

# AUKUS Pillar 2 (Advanced Capabilities): Background and Issues for Congress

Updated May 21, 2024

Congressional Research Service

<https://crsreports.congress.gov>

R47599



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May 21, 2024

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## **AUKUS Pillar 2 (Advanced Capabilities): Background and Issues for Congress**

AUKUS Pillar 2 refers to a suite of cooperative activities conducted by the United States, the United Kingdom, and Australia to develop and field “advanced capabilities” under the AUKUS security partnership. To date, Pillar 2 activities have been coordinated among the three governments by a number of means, including topic-specific working groups. At least eight such groups are currently active: six address technological areas and two address functional areas. The current working groups are:

- Undersea capabilities;
- Quantum technologies;
- Artificial intelligence and autonomy;
- Advanced cyber;
- Hypersonic and counter-hypersonic capabilities;
- Electronic warfare;
- Innovation; and
- Information sharing.

The activities of these working groups are closely tied to the broader regional and global defense strategies of each of the participating governments, and have drawn considerable attention from some Members of Congress and other stakeholders. This report describes the origins, role, and implementation of AUKUS Pillar 2, and identifies and analyzes potential issues for congressional consideration. Particular issues Congress may face include:

- Whether to modify the current laws, regulations, and policies that govern the export of U.S.-origin defense articles and services relevant to AUKUS Pillar 2 activities; and
- How to resource and oversee the executive branch’s conduct of AUKUS Pillar 2 activities.

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# Background

## AUKUS Overview

AUKUS is a security partnership between the governments of the United States, the United Kingdom of Great Britain and Northern Ireland, and Australia designed to “promote a free and open Indo-Pacific that is secure and stable.”<sup>1</sup> Established by a joint announcement in September 2021, AUKUS has organized its trilateral defense activities along two lines of effort, referred to as “pillars.” Pillar 1 aims to provide Australia with a fleet of nuclear-powered attack submarines, while Pillar 2 is intended to collaboratively develop “advanced capabilities.”<sup>2</sup>

Pillar 2 activities have been coordinated among the U.S., British, and Australian governments by a number of means, including working groups (sometimes also referred to as “workstreams”).<sup>3</sup> At least eight such groups are currently active: six address particular technological areas (undersea capabilities, quantum technologies, artificial intelligence and autonomy, advanced cyber, hypersonic and counter-hypersonic capabilities, and electronic warfare), and two address broader functional areas (innovation and information sharing).<sup>4</sup> As of this writing, AUKUS members have announced a number of Pillar 2 accomplishments, including multiple successful test and demonstration events.<sup>5</sup>

## The Role of Congress

Within the legislative branch, a group of Members formed the Congressional AUKUS Working Group in 2022 and a number of committees have held hearings on various AUKUS-related issues in 2022, 2023, and 2024.<sup>6</sup> Congress has also passed AUKUS-related provisions as part of the National Defense Authorization Act for Fiscal Year 2024 (FY2024 NDAA; P.L. 118-31), including provisions that:

- Established new responsibilities and requirements for executive branch management of U.S. participation in AUKUS;<sup>7</sup>

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<sup>1</sup> “Joint Leaders Statement on AUKUS,” The White House, March 13, 2023. Available at <https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/13/joint-leaders-statement-on-aukus-2/>.

<sup>2</sup> For more information on Pillar 1, see CRS Report RL32418, *Navy Virginia-Class Submarine Program and AUKUS Submarine Proposal: Background and Issues for Congress*, by Ronald O'Rourke.

<sup>3</sup> See, for instance, remarks made on June 16, 2023 by the British Secretary of State for Defence, available at <https://questions-statements.parliament.uk/written-questions/detail/2023-06-07/188182>.

<sup>4</sup> “Fact Sheet: Implementation of the Australia – United Kingdom – United States Partnership (AUKUS),” The White House, April 5, 2022, at <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>5</sup> AUKUS members have collaboratively tested robotic vehicles and sensors, for instance, as well as demonstrated new uncrewed undersea capabilities. For more information, refer to the “Pillar 2 Working Groups” section of this report.

<sup>6</sup> For more on the Congressional AUKUS Working Group (sometimes referred to as the “AUKUS Caucus”), see “AUKUS Working Group Issues Statement,” Rep. Joe Courtney Press Release, April 6, 2022 at <https://courtney.house.gov/media-center/press-releases/aukus-working-group-issues-statement-new-details-trilateral-defense>. For a recent example of AUKUS-related congressional activity, see “AUKUS Implementation and Challenges to International Security and Arms Control in the 21st Century,” House Foreign Affairs Committee, Hearing, February 14, 2024. Recording available online at <https://foreignaffairs.house.gov/hearing/aukus-implementation-and-challenges-to-international-security-and-arms-control-in-the-21st-century/>.

<sup>7</sup> Sections 1331, 1332, and 1333 of P.L. 118-31. See **Table A-1** in the **Appendix** to this report for more detail.

- Provided for the prioritization of Australia and the UK in the Foreign Military Sales (FMS) and Direct Commercial Sales (DCS) processes, as well as the pre-clearance of certain items for provision to Australia and the UK through FMS and DCS;<sup>8</sup>
- Provided for the potential exemption of Australia and the UK from arms export licensing/other approval requirements;<sup>9</sup>
- Authorized the sale of up to three *Virginia*-class submarines to Australia;<sup>10</sup> and
- Authorized the acceptance of financial contributions from the Australian government to support non-nuclear AUKUS submarine security activities.<sup>11</sup>

Congress has also provided funding for AUKUS-related activities, including FY2024 appropriations for Pillar 2-focused Research, Development, Test, and Evaluation (RDT&E) programs.<sup>12</sup> As of this writing, Congress is also considering legislation that would direct the executive branch to engage with the Japanese government regarding potential participation in Pillar 2 activities (S. 4279).<sup>13</sup>

## The Role of the Executive Branch

Given its broad scope, AUKUS has involved a wide array of stakeholders across the U.S. government. Within the executive branch, the National Security Council and a number of organizations within the Department of State (including the Bureau of Political-Military Affairs) and the Department of Defense (including the Office of the Secretary of Defense and the Department of Navy) have participated in the implementation of AUKUS activities.<sup>14</sup> As part of its AUKUS efforts, the executive branch has made a series of wide-ranging organizational and procedural changes intended to ensure the partnership's success, including establishing new offices and modifying the administration of export controls.<sup>15</sup> In reference to their broad sweep, the U.S. Deputy Secretary of State has characterized these as part of "a massive sea change."<sup>16</sup>

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<sup>8</sup> Sections 1341 and 1342 of P.L. 118-31. See **Table A-1** in the Appendix to this report for more detail.

<sup>9</sup> Sections 1343, 1344, and 1345 of P.L. 118-31. See **Table A-1** in the Appendix to this report for more detail.

<sup>10</sup> Section 1352 of P.L. 118-31.

<sup>11</sup> Section 1353 of P.L. 118-31.

<sup>12</sup> For more information, see discussion in the "Resourcing and Overseeing Pillar 2 Activities" subsection of this report's "Issues for Congress" section.

<sup>13</sup> Senators Mitt Romney (UT), Tim Kaine (VA), Bill Hagerty (TN), and Jim Risch (ID) introduced the Coordinating AUKUS Engagement with Australia Act in May 2024. For more information, see Senate Foreign Relations Committee, "Risch, Romney, Kaine, Hagerty Introduce Bill to Increase AUKUS Cooperation in the Indo-Pacific," May 8, 2024, at <https://www.foreign.senate.gov/press/rep/release/risch-romney-kaine-hagerty-introduce-bill-to-increase-aukus-cooperation-in-the-indo-pacific>. Refer also to discussion in this report's "Issues for Congress" section.

<sup>14</sup> For information on the various U.S. government organizations involved in AUKUS implementation, see Jack Detsch and Robbie Gramer, "Biden's AUKUS Point Man to Exit," *Foreign Policy*, March 10, 2023, at <https://foreignpolicy.com/2023/03/10/biden-aukus-miller-us-uk-australia-china-france/>, and "Rear Admiral Dave Goggins to support AUKUS Program," U.S. Navy, June 17, 2022, at <https://www.navy.mil/Press-Office/Press-Releases/display-pressreleases/Article/3066852/rear-admiral-dave-goggins-to-support-aukus-program/>.

<sup>15</sup> For example, the Department of the Navy established the "AUKUS Direct Reporting Program Office and Integration & Acquisition Office" to manage its Pillar 1 activities, and the Department of State created the "AUKUS Trade Authorization Mechanism" to facilitate AUKUS-related defense transfers. Naval Sea Systems Command, "Team Submarines," <https://www.navsea.navy.mil/home/team-subs/>; and Department of State, "The AUKUS Trade Authorization Mechanism," press release, July 10, 2023, <https://www.state.gov/ensuring-swift-and-secure-defense-trade-under-aukus>.

<sup>16</sup> Matthew Cranston, "US Needs to Step Up Assurances on AUKUS, Admits Kurt Campbell," *Australian Financial* (continued...)

## Alignment with National Strategies

The U.S., British, and Australian governments have each identified AUKUS as an important part of their respective national strategies. The Biden Administration's 2022 U.S. Indo-Pacific Strategy cites AUKUS efforts under its "Reinforce Deterrence" line of effort, characterizing the partnership as contributing to the defense of U.S. interests, deterrence of adversary aggression, and the promotion of regional security.<sup>17</sup> In addition, the 2024 U.S. National Defense Industrial Strategy states that AUKUS supports DOD's "economic deterrence" priority.<sup>18</sup> The United Kingdom's "Integrated Review Refresh 2023" asserts that the AUKUS partnership will "allow [the UK and its allies] collectively to balance against coercive behaviours and to preserve an open and stable international order."<sup>19</sup> AUKUS also features prominently in Australia's 2024 National Defence Strategy, which describes the partnership as "essential to building the Australian Defence Force's capacity to deliver impactful projection across the full spectrum of proportionate response."<sup>20</sup>

Formal DOD and executive branch statements concerning AUKUS have generally avoided focusing on particular threats or challenges, instead referring to more abstract interests and goals.<sup>21</sup> However, some analysts argue the pact responds to a perception among its members that the intentions and capabilities of the People's Republic of China (PRC) pose a significant and growing threat to Indo-Pacific security. This perspective has also been articulated by a number of U.S. policymakers, including some senior executive branch officials and Members of Congress. In April 2024, for instance, Deputy Secretary of State Kurt Campbell referred to the capabilities developed through AUKUS as creating "enormous implications in a variety of scenarios, including in cross-[Taiwan] strait circumstances," and in March 2023 House Foreign Affairs Committee (HFAC) Chairman Michael McCaul offered the following characterization of the partnership:

We are facing a generational challenge from the Chinese Communist Party. We must bring all tools to bear in our effort to counter Chairman Xi's attempts to disrupt the global balance of power. With AUKUS, our three nations can achieve the shared strategic goal of defending the Indo-Pacific region, while maintaining our technological and military superiority.<sup>22</sup>

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*Review*, March 20, 2024. Available online at <https://www.afr.com/world/north-america/us-needs-to-step-up-assurances-on-aukus-admits-kurt-campbell-20240320-p5fdr2>.

<sup>17</sup> "Indo-Pacific Strategy of the United States," The White House, February 2022, p. 15. Available at <https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.

<sup>18</sup> "National Defense Industrial Strategy," Department of Defense, January 2024, p. 45. Available at <https://www.businessdefense.gov/docs/ndis/2023-NDIS.pdf>.

<sup>19</sup> The 2023 "Integrated Review Refresh" is an update of the Integrated Review of Security, Defence, Development, and Foreign Policy issued in 2021. See "Integrated Review Refresh 2023," His Majesty's Government, March 13, 2023, p. 40, available at <https://www.gov.uk/government/publications/integrated-review-refresh-2023-responding-to-a-more-contested-and-volatile-world>.

<sup>20</sup> Australian Government, "National Defence Strategy," April 2024, p. 8, available at <https://www.defence.gov.au/about/strategic-planning/2024-national-defence-strategy-2024-integrated-investment-program>. AUKUS is also discussed in greater detail on pp. 42 (Pillar 1) and 65 (Pillar 2).

<sup>21</sup> See, for example, Secretary Austin's characterization of AUKUS as a partnership to "strengthen our combined military capabilities, boost our defense industrial capacity, enhance our ability to deter aggression, and promote our shared goal of a free and open Indo-Pacific." "Statement by Secretary of Defense on AUKUS Optimal Pathway Announcement," U.S. Department of Defense, March 13, 2023. Available at <https://www.defense.gov/News/Releases/Release/Article/3327747/statement-by-secretary-of-defense-lloyd-j-austin-iii-on-aukus-optimal-pathway-a/>.

<sup>22</sup> Richard Fontaine and Kurt Campbell, "AUKUS: Securing the Indo-Pacific, A Conversation with Kurt Campbell," (continued...)

This view—that AUKUS is part of a broader response to the perceived threat from the PRC—appears to be shared by the other AUKUS governments. During the AUKUS Optimal Pathway Announcement, for example, British Prime Minister Rishi Sunak explained the need for an increased focus on defense by citing a number of particular challenges, including “China’s growing assertiveness.”<sup>23</sup> In 2022, Australia’s then-Prime Minister Scott Morrison described AUKUS as a response to, in part, PRC “attempt[s] to reshape our region, and the world, in a way more conducive to autocracies than liberal democracies.”<sup>24</sup>

## Pillar 2 Activities

Given the diversity of technological and functional areas encompassed by AUKUS Pillar 2, each working group may conduct its activities in a different manner; additionally, the ongoing and potentially classified nature of many such activities may limit the amount of information available to the public.<sup>25</sup> To accomplish their goals, the AUKUS partners may engage in a number of activities that the U.S. DOD refers to as *international armaments cooperation*.<sup>26</sup> These may include:

- the exchange of controlled technical information;
- the exchange of military, civilian, and industry personnel;
- cooperative research, development, testing, and evaluation (RDT&E) activities;
- joint production and procurement; and
- other acquisition partnerships.<sup>27</sup>

In contrast to Pillar 1 activities, which may take decades to deliver results, some analysts and policymakers expect AUKUS Pillar 2 to produce more immediate capability improvements.<sup>28</sup> Senior DOD officials have also characterized Pillar 2 work as focusing on technologies that are

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Center for a New American Security, April 3, 2024, available at <https://www.cnas.org/publications/transcript/aukus-securing-the-indo-pacific-a-conversation-with-kurt-campbell>; and “McCaul Speaks on House Floor in Support of Deterring China Through AUKUS Bill,” HFAC Press Release, March 24, 2023, available at <https://foreignaffairs.house.gov/press-release/mccaul-speaks-on-house-floor-in-support-of-deterring-china-through-aukus-bill/>.

<sup>23</sup> “Transcript: Remarks By President Biden, Prime Minister Albanese, and Prime Minister Sunak on AUKUS,” U.S. Embassy in Canberra, March 14, 2023, at <https://au.usembassy.gov/transcript-remarks-by-president-biden-prime-minister-albanese-of-australia-and-prime-minister-sunak-of-the-united-kingdom-on-the-aukus-partnership/>.

<sup>24</sup> Tyrone Clarke, “Scott Morrison says AUKUS and Quad key to fight back against China’s ‘arc of autocracy’ after missing first week of parliament,” *Sky News Australia*, July 29, 2022, at <https://www.skynews.com.au/australia-news/politics/scott-morrison-says-aukus-and-quad-key-to-fight-back-against-chinas-arc-of-autocracy-after-missing-first-week-of-parliament/news-story/c798f6c004eaabc5e952118d69d73948>.

<sup>25</sup> A December 2023 DOD press release, for instance, claimed that “many AUKUS-related advanced capability activities remain classified.” Department of Defense, “AUKUS Defense Ministers Meeting Joint Statement,” press release, December 1, 2023, <https://www.defense.gov/News/Releases/Release/Article/3604511/aukus-defense-ministers-meeting-joint-statement/>. No classified or controlled information was used in the preparation of this report.

<sup>26</sup> For more on international armaments cooperation, see CRS In Focus IF12425, *Defense Primer: International Armaments Cooperation*.

<sup>27</sup> Some working groups may also employ other security cooperation mechanisms to transfer defense articles and services between the three countries, including foreign military sales.

<sup>28</sup> See, for instance remarks by former Deputy Under Secretary of Defense for Industrial Policy William Greenwalt in Joe Gould and Bryant Harris, “Big AUKUS news coming, but Hill and allies see tech sharing snags,” *Defense News*, March 7, 2023, at <https://www.defensenews.com/pentagon/2023/03/07/big-aukus-news-coming-but-hill-and-allies-see-tech-sharing-snags/>.



useful for all three countries and that have particular relevance to the security challenges of the Indo-Pacific.<sup>29</sup>

Beyond the topics covered by the working groups discussed below, there may be some additional areas in which Pillar 2 work is ongoing or planned. For instance, the AUKUS countries have announced they will “pursue opportunities in Long Range Fires under AUKUS Pillar II in 2024.”<sup>30</sup>

In addition, the U.S., British, and Australian governments have established a number of initiatives designed to support Pillar 2 efforts as a whole. These include the launch of the AUKUS Advanced Capabilities Industry Forum and the AUKUS Defense Investors Network, intended to facilitate coordination between and among defense suppliers, investors, and government organizations across all three nations.<sup>31</sup> The AUKUS governments have also announced the commencement of Pillar 2 “innovation challenges,” which “will identify opportunities to harness commercial technologies from all three nations to support advanced capability development under AUKUS.”<sup>32</sup>

## **Undersea Capabilities**

Undersea capabilities, in the context of AUKUS, refer to systems and technologies that operate underwater but are not manned submarines. To date, the U.S. Navy (USN) has engaged in a number of efforts in this area, including activities focused on the development, procurement, and operation of unmanned underwater vehicles (UUVs). UUVs may have applications for intelligence, surveillance, and reconnaissance (ISR), anti-submarine warfare, anti-surface warfare, minesweeping, and other mission sets.<sup>33</sup> The other AUKUS nations are also developing and fielding UUV capabilities.<sup>34</sup>

The United States, United Kingdom, and Australia have announced a number of Pillar 2 efforts relating to undersea capabilities. These include the “AUKUS Maritime Autonomy Experimentation and Exercise Series,” which the three governments have described as “a series of integrated trilateral experiments and exercises aimed at enhancing capability development, improving interoperability, and increasing the sophistication and scale of autonomous systems in the maritime domain.”<sup>35</sup> The AUKUS governments are also working on the ability to deploy and recover UUVs from manned submarines (sometimes referred to as “launch and recovery”), conducting activities to develop and improve “the ability to launch and recover undersea vehicles

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<sup>29</sup> Joseph Clark, “AUKUS Partners Focus on Indo-Pacific Security in Shaping Joint Capabilities,” *DOD News*, April 10, 2024. Available at <https://www.defense.gov/News/News-Stories/Article/Article/3737569/aukus-partners-focus-on-indo-pacific-security-in-shaping-joint-capabilities/>.

<sup>30</sup> “AUKUS Defense Ministers’ Joint Statement,” Department of Defense, April 8, 2024, available at <https://www.defense.gov/News/Releases/Release/Article/3733790/aukus-defense-ministers-joint-statement/>.

<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.*

<sup>33</sup> The USN currently manages programs for developing UUVs designated as small (0-45 feet in length), medium (45-190 feet in length), and large (200-300 feet in length) UUVs. See CRS Report R45757, *Navy Large Unmanned Surface and Undersea Vehicles: Background and Issues for Congress*, by Ronald O’Rourke.

<sup>34</sup> See, for example, “UK Royal Navy Acquires Latest Generation REMUS 100s,” HII Press Release, September 21, 2022 at <https://hii.com/news/united-kingdom-royal-navy-acquires-remus-100-unmanned-underwater-vehicle/>, and Patrick Tucker, “Australia Got a New Sub Drone Far Faster than the US Navy Could Have, Company Says,” *Defense One*, April 24, 2024, at <https://www.defenseone.com/technology/2024/04/australia-got-new-sub-drone-far-faster-us-navy-could-have-company-says/>.

<sup>35</sup> “AUKUS Defense Ministers Meeting Joint Statement,” press release, December 1, 2023, <https://www.defense.gov/News/Releases/Release/Article/3604511/aukus-defense-ministers-meeting-joint-statement/>.



from torpedo tubes on current classes of submarines to deliver effects such as strike and intelligence, surveillance, and reconnaissance.”<sup>36</sup> In November 2023, DOD announced that the AUKUS partners had participated in a joint exercise to demonstrate and improve capabilities relating to the protection of underwater infrastructure and the use of autonomous and semi-autonomous undersea systems.<sup>37</sup>

## Quantum Technologies

In the context of defense, quantum technologies are those that use the principles of quantum physics (e.g., superposition, quantum bits, and entanglement) to create, enhance, or support military capabilities.<sup>38</sup> Quantum technologies have a variety of potential applications, including the improvement of communication systems, sensor capabilities, and information processing and security.<sup>39</sup>

As part of the Quantum Technologies working group, the AUKUS nations have established the AUKUS Quantum Arrangement (AQuA), an initiative to coordinate U.S., British, and Australian RDT&E efforts concerning quantum technologies. Initial AQuA efforts were expected to focus on developing alternate solutions for position, navigation, and timing (similar to current Global Positioning System capability) through trials and experimentation through 2025.<sup>40</sup> Additionally, the AUKUS governments announced in December 2023 that they were “accelerating the development of quantum technologies for positioning, navigation, and timing in military capabilities,” with a particular focus on improving “resilience for our trilateral forces in Global Positioning System-degraded environments and... stealth in the undersea domain.”<sup>41</sup>

## Artificial Intelligence and Autonomy

Definitions of artificial intelligence (AI) and autonomy vary. One definition— codified at 15 U.S.C. §9401, and used across the U.S. government—states that:

The term "artificial intelligence" means a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. Artificial intelligence systems use machine and human-based inputs to-

- (A) perceive real and virtual environments;
- (B) abstract such perceptions into models through analysis in an automated manner; and
- (C) use model inference to formulate options for information or action.<sup>42</sup>

<sup>36</sup> Ibid.

<sup>37</sup> Department of Defense, “New Uncrewed Undersea Capabilities Strengthen AUKUS Partnership,” press release, November 13, 2023, <https://www.defense.gov/News/Releases/Release/Article/3586592/new-uncrewed-undersea-capabilities-strengthen-aukus-partnership/>.

<sup>38</sup> For more information on the defense applications of quantum technologies, see CRS In Focus IF11836, *Defense Primer: Quantum Technology*, by Kelley M. Sayler.

<sup>39</sup> Ibid.

<sup>40</sup> The White House, “AUKUS Fact Sheet,” April 5, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>41</sup> “AUKUS Defense Ministers Meeting Joint Statement,” press release, December 1, 2023, <https://www.defense.gov/News/Releases/Release/Article/3604511/aukus-defense-ministers-meeting-joint-statement/>.

<sup>42</sup> 15 U.S.C. §9401(3). This definition is also adopted by Executive Order 14110, “Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence,” 88 *Federal Register* 75191, November 1, 2023.

Within DOD, the Chief Digital and Artificial Intelligence Office (CDAO) is responsible for a number of AI and autonomy-related functions, including developing DOD strategy for data, analytics, and AI, creating enabling infrastructure and services, scaling certain “digital and AI-enabled solutions,” and deploying AI and related services for crisis response.<sup>43</sup> Other recent U.S. government AI efforts with defense implications include Executive Order 14110 of October 30, 2023 (“Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence”).<sup>44</sup>

The other AUKUS nations have been adopting similarly broad approaches to AI and autonomy: the United Kingdom Ministry of Defence (MOD) released a “Defence Artificial Intelligence Strategy” in June 2022, and the Australian government published “Australia’s AI Action Plan” in June 2021.<sup>45</sup>

According to the White House, the AUKUS Artificial Intelligence and Autonomy working group aims to “improv[e] the speed and precision of decision-making processes to maintain a capability edge and defend against AI-enabled threats.”<sup>46</sup> In December 2023, the AUKUS governments announced that they were “delivering artificial intelligence algorithms and machine learning to enhance force protection, precision targeting, and intelligence, surveillance, and reconnaissance” through an effort called Resilient and Autonomous Artificial Intelligence Technologies.<sup>47</sup> The announcement also stated that the U.S., British, and Australian militaries had “demonstrated and will deploy common advanced artificial intelligence (AI) algorithms on multiple systems, including P-8A Maritime Patrol Aircraft, to process data from each nation’s sonobuoys.”<sup>48</sup>

## Advanced Cyber

DOD’s cyber operations are diverse, consisting of military, intelligence, and business activities conducted in or through cyberspace—the information network encompassing the internet, other telecommunications connections, and computer systems.<sup>49</sup> Cyber capabilities have become an enduring focus for all three AUKUS nations, especially given the intensification of the threat environment in what DOD refers to as the “cyber domain.”<sup>50</sup> The unclassified summary of DOD’s 2023 Cyber Strategy identifies four lines of effort: 1) defend the nation; 2) prepare to fight and

<sup>43</sup> Department of Defense, “Chief Digital and Artificial Intelligence Office,” at <https://www.ai.mil/>. For additional information concerning DOD’s approach to AI, see Department of Defense, *2023 Data, Analytics, and Artificial Intelligence Adoption Strategy*, June 27, 2023, at [https://media.defense.gov/2023/nov/02/2003333300/-1/-1/1/dod\\_data\\_analytics\\_ai\\_adoption\\_strategy.pdf](https://media.defense.gov/2023/nov/02/2003333300/-1/-1/1/dod_data_analytics_ai_adoption_strategy.pdf).

<sup>44</sup> For more information, refer to CRS Report R47843, *Highlights of the 2023 Executive Order on Artificial Intelligence for Congress*, by Laurie Harris and Chris Jaikaran and CRS Insight IN12286, *The AI Executive Order and Its Potential Implications for DOD*, by Alexandra G. Neenan and Kelley M. Sayler.

<sup>45</sup> See “Defence Artificial Intelligence Strategy,” UK Ministry of Defence, June 15, 2022, at <https://www.gov.uk/government/publications/defence-artificial-intelligence-strategy>, and “Australia’s AI Action Plan,” Australian Government, June 2021, at <https://webarchive.nla.gov.au/awa/20220816053410/https://www.industry.gov.au/data-and-publications/australias-artificial-intelligence-action-plan>.

<sup>46</sup> See “AUKUS Fact Sheet,” The White House, April 5, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>47</sup> “AUKUS Defense Ministers Meeting Joint Statement,” press release, December 1, 2023, <https://www.defense.gov/News/Releases/Release/Article/3604511/aukus-defense-ministers-meeting-joint-statement/>.

<sup>48</sup> Ibid.

<sup>49</sup> For more information on cyber capabilities and operations, see CRS In Focus IF10537, *Defense Primer: Cyberspace Operations*, by Catherine A. Theohary.

<sup>50</sup> A November 2022 Government Accountability Office report found that DOD experienced over 12,000 cyber incidents since 2015. U.S. Government Accountability Office, *DOD Cybersecurity: Enhanced Attention Needed to Ensure Cyber Incidents Are Appropriately Reported and Shared*, GAO-23-105084, November 14, 2022, <https://www.gao.gov/products/gao-23-105084>.

win the nation's wars; 3) protect the cyber domain with allies and partners; and 4) build enduring advantages in cyberspace.<sup>51</sup>

The UK and Australia have also developed cybersecurity strategies: the British government released its *National Cyber Strategy 2022* in December 2022, and the Australian government released its *2023-2030 Australian Cyber Security Strategy* in November 2023.<sup>52</sup>

To date, work in the Advanced Cyber area appears to have focused on cybersecurity. According to a joint statement released by the AUKUS defense ministers in December 2023:

Trilaterally, AUKUS partners are engaging on cyber security with critical suppliers to the naval supply chain. We are collaborating with industry partners to deploy some advanced tooling which will uplift the cyber security of our supply chains, while also giving us greater insight into the threats to AUKUS. The AUKUS partners are also working to strengthen cyber capabilities, including protecting critical communication and operations' systems.<sup>53</sup>

Given the increasing centrality of networked communications to military operations, the scope of the Advanced Cyber working group may encompass many different platforms, systems, and functions.<sup>54</sup>

## Hypersonic and Counter-Hypersonic Capabilities

Hypersonic and counter-hypersonic capabilities refer to maneuverable weapons that fly at speeds of Mach 5 or greater, or systems intended to counter such weapons.<sup>55</sup> The speed and maneuverability of these missiles, coupled with their low flying altitude, make them more difficult to detect and neutralize than ballistic missiles.<sup>56</sup> The U.S. DOD currently manages a number of programs intended to develop conventionally armed hypersonic weapons and counter-hypersonic defensive capabilities.<sup>57</sup> The British and Australian governments also pursued the development of hypersonic capabilities prior to the establishment of the AUKUS pact,

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<sup>51</sup> Department of Defense, *Unclassified Summary of the 2023 Cyber Strategy*, September 2023, at [https://media.defense.gov/2023/Sep/12/2003299076/-1/-1/1/2023\\_DOD\\_Cyber\\_Strategy\\_Summary.pdf](https://media.defense.gov/2023/Sep/12/2003299076/-1/-1/1/2023_DOD_Cyber_Strategy_Summary.pdf).

<sup>52</sup> *National Cyber Strategy 2022*, UK Government, December 15, 2022, available at <https://www.gov.uk/government/publications/national-cyber-strategy-2022/national-cyber-security-strategy-2022>; and *2023-2030 Australian Cyber Security Strategy*, Australian Government, November 22, 2023, available at <https://www.homeaffairs.gov.au/about-us/our-portfolios/cyber-security/strategy/2023-2030-australian-cyber-security-strategy>.

<sup>53</sup> "AUKUS Defense Ministers Meeting Joint Statement," press release, December 1, 2023, <https://www.defense.gov/News/Releases/Release/Article/3604511/aukus-defense-ministers-meeting-joint-statement/>.

<sup>54</sup> See, for instance, Stew Magnuson, "AUKUS Agreement Poses Cybersecurity Risks to Allies," *National Defense*, September 29, 2022, <https://www.nationaldefensemagazine.org/articles/2022/9/29/aukus-agreement-poses-cybersecurity-risk-to-allies>.

<sup>55</sup> For more information on hypersonic weapons, see CRS Report R45811, *Hypersonic Weapons: Background and Issues for Congress*, by Kelley M. Saylor.

<sup>56</sup> Department of Defense, "Department of Defense Press Briefing on Hypersonics," press release, March 2, 2020, <https://www.defense.gov/News/Transcripts/Transcript/Article/2101062/departement-of-defense-press-briefing-on-hypersonics/>.

<sup>57</sup> These include the Navy's Conventional Prompt Strike program, the Air Force's Air-Launched Rapid Response Weapon, the Army's Long-Range Hypersonic Weapon, and DARPA's Tactical Boost Glide. See CRS Report R45811, *Hypersonic Weapons: Background and Issues for Congress*.

including—in the case of Australia—bilateral hypersonic-focused cooperation with the United States.<sup>58</sup>

In April 2022, the White House announced that the AUKUS partners would “work together to accelerate development of advanced hypersonic and counter-hypersonic capabilities” under AUKUS Pillar 2.<sup>59</sup> Few details about this working group are publicly available; however, some analysts have speculated that Australia’s missile testing infrastructure—including a newly opened “Hypersonic Research Precinct” in Brisbane, Australia—could feature significantly in initial projects.<sup>60</sup> Some media outlets have also reported that the UK may seek to buy “a strategic Hypersonic Glide Vehicle via AUKUS.”<sup>61</sup> Other reporting has suggested that Australia and the United States may increase the extent of their RDT&E collaboration on hypersonics and look to conduct more joint experimentation.<sup>62</sup>

## Electronic Warfare

Electronic warfare (EW) refers to activities that manipulate and control the electromagnetic spectrum (EMS)—a range of frequencies for electromagnetic energy—for military purposes. The U.S. DOD, UK MOD, and Australian DOD have each engaged in electronic warfare operations and programs since World War II, and a wide number of organizations in each nation’s defense establishment operate and develop electronic warfare capabilities.<sup>63</sup>

EW was added to the scope of AUKUS Pillar 2 in April 2022. According to the White House, this working group will aim to “share understanding of tools, techniques, and technology to enable our forces to operate in contested and degraded environments.”<sup>64</sup> Opportunities for the EW working group may include electronic protection, electronic attack, and electronic support (i.e., intelligence collection and analysis of the EMS that supports other EW operations), all of which strengthen the ability to operate in a contested EMS environment. These EW opportunities are particularly relevant given that all three AUKUS nations are to operate the U.S. Air Force E-7 Wedgetail, an airborne EW platform.<sup>65</sup>

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<sup>58</sup> Bilateral U.S.-Australia hypersonics efforts include the Southern Cross Integrated Flight Research Experiment (SCIFiRE) and Hypersonic International Flight Research Experimentation (HIFiRE) programs. See “Department of Defense Announces New Allied Prototyping Initiative Effort With Australia to Continue Partnership in Developing Air Breathing Hypersonic Vehicles,” DOD press release, November 30, 2020, at <https://www.defense.gov/News/Releases/Release/Article/2429061/department-of-defense-announces-new-allied-prototyping-initiative-effort-with-a/>.

<sup>59</sup> See “AUKUS Fact Sheet,” The White House, April 5, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>60</sup> See Mikayla Easley, “AUKUS Partners Aim to Catch China in Hypersonics Race,” *National Defense*, February 17, 2023, at <https://www.nationaldefensemagazine.org/articles/2023/2/17/aukus-partners-aim-to-catch-china-in-hypersonics-race>.

<sup>61</sup> Tony Osborne, “UK Plans £1 Billion Effort to Secure Hypersonic Weapon Capacity,” *Aviation Week*, July 27, 2023 at <https://aviationweek.com/defense-space/missile-defense-weapons/uk-plans-ps1-billion-effort-secure-hypersonic-weapon-capacity>.

<sup>62</sup> Courtney Albion, “US, Australia Eye Joint Hypersonics Experiments in 2024,” *C4ISRNET*, December 3, 2023, available at <https://www.c4isrnet.com/battlefield-tech/hypersonics/2023/12/03/us-australia-eye-joint-hypersonics-experiments-in-2024/>.

<sup>63</sup> For more information on electronic warfare, see CRS In Focus IF11118, *Defense Primer: Electronic Warfare*.

<sup>64</sup> See “AUKUS Fact Sheet,” The White House, April 5, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>65</sup> See “E-7A AEW&C,” Boeing, at <https://www.boeing.com/defense/e-7-airborne-early-warning-and-control/>.

## **Innovation**

As a functional area of defense collaboration, innovation is more difficult to define than the technological areas identified above. Broadly speaking, defense innovation refers to purposeful changes in the technologies, operations, processes, or organizations employed by governments for military purposes.<sup>66</sup>

According to the White House, the Innovation working group will seek to “accelerate our respective defense innovation enterprises and learn from one another, including ways to more rapidly integrate commercial technologies to solve warfighting needs.”<sup>67</sup> This may include increased collaboration between the U.S. DOD’s Defense Innovation Unit (DIU), Defense Advanced Research and Development Projects Agency (DARPA), and service RDT&E organizations, on the one hand, and analogous British and Australian organizations (e.g., the UK’s Defence Science and Technology Laboratories and Australia’s Defence Science and Technology Group), on the other.<sup>68</sup>

## **Information Sharing**

According to the White House, the Information Sharing working group will “will expand and accelerate sharing of sensitive information, including as a first priority enabling workstreams that underpin our work on agreed areas of advanced capabilities [i.e., the other working groups].” The AUKUS nations have a long history of sharing information on defense through a variety of fora such as the Five Eyes (FVEY) intelligence alliance.<sup>69</sup>

## **Issues for Congress**

Congress may consider options for modifying U.S. export controls and resourcing and overseeing AUKUS Pillar 2 activities. Particular issues include

- whether or not to modify U.S. arms export control laws, regulations, or policies;
- how much funding (if any) to appropriate specifically for Pillar 2 activities;
- how to assess Pillar 2 progress and measure outcomes;
- whether or not to modify the technological and functional scope of Pillar 2 working groups; and
- whether or not to expand participation in Pillar 2 activities beyond the current AUKUS members.

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<sup>66</sup> See P.M. Picucci et al., “Categorizing Defense Innovation,” Defense Acquisition University, March 9, 2021, at <https://www.dau.edu/library/defense-atl/blog/Categorizing-Defense-Innovation>.

<sup>67</sup> See “AUKUS Fact Sheet,” The White House, April 5, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/fact-sheet-implementation-of-the-australia-united-kingdom-united-states-partnership-aukus/>.

<sup>68</sup> For more information on British and Australian programs, see “MOD Innovation,” UK Government, at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/553429/MOD\\_SB\\_Innovation\\_Initiative\\_Brochure\\_v21\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/553429/MOD_SB_Innovation_Initiative_Brochure_v21_web.pdf), and “Defence Innovation,” Australian Government, at <https://www.dst.defence.gov.au/strategy/defence-science-and-technology-strategy-2030>.

<sup>69</sup> In addition to the three AUKUS nations, FVEY includes Canada and New Zealand. Some experts see FVEY as a model—or additional mechanism—for AUKUS information sharing.



## U.S. Export Controls

From the announcement of the AUKUS partnership, some analysts, policymakers, and Members of Congress have argued that the U.S. export control regime hampers effective technological and industrial cooperation between the United States, Australia, and the UK.<sup>70</sup> According to this view, the array of U.S. laws, regulations, and policies governing defense exports—particularly the provisions of the Arms Export Control Act (AECA; codified as 22 U.S.C. §2751 *et seq.*) and the International Traffic in Arms Regulations, or ITAR—may slow or even prevent legitimate transfers of equipment or information necessary to accomplish AUKUS objectives.<sup>71</sup> On the other hand, existing export controls may be necessary to protect sensitive U.S. technology and information from potential disclosure to adversaries or malicious actors. Because its aims, activities, and participants are more diffuse than those of Pillar 1, Pillar 2 may be more comprehensively affected by export controls and has tended to feature more centrally in public discourse surrounding this issue.<sup>72</sup>

As noted, the FY2024 NDAA included a number of provisions addressing AUKUS Pillar 2, including some that modified U.S. export controls (for a detailed list, see **Table A-1**). Key developments include:

- The creation of new responsibilities and requirements for executive branch management of U.S. participation in AUKUS;
- The prioritization of Australia and the UK in the FMS and DCS processes, as well as the pre-clearance of certain items for provision to Australia and the UK;
- The conditional exemption of Australia and the UK from arms export licensing/other approval requirements.

The conditional exemption of AUKUS members from U.S. arms export licensing/approval requirements depends on a Department of State determination that the defense export control regimes of Australia and the UK are “comparable” to that of the United States. Per the FY2024 NDAA, the deadline to make such a determination was April 19, 2024; however, the State Department was not able to make a positive determination by that date, and reportedly expects to make such a determination by August 17, 2024.<sup>73</sup> Some Members and other stakeholders have criticized this deferral: for example, Representative Michael McCaul—the Chairman of the House Foreign Affairs Committee—described the development as “very unfortunate,” and Senator Jim

<sup>70</sup> For examples that predate the enactment of the FY2024 NDAA, see Rachel Oswald, “Lawmakers Seek to Ease Defense Export Controls to UK, Australia,” *Roll Call*, May 23, 2023, available online at <https://rollcall.com/2023/05/23/lawmakers-seek-to-ease-defense-export-controls-to-uk-australia/>; and Rajiv Shah, “U.S. Export Rules Need Major Reform if AUKUS is to Succeed,” *Australian Strategic Policy Institute: The Strategist*, February 16, 2023, available online at <https://www.aspistrategist.org.au/us-export-rules-need-major-reform-if-aukus-is-to-succeed/>.

<sup>71</sup> The ITAR implements Section 38 of the Arms Export Control Act (22 U.S.C. §2778) and authorizes the President to control the export and import of defense articles and defense services. For more information, see CRS Report R46337, *Transfer of Defense Articles: U.S. Sale and Export of U.S.-Made Arms to Foreign Entities*, coordinated by Christina L. Arabia.

<sup>72</sup> For discussion of the export control considerations surrounding Pillar 1, see CRS Report RL32418, *Navy Virginia-Class Submarine Program and AUKUS Submarine Proposal: Background and Issues for Congress*, by Ronald O'Rourke.

<sup>73</sup> Lewis Jackson, “U.S. Confident About Meeting New Deadline for UK, Australia AUKUS Exemptions,” *Reuters*, April 23, 2024, available online at <https://www.reuters.com/world/us-confident-about-meeting-new-deadline-uk-australia-aukus-exemptions-2024-04-23/>. For more information on this requirement, refer to the entry for Section 1345 of the FY2024 NDAA in **Table A-1**.

Risch—the Ranking Member of the Senate Foreign Relations Committee—stated that the decision was “deeply misguided and further delays the implementation of AUKUS.”<sup>74</sup>

On May 1, 2024, the State Department published in the *Federal Register* a proposed rule that would amend the ITAR to:

include an exemption to the requirement to obtain a license or other approval from the State Department's Directorate of Defense Trade Controls (DDTC) prior to any export, reexport, retransfer, or temporary import of defense articles; the performance of defense services; or engagement in brokering activities between or among authorized users within Australia, the United Kingdom, and the United States.<sup>75</sup>

According to one State Department official, this rule change “exempts the vast majority of currently licensed defense trade between the United States, the U.K. and Australia.”<sup>76</sup>

Congress may consider whether to make further changes to the policies, procedures, regulations, or statutes associated with U.S. export controls.

## Resourcing and Oversight

### Funding for Pillar 2 Activities

The FY2024 President's budget request included \$25 million in DOD Defense-wide Research, Development, Test, and Evaluation (RDT&E) appropriations for “AUKUS Innovation Initiatives,” and the Further Consolidated Appropriations Act, 2024 (P.L. 118-47) provided \$12.5 million for this program.<sup>77</sup> P.L. 118-47 also provided a \$14.7 million program increase for “AUKUS and coalition warfare” under the Defense Innovation Unit Fielding program.<sup>78</sup>

The FY2025 President's budget request includes approximately \$79.8 million in Defense-wide Research, Development, Test, and Evaluation (RDT&E) appropriations for AUKUS under the “International Innovation Initiatives” program.<sup>79</sup> According to DOD, this funding would support two Pillar 2-related efforts:

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<sup>74</sup> Rep. Michael McCaul, “McCaul Statement on Admin Failure to Grant U.K., Australia Critical ITAR Exemption,” April 19, 2024, at <https://foreignaffairs.house.gov/press-release/mccaul-statement-on-admin-failure-to-grant-u-k-australia-itar-exemption/>; and Sen. Jim Risch, “Risch on Administration's Failure to Certify UK, Australia for ITAR Exemptions,” April 22, 2024, at <https://www.foreign.senate.gov/press/rep/release/risch-on-administrations-failure-to-certify-uk-australia-for-itar-exemptions>. For more media coverage of responses to the State Department's decision, see Colin Clark and Tim Martin, “Is State Dept.'s AUKUS trade certification delay a sign of choppy waters ahead?” *Breaking Defense*, April 30, 2024, at <https://breakingdefense.com/2024/04/is-state-dept-s-aukus-trade-certification-delay-a-sign-of-choppy-waters-ahead/>.

<sup>75</sup> Department of State, “International Traffic in Arms Regulations: Exemption for Defense Trade and Cooperation Among Australia, the United Kingdom, and the United States,” 89 *Federal Register* 35028, May 1, 2024.

<sup>76</sup> Joe Gould, “G'day, AUKUS Tech-sharing Regs,” *Politico Pro Morning Defense*, newsletter, May 1, 2024.

<sup>77</sup> According to DOD, the AUKUS Innovation Initiative project “provides funding to pursue operationally relevant advanced capability co-development, support integration of multi-national capabilities to act as a force multiplier, and test and evaluate promising solutions found across the AUKUS innovation ecosystem,” and supports AI, UUV, and cyber efforts. Department of Defense, *Department of Defense Fiscal Year (FY) 2024 Budget Estimates—Justification Book Volume 3 of 5 Research, Development, Test & Evaluation, Defense-Wide*, March 2023, p. 466, available at [https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2024/budget\\_justification/pdfs/03\\_RDT\\_and\\_E/OSD\\_PB2024.pdf](https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2024/budget_justification/pdfs/03_RDT_and_E/OSD_PB2024.pdf). Submission by Rep. Kay Granger, “Further Consolidated Appropriations Act, 2024,” Explanatory Statement, *Congressional Record*, daily edition, vol. 170, part 51 (March 22, 2024), p. H1703.

<sup>78</sup> *Ibid.*, p. H1712.

<sup>79</sup> This program has the same program element—PE 0603945D8Z—as that used to designate the “AUKUS Innovation (continued...)”



- The development of “a multi-classification level collaborative computing environment to support efforts under the AUKUS Advanced Capabilities Pillar” (\$10 million); and
- The “solicitation, evaluation, merit-based selection, and execution of new projects to get cutting-edge technological capabilities into the hands of the warfighters,” with planned FY2025 work relating to AI, maritime hypersonic tracking and targeting, and air-launched hypersonic cruise missiles (\$69.8 million).<sup>80</sup>

In addition to AUKUS-specific appropriations, other parts of DOD’s budget may fund U.S. participation in AUKUS Pillar 2 activities. For example, activities conducted under the hypersonic and counter-hypersonic capabilities working group could involve a number of hypersonic-related DOD accounts and program offices that may not be specifically identified in budget documents or elsewhere as AUKUS-related.

Congress may consider whether to make appropriations for Pillar 2 activities, as well as the extent to which its AUKUS priorities may require adjustments to funding levels, both for AUKUS-specific programs and DOD’s broader budget.

### Assessing Progress and Measuring Outcomes

Congress may consider ways to assess the progress of AUKUS Pillar 2 activities and to measure their outcomes against strategic and operational objectives. For example, Congress may create or modify reporting requirements for DOD and DOS that address Pillar 2-specific progress and outcomes.<sup>81</sup> Depending on the alignment of existing executive branch guidance with congressional priorities, Congress may also consider whether to direct DOD, DOS, or other relevant executive organizations to modify processes or programs to better accomplish Pillar 2 objectives.

### Modifying Technological and Functional Coverage

As AUKUS activities continue, Congress may consider whether additional technological or functional areas should be included under Pillar 2, particularly through the creation of new working groups or the assignment of new topics to existing ones (as an example, some analysts have suggested the inclusion of critical minerals as an area for Pillar 2 activities and investments).<sup>82</sup> Congress may also assess whether any of the currently identified technological or functional working groups are underperforming or conducting activities that are superfluous to U.S. defense requirements, which may suggest a need to narrow existing scopes. The importance of such assessments may grow as the amount of U.S. resources devoted to Pillar 2 activities increases.

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Initiatives” program in the FY2024 budget request. Department of Defense, *Department of Defense Fiscal Year (FY) 2025 Budget Estimates—Justification Book Volume 3 of 5 Research, Development, Test & Evaluation, Defense-Wide*, March 2024, pp. 391-395, available at [https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2025/budget\\_justification/pdfs/03\\_RDT\\_and\\_E/RDTE\\_OSD\\_PB\\_2025.pdf](https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2025/budget_justification/pdfs/03_RDT_and_E/RDTE_OSD_PB_2025.pdf).

<sup>80</sup> Ibid.

<sup>81</sup> Congress included a number of Pillar 2-related reporting requirements in the FY2024 NDAA (P.L. 118-31); for details, see **Table A-1** in the **Appendix** to this report.

<sup>82</sup> John Coyne, “AUKUS Needs to Focus on Critical Minerals,” Australian Strategy Policy Institute, June 22, 2023, available at <https://www.aspistrategist.org.au/aukus-needs-to-focus-on-critical-minerals/>.

## Including Additional Countries

Congress may also consider whether to direct DOD and DOS to expand AUKUS Pillar 2 to include additional countries.

In determining whether this would be in the national interest, Congress may weigh the potential benefits against the potential drawbacks. Supporters of expanding AUKUS have argued that it would strengthen the U.S. position in the Indo-Pacific—especially *vis-à-vis* China—by making additional military, technological, and industrial capabilities available, as well as by strengthening relationships with other regional powers.<sup>83</sup> On the other hand, some have claimed that additional members would increase the risk that sensitive U.S. technology or information could fall into adversary hands.<sup>84</sup> Others have criticized potential AUKUS expansion as escalatory, suggesting that it could undermine regional stability and provoke a PRC response.<sup>85</sup>

Several potential additions to Pillar 2 are discussed in brief below.

### *Japan*

In April 2024, the AUKUS governments stated that because of “Japan's strengths and its close bilateral defense partnerships with all three countries, we are considering cooperation with Japan on AUKUS Pillar 2 advanced capability projects.”<sup>86</sup> On May 8, 2024, Senators Mitt Romney (UT), Tim Kaine (VA), Bill Hagerty (TN), and Jim Risch (ID) introduced the Coordinating AUKUS Engagement with Australia Act (S. 4279), which would direct DOD and DOS to directly engage with “the relevant stakeholders in the government of Japan” to understand and identify Japan’s potential to contribute to Pillar 2 activities. This bill would also require DOD and DOS to provide Congress with an assessment and recommendation concerning Japan’s participation in Pillar 2.<sup>87</sup>

### *South Korea*

In May 2024, South Korea’s Defense Minister stated that he had discussed “the possibility of partnering with AUKUS Pillar 2” with his Australian counterparts at the Australia-Republic of Korea ‘2+2’ Foreign and Defense Ministers’ Meeting.<sup>88</sup>

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<sup>83</sup> See, for example, Ashok Sharma, “The AUKUS Expansion: A Step Towards Bolstering Security and Stability in the Indo-Pacific,” Australian Institute of International Affairs, May 2, 2024, at <https://www.internationalaffairs.org.au/australianoutlook/the-aukus-expansion-a-step-towards-bolstering-security-and-stability-in-the-indo-pacific/>.

<sup>84</sup> See, for example, William C. Greenwalt, “Japan in AUKUS? Why That’s Premature,” American Enterprise Institute, April 24, 2024, at <https://www.aei.org/foreign-and-defense-policy/japan-in-aukus-why-thats-premature/>.

<sup>85</sup> See, for example, Mike M. Mochizuki and Michael D. Swaine, “A Dangerous Game is Underway in Asia,” *The New York Times*, April 24, 2024, at <https://www.nytimes.com/2024/04/24/opinion/china-asia-us-relations.html>. See also Maria Siow, “AUKUS Expansion: Japan, South Korea Want In On Pillar 2 – But Trust Is Still a Sticking Point,” *South China Morning Post*, May 11, 2024, at <https://www.scmp.com/week-asia/politics/article/3262267/aukus-expansion-japan-south-korea-want-pillar-2-trust-still-sticking-point>.

<sup>86</sup> “AUKUS Defense Ministers’ Joint Statement,” Department of Defense, April 8, 2024, available at <https://www.defense.gov/News/Releases/Release/Article/3733790/aukus-defense-ministers-joint-statement/>.

<sup>87</sup> Senate Foreign Relations Committee, “Risch, Romney, Kaine, Hagerty Introduce Bill to Increase AUKUS Cooperation in the Indo-Pacific,” May 8, 2024, at <https://www.foreign.senate.gov/press/rep/release/risch-romney-kaine-hagerty-introduce-bill-to-increase-aukus-cooperation-in-the-indo-pacific>.

<sup>88</sup> Australian Government, “Press Conference-Melbourne,” May 1, 2024, at <https://www.minister.defence.gov.au/transcripts/2024-05-01/press-conference-melbourne>.

## *New Zealand*

Some media reports have suggested that New Zealand may be invited to join AUKUS Pillar 2; as of this writing, no public invitation had been extended, but the New Zealand Ministry of Defence has confirmed receiving informational briefings on Pillar 2 activities.<sup>89</sup> In remarks on the topic delivered on May 1, 2024, New Zealand's Foreign Minister said that his government was "a long way from being able to make such a decision."<sup>90</sup>

## *Canada*

In April 2024, Canada's Prime Minister stated that he had held "excellent conversations" on cooperation with AUKUS, and several media reports have suggested that Canada is seeking to join Pillar 2.<sup>91</sup>

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<sup>89</sup> Tim Fish, "New Zealand in AUKUS 'No Guarantee,' But Discussions Active," *Breaking Defense*, March 18, 2024, available at <https://breakingdefense.com/2024/03/new-zealand-in-aukus-no-guarantee-but-discussions-active-defence-minister/>; and New Zealand Ministry of Defence, "AUKUS Pillar II Briefing Takes Place in Wellington," February 28, 2024, at <https://www.defence.govt.nz/the-latest/story/aukus-pillar-ii-briefing-takes-place-in-wellington>. New Zealand is also a Major Non-NATO Ally of the United States, as well as a member of the Five Eyes intelligence-sharing pact.

<sup>90</sup> Tracy Withers, "New Zealand a Long Way from Deciding to Join AUKUS, Peters Says," *Bloomberg*, May 1, 2024, at <https://www.bloomberg.com/news/articles/2024-05-01/new-zealand-a-long-way-from-deciding-to-join-aukus-peters-says>.

<sup>91</sup> Andrew Tillett and Matthew Cranston, "First Japan, now Canada wants in on AUKUS," *Australian Financial Review*, April 9, 2024, at <https://www.afr.com/politics/federal/first-japan-now-canada-wants-in-on-aukus-20240409-p5fifr>. See also Tony Diver, "Canada Could Join AUKUS Defence Pact," *The Telegraph*, April 8, 2024, at <https://www.telegraph.co.uk/world-news/2024/04/08/canada-justin-trudeau/>.

## Appendix. Relevant NDAA Provisions

**Table A-1. Selected Pillar 2 Provisions in the FY2024 NDAA**

Section	Description
1331 (AUKUS partnership oversight and accountability framework)	<p>Requires the Secretary of State to:</p> <ul style="list-style-type: none"> <li>• appoint a senior advisor to oversee and coordinate the implementation of the AUKUS partnership;</li> <li>• establish a task force, led by the senior advisor, that will: 1) ensure the maintenance of a list of all defense-related transactions that have occurred under AUKUS, 2) establish a framework to monitor companies, individuals, or entities “that are compromising security of military technology, defense articles, and defense services” exchanged under AUKUS, and 3) establish an AUKUS industry forum;</li> <li>• provide a report to the appropriate congressional committees on the work of the senior advisor and task force, the average and median review times for Australian and British FMS-related applications, the volume of Australian and British export license applications denied or approved with provisos, and the number of voluntary disclosures resulting in a violation of the ITAR by Australian or British entities;<sup>a</sup> and</li> <li>• provide an annual report to the appropriate congressional committees on general issues, disclosure policy, and AECA Section 38 violations associated with AUKUS.</li> </ul>
1332 (Designation of senior official for DOD AUKUS activities)	<p>Requires the Secretary of Defense to:</p> <ul style="list-style-type: none"> <li>• designate a senior civilian official to oversee DOD activities relating to AUKUS;</li> <li>• submit to the appropriate congressional committees a report containing an implementation plan for DOD AUKUS efforts (including timelines, major milestones, dependencies, industrial base implications, resourcing and personnel requirements, proposals to improve information sharing, processes for protecting intellectual property, and recommended updates to Title 10 authorities); and</li> <li>• provide the congressional defense and foreign affairs committees semiannual briefings on DOD activities to implement AUKUS.</li> </ul>
1333 (AUKUS reporting requirements)	<p>Requires:</p> <ul style="list-style-type: none"> <li>• the President to submit to the appropriate congressional committees the text of any “non-binding instrument” related to AUKUS within 30 days of signature or conclusion;<sup>b</sup></li> <li>• the Secretary of State, in coordination with the Secretary of Defense, to submit biennial reports to the appropriate congressional committees on the AUKUS partnership (to include capability and capacity gaps addressed by AUKUS, an explanation of the total Pillar 1 cost to the United States, an explanation of how access to the Australian industrial base supports U.S. strategy in Asia, an explanation of the benefits provided by access to Australian naval bases, and progress made on implementing Pillar 1 and Pillar 2).</li> </ul>

Section	Description
I341 (Priority for Australia and the UK in FMS and DCS)	Requires: <ul style="list-style-type: none"> <li>the President to establish policies and procedures to expedite consideration and processing of Australian and British requests for defense articles and services under section 21 of the AECA (22 U.S.C. 2761) relative to all other requests, excepting only Taiwanese or Ukrainian requests;</li> <li>the Secretary of State, in consultation with the Secretary of Defense, to create an “anticipatory release policy” for the transfer of certain Pillar 1 and Pillar 2 technologies;<sup>c</sup></li> <li>the Secretary of State and the Secretary of Defense to jointly review and update relevant policies and implementation guidance related to FMS and DCS.</li> </ul>
I342 (Identification and Pre-Clearance of Items for Sale)	Requires the President to submit to the House Foreign Affairs Committee and Senate Foreign Relations Committee, on a biennial basis, a report that lists military platforms, technologies, and equipment that are pre-cleared and prioritized for sale and release to Australia, the United Kingdom, and Canada.
I343 (Export Control Exemptions and Standards)	Amends Section 38 of the AECA (22 U.S.C. 2778) to add a requirement that, not later than 120 days after the enactment of P.L. 118-31, the President determine whether Australia and the United Kingdom have implemented a system of export controls and exemptions comparable to those of the United States. If the President is able to make such a determination, he/she shall “immediately exempt from the licensing or other approval requirements of this section exports and transfers (including reexports, transfers, temporary imports, and brokering activities) of defense articles and defense services between the United States and that country or among the United States, the United Kingdom, and Australia.” In the event the President is unable to make a determination, he/she must reassess whether the country in question has met the requirements at least once every 120 days.
I344 (Expedited Review of Export Licenses)	Requires the Secretary of State, in coordination with the Secretary of Defense, to initiate a rulemaking to establish an expedited decision-making process for applications to export to Australia, the UK, and Canada commercial, advanced-technology defense articles and services not covered by an ITAR exemption.
I345 (U.S. Munitions List)	Amends Section 38(f)(3) of the AECA (22 U.S.C. 2778(f)) by <ul style="list-style-type: none"> <li>inserting “, the United Kingdom, or Australia,” after “Canada;” and</li> <li>adding a note requiring the Secretary of State to, at least once every three years, review items on the U.S. Munitions List.</li> </ul>

**Source:** CRS analysis of P.L. 118-31.

**Notes:** Provisions that exclusively or primarily relate to Pillar 1 have been excluded from this table.

- The “appropriate congressional committees” are defined by Sec. 1331 as the House Committees on Foreign Affairs and Appropriations and the Senate Committees on Foreign Relations and Appropriations.
- The text of a “non-binding instrument” is defined by Sec. 1333 to include “ any annex, appendix, codicil, side agreement, side letter, or any document of similar purpose or function to the aforementioned, regardless of the title of the document, that is entered into contemporaneously and in conjunction with the non-binding instrument; and any implementing agreement or arrangement, or any document of similar purpose or function to the aforementioned, regardless of the title of the document, that is entered into contemporaneously and in conjunction with the non-binding instrument.”
- Covered Pillar 1 technologies include submarine and submarine combat systems technologies; covered Pillar 2 technologies include hypersonic missiles, cyber capabilities, artificial intelligence, quantum technologies, undersea capabilities, and other advanced technologies.

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## **Acknowledgments**

Lt Col Patrick Parrish, USAF, coauthored the initial version of this report.

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