<u>Speech: 65th Anniversary of Korean War</u> <u>Armistice Agreement</u>

Thank you, Mr Sun [or "Nahmkook", Korean Chargé d'Affaires], for those heartfelt words.

Today, in glorious sunshine, we gather to mark the anniversary of the cessation of hostilities on the Korean peninsular 65 years ago.

That conflict has sometimes been called the "forgotten war".

But in the UK we have never forgotten the 1 million killed, injured, missing or abducted in that dreadful conflict; brave people from 21 countries around the world.

We have never forgotten the 100,000 personnel we sent to assist in your noble struggle — the first UN action against aggression. Nor the more than 1000 of our people who never made it back

And we have never forgotten extraordinary events like the Battle of the Imjin River, and the heroic resistance of the British Army's 29th Infantry Brigade ... outnumbered 18 to 1 on the famous Hill 235. Two received Victoria Crosses but all were heroes — waging war not merely against superior forces but in mountainous terrain in the midst of extreme weather.

It has been one of the great privileges of my time in Defence to sit with some of those veterans...in the Republic itself ...in the shades of Gapyeong ...before the moving monument at Imjin, with the names of heroes carved into the cliff face.

And today it is an honour to welcome our Korean counterparts here to London. But as we stand beside this nameless bronze soldier on his plinth of Portland stone and we remember the numberless who served we ask ourselves a question. What could have prompted such extraordinary feats of shared courage?

To me the answer is simple. Our nations are kindred spirits. We share a profound desire to be free. And we share a determination to fight for the freedom we sought.

In the decades since that conflict, the world might have changed almost beyond recognition. But the bonds forged in the hardest of times have only strengthened since then. And in the face of new threats, our nations are working together more closely than ever.

Whether it's sending our largest ever deployment as United Nations Command Sending State to South Korea to participate in exercises in 2017. Whether it's deploying our first RAF pilots to the Republic since the Korean War the year before. Whether it's working on submarine systems and air tankers.

Or whether it's working together to protect human rights, counter

proliferation, and combat climate change. Sixty-five years on and our people continue fighting for the global good.

So as we stand here in the sunshine, let's remember the service and sacrifice of times past. But let us also recommit ourselves to taking our partnership to even greater heights...securing a brighter tomorrow...and a legacy our brave forebears can be proud of.

Speech: First Space Conference

Introduction

Thank you for that kind introduction, Mark [Roberts].

I am delighted to welcome you to the First Defence Space Conference, jointly organised by the Air Power Association and the Ministry of Defence.

I'd like to start with an invitation:

Look west at about ten to nine tonight.

If it's clear ... and if you've got very good eyes ... you might just make out a small point of light, making its way steadily across the evening sky.

500 miles up, heading south over the mid-Atlantic, is the satellite Prospero.

Built by British craftsmen at the Royal Aircraft Establishment in Farnborough ...

- ... launched by a British Black Arrow rocket back in 1971 ...
- ... its systems de-activated and its radio signals not heard for nearly 15 years ...
- ... but still up there, gamely orbiting the earth every hour and a half at 17,000 miles an hour.

A museum piece? A time capsule? Just an anonymous piece of space debris from the age of Apollo?

No. I see Prospero as an inspiration — not just reminding us of this country's space heritage, but pointing the way to a bright future.

Conference Overview

We have a proud tradition of expertise and innovation in space technology.

Our space community may be small in number, but it is perfectly-formed and exceptionally well-connected.

I am very pleased to see so many of you here today.

Today's Conference will highlight why and how we are strengthening our approach to space capabilities and operations.

And we'll be stressing the centrality of our partnerships with the UK Space Agency, with our international allies, and with the industry.

Because as space technology takes an ever more central place in all our lives and activities, it becomes increasingly important to Defence and Security.

At the same time, we face new hazards ... new threats to civil and military satellites, and other vital space services.

I'd like to look at those areas in turn.

Military Importance of Space

The first thing to bear in mind is that space isn't just about what happens above the stratosphere.

It's about what happens down here.

We rely on space capabilities and services for very many of our Defence functions.

They provide critical intelligence, surveillance and reconnaissance, precision navigation, and timing.

Without them, our Armed Forces' co-ordination and communication would be much more difficult.

In some circumstances, it might be impossible.

So over the last year we've expanded our thinking at MOD.

Advanced space capability is essential to support all Defence environments.

That's why we designated it as a Critical National Infrastructure in 2015.

And why space has joined air, land, sea and cyber to form the five domains which now inform all UK Joint Force policy.

Commercial Importance

Of course, space is also a vital part of the economy — an industry worth £14 billion a year.

We build a quarter of the world's large communications satellites.

Our expertise in smaller satellites is unrivalled, with the likes of Surrey Satellites, Clyde Space, and Oxford Space Systems building about 40% of the global total.

We're also leading the world in wider space technology.

Reaction Engines, for example, are unlocking the future of hypersonic flight with the revolutionary Sabre propulsion system.

And the UK's Daedalus experiment — which we're helping to fund via the Chief Scientific Advisor's investment into the Defence Science and Technology Laboratory — is pushing the boundaries of what's possible in space sustainability.

Daedalus is exploring "de-orbit sails", giving satellites a controlled descent into the Earth's atmosphere at the end of their operational lives.

The pace of change in affordable space technologies is quickening ... and we have to harness that for Defence.

Threats

So we've got a thriving space sector, at the cutting edge of a technology which is becoming more central to progress and prosperity with every passing day.

But that technology is potentially very vulnerable.

The UK remains fully committed to the 1967 Outer Space Treaty, which declares space to be the province of all mankind — free for exploration and use by all nations.

While that's a noble sentiment, we have to recognise that the world has moved on.

Back then, beaming a flickering TV picture across the Atlantic was a rare event — a marvel.

Now space-based technology is everywhere, underpinning many aspects of our daily life.

If it were seriously compromised, it wouldn't just affect the military.

We all rely on satellites for communications, navigation, and meteorology.

That means everything from your daily weather forecast or the SatNav in your car ... to the emergency services' ability to respond when we most need them.

We'd all experience delays, shortages and bottlenecks ... enormous social and economic damage could be possible.

What's more, our ability to monitor and react to threats would suffer … severely affecting our ability to react to humanitarian crises, weather

events, terrorist attacks, breaches of arms control agreements or expanding drug cultivation.

At the same time, the threat environment is very different.

The era of the Treaty was the era of Gemini, Vostok and the bipolar Cold War.

Things are more complicated now.

The international environment is more fluid ... rogue states are more ready to challenge the rules-based international order ... and non-state actors are increasingly gaining access to the sort of high tech equipment which was once the monopoly of NATO and the Warsaw Pact.

Space is becoming much more accessible, with cheaper satellites put into orbit by commercial suppliers using greatly improved launch technology.

But at the same time, space is a more threatening environment.

Back in 2007, China tested a satellite killer.

Not only did that show the physical vulnerability of our space hardware to attack …

... it sent thousands of pieces of debris spinning through the orbital environment, endangering billions of pounds of equipment from many countries, including the International Space Station.

The danger also comes from cyber hackers ... and those who seek to disrupt the satellite signals we depend on with cheap devices bought on the internet.

We are responding in a comprehensive and deliberate manner.

As I mentioned, we are now treating space as a key operational domain.

We're working to fully understand the risks — from accidents and natural hazards in space, to a deliberate attack by organised groups or another state.

We must be able and willing protect and defend our space assets and infrastructure alongside our allies and partners.

And we're actively looking at our own space capability and the scope for new international partnerships, as we approach Brexit in March 2019.

Our Approach

To stay ahead in the space race, we're taking a three-fold approach.

Partnership

First it's about partnership — internationally, at home and across Government, and with the private sector.

All our key allies are seeking to develop their space thinking and investment, and many are increasing their investment in defence and civil space programmes.

We are actively working through NATO to raise the profile of space technology in Defence and Security, and ensuring we're at the forefront of international space Science &Technology activities.

At home, our close co-operation with the UK Space Agency and the industry is vital.

Graham Turnock will be speaking to you later.

While I won't steal his thunder, I will mention their excellent work towards a Civil Space Strategy, ensuring that the UK remains at the forefront of the latest space developments worldwide.

When it comes to partnership, I should add that we're keen to remain a part of the Galileo project in which we were instrumental from the start.

The threats that Galileo is designed to counter are shared by all of Europe.

So it makes no sense for the Commission to exclude us from this programme — especially when many of its key modules and software were developed and built by UK experts.

By denying us the level of participation in Galileo we need to meet our mutual security requirements — which is well beyond simply having permission to use the secure signal — the Commission risk setting the programme back a number of years.

It would no doubt also increase its cost.

We don't want that to happen.

We want to work closely with our European partners on security, so we're still in discussion about the programme's future.

But we're also making sure we're not limiting our own opportunities.

That includes looking at the possibility of an independent encrypted satellite navigation service, and the MOD is strongly supporting the Task Force led by the UK Space Agency, to look at the alternatives.

Investment

The second pillar of our approach is investment in technology and skills.

As Greg Clark announced last November, the Government is putting £50 million into the development of spaceports under the UKSA's LaunchUK programme ...

... accessing a global market for launching small satellites worth £10 billion over the next decade.

£99 million has been awarded to RAL Space from the Government's Industrial Strategy Challenge Fund to develop the National Satellite Test Facility.

By 2020, that will provide a world class set of facilities for the assembly, integration and testing of space payloads including a large satellite test chamber.

This will enable UK companies to develop "next generation" launch and testing technologies for constructing satellites and delivering payloads into orbit ...

... as well as giving them the tools to bid competitively for international contracts, ensuring the UK remains a world-leader in the space technologies market for decades to come.

£10 million has gone into PRIMUS to develop a small satellite constellation.

And the Government has put £.4.5 million into the launch and operation of Surrey Satellites's Carbonite-2, which has given our military access to sovereign full-motion colour video from space for the first time.

This is serious investment.

MOD Space Strategy

We know this is a huge market — and it's getting bigger by the day as new applications of technology find new commercial uses.

In addition, the United States and other nations are now actively looking for commercial space partners.

And that brings me to the third part of our approach — seizing opportunity.

With its heritage and expertise, the UK's industry is well placed to grow rapidly.

Our aim is to grow the UK's share of the global space market from 6.5% to 10% ... generating £40 billion a year for by 2030.

So we're determined to fire up the thrusters for military space capability by publishing our first ever Defence Space Strategy in the summer.

The 2016 Queen's Speech committed the Government to making space a priority.

As I've shown you, we're now delivering on that commitment through investment and partnership, uniting experts from across government and the private sector.

The Strategy will bring that work together as a vision for the future, and other speakers today and tomorrow will say more about the key elements of it.

And we're opening up the enticing prospect of Britain regaining the ability to launch satellites into orbit — something I know is close to many of your hearts.

Conclusion

On that note, I'd like to leave you with a final thought.

Earlier I mentioned Prospero - the last satellite launched by the UK ...

... a successful venture whose results can still be seen in the night sky, nearly half a century later.

That was what we could do back then.

Today we not only have enormous technical nous — we have strong bonds with partner nations across the world.

What could we do tomorrow?

In a few decades' time, I don't doubt they'll be many more sparkling points of light in the night sky ...

... to which we can proudly point and say "Made in Britain".

Thank you.

Speech: Soldiering on Awards

It seems hard to believe that a year has gone by since the last Soldiering On Awards.

And what a year for our Armed Forces! All three Services have been flying the flag for Britain — from the RAF in Syria and over the Black Sea, to our Navy keeping the ocean sea lanes free, and our Army leading NATO's deployment in the Baltic.

What's more, we're celebrating 100 years since the end of the First World War and the birth of the RAF — the first and most famous independent air force in the world.

What better way to celebrate such a year than with the Soldiering On Awards?

It gives me great pleasure to welcome you to this evening, when we recognise and honour the talent, inspiration and enterprise of our Armed Forces community — whether serving, Reservists, or former members … along with all those who support them.

Tonight we don't just celebrate bravery, determination and teamwork. We celebrate compassion and care. And the "can do" attitude which brings all those qualities together in the ethos of all those who serve.

These Awards shine a light on how that ethos contributes to society as a whole. Because our bond — our mutual dependence — extends well beyond times of danger … times when we look to our Armed Forces for security and protection.

As a community and as a nation, we are truly stronger together.

This year the involvement of X-Forces extends the reach of the Awards even further. Now they fully encompass the business community — from start-up entrepreneurs to established businesses.

It's a great pleasure to welcome so many of you tonight, including X-Forces' Patron, Lord Young.

The Soldiering On Finalists here tonight come from right across our Armed Forces community. I'm humbled and privileged to be amongst such an outstanding group.

In reaching this stage, each and every one of you is a winner — and this evening is for all of you.

Distinguished guests, please join me in a round of applause for the 2018 Finalists ...

But that's enough from me. Let's hear from some previous Finalists and Winners.

<u>Speech: Launch of the Combat Air</u> <u>Strategy at the Farnborough Air Show</u>

Introduction - History

May I start by staying what a huge pleasure it is to be here. This is a year of many milestones for aviation: 110 years since the first powered flight here in Farnborough; 100 years since the first mission of the newly-formed Royal Air Force; 75 years since the legendary Dambusters dropped their bouncing bombs on Nazi oppressors; and 70 years since the fanfare of the very first Farnborough Air Show. Today we celebrate those past achievements.

Present

But we also have to marvel at the high-tech achievements of the present. The UK remains a world-leader in combat air, combining skills and technology from right across Europe. It directly supports over 18,000 highly skilled jobs, with a further 100,000 in the supply chain.

It has a turnover in excess of £6 billion a year. And it accounted for over 85% of UK defence exports in the last year alone, and over 80% in the past 10 years.

Alongside our partners we're also delivering Typhoon, with more than 20,000 flying hours on operations. As well as the F35 Lightning II as the United States' only Tier 1 partner, delivering 15% by value of every F-35 built.

The Future - Tempest

But let's be clear, we're entering a dangerous new era of warfare. So our main focus has to be the future, and how we deal with the developing dangers. Today we offer you a glimpse of tomorrow, starting with the unveiling of the concept model beside me.

Tempest is a potential future fighter with advanced flexible power and propulsion systems, a virtual cockpit, swarming weapons and laser directed energy weapons. Operated either manned or unmanned, it will be rapidly upgradeable and cyber resilient. A concept, yes, but built on three credible principles — the pillars of our future approach.

Vision

First, we have a vision for developing next generation systems and weapons. That's why today we're publishing our first ever Combat Air Strategy, alongside a plan to make lofty aspirations a reality.

This is a Strategy to keep control of the air both at home and abroad, to remain a global leader in the sector and support the UK's wider prosperity agenda, and to protect and build on key skills across the UK's industrial base.

Commitment

Next, we have an iron-clad commitment to deliver. In the 2015 Strategic Defence and Security Review we promised to invest in new complex weapons. And we've done what we said we'd do, working with our industry partners, investing £2 billion until 2025 to make our Future Combat Air System Technology actively take off. To make it real. To make it happen.

Make no mistake, we'll be showing the same energy, speed and commitment to bring our Combat Air Strategy to life. A new team is already on the runway, and their timetable clear. I want to see a business case for the acquisition programme by the end of the year.

Early decisions around acquiring next generation capability will be made by the end of 2020 \dots final investment decisions by 2025 \dots and by 2035 I want to see Tempests flying alongside our world-beating Typhoons and F-35s.

Collaboration

Finally, our approach hinges on international collaboration. Tempest is envisaged as an innovative partnership between the Ministry of Defence and the industry partners of BAE Systems, Rolls-Royce, Leonardo and MBDA.

But we want new partners as well. Together we want to design and build ultraadvanced equipment, far faster and keeping ahead of the breath-taking pace of technological change.

And we want to put our world class skills at the disposal of our friends, while embracing the high-end skills that they also offer and can bring to the table, building on the best of what every nation can bring.

My questions to potential partners in the room today are simple: How can you work with us? How can we work with you? Let us discuss our requirements — what we want to see from the future and we can get started.

Conclusion

So Farnborough is once more writing a new chapter in the history of our aviation nation. As we enter the next century of airpower, we're not just unveiling a concept. We're setting out a plan. Rolling up our sleeves to make sure our Royal Air Force, our Combat Air sector and our global Britain fly higher, faster and further than ever before.

<u>Speech: British Medical Association</u> Armed Forces Conference

Introduction

I am delighted to be here today — I'd challenge anyone to show me a more distinguished, talented and committed group of specialists than those gathered in this room.

The BMA has done a great job in bringing you together.

Because we're at an exciting time in Defence medicine. We're asking a lot more of our Armed Forces at the moment, as they defend our security and prosperity in an increasingly-threatening world.

That means we're asking a lot more of you as Defence medics.

To say you've risen to that challenge in the past is an understatement — British military medicine has been the envy of the world for over a century.

On the battlefield, we can now deal with injuries that would have been beyond hope only a few short decades ago. To my mind, that's up there with the greatest scientific achievements of the age.

That achievement was not just a matter of startling technological innovation — it took courage and commitment.

It's not for nothing that military medical staff have been awarded 27 Victoria Crosses — and two of only three VC Bars ever awarded.

The Government is deeply grateful for what you do — and we don't underestimate the difficulties of your jobs.

Let's begin by recognising those challenges.

Facing the Challenge: Defence & Health in Partnership

You make an essential contribution to our Armed Forces.

But you're also important parts of the NHS which serves us all.

So I know that you're facing the same problems in both your military and NHS work.

To an extent, our society is victim of its own success in treating serious disease.

People are living longer. Their expectations as patients are far higher. And as technology changes at a bewildering rate, the cost of drugs and equipment soar.

That can mean stretched budgets and hard choices.

Of course, the military community is not immune from the wider challenges we face — not least, in mental health.

Our aging population includes an estimated 2.5 million veterans — 63% of them 65 or over, according to the latest estimate. Many of them served in the Second World War or on National Service.

We have an obligation of high quality care to all of them, which is embodied in the Armed Forces' Covenant.

I have been a Minister in both Defence, and in what is now Health and Social Care.

I know from experience that both areas are enormously complex — with different priorities, and even different languages.

How are we to respond? How can we work in a properly joined-up fashion?

Since this year we celebrate the 100th anniversary of the birth of the RAF,

let us turn for guidance to Sir Archibald McIndoe, the pioneer of plastic surgery for hundreds of terribly-burned aircrew who joined the "Guinea Pig Club" during World War II?

He said that "skill is fine and genius is splendid — but the right contacts are more valuable than either."

He knew what he was talking about.

Contacts are good in any professional environment, of course.

He should know! Sir Archibald got his first job through his cousin, the equally distinguished reconstructive surgeon, Sir Harold Gillies of the Royal Army Medical Corps.

But that's not what he meant.

For me, he was talking about working in partnership across professional boundaries.

Knowing who to turn to for specialised help ... who to go to ensure that care continues once a patient is discharged.

That's what you're already doing so successfully, every day of your working lives.

And it's the approach we're now taking in supporting your vital work.

I'd like to focus today on three specific areas of that work.

Tackling Mental Health Problems

First, our work on mental health.

It is important to recognise that the vast majority of the 15,000 people who leave the Forces every year make a successful transition to civilian life.

The rate of Post-Traumatic Stress Disorder [PTSD] our people suffer is about 4%.

That's broadly comparable with the general population.

So is the proportion who suffer a mental disorder needing specialised psychiatric services.

But PTSD rates rise to 7% for combat troops, who also suffer higher rates of common mental disorders such as anxiety and depression.

That's an issue we have to address.

We have a clear duty to those who've come to harm in the service of our Armed Forces.

It makes no difference whether that harm is physical or mental, they have

"parity of esteem" as far as we're concerned.

So we announced an additional £20 million earlier this year to improve mental health services in the Armed Forces bringing our spending up to £220 million over the next decade.

And we launched our Defence People Mental Health and Wellbeing Strategy last year.

Based on the model Promote, Prevent, Detect and Treat, that Strategy works on several levels.

For serving personnel, mental health briefings prior to deployment are now mandatory.

Specialist nurses work in-theatre, and Trauma Risk Management processes are now in place across all three Services, offering peer-peer support for those who have experienced traumatic events.

Treatment is delivered by 11 military Departments of Community Mental Health, plus a network of satellite Mental Health Teams and visiting clinics.

In-patient care is provided in dedicated psychiatric units through MOD's contract with 8 NHS Trusts.

For veterans, we've worked closely with the NHS over recent years.

NHS England launched their specialised Veterans' Mental Health Complex Treatment Services on 1 April, following last year's launch of the Veterans' Transition, Intervention and Liaison Service.

This links to the Veterans' Gateway and other support services, including Combat Stress — which you'll have seen has just launched a new 24-hour helpline on our behalf.

The aim is to provide services which are fully accessible to those who need them most.

The Armed Forces' Covenant and Veterans' Board is overseeing our work — and is meeting tomorrow [26 April] to consider health and wellbeing priorities across the Armed Forces community.

Flexible Working

That's one side of our new holistic approach — bringing together all relevant agencies in planning and delivering high quality care.

The other side is looking at "the whole man or woman".

Of all audiences, I don't need to tell you that health and wellbeing are not just matters of GP and hospital treatment.

A critical part of ensuring better mental health is encouraging everyone to lead a full and balanced life.

It is the stated aim of our Defence Medical Services to ensure that all personnel are "fit for task".

That is vital, of course — a fitter force is a more effective force for keeping the country safe.

But we also owe our Armed Forces people a civilised and satisfying working life.

Society is changing, and people want greater choice in how they run their lives — especially when they're caring for young children or aging parents.

So we've looked at how we can improve our current approach.

Following wide consultation, the result is the Armed Forces (Flexible Working) Act 2018.

From next April and subject at all times to the maintenance of operational capability, serving personnel will be able to request temporary periods of part-time service, and restrictions to the time they spend away from their home bases.

We expect the long-term benefits to be significant.

As well as improving our gender balance, it will give us the chance to better utilise the skills of our Reservists ...

... and help to attract and retain the best talent.

That's especially important in view of the smaller pool of 16-24 year-olds we expect to be recruiting from over the next few years.

Forces Medicine — Optimism for Future

All that applies just as much to the recruitment and retention of military medics.

As the Armed Forces Pay Review Body has recognised, this is a continuing area of challenge in some military medical disciplines — in intensive care, in rheumatology and rehabilitation, in anaesthetics, and more generally in Reserve recruitment.

We accept that — but we're making progress.

We're now meeting or exceeding our targets on recruiting Medical Officer Bursars, Cadets and direct entrants — the future of the profession.

We are also supportive of the Step into Health initiative, which aims to link NHS Employers to members of the Armed Forces community.

There are plenty of other grounds for optimism.

Conclusion

From the game-changing work of the RAMC over two World Wars — including vaccination against typhoid fever, blood transfusions, and the use of penicillin …

... to the startling innovations pioneered by British military medics over the last two decades, which the Royal United Service Institute recognised last year as "a revolution in military medical affairs" ...

... our military medicine has led the world for over a century.

Indeed, the Healthcare Commission has said that there is much the NHS can learn from our Defence Medical Services.

It's clear that, despite the challenges of an ever-evolving threat environment, and the wider pressures on health provision ...

... the core of talent, dedication and innovation in our military medicine is still very much alive and kicking.

So I'm ending on an optimistic note. You, our military medics, continually face new challenges. Time and again, you surmount them. We at MOD are right behind you.

And the BMA's Armed Forces' Committee under [Colonel] Glynn Evans is right behind us, helping us out and — where necessary — holding us to account.

We know how much you put in. McIndoe was said to spend up to 16 hours a day on his feet in the operating theatre — and, like him, our medics are still performing miracles in conflict situations. But you are also showing more everyday heroism:

Dealing with the burdensome but necessary demands of bureaucracy, and balancing the competing demands of military and civilian work at a time of enormous change in both. The Government is truly grateful for your contribution in the past — and is confident that the future of military medicine is safe in your hands.

Thank you.