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Defense Primer: Department of Defense Pre-Positioned Materiel

As part of its global posture, the Department of Defense (DOD) maintains stocks of mission-essential equipment, supplies, and munitions deemed sufficient to attain and sustain strategic objectives in contingency plans. To facilitate rapid deployment of U.S. forces during the initial phases of operations, some of this materiel is *pre-positioned* at or near points of planned use in specialized facilities (i.e., *ashore*) and dedicated ships (i.e., *afloat*).

Why does DOD pre-position materiel?

Pre-positioned war reserve materiel (PWRM) reduces demand for strategic airlift and sealift assets by locating heavy and bulky materiel closer to the theater of operations. It sustains warfighters while supply lines are established and the industrial base surges production. PWRM may also be used to signal U.S. intentions. Materiel stored overseas may demonstrate commitment to allies and partners or enhance the deterrence of potential adversaries. As stated in the Army Operations Field Manual (FM 3-0), a robust PWRM inventory is essential to providing credible support to partner forces during a crisis. Accordingly, enhanced pre-positioning of equipment, munitions, fuel, and materiel is a core focus of both the European Deterrence Initiative (EDI) and Pacific Deterrence Initiative (PDI). During Operation Desert Shield in 1990-1991, PWRM enabled the delivery of Marine Corps armored units to the Persian Gulf one month before the arrival of other armored units shipped from the United States, according to the Congressional Budget Office. In 2003 during Operation Iraqi Freedom, DOD made extensive use of PWRM stored in the Middle East and Europe. Most recently, in 2022 DOD PWRM equipped U.S. forces supporting the NATO Response Force following Russia's invasion of Ukraine.

The effectiveness of large PWRM stocks, however, also makes them potential priority targets for adversary long-range weapons in conflict scenarios. Responding to such challenges, DOD's *Joint Concept for Logistics* envisions a "comprehensive array" of large and small PWRM stocks that can be selectively accessed and quickly shifted between theaters of operations, even in contested environments.

Responsibilities and Management

The Under Secretary of Defense for Acquisition and Sustainment establishes and maintains a DOD-wide strategic policy for WRM and PWRM. Combatant Commanders (CCDRs) determine PWRM operational requirements in accordance with strategic guidance; the Joint Staff then reviews and validates these requirements. Each military service (hereafter "service") maintains and administers PWRM to satisfy such requirements and meet the needs of CCDRs. The services rely upon the Defense Logistics Agency and contractor support to maintain PWRM, but may seek host nation support for some items.

Several sections of Title 10, *U.S. Code* (U.S.C.) govern PWRM, including the following:

- **10 U.S.C. §2229.** Requires the Secretary of Defense to maintain a strategic policy on pre-positioned materiel and to certify annually that current PWRM "meet all operations plans, in both fill and readiness."
- **10 U.S.C. §2390.** Authorizes sale of PWRM to non-DOD entities during declared international crisis. Requires prompt replenishment of stocks.
- **10 U.S.C. §118b.** The FY2021 National Defense Authorization Act, as amended, requires DOD to submit a classified report to Congress following publication of a new National Defense Strategy detailing PWRM requirements 5, 10, and 25 years into the future.

Funding

As with many other military functions for which DOD is both a customer and key supplier, successful management of DOD pre-positioned materiel involves both appropriated funds from Congress and defense working capital funds that purchase and manage inventories to stabilize item supplies and prices.

Two defense appropriations primarily fund PWRM: Operations and Maintenance (O&M) and Procurement. Services use O&M funds for both the pre-positioned materiel itself and the necessary expenses required to operate humidity-controlled ashore facilities and ships carrying afloat assets throughout the year. O&M PWRM requirements are categorized as either mobilization or operating forces requirements in DOD budget justifications. Procurement budgets integrate PWRM requirements within agency-wide requirements for a given weapon system. For example, upgrades to a combat vehicle may include procurements sufficient for "one Army Prepositioned Stock [APS] brigade" along with 4 (non-PWRM) Armor Brigade Combat Teams.

The European Deterrence Initiative (EDI) and Pacific Deterrence Initiative (PDI) budget exhibits summarize relevant DOD PWRM activities. For FY2023, EDI's enhanced prepositioning line of effort requests over \$687 million for O&M and \$586 million for Procurement.

Selected PWRM Programs

Army Pre-Positioned Stocks (APS)

The Army considers APS materiel "a cornerstone of the Army's ability to rapidly project power." Army Materiel Command (AMC) manages APS, while Army Sustainment Command and other AMC subordinate commands maintain the stocks through regional Army Field Support Brigades and Battalions (See **Figure 1**). APS contain several categories of materiel:

- **Unit Equipment Sets** contain combat equipment and supplies to support the Army's force projection strategy. Unit sets mirror Army force structure unit equipment (i.e., brigade combat team or sustainment brigade equipment sets).
- **Operational Project Stocks (OPROJ)** contain equipment above normal allowances to provide strategic capabilities essential to the Army's strategic deployment strategy.
- **Army War Reserve Sustainment Stocks** contain materiel (including vehicles and equipment) to sustain military operations by replacing combat losses and consumed supplies.

APS also includes War Reserve Stocks for Allies (WRSA)—which are stocks owned and funded by the United States to be released to supported allied forces under the Foreign Assistance Act (22 U.S.C. §2331h). DOD calculates WRSA requirements alongside PWRM requirements in joint scenario planning.

U.S. Navy and Marine Corps Pre-Positioning

The Navy and Marine Corps rely on the afloat Maritime Prepositioning Force (MPF) and ashore Marine Corps Prepositioning Program-Norway (MCPN) to expedite deployment of Marine Air-Ground Task Forces (MAGTFs). The Marines' Blount Island Command, a subordinate of Marine Corps Logistics Command, maintains the MPF and MCPN.

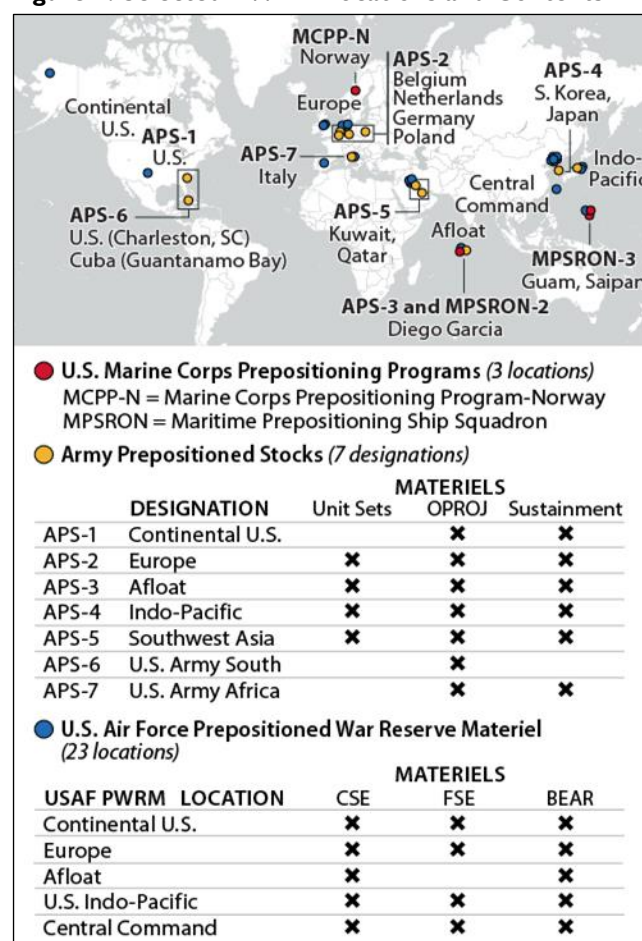
The MPF consists of two Maritime Prepositioning Ship Squadrons (MPSRONS), operated by the Navy's Military Sealift Command (MSC). Each MPSRON carries unit equipment and 30 days of supply for one brigade-sized MAGTF when combined with an echelon of personnel, light equipment, and combat aircraft. Each squadron is capable of discharging its cargo pierside, ship-to-ship, ship-to-shore, or by air. MCPN consists of ground equipment, munitions, and aviation support equipment to supply a Marine Expeditionary Brigade for 30 days.

Key U.S. Air Force PWRM

The Air Force's PWRM is managed by Air Force Materiel Command. Across 23 worldwide locations, Air Force PWRM stocks consist of dispersed ashore assets and munitions necessary to initiate expeditionary operations. Some afloat munitions stocks are also stored aboard two MSC vessels that are under the tactical control of the relevant geographic CCDR. The Air Force also pre-positions consumable items such as food and fuel, and sets of equipment designed to provide expeditionary operational support, fuel support, damage recovery, force protection, and medical capabilities. Air Force PWRM consists of three major categories of materiel:

- **Common Support Equipment (CSE)** sets provide aerospace ground equipment, vehicles, and munitions support equipment to support initial combat operations.
- **Fuels Support Equipment (FSE)** sets provide ground and aircraft fuels support.
- **Basic Expeditionary Airfield Resources (BEAR)** sets provide personnel support, infrastructure, and flight line support at forward operating sites.

Figure 1. Selected PWRM Locations and Contents



Source: Created by CRS. MCPN and MPSRON information from Joint Publication 4-01, The Defense Transportation System (July 2017). APS and USAF PWRM information from U.S. Army G-4 and U.S. Air Force A-4 respectively.

Considerations for Congress

- **PWRM for distributed operations.** Recent changes to service operational concepts and battle doctrine emphasize the need to sustain military operations across wider geographical areas than in previous decades. As a result, CCDRs may require more widely distributed and resilient networks of PWRM assets, both *ashore* and *afloat*. Congress may wish to evaluate DOD assessments of long-term PWRM requirements, such as those associated with the National Defense Sustainment and Logistics Review (Title 10 U.S.C. §118b).
- **Improved Oversight of PWRM.** In FY2023, the DOD Office of the Inspector General (OIG) is reportedly auditing Army PWRM issued in response to Ukraine and NATO defense forces, along with accountability controls over transported equipment. Congress may wish to review whether it receives sufficient information to assess DOD's pre-positioned stock levels and replenishment rates in light of total requirements for strategic and contingency plans.

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