

Joint Deployment Energy Planning and Logistics Optimization Initiative (J-DEPLOI)

3 August 2018 – ME Auditorium – 1300

Mr. Kawakahi Amina

Program Manager, Technology Innovation,
Electric Power Research Institute (EPRI)

Mr. Shawn Charchan

Senior Operations Research Analyst, Group W Inc.

Mr. Joel Young

Energy Analyst, Valiant Integrated Services



Mr. Kawakahi Amina



Mr. Shawn Charchan



Mr. Joel Young

Abstract

Current logistical planners lack the analytic tools and methods to consider Operational Energy (OE) requirements early enough within the Joint Planning Process (JPP) when developing Department of Defense war plans. Consequently, these plans have the potential to include logistics supportability risks that may or may not be recognized by decision makers in a timely manner.

The United States Indo-Pacific Command (USINDOPACOM) Area of Responsibility (AOR) is characterized by vast distances with few—if any—logistical nodes and hubs. USINDOPACOM plans often involve the transit and transportation of tremendous amounts of people, equipment, fuel, and other critical supplies in a complicated and complex portion of the globe. Moreover, potential near-peer adversaries within the region further confound the sustainment of US forces, partners, and allies. Put simply, the consideration of logistical risks must be identified and considered as early as possible in the joint deliberate planning process before a course of action is selected and while mitigation options can be incorporated.

In light of these challenges, USINDOPACOM with support from the Assistant Secretary of Defense Research and Engineering – Operational Energy (ASD R&E-OE) office, in collaboration with the U.S. Army Corps of Engineers Engineering Research & Development Center – Geospatial Research Laboratory (USACE ERDC GRL), Institute for Defense Analysis (IDA), and Group W, INC. developed the Joint Deployment Energy Planning and Optimization Initiative (J-DEPLOI). J-DEPLOI seeks to provide an analytic tool and associated policy/process improvements to allow the operational planner to visualize, quantify, and collaboratively evaluate fuel logistical vulnerability of various courses of action (COAs). Ultimately these evaluations support the further refinement of COAs and help inform the Commander's COA selection.

Biographies

Mr. Kawakahi Amina is the Logistics Science and Technology lead at United States Indo-Pacific Command (USINDOPACOM) J46X. He began his career with the Department of Defense at USINDOPACOM exploring innovative technologies and capabilities to reduce energy consumption and increase energy efficiency at contingency bases. His past work includes projects in expeditionary waste-to-energy, 3rd Generation drop-in compatible biofuels, and energy modeling and planning. Currently in the USINDOPACOM J4 – Logistics, Engineering, and Security Cooperation Directorate, Mr. Amina specializes in the development and assessment of logistic-focused science and technology projects to support the joint warfighter in the Indo-Pacific area of responsibility including efforts in autonomy, robotics, and expeditionary engineering. Originally born and raised in Honolulu, HI, Mr. Amina received his degree in Human Biology and Physiology from Dartmouth College, NH.

Mr. Shawn Charchan is a Senior Operations Research Analyst with Group W Inc. Mr. Charchan received his undergraduate degree in Quantitative Economics from the US Naval Academy. Upon receiving his commission he entered the Marine Corps as a Ground Supply Officer, later becoming a Ground Logistics Officer. Mr. Charchan graduated from the Naval Postgraduate School with a MS in Operations Analysis, then went on to use the skills he obtained at NPS to design, execute and report on Operational Tests for Marine Corps Ground Combat Systems. After ten years of service Mr. Charchan transitioned out of the Marine Corps, and for the last eight years has been performing modeling, simulation, analysis, and research for the national security community.

Mr. Joel Young is an Energy Analyst with Valiant Integrated Services and supports U.S. Indo-Pacific Command's Operational Energy Office, J81 Innovation & Experimentation Division. Mr. Young has been involved in waste to energy technology development, operational energy planning tools development, as well as cyber security of industrial control systems experimentation. Mr. Young's background includes working as a utilities engineer, corrosion engineer and base operations support engineer for Naval Facilities Engineering Command. He also worked for NAVSEA as an underway replenishment engineer. Mr. Young retired with 31 years of service as a Navy civilian in 2014 and relocated back to Hawaii and holds a degree in Mechanical Engineering from the University of Hawaii.

