

# News story: Chemical Weapons Demilitarisation Conference 2018

Speaking at the 21st annual Chemical Weapons Demilitarisation Conference in London, Defence Minister Lord Howe commended the vital work of scientific and technical experts to make the world safe from chemical weapons, while acknowledging the shocking events of the past year, including the use of a chemical weapon in Salisbury, and the continuing use of chemical weapons in Syria.

Defence Minister Lord Howe said:

In an increasingly dangerous world, we cannot allow these abhorrent weapons to spread once more across the globe. We are working with international partners across the world to agree how best to deal with the use of chemical weapons, and to ensure that those who use chemical weapons are held to account, however long this takes.

The destruction of chemical weapons is a high priority under the 1997 Chemical Weapons Convention (CWC). The Conference provided an opportunity for experts from all over the world to discuss their progress and co-operation in eliminating chemical weapons, and the technical challenges that remain.

Lord Howe highlighted the success of the Organisation for the Prohibition of Chemical Weapons (OPCW), under the leadership of Director General Ahmet Üzümcü, in carrying out successful missions in Syria, in the most challenging operational circumstances in the history of the organisation. He noted also that over 96% of the world's declared chemical weapon stocks had now been destroyed, as verified by inspectors of the Technical Secretariat.

Lord Howe said:

That's a remarkable achievement in anyone's book. No wonder that, under Ambassador Üzümcü's exemplary leadership, the OPCW was rightly recognised by the award of the Nobel Peace Prize in 2015.

Ambassador Ahmet Üzümcü, Director-General of the Organisation for the Prohibition of Chemical Weapons, said:

We are now moving into the final phase of work to eliminate chemical weapon stockpiles, with over 96% of the world's declared stockpiles now destroyed.

However, the Organisation for the Prohibition of Chemical Weapons

continues to face serious challenges in achieving its mission “for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons”.

I welcome the important role that the Chemical Weapons Demilitarisation Conference continues to play in supporting international efforts to destroy chemical weapons, and contributing to our shared goal of a world free of chemical weapon threats.

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## Speech: First Sea Lord speech at the RUSI Sea Power Conference

It was hard to know where to start when you think about how to conclude this conference such a valuable day of debate on the future of Naval Warfare.

And while I was thinking about what words to use and where to draw inspiration from and I promise you this is true I was looking through the latest RUSI Journal. And came across an excellent review by Christian Melby of Lawrence Freedman’s new book *The Future of War: A History*. And that title struck a chord because of what we’re talking about today.

Now I’ll confess straight up that I haven’t yet read Lawrence Freedman’s book, more often than not these days in this job I spend most of my time outside of leave periods reading briefs and papers rather than reading interesting books. But I will try to read it in due course.

But the review was excellent. And if it’s accurate, then the approach that Lawrence is taking in that book is not just what the future is, but how to look at it. And I think that offers real food for thought to how we try to culminate our work here today.

The key theme is that the study of war should not be separated from the context of what you’re looking at the ‘concerns of the time’ as he calls it in which a war occurs.

Nor can we constrain ourselves to the facts and figures of war, so often the focus of analysis over the last century. Attempts to quantify and measure wars will perhaps never quite tell the entire picture of the conflict.

The world of fiction can make the point really well. The 2015 novel *Ghost Fleet: A Novel of the Next World War* demonstrates that a rigorously researched story can actually prove sufficiently thought provoking such that it can help to prevent the war it describes. A powerful piece of modern deterrence.

By focussing on the issue of context, Freedman managed to steer clear of predicting the incidence and form of future wars. And I think that's the key component of today it struck me that his reminder to us is not to try and do that.

So maybe instead of trying to predict the incidence and form of future conflicts, maybe it's better instead to consider the context of the maritime environment in 2035, a context that will provide the setting in which future naval warfare may be conducted. So that's what I'll try and do.

We've heard today already about the well-established importance of seaborne trade which dominates our country's economy today and shows every prospect of doing so out into the future. And not just for us but for all maritime nations. 90% of all intercontinental and regional trade by volume; with an estimated global value of \$4 trillion per year.

By 2045 it's estimated that Asia will account for 75% of global consumers and this shift in the customer base to that region will only serve to increase our reliance on seaborne trade.

Furthermore, by the middle of this century, we think 70% of the world's population will be concentrated in cities, and most of those cities are on or near the coast. So this urbanised littoral environment will link to a maritime domain that is going to become more congested, more cluttered and more contested.

And with a growing demand for, and dwindling supply of, basic resources, this is going to lead to increased competition over energy, food and water, and that competition will surely play out on the seas.

These are some of the global strategic trends that define the maritime environment as we look out towards 2035.

Britain's access to the global commons that is the sea is arguably the predominant factor behind our place at the top table of the international system. It has been for hundreds of years and I would contend it still is today.

And as we look forward, that global commons will continue to provide the same opportunities both for access and freedom of manoeuvre that has for so long assured our national prosperity and our national security.

But challenges in that area also abound. Whilst the seas are governed broadly by international law and conventional norms, for the most part the adherence to those laws is reliant on common consent.

It's hard to police them everywhere upon the seas. The sheer size of those oceans and seas makes policing them a nearly impossible. And whilst further regulation would probably risk constraining our own freedom of manoeuvre upon which our trade relies, we must therefore accept that the sea is going to be, increasingly, an environment open to exploitation.

Our interests are not just restricted to activity on the seas either, but

also under the sea is just as vital to our prosperity and security.

And then Information, the new global resource, the new global commons. We're going to operate in an increasingly information-dominated battlespace. It's no longer just the enabler to warfare that it used to be, it's now a fully-fledged national lever of power in its own right.

We are increasingly connected; information and the internet pervades every aspect of our life; fiscal, social and cultural.

As I reflected back on a previous event here at RUSI this week, the space conference where my Royal Air Force counterpart Steve Hillier focussed rightly on the intensifying threats to our satellite network on which we depend, which could also impact on our life, it's hard not to conclude that we're looking at challenge from satellites to the sea bed.

And when it comes to the flow of information, 97% of data transfer occurs now not by satellite but by underwater cables. And should that underwater network be compromised in any way it is assessed that satellite networks would only have sufficient bandwidth for about 7% of what currently passes on those cables.

So that international infrastructure is as vulnerable as it is critical. Commercially available unmanned underwater vehicles can already, now locate, photograph and survey undersea cables. And if this is the case, how easy could it be to disrupt the digital network or compromise it with a bespoke military capability that can get at it?

Many of you will know of the existence of the Russian Ocean Reconnaissance Ship Yantar. It's spent much of the last 6 months doing heroic and very demanding work looking for the lost Argentinian submarine in the South Atlantic and now it's in the Eastern Mediterranean looking for their downed fighter aircraft. But it often operates on our continental seabed, and it often switches off AIS when it suits. And we know it has the capacity to get at those cables.

And also Russian submarines which are often reported through open source to be 'lurking' in the vicinity of the underwater cables with an assessed capability to also compromise them.

My Fellow chiefs have spoken on several occasions in the last 6 months about the nature of the Russian threat. Here at RUSI a few months ago, General Sir Nick Carter – the Chief of the General Staff and in two weeks' time the new Chief of Defence Staff presented a very clear perspective of Russia through a land prism.

I fully agree and support his assessment, but clearly you will expect me to make a corresponding maritime focus today.

If you look at Europe from the perspective of Moscow, you would see a peninsular, and you see vulnerable maritime flanks for yourself from which Europe can threaten you. And also vulnerable maritime flanks in Europe that you can exploit.

Indeed, it can be no coincidence that the Russian four strategic zones that the CGS described of the West, the Arctic, the Black Sea and the Far East are pretty much delineated by the bodies of water they lie adjacent to.

In operational terms, we've seen Russia exploit in Syria a valuable proving ground for weapons, tactics and procedures, giving their current and future commanders critical operational experience in that theatre. This has been prevalent in the way they have colonized the Eastern Mediterranean, the Black and Caspian Seas.

Some might have regarded, for example, the Kuznetsov carrier group deployment a failure. Everyone remembers the photographs of smoke belching from the funnel. They remember jets being disembarked to Syria on arrival, and two of them being lost during carrier ops in the Med. But knowing what they do I'm pretty sure they will have learned some hard lessons from that. And they will have thought long and hard about the message of presence and posture that deployment brought. I sense they will be better next time; they learn rapidly.

And their proving of their capability to fire the KALIBR cruise missile from ships in the Caspian Sea onto targets in Syria was a groundbreaking moment of how maritime operations can influence the land.

When you then combine that with a 10-fold increase in activity in the North Atlantic, as the Secretary of State mentioned this morning, particularly in the sub-surface environment, the inescapable conclusion is that we are facing significantly emboldened Russian Naval activity, which is continually testing our resolve.

Perhaps even more challenging is Russian methodology they employ hybrid, ambiguous, deliberate and giving the advantage of having the initiative.

It means that whilst an assessment of their military capability is increasingly able to be made, an assessment of intent is (as always) far harder, and that only serves to heighten the risk of miscalculation.

That's why alongside so many of our key allies here today we're protecting our own back yard in the North Atlantic as a pivotal national task. Because failure to do so will define our national security situation for decades to come.

Ours will be a joined-up response with our allies. NATO, for so long the cornerstone of our national defence that is being bolstered in our ability to protect those areas, not least by the recently re-constituted US 2nd Fleet, right in the grain of that thinking.

So be in no doubt, the RN has no intention of playing merely a stand by bit part, we will be at the vanguard of this work.

By setting out our stall now, by clearly demonstrating our resolve to defend our interests and uphold the international rules based system, we will set the conditions for the future, and that's a future that we can, if we are canny, hold right the way out to 2035. That's why I'm concentrating on it

now.

As we consider this challenge within the context of our future operating environment, rarely has it been more important to do so.

The growing importance of the high north over the coming decades, both for indigenous resource and for trade routes, presents new opportunity. But these opportunities also open up a new arena for competition. Without an established rules framework to define our approach to this new environment the potential for escalation there is all too real.

The North Atlantic will not just going to be the limit of our future focus. Many of the threats we face in that Joint Operating Area are deepening, of course, but they are broadening too.

Much of the activity that we are currently engaged in across the world's oceans serve as an indicator of what we can expect in the future.

- migrants crossing the Mediterranean to Europe to escape instability in Africa will probably be with us for some time
- the presence of strategic choke points threatened by proxy wars in the Middle East; the Houthis in Yemen threatening the straights of Bab Al Mendeb are not going to go away
- the potential for state on state competition in South China Sea

None of these are direct pointers to the future character of Naval conflict in their own right, but they're pointing to contested and congested waters.

What they do demonstrate is an emergent trend, all of them are manifestations of global competition and the potential for a breakdown of a rules based system.

Non-state players are ever-more present in the maritime domain, and they are empowered through the freedom of weapons proliferation which is arming them. And the resultant surge of investment by nations around the world in their Navies to counter that is only going to serve to increase congestion on, and above the seas.

Nowhere is the rapid expansion of Naval forces more evident than in China.

Only last week, their first domestically built, 50,000-tonne carrier put to sea for trials, a powerful embodiment of their global ambition.

In 5 years, it's reasonable to expect that wherever we are operating, the Chinese will be there too. And in 10 years, we think the Chinese submarine fleet will outnumber that of the United States Navy.

This creates an interesting bi-lateral dynamic for us as a nation, striking a balance between our relationship with China as a valued trade partner, particularly valuable in the wake of BREXIT, yet also evaluating our relationship as a potentially capable Naval power. Which may not pose direct threat to our activity but our influence on behalf of global Britain could well see them contest our ability to conduct Freedom of Navigation

operations, a pivotal maritime component of the Rules Based International System.

And if we consider this context, the backdrop that will define our operations in the decades to come, one thing to me is clear.

The responsibility for our national deterrent vested in the Royal Navy, both nuclear and conventional, overlaid on top of our continuing mission to secure our sea lines of communication and our critical national infrastructure, will need to draw on credible military capability with sufficient versatility to face the full spectrum of threats we face, and sufficient strength to win in a peer-on-peer contest should that be required, almost certainly in conjunction with our allies and partners.

And that response of course starts with the Queen Elizabeth Class Carriers, which will soon sit at the head of a globally deployable balanced fleet.

A fleet that comprises a self-contained force capable of operating under and on water, in the air, from the sea to the land, and with partners and allies through space and cyberspace.

A fleet that is going to carry the heart of our nation's expeditionary strike capability – the F35B Lightning jets around which the carriers are designed. But also to carry our Royal Marines Commandos – the only land force capable of credible, high tempo, high readiness intervention from the sea in all environments and in arduous conditions.

A fleet that will bring a world-beating suite of capabilities, sensors and weapons like the Radars in our Type 45 destroyers, the new Sea Ceptor Missiles in our Frigates that have just been declared in service today as you've heard.

As I highlighted earlier, the platforms that we are building now will be pretty much ones we will be operating in 2035.

So we have to future proof that fleet. Nothing short of the full digitisation of our service will be sufficient as we head towards a new era of machine-speed warfare.

Our new ships, submarines and aircraft are all designed to be cutting edge from the outset, but we must continue to explore new and evolving technologies to keep them in that place throughout their time in service.

Capabilities like unmanned mine countermeasure vessels and unmanned rotorcraft, open architecture command systems, high energy weapons systems. All of these will complement and enhance our ships' warfighting capabilities in response to new and evolving threats.

We have to have the capability to bring all of that in with the current fleet and innovation will certainly be the key to doing that. The Royal Navy has a strong pedigree in this area which I'm proud of but we constantly need to challenge ourselves to do more. It's the focus of significant investment already, with dedicated tech accelerators in the fields of Cyber, Artificial

Intelligence, Information Warfare and unmanned air, surface and underwater vehicles.

But technology alone will not win the conflicts of the future. We need to be innovative in the 'how we do things', not just the 'what with' – I think Nelson understood that and we still take the tempo from him.

So as much as the future fleet will be increasingly automated, so too it will continue to be reliant on the best people to do the things that only people can do.

The values that have defined our service for centuries – we define them now as courage, commitment, loyalty, integrity, discipline and respect; "C2DRIL" as we drum into our sailors – they will be the watchwords of a new generation. Millennials who have grown up in the digital era, young men and women with that innate freedom of thought to innovate and adapt in this modern, high-tech world. We have to get our fair share of them to make that Navy a reality.

And in this interconnected future, and we will continue to operate closely with allies. This demands the compromises of interoperability, both in our equipment and through a better understanding of each other.

So we can continue to build and lead alliances through active engagement, as we are doing right now with NATO forces in the Eastern Med.

So as I conclude, there is no question that in the decades to come the character of Naval warfare is going to continue to evolve, perhaps at a greater pace than we have ever seen before.

But I would like to return to another of the themes of Freedman's book as I close.

As much as the pace of technological change may define the future character of conflict, as he recognised, so too is the future of warfare also shaped by many elements of continuity. Not everything will change and working out which is which will be key.

In 2035 there is little doubt in my mind that the security and prosperity of this island nation will still rest upon our access to, and our freedom of manoeuvre on, the global commons that is the sea.

So we must protect our vital sea lines of communication. We must protect our vital national offshore and underwater infrastructure. We must protect our natural maritime resources.

And we must deter those who would threaten our interests and seek to compromise the rules which govern the global commons, which are of such vital consequence to our nation's future.

We've got to continue to build alliances, working with our partners to the common good that will enable our national influence to be exerted around the world on behalf of our ambition for global Britain.



And in the decades to come, in keeping with half a millennium of tradition, I'm convinced that's exactly what the Royal Navy intends to do.

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## [News story: Upcoming competition launch](#)

It was announced at the 21st annual Chemical Weapons Demilitarisation Conference in London this week, that the Ministry of Defence and US Department of Defense will be launching a DASA competition to seek innovative technical solutions to the safe destruction of small caches of munitions found on the battlefield.

More details will be made available over the summer with a formal launch scheduled for September.

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## [News story: Defence Minister welcomes first of new carrier-ready helicopter fleet](#)

The helicopter, known as the Commando Merlin Mk4, has been upgraded to a faster and more powerful aircraft than its predecessor. It now sports a maritime grey coat, has a folding main rotor and tail, upgraded flight controls and a tactical computer. The modifications are designed to ensure it can now operate from sea, and it will take off from ships including the UK's new 65,000-tonne aircraft carrier, HMS Queen Elizabeth.

A total of 25 Commando Merlin aircraft will be delivered to the air wing of the Royal Marines – the Commando Helicopter Force (CHF) -- who will use them to deliver troops and supplies from sea to land.

Defence Minister Guto Bebb said:

This new version of the Merlin will provide an essential bridge between sea and land for our Marines operating from ships, including our brand-new aircraft carriers. This fleet will deliver troops and supplies to the centre of the action, be that a conflict zone or the site of a humanitarian disaster, as well as providing search and rescue cover. Flown from the Yeovil factory to now be

homed here, this is another way defence is supporting the South West, where we spent over £5bn last year – more than any other region in the UK.



Defence Minister Guto Bebb has today announced the delivery of the first of a fleet of new helicopters designed for Royal Marine aircraft carrier operations. Crown copyright.

The Commando Merlin Mk4 aircraft, an upgrade from the Merlin Mk3 standard, are being delivered through a £388 million contract between the MOD's Defence Equipment and Support (DE&S) and Leonardo Helicopters, supporting 175 skilled jobs at Leonardo in Yeovil, and a further 500 across the UK supply chain.

Last year the MOD's highest spend per person in the UK was in the South West, where £920 was spent for each member of the population – totalling around £5,079,000,000. Defence spending in the region also supported one in every 60 jobs there – the highest proportion of jobs support by MOD expenditure in the UK, totalling 33,500 jobs.

DE&S Director Helicopters Air Vice-Marshal Graham Russell said:

DE&S is proud to have delivered the first Merlin Mk4 to the Royal Navy. Today underscores that DE&S and their industrial partners are delivering. And delivering more with less, thanks to our effective change programme and fantastic staff.

We look forward to all 25 aircraft being fully operational by 2023.

DE&S will also ensure the Commando Merlin are supported with a full training and support solution, so they are always available to be deployed across the globe.

Ministry of Defence

de&s

# Commando Merlin Mk4

Delivering Royal Marines from sea to shore

User: **Commando Helicopter Force**

25 aircraft to be delivered in total

First entering service in **summer 2018**

Delivered through **£388m** MOD contract with Leonardo Helicopters

Based: **RNAS Yeovilton, South Somerset**

Labels: Folding main rotor, Folding tail rotor, Upgraded flight controls, Tactical computer

Defence Equipment & Support

Defence Minister Guto Bebb has today announced the delivery of the first of a fleet of new helicopters designed for Royal Marine aircraft carrier operations. Crown copyright.

The delivery will allow air crews to familiarise themselves with the Commando Merlin before they enter service, expected in the summer. They have been acquired to replace the veteran Sea Kings.

When not deployed on operations the helicopters will be based at RNAS Yeovilton, the home of CHF since the unit was formed in 1997.

CHF, known as the 'Junglies', have served in a commando support role in theatres of operations including Bosnia, Sierra Leone, Iraq and Afghanistan.

It's the ability to fold the tail section – which has been completely rebuilt for the Mk4 – and the rotor heads which assist flying from Royal Navy carriers in particular.

Colonel Lenny Brown RM, the Officer Commanding Commando Helicopter Force said:

Commando Helicopter Force provides aerial support to the Royal Marines, be they at sea, in an assault ship or in the sand and dust

of Afghanistan.

My air crews will soon begin training to fly the Commando Merlin from the Queen Elizabeth Class carriers, marking the start of a new era of Commando support operations.

The news was trailed by Defence Secretary Gavin Williamson earlier today, at the [RUSI Sea Power Conference in London](#). Whilst there, he also announced that [all Type 23 frigates will be fitted with the Sea Ceptor air defence system](#) – starting with HMS Argyll as she is deployed to the Asia-Pacific to visit ports across the region.

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## [Speech: RUSI Sea Power conference speech](#)

### **INTRO: PAST**

It's an honour to give the inaugural Sir Henry Leach lecture.

When we think of this man, a man whose name should be remembered with all the great admirals, who played such a pivotal and important role in defining the modern Britain that we see today, there was no greater post-war advocate for the value of sea power.

No-one who better understood the role the Royal Navy has played, and will play in the future, keeping watch over our nation, and protecting our liberty.

No-one with greater insight into why the white ensign is admired throughout the world, and why the reputation of our brave sailors, submariners and Royal Marines remains second to none.

This year, we've once again been reminded of how our Royal Navy forged our nation as we commemorate 100 years since the end of the Great War and the great sea blockade that eventually tipped the balance decisively in our favour and our allies favour.

We remember too the astonishing bravery demonstrated at Zeebrugge, which saw an incredible eight VCs awarded.

And this year we commemorate 75 years on from the Battle of the North Cape in which a young Sir Henry on board HMS Duke of York played his part sinking an enemy battleship to keep our Arctic Convoys running, keeping Britain supplied, and the hope of our nation and our allies afloat.

I'm told that those who remember Sir Henry recall a courteous man who didn't

suffer fools gladly.

A man prepared not just to engage with Secretaries of State, but someone who was even willing to do a bold thing, to take his life into his own hands by supporting a ban on the daily rum ration. Brave.

Yet when we recall Sir Henry's sober sense in the Falklands War, in those critical hours, in those critical days, a man who fortified the iron lady's resolve and laying the basis for a famous victory, we know that he got the big calls right.

## **PRESENT**

Just think how people would see this country if he hadn't have been so influential at that moment.

If he hadn't have been the one to step up, the one who was willing to speak up, the one who was willing to take that risk, that risk, that is the sign of leadership.

That is the sign of willingness to do that bit extra, that is what distinguishes someone who is willing to commit himself and do the right thing.

That is leadership, and the thing we all so admire, and I imagine he would take great pride in seeing the way that his beloved service continues playing a global role and making a difference.

The Royal Navy, the Royal Marines, the Royal Fleet Auxiliary, saving lives in the Mediterranean, clearing mines and ordnance from waters around the world, helping search for fellow sailors in a stricken Argentine submarine.

It goes to show the bonds that reach across, old adversaries that actually have come together because there is something more important.

But we see the Royal Navy that is training navies around the world, 50 navies in total, many of whom I'm delighted to see represented here today.

And while our supreme sailors guard our shores, our silent service, out of sight, but never out of mind, keep a constant watch, maintaining our continuous at sea nuclear deterrence, 24-hours a day, 365 days a year, as they have done for almost half a century.

They are one of the reasons why we remain a great maritime nation.

## **FUTURE**

But as the conference title underlines, I'm here today to discuss the future of naval warfare.

Back in 2015, the MOD published a document. Now one thing I have quickly discovered since becoming Secretary of State is, the Armed Forces and the Navy is no exception, they rather like to come up with titles that are often

not that catchy.

And in a Great British Royal Navy tradition, they produced a document called Strategic Trends Programme Future Operating Environment 2035.

Having been to my local library, and having asked for this and how many times they've had requests to read that document, it hasn't been that many.

But while the title was not memorable, the observations inside were accurate.

It envisaged a future in which extremists exploit information technologies, and where the lines between criminals, state-based actors and terrorists become increasingly blurred.

It imagined a world in which the spread of dangerous devices allowed a diverse range of actors to access capabilities once restricted to a few nation states.

And where others adapted and integrated technology at an incredibly fast rate.

It is amazing to think about the technologies that are now available for so little money and the way it's starting to change the world, the way that warfare is conducted.

And that is not just at sea, but also land and air. And if we do not change, and if we do not adapt, we will be the losers.

But there was one thing that we overlooked, in this brilliant document, we got wrong the speed of change.

We thought that the events that we had outlined would take more time to develop, ten, fifteen years, the reality is they're happening today.

They are happening now.

## **THREATS**

So we're rapidly having to come to terms with this new age of warfare.

Look at Russia's resurgence under President Putin, its submarine activity has increased ten-fold in the North Atlantic.

But that's not all. In 2010, the Royal Navy had to respond once to a Russian Navy ship approaching UK territorial waters.

Last year we had to respond 33 times.

It goes to show the increasing aggression, the increasing assertiveness of Russia, and how we have to ensure we give the right support to our Royal Navy in order to give them the tools to do the job and keep Britain safe.

I doubt Sir Henry Leach would be surprised at Russia's resurgence, nor would he bat an eyelid at our stubborn reliance on the seas for 95 per cent of our

trade, for our energy supplies, and even for our intercontinental digital communications.

But I imagine what might give him greater cause for concern is the way the threats against us are multiplying, coming not just from Russia, not just from a rising China, but from non-state actors using drones to drop bombs, ballistic missiles to attack airports and anti-ship missiles to threaten our narrow shipping lanes as well as the new and evolving threats from cyber-attacks, and, of course, increasingly extreme weather conditions and the expectations that people put on the services to help and support nations right around the world.

And I imagine Sir Henry would also be concerned about the pooling of such dangers. So many of these dangers emerging at once.

As our National Security and Capability Strategy says: "Domestic, overseas and online threats are increasingly integrated as adversaries develop capabilities and exploit vulnerabilities across borders and between the cyber and physical worlds."

With our international rules-based-order increasingly under threat, when even US Defence Secretary Mattis is prompted to remark that the US's "competitive advantage has eroded in every domain of warfare", we have to sit up, and we have no option but take action and ensure that Britain and our allies are properly defended.

## **ADAPTING TO TOMORROW**

This is where you come in, in dangerous times we look to the Royal Navy to lead from the front.

You have that unique ability to exert not just soft power across the globe but to back it up with tangible hard power across sea, air, land, space and cyberspace.

You give us politicians' a vital choice to deter, to reassure, and if necessary, to act, whether independently, or in concert with our allies.

And that sends a powerful signal.

As Sir Henry once observed: "War seldom takes the expected form and a strong maritime capability provides flexibility for the unforeseen."

But the great question we face today, is how can we adapt our navy to meet the challenges of tomorrow?

Fortunately, the great man, always prepared, left us a template, and we're following it closely.

But when we just think about what we want, it is about choices.

And that is what Sir Henry gave Mrs Thatcher. He gave her a choice.

He gave her the opportunity to think about what she wanted to achieve and the means to do it. And that's what we need as politicians.

And we need our services to be able to give us the choices so that we can make the right decisions.

We need our services to have the capability in order to offer those choices.

### **ABOUT MODERN CAPABILITIES**

But when you look at what Sir Henry did, one of the key areas that was close to his heart is having the right most modern capabilities.

In a speech to RUSI, not long after victory in the Falklands, he said: "Periodic weapon system updating is fundamental to effective countering of the threat and provision for it."

Our investment today holds true to that principle.

It's why we're building next generation nuclear Dreadnought submarines, putting almost a billion into our programme to begin phase two of production.

It's why we're constructing Astute hunter killer submarines, most recent naming our newest boat after the historic battle at Agincourt, following in the long tradition of Royal Navy ships with that iconic name.

I had a slightly awkward and difficult meeting with the French Defence minister shortly after the announcement, but I'm sure they understood.

But it is also important to have the strategic conventional deterrent.

One of the failures I think that we have sometimes in both the political world and also the military world is we've gone to a narrative about talking about deterrence.

We do not want to be in a position where you're only deterrence against threat and against aggressors is a nuclear deterrence.

You've got to talk about deterrence across the full spectrum right across the board.

It's sometimes difficult to explain to people that actually investing in our Armed Forces is all about making sure that things do not happen.

We've got to start explaining so much more clearly that a deterrence isn't just four nuclear boats.

It is about aircraft carriers, it is about a presence in the Pacific, a presence in the North Atlantic, a presence in the Mediterranean and in the Gulf.

Because with conventional frigates and destroyers we will be able to say that Britain is interested, Britain cares, Britain will protect our interests and our values.



If we do not have that conventional deterrence, and the ability to deter from conventional forces, then what we'll find ourselves in, is a place that none of us wish to be in, and having to turn to the greatest deterrence of them all.

Sir Henry, of course, was a great champion of carrier-strike.

One can only imagine what he would make of the new Queen Elizabeth class, more powerful than any conventional ship ever built on our shores, displacing more than Invincible, Illustrious and Ark Royal combined, and packing a powerful punch with world class F35 stealth fighters.

Next month the first of those fast jets will fly across the Atlantic and land our shores.

The first to come to Europe.

Later in the year they will be flying from the deck of HMS Queen Elizabeth, announcing that our carrier strike force is back.

Meanwhile, our majestic carrier herself will be conducting her maiden voyage off the East Coast of America.

Not just a magnificent symbol of our sea power, but of our expanding influence as a global trading nation.

And our carriers will be backed up by a formidable future fleet, including next generation global combat ships like Type 26.

And we've now spent £1bn with our suppliers to speed those next generation ships into service, as well as Type 23 frigates armed with state-of-the art, precision guided supersonic Sea-Ceptor missiles, which I can announce have successfully completed their trials, and have now been accepted into service.

Meanwhile, later today my colleague Guto Bebb will be in RNAS Yeovilton announcing the delivery of the first of a fleet of new helicopters designed for Royal Marine aircraft carrier operations.

Making sure that our new carriers have a capability to project force, project power and make sure they can deliver everything that our nation asks of them

The Royal Navy's enhanced ability to manoeuvre in the littoral, strengthened by an exciting and innovative future commando force, coupled with the restoration of our carrier strike, as well as our nuclear deterrent makes the UK one of a handful of nations that has earned the right to be a Tier 1 Navy.

## **INNOVATION**

But the battle to remain relevant must be waged constantly.

In the past hundred years, we've seen repeated revolutions in naval technology, battleships giving way to Dreadnought, steam to the gas turbine, guns to guided missiles.

Today we're embracing fifth generation technology systems, coupled with the right mix of high end and utility platforms, in order to be able to show a presence right across the globe.

But we need to be able to anticipate the next giant leap.

So our Modernising Defence Programme will make sure we continue conquering new technological frontiers.

It will build on the work of our Innovation Fund, which is investing in everything from Artificial Intelligence and Cyber to drones.

It will build on exercises like Information Warrior, which last year tested out a new "ship's" brain to make our navy faster and more efficient.

And it will build on investments in high energy weapons like Dragonfire.

But there's a bigger challenge still, not just for Defence, but for the industry as a whole.

It takes 15 to 20 plus years to procure an aircraft carrier.

How many models of iPhone will have been produced and developed in that time?

Technology is moving so fast. No one can truly guarantee what the future holds.

If we do not have the technology, ability to use technology or bring technology into our ships, into our submarines at a much faster pace, then we will always be behind our enemies.

We've got to be able to change and learn how to do that, so we're seeking to create new partnerships with industry, academia and the public sector to bypass the old ways of doing things, making better use current technology, maximising our flexibility and tapping into the talents of our wider workforce.

The best brains and the best technologies that we are so dependent upon in the future, will not always sit within the Defence sector, and we must not be too proud to borrow and to use that technology in order to make us better.

If you look at the car industry, they've always been able to invest so much more in autonomous technology, because they assembling and producing so much more than we ever will do in the military field.

Let us look to these partners, seize the advantage, take advantage of technologies that they are developing so that Britain will lead the world and use them to our advantage.

So our servicemen and women have that cutting edge, have the advantage over our adversaries, so that we can thwart them.

And as we develop our Shipbuilding Strategy, alongside our competition to

build Type 31e frigates, we will increase our competitiveness with our industrial partners, by shifting and focusing more exports to reduce prices to build more ships.

Because let us not forget that mass has a quality all of its own, and that is something that every navy, every army and every air force truly does need.

## **2. STRONG PARTNERSHIPS**

But we have to always be thinking about the prosperity of our nation.

We cannot have prosperity without security that we deliver to our nation, but we also need to think about how to strengthen relationships with our allies.

Encouraging that partnership, encouraging that closer working relationship, so we can bring ever greater prosperity to our nation.

But when we do look at partnerships, and when we look at military partnerships, it was another anchor that what Sir Henry saw was so pivotal to our nation.

As in his day, NATO remains the beating heart of our Defence and our security.

Sir Henry knew that only the world's greatest defensive alliance stood in the way of Soviet aggression.

In a very different world, NATO couldn't be more relevant

That's why, as we leave the Europe Union, we're redoubling our efforts, with our navy leading half of NATO's taskforces in the Mediterranean.

Yet like Sir Henry, we know we also must "look beyond NATO's northern and southern flanks to its "worldwide economic flanks".

So we're extending our partnership principle.

In the past month the Royal Navy has been exercising with the nine nation Joint Expeditionary Force, for the first time they've been operating together.

In the Gulf we have our new naval support facility in Bahrain at Juffair, and our commitment to the port of Duqm in Oman, all of this signals we're investing heavily in the Middle East at a time of unprecedented uncertainty.

And I can today announce that we will be extending that commitment by sending T23s to the Gulf from 2019 as an enduring presence.

Over in the Asia-Pacific, for the first time in recent memory, we will have three Royal Navy vessels in the region supporting our allies and we're continuing to strengthen our bi-lateral relationships with Royal Navy helicopters deploying off the French Jean D'Arc, our submarine working with the US – HMS Trenchant in the High North and our Royal Marines recently

training with the US Marine Corps in Guam.

We're weaving a web of partnerships, demonstrating our global reach and world class capability.

### **3. CONFIDENCE**

Yet facing the future also demands one more element, a key weapon in the great Admiral's armoury – confidence.

When Prime Minister Thatcher sought Sir Henry's advice on the Falklands he spoke powerfully for intervention.

He said: "If we do not, or if we pussyfoot in our actions, and do not achieve complete success, in another few months we shall be living in a different country whose word counts for little"

How true.

If he hadn't been there. If he hadn't of been there to give her that option. To give her that decision to make, our nation's history would have been so different.

At a time when we're facing a generational change in the threats to our interests, when our great values of liberty, justice and tolerance, are under attack from every angle, we must always have that confidence to speak out, to stand up, to act when challenged.

That's why even as we leave the European Union, you will not find the UK retreating to its shores, exchanging isolation for foreign policy.

Instead you will find us seeking to expand our friendships, expanding our influence, extend our trading lines, and out of the shadow of present danger, shine the beacon of democracy that so many nations have always looked to Britain for.

### **CONCLUSION**

I can't predict the future of naval warfare, that's why we have a Royal Navy to do that for us.

But let me offer my vision for the Royal Navy, from the government's bridge.

It is a vision of a navy that maintains its position as a premier maritime force, a Royal Navy balancing both strategic and operational responsibilities. Innovative by instinct, always one step ahead of our adversaries, and ever the partner of choice for its allies.

It is a vision of a Royal Navy, always forward deployed and truly global. It is a Royal Navy that will be, in the finest traditions, continuing to rule the waves, seizing every new opportunity and carrying our nation's great expectations far into the future.

In other words, it's a vision of a Royal Navy that will continue doing our country, and Sir Henry Leach, Mrs Thatcher's "knight in shining gold braid" it will continue to do all of them, and all of us, proud. Thank you