



Ministry
of Defence

SDSR 2015

Defence Fact Sheets



SDSR 2015 Defence Fact Sheets

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The Government's vision is for a secure and prosperous United Kingdom, with global reach and influence. Strengthening our Armed Forces is a key means by which we will deliver this vision. SDSR 15 sets a new headmark for the UK's Armed Forces: Joint Force 2025.

Joint Force 2025 will be equipped with a range of new and enhanced capabilities that will be capable of taking on a broader range of missions against demanding scenarios: a more capable force to meet the challenges of today and ready for those of tomorrow.

We will deliver Joint Force 2025 through a combination of greater investment, further improving productivity and efficiency, strengthening the international dimension of our policies and plans, and pursuing a more innovative approach to responding to the threats and risks we face.

Britain's Defence will continue to depend on the commitment, professionalism and skills of our people. Recruiting, retaining and developing the right people is therefore a top priority for the MOD.

Over the past five years, we have made major reforms to how the MOD and Armed Forces are organised and operate to ensure that we can maximise our investment in Defence capabilities.

The Armed Forces have been actively involved during this period in deterring threats and reinforcing resilience at home, and responding to crises and contributing to security and stability overseas.

The 2015 National Security Risk Assessment has concluded that the risks and threats faced by the UK have increased in scale, diversity and complexity since 2010. The increasing threat posed by terrorism, the resurgence of state-based threats, the impact of technology and the erosion of the rules-based international order are now particular challenges for the UK.

Defence is continuing to adapt to meet these growing state and non-state based threats and we are investing heavily in the capabilities required to respond quickly and effectively.

The key outcome of SDSR 15 for Defence will be the new **Joint Force 2025**, building on the Future Force 2020 set out in the last SDSR. Composed of a full spectrum of capabilities, it will provide the ability to conduct a greater range of operations up to and including major combat operations, for example under NATO Article 5. At the most demanding end of the scale, we now intend to be able to deploy a potent, expeditionary force of around 50,000, based on a Land Division, Maritime Task Group and Expeditionary Air Group. The force will be equipped with a range of cutting edge capabilities.

The UK Government continues to judge that a minimum, credible, independent **nuclear deterrent**, based on the policy of Continuous At Sea Deterrence and assigned to the Defence of NATO remains vital to our national security. We therefore plan to make the necessary investment to sustain our nuclear capability.

The Royal Navy's two new Queen Elizabeth class aircraft carriers will enter service from 2018. The numbers of F-35B Lightning II aircraft we are able to embark on the carriers

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will grow quickly and by 2023 we will have two full squadrons available for operations around the world. The RN will continue to operate at least 19 destroyers and frigates, and new Type 26 Global Combat Ships will enter service from the mid-2020s. We will buy two new River Class Offshore Patrol Vessels to deliver a more modern and more capable fleet of up to six vessels. And we will continue to upgrade our maritime helicopters.

Building on the changes of Army 2020, the **British Army** will be rebalanced to enhance its ability to generate a division capable of undertaking high-end combat operations whilst further reinforcing the Army's contribution to domestic resilience and overseas engagement. The Army will move from having three armoured infantry brigades, one ready at any time, to two armoured infantry brigades and two new Strike Brigades, with one of each held at readiness. The Army will also reconfigure a number of infantry battalions to provide an increased contribution to countering terrorism and building stability overseas. They will conduct Defence Engagement and capacity building, providing training, assistance, advice and mentoring to our partners.

The combat power of the **Royal Air Force** will be expanded by the creation of two additional Typhoon squadrons, buying more F-35 aircraft earlier than previously planned, and creating an additional front-line F-35 squadron early in the 2020s. We will also buy a fleet of Protector armed remotely piloted aircraft, enhancing our Intelligence Surveillance and Reconnaissance capability. We will introduce a fleet of nine Boeing P-8 Maritime Patrol Aircraft with an overland surveillance capability. In the **Joint** arena, we will invest more heavily in our Special Forces, in defence intelligence capabilities, our information infrastructure and our command and control interoperability with allies to support better and faster decision making. We will also continue to invest in cyber capabilities, to develop and maintain our security and advantage in this critical arena.

These plans are underwritten by a growing budget, which will enable the Government to continue to meet the NATO target to spend 2% of GDP on Defence. The Defence budget will increase by 0.5% above inflation for the rest of this Parliament allowing us to invest in our people, equipment and estate. MOD will spend £178Bn on equipment and equipment support over the next decade, an increase of some £12Bn over previous plans. Defence will also draw on the new Joint Security Fund, which will grow to £1.5Bn per annum by the end of the Parliament.

Our Defence policy and planning will, in future, be more **international by design**: we have always worked with allies and partners but we will increase this engagement to deliver our national security goals: in new combined formations, including the UK-led multilateral Joint Expeditionary Force, the bilateral UK/France Combined Joint Expeditionary Force, and NATO's Very High Readiness Joint Task Force, which we will lead in 2017; through capability collaboration with key allies; by investing more heavily in international security institutions; and by an ambitious programme of additional Defence Engagement.

To stay ahead of potential adversaries, the Armed Forces will need to maintain their

KEY DEFENCE OUTCOMES

operational advantage and agility and operate effectively in the new domains of warfare. To ensure that we organise, plan and are able to fight differently, MOD will be launching a **Defence Innovation Initiative** in the first half of 2016, and we have earmarked significant funds to develop innovative solutions, with the aims of making British Defence more agile, more entrepreneurial and focused on continuous adaptation.

We will be **modernising the offer to our Service personnel**: introducing flexible terms of engagement to allow Service personnel to vary the nature of their Service, exploring flexible working patterns or temporarily adjusting their liability for deployment, a new accommodation offer to help more Service personnel live in private accommodation or own their own homes, and developing a new offer for new joiners, which more efficiently targets resources to meet the needs of individuals and Defence. We will also reduce our civilian workforce by about 30% to 41,000 through change programmes, estate rationalisation and other efficiencies (see People Fact Sheet).

By protecting the nation and in building international stability, Defence makes a **key contribution to our economic security and prosperity**. In future, MOD will go further, working collaboratively with Defence industry to deliver world class military capabilities, working more actively to support Defence exports, and developing a highly skilled workforce as a national asset.

We will continue to drive down costs and improve the productivity and efficiency of everything we do in Defence. Delivering the outcomes of the SDSR will require us to manage our budgets closely, particularly in the early years, as we initiate this ambitious programme of efficiencies and investments.



Joint Force 2025 (JF25) announced in the SDSR is an evolution of Future Force 2020 (FF20). It will provide us with the ability to fight in the information age and a greater ability to undertake the most difficult operations, including warfighting under NATO Article 5. When not engaged in larger scale operations, the Armed Forces will deliver more missions in more places at home and overseas. JF25 will enhance our ability to work alongside our key allies and partners, including providing a framework for the UK-led Joint Expeditionary Force (JEF). It will also better support other Government Departments and the security and intelligence agencies in counter-terrorism, improving domestic security and in shaping a more secure international security environment.

Greater Ambition. By 2025 we will be able to deploy a force of around 50,000 drawn from:

- A Maritime Task Group of between 10-25 ships and 4,000 to 10,000 personnel.
- An Army Division of three brigades and supporting functions of between 30,000 to 40,000 personnel.
- An Expeditionary Air Group of between 4-9 combat aircraft squadrons, 6-20 surveillance platforms and 5-15 transport aircraft and 4,000 to 10,000 personnel.
- Joint Forces, including enablers and headquarters, of around 2,000 to 6,000 personnel.

Joint. In support of our greater ambition, we will increase the depth and breadth of our ability to direct and sustain operations around the world. This means:

- Increasing intelligence analysis and information exploitation tools, and developing new defensive and offensive cyber capabilities through the creation of a Joint Cyber and Electromagnetic Activities Group that will work with the National Cyber Centre.
- Improving interoperability with our key allies and improving our secure communication, IT and space systems.
- A new Ballistic Missile Defence (BMD) radar to integrate with and enhance NATO BMD.
- Improving Special Forces' capabilities, including their ability to support counter-terrorism and global strike operations, and to deploy more quickly.
- Continuing to provide world-class Defence Medical Services at home and on operations.
- Continuing to invest in the world-class weapons needed to support the Armed Services.

Maritime. The Royal Navy will continue to underpin our national security through the delivery of the independent nuclear deterrent and maritime security. We will provide a Maritime Task Group, centred around one of the two new Queen Elizabeth Class aircraft carriers to project our influence overseas. This means:

- Maintaining our submarine capability by replacing our ballistic missile submarines with four new submarines under the Successor Programme and completing delivery of a fully upgraded fleet of seven Astute Class hunter-killer submarines.

JOINT FORCE 2025

- With additional manpower, we will have two, fully-crewed, Queen Elizabeth Class aircraft carriers, so that one is always available to conduct Carrier Strike or amphibious operations.
- Augmenting our aircraft carriers with an enhanced amphibious capability. Alongside our existing specialist shipping and aircraft, this capability will enable amphibious operations incorporating the very high readiness forces of the Royal Marines Commando Brigade.
- A fleet of 19 Frigates and Destroyers, improving the availability of Type 45 Destroyers and beginning the procurement of the first batch of Type 26 Frigates. We will also investigate further the potential for a BMD capability in the Type 45 Destroyers.
- We will buy two new River Class Offshore Patrol Vessels to deliver a more modern and more capable fleet of up to six vessels. We will use these ships to support our destroyers and frigates in delivering routine tasks and to enhance our contribution to maritime security and fisheries protection.
- Developing the next generation of autonomous mine counter measure systems will allow us to maintain our world leading minehunting capability.
- Procuring three new Fleet Solid Support ships, which alongside our two Fast Fleet Tankers and four new Tide Class Tankers, will provide the support needed for a modern maritime force.

Land. We will build on the strong foundations of Army 2020 to deliver a powerful force centred on a war-fighting division. We will increase the number of manoeuvre brigades at readiness and better configure the force to support Defence Engagement, counter terrorism and wider domestic security. This means:

- Holding sufficient units at readiness to allow us to deploy a war-fighting division, of up to three combat brigades.
- Reorganising from three armoured infantry brigades, and drawing on the wider Army, we will generate four manoeuvre brigades, two of which will be armoured infantry and two the new Strike Brigades, with one of each at readiness at any time.
- The new Strike Brigades will be centred around the new Ajax vehicle fleet and enabled by the acquisition of a new Mechanised Infantry Vehicle to provide a better protected more agile force capable of self-deploying over large distances.
- Developing new capabilities in 77 and 1(ISR) Brigades to help us improve our battlefield intelligence, counter our adversaries' hybrid warfare techniques, and better integrate non-lethal effects into our operations.
- We will reconfigure a number of infantry battalions to provide an increased contribution to counter terrorism and building stability. These infantry battalions will provide expert training and mentoring to our partners around the world.

JOINT FORCE 2025

- We will upgrade our Apache attack and Chinook heavy lift helicopters. With the enhanced Puma Mk2, the Merlin Mk4s that have been adapted for operations from the sea and the new Wildcat armed utility helicopter, they will significantly enhance our helicopter capability.
- 16 Air Assault Brigade will continue to provide a rapid land intervention capability.

Air. We will significantly increase our capabilities in the air, giving the Royal Air Force a more flexible and powerful Expeditionary Air Group. This means:

- Making better use of planned and existing aircraft, and increasing pilot and ground crew numbers, we will establish one more F-35B Lightning squadron and two more Typhoon squadrons; an increase on the planned six to nine fast jet squadrons.
- Ensuring Typhoon can remain in service to 2040 and further upgrading its radar and wider multi-role capabilities.
- Extending the third Tornado squadron to 2018, before the remaining two Tornado squadrons retire in 2019.
- Investing in our Intelligence, Surveillance and Reconnaissance aircraft fleet:
 - Investing in a fleet of nine Boeing P-8 Maritime Patrol Aircraft with an overland surveillance capability.
 - Delivering greater availability of Rivet Joint intelligence aircraft and Sentry air surveillance and control aircraft through increased crewing and by extending the aircraft in service until 2035.
 - Increasing the Shadow surveillance aircraft fleet size and extending their service until at least 2030.
- More than doubling the number of armed remotely-piloted aircraft when we introduce Protector into service to replace Reaper.
- Building on the modernisation of our air transport and air refuelling fleet that has already seen the introduction of C-17, A400M Atlas and the Voyager aircraft, by upgrading and extending the service life of 14 of our C-130J Hercules transport aircraft.
- Investing in the future of combat air systems, including unmanned, working collaboratively with key allies including France and the United States.

Strategic Base. Supporting JF25, the Ministry of Defence is a Department of State that provides an integrated Head Office that directs and empowers the Armed Forces under a delegated model, and provides the focus for cross-government working that will improve the integration of all of the levers of national power. Amongst other things, it will deliver:

- Equipment procurement and support functions through the reformed Defence Equipment and Support organisation.

JOINT FORCE 2025

- A global Defence Network , including Defence Attachés, personnel on exchange with allied forces, our permanent overseas operating bases, and a new port facility in Bahrain as part of the UK's commitment to the Gulf.
- Access to science, technology and research that will be used to build a new approach to innovation. This will find novel solutions to the challenges we face today and those in the future.
- The Whole Force, of military Regulars and Reserves, civil servants and partners across industry and academia.

JOINT FORCE 2025

Key SDSR 15 Investments		
	Pre SDSR Capability out to 2025	Post SDSR Capability out to 2025
Ambition	<ul style="list-style-type: none"> For a limited time, and with sufficient warning, committing to a one-off intervention of up to a division comprising three brigades, with maritime and air support (around 30,000). 	<ul style="list-style-type: none"> Growing to a potent, expeditionary force of around 50,000 based on a Land Division with three brigades including a new Strike Brigade, an Expeditionary Air Group of combat, transport, refuelling and surveillance aircraft, a carrier enabled Maritime Task Group, and a Special Forces task group.
Joint	<ul style="list-style-type: none"> Regular Special Forces front line units maintained at the same size. UK Defence Cyber Operations Group. Space Operations Control Centre. Skynet 5 Beyond Line of Sight Satellite Communications. 	<ul style="list-style-type: none"> £2Bn additional investment in Special Forces equipment including advanced communications equipment, weapons, clothing and covert capabilities. Enhanced cyber threat awareness, defences and capability to react to attacks through a Defence Cyber Operations and Resilience Centre. Upgraded Space Operations Control Centre. Investment in next generation of secure strategic communications.
Maritime	<ul style="list-style-type: none"> Operate two aircraft carriers, with one available at all times. 19 Destroyers and Frigates. Four Offshore Patrol Vessels. 	<ul style="list-style-type: none"> Operate two aircraft carriers, with one available at all times including an amphibious capability. Three new solid support ships. Commitment to 19 Destroyers and Frigates and the development of a new class of lighter general purpose Frigate to be introduced in the 2030s. Up to six Offshore Patrol Vessels.
Land	<ul style="list-style-type: none"> With sufficient notice, up to three Brigades within a divisional context. One Armoured Infantry Brigade ready for operations. Security Assistance Group to focus on international engagement. 	<ul style="list-style-type: none"> War fighting division optimised for high intensity combat operations. Division will draw on two new Strike Brigades able to deploy rapidly over long distances. Doubling the number of Brigades ready for operations Infantry battalions optimised for countering terrorism and building stability overseas. Upgraded Apache attack and RAF Chinook support helicopters.
Air	<ul style="list-style-type: none"> One F-35B Lightning II Fast Jet squadron. Five Typhoon Fast Jet Squadrons. Maritime Patrol Aircraft gap since 2010. In the meantime we have depended on other maritime assets to contribute to these tasks. Ten Reaper Remotely Piloted Air Systems (RPAS). A number of Intelligence Surveillance and Reconnaissance platforms – Rivet Joint, Sentinel, Shadow, E-3D Sentry - planned to be out of service from 2018. A recapitalised air transport and refuelling fleet of Voyager and A400M Atlas aircraft 	<ul style="list-style-type: none"> One additional F-35B Lightning II Fast Jet squadron making two in total. Two additional Typhoon Fast Jet squadrons making seven in total. Fleet of nine Boeing P-8 Maritime Patrol Aircraft with an overland surveillance capability. More than 20 armed Protector RPAS replacing Reaper. Intelligence Surveillance and Reconnaissance platforms – Rivet Joint, Sentinel, Shadow, E-3D Sentry - with enhanced capabilities, additional crews and extended in-service past 2020. Consolidating recapitalisation with upgrade and extension of 14 C130J aircraft.
Manpower	<ul style="list-style-type: none"> By 2020 a regular Armed Forces of at least 142,500 of which 82,000 Army. 	<ul style="list-style-type: none"> Committed to maintaining the size of the regular Armed Forces, not reducing the Army below 82,000, and increasing the Royal Navy and Royal Air Force by a total of 700 personnel.

JOINT FORCE 2025

JOINT Joint Headquarters, Forces and Enablers

Special Forces Squadrons



Special Reconnaissance and Support

Secure IT and Communications Systems



SKYNET 5 Space Operations Centre

Defence Intelligence



Joint Cyber Group

Defence Medical and Dental Services



(including 3 Field Hospitals)

MARITIME

Delivery of the deterrent and a Maritime Task Group from:



4 x SSBN (Nuclear Deterrent)



19 x Frigates and Destroyers



3 Commando Brigade
2 x Landing Platform Dock
3 x Landing Ship Dock



7 x SSN (Hunter Killer Submarines)



Up to 6 Patrol Vessels



6 x Fleet Tankers
3 x Fleet Solid Support Ships



2 x Aircraft Carriers



12 x Mine Hunters
3 x Survey Vessels
1 x Ice Patrol Ship



4 x Merlin MK2 Squadrons
2 x Wildcat Squadrons

LAND

A war fighting Division from:



2 x Armoured Infantry Brigades



6 x Infantry Brigades (overseas engagement & UK resilience)



4 x Apache Squadrons
4 x Wildcat Squadrons
3 x Watchkeeper Batteries



2 x Strike Brigades



77 Brigade (Information Warfare)



2 x Puma Squadrons
3 x Chinook Squadrons
2 x Merlin Mk4 Squadrons



16 Air Assault Brigade



1 (Intelligence, Surveillance & Reconnaissance) Brigade



Enabling capabilities (Artillery, Engineers & Logistics)

AIR

An Air Group from:



>20 x Protector



2 x F35 Lightning Squadrons



14 x Voyager



9 x P8 Maritime Patrol Aircraft



7 x Typhoon Squadrons



8 x C-17



3 x Rivet Joint (Airseeker)
8 x Shadow
6 x E-3D Sentry



6 x Force Protection Wings



22 x A400M Atlas
14 x C130J Hercules

STRATEGIC BASE

Ministry of Defence & Permanent Operating Bases

Strategic Headquarters



Global Defence Network

Science, Technology and



Research Capability

Whole Force Approach



Military, Civilian, Industry Collaboration

Equipment Support



Logistics



The Royal Navy (RN) will contribute to Joint Force 2025 through maintenance of Continuous At Sea Deterrence, the maritime Defence of the UK and our Overseas Territories and the projection of power and influence globally.

Continuous At Sea Deterrence (CASD). We will replace the current Vanguard Class submarines with four new submarines under the Successor Programme to sustain the independent nuclear deterrent into the future. We will improve the protection of the submarines by buying nine new Boeing P8 Maritime Patrol Aircraft (see Royal Air Force Fact Sheet).

Carrier Strike. Our two new and fully crewed Queen Elizabeth Class aircraft carriers (HMS Queen Elizabeth and HMS Prince of Wales) will be brought into service, which will mean that we always have one available to form the core of our Maritime Task Group.

- The carrier will operate the F-35 Lightning aircraft and a flexible mix of helicopters including upgraded and extended Chinook helicopters.
- We will invest in developing an amphibious capability for the Queen Elizabeth Class aircraft carriers.

Hunter Killer Submarines. A fleet of seven Astute-class submarines.

A world class frigate and destroyer force. The Royal Navy will continue to operate 19 Frigates and Destroyers, maintaining our global reach and multi-mission capability. We will also launch a concept study and then design and build a new class of lighter, flexible general purpose frigates so that by the 2030s we can further increase the total number of frigates and destroyers.

- Type 23 Frigates will start to be replaced from the mid-2020s with the introduction of 8 Type 26 Global Combat ships.
- Improving the availability of our Type 45 Destroyers and further investigating the potential for them to deliver a Ballistic Missile Defence capability.

Offshore Patrol Vessels. We will buy two new River Class Offshore Patrol Vessels to deliver a more modern and more capable fleet of up to 6 vessels. We will use these ships to support our destroyers and frigates in delivering routine tasks and to enhance our contribution to maritime security and fisheries protection.

The Royal Marines and Amphibious Capability. The Royal Marines will continue to provide a specialist infantry capability, with expertise in amphibious, arctic and mountain warfare.

- HMS Ocean will remain in service until 2018 as planned. We have retained the landing ships that provide the means of projecting our amphibious forces, the Royal Marines, by sea or by helicopter.
- The Royal Marine Lead Commando Group (up to 1,800 personnel) will continue to provide part of our high readiness forces able to be deployed by helicopter and landing craft. They can deploy with protected mobility, logistics and command and control support from

THE ROYAL NAVY

a specialist landing and command ship, three Landing Ship Docks and/or from the Queen Elizabeth Class aircraft carriers.

Maritime Helicopters. We will continue to upgrade our maritime helicopters by:

- Enhancing our Merlin Anti-Submarine Warfare helicopters, and equipping some of them for airborne early warning and control missions under the Crowsnest Programme.
- Bringing into service the new fleet of Wildcat maritime attack and utility helicopters.
- Introducing the Merlin Mk4 Commando helicopters, adapted to operate from ships. For more information on attack and support helicopters (see Army Fact Sheet).

Logistic Support. In order to sustain the Maritime Task Group's ability to project power across the globe for extended periods, we will:

- Buy three new Fleet Solid Support logistics ships, which will enter service from the mid-2020s.
- From 2016, bring into service four new Tide-Class tankers to supplement our two existing Wave Class vessels.
- Continue to employ the civilian-manned Royal Fleet Auxiliary, which delivers worldwide logistical and operational support for the wide range of tasks the Royal Navy undertakes including warfighting, counter-piracy, humanitarian and disaster relief, and counter-narcotics operations.

Mine-Countermeasures Vessels (MCMVs). By 2025, three of the oldest Sandown Class ships will be decommissioned, leaving 12 MCMVs in the fleet. We are working with the French to develop a Maritime Mine Counter Measure Demonstrator.



The Army will contribute to Joint Force 2025 through a more modern, agile and capable force, rebalancing around the ability to provide a warfighting Division to counter a sophisticated state adversary. Investment will also expand the Army's use in resilience, counter-terrorism, capacity building and overseas engagement roles.

The Army's Warfighting Capability. The Army's main contribution to Joint Force 2025 will be a more capable warfighting division. This means we will:

- Reorganise from our current structure that produces one brigade ready to fight all of the time, to a structure that delivers an Armoured Infantry Brigade and one of our new Strike Brigades ready to fight all of the time. This structure, with appropriate warning, will also be capable of deploying a warfighting division of three brigades.
- Invest in equipment for the Armoured Infantry Brigade, including extending the life of Challenger 2 Main Battle Tanks and upgrading Warrior Infantry Fighting Vehicles.
- Create two new Strike Brigades that will provide a rapidly deployable protected force that can sit between the highly mobile but light forces in 16 Air Assault Brigade, and the heavy forces of the armoured infantry. The Strike Brigades will be equipped with the new Ajax vehicle family and a new Mechanised Infantry Vehicle.
- Develop new capabilities in 77 and 1(ISR) Brigades to help improve our battlefield intelligence, counter our adversaries' hybrid warfare techniques, and integrate non-lethal effects into our own operations.

Broadening the use of the Army. The investments will allow the Army to better support missions other than warfighting. The changes include:

- Increasing our support to UK resilience and overseas training tasks through the use of the existing brigades to support engagement and resilience activity. Within these brigades we will form reconfigured infantry battalions to provide an increased contribution to countering terrorism and building stability overseas. They will conduct Defence Engagement and capacity building, providing training assistance, advice and mentoring to our partners.
- Developing a group of culturally-aware regional specialists to focus on regions in which we have the greatest interest so that we build long term relationships and understanding.

Joint Helicopter Command. We will ensure we have the battlefield helicopters we need into the 2030s by upgrading our attack and support helicopters. We will:

- Upgrade our Apache attack helicopters and continue the build-up of the new Wildcat armed utility helicopter.
- Continue the modernisation of the Puma Force to the improved Puma Mk2 Standard.

THE BRITISH ARMY

- Upgrade our Chinook heavy lift helicopter to ensure it can continue to be used into the 2040s and potentially beyond, and improve its survivability on the battlefield.
- Complete the replacement of the Sea King with Merlin Mk4 in the Commando Helicopter Force.

The Army Reserve. We will continue to develop a more productive model for the Army Reserve that increases their utility and employability, harnessing better their skills. We will maintain the opportunity for Reserves to serve alongside their Regular peers, where this is possible. We will be flexible in our approach to the employment of Reserves, recognising the scale of commitment will vary depending on an individual's circumstances.

The Royal Air Force will contribute to Joint Force 2025 through an improved ability to project airpower and deploy our forces, rapidly and globally. We will enhance our intelligence gathering, combat air and air transport fleets, enabling us to better support multiple operations, including supporting land and maritime activities. The Royal Air Force will be able to operate against a wider range of potential adversaries and threats.

Typhoon. We will create two additional front-line squadrons from our existing fleet and extend Typhoon in service to 2040. We will continue to enhance its multirole capabilities and integrate an Active Electronically Scanned Array radar.

F-35 Lightning. We will buy 138 F-35 Lightning aircraft over the life of the programme. We will buy some of these aircraft more quickly than previously planned, creating an additional front-line squadron by 2023. We will extend the third Tornado ground attack squadron in service until 2018 to continue the fight against Daesh and be ready for other tasks, then retire the remaining two squadrons of Tornado in 2019.

Future Combat Air Systems. We will work with France to develop an advanced Unmanned Combat Air System (UCAS) technology demonstrator and with the United States to mature other high-end technologies. Additionally, we will pursue a national technology programme to maintain the UK's position as a global leader in this area.

Ground-Based Air Defence. We will install a new ground-based air defence system in the Falkland Islands.

Intelligence, Surveillance and Reconnaissance (ISR). We will enhance and expand our airborne ISR capabilities by :

- More than doubling the number of armed remotely piloted air systems and increasing the number of crews under the Protector programme to replace Reaper.
- Investing in a fleet of nine Boeing P-8 Maritime Patrol Aircraft with an overland surveillance capability.
- Extending Sentinel in service until 2021.
- Upgrading E-3D Sentry, extending it in service until 2035, and increasing the number of crews.
- Expanding the Shadow fleet, with a corresponding uplift in the number of crews, and extending it in service until at least 2030.
- Extending Rivet Joint in service until 2035 and increasing the number of crews.

Space. We will improve our Space Surveillance Network, and develop a high-altitude communication relay capability.

Air Mobility. We will continue the major modernisation of our air transport and refuelling fleet through:

THE ROYAL AIR FORCE

- Completing the introduction to service of 22 A400M Atlas tactical and heavy lift aircraft and 14 Voyager air-to-air refuelling and transport aircraft.
- Upgrading 14 C-130J Hercules aircraft and extending them in service.
- Enhancing the capability of the C-17 fleet.
- Upgrading the Chinook battlefield helicopter (for more information, see the Army Fact Sheet).
- Adapting one of our existing Voyager aircraft so that, as well as its primary air tanking role, it can transport senior Ministers securely, delivering better value for money than the current use of charter aircraft. The aircraft would also be available to the Royal Family.

Military Flying Training. We will expand the capacity of the Military Flying Training System to meet the demands of the increased training demand.



JFC will contribute to Joint Force 2025 through championing critical joint capabilities and providing the foundations for successful joint operations. In the next decade, JFC will be at the heart of a programme to transform the force of today to respond to the demands of information age warfare. It will contribute to Joint Force 2025 the advanced capabilities needed to operate effectively against existing and emerging threats, and deliver improved logistics, medical, education, intellectual and training support in the joint arena.

Responding to the changing context. Modern warfare and the fight against international terrorism rely on us developing the agile and versatile strike capabilities for the wider range of challenges and environments we now face. We will also need better understanding, closer coordination with our allies and partners and faster decision making than our adversaries. We need to protect our Armed Forces from an increasing range of threats, and ensure that our vital basing, logistics, training and medical capabilities take full advantage of technological developments.

Special Forces. We will invest in new specialist weapons and equipment for our Special Forces to improve their covert and counter-terrorist capabilities and upgrade their helicopters and transport aircraft so that they can deploy further, faster and more securely to hostile environments.

Cyber. A new Joint Cyber and Electromagnetic (EM) Activities Group will optimise the direction and co-ordination of operations in the cyber and EM environment, including cyber defence and resilience. As part of this group, a Defence Cyber Operations and Resilience Centre will increase our understanding of the threats and reduce our vulnerabilities in the cyber domain. Collaborating with GCHQ and drawing on the National Offensive Cyber Programme, Defence will continue to develop advanced offensive cyber capabilities.

Intelligence and understanding. New technology, additional manpower and enhanced analytical techniques, including use of big data and open source intelligence, will improve our understanding of the world, allowing us to improve the speed and agility of our response.

Intelligence platforms. We will invest in a modern intelligence collection capability: extend Shadow and increase numbers, extend Rivet Joint, E-3D Sentry and Sentinel aircraft, more than double our Remotely Piloted Air System (RPAS) fleet by buying more than 20 Protector RPAS, develop a high altitude long endurance surveillance and relay RPAS and invest in a fleet of nine Boeing P-8 Maritime Patrol Aircraft with an overland surveillance capability.

Command and control. A new 2* deployable standing Joint Force headquarters to command and control the Joint Expeditionary Force. We will invest more to provide integrated Command, Control, Communications and Computers across our key allies and other government departments.

Force protection. We will invest in enhanced Chemical, Biological and Radiological protection for our forces.

JOINT FORCES COMMAND

Space. We will provide new satellite communications and 'future proof' the navigation and targeting services we get from space.

Training and education. We will train the next generation of Defence personnel and senior leaders through the Defence Academy, and make the Defence Academy our contribution to the new virtual National Security Academy.

Medical. We will create a new Centre for Defence Healthcare Engagement to share our medical best practices with allies and partners and play a significant role in extending our soft power internationally.

Joint Force development. JFC will provide the intellectual horsepower behind the Joint Force: the futures work, doctrine and concepts to guide its development and use.



Britain's competitive advantage in Defence is, in large part, based on the commitment, professionalism and skills of our people. We place heavy demands on them all, including those in the Armed Forces, whom we ask to risk their lives on operations. Recruiting, retaining and developing the right people are, therefore, top priorities for the MOD. In achieving the right balance of investment in Defence, we have had to make hard choices to create a sustainable and affordable workforce for the long-term.

In headline terms, we will be slightly increasing overall Regular numbers, maintaining an Army of 82,000 and increasing the size of the Royal Navy and Royal Air Force, by 400 and 300 respectively. We will continue to increase our Reserves to 35,000. In line with wider government measures, we will be reducing the number of civilians employed by the MOD to 41,000. Defence will in future be drawing more heavily on people and skills from the private sector in line with the Enterprise Approach model.

A modernised offer for the Armed Forces.

To better reflect the aspirations of our Service personnel and potential new recruits, and the realities of modern life, we are modernising our offer whilst preserving the elements that reflect the unique demands that armed service imposes on its people.

Flexible Engagements System: We are developing a Flexible Engagements System that will enable Regular Service personnel to vary the nature of their Service, enabling flexible working and exploring the scope to temporarily adjust liability for deployment in order to support an individual's personal circumstances. Flexible engagements will also provide improved opportunities for Reservists to be employed in higher commitment jobs for which they have the knowledge, skills and experience that Defence needs.

Future Accommodation Model: We are developing a new accommodation model that will improve choice, help more Service personnel rent private accommodation and better meet their aspirations for home ownership whilst still fulfilling the needs of the Services.

New Offer for New Joiners: We are developing a new reward package for future recruits that will enable the recruitment and retention of sufficient numbers of capable and motivated Service personnel into the future while making sure our new offer is better targeted and more sustainable.

Diversity and inclusion in the modern workforce: We are committed to achieving an inclusive working environment, and to building Armed Forces that are diverse and representative of UK society. This will be the work of many years but, as a step towards this goal, by 2020 we aim that at least 10% of Armed Forces recruits will be Black, Asian and Minority Ethnic (BAME) personnel and at least 15% women. The review of women in

combat has concluded that in principle, there is no reason why they should not be able to undertake the full range of combat roles. We are conducting a study of the physiological impacts of these roles and based on this work, we will announce a final decision on women undertaking the full range of combat roles in 2016.

Maintaining the affordability of our offer:

Following the substantial review of embolden military allowances in SDSR10, we have conducted a further review and made adjustments to the allowances package to ensure they remain cost effective and well-targeted. Allowances will remain subject to Armed Forces Pay review Body (AFPRB) recommendations.

MOD civilians. In line with wider Government measures we will reduce the size of our civilian workforce. Over the course of this Parliament we will reduce our civilian workforce by 30%. We will manage these reductions in three ways:

- A number of change programmes agreed in the last Parliament that are already in progress will reduce our civilian workforce. Staff affected are already aware of the changes. Examples include the commitment to withdraw the Armed Forces from Germany by 2020 and the decision to outsource logistics to Leidos. These changes, agreed previously, reduce the number by around 10%.
- Of the remaining 20% reduction, a significant proportion will come from change programmes largely known to staff affected and in some cases ready for consultation. These include the Footprint Strategy to further reduce the size of the Defence estate, which will report in 2016. We will also work to examine whether it makes business sense to outsource certain specific functions.
- The remaining savings will be made through new studies that will identify opportunities for more efficient, innovative and flexible ways of working, including through better technology, streamlined processes and work moving to different locations. In doing so we will set expectations about the future requirement for skills and commit to investment in professional development for our civil servants to fulfil critical department of state functions as well as roles alongside military colleagues.
- We do not envisage opening a Voluntary Early Release Scheme (VERS) across the Department at this stage, but will await the outcome of the reviews to identify more targeted reductions.

We will continue to invest in the skills of our people. The launch of the virtual National Security Academy will facilitate best practice training across government. We will continue to invest in a range of professions including (but not limited to) digital, commercial, STEM and nuclear skills through increased apprenticeships and professional training.



Over the last five years the Government has taken the difficult decisions needed to bring down the deficit and restore the UK economy to strength.

Defence now has a properly funded £34Billion budget, which is the largest in NATO. The Government has committed to meet the NATO 2% spending target for the rest of this decade. The Government has also committed to grow the MOD budget by 0.5% above inflation every year of this Parliament.

Joint Security Fund. As part of the Spending Review, the MOD has also been allocated £2.1Bn from the Joint Security Fund, to help fund and deliver its SDSR commitments in full.

Investment. Over the next 10 years Defence's Equipment Programme will go up from £166Bn to £178Bn, £12Bn more than previously planned.

During this Parliament, by reinvesting efficiencies, drawing on the Joint Security Fund and reprioritising our spending, we will be investing more than £11Bn to enhance the capabilities of the Armed Forces over those previously planned. This £11Bn of investment is funded by £9Bn of savings (of which £7Bn are efficiency savings alongside £2Bn of re-prioritised spend) and £2.1Bn from the Joint Security Fund.

Efficiency. MOD will deliver key capability enhancements through generating around £7Bn in efficiencies, to be reinvested back into the Defence programme over the course of this Parliament. Wherever possible, Defence's Top Level Budget areas will have flexibility in how they deliver the efficiency measures but there are also a range of specific measures to be delivered, such as pay restraint limited to 1% for all public servants over the next four years (2016/17 to 2019/20). Other specific measures include:

- **Civilian pay and manpower.** The Department has had to make difficult choices on civilian manpower savings in order to reinvest in front-line capability outputs (for more information see the People Fact Sheet).
- **Equipment.** We will continue to build on our strong track record of making efficiencies within our Equipment Programme by: driving a better service via the Managed Service Providers in Defence Equipment and Support; capturing and delivering the savings which will follow from the establishment of the Single Source Regulations Office (SSRO); a continuation of the current Equipment Support Costs review; and the continued transformation of Defence Logistics.
- **Military pay and manpower.** These measures will make a number of reforms whilst ensuring that we continue to provide a highly competitive benefits package to our Service personnel (for more information see the People Fact Sheet).
- **Estate and Infrastructure.** Defence is committed to delivering a smaller, more efficient and better quality estate that better meets the needs of Joint Force 2025 and continues to provide a safe and effective place for military users to live, work and train. This will involve a significant programme to dispose of elements of the Defence estate over the coming years, including a 30% reduction in the built estate and the release of land for 55,000 new homes.

THE NUCLEAR DETERRENT



SDSR 15 confirms the Government's commitment to maintaining the UK's independent nuclear deterrent to deter the most extreme threats to our national security and way of life. The Government was elected on a manifesto which included a commitment to build four new nuclear-armed submarines to replace the current class of four Vanguard class submarines. The SDSR sets out how the Government will meet this commitment.

A minimum credible nuclear deterrent. This remains a necessary element of our national security. Despite our best efforts, nuclear weapons will continue to exist for the foreseeable future.

- The UK is protected by Continuous at Sea Deterrence (CASD), known as Operation Relentless, with at least one of our four nuclear-armed submarines on patrol at all times.
- The UK deterrent is completely operationally independent. Political control is maintained at all times; only the Prime Minister can authorise the launch of nuclear weapons.
- We would use our nuclear weapons only in extreme circumstances of self-defence, including the defence of our NATO Allies.
- The UK has a very strong record on nuclear disarmament; we have reduced our nuclear forces by well over 50% since the Cold War.

The submarine programme. We will replace the Vanguard submarines with a new class of four submarines, under the Successor programme. The MOD will continue to work with its main industrial partners – BAE Systems, Rolls-Royce and Babcock – to improve performance and deliver the programme.

- We will implement the organisational and commercial changes needed to create a world-class, enduring submarine enterprise and deliver the programme.
- Building on recently strengthened governance arrangements, we will establish a new team in the MOD headed by an experienced specialist - Director General Nuclear - to act as the single sponsor for all aspects of the Defence Nuclear Enterprise, including submarines, nuclear warheads, skills and related infrastructure.
- We will create a new delivery organisation, dedicated to the procurement and in-service support of nuclear submarines.
- There will be new industrial and commercial arrangements between government and industry, including a staged investment programme.
- We plan to further invest more than £600 million in the design phase, including buying essential long-lead items. This will take the total cost of the design phase to £3.9Bn.

Timescales and cost. The 2010 SDSR stated that we could safely manage and maintain the Vanguard boats into the early 2030s. The revised cost and schedule of the Successor Programme included in the 2015 review reflects the greater understanding we now have about the detailed design of the submarines and their manufacture.

THE NUCLEAR DETERRENT

The acquisition programme for the Successor submarines will take over 20 years to complete. We expect the first submarine to enter service in the early 2030s.

Manufacturing the four submarines is likely to cost a total of £31Bn (including inflation). We will also set a contingency of £10Bn. This contingency is a prudent estimate based on past experience of large, complex projects such as the 2012 Olympics.

Defence Nuclear Enterprise - a national endeavour. Maintaining and sustaining the UK's Defence Nuclear Enterprise supports over 30,000 jobs across the UK and makes a significant contribution to the UK economy.

- These jobs ensure that the UK retains and develops its world leading skills through a wide range of companies.
- Her Majesty's Naval Base Clyde, where Successor will be based, is one of the biggest employment sites in Scotland. By 2020 Scotland will be home to all of the Royal Navy's submarines.
- 6,800 military and civilian personnel are employed at Her Majesty's Naval Base Clyde bringing significant local commerce. This will rise to 8,200 by 2022.

Next Steps. The Government will hold a debate and vote in Parliament on the principle of Continuous at Sea Deterrence and our plans for Successor.

DEFENCE'S CONTRIBUTION TO COUNTER TERRORISM



We have chosen to prioritise the fight against terrorism, radicalism and extremism at home and overseas in SDSR 15, to protect our people and way of life. We are investing more heavily in our ability to counter the threat of terrorist attacks in the UK, working with the Intelligence Agencies, Police and Home Office more closely than ever before. We are building capability to strike at terrorists globally before they can attack us, and building out international partners' capabilities to deal with terrorism, radicalisation and extremism themselves.

Framework for our contribution. The Home Office leads UK efforts to prevent and respond to terrorism, radicalisation and extremism. The Home Office's Counter Terrorism Strategy (CONTEST) has guided the development of MOD's counter terrorism policies and plans, which are amongst Defence's highest priorities. Defence delivers against all four pillars of the Strategy:

- Supporting the Police and Security Services to **Protect** the UK from attack;
- Contributing to UK resilience to **Prepare** the UK to deal with the consequences;
- Delivering a range of activities and programmes to **Prevent** the growth of terrorism; and
- Being prepared to **Pursue** those who would attack us at home and overseas;

We also contribute to a range of cross-government **counter terrorism capabilities**: collaborating on intelligence work, science and technology research, and supporting planning and command and control.

Changes. Over the next five years we will:

- Significantly expand our ability to carry out multiple, simultaneous, counter-terrorist operations at home and overseas.
- Provide a greater range of unique military capabilities, and prepare to deploy Special Forces and up to 10,000 troops in the UK, to strengthen resilience in response to any attack.
- Invest in joint infrastructure, to support a more integrated approach to counter-terrorism activities across Government to ensure we make best use of the full spectrum of effects we can collectively deliver.
- Invest £2bn in Special Forces and their enabling capabilities over the next five years to enhance their ability to deliver a UK CT global strike capability in the most hostile environments. To achieve this we will:
 - Invest in new specialist weapons and equipment to increase capability and ensure that our Special Forces retain a clear advantage over our adversaries;
 - Upgrade helicopters and transport aircraft so we can deploy further, faster and independently to meet the threat around the world;
 - Expand and extend our fleet of specialised reconnaissance aircraft to increase the dedicated intelligence support we can provide.

DEFENCE'S CONTRIBUTION TO COUNTER TERRORISM

- Expand our fleet of Protector unmanned aerial vehicles to more than 20.
- Expand our capability to gather intelligence from the internet and social media, and respond to terrorist threats through cyberspace.
- Expand our fleet of Protector Remotely Piloted Air Systems (RPAS) to more than 20.



Our Defence policy and plans will become 'International by Design'. SDSR 15 sets out the importance we attach to key Defence relationships with allies, partners and the international security institutions.

Context. Our national security and prosperity come in large part from the international rules-based order. So we need to protect our interests and resist the growing challenges to that order. We have always deterred major threats, responded to major crises and conflicts and developed Defence capabilities in concert with our allies and partners. The international security institutions, particularly NATO, have underpinned British Defence policy for generations. We maintain a range of overseas bases, a substantial international Defence footprint and undertake an extensive programme of international Defence engagement.

Our pre-eminent Defence relationship is with the US, and our other top priority bilateral relationships are with France and Germany. In Europe we will also prioritise our relationships with the Northern Group, JEF nations, Italy, Spain, and Turkey. Beyond Europe, our most important defence relationships are with Australia, Canada, New Zealand, Japan and the Gulf States. NATO will continue to be at the heart of defence and Joint Force 2025 reflects this.

Our approach. Making Defence International by Design is about a more planned, deliberate approach to existing international defence collaboration; and seeking to develop collaboration and integration in new areas of defence activity. The work has four main strands

- 1. Combined Formations.** By developing stronger combined military formations, we will improve the combat power and wider influence we can bring to bear on prospective crises. These formations provide a range of options to tackle crises in the Euro-Atlantic area and further afield. We will train with our allies and partners in the formations in which we expect to conduct operations. Specifically:
 - We established an initial operational capability for the UK-led, multilateral Joint Expeditionary Force, comprising Norway, the Netherlands, Denmark, Estonia, Latvia and Lithuania, by signature of an MOU in London on 30th November 2015.
 - We will build on the UK/France Lancaster House Treaty of 2010 which set the framework for co-operation on operational capability development and nuclear policy. The Combined Joint Expeditionary Force concept will be validated by Chiefs of Defence in April 2016.
 - We will maintain our substantial contribution to the enhanced NATO Response Force every year, and lead the Very High Readiness Joint Task Force in 2017.
 - We have arrangements in place with the US to be able to generate and operate sizeable combat forces together.
- 2. Collaborative Capabilities.** We continue to benefit hugely from working with others to develop military capabilities, particularly the US and France. We will look to expand this approach. Many of our allies operate the same platforms and weapons as the UK,

DEFENCE POLICY: INTERNATIONAL BY DESIGN

and common equipment, spares and repair and maintenance solutions can both improve interoperability and drive down costs. There are opportunities to collaborate even more strongly in the support area, including logistics, engineering and training, that will drive down the costs of single ownership. We will be pursuing these with our allies and partners.

3. On **International Institutions**, we are working to reform and strengthen the contributions the international security institutions make to our national security goals and shared interests, with a focus on NATO and the UN. Since SDSR 10, we have been working to put NATO at the heart of British Defence, by aligning our Defence policy and plans more closely with the NATO planning process and political guidance; contributing significant forces to NATO-led operations and exercises, and sustaining UK manning levels in the NATO command structure. We will provide additional contributions to UN peacekeeping operations.
4. **Defence Engagement (DE)** and footprint: Promoting the UK's influence through Defence activity, will become a core task for the MOD. That means that the Commands will be required to prioritise Defence Engagement alongside other core tasks, under central direction.

We will open a **Defence Attaché and Loan Service Centre** alongside the Defence Academy at Shrivenham in January 2016. We will establish a Service **DE career stream** from April 2016. We also plan to use senior, experienced personnel, military and civilian, including recent retirees, in strategic advisory, relationship and capacity building functions. We intend to **use Reservists better**, exploiting niche skills, **and establish a group of suitably qualified civilian staff personnel**.

We will be delivering a more ambitious, more impactful programme of Defence Engagement around the globe. We will increase our Defence Attaché network. To ensure we maximise the impact of individuals and groupings in various regions around the world, and building on the success of the model in the US, we will reconfigure our presence to create **British Defence Staffs in the Middle East, Asia Pacific and Africa in 2016**.

- The Government is developing a new **Gulf Strategy** to set out a vision of our future relationship with partners in the region. Our increased footprint in the region includes improvement to the port facility in Bahrain to provide enhanced support to UK operations. This commitment is supported by an enduring presence of over 100 Service personnel.
- In **Africa** we will reinforce our efforts to build the capacity and willingness of nations to address global security concerns at their source. We will support UN Peacekeeping operations with 300 personnel in South Sudan and 70 personnel in Somalia.
- As part of our pledge to support the **Nigerian** Armed Forces, we have increased our training team in Nigeria fourfold over the past 12 months; we plan to increase this further to enhance their operational capability and help counter the threat posed by Boko Haram.
- In **Asia** we will build our mutual Defence capabilities with regional allies such as Japan and India.
- In **South America** we will reinforce our on-going engagement through high-level Defence and security cooperation with our partners throughout the region.



SDSR 15 sets out the Government's approach to innovation in Defence and Security, emphasising the need for a step change in our approach. Defence has set aside £800M over the next 10 years to fund this activity and MOD will launch an innovation initiative in 2016 to set out the Department's approach in more detail.

Context. The global landscape for innovation has shifted. In many areas, the private sector, not governments, drive today's rapid pace of technological change. Potential adversaries seek to leverage that change and use new ways of operating to challenge our traditional advantages. Our national security community must continue to adapt to stay ahead, not only finding ways to be more innovative itself, but also developing the ability to harness private sector entrepreneurship and ingenuity quickly and affordably.

Innovation approach. Defence's approach to innovation will seek to maintain our Armed Forces's operational advantage into the future, ensuring we remain in step with our closest allies and ahead of our adversaries. Although better integration of emerging technologies and capability development will be essential, we must also address our organisation, workforce, processes and culture to be successful. This will require innovative operational concepts, strategic planning, and incentivisation and reward of innovative behaviours. Our approach will also include the following measures:

- In collaboration with other national security departments, Defence will establish a new Emerging Technology and Innovation Analysis Cell (ETIAC) with close links to external partners and experts in the private sector and academia to improve our ability to identify and understand the implications of new, potentially game-changing technologies.
- In collaboration with other national security departments, Defence will establish a new accelerator. Acting as an organisational hub, it will provide an interface between the national security community, the private sector and academia, facilitating and expediting the development of innovative solutions to our most pressing challenges.
- Defence will develop initiatives to support Science, Technology, Engineering and Mathematics (STEM) and entrepreneurial skills development and retention within the security sector.
- We will prioritise that which is truly transformative and offers us the possibility of delivering future military capabilities in a more effective and efficient way, maintaining our decisive edge and breaking us out of a simple pattern of life-cycle replacement.

Defence's success in this endeavour will require significant cultural change, strong leadership, the continuous pursuit of adaptation across the Department and continued investment in S&T. We will work closely with academia, industry, commerce and allies as we draw up our approach, and expect to provide more information in the first half of 2016.



Our prosperity is underpinned by security. By ensuring the stability and integrity of the UK and our Overseas Territories, protecting the rules based international order and the global commons, and undertaking stability and capacity building operations with emerging and developing states, Defence is a key contributor to UK prosperity. As a result of SDSR 2015 MOD will: make support to exports a core task, refresh the Defence Industrial Policy, introduce a Ship Building Strategy, spend an additional £12Bn on the equipment programme over 10 years, provide at least 50,000 apprenticeships, and increase the number of cadet units.

MOD undertakes a broad range of standing tasks in the UK and overseas, ranging from: protecting the UK's airspace and territorial waters; providing specialist and general capabilities in support of counterterrorism tasks and broader national resilience; and capacity building and other Defence Engagement tasks overseas.

In addition to what we do, how we equip, train and support our people to achieve these tasks contributes to UK prosperity. This is through our investment in economic capital, such as our research and development spending and developing highly valued skills, and through creating the conditions that enable a dynamic economy, such as our direct and indirect support to exports and inward investment.

Investing in economic capital

Skills. By investing in a skilled workforce, both within Defence and those industries that support Defence, we contribute to prosperity through a greater skills base in society.

- MOD is the single largest provider of apprentices in the UK. Apprentices support Defence and also carry their skills back into the civilian economy. We will provide at least 50,000 apprenticeships by 2020.
- Science, Technology, Engineering and Mathematics (STEM) skills are a priority for Defence and the wider economy. In addition to our STEM apprenticeships and our STEM Ambassadors in schools, we will develop initiatives to support STEM and entrepreneurial skills development and retention within the security sector.
- Cadets receive training and qualifications that benefit their future contribution to society and the economy. With around 130,000 young people as cadets in the Cadet Forces in 2015, we are increasing the number of cadet units in schools, bringing the total to 500 by 2020.
- We will continue to support the transition of service personnel to the civilian economy, many of whom have significant working lives left. Through the Career Transition Partnership we help service leavers find employment and provide relevant qualifications and training.
- MOD's investment in space security has fuelled the growth of a new, highly skilled space sector, contributing £9.1Bn a year to the UK economy and employing 28,900 people.

PROSPERITY AND NATIONAL LIFE

Science & Technology (S&T). UK Defence R&D expenditure by MOD alone was £1.5Bn in 2014, and to further support innovation the government will dedicate 1.2% of its growing Defence budget to S&T.

Working with wider Defence and Security partners, S&T activities will directly support international engagement priorities, provide access to world-leading technologies and capabilities for our military and security users and attract inward investment in UK S&T capabilities.

Defence Science and Technology Laboratory (DSTL) contributes to universities through teaching courses and lecturing, question setting, examining higher degrees, visiting fellowships and professorships and funding. For example, DSTL's work with universities has included developing a method of sequencing Ebola in the field which helped to break the infection cycle.

Contributing to a dynamic economy

Procurement. MOD spent £19.5Bn with UK industry across the country in 2013/14, of which approximately 44% was with manufacturing firms.

- We are increasing spending on Defence equipment and support by around £12Bn to £178Bn over 10 years, including commitment to new capabilities, providing opportunity for industry and nurturing high-skilled jobs across the UK.
- We are taking action to promote competition, including by maximising accessibility to Defence contracts for small and medium enterprises (SMEs), and non-traditional – in 2014/15 MOD direct spend with SMEs was £822m.
- We will be more transparent with industry about our future capability needs.
- We are introducing a new Ship Building Strategy which will be published in 2016.

Supporting exports. There were £8.5Bn of identified UK export orders of Defence equipment and services in 2014. Over the last ten years, the UK had export orders totalling 19 per cent of the global total.

We are enhancing our support to UK Defence exports by making this a core MOD task, working closely with UK Trade and Industry, taking cross-government responsibility for strategic exports campaigns, and giving greater emphasis to export potential as a criteria in future procurement decisions.

Enabling innovation. We will be launching a Defence innovation initiative which sets out our approach in detail.

- Defence has identified around £800m over 10 years of new money which will specifically be allocated to innovation.
- Defence will establish a new accelerator. Acting as an organisational hub, it will provide an interface between the national security community, the private sector and academia, facilitating and expediting the development of innovative solutions to our most pressing challenges.

PROSPERITY AND NATIONAL LIFE

- Creating a new £165m Defence and Cyber Innovation Fund to support the procurement of innovative solutions to the challenges facing the Armed Forces.
- In collaboration with other national security departments, establishing a new Emerging Technology and Innovation Analysis Cell with close links to external partners, experts in the private sector and universities to improve our ability to identify potentially game changing technologies.

Infrastructure. Continuing our programme to reduce the Defence estate where it is surplus to requirements, we will also support wider Government objectives around land release.

Beyond the South-East. The distribution of our personnel and expenditure supports the economy beyond the South East of England. Our property assets are spread over 4,000 sites, and our personnel are spread over the whole country, often in some of the less populated areas.



We have transformed the way Defence is managed over the last five years. The Defence Operating Model has enabled more effective military capability and greater business efficiency, through a framework of strong financial control, a smaller, stronger and more strategic Head Office, and greater delegation of decision-making to the Commands. These achievements have enabled us to set the more ambitious headmark for Defence in this Review. We will use and develop the Operating Model to ensure we successfully deliver Joint Force 2025 and all the associated requirements from the Review, including challenging improvements in productivity and efficiency, a stronger international dimension to our policy and plans, and greater innovation across the entire spectrum of Defence activities.

The Defence Operating Model is the result of a review in 2011 by Lord Levene into MOD's structure and management. Its successful implementation has been recognised by Lord Levene in a series of annual follow-up reports. The Operating Model has enabled MOD to:

- Generate more combat capability in all three Services and Joint Force Command, by delegating responsibility and allowing savings to be reinvested.
- Fundamentally reform the way we acquire and deliver Defence Equipment and Support. This has included developing the skills of our workforce and bringing in commercial expertise that has improved our procurement process and helped control our costs, resulting in greater military capability for our money.
- Drive greater productivity and efficiency into all aspects of Defence Business, enabling improvements in Defence outputs while driving down costs in support areas such as HR, payroll, finance, vetting and information services.
- Reduce Defence Infrastructure, to ensure we do not hold more than is necessary for Defence needs; over the last five years we have disposed of estate assets worth £1Bn.
- Successfully drive a range of major internal change programmes, including the New Employment Model, outsourcing aspects of our logistics functions, and the ongoing relocation of Army units from Germany.

There is further to go to fully implement the Defence Operating Model, in particular ensuring that all the right attitudes and behaviours are in place to allow its overall potential to be delivered. As we do this, we also need to make sure the model, and the way business is done within it, embraces the new challenges from the SDSR including:

- **Greater military capability from Joint Force 2025.** Delegation of delivery responsibilities to, and closer working between, the Commands will be crucial in delivering this.
- **Innovation and Efficiency.** As well as innovating to stay ahead of potential adversaries,

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in order to meet the challenging efficiencies needed to fund Future Force 2025, we also need to bring innovative thinking, at every level, to all aspects of the way we do business. The operating model incentivises Commands to do this. A further review of MOD's Head Office will apply innovative principles too. There will also be a programme of new Defence-wide studies to identify opportunities for more efficient, innovative and flexible ways of working, including through better technology, streamlined processes and the adoption of new business models.

- **Joint Units.** We need to adjust our ways of working to link with those of our partners across government as we establish and operate the Joint Units detailed in SDSR. As we work towards an even smaller and more strategic Head Office, space will be freed up in the MOD Main Building to house incoming units.
- **Prosperity.** We need to embed into our business the incentives and means to support the Government's wider prosperity agenda, including by supporting the Department for Business Innovation and Skills in dealing with Defence exports.
- **Industry.** Our business processes must reinforce the need to support UK industry by placing more contracts with small and medium-sized enterprises, including through Single Source Procurement.
- **'International by Design'.** Our Defence policy and planning will in future increasingly focus on working with allies and partners to deliver our national security goals.
- **Infrastructure.** We plan to reduce the Defence built estate by 30% and release land to enable 55,000 new homes to be built during this Parliament.



The Government remains committed to the principles in the 2012 White Paper, National Security through Technology (NS&T), including our core objective to provide our Armed Forces with the best capabilities we can afford, at the best value for money. Wherever possible, we will fulfil Defence requirements through open competition in the global market, taking steps to protect our freedom of action and operational advantage only where essential for national security. Our Defence Industrial Policy will be refreshed in line with the principles set out in NS&T. No decisions have yet been taken on the form or timing of this.

Capabilities. We will spend £178Bn on equipment and equipment support over the next 10 years. We will continue to seek the best capabilities for the Armed Forces we can afford, at the best value for money, taking account of wider factors in our assessments where these are material and relevant to a decision and can be estimated on a robust basis.

Freedom of action. We will maintain our approach, and the existing criteria set out in NS&T, for assessing our need for freedom of action and operational advantage on essential national security grounds. We will strengthen supply chain management within the Defence enterprise, and increase vigilance of the key industrial skills.

Single-source procurement. Reforms, including the establishment of the Single Source Regulations Office under the Defence Reform Act (2014), play a key role in driving value for money, and in ensuring a fair return for Defence industry in Defence procurement. More than half of all Defence procurement is covered by single-source contracts; we will ensure these contracts also help drive innovation and nurture key skills.

Competition and SMEs. We will promote competition, including by maximising accessibility to Defence procurement by small and medium-sized enterprises, with which MOD placed contracts worth £822 million in 2014/15. We have set ourselves the target of 25% of our procurement spend with SMEs. We will also encourage new suppliers to Defence, recognising the increasing importance of the civil sector as a source of technology and innovation for defence.

Prosperity. We will be transparent with industry about our future capability needs. We will support the Defence Growth Partnership goal of a thriving UK Defence sector, driven by investment in innovative, competitive and exportable products and services. We will uphold our obligation to fair and open competition.

Ship Building. The Government will publish a National Ship Building Strategy in 2016.



Defence will continue to prioritise Science and Technology, by maintaining investment at 1.2% of the Defence budget, to ensure our Armed Forces sustain operational advantage against increasingly technologically advanced adversaries.

Our investment in Science and Technology (S&T) will continue to provide access to the **S&T skills and capabilities** that critically underpin UK resilience, security and prosperity, at home and overseas. We will prioritise investment that will have the greatest benefit to Defence and Security, and support wider government objectives;

Enhanced Defence and Security Capability. S&T investment will support delivery of affordable, cutting-edge capabilities for Defence today and in the future - providing access to a wider set of capability options, including 'disruptive capabilities' to deliver decisive military advantage.

Resilience and Security. We will continue to develop the specialist S&T skills and capabilities needed to develop the UK's understanding of threats and opportunities from emerging technology, and provide the technological edge and support for Counter-Terrorism operations in the UK. Our S&T programmes also provide vital support to counter cyber threats to our armed forces and the UK.

People and Skills. We will continue to invest in critical UK Science Technology Engineering and Mathematics (STEM) capabilities to provide informed and impartial advice to users and decision-makers, including in priority areas such as space, chemical, biological, radiological and nuclear (CBRN), data science and autonomy.

Innovation and Prosperity. S&T investment is a catalyst for Defence-wide innovation, providing access to the people (STEM and entrepreneurial talent), partnerships and driving the pace (new innovation practices and processes) needed to deliver future operational advantage for our Armed Forces and economic advantage for our delivery partners and the UK.

Investment. New investment of around £800 million in innovation over the next 10 years will critically underpin delivery of the S&T innovation elements, including:

- A new Emerging Technology and Innovation Analysis Cell (ETIAC).
- Defence will establish a new accelerator. Acting as an organisational hub, it will provide an interface between the national security community, the private sector and academia, facilitating and expediting the development of innovative solutions to our most pressing challenges.
- New STEM and entrepreneurial skills development initiatives.
- £800M of Defence funding over 10 years to help exploit emerging innovative solutions.



Infrastructure is a critical enabler of Defence capability. Defence will be investing additional resource in order to optimise the size, location and suitability of the estate to ensure it continues to provide a safe, efficient and effective place for military users to live, work and train. MOD is working on a Footprint Strategy, which will report in early 2016.

Strategy. Defence's strategy is to reduce its built estate by 30% by 2040 with the aim of providing the right-sized and affordable estate for Joint Force 2025. Rationalisation of the estate will result in improved delivery of military capability, reduced operating costs and provide income from the disposal of assets. Decisions on which estate assets to keep and invest in and which to dispose of will be based on the balance between optimising capability and delivering best value for money. Defence is committed to retaining an appropriate regional military presence, where it is affordable to do so.

Rationalisation. Rationalisation of the estate will allow Defence to continue to make a significant contribution to the Government's major programme of public sector land release to enable the construction of new homes. Defence has a strong land release record and our current funded plans will release land for over 29,500 homes in England in the current Parliament. Defence will also assist the Department for Communities and Local Government and its Housing and Communities Agency to unlock the potential to release land in this Parliament for a further 25,500 homes in England from a number of MOD sites.

Investment. Capital investment to address critical issues in the MOD's estate infrastructure will be delivered via a Capital Infrastructure Programme, which sets out the prioritised infrastructure requirements over a 10-year period, to support Defence capabilities. Among the projects it will fund include works at Naval Base Clyde, ensuring continuous availability of our nuclear deterrent. It will also support safety and compliance requirements at a number of sites in the UK and overseas.

Accommodation. We are looking at proposals for how our Armed Forces personnel can best be accommodated in the future and are developing a Future Accommodation Model (FAM), to enable personnel to more freely choose where to live. FAM will also aim to support more personnel to have the stability of a long-term home.

Wider efficiencies. We will continue to deliver efficiencies in our infrastructure operating costs, targeting reductions in spend on utilities, accommodation and facilities management. We will also continue to support wider Government initiatives including One Public Estate and the Government Construction Strategy.

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