Discrete-Event Simulation of the Establishment of a Bare Beachhead for Long-Term Joint Logistics over the Shore (JLOTS) Operations

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Abstract: The United States military uses Joint Logistics Over-the-Shore (JLOTS) operations to move soldiers, vehicles, and equipment across the globe for military and humanitarian missions. These logistics operations can only be accomplished through cooperation between commanders in all services. The U.S. Army Engineer Research and Development Center is developing a tool to analyze a set of early entry alternatives to optimize mission effectives and efficiencies in order to facilitate assured mobility and freedom of movement. This program is currently being developed under the name Planning Logistics Analysis Network System (PLANS). PLANS comprehensively covers air, land, and sea transportation infrastructure, regions of avoidance, and more. This research addresses a gap in strategic and operational planning by modeling the establishment of JLOTS operations on bare beach environments. The West Point-developed discrete event simulation will determine the amount of time it takes to prepare a beach to sustain JLOTS operations under varying environmental and operational conditions.

Keywords: JLOTS, bare beachhead, discrete-event simulation