

Written evidence submitted by the Ministry of Defence

Executive summary: how the UK intends to work with Allies to counteract the shared threats identified.

The Integrated Review of Security, Defence, Development and Foreign Policy and the Defence Command Paper set a clear purpose for our work with Allies to counter shared threats up to 2030 and beyond. These include challenges to the rules-based international system, systemic competition, rapid technological changes and transnational challenges such as climate change and global health risks. As a European country with global interests, it confirms our commitment to remain the leading European ally in NATO. To achieve the Prime Minister's vision for the UK in 2030, we will:

- Reaffirm our commitment to leadership in NATO, supporting its adaptation to threats above and below the threshold of war under international law;
- Improve interoperability with our Euro-Atlantic Allies;
- Modernise the UK's armed forces;
- Improve our own ability to manage and de-escalate multi-domain crises;
- Sustain our commitment to collective security beyond the Euro-Atlantic;
- Put diplomacy at the centre of international efforts to counter state threats;
- Increase the political tools available to NATO to meet multi-dimensional challenges; and
- Bring together all the instruments available to government, in an integrated approach for the UK, and for NATO.

At the 2021 Brussels Summit, NATO Heads of State and Government recognised "multifaceted threats, systemic competition from assertive and authoritarian powers, as well as growing security challenges". They agreed "NATO 2030", a package of new, integrated proposals to enable NATO to meet the security challenges out to 2030 and beyond, including an updated NATO Strategic Concept to be agreed at the 2022 summit in Madrid.

The threat picture and response set by NATO 2030 and the 2021 NATO Summit communiqué are very closely aligned with the UK's Integrated Review. This includes the need to respond to the generational challenges to democracy, to the rules-based international order, and to free and open societies. Leaders agreed to adapt to systemic competition and a wider range of state and non-state threats through a new deterrence concept of persistent engagement integrated across all five domains, and a more systematic approach to combining military and non-military tools; to sustain Allies' strategic advantage through science and technology to address rapid technological change; to build resilience as the first line of defence; and to increase the pace of work on transnational challenges such as climate security and sexual violence in conflict.

Allied Leaders also agreed to strengthen partnerships beyond the Euro-Atlantic region, notably with Asia-Pacific partners, and to reinforce consultation and joint action on all issues of transatlantic security. The newly-announced AUKUS partnership is a concrete articulation of this ambition – and that of the UK, made in the Integrated Review, to deepen defence, security and foreign policy ties with like-minded allies across the globe. The agreement reflects the unique level of trust and cooperation between the UK, US and Australia.

The United States remains the UK's most important strategic ally and partner. The US Interim National Security Strategic Guidance considers its approach to the challenges of the next decade.

The importance of an integrated, collaborative approach is recognised across UK, US and NATO strategic thinking. The UK's Defence Command Paper and Integrated Operating Concept recognises that our alliances and partnerships – within NATO and beyond – are fundamental to achieving our shared objectives. In practice, this means: investing in our alliances and partnerships, not least through our leadership role in NATO; prioritising interoperability and burden-sharing in our international engagement; designing our campaigns with allies and partners in mind;

investing energy in practical fora for cooperation such as the Joint Expeditionary Force and Five Power Defence Arrangements; and delivering our framework role in regional NATO initiatives such as the enhanced Forward Presence deployments. Both the UK and the US, bilaterally and as part of the broader Alliance, significantly contributed to NATO's Resolute Support Mission in Afghanistan, which for twenty years denied terrorists a safe haven from which to launch attacks, and enabled developments which improved the lives of millions of Afghans.

1. How far should the UK ensure its foreign policy, defence and security priorities are aligned with those of its NATO Allies, in particular the US?

In the face of global challenges, no country can deliver its foreign and security priorities alone. So it is essential that we work together with Allies and like-minded partners facing shared threats. The United States remains the UK's most important strategic ally and partner. NATO is the foundation of collective security, and the essential forum for security consultation among Allies. Not only do we face the same threats: we also share the same determination to bolster an open and democratic rules-based international order, and recognise that we as Allies can shape the international order of the future by working together.

The UK will continue to sit at the heart of a network of like-minded countries and flexible groupings, committed to protecting human rights and upholding global norms – none more valuable to British citizens than our leading role in NATO and our relationship with the United States. The UK's leadership role at NATO, the strength of the transatlantic bond, and the collective resolve for Alliance unity provides the opportunity to influence and cohere the policies of 30 Euro-Atlantic Allies, and to engage NATO's many partners.

2. What benefits does the UK bring to the UK/US relationship and the NATO Alliance? What should the UK focus on providing in the near future?

The UK provides world-class military, intelligence, diplomatic, nuclear and cyber security capabilities to NATO and Allies. We offer defence investment above NATO targets and will further increase our defence budget by over £24 billion over the next four years. Allies welcome our commitment to Euro-Atlantic security; operational contributions; our political will to deploy forces; and our thought leadership driving change alongside Allies and partners. Through the Defence Command paper, we have committed to retain full-spectrum capability, prioritise the development and integration of new technologies, and develop a "digital backbone" to enable multi-domain operations and interoperability with our allies and partners. We are one of only two NATO allies able to bring to bear nuclear, offensive cyber, precision strike weapons and fifth generation attack aircraft, and we will make significant contributions across all five domains including a new generation of warships and our highly mobile airborne and amphibious forces.

The UK/US defence partnership is the broadest, deepest and most advanced of any two nations in the world. It spans the full spectrum of defence activity, including our historic nuclear cooperation (which dates back to the Mutual Defense Agreement of 1958), intelligence collaboration, our scientific research and capability programmes, as well as the unique interoperability of our forces. This is achieved through close collaboration on force development, design and generation and from decades of training and operating together across the globe.

The UK's contribution to the relationship with the US flows from our shared values and will to act when required, our reach across all theatres including our network of overseas bases around the globe and the capabilities we can bring to bear from the nuclear to the conventional and in new domains such as cyberspace. Looking ahead and building on the substantial investment in Defence made through the Integrated Review, we will focus on deepening our unique partnership in areas such as cyberspace, space, next generation capabilities and deterrence, and work together to further strengthen the NATO alliance. The recent announcement of the AUKUS agreement is a further demonstration of the unique closeness of the UK/US relationship. This new

agreement will bolster the commitment we made through the Integrated Review to strengthen alliances with like-minded allies and deepen our ties in the Indo-Pacific.

Within the Alliance, the UK commits a full spectrum of forces, from our nuclear deterrent to offensive cyber capabilities; makes a leading contribution to the NATO Response Force and enhanced Forward Presence; and participates in every NATO operation and mission. We also continue to serve as a nation which provides the framework for other Allies' contributions; able to connect and coordinate NATO's forces, and continue to support collective security from the Black Sea to the High North, in the Baltics, the Balkans and the Mediterranean.

3. What are the new US Administration's priorities for US foreign, defence and security policy? What impact will they have on the US Global Posture Review [due to be released this summer] and in turn, how could that affect UK and NATO policy and deployment decisions?

The new US Administration's priorities for foreign, defence and security policy are set out in the [Interim National Security Strategic Guidance](#) (INSSG) that was published by the White House in March 2021. We understand that the US will publish its full National Security Strategy and National Defense Strategy in late 2022 or early 2023.

4. Where do the US, UK and NATO align on their understanding of global threats and their view of how (using measures across the 'Diplomatic, Information, Military, Economic, Financial, Intelligence and Law Enforcement' spectrum and the wider spectrum of civil society) to respond?

The IR, NATO 2030 and the INSSG respond to a shared understanding of the challenges ahead: the changing distribution of power across the globe, in particular the increasing power and assertiveness of China and the growing importance of the Indo-Pacific region to global prosperity and security. They address the return of systemic competition and the challenges facing open and democratic societies and they highlight the opportunity and threat posed by the pace of technological advance, as well as the growing impact of transnational challenges, such as climate change and global health risks.

The UK, US and other NATO allies are responding to these threats together. As the IR makes clear, for the UK this means bringing all the instruments available to Government together to achieve our objectives. It means drawing on our strengths in innovation, science and technology, our expertise on data and AI, our responsible and democratic cyber power, our integrated space policy and our plans to modernise our defence and diplomacy. Working through NATO and with likeminded partners in the international community, we want to co-create the future international order to ensure democratic values are upheld and open societies flourish.

Both the UK and US continue to recognise that we cannot protect national interests and promote stability without capable and well-resourced militaries and foreign and security services, and without an integrated approach to using all levers of national power. We recognise the fundamental importance of investing in Science and Technology, to secure advantage over adversaries and develop solutions to many of the challenges the world faces.

5. How will the UK's journey to becoming an 'information-led' force impact its ability to operate and fight alongside a) the US and b) other NATO Allies both in terms of the UK's potential capability gaps during the transition and the potential impact on interoperability should individual Allies adopt such a transition at differing timescales?

As described in the Defence Command Paper, the MOD's strategic approach requires Defence to become information-led, as the foundation of integration within Defence, across Government and with allies. Multi Domain Integration (MDI) – integration across Land, Air, Sea, Space and Cyber

domains – is one of the key elements of Defence’s approach and is described in the Integrated Operating Concept. MDI is implemented in Defence through the MDI Change Programme (MDI CP).

To deliver integrated military capability, the UK is actively engaged with both the USA and NATO to ensure that interoperability is integral to all current and future capabilities. A key component is the UK’s support of the NATO Federated Mission Networking (FMN) initiative. FMN seeks to develop a suite of common interoperability standards that guide individual national equipment programmes. The US Department of Defence supports FMN and recognises the need to work closely with the UK to strengthen interoperability between the two nations. To ensure interoperability, the MOD has committed to use FMN standards to ensure strategic alignment of national integration change initiatives (MDI CP for the UK, and Joint All Domain Command and Control (JADC2) for the USA).

Integration sits alongside other important tenets of Twenty-First century military strategy, including being engaged internationally and demonstrating increased assertiveness necessary for effective deterrence. An information-led strategy is not a stand-alone activity and is evolving alongside bi-lateral and NATO programmes and standing coalition commitments. Acquisition planning and data informed decision making reflects this, and balances information led activity with conventional military capability to provide options to planners. Capability management agreements with our Allies support development to ensure capability gaps are avoided. The outcome we seek is a full spectrum military force that is equipped with the conceptual, physical and moral capabilities required to operate and fight alongside our closest allies in an era of constant competition.

6. What impact has COVID had on joint UK/US and wider NATO exercises?

Thanks to detailed pre-exercise preparation, the UK and US have still been able to coordinate and deliver a global exercise programme involving wider multinational partners and significant defence engagement serials over the past 18 months. Routine visits to US installations remain suspended, but essential logistic and aircraft movements supporting tri-service UK/US exercises and operational freight distribution have continued with risk mitigations in place.

Though naturally COVID presented challenges to NATO activity, the Alliance nevertheless maintained its missions throughout the course of the pandemic. The major impact of COVID was the modification of the size and scope of US exercise DEFENDER 20, although it achieved many of its original objectives in exercising the deployment of US forces to Europe to operate alongside Allies. However, the widespread vaccination programme and strict adherence to restrictions in host countries have allowed an uptick in activity in 2021. Allied Command Operations have recorded contributions in the order of 850 military activities and exercises this year.

The deployment in 2021 of the HMS Queen Elizabeth Carrier Strike Group is a key example of our interoperability with Allies and partners – in particular the United States – and was deliberately designed to meet a range of NATO objectives. The Group’s first exercise was part of a cluster of exercises known as STEADFAST DEFENDER which focuses on transatlantic reinforcement, securing sea lines of communication and strategic to tactical level mobility and sustainment.

Also notable in 2021 was the successful completion, with minimal COVID-related disruption, of Exercise WARFIGHTER at Fort Hood in Texas, a highly complex exercise testing UK/US interoperability which involved 1400 personnel from 3 (UK) Division.

7. What impact will the Government’s commitment to retaining onshore capabilities have on MOD’s ability to purchase equipment from companies based outside the UK?

The Defence and Security Industrial Strategy (DSIS), published in March, introduces a more flexible approach that allows defence and security departments to rely on competition where appropriate, or opt for strategic partnerships with industry for certain capability and technology segments where it is in our national security interests to do so.

While we are being clearer on those segments where we need to retain onshore capabilities for our operational independence, we will continue to rely on global competition or collaboration where it is in our interests to do so, and where it provides the best value for money. Working with international partners can help ensure that we can access the full range of advanced technology our Armed Forces need. At the same time, we encourage suppliers wherever they are based to consider carefully what the UK supply base can offer, including through our evaluating the relative impact different competitive bids will have on UK social value.

International and overseas-based companies make a vital contribution to the UK economy and our industrial base and the DSIS confirmed that the government will continue to encourage both overseas participation and foreign investment in the UK's defence industrial base.

8. How can the UK best support NATO in implementation of the NATO 2030 agenda? Specifically:

i. Deepening and broadening political consultation in NATO?

As the cornerstone of our collective defence and deterrence, NATO is a vital forum for Allies to discuss a broad range of issues. With our world-class diplomatic and intelligence services, the UK is able to support – and lead – these discussions as the Alliance tackles global challenges as we encourage consultation at all levels in NATO – from Summits and Ministerial meetings, and engagement with senior officials, down to close and day-to-day engagement through our permanent joint delegation at NATO HQ. The UK will continue to support the NATO Secretary General in efforts to deepen consultations across the security spectrum and strengthen the transatlantic bond – as all parties benefit when sharing and developing ideas. As we continue to strengthen the intelligence-sharing architecture at NATO, the expertise of the UK and other leading Allies can underpin political debates, help build a common picture, make decisions and maintain consensus in a timely manner; something more important than ever due to the growing size of the Alliance and changing nature of the threat environment.

For example, the UK engaged closely with Allies, partners and NATO HQ in developing elements of the Integrated Review, which places our Alliances at the heart of UK defence and security. Themes from UK thinking have influenced, and will continue to influence, NATO's high-level planning - from the Concept for Deterrence and Defence of the Euro-Atlantic Area to the upcoming refresh of NATO's Strategic Concept. But our work with NATO will extend beyond the 30 Allied countries. We will support a greater range of engagements with Partner countries including formalising these relationships where appropriate (such as the granting of Enhanced Opportunity Partnership Status with Ukraine).

ii. Preserving NATO's technological edge?

As stated in the Defence Command Paper, our efforts to modernise our own armed forces will ensure we can play a leading role in NATO's own transformation in delivering its deterrence and defence. NATO recognises that while Emerging and Disruptive Technologies (EDT) can enable NATO militaries to become more effective, resilient, cost-efficient and sustainable, they also pose new challenges from state and non-state actors to the Alliance. To consider the impact, threats and challenges of these key technologies, in 2019 NATO leaders approved the Emerging and Disruptive Technology Implementation Roadmap. In February 2021, NATO Defence Ministers endorsed Foster and Protect: NATO's Coherent Implementation Strategy on Emerging and Disruptive Technologies. This Strategy identifies how NATO Allies can adopt and adapt the identified technologies of Artificial Intelligence, Data and Computing, Autonomy, Quantum Technologies, Biotechnology and Human Enhancement, Hypersonic Technologies and Space.

Taking an active approach to building and sustaining a durable competitive edge in Science & Technology (S&T), the UK has played an extensive role in driving NATO's EDT Roadmap and

Implementation Strategy, drawing on our own national work and expertise. In 2021, the UK provided a food for thought paper on how to improve the integration of EDTs in the Conference of National Armaments Directors, advocating for a greater focus on agility in addressing the threats and opportunities of EDTs. Sharing our expertise, we have provided a number of academic and government experts for NATO workshops on a number of technologies to inform NATO's EDT strategies. The UK also has British experts in leading S&T positions in NATO, such as Dr Bryan Wells, NATO's chief scientist, and Professor Deeph Chana, chair of the NATO EDT Advisory Board. We are committed to continuing this leadership role with a view to enabling NATO to adopt EDTs at the speed of relevance, guided by principles of responsible use and in accordance with international law.

In line with our IR ambition to become a global science superpower and sustain strategic advantage through science and technology, the UK has played a leading role in engaging with NATO to raise awareness of emerging and disruptive technologies across the Alliance, including supporting the development and implementation of the NATO EDT Roadmap and Implementation Strategy. Due to our strong academic, industrial and financial expertise, we are well placed to support NATO in exploring a wide variety of options to preserve NATO's technological edge. For example, the UK has played a leading role in shaping the NATO AI strategy, contributed expertise to the NATO Quantum workshops and conducted a conference for UK industry and academia to explore how they can support NATO in maintaining the Alliance's technological edge. Continuing to work with NATO, we hope to find mutually beneficial opportunities to share expertise, shape strategies and modernise the NATO Defence Planning Process. In line with the IR ambition to build a network of strong and varied international S&T partnerships, we will further leverage our partnerships across government, the private sector and academia to help preserve NATO's technological edge and deterrence and defence posture.

iii. Investing in NATO (in particular around the funding commitments which will need to be agreed at the NATO 2022 summit)?

The Secretary General's 2021 Burden Sharing Report shows seven consecutive years of growth in defence spending across European Allies and Canada. This represents significant progress toward the Defence Investment Pledge, agreed by Allies at the Wales Summit in 2014. However, the UK continues to urge all Allies to have credible plans to spend 2% of GDP on defence by 2024.

The UK continues to meet its share of the NATO Defence Investment Pledge (DIP), exceeding the 2% commitment with a core Defence budget of £41 billion (Spending Round 2019 secured an additional £2.2 billion over 2019/20 and 2020/21), with plans to spend over £180bn on equipment and support in the next decade.

At the 2021 Summit, NATO Allies agreed to increase our defence spending, including as necessary NATO common funding starting in 2023. We will work closely with NATO Allies to ensure that future investments enable the Alliance to effectively meet the challenges of the future. Further investment in NATO's collective capabilities will require an assessment of affordability and sustainability as part of wider HMG spending plans.

9. How can NATO best learn collective lessons from both warfighting and post-conflict operations?

NATO has an extensive and well-practiced approach to the learning of collective lessons from both warfighting and post-conflict operations. This process is managed by the Joint Analysis and Lessons Learned Centre (JALLC) in Lisbon, Portugal. The UK invests in this structure and has a permanent OF5 position within the organisation (currently an RAF Group Captain).

JALLC manages NATO's 'Lessons Learned' process following exercises and operations and delivers bespoke operational analysis studies when tasked by NATO Headquarters Brussels,

Supreme Headquarters Allied Powers Europe in Mons or the Supreme Allied Command Transformation (SACT) in Virginia, USA.

NATO Foreign Ministers agreed in August that we will fully reflect on our engagement in Afghanistan and draw the necessary lessons as the mission comes to an end. Observations or lessons identified by UK personnel from recent warfighting campaigns or on wider operational deployments with NATO linkages are staffed through the UK Lessons process run by both the Joint Warfare Analysis Centre and by the Single Services (all of whom use the NATO Lessons Learned Handbook as a best practice guide). In the UK, the Defence Lessons Policy and the Defence Organisational Learning Strategy (DOLS) aim to ensure that Defence places sufficient value on learning across its full range of activities and uses organisations such as Defence Operational Capability (DOC) assurance audits for testing progress drawn from previous lessons identified.

10. a. How can NATO effectively foster technological cooperation among Allies and how best can the UK engage in that process?

NATO is a leading forum for technological cooperation as all Allies respond to the changing character of warfare. The UK has worked to shape NATO's development in this area, playing a leading role in the development of the NATO Warfighting Capstone Concept (NWCC) and the Concept for Deterrence and Defence of the Euro-Atlantic Area (DDA) (both agreed in 2020). These concepts outline the long-term modernisation agenda for the Alliance.

NATO's flagship strategy to promote technological cooperation is the NATO 2020 EDT Roadmap and 2021 Implementation Strategy, which outline NATO's approach to fostering technological cooperation and innovation within the Alliance. The UK has taken a leading role in the delivery of this strategy by providing feedback and interventions through the UK delegation, liaising regularly with Allies in NATO. Within NATO itself, there are several fora the UK can use to foster technological cooperation.

The NATO Conference of National Armaments Directors (CNAD) provides the opportunity to improve the role of EDTs in capability development and runs a number of workshops for Allies to share expertise on EDTs, to which the UK regularly provides experts. Similarly, the NATO Science and Technology Office (STO) provides many opportunities for technological cooperation through multilateral studies, panels and workshops. Defence Science & Technology Laboratory (DSTL) has a close relationship with the STO and provides leads to sit on the STO panels which relate to a number of specialist EDT issues such as quantum sensing. Finally, we envision modernisation of the NATO Defence Planning Process, which sets Allies' capability development targets through a four year cycle. This should provide the opportunity for NATO to foster technological progress through the recognition of R&D spending and other EDT initiatives which are not currently included in the process.

10. b. What role will NATO common standards and the new Defence Innovation Accelerator for the North Atlantic (DIANA) play?

We recognise the challenges that developing new technologies will pose for NATO and for Allies: different perceptions of the requirements, different responses and different capacity to develop solutions. NATO common standards will help to enable greater interoperability and will be a crucial step forward in ensuring the Alliance can harness the power of Emerging and Disruptive Technologies for the defence of the Alliance. The initiative to create the Defence Innovation Accelerator for the North Atlantic (DIANA) will be a new chapter in NATO's modernisation. Consisting of five elements (an accelerator network, deep tech test centres, innovation advisory teams, a trusted capital marketplace and a NATO innovation fund), DIANA has the potential to accelerate the Alliance's development of new technologies which will help the Alliance to maintain its technological edge over adversaries. By developing these new technologies and connecting

them to Allies and their industrial bases, we will be able to encourage rapid modernisation of existing capabilities, in addition to the development of new ones.

11. Will NATO's newfound interest in the Indo-Pacific complement the UK's 'tilt'? If so, what should the UK be doing bilaterally with partners and where in NATO should it focus its efforts?

As set out in the Integrated Review, the Indo-Pacific is at the centre of intensifying geopolitical competition with potential flashpoints including unresolved territorial disputes; to nuclear proliferation and miscalculation; to climate change and non-state threats from terrorism and Serious Organised Crime. It is on the frontline of new security challenges, including in cyberspace.

The inaugural deployment of CSG21, which has recently navigated the South China Sea and is engaging with a range of Indo-Pacific and other partners, demonstrates our growing bilateral commitment to persistent engagement by our armed forces in the Indo-Pacific and our wider support to upholding international norms and laws in the region.

NATO has long-standing partnerships in the Asia-Pacific region. At the NATO Summit in June, Leaders agreed to enhance political dialogue and practical cooperation with its Asia-Pacific partners to promote cooperative security and support the rules based international order. This agreement aligns with the approach set out in the Integrated Review and the Defence Command Paper to pursue deeper, persistent engagement in the Indo-Pacific in support of our economy, our security and our global ambition to support open societies.

The UK, Australia, and the US have agreed to an enhanced trilateral security partnership, based on our shared values. This partnership is called "AUKUS" and is a concrete example of the commitment the UK made in the Integrated Review to deepen cooperation and engagement in the Indo-Pacific. Under AUKUS we will strengthen our collective ability to ensure our security and defence interests. We will enhance the development of joint capabilities and technology sharing. And we will foster deeper integration of security and defence-related science, technology, industrial bases, and supply chains.

We will work closely with NATO and NATO Allies to ensure our engagement with the Indo-Pacific is complementary – bilaterally, multilaterally and in small group formats. We welcome NATO's increased cooperation with our Asia-Pacific partners, which will result in deeper political engagement. We will explore possibilities for further practical cooperation where there are shared concerns, on areas ranging from cyber defence to maritime security.

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