



C F I R E
NATIONAL CENTER FOR
FREIGHT & INFRASTRUCTURE
RESEARCH & EDUCATION

Traffic Operations and Safety STAR: Grant Year 4 RFP

PROJECT TITLE: Innovations in Traffic Operations and Safety

PROBLEM STATEMENT: With growing numbers of personal vehicles sharing the roadways with an ever increasing number of trucks of larger size, understanding the safety and operational issues of freight vehicles has never been more important. Specifically, understanding issues related to freight safety, operational simulation, traffic incident management, human factors, enforcement, data management, and advanced technologies is critical to advance knowledge in the freight operations and safety area. Furthermore, rethinking traffic operations and safety issues from the customer perspective – shippers, carriers, and freight system users, must be considered. Research is needed to explore the vast array of operational and safety impacts of alternative freight management strategies.

Proposals that suggest transformative changes in freight operations and safety are strongly desired. Although any research topic will be considered, changes in system management, driver behavior, and travel time optimization are of particular interest and should include all relevant issues, including sustainability, energy use, and service life.

POTENTIAL RESEARCH AREAS: The Request for Proposals is developed intentionally to solicit a broad range of potential approaches to addressing these critical issues. Some of the potential research areas include (this list is not exhaustive):

- Commercial Vehicle Infrastructure Integration (VII)
 - Innovative freight enforcement
 - Next generation of traffic control
 - Alternative ground modes of freight
- Multi-state models
- Driving simulation – behavior and comprehension
- Freight safety audits
- Freight contribution to infrastructure improvements

A single proposal may address multiple issues, however, not all of these topics will be selected for funding.

INSTRUCTIONS TO RESEARCHERS: Proposals are expected to clearly articulate specifically how the research will have an impact on the freight transportation. Procedures for applying the changes suggested by the research should be plainly described and methods for transferring the developed technology into practice should be outlined.

ESTIMATED PROJECT DURATION AND COST: Proposed projects are expected to have a 1 or 2 year duration with an annual budget not exceeding \$75,000. Proposals must clearly justify the suggested time frame and required budget. Non-Federal matching funding is strongly suggested.



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