

BIL MarTREC Tier 1 UTC Project Request Form

Completed form should not exceed 2 pages Return to Amy Shell at shell@uark.edu

Submission Date: January 3, 2024

Lead Recipient/Grant Number: University of Arkansas / 69A3552348331

Principal Investigator Institution: Texas A&M Transportation Institute

Center Name: Maritime Transportation Research and Education Center

USDOT Research Priority: Preserving the Existing Transportation System

Primary USDOT Strategic Goal (select drop down): Economic Strength and Global Competitiveness

Principal Investigator(s) with ORCID(s) and Contact Information:

C. James Kruse (ORCID ID 0000-0002-7519-161X)— j-kruse@tti.tamu.edu — 713-613-9210

Project Partners: National Waterways Foundation

Project Type (select drop down): Applied Research

Project Research Topic Type (select drop down): Maritime and Multimodal Supply Chain Management

Transportation Modes Involved (check all that apply): \square Waterway \square Road \square Rail \square Pipeline \square Other

Research Project Funding: *Include Federal funding amount, non-Federal funding amount, Total funding amount* - MarTREC funds \$126,755, National Waterways Foundation match \$63,377, Total Budget \$190,132. *Amount of funding that will be spent on planned Technology Transfer activities* - \$5000 for the video and \$5000 in the preparation and dissemination of educational materials.

Project Start and End Dates (Format month/day/year to month/day/year): 8/1/23 to 7/31/25

Project Title: Evaluation of employment options in the inland waterways sector

Project Abstract (Brief Description):

This project will undertake an analysis of employment opportunities in the inland waterways sector. The analysis will include a comparative analysis of employment factors across the modes of rail trucking and inland waterways, calculate the benefits the nation enjoys as a direct result of employment by the inland waterway industry, and develop an educational toolkit about job opportunities in the inland waterway sector.

USDOT Priorities: Describe how the project supports US DOT priorities and the RD&T strategic goals. Also describe how the project engages in breakthrough, advanced, or transformative research. The inland waterway sector, like other sectors, is facing a serious labor shortfall. This project enables them to see how employment in their sector compares to other sectors and will allow them to be more effective in recruitment. Other interested stakeholders will gain an understanding of how inland waterway employment is unique and desirable.

Outputs (results of the work performed): Describe what new research, technology, or process this research project is expected to produce or has produced. The outputs could include processes and methods; data, hardware, software and databases; invention disclosures, patent filings, inventions, etc. Also describe any new partnerships outside of the UTC consortium that may be established or have been established through the project. Three specific deliverables: (1) A 5-minute video discussing what inland waterway employment is desirable. (2) Toolkit/brochures for use by parents and educators. (3) Project report that describe tasks performed, data used, methodologies employed, and important results and conclusions. The video will be turned over to the National Waterways Foundation for its use. The toolkit materials will also be submitted to the NWF, with the details on how to get the word out to interested parties still to be determined. The report can used to educate a wide variety of stakeholders. It will be published on the NWF website.

Outcomes/Impacts: Describe the application of the output and any changes this output has or will make to the transportation system, or its regulatory, legislative, or policy framework, including a description of products or patents, or a change in practice, or instances of research results informing policy decisions.

Discuss how this research output will positively impact the transportation system in terms of safety, reliability, durability, costs, etc.

This project will allow the inland waterway industry to have a better understanding of its position in the labor market. It will also provide tools to make students and stakeholders aware of what is involved in working in this industry.

Technology Transfer Activities: Describe planned activities that will make research results available to potential users in a form that can be implemented, utilized, commercialized or otherwise applied. What percent of the budget

The video will be turned over to the National Waterways Foundation for its use. The toolkit materials will also be submitted to the NWF, with the details on how to get the word out to interested parties still to be determined. The report can used to educate a wide variety of stakeholders. It will be published on the NWF website.

Final Research Report: Upon completion of the project, provide a URL link to final report will be provided

Project Deliverables: ⊠ PI agrees to submit all deliverables within 4 weeks after the project end date.

Data Management Plan (DMP): ⊠ PI has reviewed and agrees to adhere to MarTREC DMP. Proposed project DMP must be attached to the submission email along with this form.

Heather Nachtwarm

Center Director Approval Signature and Date:

01/01/2024