



Coast Guard's Artificial Intelligence Performance Metrics

Report to Congress
May 26, 2026



U.S. Coast Guard

Foreword

May 26, 2026

I am pleased to present the following report, “Coast Guard’s Artificial Intelligence Performance Metrics,” as prepared by the U.S. Coast Guard.

The Don Young Coast Guard Authorization Act of 2022 directs the submission of a report detailing the findings of a review into artificial intelligence, the performance metrics established for its use and the personnel who support it, and any necessary legislative recommendations.

Pursuant to Congressional requirements, this report is provided to the following members of Congress:

Senator Ted Cruz
Chairman, Senate Committee on Commerce, Science, and Transportation

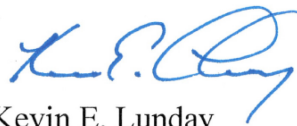
Senator Maria Cantwell
Ranking Member, Senate Committee on Commerce, Science, and Transportation

Representative Sam Graves
Chairman, House Committee on Transportation and Infrastructure

Representative Rick Larsen
Ranking Member, House Committee on Transportation and Infrastructure

Please direct report inquiries to my Senate Liaison Office at (202) 224-2913 or House Liaison Office at (202) 225-4775.

Sincerely,



Kevin E. Lunday
Admiral, U.S. Coast Guard
Commandant





Coast Guard’s Artificial Intelligence Performance Metrics

Table of Contents

I.	Legislative Language	1
II.	Background	3
III.	Report.....	4
IV.	Conclusion	9

I. Legislative Language

This report responds to the language set forth in Section 11227(c) of the Don Young Coast Guard Authorization Act of 2022 (Pub. L. No. 117-263), which reads:

SEC. 11227. REVIEW OF ARTIFICIAL INTELLIGENCE APPLICATIONS AND ESTABLISHMENT OF PERFORMANCE METRICS.

- (a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Commandant shall—
 - (1) review the potential applications of artificial intelligence and digital technology to the platforms, processes, and operations of the Coast Guard;
 - (2) identify the resources necessary to improve the use of artificial intelligence and digital technology in such platforms, processes, and operations; and
 - (3) establish performance objectives and accompanying metrics for the incorporation of artificial intelligence and digital readiness into such platforms, processes, and operations.
- (b) PERFORMANCE OBJECTIVES AND ACCOMPANYING METRICS.—
 - (1) SKILL GAPS.—In carrying out subsection (a), the Commandant shall—
 - (A) conduct a comprehensive review and assessment of—
 - (i) skill gaps in the fields of software development, software engineering, data science, and artificial intelligence;
 - (ii) the qualifications of civilian personnel needed for both management and specialist tracks in such fields; and
 - (iii) the qualifications of military personnel (officer and enlisted) needed for both management and specialist tracks in such fields; and
 - (B) establish recruiting, training, and talent management performance objectives and accompanying metrics for achieving and maintaining staffing levels needed to fill identified gaps and meet the needs of the Coast Guard for skilled personnel.
 - (2) AI MODERNIZATION ACTIVITIES.—In carrying out subsection (a), the Commandant shall—
 - (A) assess investment by the Coast Guard in artificial intelligence innovation, science and technology, and research and development;
 - (B) assess investment by the Coast Guard in test and evaluation of artificial intelligence capabilities;
 - (C) assess the integration of, and the resources necessary to better use artificial intelligence in wargames, exercises, and experimentation;
 - (D) assess the application of, and the resources necessary to better use, artificial intelligence in logistics and sustainment systems;
 - (E) assess the integration of, and the resources necessary to better use, artificial intelligence for administrative functions;
 - (F) establish performance objectives and accompanying metrics for artificial intelligence modernization activities of the Coast Guard; and
 - (G) identify the resources necessary to effectively use artificial intelligence to carry out the missions of the Coast Guard.

(c) REPORT TO CONGRESS.—Not later than 180 days after the completion of the review required under subsection (a)(1), the Commandant shall submit to the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate and the Committee on Transportation and Infrastructure and the Committee on Appropriations of the House of Representatives a report on—

- (1) the findings of the Commandant with respect to such review and any action taken or proposed to be taken by the Commandant, and the resources necessary to address such findings;
- (2) the performance objectives and accompanying metrics established under subsections (a)(3) and (b)(1)(B); and
- (3) any recommendation with respect to proposals for legislative change necessary to successfully implement artificial intelligence applications within the Coast Guard.

II. Background

The Coast Guard is entrusted with missions vital to national security and economic prosperity. We control, secure, and defend U.S. borders and maritime approaches, facilitate commerce vital to economic prosperity and strategic mobility, and respond to contingencies and crises that often come with little or no warning. Executing these missions in an increasingly complex world requires the continuous modernization of our capabilities. To maintain competitive advantage and meet future challenges, the Coast Guard must responsibly adopt advanced technologies, with a particular focus on the transformative potential of artificial intelligence.

Artificial intelligence is being integrated into Coast Guard operational activities to achieve mission excellence, enhance decision making capabilities, and maximize efficiency. Effective integration of artificial intelligence across Coast Guard operations requires overcoming several challenges related to data infrastructure readiness, workforce skill gaps, and cloud accessibility in remote maritime environments. To fully leverage artificial intelligence technologies as a national security force multiplier, the Coast Guard requires increased resources for successful implementation and sustainment.

The review of artificial intelligence and digital technology performed in support of this report, as well as the performance objectives and accompanying metrics, are aligned with the Department of Homeland Security Artificial Intelligence Strategy and the forthcoming Coast Guard Artificial Intelligence Strategy.

The Coast Guard collaborates with the Department of Homeland Security and Department of War to ensure unique mission requirements are considered within wider artificial intelligence policy and capability development. The Coast Guard is a member of the Artificial Intelligence Policy Working Group facilitated by the Department of Homeland Security Office of the Chief Information Officer. Through this working group, the Coast Guard has contributed to the development of Department artificial intelligence governance policies and guides. Additionally, the Coast Guard benefits from artificial intelligence resources available through the Department of War, such as GenAI.mil.

III. Report

Review of Artificial Intelligence and Digital Technology Applications

The Coast Guard conducted a review of the potential application of artificial intelligence across Coast Guard innovation, testing, operations, and administration, as well as artificial intelligence modernization activities. This section details the findings of that review.

Innovation, Science and Technology, and Research and Development

The Coast Guard's investment in artificial intelligence innovation is guided by a strategy focused on creating a robust and collaborative ecosystem. Central to this is the plan to establish the Center for Artificial Intelligence/Machine Learning at the Coast Guard Academy coupled with the Office of Data and Artificial Intelligence's literacy campaign. Together, these efforts will serve as an internal engine for developing cutting-edge solutions and promoting responsible adoption of artificial intelligence.

These internal efforts are amplified through active partnerships with industry-leading artificial intelligence labs, academic institutions, and military and government research labs to leverage top-tier expertise. Furthermore, the Coast Guard maintains a strong interest in leveraging agile acquisition pathways, such as the Small Business Innovation Research program, to rapidly identify and integrate novel and state-of-the-art artificial intelligence technologies from the commercial sector.

Test and Evaluation of Artificial Intelligence Capabilities

Investment in the test and evaluation of artificial intelligence capabilities is being formalized through a robust governance framework. A dedicated Data and Artificial Intelligence Governance Division has been established within the Office of Data and Artificial Intelligence to lead this effort. All test and evaluation activities are being aligned with industry-best practices, National Institute of Standards and Technology frameworks, and Department of War and Department of Homeland Security guidance to ensure deployment of reliable, responsible, and effective artificial intelligence solutions.

Artificial Intelligence in Wargames, Exercises, and Experimentation

The Coast Guard is institutionalizing the use of artificial intelligence through two means. First, the new Wargaming and Innovation Office, established under the Futures Development and Integration Directorate, will integrate artificial intelligence into wargames to accelerate decision-making, model emerging threats, and test the advanced concepts required to achieve national security goals. Second, to ensure these concepts are grounded in practical application, the Coast Guard's Force Readiness Command is working to integrate artificial intelligence into training curricula at Coast Guard training centers.

Artificial Intelligence in Logistics and Sustainment Systems

The Coast Guard is applying artificial intelligence to improve efficiency and foresight of its logistics and sustainment systems. The Service is developing Condition-Based Maintenance programs to proactively predict asset maintenance needs and reduce downtime. Simultaneously, a new risk-based Container Inspection Targeting Program will use artificial intelligence to better focus inspection resources on high-risk cargo, ensuring a more effective use of resources.

Artificial Intelligence for Administrative Functions

The Coast Guard is exploring opportunities to leverage artificial intelligence to modernize administrative functions. The early use of process automation in finance and human resources has already recaptured significant workforce hours. Additionally, the Service realized significant efficiencies through enterprise access to generative artificial intelligence tools.

Performance Objectives and Metrics for Artificial Intelligence Modernization Activities

To measure progress in technology adoption, governance, mission effectiveness, and infrastructure modernization, the Coast Guard established the following objectives and metrics.

Objective	Metrics
Accelerate the adoption of cutting-edge artificial intelligence technologies.	• Transition a minimum of two artificial intelligence research projects annually from the Coast Guard Center for Artificial Intelligence/Machine Learning to operational testing. • Increase the percentage of artificial intelligence procurements using agile pathways by 10 percent per year. • Reduce the average artificial intelligence acquisition lifecycle by 25 percent over three years.
Ensure artificial intelligence systems are responsible, effective, and secure.	• Increase mission-critical datasets certified as “artificial intelligence-ready” by 20 percent annually. • Maintain 100 percent compliance with Department of Homeland Security artificial intelligence use case registry requirements within 30 days of deployment. • Ensure 100 percent of “High-Impact” artificial intelligence systems have an approved risk mitigation plan prior to deployment.
Enhance mission effectiveness and efficiency with artificial intelligence.	• Deploy at least two new artificial intelligence capabilities to enhance maritime domain awareness by Fiscal Year (FY) 2027. • Launch at least one artificial intelligence initiative per year to automate mission support functions. • Field one artificial intelligence-powered capability per year to directly enhance national security operations. • Integrate artificial intelligence-powered predictive analytics into the maintenance and logistics processes for at least two asset classes by FY 2028.
Modernize information technology infrastructure to support enterprise-wide artificial intelligence.	• Migrate 90 percent of information technology systems critical to artificial intelligence adoption to cloud-native platforms by FY 2028. • Increase the number of available Application Programming Interface endpoints for mission-critical systems by 25 percent year-over-year.

Review of Critical Skill Gaps

The Coast Guard conducted a review and assessment of skill gaps in the fields of software development, software engineering, data science, and artificial intelligence, and identified two gaps. First, there is a Service wide gap in digital literacy and the integration of artificial intelligence tools. To address this gap, the Coast Guard will continue to pursue digital literacy campaigns and champion the adoption of artificial intelligence tools.

The second gap is the lack of Coast Guard specialists in advanced fields, such as data science and artificial intelligence. To address this, the Coast Guard established new Data, Analytics, and Artificial Intelligence competencies, which will encourage professional development and career growth in these critical skill areas. A specialized skills incentive program serves as the cornerstone of the Coast Guard's cyber and artificial intelligence retention strategy. The Coast Guard also leverages direct hire authority to expedite staffing data, artificial intelligence, and cyber positions.

Civilian Workforce

The Coast Guard will offer informal training through licensed platforms and foster communities of interest through the Data, Analytics, and Artificial Intelligence competency program. Furthermore, the Coast Guard is exploring the Department of Homeland Security Talent Management System to recruit and retain skilled experts in data and artificial intelligence fields. The Coast Guard will continue to support the Department of Homeland Security's Civilian Cybersecurity Retention Incentive Program and Recruitment Incentive Program to attract skilled civilian employees.

Military Workforce

The Coast Guard is investigating a sustainable officer career path to ensure the retention and growth of technical leaders within the Data, Analytics, and Artificial Intelligence community. To inject top-tier talent, the Coast Guard is also considering a Direct Commission Officer program to attract Data, Analytics, and Artificial Intelligence expertise.

To create a viable career path for the enlisted workforce, the Coast Guard is exploring the use of special assignments and advanced education focused on Data, Analytics, and Artificial Intelligence. Additionally, establishing and sustaining a Center for Artificial Intelligence/Machine Learning at the Coast Guard Academy would provide early-career opportunities to develop relevant skills for future Coast Guard leaders.

Performance Objectives and Metrics for Recruiting, Training, and Talent Management

To measure progress in talent management, the Coast Guard established the following objectives and metrics.

Objective	Metrics
Establish robust Data, Analytics, and Artificial Intelligence career paths for military and civilian personnel.	• Increase personnel holding a Data, Analytics, and Artificial Intelligence competency by 15 percent annually. • Increase Data, Analytics, and Artificial Intelligence programs eligible for tuition assistance by 15 percent annually. • Achieve 50 personnel per year utilizing tuition assistance for artificial intelligence-related education. • Graduate at least 10 expert-level artificial intelligence practitioners annually from the Coast Guard Center for Artificial Intelligence/Machine Learning.
Cultivate Service-wide literacy in and acceptance of artificial intelligence tools.	• Achieve 60 percent of personnel self-affirming artificial intelligence proficiency in their work by FY 2027. • Increase year-over-year artificial intelligence proficiency by 10 percent.
Foster a vibrant internal community for artificial intelligence innovation.	• Conduct at least two artificial intelligence hackathons or innovation challenges annually. • Increase membership in the Data, Analytics, and Artificial Intelligence community of interest by 20 percent annually.
Reduce hiring timelines for personnel with critical skills.	• Decrease civilian hiring timeline to 80 days by FY 2028 by leveraging merit hiring guidelines and direct hire authority.

Resources and Legislative Support

Continued support from Congress is paramount to the Coast Guard’s ability to grow a capable Data, Analytics, and Artificial Intelligence workforce and build appropriate data and artificial intelligence infrastructure. Sustaining and, as appropriate, expanding the Center for Artificial Intelligence/Machine Learning at the Coast Guard Academy will improve organic Coast Guard workforce skills related to these emerging technologies.

Robust central infrastructure is required to leverage scalable cloud services for computing and data storage, and on-premises high-performance computing capabilities remain necessary for sensitive workloads. This is the bedrock for training complex artificial intelligence models, hosting enterprise tools, and running platforms needed to achieve data standardization and model validation. Domain data teams will standardize programmatic data streams for training artificial intelligence models, and integrate streams into the Coast Guard’s broader data environment, SURVEYOR, ultimately facilitating the deployment of future Artificial Intelligence/Machine Learning capabilities.

Given the Coast Guard’s unique maritime missions, including those in disconnected, disrupted, intermittent, and low-bandwidth environments, continued investments are necessary in ruggedized, edge-compute hardware and associated software. This allows for real-time data processing and decision support on platforms that cannot rely on constant connectivity. Technology and engineering services enable advanced artificial intelligence deployment for use cases, such as maritime object detection.

To effectively implement the artificial intelligence efforts outlined in this report, the Coast Guard will continue to be supported by policies that enhance government flexibility in attracting, recruiting, and retaining a technologically skilled and trained workforce. Finally, as an agency organized under the Department of Homeland Security but operating on the Department of War Information Network, the Coast Guard implements policies to ensure the alignment of Coast Guard cybersecurity capabilities with the Department of War requirements.

IV. Conclusion

The successful integration of artificial intelligence is not merely a technological upgrade; it is a strategic imperative fundamental to maintaining competitive advantage. This report provides the framework for that action. The challenges in fully adopting artificial intelligence are complex, but by doing so smartly, the Coast Guard will continue to be a stronger, more agile, capable, and responsive fighting force. This vision hinges on the availability of enduring funding and resources, and the Coast Guard looks forward to working with Congress to ensure the Service is fully manned, funded, and equipped to meet the challenges of the future and achieve the objectives identified in this report.