



United States  
General Accounting Office  
Washington, D.C. 20548

**National Security and  
International Affairs Division**

B-257522

June 15, 1994

The Honorable Earl Hutto  
Chairman, Subcommittee on Readiness  
Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

On October 14, 1993, you asked us to review the amount of war reserves, prepositioning of materiel configured to unit sets (POMCUS), and afloat prepositioning. You also asked that we comment on the level of future Department of Defense (DOD) war reserves and prepositioned equipment and supplies.

DOD maintains stocks of supplies and equipment called war reserves to support military units in a time of war or mobilization. War reserves stored within the continental United States (CONUS) are distributed as needed by airlift or sealift. War reserves are also stored, or prepositioned, overseas on land or ships near an area of potential conflict. Some supplies and equipment stored in central Europe, which include combat weapon systems, such as tanks and howitzers, are configured in a way to support deploying combat units and are called POMCUS. Afloat prepositioning involves keeping ships continuously loaded with supplies, combat equipment, and/or support items. These ships are intended to respond more quickly than if they had to be deployed from the United States.

Generally, for each military service, the requirements for war reserves, other prepositioned assets, and the amount of stock on hand, except for afloat prepositioning, has declined since Operation Desert Storm, and is expected to decline in the future. This decline is caused by (1) a change in the military strategy and (2) a reduction in force size. The military strategy was changed from a global strategy and a long drawn-out war to two shorter nearly simultaneous major regional conflicts (MRC).

Even though the total requirements have decreased, the amount of prepositioned equipment on hand for brigade sets may actually increase. In the past, the Army had requirements for 13 POMCUS brigade sets of equipment. However, the requirements were less than 75 percent filled. If the current requirement for nine prepositioned brigade sets are filled entirely, this may provide more assets on hand than were previously in POMCUS. In addition, the Army's afloat prepositioning has increased by placing one of the nine brigade sets afloat.

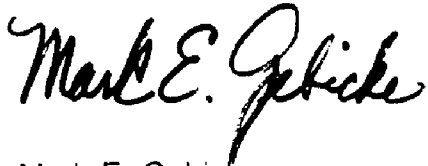
The Army's requirement to preposition the nine brigade sets throughout the world, might reduce some DOD surge sealift requirements. The surge sealift requirements are to provide equipment to support initially deployed units in a military conflict. The DOD Mobility Requirements Study report, which computed surge sealift requirements, did not assume additional Army land prepositioning in southwest Asia. The Army now plans to locate two of its nine prepositioned brigade sets in southwest Asia. This would negate the need to move some brigade sets from the continental United States at the beginning of a military conflict and, therefore, might reduce the amount of surge sealift required.

Enclosures I and II contain the material we gathered in response to your request. With regard to data at the time of the Soviet threat, we used the status of assets prior to Operation Desert Storm. Also, all figures in the enclosures represent data provided by the military services and has not been verified. Enclosure I discusses what can be expected in the future for the levels of war reserves, POMCUS, and afloat prepositioning as they apply to each military service. Enclosure II contains tables for each military service comparing, where possible, equipment data for before Operation Desert Storm and today. However, data often was not available from the military services for the period prior to Operation Desert Storm.

B-257522

If you or your staff have any questions concerning the enclosed information, please contact Bob Eurich or me at (202) 512-5140.

Sincerely yours,

A handwritten signature in black ink that reads "Mark E. Gebicke". The signature is written in a cursive style with a large, prominent initial "M".

Mark E. Gebicke  
Director, Military Operations and  
Capabilities Issues

Enclosures - 2

FUTURE OF DOD WAR RESERVES AND PREPOSITIONED  
EQUIPMENT AND SUPPLIES

U.S.ARMY

The Army's war reserves and prepositioned equipment categories include prepositioned unit sets of equipment, sustainment, and operational projects.

Prepositioned Unit Sets of Equipment

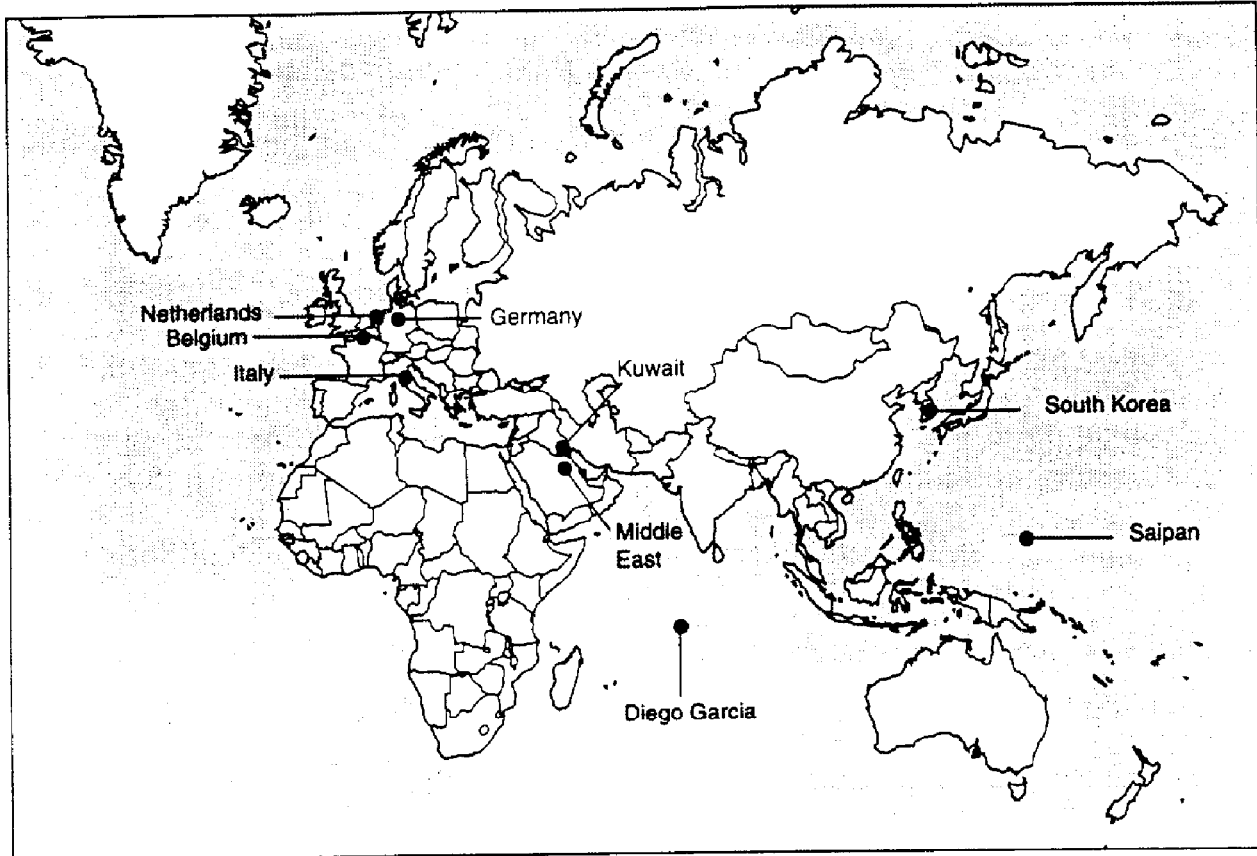
Prior to Operation Desert Storm, the Army's requirements for prepositioning unit sets of equipment was for 6 divisions and 1 armored cavalry regiment, representing a total of 13 brigades with all equipment to be located in central Europe. However, the requirements for these brigade sets of equipment were less than 75 percent filled. Because the military strategy changed from fighting a global war to two major regional conflicts (MRCs), the requirements changed to nine brigade sets of equipment with four sets located in central Europe (Germany, Belgium, and Netherlands); one in Italy; one afloat (on ships in Diego Garcia and Saipan); two in southwest Asia; and one in South Korea.

The 1994 prepositioning of materiel configured to unit sets (POMCUS) authorization document spelled out the equipment requirements for the four brigade sets in central Europe. Requirements have also been established for the brigade set in Italy. At the present time, the Army is reviewing the requirements for the brigade sets in central Europe and the brigade set in Italy, with the possibility of reducing but not increasing the requirements.

The brigade set requirements for the Army's interim afloat program have been identified. All eight ships in the interim program are loaded, with seven on station, and the eighth ship scheduled to be on station by June 30, 1994. These eight ships are in addition to the four ships in the Army's afloat program that contain primarily ammunition. When the afloat program is completed, it is scheduled to have 16 ships. The Army plans to identify the equipment required to complete the afloat program by the end of July 1994. In addition, the Army is presently determining the equipment requirements for the two brigade sets to be located in southwest Asia and the one set to be located in South Korea.

Figure I.1 shows the planned locations of the prepositioned brigade sets.

Figure I.1: Prepositioned Sets of Army Unit Equipment



Sustainment

Sustainment or war reserve materiel is the equipment and supplies needed to resupply units after they use the equipment and/or supplies they carry with them, until procurement or production sources are able to provide replenishments to offset combat and training losses after a war starts. Prior to Operation Desert Storm, sustainment materiel was located in various stockpiles throughout the world. Since Operation Desert Storm, these stockpiles have been reduced, eliminated, or consolidated.

In 1992, the Army recomputed requirements for sustainment items because of (1) the decrease in the force from 28 divisions to 12 divisions; (2) the change from a global war

to the two war-fighting strategy of two major regional conflicts (MRCs); and (3) an anticipated shorter length war. As a result, class VII--major end item--requirements decreased by about 85 percent; class V-- ammunition--requirements decreased by about 60 percent; and remaining sustainment items decreased by about 33 percent.

The Army is again recomputing the requirements for sustainment items, which may cause the requirements to be reduced even further. This computation is expected to be completed in the early fall of 1994, once the new defense planning guidance is finalized.

### Operational Projects

Operational projects include equipment that is not part of Army units table of organization and equipment but are used to support operations, contingencies, and war plans. Examples are water supply support, inland petroleum distribution systems, and aircraft matting. Prior to Operation Desert Storm, the Army had 52 operational projects throughout the world, with an authorization of \$2.9 billion. After canceling and consolidating projects because of the new two MRC war-fighting strategy, the Army now has 16 projects throughout the world and an authorization of \$1.4 billion. As of April 1994, equipment on hand in operational projects was valued at \$367.3 million. Operational projects are based on the commander-in-chiefs' operational plans and are individually reviewed.

### U.S. AIR FORCE

The Air Force war reserve materiel is comprised primarily of ammunition, Bare Base assets,<sup>1</sup> medical equipment, and other equipment, such as vehicles, aircraft-related support equipment and aircraft suspension equipment. With the exception of medical equipment, data was generally not available on U.S. Air Force war reserve materiel prior to Operation Desert Storm.

As part of the Air Force's realignment of forces to meet the two MRC war-fighting scenario, the Air Force is recomputing its war reserve materiel requirements and reevaluating where the war reserve materiel should be stored. The computations should be completed in October 1994, and in many cases, the new requirements will probably result in the Air Force having excess war reserve materiel. Therefore, the amount of Air Force war reserve materiel is generally expected to decrease. Also, because of the

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<sup>1</sup>Bare Base assets are used to build and support air base infrastructures at any location worldwide.

change in war fighting strategy, more war reserve materiel will be located inside rather than outside the United States.

The exceptions are some increase in ammunition and the possible increase in Bare Base assets in the Pacific based on the two MRC strategy scenario. These exceptions result from supporting the Pacific MRC war-fighting strategy scenario and the additional storage space that has become available in the Pacific.

### Ammunition

For fiscal years 1992 through 1994, the amount of war reserve materiel ammunition outside the continental United States (CONUS) has decreased from 507,000 short tons to 388,700 short tons, but is projected to increase to 392,800 short tons by fiscal year 1995. The increase from 1994 to 1995 is an increase in the amount in the Pacific. The amount located in the Pacific has increased from 162,000 short tons in fiscal year 1992 to a projected 178,000 short tons for fiscal year 1995. The changes in the amount of ammunition resulted from changes in force size and the new two MRC strategy scenario, which particularly affected ammunition in the Pacific. According to an Air Force official, the total fiscal year 1995 ammunition figures represent the requirement for the two MRC strategy scenario and should increase little, if at all, in the future.

Today, the Air Force has 80,000 short tons of its war reserve materiel ammunition located on four prepositioned ships. Two of these ships are located in Diego Garcia, and the other two are located in the Mediterranean Sea. The four ships are globally committed and available to the first engaged commander-in-chief. Prior to Operation Desert Storm, the Air Force had three prepositioned ships containing 36,000 short tons of ammunition and 4,000 short tons of other assets. Two of the ships were located in Diego Garcia and the other ship in the Mediterranean Sea.

### Bare Base Assets

Bare Base assets may increase some because of requirements for the MRC in the Pacific. Bare Base assets are advanced housekeeping, flightline, industrial, and follow-on flightline equipment known as Harvest Falcon, and which presently can support 55,000 troops; basic housekeeping and associated equipment known as Harvest Eagle which can support 14,000 troops; and fuels mobility support equipment, which is deployable petroleum, oil, and lubricants equipment supporting refueling operations at Bare Bases.

Bare Base assets are grouped into sets. For one 1,100-person Harvest Eagle set, the value is about \$4.7 million. For Harvest Falcon, the value of one 1,100-person housekeeping set along with one flightline set, one industrial set, and one follow-on flightline package is about \$19.5 million.

During Operation Desert Storm, the Bare Base assets supported one MRC in southwest Asia, and today these assets still support this one MRC. In the future, these assets may have to be increased to support a second MRC. The Air Force is presently looking at what the total Bare Base asset requirements are and whether the existing assets can satisfy the overall requirements or additional assets may be needed.

The 117 sets of equipment and 1,000 pieces of fuels mobility support equipment that are shown as Bare Base assets in table II.5 in enclosure II, represents the Air Force's total capability if all assets were fully mission capable. At this time, the continuous use of Bare Base assets to support such contingencies as Southern Watch, Provide Comfort, Provide Promise, and Restore Hope as well as ongoing reconstitution of equipment from these operations and equipment remaining from the Gulf War, has decreased the total number of mission-capable assets in the Bare Base inventory.

#### Medical Equipment and Supplies

Air Force medical war reserve materiel decreased from \$344.4 million before Operation Desert Storm to \$270.5 million in 1994. However, medical war reserve materiel in CONUS increased from \$105.8 million to \$133.8 million because of materiel ordered for U.S. Air Force in Europe was never sent. The amount of war reserve materiel in CONUS could be reduced since two 500-bed hospitals have recently been decommissioned and the equipment determined to be excess.

#### Other Equipment

Other Air Force war reserve equipment is comprised primarily of general and special purpose vehicles, aircraft-related support equipment, and aircraft suspension hardware, including aircraft fuel tanks, racks, adapters, and pylons. In the future, the requirements for this equipment is expected to decrease because of the change in military strategy from the global strategy to two MRCs and the reduction-in-force structure.

#### U.S. NAVY

About 98 percent of the value of Navy war reserves is ammunition. The two MRC guidance reduced the Navy's war reserve requirement by over 50 percent from the previous global war requirement. Although, according to a Navy official, the Navy has adequate stocks of current technology ammunition to execute the new guidance, shortages remain for several next generation smart standoff weapons. The new guidance has also resulted in a substantial shift in the location of ammunition war reserves, most notably a 40-percent reduction in ammunition stored in Europe since Operation Desert Storm.



The other Navy war reserve materiel consists primarily of hospital sets and various classes of equipment. The total number of war reserve materiel hospital beds decreased from 7,750 beds before Operation Desert Storm to 6,950 today, but the number prepositioned remained the same. Although the number of beds is not scheduled to increase in the future, two 500-bed hospital sets are scheduled to be moved from CONUS to the Pacific. The other classes of equipment have been reduced significantly since Operation Desert Storm because of the change to the two MRC military strategy and may be reduced more depending on the future force size.

The Navy has three prepositioned ships with medical equipment. One ship located at Diego Garcia contains equipment for a 500-bed fleet hospital and support, such as laundry and food services, required for the hospital personnel. The other two ships are the 1000-bed hospital ships the USNS MERCY and the USNS COMFORT, which are located in U.S. ports.

### U.S. MARINE CORPS

Prepositioned equipment for the Marine Corps is primarily three afloat squadrons, one expeditionary brigade set in Norway, and equipment located in Okinawa where the third marine expeditionary force is located. In addition, war reserve materiel is located with the two marine expeditionary forces in the United States as well as the Marine Corps logistics centers in Albany, Georgia, and Barstow, California.

The prepositioned equipment for the three afloat squadrons and the Norway brigade have changed little since before Operation Desert Storm, nor is the equipment expected to change in the future, except for upgrades of equipment, changes to requirements, and replacement of consumables. One exception to this may result from our recent recommendation to the Department of Defense to fulfill the Marine Corps requirement for tanks on its three afloat squadrons by adding 28 M1A1 tanks to each squadron. These tanks would come from Army assets. In addition, equipment to support the 28 additional tanks for each squadron will also be required.

Although Marine Corps data is incomplete, the amount of war reserve materiel of the three marine expeditionary forces for construction materiel and major end items has decreased, while subsistence and clothing and individual equipment have increased from pre-Operation Desert Storm until today. The Marine Corps is presently recomputing its war reserve materiel requirements for its expeditionary forces, so that they reflect a two MRC war, and not a global war-fighting strategy, as well as any decreases in force structure. The new requirements should be completed in June 1994.

COMPARISON OF MILITARY SERVICE DATA BEFORE AND AFTER DESERT STORM

Table II.1: Selected U.S. Army Prepositioned Major End Items (Class VII) in Europe

	Tracked vehicles	Wheeled vehicles	Trailers
Authorized July 1990	7,814	34,449	16,295
On hand July 1990	5,835	21,578	9,282
Authorized November 1993	3,050	11,808	7,126

Table II.2: Schedule of Army Sustainment War Reserve Materiel in Europe

Materiel in short tons

Class of equipment	March 1990		April 1994
	Requirement	On hand	Requirement
I Subsistence	138,469	35,521	4,461
II Clothing and individual equipment	54,973	25,640	8,023
III Packaged petroleum	77,546	14,029	4,489
IV Construction materiel	58,804	57,194	15,582
V Ammunition	1,568,600	635,288	30,000
VII Major end items	810,145	203,691	0 <sup>a</sup>
VIII Medical	17,625	4,060	719
IX Repair parts	76,085	16,957	5,145

<sup>a</sup>Major end items requirements for Army sustainment in Europe will be satisfied by using items from the prepositioned brigade sets of equipment in Europe until items can be obtained from the United States.

Table II.3: Schedule of Navy War Reserve Materiel on Hand

Type of materiel	Prior to Operation Desert Storm			Most recent data		
	CONUS <sup>a</sup>	Europe	Other	CONUS <sup>a</sup>	Europe	Other
Ammunition (short tons in thousands) <sup>b</sup>	518	161	159	885	98	128
Hospital sets (number of beds)	3,500	1,000	3,250	2,700	1,000	3,250
Medical supplies (dollars in millions)	\$4.3	0	0	\$4.3	0	0
Other classes (dollars in millions)	\$701.6	\$1.2	\$50.2	\$495.6	\$1.2	\$36.0

<sup>a</sup>Continental United States

<sup>b</sup>This includes all U.S. Navy munitions for war reserve and noncombat expenditures (peacetime training and test and operational assets).

Table II.4: Schedule of Marine Corps Prepositioned and War Reserve Materiel on Hand

Description	Prior to Operation Desert Storm			Most recent data		
	CONUS <sup>a</sup>	Outside CONUS <sup>a</sup>	Total	CONUS <sup>a</sup>	Outside CONUS <sup>a</sup>	Total
Three afloat marine squadrons (each one)		Expeditionary brigade equipment set			Expeditionary brigade equipment set	
Norway		Expeditionary brigade equipment set			Expeditionary brigade equipment set	
Marine expeditionary force (dollars in millions) <sup>b</sup>						
Class I subsistence			\$59.4	\$124.1	0	\$124.1
Class II clothing			\$55.2	\$116.7	\$17.2	\$133.9
Class III packaged petroleum			\$36.4	\$ .1	0	\$ .1
Class IV construction materiel			\$16.0	\$9.1	\$2.9	\$12.0
Class VII major end items			\$298.4	\$181.3	\$105.9	\$287.2
Class IX repair parts			\$26.9			
Aviation asset support (dollars in millions)	\$64.2	\$ .2	\$64.4	\$58.0	\$ .2	\$58.2
Medical supplies (dollars in millions)			\$122.0	\$63.0	\$54.0	\$117.0
Ammunition (in short tons)			143,989			132,583

Note: Blank space represents items for which data is not available.

<sup>a</sup>Continental United States

<sup>b</sup>Data on Camp Lejeune, II marine expeditionary force, not available nor included in before Operation Desert Storm figures, but included in most current figures.

Table II.5: Schedule of Air Force War Reserve Materiel on Hand

Type of material	Prior to Operation Desert Storm				Most recent data			
	CONUS <sup>a</sup>	EUROPE	Middle East	Pacific	CONUS <sup>a</sup>	Europe	Middle East	Pacific
Ammunition (short tons in thousands)								
On land	13.6 <sup>bc</sup>	179.0 <sup>c</sup>	86.0 <sup>b</sup>	162.0 <sup>c</sup>	13.6 <sup>c</sup>	81.8	54.8	172.0
Afloat	0	0	36.0 <sup>d</sup>	0	0	0	80.0 <sup>e</sup>	0
Bare base equipment								
Housekeeping and other sets					16	4	93	4
Fuels mobility support equipment (pieces)					0	0	1,000	0
Medical (dollars in millions)	\$105.8	\$192.4	\$6.8	\$39.4	\$133.8	\$93.2	\$12.7	\$30.8
Vehicles - general and special purpose (units)						4,017	5,083	3,039
Aircraft related support equipment (units)						5,800	0	1,325
Aircraft suspension hardware (units)						17,605	4,981	13,073

Note: Blank squares represent those items for which data is not available.

<sup>a</sup>Continental United States

<sup>b</sup>Data not available for period before Operation Desert Storm. Data for 1992 is used instead.

<sup>c</sup>Only includes standardized air munitions packages.

<sup>d</sup>Represents one ship prepositioned in the Mediterranean Sea and two ships in Diego Garcia, with a total of 4,000 short tons of other items in addition to ammunition.

<sup>e</sup>Represents four ships loaded only with ammunition--two ships in the Mediterranean Sea and two in Diego Garcia. These ships are globally committed and available to the first engaged commander-in-chief.

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