9110-04-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG-2026-0043]

Cooperative Research and Development Agreement: Modified Low Size and Weight High-Power Microwave Effector for Non-Compliant Vessel and Counter Uncrewed Surface Vessel Operations

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for comments.

SUMMARY: The Coast Guard is announcing its intent to enter into a Cooperative Research and Development Agreement (CRADA) with Lockheed Martin Corporation to develop a small size, low weight, high-power microwave (HPM) effector for stopping non-compliant vessels (NCV), to include personal watercraft (PWC), and small uncrewed surface vessels (USV). The Coast Guard is seeking public comment on this proposed partnership and potential involvement from other parties. In addition, the Coast Guard also invites other potential non-Federal participants, who have the interest and capability to bring similar contributions to this type of research, to consider submitting proposals for consideration in similar CRADAs.

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-2026-0043 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 Matthew Lees, Principal Investigator, Defense and Safety Systems Program, U.S. Coast Guard Research and Development Center, 1 Chelsea Street, New London, CT 06320,

telephone 860-271-2600, e-mail Research@uscg.mil.

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

C2	Command and Control
CRADA	Cooperative Research and Development Agreement
DE	Directed Energy
DHS	Department of Homeland Security
HPM	High-Power Microwave
LSaW	Low Size and Weight
NSWC-DD	Naval Surface Warfare Center – Dahlgren Division
POC	Proof of Concept
PWC	Personal Watercraft
TOI	Target of Interest
TTP	Tactics, Techniques, and Procedures
USV	Uncrewed Surface Vessel
U.S.C.G.	United States Coast Guard
U.S.C.	United States Code

II. Background and Purpose

The Coast Guard is investigating the use of DE to augment its drug and human trafficking interdiction missions. HPM has a desired effect of being able to temporarily stop an engine or support electronics of a target of interest (TOI), enabling safer boarding and less logistical costs. Current HPM technologies have significant size, weight, and power requirements that can inhibit their widespread use on smaller craft. Through this POC, the Coast Guard seeks to investigate the modification of an HPM effector that has the size, weight, and power requirements that would facilitate integration on small boats and PWC.

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 https://www.regulations.gov. To do so, go to https://www.regulations.gov, type USCG-2026-0043 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. 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 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 party does 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 types of agreements.

Under the proposed CRADA, the U.S. Coast Guard Research and Development Center (R&D Center) will collaborate with one non-Federal participant. Together, the R&D Center and the non-Federal participant will model physical changes to the HPM effector to ensure that its changes will produce effects desired by both parties. If the model provides positive results, modification to the physical system will be performed. After being modified, the system will then

[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.

be tested in a variety of environments, such as an anechoic chamber, testing pool, or pier-side, in both a stand-alone configuration or integrated on a Coast Guard small boat or PWC asset. Testing will be conducted against targets of interest for the Coast Guard, to include PWC, outboard engines, and small USVs.

This is a technology assessment effort. The goal for this CRADA is to work with an industry partner to develop a HPM effector that can be easily integrated on a Coast Guard small boat or PWC. This could include the following:

1. Provide modeling and simulation of HPM effector modifications.

2. Provide HPM effectors for modification.

3. Develop targeting software and C2 system.

4. Assist with data analysis for testing.

5. Attend test events.

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

1. Provide staff with the expertise to support the tasks.

2. Provide resources and travel for the Coast Guard staff that support this CRADA.

3. Write a test plan in collaboration with the non-Federal participant.

4. Secure ranges, test facilities, and assets.

5. Secure approvals for field test events, per test plans, as appropriate.

6. Provide sufficient crew, planning, and coordination to execute the testing in accordance with the agreed upon test plan.

7. Provide targets of interest for effector to be tested against.

8. Ship the necessary parts, tools, and equipment to facilitate testing or operational evaluations.

9. Coordinate participating USCG units and government stakeholders.

10. Execute agreed upon test plan.

11. Write a report in collaboration with the non-Federal participant.

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

1. Provide staff with the expertise to support the tasks.

2. Provide HPM effectors and related equipment for modification and testing.

3. Provide all support resources, including travel, for non-Federal participant's staff who support this CRADA, if required.

4. Review test plan.

5. Provide the technology, technical data, and other technical considerations for any systems to be utilized under this CRADA.

6. Provide the technical data for all equipment, including dimensions, weight, power requirements, and other technical considerations for non-Federal participant's components to be utilized under this CRADA.

7. Assist with installation of equipment required to perform testing, if required.

8. Provide any specific training, along with mutually agreed-upon technical support, to the joint test team evaluating the technology.

9. Provide any specific training to those Coast Guard members evaluating the technology.

10. Provide mutually agreed upon resources required to execute the test plan, as required.

11. Write a report in collaboration with the R&D Center.

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 be no more than five single-sided pages (excluding cover page, Department of Defense Form 1494 (DD 1494), and Department of Defense (DoD) Joint Frequency Allocation-to-Equipment process (JF-12)). The Coast Guard will select proposals at its sole discretion based on:

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 Lockheed Martin Corporation for participation in this CRADA. This consideration is based on the fact that Lockheed Martin Corporation manufactures and develops an HPM effector that has a size, weight, and required power that could potentially, with modification, be used on Coast Guard small boats and PWC. However, we do not wish to exclude other viable participants from this or similar CRADAs in the future.

Special consideration will be given to small business firms or consortia, and preference will be given to business units located in the United States. This notice is issued under the authority of 5 U.S.C. 552(a).

Dated: May 13, 2026.

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

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