

# Army Prepositioning Afloat

By ROBERT A. CHILCOAT and DAVID S. HENDERSON

Marines off-loading  
prepositioning ship.

Joint Combat Camera Center  
(Joseph Dorey)

## Summary

Projecting forces from bases in the continental United States is the major way in which the Army responds to regional crises. Budget reductions, the return of forces from overseas bases, and the capability to deal with contingencies rely heavily on strategic lift and prepositioned equipment in order for Army units to deploy in response to a CINC's requirements. The "Mobility Requirements Study"—plus the *Report on the Bottom-Up Review*—highlighted the need for equipment to be prepositioned aboard ships under what subsequently became the Army Prepositioned Afloat (APA) program. While some might view this program as duplicating the Maritime Prepositioning Force (MPF) of the Marine Corps, APA actually complements MPF by providing heavy forces able to operate at great distances from the theater port.

The shift in focus from forward deployed forces to those based in the continental United States places greater emphasis on the need to have a strategic deployment capability that can deploy contingency forces to regional crisis areas. With few ground forces stationed in or near their areas of responsibility, commanders in chief (CINCs) rely upon deployable forces to quickly deal with crises. Power projection is foremost among military

requirements in securing national interests in the post-Cold War world, which continues to present diverse, complex, and dangerous challenges to the Nation.

The 1992 "Mobility Requirements Study" (MRS) recommended that an Army heavy brigade and basic elements of a theater Army logistics infrastructure be put aboard ships and prepositioned in a geographically strategic location. The prepositioned equipment is intended to speed arrival of heavy mechanized forces in a region and ensure early establishment of a theater army logistics base capable of sustaining forces during prolonged operations. The CINCs and service chiefs accepted these recommendations and the Army has begun to load ships accordingly. Currently projected to be fully operational in FY98, these ships constitute the Army Prepositioned Afloat (APA) program, an integral part of the strategic mobility triad.

APA does not directly compete with the Maritime Prepositioning Ship (MPS) program of the Marine Corps. In reality, APA ships carry equipment that, when combined with soldiers to man it, form units that complement the Maritime Prepositioning Force (MPF) which is comprised of MPS and Marines who support it. The programs can be used by joint force commanders (JFCs) either together for synergistic effects in conducting operations—capable of being sustained ashore and over wide areas—or separately. Together these two programs exemplify the phrase on the front cover of Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*, namely, "Joint Warfare is Team Warfare." APA complements MPF operations and is the base for a more rapid introduction of Army units into a crisis area.

#### Roles and Functions

The Armed Forces are responsible for strategic nuclear deterrence, forward presence, crisis response, and reconstitution. While U.S. national security strategy is

under review, underlying principles continue to guide military planning. Each service has a part to play in accomplishing military strategy. For the Army it is "to organize, train, and equip forces for prompt and sustained combat incident to operations on land."<sup>1</sup> Historically, the Army has relied on forward deployed units to accomplish this mission. But with the drawdown of deployed forces as well as in overall service strength, more emphasis is being placed on power projection to meet regional crises. The Army currently has a contingency corps of five divisions (and requisite supporting forces) earmarked to deploy in response to regional crises. The sequence of their deployment depends upon the plans of CINCs and JFCs. The divisions are based in the continental United States and need considerable strategic lift (both sea and air) and prepositioned equipment to get them and their support systems to regional crises. The Persian Gulf War illustrated force projection in response to such a regional crisis. Problems encountered with the deployment of forces during that conflict have led to many lessons learned.

During the deployment phase of Operations Desert Shield/Desert Storm, deficiencies in the scheduling of forces became apparent. In many instances, because of the uncertainty of Iraq's intent, combat forces deployed before sufficient logistics systems were in place to support them. This led to considerable difficulties in force sustainment until logistics assets arrived.

Congress tasked DOD before Desert Shield to study mobility requirements and develop an integrated mobility plan. This task was passed to the Joint Staff which, working extensively with the services and using exhaustive computer simulations, developed a methodology to examine all areas of mobility/transportation. The areas studied included base and access rights, availability of commercial shipping, preserving American civil maritime capabilities, defense budget constraints, and lessons learned from the Gulf War. In January 1992, following service and regional CINC concurrence, the "Mobility Requirements Study" was sent to Congress. The Bottom-Up Review has subsequently reinforced the recommendations outlined in the study, specifically those dealing with prepositioned equipment and strategic lift.

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Brigadier General Robert A. Chilcoat, USA, is Deputy Commanding General of Fort Jackson and previously served as Deputy Director for Strategy, Plans, and Policy at Headquarters, Department of the Army. Major David S. Henderson, USA, is presently assigned to the War Plans Division in the Strategy, Plans, and Policy Directorate of the Army Staff.

The “Mobility Requirements Study” identified key aspects of strategic mobility related to the entire transportation spectrum, including fort-to-port and port-to-foxhole. The study identified rail, strategic airlift, and shipping requirements. It also recommended either building or converting 20 *large* (380,000 square feet), *medium speed* (24 knot), *roll-on/roll-off* ships and increasing the fleet of container and cargo ships for moving sustainment supplies. Eleven Large Medium Speed Roll-on/Roll-off ships (LMSRs) are for an initial surge movement of heavy divisions from the United States, while the balance, combined with containerships and other cargo vessels, are for prepositioning equipment afloat for a heavy combat brigade (reinforced) and an initial theater army logistics base. This enables a heavy brigade—operating inland from a logistics base—and essential elements of the theater logistics base to

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meet Army executive agency responsibilities for all services and to complement other forces which arrive early. These units in essence form the nucleus of the Army’s contingency corps in theater.

The Army developed a timeline for forces arriving in theater with a light division anticipated to close and be operational by C+12, and a heavy brigade using prepositioned equipment and fly-in units to be operational by C+15. The next goal is to close two heavy divisions by C+30 and the complete contingency corps of five divisions with its full support base to be operational by C+75. To accomplish this mission LMSRs are needed not only to preposition a brigade afloat but to surge equipment and make round trips from the United States to transport equipment and supplies to the theater. Moreover, container ships, crane and heavy equipment ships, float-on/float-off ships, and Lighter Aboard Ships (LASHs) must carry sustainment items for the contingency corps to the area.

While APA may appear analogous to the MPS squadrons/MPF of the Marine Corps, each service has a unique role and each program—APA and MPF—brings unique capa-

bilities to the JFC. The Commandant of the Marine Corps, General Carl Mundy, stated in these pages that: “Future military success will . . . depend on maintaining a system of joint warfare that draws upon the unique strengths of each service, while providing the means for effectively integrating them to achieve the full combat potential of the Armed Forces.”<sup>2</sup>

As mentioned the function of the Army is “to train, organize, and equip forces for prompt and sustained combat incident to operations on land—specifically, forces to defeat enemy land forces and to seize, occupy, and defend land areas.”<sup>3</sup> The function of the Marine Corps is “service with the fleet in the seizure or defense of advanced naval bases, and the conduct of such land operations as may be essential to the prosecution of a naval campaign.”<sup>4</sup> Each service provides warfighting CINCs and JFCs with units that have unique capabilities to accomplish service roles. JFCs can then determine how best to address crises by assigning units with specific missions that determine which forces to use singly or in concert with others. Ideally then, forces provided to CINCs work together to accomplish the mission of JFCs by furnishing synergistic capabilities.

#### Maritime Prepositioning Force

*In modern warfare, any single system is easy to overcome: combinations of systems, with each protecting weak points in others and exposing enemy weak points to be exploited by other systems, make for an effective fighting force.*<sup>5</sup>

Designed to rapidly introduce a force the size of a Marine Expeditionary Brigade (MEB) in a secure area, MPF uses prepositioned equipment and fly-in personnel. This force can accomplish the following missions: preemptively occupy and defend key choke points along strategic sea lines of communication, reinforce an ally with credible force prior to hostilities, support or reinforce an amphibious operation, establish a sizeable force ashore in support of a land campaign,<sup>6</sup> and other missions assigned by CINCs and JFCs. Marine forces are task-organized with a ground combat element (GCE), air combat element (ACE), combat service support element (CSSE), and command element. Collectively the elements form Marine air-ground task forces (MAGTFs) which may vary in size from a reinforced infantry battalion (with armor,

artillery, and aviation) to a Marine Expeditionary Force (MEF) of one or more reinforced divisions.

Each MPS can provide combat and combat service support equipment (to include engineer, transportation, and medical), and 30 days of sustainment for MAGTFs of various sizes to MEBs. Using crisis action modules (CAMs) configured aboard the MPSs, these forces perform missions that cover a full range of operations from peacetime disaster relief/humanitarian assistance to high intensity conflict. But to use this force CINC and JFCs must first secure a port or beach through which the ships can off-load and an airfield into which personnel and ACE fixed wing aircraft can be flown. This force conducts operations using infantry in

Assault Amphibian Vehicles (AAVs) with artillery, tanks, and both fixed and rotary wing aircraft. Limited transport capability hampers CSSE movement of supplies beyond certain distances. The operational radius of CSSE, without augmentation by

theater army assets, is between 30 and 50 miles from a port or beach area where the ships off-load. The operational radius can be extended by establishing forward combat service support areas and stockpiling supplies which is consistent with the Marine role of securing and defending advance bases and conducting other ground operations relatively close to the shore.

#### Army Prepositioned Afloat

The package of capabilities offered by APA is consistent with the Army's role of sustained combat ashore: a credible land-based heavy force, with a significant ground anti-armor capability, able to operate inland with extended lines of communication and for an indefinite period once the necessary support structure is established. Another perhaps more significant capability that APA provides is the theater army/corps logistics base.

Army prepositioning ships can have a heavy brigade (with two battalions of tanks, two battalions of mechanized infantry, a battalion each of artillery and engineers, and a combat service support battalion) operational in a crisis area by C+15. The combat brigade comes reinforced with additional artillery support (MLRS and ADA batteries)

along with military intelligence and military police support not normally associated with maneuver brigades. Like MPF, this force requires a secure port and airfield to off-load or receive personnel. But unlike MPF, APA can provide a heavier ground-based force capable of sustained operations inland, at extended distances from the theater army logistics base. APA also provides the theater and corps logistics base with heavy support for the brigade until theater, corps, and division support structures are established.

The theater army logistics base has a port operations unit, transportation unit with line haul capability (extended distance capability) for all classes of supply, a combat surgical hospital (296 beds), water purification, and essential elements to form a class VII reserve in theater. The major added capability of APA is sustainment stocks for the brigade for 15 days plus sustainment for the Army's contingency corps until C+38. Beyond that time, sea lines of communication should be open and further sustainment for theater forces delivered for distribution to all services based on the CINC's guidance through the theater army's logistics apparatus.

#### Deploying in Sequence

What do these forces provide CINC and JFCs? An examination of the above capabilities suggests many possible missions for each or both forces. The principal capability that these forces provide is speed of deployment. Speed in this sense is relative compared to the ability of having an airborne brigade or airborne/light division flown into a country. Both forces provide viable combat capabilities with sustainment in very quickly. This allows CINC and JFCs flexibility in how they choose to prosecute their campaign plans.

While many possible scenarios can be formulated, assume a regional crisis which demands the introduction of forces quickly into a country facing a threat with significant military capability. The CINC forms a joint task force (JTF), appoints a JFC, and begins executing an operations plan. The CINC requests movement of a MPS squadron and APA to the area in anticipation of the deployment of Marine and Army forces to meet his requirements. Upon approval by the National Command Authorities these elements

Army prepositioning ships can have a heavy brigade operational in a crisis area by C+15





Loading equipment at Antwerp to be prepositioned afloat.

U.S. Army (Pamela B. Simmons)

begin steaming to the area. As the crisis develops the JFC announces C-day (begin deployment). The plan requires an airborne division to secure airfield and port facilities for follow-on forces. Within four days of the announced C-day, an airborne brigade is on the ground and has secured an airport and begins to secure a port. As the port is secured, the MPS squadron, now offshore in international waters, is directed into port to off-load its equipment which is met by Marines of the MEB fly-in echelons. Within eight days a second airborne brigade is on the ground to further secure the area. No later than ten days after the first MPS arrives in port, a MEB-sized MAGTF is combat ready with combat, combat service support, and sustainment stocks ashore. ACE rotary wing assets have dispersed to tactical airfields established by CSSE, ACE, and Naval construction element assets. The airport is still receiving the final elements of the airborne division, the last combat brigade, and division support command. By C+12, the airborne division is fully closed and operational. As the forces increase in strength, the JFC directs them to deploy to a perimeter around the port or airfield complex and await follow-on elements. Marine

aircraft from ACE provide a significant daylight ground attack and all-weather air attack capability (close and deep) and aerial reconnaissance of the area of operation. Naval carrier aviation, and/or Air Force aircraft, along with Marine fixed wing aircraft, provide counter air protection.

As MPF completes off-loading and pier space becomes available, APA is called into port to off-load. Depending upon the tactical situation, the JFC decides through the Army component in what sequence to off-load the Army ships. In this scenario the JFC is concerned over a possible armor threat and wants to bolster his perimeter. He opts to bring the heavy brigade in and deploy its assets along the perimeter. The brigade's soldiers begin arriving at the airport, move to the port, and off-load their equipment. As each battalion is ready, it moves out to conduct relief in place operations with airborne forces which assume rear area security and reserve missions. Depending on port space the brigade's sustainment stocks may be unloaded with the heavy combat equipment. Many third world port facilities are unable to handle more than one or two ships at a time. Somalia is an example of how limited port facilities hamper off-loading operations and increase deployment time. Both systems have



U.S. Navy (Joe Barlett)

Marine amphibian descending from Maritime Prepositioning Ship.

combat and logistics capabilities offered by Marine and Army units complement each other

“in-stream off-load” capabilities to off-load without port facilities. Once brigade equipment is off-loaded, ships carrying the corps sustainment base come in to port and off-load equipment. Arriving port, terminal, and transportation units assume control of the port operations and free CSSE personnel previously involved in this function to return to their units and assigned missions. The JFC expands his lodgement by having MAGTF and the Army brigade move further out, with the brigade positioned on-line but considerably farther inland than MAGTF. As brigade lines of communication lengthen, corps heavy equipment transports and supply assets provide the line-haul needed to supply the forward support battalion.

Based on JFC guidance added forces deploy to reinforce MAGTF and the Army brigade. As more room is needed to receive forces, the JFC orders MAGTF and the brigade to defensive positions further from the port. This places MAGTF outside the area where it can support itself. The corps transportation assets that are in country are called upon to keep MAGTF connected to its logistics base. By C+30, two heavy divisions arrive and are ready to conduct operations. The rest of MEF is closing and both services are developing significant combat power. Between C+45 and C+60, the Army theater logistics infrastructure is established and begins han-

dling common items of supply for all services in theater. The establishment of this logistics infrastructure is enhanced by the early introduction of units carried by APA.

This scenario is basically Desert Shield with the modification of when forces (that is, heavy brigade and logistics units) arrive in theater. Using an airborne brigade to secure the port or airport could just as effectively be accomplished by an operation using a Marine amphibious task force or expeditionary unit as required. Combat and logistics capabilities offered by Marine and Army units complement each other. The Army force offers a significant inland sustained anti-armor capability while Marines provide an initial mechanized infantry and armor support near coasts together with significant deep and close air support. Both provide sustainment, but the Army corps and theater level logistics base is a significant capability, sustaining Army forces and providing common item support to all services during sustained operations ashore. This base also establishes a foundation for follow-on combat service support units to build on.

If the scenario changes to a nation-building or disaster relief mission, the size and type of force used will be determined by CINCs and JFCs. A Marine expeditionary or amphibious unit, using MPS stocks, may be called upon for the mission. Operation Sea Angel in Bangladesh is one example. An alternative force may be a Special Forces battalion (or other Army unit) conducting nation-building activities. This mission requires significant combat service and combat service support assets which are available on two APA ships. Granted, the decision to off-load APA, like the decision to off-load MPS, is expensive due to amount of sailing and off-loading/back-loading. There may be cheaper and faster alternatives to providing the support needed for nation-building or disaster relief activities; but APA can supply these missions if the National Command Authorities, Secretary of the Army, and CINC agree it is appropriate.

#### Team Warfare

The APA and the MPS give regional CINCs and JFCs capabilities to address crises. Rapid deployment of combat and sustainment forces provides CINCs and JFCs



flexibility. Tailoring the introduction of forces is also an option. Developing a solid logistics foundation in either secure or friendly ports may be more important than introducing combat forces. Deploying APA and off-loading the theater army or corps logistics base with a sustainment package gives CINCs and JFCs capabilities to provide better sustainment for deploying Army forces. Moreover, it facilitates using these forces for nation-building, disaster relief, or humanitarian assistance missions. Again, other more economical means of providing this kind of support may be available, and both CINCs and JFCs should consider them before requesting the use of these assets, whether APA or MPS.

The Marines want to expand MPS capabilities with more tanks, expeditionary airfields, and logistics stocks for MPS squadrons. This initiative is called the enhanced MPF and is designed to bring two MEB-sized forces (with additional tanks and supplies) into a theater by C+10. With two MEB-sized units, and accompanying ACE and GCE assets, the MEF commander would be able to provide even more capabilities to a JFC.

The combat forces carried by MPF and APA are complementary by nature. MAGTF, with mechanized infantry, armor, and air support, has capabilities which an Army heavy brigade cannot easily provide, that is, a force capable of fighting in urban, jungle, or mechanized environments. Conversely, an Army heavy brigade has more mobile ground-based, anti-armor capabilities than a Marine regiment (that is, a more robust ground-based, all-weather/day-night anti-armor force able to sustain offensive or defensive actions accompanied by a theater army logistics base). Both serve as lead elements for further deployments of combat and combat service support units. The heavy brigade is the foundation of a heavy division; MEB-sized forces serve a similar role in the MEF. Putting these two packages—with all the reinforcing capabilities provided by their respective services—under a single JFC produces a unique, potent force capable of handling many different threats.

The “Mobility Requirements Study” recommended increasing strategic sealift and also placing Army equipment aboard ships, two findings that were reinforced by the Bot-

tom-Up Review. This was complemented by the Army’s development of a strategic timeline for deploying forces to crisis areas. The Marines already have MPS squadrons, each designed to introduce as much as a MEB-sized force with sustainment into a region. These programs are not redundant, but provide distinct, complementary capabilities. The Army has no intention of moving into expeditionary and amphibious operations. That is part and parcel of the Marine Corps. Instead, the Army is striving to develop an ability to deploy forces into a theater quicker, provide significant inland heavy forces able to operate at great distances from the theater port with a theater army and corps logistics base, and lay the foundation for follow-on forces. This is in line with the Army role under Title 10. The theater base is also the foundation from which the services can draw common items of support. Together the forces provide a JFC with a balance and synergy unequalled by the individual forces. As the Army Chief of Staff has stated: “We will meet future challenges through the simultaneous application of complementary [service] capabilities . . . that will offset quantitative and even qualitative force differences by our selective application of technology.”<sup>7</sup> **JFQ**

#### NOTES

<sup>1</sup> Joint Chiefs of Staff, *Unified Action Armed Forces* (Washington: Joint Chiefs of Staff, 1986), p. 2–4.

<sup>2</sup> Carl E. Mundy, “Complementary Capabilities from the Sea,” *Joint Force Quarterly*, no. 1 (Summer 1993), p. 17.

<sup>3</sup> Joint Chiefs of Staff, *Unified Action*, p. 2–4

<sup>4</sup> Chairman of the Joint Chiefs of Staff, *Report on the Roles, Missions, and Functions of the Armed Forces of the United States* (Washington: Joint Chiefs of Staff, February 1993), p. 1–3.

<sup>5</sup> Stanley R. Arthur and Marvin Pokrant, “The Storm at Sea,” *U.S. Naval Institute Proceedings*, vol. 117, no. 5 (May 1991), p. 87.

<sup>6</sup> MPF Staff Planning Course, Landing Force Training Command Pacific, Naval Surface Force, U.S. Pacific Fleet, San Diego, California (HO-313-1-8.1-9).

<sup>7</sup> Gordon R. Sullivan, “Modernizing the Army,” *Army Research, Development and Acquisition Bulletin* (May–June 1993), p. 3.