

Operational Energy Readiness



**Prepared for
House Committee on Armed Services**

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Request from House Committee on Armed Services (HASC) Report 117-118 on the FY22 NDAA

HASC Report 117-118, page 246, requests the Secretary of Defense to provide a briefing on Exercises in the European Command (EUCOM) and Indo-Pacific Command (INDOPACOM) areas of responsibility where fuel supplies for combat and non-combat units actively participating in such exercises originated from sources that could be disrupted or made completely unavailable by the notional adversary portrayed in such exercise.



Operational Energy Readiness: EUCOM

- EUCOM routinely incorporates fuel challenges into exercises, and continues to learn and adjust concepts of support based on these insights.
- Near term efforts expand the role of fuel disruptions in Tabletop Exercises, Wargames, and Exercises incorporating NATO allies and commands for combined unity of effort.
- Fuel supply chains are under continual evaluation for new disruptions caused by changes in the operational environment.
- Details on assumptions, challenges, red actions, methods of disruptions, and other exercise elements are classified at the SECRET level.



Operational Energy Readiness: EUCOM Contested Logistics Exercises

Exercise	Date	Exercise Focus
AUSTERE Challenge (AC)	13-26 MAR 2019	<ul style="list-style-type: none"> AC19 included bulk petroleum assumptions on challenges to the fuel supply chain. Included fuel disruptions that affect the movement of forces and found areas for improvement in distribution capabilities
Joint EUCOM TPFDD Series (JETS) Wargame	10-21 AUG 2020	<ul style="list-style-type: none"> Tested fuel assumptions during multiple phases of operations. Utilized red disruptions to the fuel supply chain challenging planners to use alternative paths.
EUCOM Fuel Tabletop 21	12-16 APR 2021	<ul style="list-style-type: none"> Tested early phase fuel concepts of support and effects of capacity reductions in storage and distribution due to red disruptions.
Defender (DEF) Series Exercise	Summer 2021	<ul style="list-style-type: none"> DEF21 tested Joint Petroleum Over the Shore capabilities in Albania with 20,000USG pumped from sea to shore utilizing the Amphibious Bulk Liquid Transfer System. Established Convoy Support Centers for unit movements.
EUCOM Fuel Tabletop 22	26-30 SEP 2022	<ul style="list-style-type: none"> Combined tabletop exercise between EUCOM and NATO Commands. Tests CL III(B) supply chains for risks and mitigation strategies for future inclusion in planning. Identify CL III(B) C2 gaps between U.S. Forces and NATO Commands.
Central European Pipeline System (CEPS) Cyber Tabletop Exercise	25-28 OCT 2022	<ul style="list-style-type: none"> The TTX involves all CEPS nations from the national system operators to the policy level Test CEPS responses and recovery potential to various cyber attacks.



Operational Energy Readiness: INDOPACOM

- INDOPACOM has identified consistent challenges to the delivery of fuel in contested environments, and understands that posturing fuel at the point of need prior to the transition to crisis is essential to overcoming the tyranny of distance and the speed of logistics.
- The U.S. leads or participates in over 100 Major Exercises in the USINDOPACOM Theater. The level of logistics emphasis varies depending on the participants in and focus areas of the exercise.
- Several Command Post Exercises (CPX) have explicit and focused training objectives designed to exercise strategic and operational logistics, including the use and distribution of energy; currently, bulk fuel is the primary source of energy. These allow for the simulation of the large amount of assets and their sustainment trail to be tested.
- Joint Staff has included several USINDOPACOM exercises into Large Scale Global Exercise as an umbrella to rehearse logistics synchronization across multiple strategic and operational locations over four months. These are Field Training Exercises (FTX) and allow for the actual employment of assets and their sustainment trail on a large scale.



Operational Energy Readiness: INDOPACOM Contested Logistics Exercises

Exercise	Date	Exercise Focus
Pacific Sentry	17-24 JUN 2021	<ul style="list-style-type: none"> • These exercises each have objectives related to strategic and operational logistics, including the use and distribution of energy. • Currently, fossil fuel is the primary source of energy. • These are Command Post Exercises that simulate the movement and distribution of multiple classes of supply, including bulk fuel, and assess the resilience of the sustainment supply chain.
Pacific Fury	4-11 FEB 2021	
Keen Edge	27 JAN-3 FEB 2022	
Balikatan	12-23 APR 2021	<ul style="list-style-type: none"> • These exercises were part of the Joint Staff-led Large Scale Global Exercise to rehearse logistics synchronization across multiple strategic and operational locations. • Activities included force flow into Balikatan (Philippines), continued with Northern Edge (Alaska), and concluded with Talisman Saber (Australian) • As Field Training Exercises, these exercises allow for actual employment of assets and sustainment trail on a large scale.
Northern Edge	3-14 MAY 2021	
Talisman Saber	18-31 JUL 2021	



Operational Energy Readiness: Other Joint Exercises, Wargames, and Tools

Beyond exercises in EUCOM and INDOPACOM, the Department uses a range of exercises, wargames, and analytical tools to evaluate the operational risks of energy disruptions

Wargame	Date	Focus Area
Low Profile Vessels	May 2023	<ul style="list-style-type: none"> Low Profile Vessels (LPV) may provide a promising multi-capable distribution platform to enhance the ability of the Joint Force to provide logistics sustainment in a contested environment. Develop and conduct a wargame to evaluate LPV effectiveness across CCMD AoRs.
Red Logistics I & Red Logistics II	Jul – Nov 2022	<ul style="list-style-type: none"> Develop and conduct a logistics wargame series that improved our understanding of Red for future Blue COAs. Develop a detailed system/network understanding of Red fuel and energy supply chains. Assess the capabilities and potential vulnerabilities of the Red system. Red Logistics efforts include INDOPACOM and EUCOM, but also provide a more global view.
Pacific Energy Distribution and Critical Infrastructure Wargame (PEDCIW)	Oct - Nov 2021	<ul style="list-style-type: none"> Identify operational risks when using current energy related infrastructure and weapons systems to meet OPLAN requirements. Identify investment trade-offs for critical infrastructure priorities in the INDOPACOM AOR.
Joint Force Energy Wargame II (JFEW II)	Sep 2021	<ul style="list-style-type: none"> How the Joint/Combined Logistics Enterprise can prepare INDOPACOM theater energy environment for the high tech/high end fight.
Advancing Globally Integrated Logistics Effort 2021 (AGILE 21)	May 2021	<ul style="list-style-type: none"> US logistics actions that best support the agility of US force US actions required to strengthen US logistics survivability US logistics actions that best strengthen Allies and Partners
Joint Force Energy Wargame I (JFEW I)	Aug 2019	<ul style="list-style-type: none"> Identify operational energy risks. Assess gaps in capacity; identify opportunities to increase resilience. Explore concepts for enhancing survivability of INDOPACOM's energy infrastructure.
Tool	Date	Applications
STORM	Ongoing	<ul style="list-style-type: none"> Develop Bulk Fuel Laydown data for use in Contested Logistics campaign modeling and analysis



Summary

- EUCOM and INDOPACOM each conduct a range of exercises to evaluate the operational implications of disruptions to energy supplies for combat and non-combat units.
- The Department also utilizes a broader mix of wargames, tabletop exercises, and analytical tools to identify the operational risks of energy disruptions and inform the development of mitigating capabilities and concepts.