


GAO
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Highlights

Highlights of [GAO-03-753](#), a report to Congressional Committees

Why GAO Did This Study

The Department of Defense (DOD) maintains equipment and infrastructure worth billions of dollars in many environments where corrosion is causing military assets to deteriorate, shortening their useful life. The resulting increase in required repairs and replacements drives up costs and takes critical systems out of action, reducing mission readiness.

GAO was asked to review military activities related to corrosion control. Specifically, this report examines the extent of the impact of corrosion on DOD and the military services and the extent of the effectiveness of DOD's and the services' approach to preventing and mitigating corrosion.

What GAO Recommends

The departmentwide strategic plan currently being developed should contain clearly defined goals; measurable, outcome-oriented objectives; and performance measures. The strategy should also identify standardized methods for evaluating project proposals, estimating resource needs, and coordinating projects in an interservice and servicewide context. The military services should develop overarching strategic plans consistent with the departmentwide plan. In written comments, DOD agreed with all of these recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-03-753.

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

Opportunities to Reduce Corrosion Costs and Increase Readiness

What GAO Found

Although the full impact of corrosion cannot be quantified due to the limited amount of reliable data captured by DOD and the military services, current cost estimates, readiness, and safety data indicate that corrosion has a substantial impact on military equipment and infrastructure. In 2001, a government-sponsored study estimated the costs of corrosion for military systems and infrastructure at about \$20 billion annually and found corrosion to be one of the largest components of life-cycle costs for weapon systems. Corrosion also reduces readiness because the need to repair or replace corrosion damage increases the downtime of critical military assets. For example, a recent study concluded that corrective maintenance of corrosion-related faults has degraded the readiness of all of the Army's approximately 2,450 force modernization helicopters. Finally, a number of serious safety concerns have also been associated with corrosion, including Navy F-14 and F-18 landing gear failures during carrier operations and crashes of several Air Force F-16 aircraft due to the corrosion of electrical contacts that control fuel valves.

DOD and the military services do not have an effective approach to prevent and mitigate corrosion. They have had some successes in addressing corrosion problems on individual programs, but several weaknesses are preventing DOD and the military services from achieving much greater benefits, including potentially billions of dollars in additional net savings annually. Each service has multiple corrosion offices, and their different policies, procedures, and funding channels limit coordination. Also, the goals and incentives that guide these offices sometimes conflict with those of the operational commands that they rely on to fund project implementation. As a result, proposed projects are often assigned a lower priority compared to efforts offering more immediate results. Together, these problems reduce the effectiveness of DOD corrosion prevention. While DOD is in the process of establishing a central corrosion control activity and strategy, it remains to be seen whether these efforts will effectively address these weaknesses.

Examples of Corrosion Damage in the South Pacific



Sources: U.S. Air Force and Navy.

Left: Corroded 500-pound bombs, Guam. Right: Corroding bridge column, Pearl Harbor.