

## Speech: The uplifting and frightening developments in Yemen

Thank you very much, Mr President. And again our thanks to all the briefers, beginning with the Special Envoy. I mean what we've heard today is both uplifting and frightening. My Foreign Secretary, the British Foreign Secretary, has spoken about this this morning and he's asked me to pass on his thanks to the UN and related agencies for all the heroic efforts, for the patience and painstaking diplomacy that has got us to this point. And he was able to see for himself the work in hand when he visited Aden in March.

I'll come on later to what this means for the dire humanitarian situation that Mark and Henrietta have told us about. But for the moment I'd like to concentrate on what we heard from Martin. I think we all have to welcome these initial deployments by the Houthis from the three ports. They are significant steps. But they are part of the broader redeployments in Hodeidah. And it was very good that, Martin, you were able to pass on the Government of Yemen's commitment that it too will be discharging its commitments on redeployment. So that is a very important part of where we are. And I completely agree we owe General Lollesgard also our deep thanks for what he's been able to achieve. I think the next stage on that is obviously that the parties need to engage constructively with the General to finalise the outstanding negotiations to allow for implementation of both phases, of Phases One and Two of the Hodeidah Agreement. And it's very good news that there should be a meeting on the 14th of June among the parties in Amman in Jordan to discuss the economic aspects of the Hodeidah Agreement. And I think what we heard from Mark and Henrietta just underscores that this isn't just about humanitarian; it's also about the ability of the Yemeni economy as a whole to revive and work properly. And this Council's been concerned about that before.

On the political solution to the conflict, I mean, yes, we all want to see these recent developments unlock the root to that broader political solution that Martin and his team have been working so hard on. This is necessary in itself, but it's obviously even more urgent given what we heard from OCHA and UNICEF today.

I wanted to move on, if I may, to the drone strike against oil pumping stations in Riyadh province in Saudi Arabia. We condemn this drone strike by the Houthis. As my Foreign Secretary has also said, the risks remain real to the stability of the peace agreement and to its ability to prosper and bring the sort of security and safety to the people and the children of Yemen that we all want to see. The attack is not just wrong; it undermines the trust needed to get to a resolution of the conflict. It's not the time for provocation when we are so close to being able to make significant progress on the ground and unlock some of the economic and humanitarian and medical things that we all need to see. And I think we need to bear that very strongly in mind.

I think we all were horrified by the briefings that Mark and Henrietta were able to give us and the figures. I won't repeat those figures there. Some of the individual human stories are absolutely heart tugging. But I think for me, Mr President it was the scale of what we're facing, what the people of Yemen are facing, that remains so shocking. So I think we really do owe it to you to make sure that the UN presence on the ground can do its job effectively. Whether it's the monitors or the humanitarian agencies, all the parties need to help ensure the UN can really do its job. That includes letting the UN in in the numbers in which General Lollesgard has said. It includes getting rid of the access constraints. It includes approving travel permissions and operating agreements swiftly, including allowing access to the large number of Yemenis recently displaced in Hajjah and Ad Dhale. And it includes making sure the onward road access from Hodeidah and Salif Ports and the infrastructure remains protected.

I think the other shocking figure was that only 20% of the response plan is funded. So I think it's incumbent on all Members of the United Nations to help OCHA with this and to ensure new pledges, and where pledges have been made, that we get disbursement as fast as possible. And that must be a priority for all of us.

As Henrietta said, you know, we're very close to the point of no return here. So there's an urgency about action that we should all reflect on and report back to our capitals.

The last thing I wanted to say, Mr President, here, is about the stability of the Yemeni rial. I mentioned the economy earlier. We've got to have economic measures working properly so that that in turn facilitates the commercial imports of food and fuel on which Yemen depends so heavily.

Thank you to the Ambassador of Peru for his briefing on sanctions and where the Committee has got to. It was a very interesting visit, I think. A real pity about not being able to meet Ansarullah and I hope that can be corrected for next time.

But I'll close, Mr President, by saying I think the Council is united on Yemen. I hope we can find some way of really expressing the urgency behind the measures that are needed on the humanitarian and economic side while giving our full support to Martin and General Lollesgard to move ahead on Phases One and Two of the Agreement but also the longer term political solution which is now really pressing.

Thank you.

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## [Speech: Driving the future of the car](#)

# industry

Ladies and gentlemen,

I'm very sorry that the Business Secretary cannot be with us here today (15 May 2019) but he has sadly had to attend to urgent business.

However, as it's still early I thought I'd ease you into today's conference with a story from his fine constituency of Tunbridge Wells.

Early one morning in 1895, a Peugeot was winding its way through the roads near Tunbridge Wells. Like me, the driver was a local politician.

David Salomons – the town's mayor – was on his way to England's first-ever motor show, which he had organised.

But unlike me, I can assure you, Salomons was travelling at 3 times the legal speed limit. Pushing his Peugeot 'vis-à-vis' to a heady 12 miles per hour, with only his status as mayor protecting him from prosecution.

Salomons' 'Horseless Carriage Exhibition' was the culmination of weeks of work. Organising the event, he was contacted by charlatans promising everything from perpetual motion machines to power which would cost nothing.

But he also received scores of letters from ordinary people excited about how the motor car could change their lives. From doctors, who could replace their horses, coachman and stalls with a single automobile that they could start in minutes; to traders who could drive to the station themselves, catch an earlier train and spend more time doing business.

The public reaction to the exhibition was astounding, with thousands descending upon Tunbridge Wells to see just 5 vehicles in action.

'The Autocar' called the event "the dawn of a new era in vehicular propulsion."

And today, we are all back in 1895, at the beginning of another 'new era' which will transform how we live our lives.

Like Salomons, we need to be visionaries, perceiving this change before it happens. But we also need to take action, by investing in the new technologies which will power and control the vehicles of tomorrow.

In his early 20s, Salomons built his own electric tricycle, abandoning the project as he couldn't get the battery to recharge. I can't help but wonder what he would make of the innovations represented in the room today.

In the audience this morning is Ralf Speth, the CEO of Jaguar Land-Rover. The Jaguar I-pace – an electric car designed and engineered in the UK, was voted not just European Car of Year but World Car of the Year.

Or take CrowdCharge, whose CEO Mike Potter is here today. A company connecting electric vehicles to create a UK-wide mega battery by storing energy when renewables are at peak production; and providing energy to the grid during peak demand.

But this is just the beginning.

By 2040, demand for UK-produced batteries is expected to be 50 times what it is today. Is there any other industry on earth which could see demand explode at such a rate?

Yet to turn new demand into new jobs we need to be able to mass produce these batteries. And for that we need a Gigafactory.

My message to all of you is that the UK is the perfect place to set up shop.

The major breakthrough which made rechargeable lithium-ion batteries possible was made at Oxford University.

We are home both to Europe's most productive automotive workforce and Europe's best-selling electric vehicle, the Nissan Leaf, which is made in Sunderland.

And just last month, a report by the Advanced Propulsion Centre recognised that initiatives like the Faraday Battery Challenge and UK Battery Industrialisation Centre have de-risked a range of R&D projects.

Today, I'm delighted to announce [25 million pounds to back prototypes for zero emission vehicles](#), by supporting early stage projects like a quick-charging electric motorbike, drawing on the expertise of Williams Advanced Engineering.

But we also need to scale-up these new technologies.

The Advanced Propulsion Centre is already helping so many companies here today bring electric technologies to market.

From Jaguar Land-Rover adapting their engine production facilities to make Electric Drive Units; to Ford producing a Plug-In Hybrid Electric version of their Transit Custom van.

And today, I can also announce a further 25 million pounds for the next round of Advanced Propulsion Centre projects, to further accelerate the shift to low carbon vehicles.

Of course, in the coming years the vehicles on our roads will not just be clean but connected too.

While I know there are doubters, personally I am optimistic. In 2017 I was on the Bill Committee for the Electric and Autonomous Vehicles Act. I have seen how the theoretical concepts we were discussing then are now already becoming a reality.

Yesterday, you heard from Oxbotica's Graeme Smith. Last November, the Business Secretary became the first person outside the Oxbotica team to try a self-driving vehicle on the UK's streets.

While some, I'm sure, would love the idea of Cabinet ministers acting as 'crash-test-dummies' for new technology, you'll be glad to hear he emerged unscathed!

Later this year, backed by our Industrial Strategy, [Oxbotica will be leading an end-to-end journey from London to Oxford](#), which will be at least as complex as anything attempted anywhere else in the world.

And as we move towards full automation, the prize on offer is astounding.

By removing collisions caused by human error, self-driving vehicles could save well over a million lives worldwide, every single year, as well as opening up travel to the disabled, the elderly or those simply too young to drive.

Yet to enjoy these benefits, we will need to know, beyond doubt, that these vehicles are safe and secure. This, itself, is an opportunity.

With the motor car, it was America that created the safety system the world still uses today.

The first crash-test was conducted by General Motors, windscreen wipers were invented by a woman from Alabama, and turning indicators were invented by a Hollywood Actress.

Rear-view mirrors were first used by a driver in the inaugural Indy 500 race, which he went on to win.

This time, however, things can be different.

We want to create the world's first safety and security assurance process for self-driving vehicles right here in the UK.

Alongside the right legislation, this would allow us to reduce the responsibilities currently placed on a safety driver, and – in time – remove the need for one altogether.

No nation in the world has done this yet but, within a few years, we believe that the UK could have a robust safety and security assurance process in place.

Toyota has said that to make self-driving vehicles safe, you would need to test them for around 9 billion miles. That's the equivalent of driving around the world 350,000 times.

As that would be impossible on actual roads, we'll need new approaches to testing these vehicles including through virtual simulations, and a key aspect of this assurance process will be cyber security, an area where the UK excels.

So I'm delighted to announce that next month, we will launch a competition to develop a state-of-the-art cyber testing facility here in the UK.

This secure facility will allow researchers, start-ups and big manufacturers to push their vehicles' software to the very limits of what it can handle.

They will subject self-driving vehicles to a range of cyber-attacks on test-tracks and in virtual environments, ensuring that vehicles' communication with 5G networks, smart traffic lights and other self-driving vehicles remains completely secure.

The facility will give the UK a head-start in an automotive cyber security market which – globally – will soon be worth tens of billions of pounds.

It will ensure that years from now, the first passengers can get in these vehicles confident in the knowledge that they are safe.

Ladies and gentlemen.

Like David Salomons, we need the vision to see beyond what exists right now, to what could exist in 10, 20 or 30 years' time.

From the opportunity for the UK to lead the world in producing electric batteries; to the potential of self-driving vehicles to save millions of lives worldwide.

But we also need the courage to act. And put in place the foundations on which this future will be built.

Ultimately, that will mean different sectors, companies and countries uniting around a common goal and creating the future we all want to see.

Thank you.

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## **News story: New trains to be rolled out across the country alongside £48 billion investment to upgrade tracks**

- 4,500 new carriages to be in use for passengers by 2022
- trains will be greener and built to the latest modern standards with state of the art facilities for passengers
- Greater Anglia, South Western Railway, TransPennine Express and Northern set to follow LNER and introduce new trains, as will all new rail franchises

The arrival of state-of-the-art Azuma trains on the East Coast Main Line marks the introduction of modern, spacious and comfortable new trains across the country.

More than 4,500 new carriages are set to be delivered to UK rail passengers by the end of 2022 as part of a significant investment by both government and train operators to transform the railways.

The trains will be greener and will modernise travel, with passengers benefitting from more comfortable seats, improved accessibility, free wifi as standard, power sockets and air-conditioning.

Transport Secretary, Chris Grayling, said:

The introduction of thousands of new trains that are better for both passengers and the environment shows this government's commitment to improving journeys, and we're spending a record £48 billion to modernise our rail network.

Train operators across the country will replace old trains to transform the environment of passengers to enable faster journeys and provide more comfort and better accessibility. The launch of the Azumas on the East Coast Line marks the next step in one of the biggest transformations of fleets across the country.

Alongside these new trains, we have also been clear that we want to see alternatively-powered trains introduced to the UK rail network where required, alongside electric trains.

New trains will appear on Greater Anglia and South Western Railway in the coming months, and on all new rail franchises. The new operator of East Midlands Trains – Abellio – will oversee the introduction of brand-new trains, entirely replacing the existing intercity fleet with more reliable and comfortable trains.

Midlands passengers will see further benefits when West Midlands Trains introduces 400 new carriages across its network next year.

Already, more than 1,140 new carriages have been delivered as part of the Thameslink programme, transforming rail travel through London. Passengers on Great Western are also benefitting from the 729 new carriages – the sister trains of the Azumas – which have been delivered on the network, improving journeys across South Wales, the West Country, the Cotswolds, and large parts of Southern England.

In 2018, the total carbon dioxide emissions on passenger trains dropped by 195 kilotons – the equivalent of taking 85,000 cars off the road. This comes despite the distance passengers have travelled going up by 200 million kilometres in the same period.

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## 25 years of Customer Service Excellence: how we do it

We recently retained our Customer Service Excellence (CSE) accreditation for the 10th successive year. Before this we held the Charter Mark, [part of the Citizen's Charter Programme](#), since 1993. This is 25 years of awards for our focus on customer service.

Run by [Cabinet Office](#), [CSE recognises organisations that are "efficient, effective, excellent, equitable and empowering"](#).

It's tough to achieve accreditation; we're rigorously tested against multiple criteria in 5 service areas: delivery, timeliness, information, professionalism and staff attitude. These are areas that our customers have said are a priority for them. CSE also places emphasis on developing customer insight, understanding customer experience and measuring service satisfaction.

### **How we meet the standard**

[We understand the differences in our varied customer base](#). This allows us to design our services by focusing on them. We cover a wide range of customers, commercial and public, by carrying out research across the country.

We work closely with trade associations, motoring organisations, the police, other agencies and relevant medical charities, as well as other government departments. This allows us to share best practice and knowledge. [Our user experience \(UX\) laboratory also allows us to test and evaluate our users' end to end experience](#), across various channels and devices. On a monthly basis we conduct satisfaction survey research. We analyse our customer satisfaction scores and the comments made.

[Using customer journey mapping helps us to understand and improve how our customers interact with us](#). For example, understanding what customers feel when telling us about a medical condition. We step into their shoes from the moment they know they need to tell us, through to the final outcome. Seeing DVLA from their perspective gives us valuable insight into how our customers feel at different stages of the process.





Senior managers at DVLA have created an environment to encourage people at all levels to see our customers as individuals and understand their needs. [This is highlighted in our business plan, where our Non-Executive Chair Lesley Cowley emphasises 'how good customer service is central to our success and what people expect when they deal with us'.](#)

Achieving the standard is a reflection of how DVLA as a whole provides great service to our customers.

## **We're continually improving our services**

While it's great for us to get an independent view on the service we provide our customers, the assessment is also a valuable tool to help us improve. Every year, we've used the assessor's advice on areas where we can improve our services.

This is in line with our aim to make sure the design of our services are led by customer feedback. This will hopefully lead us to continue to retain the CSE standard for years to come.

**Would you like to help us keep improving our services?**

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# Speech: RUSI Sea Power Conference 15

## May 2019

Lord Hague, Secretary of State, Ladies and Gentlemen, good morning and a very welcome if I may to a conference that carries my name, or at least the authority of my office. It's great to have you here at RUSI, particularly those who are back for the second year, after our conference last year.

Could I begin by expressing a couple of words of thanks to Lord Hague for anchoring this event as RUSI Chairman, and of course our new Secretary of State for your powerful and compelling introduction to our conference. To Dr Karin Von Hippel, the Director General, and all of the team here at RUSI who've done so much to facilitate this event; it's a long day, it's a full day, and I hope you enjoy it. I'd like to thank in advance and I hope in anticipation of delivery, the excellent range of speakers and panel moderators we have here today. We have deliberately selected issues and selected speakers to broaden and diversify what we're looking at here at this conference today, broadening away from just having Chiefs of Navy and Navy practitioners to those who can help shape what our view of the future is.

And once more to all of you for coming, the Conference as you can see is healthily sold out, it's a powerful contribution from my perspective to what we're doing to shape the future of the Naval Service. And it's particularly heartening to see those of you who have returned from the conference last year; I hope it's because you were stimulated by the debate then and you wanted more.

I think that if there was any doubt as to the utility of events like these, last year's conference emphatically dispelled those. In the excellent conference report, which Peter Roberts and Sidharth Kaushal put together and I hope some of you have had a chance to see it, it concluded that analysis of the future of Naval Warfare, and consideration of what the range of potential futures may look like, had not perhaps been receiving the attention it deserved.

So as the changing threat environment has made sea power a focal issue more than it perhaps had been in recent years, it seemed right that the defence and security community was once again concerning itself with maritime strategy.

The output from last year's conference has led to many strands of work within the Royal Navy I'm pleased to say, some of which remain ongoing today. Not least an examination of how we engage with, and tap in to, the knowledge and expertise that's available to us in academia, think tanks and the wider Defence enterprise, and of course our international partners and allies to make sure that as we look to further develop our understanding of the changing maritime security climate, we do it with the benefit of all those perspectives.

And with that in mind, I'm very pleased to say that today's conference now sits within something of a continuum of ongoing discussion one that began with this conference here last year, continues here today and I hope in particular will have a powerful conversation at DSEI in Docklands this September, where we hope to have some significant announcements about how we're taking the Navy's approach to new capability and innovation forward.

The very fact that continuum has a natural annual rhythm to it makes it not that easy to change; the date for this Conference was set before the date for First Sea Lord supersession. So my successor, Tony Radakin, who many of you will know, he and I sat down a number of months ago to discuss how to play this. There was a powerful case for him being here now and not me; there was at least an equally powerful case that if I start the conference today with a keynote, that he finishes at the end of the day. But he's demurred from that with my support; he is quite rightly on that precious, what we call in the service 'leave between appointments', having handed over as second sea lord a couple of weeks ago. So he's reading, thinking, visiting, writing his Comand Plan; and we agreed he would take proper time to take over, to take stock and to give his own views on all this in due course. I suspect if he takes longer than two weeks to do it in at least one major matter, his Secretary of State will be asking why he can't get out onto the stump faster – [Secretary of State] you've set a very high bar for the new First Sea Lord.

But suffice it to say Tony and I are equally aligned on our thinking, and I'm very excited at the leadership he's going to bring to the Navy; there will be no contest for this particular 'Iron Throne' – he arrives in Kings Landing without the need for an army to depose me. I knew at least some of you would get the reference!

But back to today and you've heard a very powerful articulation from the Secretary of State about the 'what' we're doing in sea power, so I wanted to underpin that with a little bit of 'why', as a leader into what I think much of the rest of today will be, which is the 'how'.

So the start point for the discussion today from my perspective is the changing threat environment that formed a very major part of our deliberations at this conference last year – we went into that in some detail. And at the start of the day I would characterise how I've seen that evolve as being in three key areas.

The first of those is the continual erosion we are seeing of the rules that govern the international system – the system that has for so long provided the basis for our security and prosperity especially through what has become known as 'grey zone' activity, but we in the Ministry of Defence will perhaps more accurately describe that as activity that sees a perpetual state of conflict where actions are just below the threshold of traditional conventional conflict but nevertheless pose a significant challenge. We've seen that expanding even in the last year since the last RUSI conference and more on that shortly.

Second is the diversification of potential adversaries as a growing list of non state actors who are engaged in serious organised crime and terrorism,

which have been our focus for much of the 21st century so far are now matched by the return of great power competition.

And then thirdly, the intensification of threats as weapons proliferation and technological advance put ever more capable weaponry into the hands of evermore diverse potential adversaries, and here the world of information and cyber opens up entirely new domains in which we in the maritime must be ready to fight and win.

Now you may say that none of those developments are unique to the maritime domain and you'd be right; indeed the Chief of Defence Staff, General Sir Nick Carter, was here at RUSI only a couple of months ago saying precisely that on a much wider Defence perspective; you won't be surprised to hear that even with only 5 weeks to go I agree with him absolutely emphatically.

But I would also argue that the modern maritime domain perhaps presents the most fertile of all environments as a breeding ground for this sub-threshold activity, exploited by the full range of actors – be they criminals, be they non state actors or be they peer competitor states, all enabled through access to increasingly sophisticated technology as a means of pursuing their own aims.

A couple of examples, as I mentioned just before.

In the Southern Red Sea, we are now seeing increasingly complex physical manifestations of maritime power by the Houthi rebels, the way they target Saudi led coalition forces at sea. And of course their discrimination does not always enable them to just target Saudis. Their increased use of practical but unconventional technology, such as remote controlled and autonomous surface craft, is a particular concern to global mariners. And the use of sea mines and other potentially lethal weapons, adjacent to such a pivotal maritime choke point, adds further tension that could de-stabilise what is already a long running and damaging 4 year conflict in Yemen, and have very significant repercussions for global maritime trade.

Then look at events in the Kerch Strait last November, as Russian Naval, Coast Guard and intelligence agencies came together to ultimately both detain three Ukrainian Naval Vessels, and, by use of a cleverly positioned commercial tanker under the newly completed Kerch bridge, establish a temporary blockade and deny access through the Ukrainians' sole entry point to the Sea of Azov and the strategically important access to their Eastern Ukrainian ports. Actions like those, regardless of the judgements from the legal deliberations which are still ongoing in that latter case, I think we can safely characterise as examples of maritime sub threshold grey zone activity being used by one state to exert sea control to the detriment of another. And that's a powerful development.

And when it comes to state on state competition in the maritime domain the issue of territorial sea disputes is particularly compelling. The University of Dundee's Maritime Boundaries Research Institute did a piece of work in 2015 which identified that 57% of the world's maritime boundaries remain unresolved.

Yet in a world of dwindling natural resources, where the significance of 12 mile territorial waters limits, and perhaps even more so 200 nautical mile Exclusive Economic Zones through the provisions of the United Nations Convention on the Law of the Sea, are becoming of enormous value for coastal states' energy, mining, fishing and telecommunications industries.

Therefore, it's perhaps no wonder then that where disagreement exists between states as to where these boundaries should be drawn, resolution often reaches far beyond just legal complexity and into grey zone activity where coercion can be used to reinforce territorial claims, and where a power imbalance exists between bordering states, we see it most significantly.

Arguably the most regularly cited example of this is in the South China Sea where, contrary to rulings in July 2016 by the independent arbitration tribunal established under UNCLOS, specifically in relation to the Chinese '9 dash line' and the status of both the Spratly islands and Scarborough Shoal, China has maintained its territorial claims over that area, and the indigenous resources in that region of course go with that. Those demands have thus far been resisted by China's neighbours, and whilst I don't plan to comment on the complex legal judgements that are still underway in the arbitration panel for these territorial disputes, I'm pretty clear that the relevance of the ever more capable and assertive PLA(Navy) in the region is not lost on anyone, and is linked to those claims.

Now, there are those who would question why a territorial dispute half a world away matters in the UK. But I would say that UNCLOS is one of those cornerstones of international peace and security that provides a neutral mechanism to allocate the world's maritime resources. And if we allow UNCLOS to be undermined in one area, wherever that area may be, whatever the case may be, it will be weakened everywhere.

It would precipitate a world where countries feel free to ignore international treaties which don't suit them and then of course no agreement is safe: international order and international security could easily begin to break down.

That's why a global outlook and a commitment to the rules based approach is essential in the UK. Those two things are two of the five core values that underpin a new strategy we have in the UK Maritime 2050.

Now you could understand the First Sea Lord releasing a strategy like that, or at least a policy directorate within the Ministry of Defence, but as many of you will know it's actually a Department for Transport strategy, released in January this year following wide cross government stakeholder input. Maritime 2050 very succinctly explains beyond the intuitive importance of the sea to an island nation, why it is vital for the UK to pursue a maritime strategy.

The well established growth in seaborne trade, the changing shape and age profile of the world's population, the eastward geographical shift in the global economic centre of gravity, and climate change are all trends identified in that strategy which will shape the future of global economies

in the coming decades, and for each of these trends there are strong arguments to justify why a maritime solution, if suitably harnessed, can offer the UK not just economic resilience but increasingly competitive advantage.

So whilst our country's physical geography may give us no choice but to embrace the incredibly complex range of challenges that are present in the maritime domain, both in the near abroad and the further afield, the significant opportunities are there to be capitalised upon.

And if I may, I think our country has a long and distinguished record of doing exactly that; arguably the single factor that centuries ago secured Britain's place at the top of the international system came from the maritime and, I would suggest it is still the single most important factor that keeps us there today.

And we're not alone in recognising the benefits of a maritime strategy either, and by way of evidence you only need look at some of the massive infrastructure projects affecting the sector around the world.

Look for example at the recent expansion of the Panama Canal is a reflection of the physical growth in the size of world shipping – something that is in turn leading to the expansion of very large port facilities around the world; look at Gwadar in Pakistan, look at Duqm in Oman.

Notably amongst these expansions of course, China's 'One Belt, One Road' strategy seeks to upgrade several facilities on the 'Maritime Silk Road' connecting China and Europe.

Meanwhile, in the Military sphere, the latest Russian maritime doctrine, personally approved by President Putin in July 2017, has identified the Atlantic as a main regional priority area, and is unequivocal when the strategy states, and I quote: "naval activities are the highest state priorities" and "the Navy is the main component and foundation of the global potential of the Russian Federation". In other words, it is through naval operations that Russia seeks to achieve its stated objectives.

To this approach can be attributed their enduring Naval presence – the frequency of Russian Federation Navy vessels transiting through the Atlantic area and those sea lines of communication have now become a new baseline for us to contend with and the continued funding of their Main Directorate for Deep Sea Research is also a component of that strategy.

And I think we can anticipate Russia employing a combination of conventional and non conventional methods to carry on exerting its influence in the North Atlantic – and we have to be ready for that. Put simply, in the years to come, Russian effort to exploit sea power in and around our own back yard here in the UK is likely to be a constant – and something we will not be able to ignore.

So what does all of this mean for the Royal Navy? Well, having established, I hope the importance of a maritime strategy for the UK, one that is inherently

global in outlook and one that seeks to preserve the rules based order, the role of sea power in supporting that strategy is I hope self evident.

And for that sea power to be effective, it needs to be able to address the full gamut of diversifying and intensifying threats in the current and future maritime domain, a domain that demands we are able to deliver effect on, above and below the waves, in space and cyberspace, and also have the capacity to do it from the sea to the land.

At one end of the scale this means being able to respond to natural disasters almost anywhere, and the provision of humanitarian assistance that our nation is called upon to provide. Somewhere in the middle of that scale it means being able to deliver constabulary operations to disrupt illicit activity upon the seas such as piracy, illegal trafficking and smuggling. And then at the top end of the scale it means effective deterrence against peer and near peer adversaries deterring them from actions that would threaten our interests and potentially provoke escalation into conflict.

Of course, for any deterrence capability to be credible, well established theory tells us that it must be capable of causing severe enough repercussions to make action unpalatable in the eyes of your opponent, it must be available for us to use at a time and place of our choosing, and there must be no doubt about our will to use it if necessary.

It is the combination of these factors that drives our requirement for capabilities that are at the absolute peak of maritime military capability. Anything else is not credible.

So it is this range and breadth of activity, and the associated capabilities that go with them that will enable the Royal Navy to be ready to answer the credible sea power requirement in support of our Nation's wider maritime strategy. It's the balanced fleet capable of everything from that humanitarian assistance right up to high end warfighting, and to do it sustainably around the world across all domains that is going to be key.

But that is no small ask, especially when faced with the significant perennial challenges we face and we're going to get into many of these over the course of the day.

Firstly our people challenge, it's long running, it's well known to many of you and is not unique to the Royal Navy by any means. In part of course it's the result of demographics affecting the external employment market, but it is somewhat exacerbated, perhaps inevitably, by the highly technical nature of our service and the need for people with those skills, combined with the unique nature of life at sea which is increasingly divergent from the expectations of modern generations who have grown up with instant access to the internet, connection with family and friends, social media; we take time to explain to our potential recruits how that will work for them.

And we've made significant strides to resolve our most pressing people shortfalls, engineers in both the surface and submarine fleets, but this is going to remain an enduring issue for some time to come; economy and

demography are defining that for us. Secondly the relentless pace of technological advance has proved sometimes almost impossible to keep up with, not least because those same procurement cycles the Secretary of State described take too long to generate new complex warships, or update the systems within them during our service life. Often we've had the chance over the last 20 years to mitigate this delta by the capability overmatch we've had over potential competitors, but as I mentioned at the start this is something we are increasingly losing as they gain greater capability.

So this calls for innovation to identify and exploit the latest cutting edge technology that will enable us to remain competitive, and faster acquisition processes to get that technology from the drawing board into the hands of the war fighter before our adversaries can access it.

And this constant requirement to improve productivity so that we make best use of scarce public resource – something that has been driving trade offs between efficiency and resilience, between capability and mass, between affordability and lethality, for a long time, will continue to need to be addressed.

Here again we are beginning to see signs of improvement, not least following last autumn's budget statement, although none of you will be surprised to hear me say that our long term success will be based on a long term plan; I could not echo the Secretary of State's words more; we have to sustain this forward through successive spending reviews and Strategic defence and Security Reviews – and that's the message from Sir John Parker's National Shipbuilding Strategy too.

But for all these perennial challenges, I am proud to say the Royal Navy continues to deliver where it matters – on operations. And you will be pleased to hear I'm not going to give you a list of them – the Secretary of State covered the most important ones and I'm grateful to her for doing so.

But In the last 12 months since I last spoke at this conference, we have been in every ocean in the world and operating on every continent, with some conspicuous successes along the way.

Whether upholding UN Security Council Resolutions, providing short term training teams across Africa, refreshing our Littoral Strike credentials in a variety of challenging environments – we're about to do that again in the Baltic or restoring our carrier strike capability, they've all been noticeable. Not to mention of course that remarkable achievement that we commemorated only two weeks ago that is 50 years of unbroken continuous at sea deterrence.

All of these challenges, all of these areas where we have continued to meet what has been asked of us, and in many cases exceed defence planning assumptions, have been a source of great pride to the Royal Navy it's been my privilege to lead.

And the very things that makes the Royal Navy unique within defence – our ability to deliver influence and political choice through persistent stand



off presence, or 'engagement without embroilment' as it's so often referred to, will continue to see the outputs of our services asked for at sky high levels, both within Defence across Whitehall.

And that's a good thing. But if you set the bar high in terms of output, you've got to find a sustainable way in which you can continue to deliver that output. In support of this, we've established a bold vision for a Royal Navy. We want to operate differently by the mid 2020s to be able to defend the Nation's interests and deliver political choice while remaining ready to fight at sea and from the sea wherever we're asked to do so.

We've already begun this transformation; the Modernising Defence Programme powerfully enables us to do so. We absolutely recognise the need to mobilise to confront the threats we see now; to modernise to address future threats; and to transform the way we do business to stay cutting edge and cost efficient.

And in that regard, I don't by any means consider the Modernising Defence Programme something that's being 'done to the Navy', it's very much something we've embraced for the journey and go hand in hand with the rest of Defence.

And we're absolutely clear where we want that transformation journey to take us.

A Navy that can operate differently to maximise operational output, that works hand in glove with industry to find new solutions that bring capability to the warfighter faster. I would like to close if I may with this thought. We've seen a number of significant anniversaries – I've already mentioned CASD 50. But also the 70th anniversary of the signing of the North Atlantic Treaty – a very significant moment in the UK Defence journey, and the beginning of the organisation that remains the cornerstone of our Defence Strategy to this day.

And in three weeks' time we're going to will commemorate the 75th anniversary of the biggest naval and amphibious operation ever mounted – you will of course all think of it as Operation Overlord but I like to think of Operation Neptune, and D Day specialists will know that is the maritime component of the operation that enabled the wider campaign on the beaches of Normandy.

From those beaches in Normandy, right through to NATO's posture in the cold war, right on to the conflicts we're engaged in today, we have always been stronger when we work with allies and partners – and that is our mantra going forward as you heard the Secretary of State say.

And we don't just want to play a 'bit part' in those alliances and coalitions; both within the NATO framework and wider coalitions, we are always proud to take a leading role – and that is invariably expected of us.

And now, as we look at the complex maritime security climate of the future, whether operating as part of a UK Joint force, or an International Combined force, The Royal Navy has that ambition to lead, to be the supported commander, to be the framework nation.

But if we're going to be credible in that leadership role, we need to also lead thinking within Defence, across Government, with our allies and out into the wider maritime enterprise – to make sure we can correctly design the maritime force for tomorrow and correctly recruit and retain the people to man it. And to do so in peacetime or in war.

As a service we have set out our headmark high, but as the old adage goes, no one has the monopoly on good ideas – that's why we have conferences like today so that you can help us on that journey. So now is the time to test that headmark and find out where we can improve upon it further for the next generation.

My successor, Tony Radakin, stands ready to lead that work powerfully, starting 5 weeks today. You will I'm sure be hearing from him soon and, as practitioners and advocates of the maritime component as you all are here today, and the use of the maritime as an instrument of our national power, I know he can rely on your support.

Thank You.