



The Implications of Panama Canal Expansion to U.S. Ports and Coastal Navigation Maritime Planning

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The proposed expansion of the Panama Canal has been viewed as a 'game changer' to the world's shipping industry and will have significant impacts on trade routes, port development, cargo distribution and a host of others to the U.S. maritime system. One of its greatest impacts will be felt in the fast-growing container trade where expansion will enable larger vessels to transit the canal. Vessel calls on the U.S. East and Gulf Coasts are also expected to increase significantly as cargo shifts away from the congested U.S. West Coast. The challenge is predicting the timing and extent of the impacts as well as the location of the impacts on fleets and cargo, i.e., which ports will be most impacted? Congress and policy makers in the U.S. have been concerned about these uncertainties and have looked to the Corps of Engineers and other federal agencies in developing strategies to meet the many challenges facing U.S. ports following the Canal's Expansion, particularly in an era of constrained budgets and heightened environmental scrutiny.

In recent years, the Corps of Engineers, private industry and academia have undertaken several notable studies leading up to and following the Panama Canal's Expansion. This work provides key insights into the extent and types of data, maritime metrics, forecast methods, and outreach strategies when planning and evaluating port projects. And while the Canal's expansion has certainly been a catalyst, there have been broader implications of making sound investments in an even more uncertain world. For example, natural disasters, unforeseen drop in oil prices, continued consolidation of the liner industry have forced the Corps of Engineers to adapt its thinking when it comes to its national port infrastructure investments. Perhaps the most significant undertaking has been an update to the U.S. Port Modernization Study, a Congressionally-directed assessment of the U.S.'s ability to accommodate the increased size and number of vessels following the Canal's expansion. The update, which is expected to be completed in July 2018, will attempt to answer the following questions:

- (1) How has the landscape changed since 2012 with respect to shipping, trade, population?
- (2) Have the predictions laid out in the report been realized and what adjustments need to be made with respect to forecasts and policy?
- (3) What effects have U.S. ports experienced since 2012 (cargo, vessel calls, constraints on overall system)?
- (4) How has the Corps responded to the changes over the past several years and are ports still equipped to accommodate the expected vessel sizes and cargo volumes?
- (5) What are the key metrics that the Corps should monitor as the expanded Panama Canal continues to be operational and as the economy continues to heal? The ultimate goal could be a strategy for updating a report of this kind in the future.
- (6) What are the major gaps in knowledge and information needed to as well as the remaining challenges?
- (7) Based on the findings, what other recommendations (besides the estimated modernization costs) can the Corps provide policy makers?



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