



DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket Number USCG-2025-0150]

Cooperative Research and Development Agreement: Evaluation of EO/IR Auto-classification Technology to Improve USCG Operational Effectiveness

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for comments.

SUMMARY: The U.S. Coast Guard (USCG) is announcing its intent to enter into a Cooperative Research and Development Agreement (CRADA) with Teledyne FLIR to evaluate their Convolutional Neural Network (CNN) technology and address its ability to train models for needs specific to USCG operations. The Research and Development Center desires to identify the capabilities, benefits, risks, and limitations of Electro-Optical/Infrared (EO/IR) systems for integration with other shipboard systems. This will include testing of the technology and data collection in dynamic environmental conditions. In addition to increasing target classification efficacy, this work includes developing detection and classification information sharing standards with external command and control (C2) systems.

DATES: Your comments and related material must reach the Coast Guard on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments identified by docket number USCG-2025-0150 using the Federal portal at <https://www.regulations.gov>. See the “Public Participation and Request for Comments” portion of the SUPPLEMENTARY INFORMATION section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice of intent, call or email Mr. Christopher Davidson, Defense and Safety Systems, U.S. Coast Guard Research and Development Center; telephone 860-271-2600, email RDC-info@uscg.mil.

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

DHS	Department of Homeland Security
U.S.C.	United States Code

II. Background and Purpose

The U.S. Coast Guard's Research and Development Center (R&D Center) plays a crucial role in advancing technologies and capabilities to address the increasingly complex maritime environment. The R&D Center assesses the feasibility and affordability of solutions, provides operational and risk-management analysis, and collaborates with public and private sector experts to leverage their knowledge. A key focus is on keeping pace with rapidly advancing technologies, requiring innovative methods in workforce development, system acquisition, and sustainment to support current and future Coast Guard operations.

The Coast Guard aims to enhance its operations through the integration of new capabilities and assessing the effectiveness of these innovations in real-world environments is critical. The R&D Center is interested in understanding how these technologies can improve crew effectiveness and Coast Guard operations, aligning with strategic goals to increase mission support efficiency and expedite the adoption of new technologies.

III. Public Participation and Request for Comments

We request public comments on this notice. Although we do not plan to respond to comments in the *Federal Register*, we will respond directly to commenters and may modify our proposal in light of comments.

We encourage you to submit comments in response to this notice of inquiry through the Federal Decision Making portal at <https://www.regulations.gov>. To do so, go to <https://www.regulations.gov>, type USCG-2025-0150 in the search box and click "Search." Next,

look for this document in the Search Results column, and click on it. Then click on the Comment option. In your submission, please include the docket number for this notice of inquiry and provide a reason for each suggestion or recommendation. If your material cannot be submitted using <https://www.regulations.gov>, contact the person in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions. To view documents mentioned in this notice of inquiry as being available in the docket, find the docket as described in the previous paragraph, and then select “Supporting & Related Material” in the Document Type column. Public comments will also be placed in our online docket and can be viewed by following instructions on the <https://www.regulations.gov> Frequently Asked Questions webpage. We review all comments received, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

We accept anonymous comments. Comments we post to <https://www.regulations.gov> will include any personal information you have provided. For more about privacy and submissions in response to this document, see DHS’s eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

IV. Discussion

CRADAs are authorized under 15 U.S.C. 3710a.¹ A CRADA promotes the transfer of technology to the private sector for commercial use, as well as specified research or development efforts that are consistent with the mission of the Federal parties to the CRADA. The Federal party or parties agree with one or more non-Federal parties to share research resources, but the Federal parties do not contribute funding.

CRADAs are not procurement contracts. Care is taken to ensure that CRADAs are not used to circumvent the contracting process. CRADAs have a specific purpose and should not be confused with procurement contracts, grants, and other type of agreements.

¹ The statute confers this authority on the head of each Federal agency. The Secretary of DHS’s authority is delegated to the Coast Guard and other DHS organizational elements by DHS Delegation No. 0160.1, para. II.B.34.

Under the proposed CRADA, the R&D Center will collaborate with one non-Federal participant. Together, the R&D Center and the non-Federal participant will conduct multiple data collection events interspersed with data analysis and software changes addressing a variety of relevant USCG maritime scenarios and conditions. The R&D Center is planning several test events to collect data from sensors installed on Coast Guard assets.

We anticipate that the Coast Guard's contributions under the proposed CRADA will include the following:

1. Develop test plans to be executed to meet the objectives of the CRADA.
2. Provide the test range, range support, and all approvals required for testing and evaluation as required under this CRADA.
3. Coordinate and handle operating legal requirements for the evaluations to be executed under this CRADA.
4. Develop a final report or brief that documents the methods, findings, conclusions, and recommendations under this CRADA.

We anticipate that the non-Federal participants' contributions under the proposed CRADA will include the following:

1. Provide the EO/IR system, and all other equipment required to conduct evaluation as described in the test plan.
2. Provide operators as required to conduct evaluation as described in the test plan.
3. Collect and analyze data in accordance with the test plan.
4. Provide shipment and delivery of all non-Federal participants' equipment required under this CRADA.
5. Provide personnel travel and other associated expenses as required under this CRADA.

The Coast Guard reserves the right to select for CRADA participants all, some, or no proposals submitted for this CRADA. The Coast Guard will provide no funding for reimbursement of proposal development costs. Proposals and any other material submitted in

response to this notice will not be returned. Proposals submitted are expected to be unclassified and have not more than five single-sided pages (excluding cover page, DD 1494, JF-12, etc.).

The Coast Guard will select proposals at its sole discretion on the basis of:

1. How well they communicate an understanding, of and ability to meet, the proposed CRADA's goal; and
2. How well they address the following criteria:
 - a. Technical capability to support the non-Federal party contributions described, and
 - b. Resources available for supporting the non-Federal party contributions described.

Currently, the Coast Guard is considering Teledyne FLIR for participation in this CRADA. This consideration is based on the fact that Teledyne FLIR has the technical capability and expertise to determine the efficacy of CNN technology to enhance USCG operational capabilities. However, we do not wish to exclude other viable participants from this or future similar CRADAs.

This is a technology assessment effort. The goal of the Coast Guard for this CRADA is to evaluate CNN technology and determine capabilities, benefits, risks, and technical limitations of enhancing multiple EO/IR systems for potential integration with other shipboard systems. Special consideration will be given to small business firms and consortia, and preference will be given to business units located in the U.S. This notice is issued under the authority of 5 U.S.C. 552(a).

Dated: June 13, 2025.

M. P. Chien,
Captain, Commanding Officer,
U. S. Coast Guard Research and Development Center.