



**BILLING CODE: 4910-81-P**

**DEPARTMENT OF TRANSPORTATION**

**Maritime Administration**

**[Docket Number: MARAD-2019-0121]**

**Request for Information on Opportunities, Challenges and Impacts of Automated Transportation in a Port Environment**

**AGENCY:** Maritime Administration, Department of Transportation.

**ACTION:** Request for information (RFI).

**SUMMARY:** Automation, including automated vehicles, trains, vessels, infrastructure, and equipment, is increasingly being tested and introduced into the transportation system, including ports. At ports, various modes of transportation, such as vessels, rail and motor carriers, intersect to create a hub of freight transfer in global supply chains. The Maritime Administration (MARAD) is interested in engaging in research that may help support strategies to safely implement automated transportation on and around ports. To that end, MARAD is publishing this RFI to solicit views from the public, including stakeholders (e.g. State and local agencies, vehicle, train, vessel, infrastructure, and equipment design, development and manufacturing industries, intelligent transportation systems industry, technology developers, related associations, etc.), on a range of issues related to the safety effects, opportunities, challenges and impacts of automated transportation in a port environment to inform potential research projects.

**DATES:** Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. MARAD will consider

comments filed after this date to the extent practicable.

**ADDRESSES:** You may submit comments identified by DOT Docket Number

MARAD-2019-0121 by any of the following methods:

- **Electronic Submission:** Go to <http://www.regulations.gov>. Search by using the docket number (provided above). Follow the instructions for submitting comments on the electronic docket site.
- **Mail:** Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Room PL-401, Washington, DC 20590-0001.
- **Hand Delivery:** Room PL-401 of the Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC, between 9 am and 5 pm, Monday through Friday, except Federal Holidays.

*Instructions:* All submissions must include the agency name and docket number.

*Note:* All comments received, including any personal information, will be posted without change to the docket and is accessible via <http://www.regulations.gov>. Input submitted online via [www.regulations.gov](http://www.regulations.gov) is not immediately posted to the site. It may take several business days before your submission is posted.

*Docket:* For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> at any time or to Room PL-401 of the Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC, between 9 am and 5 pm, Monday through Friday, except Federal Holidays. The Federal Docket Management Facility's telephone number is 202-366-9826 or 202-366-9317, the fax number is 202-493-2251.

**FOR FURTHER INFORMATION CONTACT:** Mr. Travis Black, Office of Ports & Waterways Planning, Maritime Administration, telephone: 202-366-9087, email: travis.black@dot.gov. If you have questions on viewing the Docket, call Docket Operations, telephone: 202-366-9826 or 202-366-9317.

**SUPPLEMENTARY INFORMATION:** Input from this RFI will inform future MARAD research activities. Although MARAD seeks comments and relevant information and data on all issues related to the development and continued implementation of automated port systems and technologies, MARAD specifically requests comment and data in response to the following questions:

1. How does the port industry and its stakeholders currently define “autonomous/automated operations”? Would it be helpful to develop automated port taxonomy (i.e. a system of standards to clarify and define different levels of automation in ports)? Are there substantive efforts already under way to develop such port automation taxonomy?

2. Are ports planning to automate operations? Are there substantive plans or efforts already underway to integrate autonomous/automated vehicles, rail, vessels, infrastructure, and equipment (i.e. vehicles, rail, vessels, infrastructure, and equipment capable of sensing their environments and operating without human input)? If so, for what types of operations?

3. What are the obstacles to implementing automation strategies (short and long term)? What are the most significant factors that impact cost-benefit analysis?

4. How can port stakeholders, including port equipment and infrastructure suppliers, manufacturers, and maintainers, better support ports’ automation efforts and

strategies to implement other autonomous/automated vehicles, trains, vessels, infrastructure, and equipment?

5. How could further integration of autonomous/automated systems and transport impact freight flows and/or supply chains both domestically and globally?

6. What societal benefits if any, could be expected to result from the adoption of these technologies (e.g. environmental, safety, efficiency, or noise reduction)? What societal disadvantages could occur?

7. Are there best practices from implementing past or current projects? Are there current anticipated projects and initiatives that could benefit from further monitoring or support? If so, what are the needs?

8. What are the infrastructure needs for effectively, safely, and securely implementing these automation technologies? MARAD is particularly interested in expected or anticipated infrastructure needs, including data infrastructure, to accommodate the various components (i.e. vehicles, trains, vessels, infrastructure, and equipment) working together at ports for the multi-modal transfer of freight. What concerns do industry stakeholders have regarding infrastructure planning and investment, including funding, finance and revenue impacts, required for new automation technologies and how could additional research help address those concerns?

9. What is the potential impact of the adoption of these automation technologies on the existing port industry workforce? MARAD is interested in how automated technologies may affect workforce needs, including current and future port employment demands, and employee skills and training requirements.

10. What further research related to autonomous/automated transportation

activities is needed to maximize U.S. port capacity and efficiency?

11. What challenges are known or anticipated in implementing these types of technologies, including technological obstacles? How should the port industry anticipate addressing these challenges, and what efforts are currently underway to address them?

12. What are the regulatory or statutory challenges that must be addressed before autonomous vehicles, trains, vessels, and equipment can be made part of port operations in the United States?

13. Are there current regulations and/or safety standards that impede the development and and/or implementation of automated transportation systems or technologies in the port industry, including the development and/or implementation of autonomous vehicles, trains, vessels, infrastructure, and equipment? If so, what are they and how should they be addressed?

14. Is there safety, performance, or other data relevant to the development and integration of automated port systems and technologies that currently exists that could be voluntarily exchanged to support the development of future voluntary standards?

## **Public Participation**

*How do I submit comments?*

Please submit your comments, including any attachments, following the instructions provided under the above heading entitled **ADDRESSES**. Be advised that it may take a few hours or even days for your comment to be reflected on the docket. In addition, your comments must be written in English. We encourage you to provide concise comments. You may attach additional documents as necessary. There is no limit on the length of the attachments.

Please note that even after the comment period has closed, MARAD will continue to file relevant information in the Docket as it becomes available.

*Where do I go to read public comments, and find supporting information?*

Go to the docket online at <http://www.regulations.gov>, keyword search MARAD-2019-0121 or visit us in person at the Docket Management Facility (see **ADDRESSES** for hours of operation). We recommend that you periodically check the Docket for new submissions and supporting material.

*Will my comments be made available to the public?*

Yes. Be aware that your entire comment, including your personal identifying information, will be made publicly available.

*May I submit comments confidentially?*

If you wish to submit comments under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the Department of Transportation, Maritime Administration, Office of Legislation and Regulations, MAR-225, W24-220, 1200 New Jersey Avenue, SE, Washington, DC 20590. Include a cover letter setting forth with specificity the basis for any such claim and, if possible, a summary of your submission that can be made available to the public.

### **Privacy Act**

In accordance with 5 U.S.C. 553(c), DOT/MARAD solicits comments from the public to better inform its rulemaking process. DOT/MARAD posts these comments, without edit, to [www.regulations.gov](http://www.regulations.gov), as described in the system of records notice, DOT/ALL-14 FDMS, accessible through [www.transportation.gov/privacy](http://www.transportation.gov/privacy). To facilitate

comment tracking and response, we encourage commenters to provide their name, or the name of their organization; however, submission of names is completely optional.

Whether or not commenters identify themselves, all timely comments will be fully considered. If you wish to provide comments containing proprietary or confidential information, please contact the agency for alternate submission instructions.

(Authority: 49 CFR Sections 1.92 and 1.93)

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Dated: July 30, 2019.

By Order of the Maritime Administrator.

**T. Mitchell Hudson, Jr.,**  
*Secretary, Maritime Administration.*

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