

Artificial Intelligence Rapid Capabilities Cell



On December 11th, the Chief Digital and Artificial Intelligence Office (CDAO) launched the Artificial Intelligence Rapid Capabilities Cell (AI RCC), charged with accelerating the adoption and delivery of frontier and advanced AI capabilities for the Department of Defense (DoD). Through targeted initiatives aimed at putting advanced AI in the hands of warfighters, the AI RCC will allow the Department to move at speed to capitalize on emerging technologies, like Generative AI (GenAI), while building the foundational technical enablers to scale these technologies across DoD.

The AI RCC will be managed by the CDAO and executed in partnership with the Defense Innovation Unit (DIU). The AI RCC is leveraging the findings from [Task Force Lima \(TFL\)](#) to accelerate and scale the deployment of cutting-edge AI-enabled tools across 15 use cases for Generative AI covering warfighting and enterprise management.

- **Warfighting:** Command and Control (C2) and decision support, operational planning, logistics, weapons development and testing, uncrewed and autonomous systems, intelligence activities, information operations, and cyber operations
- **Enterprise management:** financial systems, human resources, enterprise logistics and supply chain, health care information management, legal analysis and compliance, procurement processes, and software development and cyber security

Through the AI RCC, CDAO and DIU will leverage \$100M in FY 2024 and FY 2025 to develop GenAI-focused pilots, a sandbox for pilot development, and user-centric experimentation through the following investments.

Building an AI-Ready Technology Stack

\$35M in Frontier AI Pilots

There is a need to accelerate Generative AI adoption across the DoD enterprise from analysts to warfighters to financial managers. These applications can improve DoD's effectiveness and efficiency. This funding will support four pilot efforts—two focused on warfighting use cases and two focused on enterprise management—to demonstrate the impact of Generative AI in the defense space. CDAO will partner with Combatant Commands and other DoD stakeholders to conduct the pilots in 90-day experiments and increments. This initiative is the first major effort deploying frontier AI models to support warfighter needs in real time.

\$20M in Compute and a "Sandbox" for AI Development, Experimentation, and Testing

To enable enterprise-wide efforts to identify frontier AI-enabled use cases, we are establishing digital "sandboxes" to enable testing and experimentation on government networks. In line with the Open DAGIR construct, CDAO will resource multiple cloud-based development environments for this effort, with an initial launch of two sandboxes in January 2025 followed by two more by summer 2025. These sandboxes will be executed in partnership with cloud service providers and will leverage industry to incorporate frontier AI models, development tools, and fine-tune capabilities in the sandboxes.

\$5M in Rapid User-Centric Experimentation

CDAO will leverage its Global Information Dominance Experiment (GIDE), which spans Global Combatant Commands, to incorporate AI pilots into real-world experimentation. This funding will allow warfighters across Combatant Commands to directly test frontier models and provide real-time feedback to technology developers and ensure technical advancement is moving in lockstep with warfighter needs.

\$40M to New & Emerging Companies for Solutions Leveraging GenAI

CDAO will award Small Business Innovation Research (SBIR) funding to non-traditional and small businesses for innovative solutions that leverage GenAI to create priority applications. This will focus on the rise of frontier models for critical missions, from operational planning to logistics to autonomy. These awards will allow applications to be developed in parallel with the foundational enterprise investments in development sandboxes and compute, ensuring there are innovative solutions ready to be scaled as quickly as possible.



Expanding AI Development & Assurance

AI pilots at the leading edge of technological advances will require the expansion of the underlying resources, such as datalabeling services and architecture, which power advanced AI solutions. CDAO will scale AI throughout the Department by:

Investing \$20M in AI Scaffolding to Enable Rapid AI Development

To ensure that models are usable, accurate, and relevant to the mission, CDAO, has embarked on an Enterprise-level AI scaffolding partnership with Scale AI. This effort provides services to produce AI-ready data in accessible development environments across the enterprise, enabling rapid development of AI pilots.

Expanding Access to Warfighter Strategic & Tactical Data Stacks and Services

Combined Joint All-Domain Command and Control (CJADC2) is DoD's approach to developing solutions to deliver information and decision advantage to commanders. Leveraging cutting edge digital and AI solutions, CDAO is leading efforts to expand access to data from the strategic to the tactical level. At the strategic level, CDAO has awarded \$500M in enterprise contracts to Palantir, providing access to the Department's applicable data stack and mission command applications. Palantir's capabilities complement CDAO's \$100M acquisition of Anduril's Edge Data Integration Services at the tactical level, which will allow CDAO to provide a resilient data mesh for low latency data exchange across the networks, domains, organizations, and echelons. These enterprise-level data stacks and services are scalable, so as demand increases, CDAO will be able to continue to expand access and resources. We will also be able to leverage the recently established Anduril-Palantir partnership, partnerships with Frontier AI companies, and Open DAGIR principles to deploy operationally relevant Frontier AI solutions across the core Palantir and Anduril infrastructure.

Investing \$10M in AI Testing Tools

CDAO is funding frontier AI testing tools that will create a series of benchmarks, test data sets, and tools to quickly analyze the suitability of frontier AI models for DoD missions, accelerating the pace at which AI can be applied to missions.

Improving the Authorization to Operate (ATO) Onboarding Process

The ATO process is required for products to operate securely on government networks and systems. In response to industry feedback on the challenges of navigating this process, CDAO has implemented a risk-centric and agile cybersecurity ecosystem through monthly training sessions, standardized templates, and tools for cyber risk assessments. Building on lessons learned from over 2,500 successful implementations throughout the DoD, CDAO has set measurable goals to enhance efficiency and effectiveness, including: 1) shortening onboarding timelines for cybersecurity professionals and risk assessors by 25%, 2) improving ATO approval success rates on initial submissions by 30%, and 3) boosting program engagement via embedded personnel and training sessions by 40%.

Investing \$25M in Cutting-Edge Digital Solutions to Improve DoD Business Efficiency

CDAO is funding a set of tools that leverage commercial best practices in software and services to improve DoD business operations efficiency and achieve cost savings. These efforts encompass human capital initiatives, enhancements to acquisitions processes, and optimization of DoD business tools.

Launching AI-enabled Language Translation Capability

CDAO is scaling deployment of a \$5M enterprise award for an AI translation application, which follows DIU's work to test the capability in the Department. Lilt's software provides an AI-enabled language translation capability. This will allow hundreds of users across the Military Departments and the Combatant Commands to quickly translate text, reduce translation errors, and free up linguist time for detailed translations.

Expanding Tools and Resources for AI Adoption

CDAO is accelerating existing efforts that facilitate AI adoption across the Department, to include the recently released Generative AI version of the [Responsible AI toolkit](#), which provides tools tailored to improve the assurance of GenAI technology; the [Pathway for AI Readiness](#), which offers a roadmap and essential tools for integrating AI into DoD operations; and tools for upskilling and recruiting digital talent, such as the Digital on Demand platform and the GigEagle talent hub currently being used for digitally-skilled personnel in the Reserve and National Guard.

How companies can work with DoD

Partnering with industry is vital to quickly leveraging AI capabilities. Non-traditional acquisition vehicles are necessary for the DoD to minimize vendor burden and acquire new talent from industry.

Companies with innovative AI solutions can submit pitch videos on CDAO's [Tradewinds Solutions Marketplace](#), or solution briefs to [DIU's open Commercial Solutions Openings \(CSO\)](#). Stay tuned for further details as DoD plans to release further AI-centric challenges in the future.

