Director of Research, Council on
Geostrategy*

By the 2040s, the geopolitical and economic forces joining the Euro-Atlantic and Indo-Pacific theatres together into an integrated geostrategic space – the Atlantic-Pacific – will be far greater than today.

Short of a substantial pushback from the largest free and open countries, the PRC will be significantly more powerful. By the 2040s, the People's Liberation Army Navy should have significantly more warships, enabled by a larger fleet of auxiliary vessels and overseas naval facilities. 40 large vessels and submarines have been commissioned into the Chinese fleet over the past five years alone, and these are not vessels designed for coastal defence. These larger and more capable Chinese warships will follow and support Chinese interests – increasingly global and focused in distant theatres, from the Middle East and Africa to South America and the Arctic.

Should Russia not be defeated in Ukraine, the Russian threat will almost certainly grow, combining with the Chinese to form a formidable adversary. Due to climate change, the Arctic may also be ice-free for a longer period of time per year than today, providing an additional route between the European and East Asian regions. By the 2040s, India might also be a significant power on the world stage, adding another layer of complexity.

Should the major European countries not rearm, Europe will invite intrigue and intervention. The UK – a centre of power in its own right – will need a larger and more capable navy to protect its interests and to convene and align allies and partners in support of them.



Tom Sharpe OBE
Partner, Special Project Partners

As an island nation dependent on seaborne trade for survival, with a blue water navy and a submarine-delivered nuclear deterrent, it is clear that nuclear-powered attack submarines (SSNs) will be a core part of the Royal Navy in 2040, and for a long time after.

To ensure this capability in anything like the required numbers by 2040 and beyond, SSN-AUKUS is the only viable option currently. Building more Astutes, Dreadnoughts (for use in the SSN role) or diesel boats, or working up a Virginia-class derived collaboration with the United States, all come across near insurmountable issues of build capacity and cost.

So with SSN-AUKUS by far the best solution we have, how many will the Royal Navy of 2040 need? The answer is 12, based on a minimum of four standing tasks and a ratio of three boats for every one on operations. In rough order of priority, these tasks would be; around the UK, in the North Atlantic/High North, accompanying an aircraft carrier, and in the Mediterranean/Middle East. Any others that were operational could be used for training, allied interoperability tasks, Indo-Pacific operations, protecting the second carrier, and so on.

The bill for this number will be large compared to the navy budget, and a significant chunk across the defence budget as a whole. However, this sum is not that big when compared to the UK's GDP, especially when you consider their importance. But, as ever, money is only part of the process. Procurement practices, (nuclear) infrastructure, recruitment and retention will all need to improve in lockstep out to 2040, or the money will be wasted.



Daisy Turnbull
PhD candidate, University of Portsmouth

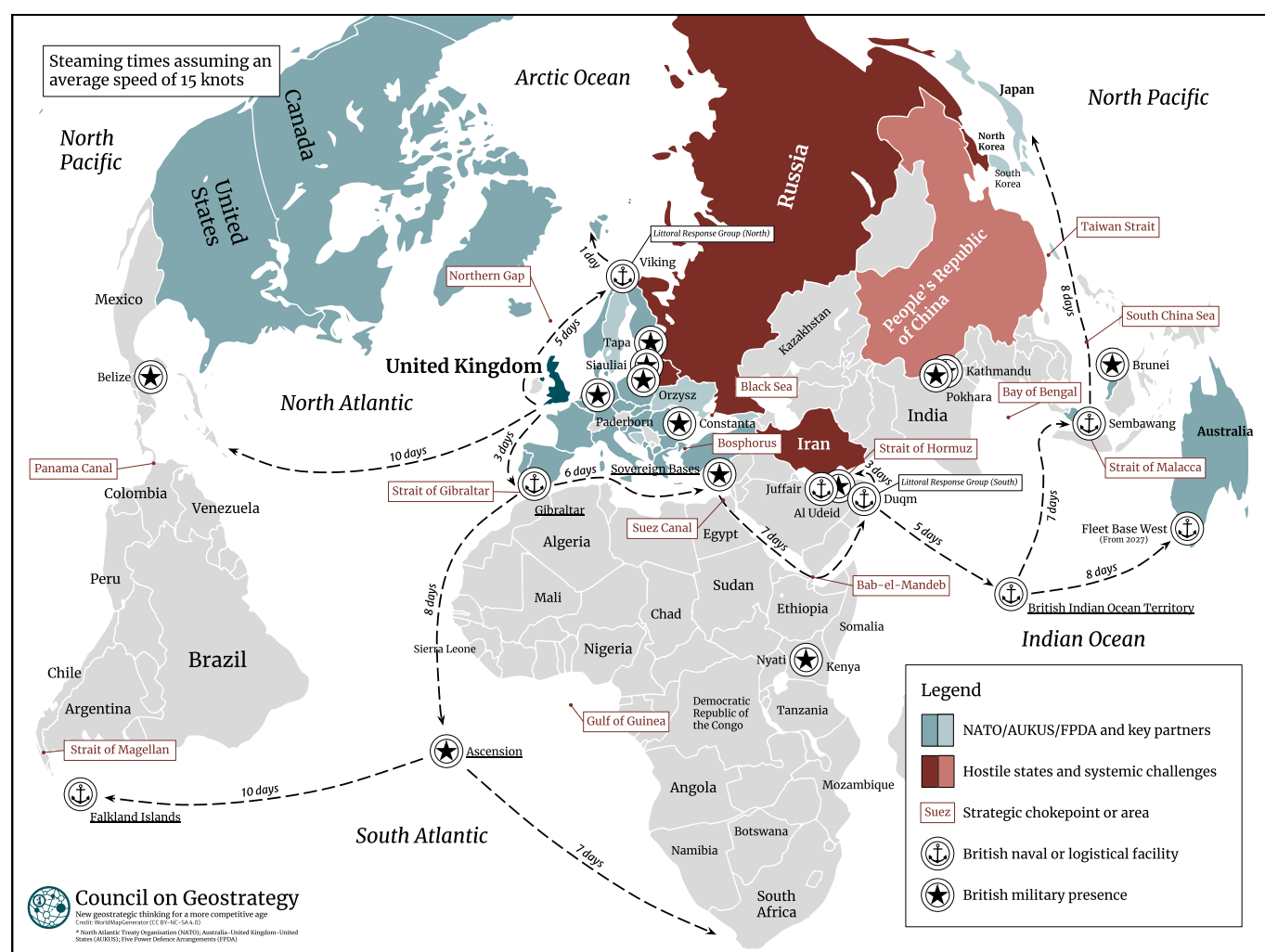
Just as it was realised at the turn of the 20th century with the construction of five experimental Holland class submarines, the next naval arms race is set to be in the proliferation of subsea capabilities – particularly in development of ‘Extra Large Unmanned Underwater Vehicles’.[10] This paradigm shift is set to open a new frontier in maritime defence and drastically change the *modus operandi* of the Royal Navy by 2040, reshaping the look of the fleet as it adapts to this new subsea battleground. The Royal Navy should continue to respond, alongside Britain's allies and partners, to the ‘rapidity of relevant technological advances’ being made in global private industry. It ought also to utilise the products of a pre-eminent domestic maritime sector, to be at the forefront of innovation – leading the way through a new digital age both above and below the water.[11]

However, in the 2040s the Royal Navy should continue to operate as both a scientific and people-powered force as our relationship with the sea is remade in the wake of climate change. With the strategic value of the deep-sea also set to exponentially increase in the next 15 years, we should be reminded of HMS Challenger's legacy, and ask how new technology can inform our scientific understanding of the anthropogenic ocean.[12] The cultural position which the Royal Navy has historically occupied in this regard is important, and the recent announcement of an awareness course is a gesture towards this.[13]

Maps

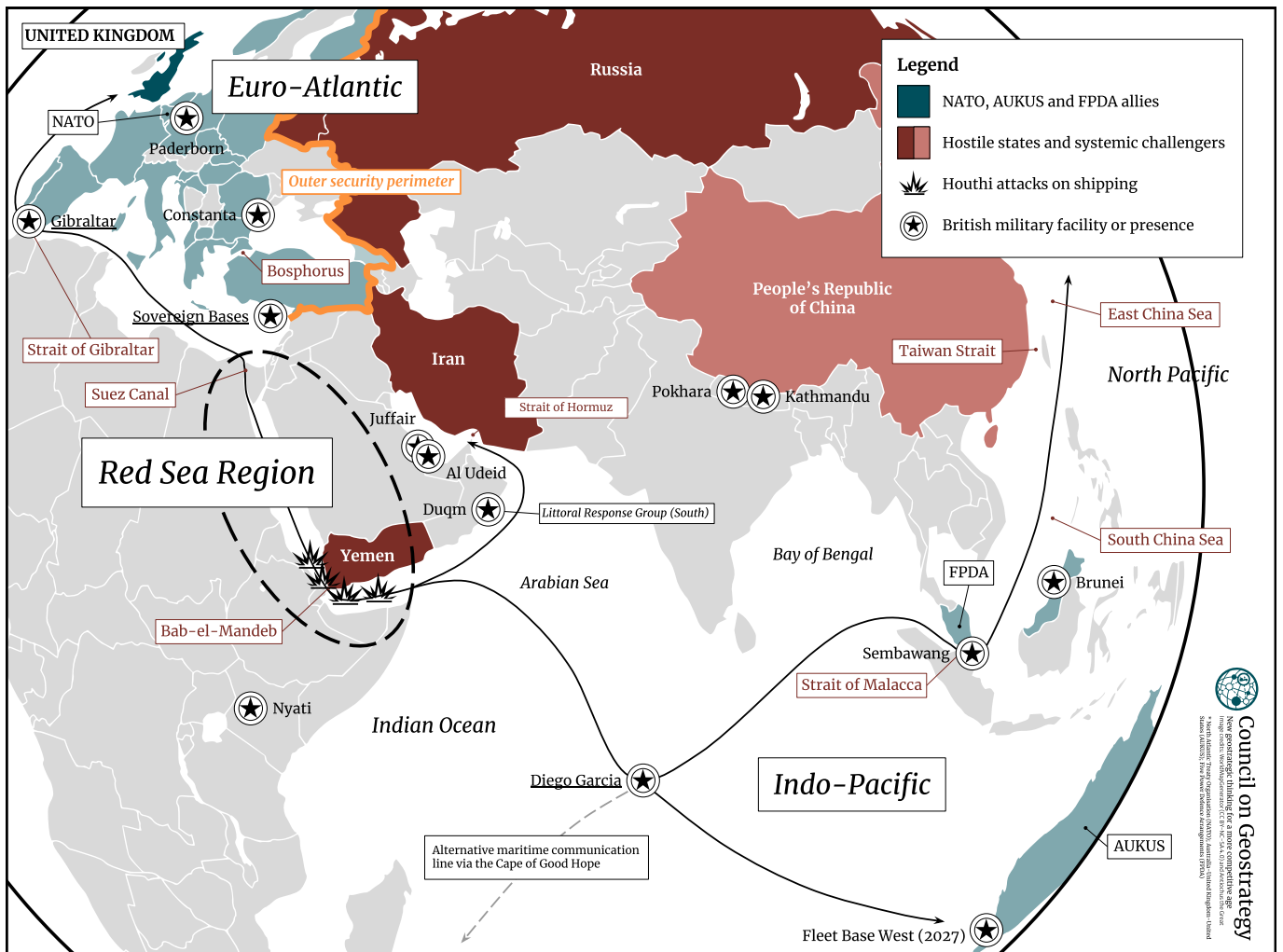
If visualised properly, maps can portray complex information in a way that the human brain can process and understand in seconds. That is why the Council on Geostrategy produces maps to depict geostrategic developments and phenomena, especially from a British vantage point.

Below are a couple of maritime geostrategic maps from the Council on Geostrategy's *GeoAtlas*.



The Royal Navy's global reach

As an instrument of national power, the Royal Navy provides the United Kingdom with extraordinary versatility.



The Red Sea: The Atlantic-Pacific link

A map depicting the importance of the Red Sea to British interests in the Euro-Atlantic and Indo-Pacific.

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Endnotes

- [1] Aiyaz Sayed-Khaiyum, Speech: 'The Attorney-General and Minister for Economy Aiyaz Sayed-Khaiyum's Opening Remarks at the National Stakeholder Workshop on Fiji's National Ocean Policy', Ministry of Foreign Affairs (Fiji), 18/11/2020, <https://www.foreignaffairs.gov.fj/> (checked: 07/05/2024).
- [2] Esme Kirk-Wade and Zoe Mansfield, 'UK defence personnel statistics', House of Commons Library, 18/07/2023, <https://commonslibrary.parliament.uk/> (checked: 07/05/2024).
- [3] Grace Everest, Louise Marshall, Caroline Fraser and Adam Briggs, 'Addressing the leading risk factors for ill health', 20/02/2022, The Health Foundation, <https://www.health.org.uk/> (checked: 07/05/2024) and Sam Atwell, Myriam Vriend, Christopher Rocks, David Finch and Joe Farrington-Douglas, 'What we know about the UK's working-age health challenge', The Health Foundation, 17/11/2023, <https://www.health.org.uk/> (checked: 07/05/2024).
- [4] Ibid.
- [5] Ibid.
- [6] Deydre Teyhen, Dennis Robbins and Barbara Ryan, 'Promoting and Sustaining Positive Personal Health Behaviours – Putting the Person First', *Military Medicine*, 183 (2018).
- [7] 'Whole systems approach to obesity', Public Health England, 23/07/2019, <https://assets.publishing.service.gov.uk/> (checked: 07/05/2024).
- [8] 'Healthier weight: Defence insights to tackling a national challenge', Public Health England, 15/12/2020, <https://assets.publishing.service.gov.uk/> (checked: 07/05/2024).
- [9] 'UK armed forces biannual diversity statistics: October 2023', Ministry of Defence (UK), 21/12/2023, <https://www.gov.uk/government/> (checked: 07/05/2024).
- [10] 'Holland-class Submarines', BAE Systems, No date, <https://www.baesystems.com/> (checked: 07/05/2024) and 'In focus: CETUS the Royal Navy's next XLUV', Navy Lookout, 14/11/2023, <https://www.navylookout.com/> (checked: 07/05/2024).
- [11] 'AUKUS – Volume 836: debated on Thursday 29 February 2024', Hansard, 29/02/2024, <https://hansard.parliament.uk/> (checked: 07/05/2024).
- [12] 'HMS Challenger: A trailblazer for modern ocean science', Royal Museums Greenwich, No date, <https://www.rmg.co.uk/> (checked: 07/05/2024).
- [13] 'Royal Navy: Climate Change Training – Volume 836: debated on Thursday 14 March 2024', Hansard, 14/03/2024, <https://hansard.parliament.uk/> (checked: 07/05/2024).



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<https://www.geostrategy.org.uk/sea-power-conference-2024/>

