

<p>Project Title: Developing and Applying a Methodology to Identify Flow Generation Influences between Vessel and Truck Shipments</p>
<p>Project Abstract (Brief Description): Truck activity is logically connected to, and generated by, vessel activity at a port. In turn, vessel activity is generated by truck shipments. Although one might expect a 1-to-1 relation between the two types of shipments, that is unlikely the case. For instance, many maritime containers carry consolidated cargos that have multiple (and different) final destinations. Furthermore, different truck capacities and regulations play a critical role in determining the actual relation between these two shipment modes. A clearer and quantitative understanding of the relationship between vessel and truck shipments enables agencies and organizations to develop a system for managing trucks that maximizes efficiency for industry, while minimizing industry’s negative impacts on a region.</p>
<p>Describe Implementation of Research Outcomes: The model will be tested (implemented) at Port Freeport. Lessons learned from this case study implementation can inform future port applications.</p>
<p>Impacts/Benefits of Implementation: Simulations based on the results from the statistical analysis will be applied to scenarios of maritime-road flows. The outcome of the simulation will be a minimum of 3 scenarios to provide nominal values of specific maritime-road flow interactions. Specific simulation input values will be based on “real-world” data and framed by the case studies. One such case study will be Port Freeport, Texas because it offers unique characteristics that facilitate testing the methodology on a broad array of factors that enable model generalizability.</p>
<p>Web Links: https://martrec.uark.edu/</p>
<p>Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): \$89,261 from MarTREC and \$44,630 from matching funds for a total of \$133,891.</p>
<p>Project Start and End Dates: 12/01/2017 – 03/30/19. Project complete</p>
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