America's AI Push in the Big Beautiful Bill
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Artificial Intelligence (AI) is one of the hottest buzzwords around the globe and its influence has no bounds. This popularity has not escaped governance, especially given that regulations for AI are still emerging slowly as the technology itself accelerates in development. The "Big Beautiful Bill" of 2025 is one of the most consequential budgets for the United States introduced to date, estimated to increase the primary deficit by $2.4 trillion over the 2025-2034 period according to the Congressional Budget Office[1]. Given the importance of this bill, it's only right to break down what this bill means for AI in the United States. To avoid getting drowned in jargon, this article examines explicit mentions of "Artificial Intelligence" and "Autonomous" which is defined in the bill as "a system designed to apply artificial intelligence to accurately detect, identify, classify, and track items of interest in real time such that the system can make operational adjustments without the active engagement of personnel or continuous human command or control"[2].

Methodology & Scope:

Bill text: H.R. 1 — One Big Beautiful Bill Act (enacted July 4, 2025).
Search terms: "Artificial Intelligence", "Autonomous"; "machine learning" counted only when co-occurring.
Scope: Explicit mentions only; examples labeled as inference; totals reflect only explicit AI/autonomous line items.

Test Resource Management Center

The Test Resource Management Center (TRMC) is a Department of Defense (DoD) field activity that plans, funds, and integrates the Department's test & evaluation infrastructure to test new systems. This organization is important for modernizing the testing capabilities of the DoD. The TRMC has always had its eyes on AI, specifically the use of artificial intelligence and machine learning technologies to enhance post-mission analysis activities, which was a "High Level Recommendation" back in January 2024[3]. However, the TRMC has not always prioritized internal development. Since 2018, the DoD has actively encouraged "engaging with the open-source community" and identified it as an "ecosystem for advancing new AI technologies that can transform defense," and this sentiment was echoed by the TRMC[4].

With the $124 million for improvements to TRMC artificial intelligence capabilities [B1] and $250 million for the development of the TRMC digital test environment [B2], it is likely that this money will be for companies throughout the country through contracts and OTAs (deals the DoD can use to try out new tech from companies with simpler rules). The TRMC has a record of awarding contracts for AI to support their requirements, so it makes sense that this trend would continue with further integration of AI within the TRMC[5,6].

The TRMC will also have an important role with testing AI robots, with $174 million allocated to construct a "robotic autonomous systems proving ground" [B3], which is where the systems will be extensively tested to ensure their effectiveness and safety. The TRMC will be crucial to the development of AI for defense purposes, from using it to enhance their functionality to providing testing resources for the DoD.

New Weaponry

Given that the TRMC is getting more money and technology to work with, what kind of autonomous and AI-powered weaponry could they be testing? Throughout the bill, there are a few explicit mentions of

autonomous and AI weaponry for use. This section will refer specifically to munitions and weaponry and not "autonomous systems".

There is $200 million for the development of autonomous underwater munitions [B4]. These munitions might refer to sea-mines similar to the Hammerhead Encapsulated Effector, which detects passing submarines and launches its torpedo[7]. There is $145 million for the development of artificial intelligence to enable one-way attack unmanned aerial systems and naval systems [B5]. It is important to note the use of "one-way attack," which means it attacks the target and destroys itself on impact[8].

Artificial Intelligence Ecosystem of the DoD and Cyber Command

Other mentions of AI with respect to the DoD are a little more vague, with $250 million for the "advancement of the artificial intelligence ecosystem" [B6]. There is $250 million for the expansion of Cyber Command artificial intelligence lines of effort [B7], which will likely be available as opportunities for defense companies. The Cyber Command already has an AI roadmap published for integrating AI within its operations, more specifically, "to incorporate AI into all aspects of our operations to better address cyber threats"[9]. Like the TRMC's allocations, this will also likely be dispersed in contracts and OTAs.

DoD Financial Auditing

There has been $200 million allocated for the deployment of automation and artificial intelligence to accelerate the audits of the financial statements of the DoD [B8]. The Government Accountability Office has already published benefits on incorporating AI[10], and it's likely the DoD will try to replicate the increased efficiency and improve data collection, among other positives. The $200 million may seem excessive at first, but given that in an audit for the Financial Year 2024, there was $4.1 trillion in assets and $4.3 trillion in liabilities[11], the allocation doesn't seem excessive in comparison. However, it is notable that in this bill, no other department was given an allocation explicitly for using AI for financial audits.

Border Security: Land and Coasts

Continuing with the theme of defense, as expected within the U.S Customs and Border Protection budget, there is a direct mention of applying an "autonomous system," which the bill defines as a system designed to apply artificial intelligence. There is an overall allocation of $6.168 billion as a whole to U.S Customs and Border Protection for their entire budget [B9]. It is likely that a portion of these funds will go to AI-based solutions in keeping America's border secure, such as a specific mention of its application as a nonintrusive inspection equipment. The Coast Guard has also been given significant amounts to incorporate artificial intelligence, with $75 million provided to "contract the services of, acquire, or procure autonomous maritime systems." [B10], ensuring America's borders on both land and sea are accounted for and powered by AI. This is also another major opportunity for defense companies, especially given that the Coast Guard can "contract services" as per the bill text.

New Technologies and Engineering Applications

With $450 million for the application of AI to naval shipbuilding [B11], AI technology looks to not only power and test our defenses but to make the process more efficient and potentially cheaper as well, removing manual work that slows deployment. There is also a major allocation for the development of autonomous systems themselves, with $188.36 million for the development of maritime robotic autonomous systems [B12]. There have already been huge strides in maritime autonomous systems. An example is the NOMARS (No Manning Required Ship) program, producing the USX-1 Defiant - an autonomous vessel designed to operate at sea for up to a year without crew[12]. It is likely that technology similar to this will be funded, and with increased efficiency powered by AI, more of these systems could come sooner than later.

Nuclear Science and Security

For the Department of Energy, there is an allocation of $115 million for "accelerating nuclear national security missions through artificial intelligence." [B13] through the National Nuclear Security Administration (NNSA), which is a semi-autonomous agency within the department, meaning they have their own leadership and operational control. They are also responsible for delivering the warheads to the DoD, making the NNSA an important part of the DoE and important to the DoD. In terms of how this money would be used, the NNSA stated that one of its strategies was to use AI to increase the rate of new capability development[13]. The NNSA already uses AI surrogate models to speed nuclear-weapon simulations and enable faster analysis, among other uses, and this money will be used to accelerate and enhance these efforts.

There is an additional $150 million allocated for funding for "Transformational Artificial Intelligence Models" [B14], which will likely be used to support the department's push into the field of AI, which is already being used for simulations, experiment control and design, robotics, and hypothesis generation[12]. This money will likely be available to labs and industry, a group the bill refers to as the "American Science Cloud," which is a system of United States government, academic, and private sector programs and infrastructures. The DoE relies heavily on this cloud, and that status quo is unlikely to change.

Rural Health Program

Apart from the defense sector, AI has funds allocated for states through the rural health transformation program for solutions that implement artificial intelligence [B15], a potential application of which is predicting preeclampsia, a serious pregnancy complication[15]. This will guarantee funding from 2026 to 2030, with annual reports from states subject to scrutiny by the Centers for Medicare & Medicaid Services to continue funding. There is a caveat for this, as states must submit a plan by December 31st, 2025, to guarantee any chance at funding for the funding cycle but this applies to the Rural funding plan as a whole and not just technology based solutions. This is an important step in allowing AI to further proliferate America's healthcare system and extends to rural care as well, a potential high-impact area.

While there are mentions of AI that may get naval engineering and healthcare corporations excited, it does not compare to the appetite of the defense sector, Overall the DoD's budget is huge for AI companies specializing in defense, with most of this money up for grabs over the next 4 years and given the defense sector is likely to be incredibly competitive for these opportunities. There is also a major opportunity for financial auditing organizations that use AI, as the DoD's auditing could introduce a pathway for auditing in all departments in the government. The massive allocations for AI, create a powerful and attractive atmosphere for AI companies, as with this budget, they know the potential money there is to be made, and that's just from the explicit mention of the words "Artificial Intelligence".

References

Reference ID	Article Section	Bill Section
B1	Test Resource Management Center	Sec. 20005(a)(21)

B2	Test Resource Management Center	Sec. 20005(a)(23)
B3	Test Resource Management Center	Sec. 20002(34)
B4	New Weaponry	Sec. 20004(a)(21)
B5	New Weaponry	Sec. 20005(a)(22)
B6	Artificial Intelligence Ecosystem of the DoD and Cyber Command	Sec. 20005(a)(24)
B7	Artificial Intelligence Ecosystem of the DoD and Cyber Command	Sec. 20005(a)(25)
B8	DoD Financial Auditing	Sec. 20006(2)
B9	Border Security: Land and Coasts	Sec. 90004(a)(1)
B10	Border Security: Land and Coasts	Sec. 40001(a)(13)
B11	New Technologies and Engineering Applications	Sec. 20002(9)
B12	New Technologies and Engineering Applications	Sec. 20002(33)
B13	Nuclear Science and Security	Sec. 20008(b)(9)
B14	Nuclear Science and Security	Sec. 50404
B15	Rural Health Program	Sec. 71401(6)(D)

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