



Highlights of [GAO-06-709](#), a report to congressional committees

Why GAO Did This Study

The military services store prepositioned stocks of equipment and material on ships and land in locations around the world to enable the rapid fielding of combat-ready forces. GAO's prior work has shown that the readiness and safety of military equipment can be severely degraded by corrosion and that the Department of Defense (DOD) spends billions of dollars annually to address corrosion. GAO was asked to review the impact of corrosion on prepositioned assets. GAO's specific objectives were to assess (1) the measures taken by the Army and the Marine Corps to reduce the impact of corrosion on prepositioned assets and (2) the availability of corrosion-related data to the Army and the Marine Corps to support corrosion prevention and mitigation efforts for prepositioned assets.

What GAO Recommends

To reduce the impact of corrosion on prepositioned assets and support additional corrosion prevention and mitigation efforts, GAO is recommending that the Army examine the feasibility of using temporary shelters to store land-based prepositioned assets currently stored outdoors and that the Army and Marine Corps enhance their efforts to collect corrosion-related data on prepositioned assets. DOD concurred with GAO's recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-06-709.

To view the full product, including the scope and methodology, click on the link above. For more information, contact William Solis at (202) 512-8365 or solisw@gao.gov.

DEFENSE MANAGEMENT

Additional Measures to Reduce Corrosion of Prepositioned Military Assets Could Achieve Cost Savings

What GAO Found

The Army and Marine Corps have taken some measures to reduce the impact of corrosion on prepositioned assets, primarily through the use of humidity-controlled storage facilities on ships and in some land-based locations, but a substantial portion of Army land-based prepositioned assets are stored outdoors and are left relatively unprotected from elements that contribute to corrosion. When equipment was drawn for military operations for Operation Iraqi Freedom during 2003, it was reported in good operating condition and not degraded by corrosion. Most of this equipment had been stored in humidity-controlled facilities. However, whereas all Marine Corps prepositioned assets are stored in humidity-controlled facilities, the Army currently stores a significant amount of its land-based prepositioned assets outdoors. Under Army policy, the preferred method for storing prepositioned assets is in humidity-controlled facilities because outdoor storage makes equipment more susceptible to corrosion and increases maintenance requirements and costs. One Army study showed that sheltering equipment in a humidity-controlled facility had a return on investment, at minimum, of \$8 for every \$1 invested. In South Korea, the Army has recently completed an intensive effort to repair prepositioned assets and correct some long-standing problems, but almost one-third of the assets continue to be stored outside. Similarly, as the Army reconstitutes its prepositioned equipment in Southwest Asia, thousands of Army equipment items in Kuwait are stored outdoors in harsh environmental conditions. Army officials cited competing funding priorities and other factors as reasons for not providing indoor storage for all land-based prepositioned assets. However, temporary shelters may be a feasible option to address immediate storage needs. The Army has used temporary shelters and humidity-controlled storage for some prepositioned assets.

Although the Army requires corrosion-related data collection for equipment items and Marine Corps officials believe them to be beneficial, data that could help reduce corrosion of prepositioned assets are not available. They are not available because the services consider this information to be a low priority and do not systematically collect it. Without these data, the services are not in a position to identify causes of corrosion, support efforts to more effectively reduce corrosion, and achieve long-term cost savings. Army and Marine Corps documents include information on the maintenance condition, actions, and costs for prepositioned equipment, but provide little data on corrosion. While cost data are limited, the services have estimated that about 25 percent of overall equipment maintenance costs are corrosion related and perhaps as much as one-third of these costs could be reduced through more effective corrosion prevention and mitigation. An Army review of maintenance records for about 2,000 pieces of prepositioned stock in South Korea found that \$8.7 million (31 percent) of the estimated \$28 million spent to restore this equipment was used to address corrosion. The Army has had previous success using corrosion data on non-prepositioned equipment programs to support corrosion prevention and mitigation.