USMC Prepositioning Programs

Our go-to-war equipment and supplies

by Col Andrew J. Bergen

The Marine Corps prepositioning programs have changed since the last major Maritime Prepositioning Force (MPF) offloaded between 2003 and 2004 in support of Operation IRAQI FREEDOM (OIF). While afloat capability was reduced with the off ramp of Maritime Prepositioning Squadron 1 (MPSRON 1) during the early 2010s, prepositioning remains a critical enabler of Marine Corps support to the joint force commanders who treasure prompt global response. Prepositioning programs also contribute to deterrence when enabling theater support cooperation throughout the globe. The Corps must plan for long-term future prepositioning capabilities while increasing the program's relevance in the near term. Opportunities include the continued refinement of response packages and capability sets to support Marine Corps concepts such as the *Marine Corps Operating Concept* (*MOC*), the Expeditionary Advanced Base Operations concept (EABO), and enhanced logistics information technology integration and in-transit visibility. There are challenges as well, including operational employment in a contested environment against a peer competitor and within the programmatic realm in which the Marine Corps ultimately relies on resourcing from its sister Service, the U.S. Navy.

This article provides a current update of our Corps' strategic prepositioning programs. The programs must be evaluated in light of the National Defense Strategy (NDS) as we envision operations against peer competitors, as was the case during prepositioning program's inception during the Cold War.

The MPF has served the Corps well when operating within the protective bubble of all domain dominance provided by the Joint Force, albeit against lesser adversaries. Greater numbers of more survivable future platforms will be expensive when competing for scarce resources as the Navy also addresses higher priority warfighting capability gaps. *(Photo provided by author.)*

Following a brief history, the article addresses the opportunities and challenges across the operational, programmatic, and innovation realms.

A Brief History

The Marine Corps' strategic prepositioning capabilities were developed in the late 1970s as a way to rapidly introduce credible combat forces into Europe or the Middle East as the United States grappled with the Soviet Union and Warsaw Pact—then peer competitors in the air, on land, at sea, and in space. Identical to how the Marine Corps operates today, the employment of the MPF required combined/joint force supremacy in time and space across all four domains; however, the current force must also contend with the cyber domain. Prepositioned equipment and supplies were eventually built up to three Maritime Prepositioning Squadrons, each holding the majority of

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a MEB's equipment and supplies with a lighter fourth MEB positioned in central Norway. As is the case today, the programs displayed strategic resolve and were a deterrent to peer competitors.

Marine Corps prepositioning capabilities were eventually employed during 1990 within the Middle East, an anticipated region, but against a significantly lesser adversary, the regime of Saddam Hussein. The Corps' prepositioning concept of rapidly closing mechanized brigades with organic fires and logistics combined with aircraft flying via a flight ferry proved vital in dissuading Hussein from further aggression while a grand coalition was built to retake Kuwait. Following DESERT STORM, the MPF was hastily reconstituted and employed again in support of Operation RESTORE HOPE in Somalia. Prepositioning operations remained extremely important to Marine forces and MEF planners, as they were to be utilized in any subsequent major combat operations anywhere in the world. Interest and knowledge of MPF proved a wise investment as it was again employed in support of OIF in 2003 and 2004; equipment and supplies from the Marine Corps Prepositioning Program–Norway (MCPP-N) were also utilized in support of combat operations and to fill home-station training shortfalls as operations in Iraq and Afghanistan continued.

While Blount Island Command focused on reconstitution of the MPF and eventually MCPP-N during the mid-2000s, the command's focus shifted support to Marine forces in Iraq and Afghanistan, providing the headquarters and contracting labor support to Marine Corps Logistics Command–Forward (MARCORLOGCOM-FWD). The command also worked with HQMC and Military Sealift Command as the MPF program divested smaller, aging, and less capable vessels for newer, larger, medium-speed roll-on roll-off ships in order to mitigate the impacts of fielding larger and heavier equipment. Two supply ships providing break bulk stowage and two expeditionary transfer docks supporting ship-to-shore movement were also introduced.

Despite shifts in the strategic landscape and an increasingly revanchist Russia, which invaded the Republic of Georgia in 2008, a decision was made in 2012 to divest one of the original three squadrons, MPSRON-1, formerly based in the Mediterranean Sea. This upset the original habitual alignment of each MEF with one squadron; it also decreased the percentage of forward deployed equipment and supplies readily available to rapidly outfit a MEF. Whereas three squadrons ensured two and a half forward deployed at any given time, the divestment of MPSRON-1 left our Corps with only one and a half (or less, based on ship maintenance delays) forward at any given time. Shipyard delays have left up to four ships' worth of equipment and supplies, a third of the current twelve-ship MPF (excluding both expeditionary transfer docks) downloaded at Blount Island Command.

While not a formal program of record, the MEU Augmentation Program-Kuwait (MAP-K) has morphed over the years, supporting operations across the Middle East, and continues to provide support to Marine Forces Central Command and its forward deployed MEUs and assigned task forces.

Operational Realm

The future holds many opportunities and challenges for today's strategic prepositioning programs as they support geographic combatant commander shaping operations in exercises throughout the globe (five major exercises in 2018, four during 2019, and six during 2020). MCPP-N also supports several smaller exercises each year; its usage has greatly increased following the divestment of MPSRON-1. These programs are also ready to support forces that will deter aggression against any of the adversaries mentioned in the current NDS. The deployment and employment of the MPF today, as is the case with most other joint and combined forces closing via vulnerable means of conveyance, remains reliant on combined and joint forces mitigating adversary threats across all five domains.

Both MPSRONs continue to support the preponderance of two MEBs' equipment and supplies based on Marine Corps Force 2025; the CMC prioritizes what is loaded, and Blount Island Command works with HQMC Installations and Logistics, MARCORLOGCOM, and Marine Corps Systems Command to ensure equipment and supplies are available and operationally ready for embarkation. The MPFs' load out during the current MPF Maintenance Cycle 12 provides 58 percent of two MEBs' worth of equipment and supplies to support initial operations. This percentage is the result of the increased capabilities of the MEB and associated equipment that is not traditionally loaded on the MPF because of cost and procurement plans (e.g., communications, headquarters, and high-mobility artillery rocket systems). Each squadron provides 19 percent of the Command Element's table of equipment, 75 percent of the GCE's, 67 percent of the ACE's, and only 33 percent of the LCEs. These facts must be considered as arrival and assembly operations wind down and MAGTF operations commence while the remainder of the MEB's capability is closed via U.S. Transportation Command's strategic air and surface capabilities. Because of the divestment of MPSRON-1 and a third MEB equipment set, the remaining two squadrons provide 22 percent of a MEF's requirement. Furthermore, MCPP-N's capability is being refined in light of NDS priorities. Large-scale exercises and strategic mobility exercises are continually planned and coordinated with our Norwegian allies. MCPP-N and USNS *Lopez* were major enablers in 2018's NATO Exercise TRIDENT JUNCTURE in Norway.

Peer competitors across domain capabilities challenge the employment of the current Maritime Prepositioning Squadrons, which are manned by government, civilian, and contracted mariners who lack any real defensive capabilities other than those provided by nearby combatant vessels. This remains a significant challenge, especially when deploying closer to the shores of a peer competitor. Military Sealift Command is developing a nascent capability in which Reserve naval personnel embark aboard Maritime Prepositioning Squadrons and work to keep the ships integrated within the protection of the combatants. The introduction

of current MPF capabilities will be dependent on joint and combined force dominance in time and space across all five domains. Host-nation support has also been utilized in the past to rapidly assemble the force and is planned for future contingencies.

As the equipment and force structure behind Marine Corps Force 2025 continues to grow and provide increased operational and force protection capabilities, there are no currently available acceptable substitutes for large ocean-going vessels to rapidly close heavy military equipment within the Marine Corps' arrival and assembly timelines.

Excluding its inability to operate at acceptable risk in a contested environment until the area of operations is properly set by the joint/combined force, the MPF retains relevance in supporting the tenets of the MOC and concept of EABO. For instance, each MPSRON is currently loaded with a crisis response force package comprised of tailored equipment and supplies to support a 5,000-man MAGTF, including an outsized aviation component and is loaded for rapid download across three vessels. The MPF also contains critical enabling capability sets that are loaded for rapid offload. These packages enable the establishment of forward arming and refueling points and support limited expeditionary airfields. Five ships have an assault amphibious fuel system with the ability to pump fuel or water up to two miles from shore into a 1.2-million-gallon storage capacity. Other fuel capabilities include the tactical airfield fuel-dispensing system with 320,000-gallon storage capacity, the helicopter expeditionary refueling systems of 500-gallon drums and 3,000-gallon bladders, and 900-gallon truck-mounted fuel containers. Other readily assessable capability sets include water storage (80,000 gallons produced by two tactical water purification systems), sustenance, tentage, medical, and security.

The MAP-K continues to support Marine Forces Central Command requirements. While the program's current amount of mine-resistant ambush protected vehicles could support operations anywhere, the capability requirement is being reviewed by HQMC and Marine Forces Central Command. The divestment of large amounts of these vehicles will reduce the amount of warehouse space required for the program, allowing the entire MAP-K to be housed aboard Camp Arifijan, Kuwait.

The MPF has served the Corps well. *(Photo by author.)*

Programmatic Realm

Programmatic opportunities exist as MPF Maintenance Cycle 13 (2020–2023) is planned to maximize the amount of equipment and supplies loaded aboard the MPF while seeking to modernize critical capabilities across the MAGTF, including Joint Strike Fighter and CH-53K support requirements, the joint light tactical vehicle, and the amphibious combat vehicle. Modernized equipment will also drive alterations to prepositioned support equipment, repair parts, lubricants, and batteries.

While Blount Island Command coordinates program resourcing with MARCORLOGCOM and HQMC Installations and Logistics, the current challenges involve programs that require funding from our sister Service, the Navy. Naval funding of Military Sealift Command-provided platforms is set to increase. Recently, vessels were delayed for as long as six months, leaving equipment and supplies that were refurbished on Blount Island exposed to the elements for too long. More importantly, equipment and supplies are not forward deployed and ready to respond to contingencies. Over the past two years, it has not been unusual to have four ships, or 33 percent worth of equipment and supplies, aboard Blount Island at any one time. Costs will only increase, as the five Bobo class ships are over 30 years old today, edging toward the end of a 50-year service life by the mid-2030s.

As the Navy explores ways to improve current and long-term readiness, increased resourcing will be required. There is currently a debate over how to support the prepositioning programs, the surge, and ready sealift required to move the rest of the force under our current mobility paradigm; the considerations include service life extensions for the most capable current vessels, buying or leasing commercial capacity, and/or buying new ships, specifically the common hull auxiliary multi-mission platform (CHAMP). A common hull will support various mission sets, including prepositioning and strategic sealift, aviation intermediate maintenance support, medical services, command and control, and submarine tending, thus leading to cost savings associated with economies of scale. This will require real resourcing, unlike the MPF recapitalization between 2008 and 2010, which was resource neutral as existing government owned vessels from the surge and combat support fleets replaced leased commercial vessels.

Prepositioning will remain a low priority for the Navy, especially in light of naval warfighting gaps against a peer competitor. CHAMP and other

concepts considering greater numbers of smaller, more survivable, shallower drafting and semi-submersible vessels will compete for constrained resourcing and require solid force movement and ships' characteristic requirements. A greater number of smaller and more survivable prepositioning ships, combat loaded with tailored equipment sets, will change the current paradigm. Furthermore, a larger number of ships will mitigate risk in a contested environment, as any ship lost is a smaller percentage of the overall capability.

Finally, funding to support the maintenance of the Navy's improved Navy lighterage system has also receded as the program reaches its midlife. As MPF's organic connectors, the system requires proper resources to continue to perform during the second half of its service life, which will likely be extended as well. This capability is interoperable with amphibious vessels, has substantial lift capability, and is quieter than other ship-to-shore mobility as it approaches a foreign coast. Furthermore, it could be used to lighten vessels and reduce a ship's draft prior to entering ports.

Innovation Realm

While challenges remain in coalescing logistics information technology, Blount Island Command's fifteen-year experiment with passive radio frequency identification (pRFID) for planning and tracking during arrival assembly has proven to be highly effective during exercises and has been exported to MCPP-N as well as MARCORLOGCOM. Increased use of pRFID for virtual accountability in garrison and in transit visibility from staging areas to ports of embarkation and debarkation will benefit the entire Marine Corps. Combat Logistics Regiment-15, 1st MLG is currently experimenting with its use as well.

Two major exercises during 2018, COBRA GOLD in Thailand and TRIDENT JUNCTURE experimented with use of its Global Combat Support System-Marine Corps enterprise automated task organization tool, which will be utilized during a large-scale contingency. Deploying units expand their provisional accounts while integrating prepositioning equipment and supplies with home-station capabilities flow via strategic sea and air lift. This use of our Corps' supply accountability and maintenance system of record, particularly during TRIDENT JUNCTURE, is something to build upon, and valuable lessons learned will be leveraged by all Marine forces and MEFs. Exercising the enterprise automated task organization process will also ensure all maintenance conducted is captured and available for historical maintenance trends as service requests are transferred.

Blount Island Command retains detailed data on the tens of thousands of items within its prepositioning programs within the Marine Corps Prepositioning Information Center suite of applications which have also become increasingly capable over the last fifteen years. Interface with the Sea Service Deployment Module is under development to enable the Operating Forces visibility and planning of force closure and arrival and assembly operations. Both systems are now complementary until greater interface is achieved.

Further integration of logistics systems for planning, executing, and assessing logistics support remains a goal for prepositioning programs. The acquisition of tablets during 2019 will allow Blount Island to "go paperless" during exercise support as well as during maintenance and supply operations on Blount Island, in MCPP-N, and in the MAP-K. These tablets have pRFID sensors, tag reading and writing capabilities, and the ability to upload joint limited technical inspections while accessing Global Combat Support System-Marine Corps and pertinent maintenance and supply publications when connected to a network.

Conclusion

Despite being developed with peer competitors in mind, the Marine Corps' prepositioning programs have never been employed in the face of such an adversary. Unless our Corps decides to fundamentally alter its combined arms doctrine requiring armored maneuver forces supported by fires with corresponding heavy sustainment requirements, the deployment and employment of current and future capabilities will require large or many ocean-going vessels at some point. Conflict against peer competitors during both World Wars demanded the need for shipping escorts and joint dominance on the surface, sub-surface, and air—such is the case today with the addition of space and cyber domains.

MPF operations have matured and still offer support to the MOC and EABO but will be dependent on joint force dominance, if only for long enough to close required forces. Emerging concepts will need to mature to detailed force and lift requirements. The vision of smaller and increasingly survivable prepositioned assets is currently incongruent with the CHAMP plan and others being currently analyzed by the Navy and will be expensive. As mentioned in a recent news article critical of current sealift readiness, 90 percent of the joint force is currently relying on "black bottom" or commercial type surface means of conveyance. Logistics information technology integration is an exciting initiative, and MPF exercises are an exceptional platform for continued experimentation. Finally, Blount Island Command will remain agile and adaptive as the force supported by prepositioning, and the platforms from which the force is deployed and employed will change in light of renewed great power competition as outlined in the NDS. Semper Fidelis.

Notes

1. David B. Larter, "The US Navy Will Have to Pony Up and Race the Clock to Avoid a Sealift Capacity Collapse," *Defense News*, (Washington, DC: 20 October 2018).

2. Todd South, "The Corps Must Change how It Gets Wartime Gear to the Fight, Generals Say," *Marine Corps Times*, (Arlington, VA: 19 October 2018).