

Chapter 3: AI and Warfare

Blueprint for Action

If U.S. forces are not organized, trained, and equipped for a new warfighting paradigm that is emerging because of artificial intelligence (AI) and other emerging technologies, they will be outmatched and paralyzed by the complexity of the future battlefield.

This Blueprint for Action includes five top-line recommendations to achieve military AI readiness and prepare our forces for the future: 1) Drive organizational reforms through top-down leadership; 2) Develop innovative warfighting concepts; 3) Establish AI-readiness performance goals; 4) Develop and fund advanced technologies and R&D; and 5) Promote AI interoperability and the adoption of critical emerging technologies among U.S. allies and partners.

Recommendation

Recommendation: Drive organizational reforms through top-down leadership.

Continuously out-innovating the competition requires strong commitment from the top civilian and military leaders directing the rapid development and adoption of innovative and disruptive approaches to warfare through top-down governance and oversight processes.

Action for the Department of Defense and the Office of the Director of National Intelligence:

- **Establish a Steering Committee on Emerging Technology, tri-chaired by the Deputy Secretary of Defense, the Vice Chairman of the Joint Chiefs of Staff, and the Principal Deputy Director of National Intelligence.¹**
 - o The Secretary of Defense and Director of National Intelligence should issue a directive immediately establishing the senior oversight committee described above.
 - o The Steering Committee on Emerging Technology provides a forum to drive change, focus, and action on emerging technology that otherwise would not be prioritized. It will enhance intelligence analysis related to emerging technology; connect strategic vision to organizational change; focus concept and capability development on emerging threats; guide defense investments that ensure America's strategic advantage against near-peer competitors; and provide the authority to drive technology adoption and application by the Department.
- **Assign the tri-chair Steering Committee on Emerging Technology responsibility for overseeing the development of a Technology Annex to the next National Defense Strategy²**

Actions for the Department of Defense:

- **Ensure all future JAIC Directors are a three-star general or flag officer with significant operational experience who reports directly to the Deputy Secretary of Defense.**³
 - Three-star leadership allows the JAIC to engage with the services at a senior rank and within their command structure. Operational experience enables the Director to understand how AI can serve operational requirements and better communicate with the services as to how AI meets capability needs.
- **Appoint Under Secretary of Defense for Research and Engineering (USD (R&E)) as the co-chair and chief science advisor to the Joint Requirements Oversight Council.**⁴
 - To accelerate AI and other emerging technologies for competitive advantage, USD (R&E) must play a central role in connecting technological advancements in research and development to joint operational requirements.

Action for Congress:

- **In the Defense Authorization Act (NDAA) for Fiscal Year 2022, establish a Steering Committee on Emerging Technology and National Security Threats and designate that it be tri-chaired by the Deputy Secretary of Defense, the Vice Chairman of the Joint Chiefs of Staff, and the Principal Deputy Director of National Intelligence.**⁵

Recommendation

Recommendation: Develop Innovative AI-enabled Warfighting Concepts, Informed by Experimentation, Wargames and Real-world Exercises.

Battlefield advantage will shift to those who harness superior data, connectivity, compute power, algorithms, and overall system security to new warfighting concepts. Developing new operational concepts requires Services to incentivize experimentation, and foster a culture of “thinking Red”—in other words, considering the strategies of potential adversaries when developing operational concepts.

Actions for the Department of Defense:

- **Develop innovative operational concepts that integrate new warfighting capabilities with emerging technologies.**
 - The Deputy Secretary of Defense and the Vice Chairman of the Joint Chiefs should issue a memorandum directing Components and Services to develop a complete deterrence concept for systems warfare that leverages human-machine teaming, AI, and associated technology to prevail against intelligent adversary systems of systems.
 - Under the guidance from the tri-chair Steering Committee on Emerging Technology, USD (R&E) should receive \$5 million for a team (approximately 20 people) in FY2022 funding to research and develop new AI-enabled capabilities for development and testing of advanced operational concepts. This project must be done in conjunction with DARPA and other capability offices to share the costs of filling technological gaps discovered during the analytic process.

- o These operational concepts should be institutionalized in classified DoD documents that drive comprehensive force development and investment prioritization. Confidential demonstrations should be executed to realize the deterrence concept.
- **Integrate AI-enabled applications into all major Joint and Service exercises and, as appropriate, into other existing exercises, wargames, and table-top exercises.**
 - o The Deputy Secretary of Defense and the Vice Chairman of the Joint Chiefs should issue a memorandum calling for inclusion of AI and other emerging technologies into existing exercises, wargames, and table-top exercises. This includes large-scale exercises and smaller, more frequent events at all echelons.
 - o The purpose of this would be to realize connectivity between systems and sensors, rapid data analysis, faster and more informed decision-making, and more distributed operations.
 - o Concept writers should participate in all major technology demonstrations.
 - o Develop performance objectives and associated metrics to assess integration of AI-enabled applications into exercises, wargames, experiments, and TTXs.
- **Incentivize experimentation with AI-enabled applications through the Warfighting Lab Incentive Fund (WLIF).**
 - o DoD should incentivize experimentation with AI applications across the Department at every level possible by establishing either a special category or prioritized evaluation criteria within the WLIF for proposals that incorporate AI applications.
 - Experimentation with AI-enabled applications are particularly well-suited for the space, cyber, and information domains because of the high volumes of 24/7 data generated in these domains.
 - o The Steering Committee on Emerging Technology should provide annual guidance for selection of WLIF proposals for funding based on priorities developed in the Technology Annex to the NDS.
 - o DoD should increase WLIF funding by \$10 million annually specifically for AI-enabled applications.⁶
- **Encourage a culture of “thinking Red.”**
 - o DoD working closely with the Intelligence Community should develop a granular understanding of our main competitors’ approach to systems confrontation. This will help the Department to better understand our competitors’ operational concepts and to eventually avoid battlefield surprise.
 - o Joint Warfare Analysis Center (JWAC) should be the lead to develop competitors’ operational concepts. Estimate \$2.5 million allocation for a 10-week, 10-game series devoted to mastering red thinking.
 - Red-thinking games must: 1) Integrate deterrence-credibility stretch problems from key classified DoD documents; 2) clear denial concepts for our most stressing scenarios; 3) Be conducted with realistic basing and naval posture; 4) the highest standards of incorporating the best available intelligence; 5) the highest standards of AI-enabled modeling and simulation that ingest and mimic red operations; 6) rigorous two-player adjudication with physics-level detail on red capabilities; and 7) rapid turnaround on force development considerations for the Secretary of Defense.

- o The Office of the Secretary of Defense and the Joint Staff should issue a memorandum directing all military educational institutions to foster in their curriculum the culture of “thinking Red.”

Actions for Congress:

- **Congress should appropriate an additional \$17.5 million to DoD’s budget to support innovative concept development.**

Recommendation: Establish AI and digital readiness performance goals.

Recommendation

To drive outcomes and accountability and provide a means for oversight of Department efforts regulated to AI, DoD should establish key performance objectives and accompanying metrics for AI and digital readiness.⁷

Actions for the Department of Defense:

- **By the end of 2021, establish AI and digital readiness performance goals. To achieve more substantial integration of AI across DoD, the Deputy Secretary of Defense should:**
 - o Direct DoD components to assess military AI and digital readiness through existing readiness management forums and processes. The Steering Committee on Emerging Technology should work closely with the Under Secretary of Defense for Personnel and Readiness,⁸ the Joint Staff, and the JAIC to ensure the identified AI and digital readiness performance objectives are incorporated into the military services’ readiness reporting recovery frameworks, and resourcing strategies.
 - o Direct the military services to accelerate review of specific skill gaps in AI, to inform recruitment and talent management strategies and *provide a report within 12 months.*
 - Assess the number of civilian personnel needed in software developer, software engineer, knowledge management, data scientist, and AI career fields for both management and specialist tracks.
 - Assess the number of military personnel needed in software development, data science, and AI career fields, in both management and specialist tracks, and for commissioned and enlisted personnel.
 - Assess the specialties and personnel required for a DoD and military service digital corps.
 - Establish annual retraining and recruiting goals to create and maintain the personnel described above.
- **Direct the military services, in coordination with the Under Secretary of Defense (Acquisition and Sustainment), the Joint Staff, and the Defense Logistics Agency, and enabled by enterprise services and expertise at the JAIC, to prioritize integration of AI into logistics and sustainment systems wherever possible.**
 - o The Deputy Secretary of Defense should issue a memorandum directing the military services to accelerate use of AI and apply commercial best practices in

predictive analytics for maintenance and supply chain to optimize all classes of supply, equipment, and parts.⁹ The Deputy Secretary of Defense should establish a \$100 million fund, administered by the Under Secretary of Defense (Acquisition and Sustainment) to provide matching contributions to service and agency efforts based on estimated financial or operational return on investment.

- o By the end of 2021, the Under Secretary of Defense (Acquisition and Sustainment), supported by Senior Acquisition Executives and in coordination with the DoD CDO and the JAIC, will establish performance objectives and identify best approaches to achieve data-ready systems in logistics and sustainment systems to support application of AI. Disparate conditions of data-readiness in existing and future systems will require differential approaches to achieve AI-readiness. Broadly, these categories of data-readiness are:
 - Systems with proprietary vendor data (ex. F-35 Joint Strike Fighter, M1 Abrams Tank)
 - Systems with government-owned data (ex. Maintenance and Availability Data Warehouse)
 - Systems that are data-ready (government-owned data that has been documented/tagged for storage/discovery and has published schema for data access (ex. Next Generation Air Dominance, T-7 Redtail, Ground Based Strategic Deterrent).

Actions for Congress:

- **Require the Secretary of Defense to establish performance objectives and accompanying metrics for AI and digital readiness, and provide an update to Congress no later than 120 days after approving these goals.**

Recommendation

Recommendation: Develop and Fund Advanced Technologies and R&D.

Development and fielding of advanced AI-enabled technologies will remain a critical component of DoD's ability to achieve decision advantage on the battlefield.

Actions for the Department of Defense:

- **Define a joint warfighting network architecture by the end of 2021.** OSD CIO and the Joint Staff, in coordination with the Services, should issue a memorandum directing the architecture for a secure, warfighting command and control network. A Service-agnostic warfighting network will enable better integration of AI-enabled technologies with current and future weapon systems. The OSD CIO should provide \$5 million to the right entity to accomplish this design.
- **Invest in priority AI R&D with the support areas that could support future military capabilities.** To accelerate adoption of AI in warfighting missions, the Under Secretary of Defense (R&E) should increase investments¹⁰ in the following priority R&D areas to support future AI-enabled warfighting capability. If advanced, this could build near- and long-term AI-driven capabilities for competitive advantage in a future method of conflict defined by AI. These should be viewed as investments in deterrence in the interim—pursuing critical incremental advancements—and in the long term—building new capabilities yet to be determined that will sustain overmatch. Investments should include:

- o USD (R&E), with the support from DARPA, should prioritize AI R&D for the following topics:
 - The future of teaming—to advance human-AI and AI-AI teaming
 - Advanced scene understanding
 - Intelligent edge devices, computing, and networking
 - Robust and resilient AI
 - Testing and Evaluation, Verification and Validation (TEVV)
 - Integrated AI, modeling, and simulation for decision support
 - Autonomous AI systems
 - Toward more general Artificial Intelligence

Recommendation: Promote AI interoperability and the adoption of critical emerging technologies among allies and partners.

Recommendation

America's enduring relationships with allies and partners represent asymmetric advantages over competitors and adversaries. Differential adoption of AI across military alliances and intelligence partnerships creates interoperability risk that threatens allies' political and military cohesion, the resiliency of alliance structures, and the efficacy of coalition operations. The recommendations that follow reflect a holistic approach to furthering cooperation around AI and emerging technologies in the context of defense, intelligence, and security arrangements. They focus on interoperability and improving capacity and capability development to foster competitive military and intelligence advantages.

Component 1: Enhance Five Eyes efforts to achieve interoperable AI systems.

Actions for the Department of Defense and the Office of the Director of National Intelligence:

- **Coordinate with Five Eyes officials to conduct assessments of the comparative strengths and gaps in AI-related technologies and applications among the Five Eyes allies.**
 - o Assessments would evaluate Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities and Policy (DOTMLEPF-P) across the alliance for adopting AI, and future plans for AI-enabled warfighting architectures.
- **Coordinate with Five Eyes officials to develop a five-year plan for improving AI interoperability across the Five Eyes alliance.**
 - o Proposed plans should include, among other things, combined research priorities, development objectives, experimentation, methods to facilitate data sharing, use cases, and common standards for TEVV of AI-enabled systems and interoperability standards. It should also include stress tests for supply chains in critical industries and corresponding risk-mitigation measures.

- o In developing plans, Five Eyes leaders should enhance ongoing efforts of the Technical Cooperation Program,¹¹ through the AI Strategic Challenge (AISC), to further align interoperable AI systems.
- o Five Eyes leaders should continue to advance the joint development of intelligence products by expanding efforts to “increase collection access and reliability, improve the quality and quantity of partner data and analysis, align strategic capabilities and emerging technologies, and promote compatibility across digital architectures and analytic tradecraft.”¹²

Actions for the Department of Defense:

- **Direct a series of AI demonstration pilot projects and host an AI wargame and experimentation series.**
 - o Based on the recommended assessments and planning above, the Secretary of Defense should: 1) Direct a series of AI demonstration pilot projects in areas such as predictive maintenance, autonomous logistics, and sensor fusion with Five Eyes partners across the Future Years Defense Program; and 1) host an AI wargame and experimentation series, beginning with Five Eyes allies.

Component 2: Accelerate NATO AI adoption.

NATO and its member states recognize that AI-related technology has transformative potential for collective security. Coordinated, accelerated, responsible adoption of AI must be an urgent priority across the Alliance in order to address the challenge presented by algorithmic warfare.¹³ NATO allies need to dedicate personnel and resources to support the development and operational applications of AI-related, and other Emerging and Disruptive Technologies (EDTs).

Actions for the Departments of Defense and State:

- **Provide clear policy guidance, technical expertise, and resource support to assist and accelerate NATO’s AI-related initiatives to:**
 - o Ensure AI technologies are incorporated into the *NATO Defense Planning Process*, *NATO Warfighting Capstone Concept*, and plans for *Deterrence and Defense of the Euro-Atlantic Area*.
 - o Evaluate DOTMLPF-P for AI adoption and future plans for AI-enabled warfighting architecture and interoperability in allied or coalition environments.
 - o Support and coordinate development and adoption of foundational definitions, operational and data-sharing practices, technical standards, and architectures focused on interoperability, privacy, and responsible, legal deployment of AI.
 - o Ensure the *NATO Science and Technology Strategy* anticipates technological developments to guide NATO and national research and development priorities.
 - o Develop NATO international staff and allied nation technical expertise.
 - o Conduct simulations, wargaming, experimentation, and pilot projects with use cases for data fusion, data exploitation, and interoperability.

- o Assist in the collaboration with partners beyond the NATO Alliance, including industry and academia
- **Develop, with NATO allies, a proposal for an Alliance-wide AI Implementation Strategy deliverable for NATO Heads of State.**
 - o The proposal should build upon key recommendations of the NATO Reflection Group report submitted to the Secretary General,¹⁴ and should provide guidance on the areas identified above.¹⁵

Component 3: Foster the JAIC AI Partnership for Defense (AI PfD) as a critical vehicle to further AI defense and security cooperation.

Launched in 2020, the AI PfD is a DoD-led effort to convene partner nations to “provide values-based global leadership” on adoption of AI in the defense and security context.¹⁶ Current members include Australia, Canada, Denmark, Estonia, Finland, France, Israel, Japan, Norway, South Korea, Sweden, and the United Kingdom.

Action for the Department of Defense:

- **Prioritize and foster the AI PfD as a critical space for democratic allies and partners to work through defense issues on AI.**
 - o The AI PfD can enhance U.S. efforts to accelerate AI adoption across NATO by supporting key foundational efforts related to data governance and management, infrastructure and technical, legal, and ethics expertise. DoD and Congress should provide continued support to enable the AI PfD to further AI cooperation on defense and security with key allies and partners.

Component 4: Incorporate AI into Indo-Pacific defense cooperation efforts.

Increased opportunities exist for collaboration with Quadrilateral Security Dialogue (Quad) partners India, Japan, and Australia, and other nations committed to advancing a free and open Indo-Pacific region.

Actions for the Departments of Defense and State:

- **Build on the Quad framework and negotiate formal AI-related defense and intelligence cooperation agreements in the Indo-Pacific region with Australia, India, and Japan, as well as with New Zealand, South Korea, and Vietnam.**
 - o This could be done in connection with broader conventional defense and intelligence relationships, and existing security cooperation agreements, or in a stand-alone manner, bilaterally or multilaterally. The U.S. Government should also prioritize AI interoperability at ministerial and working level meetings.¹⁷

Component 5: Create an Atlantic-Pacific Security Technology Partnership to improve defense and intelligence interoperability across Europe and the Indo-Pacific.

An Atlantic-Pacific technology partnership would seek to improve capability and interoperability by bringing together technology innovation with allied and partner militaries and intelligence communities, whether in a NATO, coalition, or other multinational context.

Action for the Departments of Defense and State:

- **Advance a deliberate NATO partnership with Indo-Pacific allies and partners for AI-enabled defense cooperation.**
 - o A NATO-Indo-Pacific partnership focused on AI is needed to facilitate early collaboration and lay the groundwork for interoperability among different allied and partner warfighting architectures.
 - o Plans for such a partnership should include guidance from the tri-chair Steering Committee on Emerging Technology for data sharing, common standards, wargame and experimentation, and improving interoperability of AI systems and warfighting architectures.

Component 6: Modify authorities and processes in order to improve DoD's ability to conduct international capability development.

DoD requires more flexibility in its ability to develop, test, and field AI-enabled systems with existing and new foreign partners, both public and private.

Action for Congress:

- **Expand the flexibility and the agility of the Secretary of Defense's authority to engage in cooperative R&D agreements.**
 - o Legislation should permit DoD to pursue cooperative projects with private companies, academic research centers, and defense and non-defense governmental entities within NATO, major non-NATO allies, and friendly foreign countries, without a direct showing to the improvement of conventional defense capabilities.

- o Legislation should also account for partners' non-monetary contributions, including the value of R&D capabilities and the strategic partnerships, when assessing potential projects.

Actions for the Department of Defense:

- **Review and revise policies related to International Armaments Cooperation to provide flexibility for AI and software driven partnerships.**
 - o The review should include policies related to technology transfer, national disclosure, information and equipment use, equitability requirements, funding requirements, and contracting.
 - o DoD should update policies to provide greater delegation of authorities to Military Departments and Defense Agencies to conclude international agreements.
- **Revise DoD Instruction (DoDI) 5530.03, "International Agreements,"¹⁸ to provide appropriate guidance on AI and software-driven partnerships.**
 - o DoDI 5530.03 should be revised to: 1) enable continuous collaboration on evolutionary hardware and software products that need continuous update across research, development, testing, evaluation, and operational deployment with international partners; 2) provide sufficiently flexible entry and exit criteria for all types of international partners (governmental, industry, and academic) to facilitate capabilities, products, knowledge, and services at the point of need; and 3) provide guidance for acceptable thresholds and limits to balance the protection and promotion aspects of AI-related capability development with international partners.

Blueprint for Action: Chapter 3 - Endnotes

¹ The Commission acknowledges section 236 of the FY 2021 National Defense Authorization Act, which permits the Secretary of Defense to establish a steering committee on emerging technology and national security threats composed of the Deputy Secretary of Defense; the Vice Chairman of the Joint Chiefs of Staff; the Under Secretary of Defense for Intelligence and Security; the Under Secretary of Defense for Research and Engineering; the Under Secretary of Defense for Personnel and Readiness; the Under Secretary of Defense for Acquisition and Sustainment; the Chief Information Officer; and such other officials of the Department of Defense as the Secretary determines appropriate. However, the structure described in section 236 does not include leadership from the Intelligence Community and will thus not drive the intended action. See Pub. L. 116-283, William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, 134 Stat. 3388 (2021), <https://docs.house.gov/billsthisweek/20201207/CRPT-116hrpt617.pdf>.

² This action is described in greater detail in the Chapter 2 Blueprint for Action, which designates a member of the Steering Committee on Emerging Technology the Executive Agent responsible for developing the Technology Annex and outlines the recommended contents and use for the Appendix.

³ Notably, section 236 of the FY2021 NDAA designates the Director of the Joint Artificial Intelligence Center as a direct report to the Deputy Secretary of Defense. See Pub. L. 116-283, William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, 134 Stat. 3388 (2021).

⁴ This echoes an action in the Chapter 2 Blueprint for Action, which emphasizes that to reduce redundancies, increase interoperability, and drive a system-of-systems approach to requirements development and management, USD (R&E) must have a stronger role in the Joint Requirements Oversight Council.

⁵ As indicated above, DoD and ODNI have the authority to establish such a forum without legislative action. However, codifying it into law will ensure that it is sustained through leadership transitions. The defense committees could consider using the FY2022 NDAA to amend section 236 of the FY2021 NDAA. As written, section 236 only “permits” the establishment of such a committee; additionally, the provision does not clearly denote chairs of the committee and does not include any Intelligence Community representation. This recommendation is also discussed in Chapter 5 of this report. Additionally, Chapters 2 and 5 of this report recommend establishing funds to mature, operationally prototype, and transition exceptionally promising AI-enabled technologies. For DoD, USD (R&E) would control those funds and, for the IC, the ODNI CTO would control those funds. Those investments should be informed by the Steering Committee on Emerging Technology.

⁶ FY2021 O&M funding was \$42.4 million. J7 received 110 proposals for FY2021 WLIF funding and selected 20 experimentation efforts. NSCAI staff discussions with JS/J7.

⁷ General Charles Q. Brown, Jr. & General David H. Berger, *To Compete with China and Russia, the U.S. Military Must Redefine ‘Readiness,’* Washington Post (Feb. 1, 2021), <https://www.washingtonpost.com/opinions/2021/02/01/brown-berger-military-readiness/>.

⁸ “P&R must enable, guide, and assess a strategically ready Department of Defense for employment by the Joint warfighter when and where it is needed, adaptive to the strategic geopolitical and threat environments, and evolving military-technological advances.” *Preserving Our Competitive Advantage, Personnel And Readiness Strategy For 2030*, U.S. Department of Defense at 13 (October 2020), https://prhome.defense.gov/Portals/52/Documents/Strategy/PR_Strategy_FINAL_.pdf?ver=KY6Vacn3kT1Gd9fNxnR34w%3D%3D.

⁹ In the FY2021 NDAA, Title II, section 234, Congress directed “the Secretary of Defense to identify a set of no fewer than five use cases of the application of existing artificial intelligence enabled systems to support improved management of enterprise acquisition, personnel, audit, or financial management functions, or other appropriate management functions, that are consistent with reform efforts that support the National Defense Strategy.” Pub. L. 116-283, William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, 134 Stat. 3388 (2021).

¹⁰ With additional funding for DoD investments in AI R&D recommended in the Chapter 2 Blueprint for Action.

¹¹ *DoD Instruction 3100.08: The Technical Cooperation Program (TTCP)*, U.S. Department of Defense (Oct. 15, 2018), <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/310008p.pdf?ver=2017-11-30-114948-343>.

¹² *The AIM Initiative: A Strategy for Augmenting Intelligence Using Machines*, Office of the Director of National Intelligence at 10 (Jan. 16, 2019), <https://www.dni.gov/files/ODNI/documents/AIM-Strategy.pdf>.

¹³ Memorandum from Robert O. Work, Deputy Secretary of Defense, *Establishment of an Algorithmic Warfare Cross-Functional Team (Project Maven)*, U.S. Department of Defense (April 26, 2017), https://www.govexec.com/media/gbc/docs/pdfs_edit/establishment_of_the_awcft_project_maven.pdf.

¹⁴ *NATO 2030: United for a New Era. Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General*, NATO at 29-31 (Nov. 25, 2020), https://www.nato.int/cps/en/natohq/news_179730.htm.

¹⁵ For further detail, see *Interim Report and Third Quarter Recommendations*, NSCAI at 187-195 (October 2020), <https://www.nscai.gov/previous-reports/>.

¹⁶ The AI PfD seeks to align “like-minded nations to promote the responsible use of AI, advance shared interests and best practices on AI ethics implementation, establish frameworks to facilitate cooperation, and coordinate strategic messaging on AI policy.” *Joint Statement*, AI Partnership for Defense (Sept. 15-16, 2020), https://www.ai.mil/docs/AI_PfD_Joint_Statement_09_16_20.pdf. The AI PfD held its second formal dialogue in January 2021. *DoD Joint AI Center Facilitates Second International AI Dialogue for Defense*, JAIC (Jan. 27, 2021), https://www.ai.mil/news_01_27_21-dod-joint-ai-center-facilitates-second-international-ai-dialogue-for-defense.html.

¹⁷ See Tab 5 - Recommendation 2: “The Departments of State and Defense should negotiate formal AI cooperation agreements in the Indo-Pacific region with Australia, India, Japan, New Zealand, South Korea, and Vietnam” in *Interim Report and Third Quarter Recommendations*, NSCAI at 196 (October 2020), <https://www.nscai.gov/previous-reports/>.

¹⁸ *DoD Instruction 5530.03: International Agreements*, U.S. Department of Defense (Dec. 4, 2019), <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/553003p.PDF>.