



May 2019

DEFENSE MANAGEMENT

Observations on Changes to the Reporting Structure for DOD's Corrosion Office and Its Implementation of GAO Recommendations

Accessible Version

GAO Highlights

Highlights of [GAO-19-513](#), a report to congressional committees

Why GAO Did This Study

Corrosion negatively affects DOD equipment and infrastructure and can lead to reduced asset availability, deterioration in performance, and increasing weapon system and infrastructure costs. According to a study contracted by DOD, the cost impact of corrosion to DOD in fiscal year 2016 was \$20.6 billion.

Senate Armed Services Committee Report 115-262 accompanying a bill for the John S. McCain National Defense Authorization Act for Fiscal Year 2019 included a provision for GAO to review aspects of the DOD Corrosion Office. This report examines (1) how the restructuring within the Office of the Secretary of Defense has affected DOD's Corrosion Office, including its performance of its statutory roles and responsibilities; and (2) what actions, if any, DOD has taken or has planned to implement recommendations GAO made from calendar years 2003 through 2018 related to corrosion management.

GAO analyzed DOD documents, such as guidance and required reports provided to Congress, and interviewed DOD officials to address these objectives. GAO also assessed DOD's actions against its prior recommendations to determine the extent to which DOD had addressed the recommendations or has actions underway to address those recommendations.

View [GAO-19-513](#). For more information, contact Diana Maurer (202) 512-9627 or maurerd@gao.gov.

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What GAO Found

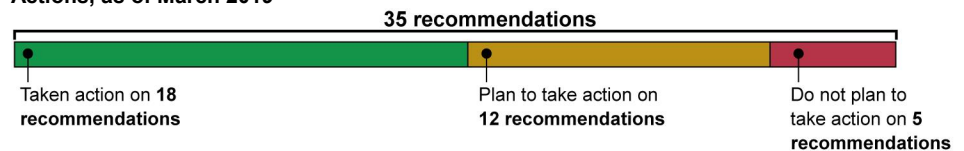
The Department of Defense (DOD) relocated the Office of Corrosion Policy and Oversight (Corrosion Office) within the restructured acquisition and sustainment organization in fiscal year 2018. Prior to the restructure, the Corrosion Office reported directly to the Under Secretary of Defense for Acquisition, Technology, and Logistics. As part of the restructure, DOD relocated the Corrosion Office within the Office of the Under Secretary of Defense for Acquisition and Sustainment, where it reports to the Deputy Assistant Secretary of Defense for Materiel Readiness. It continues to perform its statutory roles and responsibilities under the new oversight organization. For instance, it is continuing to

- develop and recommend corrosion policy guidance;
- develop and implement a long-term strategy to reduce corrosion;
- review corrosion programs and funding levels proposed by the military departments, and submit related recommendations to the Secretary of Defense; and
- monitor and ensure that corrosion prevention and mitigation are incorporated into acquisition and maintenance processes.

DOD is also making or planning changes to the operation of the Corrosion Office, specifically planning to increase corrosion advocacy throughout DOD, oversight of the Corrosion Office, corrosion accountability of the military departments, and corrosion transparency and its alignment with materiel readiness.

DOD's Corrosion Office has taken or planned actions to implement most recommendations GAO made in calendar years 2003 through 2018 related to corrosion management. Specifically, GAO made 35 recommendations to the Corrosion Office in 11 corrosion-related products on topics such as strategic planning, performance management, and mandatory oversight reports. In comments on these products, DOD concurred with 16 of those recommendations, partially concurred with eight, and non-concurred with 11. As of March 2019, DOD had taken action or planned to take action on most of GAO's prior recommendations (see figure).

Prior GAO Report Recommendations to Corrosion Office and Department of Defense (DOD) Actions, as of March 2019



Source: GAO. | GAO-19-513

Specifically, DOD's Corrosion Office had taken action on 18 recommendations. Corrosion Office officials also described to GAO their plans to take action to implement 12 additional recommendations. These planned actions include, among other actions, updating existing guidance and developing new policy or processes. DOD stated that the Corrosion Office does not plan to take action on the remaining five recommendations. GAO continues to believe that its recommendations are valid.

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Abbreviation

DOD Department of Defense

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May 17, 2019

The Honorable James M. Inhofe
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Adam Smith
Chairman
The Honorable Mac Thornberry
Ranking Member
Committee on Armed Services
United States House of Representatives

Corrosion negatively affects Department of Defense (DOD) equipment and infrastructure, and it can lead to reduced asset availability, deterioration in performance, and an increasing total cost of maintaining weapon systems and infrastructure. In addition to corrosion's effects on military readiness, it can cause environmental damage and loss of capital investments, and it can create safety hazards for servicemembers. DOD contracted a study on corrosion that reported the cost impact of corrosion as \$20.6 billion in fiscal year 2016.¹

Since 2002 statutes have required DOD to report specific information on corrosion topics to Congress and have created a central DOD authority to organize and manage corrosion policy and practices among the military departments. The Bob Stump National Defense Authorization Act for Fiscal Year 2003 amended Title 10, U.S. Code, by adding section 2228, which led to the creation of the Office of Corrosion Policy and Oversight (referred to hereinafter as the Corrosion Office) within the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.² In 2008 the Duncan Hunter National Defense Authorization Act for Fiscal

¹LMI, *Estimated Impact of Corrosion on Cost and Availability of DOD Weapon Systems, FY18 Update* (March 2018). This cost estimate, which was produced by a DOD contractor, is the latest estimate available on DOD-wide corrosion costs.

²Pub. L. No. 107-314, § 1067(a) (2002) (codified, as amended, at 10 U.S.C. § 2228).

Year 2009 directed each of the military departments to designate a Corrosion Control and Prevention Executive (referred to hereinafter as a Corrosion Executive) to serve as the senior official in the Departments of the Army, Navy,³ and Air Force to coordinate department-level corrosion prevention and control activities with, among other entities, the Corrosion Office.⁴ In 2018 the Corrosion Office was relocated within DOD, after section 901 of the National Defense Authorization Act for Fiscal Year 2017 (Pub. L. No. 114-328) required DOD to restructure the Office of the Secretary of Defense, among other things.

Senate Armed Services Committee Report 115-262 accompanying a bill for the John S. McCain National Defense Authorization Act for Fiscal Year 2019 includes a provision for us to review aspects of DOD's Corrosion Office.⁵ This report examines (1) how the restructuring within the Office of the Secretary of Defense has affected DOD's Corrosion Office, including its performance of its statutory roles and responsibilities; and (2) what actions, if any, DOD has taken or has planned to implement recommendations GAO made from calendar years 2003 through 2018 related to corrosion management.

In addressing our first objective, we analyzed guidance documents to identify and review the ongoing oversight, procedural, and management changes within the Corrosion Office. Also, we interviewed officials in the Office of the Deputy Assistant Secretary of Defense for Materiel Readiness, the Corrosion Office, and the military departments. In addressing our second objective, we reviewed our prior products issued in calendar years 2003 through 2018 in order to identify all relevant corrosion recommendations made to the Corrosion Office directly or to the DOD oversight entity that would in turn have directed the Corrosion Office to address the particular recommendations made during this time frame. We chose this time frame because the Corrosion Office was established in 2003. We excluded from our analysis any previous corrosion recommendations that were no longer relevant due to a DOD

³The Department of the Navy includes two military services—the Navy and the Marine Corps. Therefore, the Navy's Corrosion Executive is also responsible for the Marine Corps' corrosion activities.

⁴Pub. L. No. 110-417, § 903 (2008) (codified, as amended, at 10 U.S.C. § 2228 note (Corrosion Control and Prevention Executives for the Military Departments)).

⁵S. Rep. No. 115-262, at 145-146 (2018).

policy change.⁶ In addition, we reviewed our prior products to identify DOD's initial response to these corrosion recommendations. We then interviewed cognizant officials or reviewed documents ranging from policy guidance to required reports provided to Congress to obtain information on DOD's subsequent actions, if any, for each recommendation. We reviewed this information to determine whether, as of March 2019, DOD had taken action, had plans to take action, or had no planned action to address each recommendation.

We conducted this performance audit from July 2018 to May 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Corrosion is defined in section 2228 of Title 10, U.S. Code, as the deterioration of a material or its properties due to a reaction of that material with its chemical environment. Corrosion can take varied forms, such as rusting, pitting, galvanic reaction, calcium or other mineral build-up, degradation due to ultraviolet light exposure, and mold, mildew, or other organic decay. Corrosion can be either readily visible or microscopic.

To provide leadership on corrosion matters, including the development of policy guidance and oversight, consistent with section 2228, DOD has established an organizational structure that includes the Corrosion Office and Corrosion Executives. The Director of the Corrosion Office is to provide oversight and coordination of corrosion control and prevention efforts for the department. The military departments have each assigned officials to serve as Corrosion Executives. The Corrosion Executives

⁶For example, we previously made a recommendation related to developing and implementing a plan to ensure that return on investment validations for corrosion projects were completed as scheduled. However, we excluded this recommendation because, according to DOD officials, DOD had changed its policy such that it would no longer require a validation process for reviewing corrosion projects' returns on investment.

operate within the chain of command of their respective military departments, while also coordinating with the Corrosion Office.

DOD Has Relocated the Corrosion Office, but It Continues to Perform Its Statutory Roles and Responsibilities and Is Making Plans for Future Operations

DOD Relocated the Corrosion Office within the Restructured Acquisition and Sustainment Organization in Fiscal Year 2018

Prior to August 2018, the Corrosion Office reported directly to the Under Secretary of Defense for Acquisition, Technology, and Logistics. In 2018 the Corrosion Office was relocated within DOD, after section 901 of the National Defense Authorization Act for Fiscal Year 2017 (Pub. L. No. 114-328, hereinafter referred to as the Act) required DOD to restructure parts of the Office of the Secretary of Defense. Among other things, the Act eliminated the Under Secretary of Defense for Acquisition, Technology, and Logistics, and it created:

- The Under Secretary of Defense for Research and Engineering, who, among other things, serves as the principal advisor to the Secretary of Defense on all research, engineering, and technology development activities and programs in DOD.⁷
- The Under Secretary of Defense for Acquisition and Sustainment, who, among other things, serves as the principal advisor to the Secretary of Defense on acquisition and sustainment in DOD. In addition, the Under Secretary establishes policies on and supervises all elements of DOD relating to acquisition and sustainment.⁸

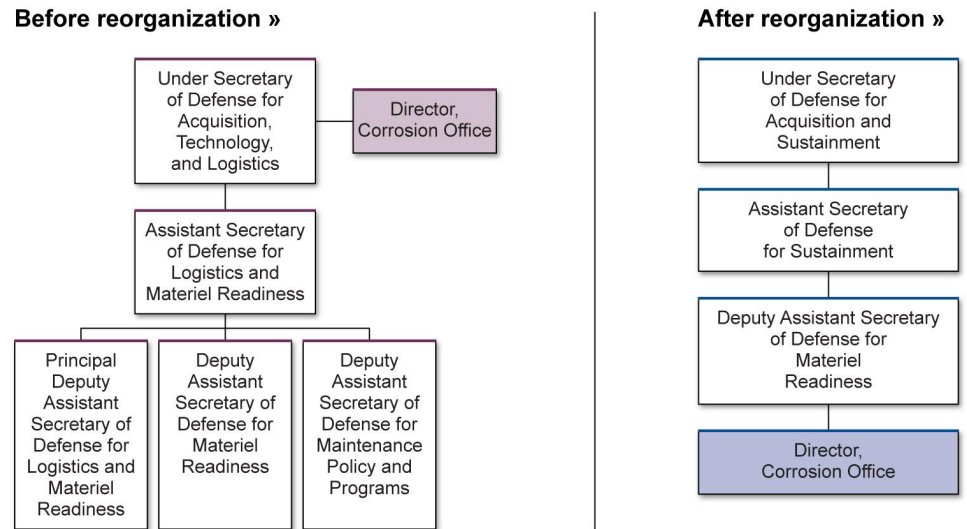
As part of this restructure, effective August 1, 2018, DOD relocated the Corrosion Office within the department's restructured acquisition and sustainment organization, as shown in figure 1. The Corrosion Office is now located within the department's Office of the Under Secretary of

⁷10 U.S.C. § 133a.

⁸10 U.S.C. § 133b.

Defense for Acquisition and Sustainment. Within this office, the Deputy Assistant Secretary of Defense for Materiel Readiness oversees the Corrosion Office. The Deputy Assistant Secretary of Defense for Materiel Readiness is a principal advisor to the Assistant Secretary of Defense for Sustainment; provides integration and oversight of DOD’s maintenance program; and develops policies and procedures for materiel readiness and maintenance support of DOD’s major weapon systems and military equipment.

Figure 1: Organizational Placement of Department of Defense’s (DOD) Office of Corrosion Policy and Oversight (Corrosion Office)



Source: GAO analysis of Department of Defense (DOD) information. | GAO-19-513

The Deputy Assistant Secretary of Defense for Materiel Readiness stated that he is supportive of the Corrosion Office’s mission and views its move to the Materiel Readiness organization as fitting in with the other areas under his oversight. Officials representing the military departments’ Corrosion Executives also stated that they support DOD’s organizational movement of the Corrosion Office. They stated that they continue to find the Corrosion Office to be helpful in establishing corrosion prevention standards and in providing opportunities for networking and information sharing by means of triannual corrosion forums. In addition, they stated that they have found the Deputy Assistant Secretary of Defense for Materiel Readiness to be supportive of corrosion oversight and prevention in their meetings with him.

Since August 1, 2018, the Corrosion Office has had an acting director. According to a Corrosion Office official, the Deputy Assistant Secretary of

Defense for Materiel Readiness is involved in the ongoing hiring process for a permanent director. According to a Corrosion Office official, the time frame in which a permanent director is projected to be in place is Spring 2019.

The Relocated Corrosion Office Continues to Perform Its Statutory Roles and Responsibilities

Section 2228 of Title 10, U.S. Code, contains provisions regarding the duties and responsibilities of the Director of the Corrosion Office.

Specifically, these duties and responsibilities include the following:

- overseeing and coordinating efforts throughout DOD to prevent and mitigate corrosion of military equipment and infrastructure, and developing and recommending corrosion policy guidance to be issued by the Secretary of Defense;⁹
- developing and implementing, on behalf of the Secretary of Defense, a long-term strategy to reduce corrosion and the effects of corrosion on military equipment and infrastructure;¹⁰
- reviewing corrosion programs and funding levels proposed by the military departments during the annual internal DOD budget review process as those programs and funding proposals relate to programs and funding for the prevention and mitigation of corrosion, and submitting recommendations regarding those programs and proposed funding levels to the Secretary of Defense;
- providing oversight and coordination of efforts within DOD to prevent or mitigate corrosion during the design, acquisition, and maintenance of military equipment, as well as the design, construction, and maintenance of infrastructure;
- monitoring DOD acquisition practices to ensure that the use of corrosion prevention technologies and the application of corrosion

⁹Section 2228(f) of Title 10, U.S. Code, defines military equipment as all weapon systems, weapon platforms, vehicles, and munitions of the Department of Defense, as well as components of these items. Section 2228(f) also defines infrastructure as all buildings, structures, airfields, port facilities, surface and subterranean utility systems, heating and cooling systems, fuel tanks, pavements, and bridges.

¹⁰10 U.S.C. § 2228(d)(1); DOD Instruction 5000.67, *Prevention and Mitigation of Corrosion on DoD Military Equipment and Infrastructure* (Feb. 1, 2010) (incorporating change 2, effective Aug. 31, 2018).

prevention treatments are fully considered during research and development in the acquisition process; and

- ensuring that, to the extent determined appropriate for each acquisition program, such technologies and treatments are incorporated into that program, particularly during the engineering and design phases of the acquisition process.

The Corrosion Office continues to perform the duties outlined in section 2228, as evidenced below. Specifically, the Corrosion Office is taking the following actions:

- *Developing and recommending corrosion policy guidance.* DOD previously developed and issued an instruction that establishes policy, assigns responsibilities, and provides guidance for corrosion prevention and mitigation.¹¹ The Corrosion Office, via a working group in a working integrated product team,¹² plans to update this DOD instruction. The working group intends for the updated DOD instruction to reflect the Corrosion Office's movement within DOD's restructured acquisition and sustainment organization; any statutory changes made to section 2228 since it was last issued; direction from the new acquisition and sustainment leadership; and any changes made to address the findings and recommendations in our 2018 report.¹³

Additionally, the Corrosion Office plans to create a new DOD manual on corrosion that, according to Corrosion Office officials, will contain operating procedural details on, among other items, conducting and recording the Corrosion Office's review and evaluation processes. According to Corrosion Office officials, the Corrosion Office's target time frame for updating this DOD instruction and creating this new manual is by the end of calendar year 2020.

¹¹DOD Instruction 5000.67.

¹²To support the Corrosion Office, there are seven working-level integrated product teams focused on specific corrosion-related issues. The working-level integrated product teams have representatives from the military departments, other DOD components, and some entities outside DOD.

¹³GAO, *Defense Management: DOD Should Take Additional Actions to Enhance Corrosion Prevention and Mitigation Efforts*, [GAO-19-39](#) (Washington, D.C.: Nov. 8, 2018).

Also, since July 2018 the Corrosion Office has been reviewing other DOD policy guidance to identify relevant documents in which corrosion content should be added or updated. Corrosion Office officials stated that the new director will update existing corrosion prevention and mitigation policy guidance, directives, and instructions in coordination with the military departments' Corrosion Executives, under the guidance of the Deputy Assistant Secretary of Defense for Materiel Readiness.

- *Developing and implementing a long-term strategy to reduce corrosion and its effects.* In 2015 DOD issued a long-term strategy for preventing and mitigating corrosion that calls for implementing DOD-wide standards and improving strategies and processes to prevent, detect, and treat corrosion.¹⁴ According to Corrosion Office officials, there was a planning meeting for the working integrated product teams' leads and co-leads in mid-March 2019. At this meeting, the team leads and co-leads prepared a draft update to the long-term strategy, which had last been updated in 2015. These officials told us that examples of changes included in the draft update are revised goals, objectives, and metrics. In addition, these officials told us that the draft update was aligned to reflect the DOD sustainment and materiel readiness mission statements and objectives articulated by the Assistant Secretary of Defense for Sustainment and the Deputy Assistant Secretary of Defense for Materiel Readiness. According to Corrosion Office officials, this draft plan is being reviewed internally, and the Corrosion Office's target time frame is to update it by the end of calendar year 2020.
- *Reviewing corrosion programs and funding levels proposed by the military departments and submitting related recommendations to the Secretary of Defense.* As it did prior to the restructure, the Corrosion Office continues to review the military departments' proposed corrosion-related programs and funding levels during the annual internal DOD budget review process. In addition, it continues to annually submit a report to Congress on corrosion funding with the defense budget materials. As part of this process, the Corrosion Office collected information from the Corrosion Executives on the corrosion control and prevention programs within the respective military departments. The Corrosion Office in Autumn 2018 included the information provided by each Corrosion Executive as appendixes

¹⁴Corrosion Office, *DOD Corrosion Prevention and Mitigation Strategic Plan* (September 2015).

in its annual report on corrosion funding. The fiscal year 2020 report was submitted to Congress on February 15, 2019.¹⁵

- *Monitoring and ensuring that corrosion prevention and mitigation are incorporated into acquisition and maintenance programs.* As we reported in November 2018, Corrosion Office officials told us that they continue to perform the Corrosion Office's acquisition and maintenance-related duties.¹⁶ For instance, the Corrosion Office continues to review acquisition documentation, such as Systems Engineering Plans, and to maintain information on hundreds of technologies for preventing and mitigating corrosion. In November 2018 we recommended that the Corrosion Office develop a process to maintain documentation of its reviews of corrosion planning for major weapon system programs. Further, we stated that these records, at a minimum, should show what comments were made by the Corrosion Office in its reviews and evaluations, and should track the actions taken to resolve those comments.

DOD concurred with this recommendation and stated that the Corrosion Office would develop and maintain such a process. More specifically, Corrosion Office officials stated that they plan to describe this process in a new DOD manual on corrosion. According to Corrosion Office officials, the DOD manual will also include information on considering corrosion during the weapon system program-planning evaluation process. In addition, the Corrosion Office plans to develop an internal data system that these officials told us will track its reviews and evaluations along with the weapon system programs' responding actions. According to Corrosion Office officials, their target time frame is to create this new manual and internal data system by the end of calendar year 2020.

¹⁵Office of the Under Secretary of Defense for Acquisition and Sustainment, *Department of Defense Report to Congress on Corrosion Policy and Oversight Budget Materials Fiscal Year 2020* (January 2019).

¹⁶GAO, *Defense Management: DOD Should Take Additional Actions to Enhance Corrosion Prevention and Mitigation Efforts*, [GAO-19-39](#) (Washington, D.C.: Nov. 8, 2018).

Corrosion Office officials told us that they have not changed the way in which they carry out additional authorities identified in section 2228.¹⁷ For example, the Corrosion Office continues to develop and deliver corrosion training with the Defense Acquisition University. In addition, it continues to interact with industry, trade associations, other government corrosion prevention agencies, academic research and educational institutions, and a scientific organization engaged in corrosion prevention.

DOD Is Making or Planning Changes for Some of the Ways in Which the Corrosion Office Operates

According to the Deputy Assistant Secretary of Defense for Materiel Readiness, he is working to change some of the ways in which the Corrosion Office operates. Specifically, he is working to increase the following:

- corrosion advocacy throughout DOD;
- oversight of the Corrosion Office;
- the accountability of the military departments and the Corrosion Office to mitigate corrosion; and
- the transparency of corrosion and its alignment with materiel readiness.

One of the efforts made by the Corrosion Office for achieving these objectives is by providing funding for corrosion technology demonstration projects proposed and implemented by the military departments.¹⁸

According to Corrosion Office officials, the Deputy Assistant Secretary of Defense for Materiel Readiness changed the process for awarding fiscal

¹⁷Section 2228(c) of Title 10, U.S. Code, authorizes the Director of Corrosion Office to develop, update, and coordinate corrosion training with the Defense Acquisition University; participate in the process within DOD for the development of relevant directives and instructions; and interact directly with the corrosion prevention industry, trade associations, other government corrosion prevention agencies, academic research and educational institutions, and scientific organizations engaged in corrosion prevention, including the National Academy of Sciences.

¹⁸DOD began funding military-equipment and infrastructure corrosion-prevention projects in fiscal year 2005. To receive funding from the Corrosion Office, the military departments submit project plans for their proposed projects, which are then evaluated by a panel of experts assembled by the Director of the Corrosion Office. The Corrosion Office generally funds up to \$500,000 per project, and the military departments generally pledge matching funds for each project they propose.

year 2019 funding by obtaining feedback from the military departments' Corrosion Executives as to which project proposals should receive funds. Officials representing the military departments' Corrosion Executives confirmed that they were able to provide such feedback. Corrosion Office officials told us that, as of April 2019, they had selected and funded demonstration projects for fiscal year 2019 in part based on the information provided by the military departments. In addition, the Deputy Assistant Secretary of Defense for Materiel Readiness stated that he wanted to have more of an emphasis on funding demonstration projects that would be beneficial to all of the military services.

According to Corrosion Office officials, another effort they undertook at the direction of the Deputy Assistant is that of working to make the Corrosion Office more cost-efficient by streamlining the number of professional services and other support contracts it awards. For example, Corrosion Office officials stated that by consolidating five contracts for professional services and reporting on the cost of corrosion into a single contract by a target date of mid-July 2019, they estimate achieving savings of approximately \$2 million. In another effort, the Deputy Assistant Secretary of Defense for Materiel Readiness provided written feedback to each of the military departments' Corrosion Executives in March 2019 on their respective departments' corrosion control and prevention programs. Specifically, the feedback concerned whether each military department's calendar year 2018 corrosion report complied with statutory requirements; each department's strengths and weaknesses related to its corrosion efforts; and recommendations each department had identified for itself to implement.

DOD's Corrosion Office Has Taken Action or Plans to Take Action to Implement Most of GAO's Recommendations

In calendar years 2003 through 2018, we made 35 recommendations to the Corrosion Office in 11 corrosion-related products on topics such as strategic planning, performance management, and mandatory oversight reports. In responding to these products, DOD initially concurred with 16 of those recommendations, partially concurred with eight, and non-concurred with 11.

As of March 2019 DOD's Corrosion Office had taken action or had plans to take action on most of our recommendations. Specifically, out of 35 recommendations, DOD's Corrosion Office

- had taken action on 18 recommendations, including sufficient action for us to close those recommendations as implemented;
- planned to take action to implement 12 additional recommendations. These planned actions include, among other actions, updating existing guidance and developing new policy or processes; and
- did not plan to take action on the remaining five recommendations. Corrosion Office officials stated that they did not plan to take action on these recommendations for a variety of reasons. For instance these officials stated that the Corrosion Office did not have the authority over the military departments to take the recommended actions. We continue to believe our recommendations are valid.

Appendix I summarizes all 35 recommendations and DOD's response to each recommendation at the time of our report and provides information, as of March 2019, on DOD's actions or planned actions to address each recommendation. In some instances DOD had taken action or planned to take action on recommendations with which it had not concurred at the time of our report.

Agency Comments

We provided a draft of this report to DOD for review and comment. DOD concurred with the draft and had no technical comments.

We are sending copies of this report to the appropriate congressional committees and to the Acting Secretary of Defense and the Under Secretary of Defense for Acquisition and Sustainment. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or our staff have any questions about this report, please contact me, Diana Maurer, at (202) 512-9627 or maurerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs are listed on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.

A handwritten signature in black ink that reads "Diana Maurer". The signature is written in a cursive style with a large, prominent 'D' and 'M'.

Diana Maurer
Director, Defense Capabilities and Management

Appendix I: GAO Recommendations to the Department of Defense (DOD) Corrosion Office and DOD's Response and Actions

Table 1: Summary of Recommendations GAO Made to the Department of Defense (DOD) Corrosion Office, 2003—2018, and DOD's Responses and Actions, as of March 2019

GAO recommendations	DOD actions ^a
<p><i>Defense Management: DOD Should Take Additional Actions to Enhance Corrosion Prevention and Mitigation Efforts.</i> GAO-19-39. Washington, D.C.: Nov. 8, 2018.: Issue guidance about a standard process for identifying and documenting the rationale for the annual funding levels needed to carry out each Corrosion Executive's duties. (DOD concurred)</p>	<p>Plan to take action: The Corrosion Office plans to develop a standardized process for identifying annual funding levels to perform the duties of each Corrosion Executive. It plans to include this process in a new DOD manual on corrosion that it has a goal of creating by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Management: DOD Should Take Additional Actions to Enhance Corrosion Prevention and Mitigation Efforts.</i> GAO-19-39. Washington, D.C.: Nov. 8, 2018.: Document and maintain related records of the Corrosion Office's process for reviewing the Corrosion Executive Reports prior to submitting an annual report to Congress. (DOD concurred)</p>	<p>Plan to take action: The Corrosion Office plans to develop and implement a standardized operating procedure for processing and documenting its review of the Corrosion Executive Reports. It plans to complete and implement this standardized operating procedure by November 1, 2019. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Management: DOD Should Take Additional Actions to Enhance Corrosion Prevention and Mitigation Efforts.</i> GAO-19-39. Washington, D.C.: Nov. 8, 2018.: Develop a process to consistently maintain records of the Corrosion Office's reviews and evaluations of corrosion planning for major weapon system programs. (DOD concurred)</p>	<p>Plan to take action: The Corrosion Office plans to develop and maintain a process for documenting its reviews, evaluations, and comments, and to track the weapon system programs' actions on corrosion planning. It plans to include this process in a new DOD manual on corrosion that will include information on considering corrosion during the weapon system program-planning evaluation process, and to develop an internal data system for tracking purposes. Its goal is to create this new manual and internal data system by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Research: Improved Management of DOD's Technical Corrosion Collaboration Program Needed.</i> GAO-14-437. Washington, D.C.: May 29, 2014.: Document procedures for approving projects within the Technical Corrosion Collaboration program for civilian institutions. (DOD did not concur)</p>	<p>Plan to take action: DOD did not concur with this recommendation at the time of our report but has since decided to take action to implement it. Specifically, the Corrosion Office plans to include information on documenting procedures for approving projects in a new DOD manual on corrosion that it has a goal of creating by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>

**Appendix I: GAO Recommendations to the
Department of Defense (DOD) Corrosion Office
and DOD's Response and Actions**

GAO recommendations	DOD actions^a
<p><i>Defense Research: Improved Management of DOD's Technical Corrosion Collaboration Program Needed. GAO-14-437. Washington, D.C.: May 29, 2014.: Document the procedures for selecting and approving projects within the Technical Corrosion Collaboration program for military academic institutions. (DOD did not concur)</i></p>	<p>Plan to take action: DOD did not concur with this recommendation at the time of our report but has since decided to take action to implement it. The Corrosion Office plans to include information on documenting procedures for selecting and approving projects in a new DOD manual on corrosion that it has a goal of creating by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Research: Improved Management of DOD's Technical Corrosion Collaboration Program Needed. GAO-14-437. Washington, D.C.: May 29, 2014.: Establish a process for transitioning demonstrated results of Technical Corrosion Collaboration projects to the military departments. (DOD did not concur)</i></p>	<p>Do not plan to take action: DOD continues to non-concur with this recommendation. According to Corrosion Office officials, the Corrosion Office does not have the authority to transition demonstrated Technical Corrosion Collaboration project results to the military departments. However, officials stated that the Corrosion Office continues to disseminate project results to the military departments by involving department representatives in defining the research areas and monitoring progress; inviting the departments to participate in the annual Technical Corrosion Collaboration Research Review, where all projects are presented and discussed; and including these projects as a regular topic at Corrosion Forum meetings. We have closed this recommendation as not implemented.</p>
<p><i>Defense Research: Improved Management of DOD's Technical Corrosion Collaboration Program Needed. GAO-14-437. Washington, D.C.: May 29, 2014.: Document the procedures for selecting and approving military research labs supporting civilian and military institutions in conducting projects within the Technical Corrosion Collaboration program. (DOD partially concurred)</i></p>	<p>Plan to take action: DOD partially concurred with this recommendation at the time of our report but has since decided to take action to implement it. The Corrosion Office plans to include procedures for selecting and approving labs to support institutions in a new DOD manual on corrosion. Its goal to create this new manual by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Research: Improved Management of DOD's Technical Corrosion Collaboration Program Needed. GAO-14-437. Washington, D.C.: May 29, 2014.: Track and maintain accurate records that include amounts of funds used for the Technical Corrosion Collaboration program, and have these records readily available for examination. (DOD partially concurred)</i></p>	<p>Taken action: The Corrosion Office has transitioned all Technical Corrosion Collaboration funding transactions to a DOD financial web portal system and is funding each project via an interdepartmental purchase request that accounts for the funds used. DOD officials stated that this information is readily available for examination. We have closed this recommendation as implemented.</p>
<p><i>Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects. GAO-13-661. Washington, D.C.: Sept. 9, 2013.: Revise the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> or other guidance to require that the military departments include measures of achievement of the project. (DOD did not concur)</i></p>	<p>Plan to take action: DOD did not concur with this recommendation at the time of our report but has since decided to take action to implement it. According to Corrosion Office officials, they plan to list measures of achievement for the military departments to follow on the departments' corrosion projects in a new DOD manual on corrosion. The Corrosion Office's goal is to create this new manual is by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects. GAO-13-661. Washington, D.C.: Sept. 9, 2013.: Establish a time frame for completing the comprehensive and secure database so that all relevant officials of DOD's corrosion community have access to proven technology methods, products, and lessons learned. (DOD concurred)</i></p>	<p>Taken action: The Corrosion Office keeps project status information in a detailed internal spreadsheet versus a comprehensive and secure database DOD had developed. Corrosion Office officials stated that DOD did not deploy this database due to funding constraints and DOD policies restricting the use of cloud computing at the time. We have closed this recommendation as implemented.</p>

**Appendix I: GAO Recommendations to the
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GAO recommendations	DOD actions^a
<p><i>Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects.</i> GAO-13-661. Washington, D.C.: Sept. 9, 2013.: Develop a tool or mechanism to monitor the status for each equipment-related corrosion project regarding transition to military departments. <i>(DOD concurred)</i></p>	<p>Taken action: The Corrosion Office keeps project status information in a detailed internal spreadsheet that is updated on a monthly basis. It develops project summaries that it deploys on a public corrosion-related website. Additionally, according to Corrosion Office officials, some projects are the subject of papers presented at professional conferences. We have closed this recommendation as implemented.</p>
<p><i>Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects.</i> GAO-13-661. Washington, D.C.: Sept. 9, 2013.: Revise guidance to specify how project managers should report return on investment for discontinued projects. <i>(DOD partially concurred)</i></p>	<p>Taken action: The Corrosion Office included information on how project managers will calculate and report return on investment for discontinued projects in the current <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i>, dated September 2015. In addition, the Corrosion Office has posted a project cancellation template with information about the process for canceling projects and reporting requirements on a public corrosion-related website. We have closed this recommendation as implemented.</p>
<p><i>Defense Infrastructure: DOD Should Improve Reporting and Communication on Its Corrosion Prevention and Control Activities.</i> GAO-13-270. Washington, D.C.: May 31, 2013.: Enhance reporting and project tracking of corrosion-control demonstration projects affecting DOD infrastructure, including reporting deadlines. <i>(DOD partially concurred)</i></p>	<p>Taken action: The Corrosion Office has an internal spreadsheet that is, according to Corrosion Office officials, the single, authoritative source for all project-related information, including revised reporting deadlines for final and follow-on reports. Further, officials explained that this information is provided to the military department Corrosion Executives and project managers during yearly interim progress reviews. We have closed this recommendation as implemented.</p>
<p><i>Defense Infrastructure: DOD Should Improve Reporting and Communication on Its Corrosion Prevention and Control Activities.</i> GAO-13-270. Washington, D.C.: May 31, 2013.: Implement options or incentives to meet reporting milestones for infrastructure-related corrosion-control demonstration projects. <i>(DOD did not concur)</i></p>	<p>Do not plan to take action: DOD continues to non-concur with this recommendation. According to Corrosion Office officials, the Corrosion Office does not have authority over the military department staff/offices completing these infrastructure demonstration projects. However, Corrosion Office officials stated that the current Deputy Assistant Secretary of Defense for Materiel Readiness is developing lines of communication with the military department Corrosion Control Prevention Executives toward addressing project funding, personnel, and milestone accomplishment. They added that projects not meeting reporting milestones are discussed during in-process reviews with the responsible military department staff/office, which in turn is to provide rationales for being late and updates on when the project will be completed. Finally, they explained that the current Deputy Assistant Secretary of Defense for Materiel Readiness will address the completion of the ongoing projects. We have closed this recommendation as not implemented.</p>

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GAO recommendations	DOD actions^a
<p><i>Defense Infrastructure: DOD Should Improve Reporting and Communication on Its Corrosion Prevention and Control Activities.</i> GAO-13-270. Washington, D.C.: May 31, 2013.: Revise corrosion-related guidance to clearly define a role for the military departments' Corrosion Executives to assist the Corrosion Office to hold project management offices accountable for submitting infrastructure-related reports <i>(DOD did not concur)</i></p>	<p>Plan to take action: DOD did not concur with this recommendation at the time of our report but has since decided to take action to implement it. According to Corrosion Office officials, they will include a definition of the military departments' Corrosion Executives' role in an update to DOD Instruction 5000.67 <i>(Prevention and Mitigation of Corrosion on DOD Military Equipment and Infrastructure)</i>; in a new DOD manual on corrosion; in an update to the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i>; and in an update to the Corrosion Prevention Control Integrated Product Team charter. The Corrosion Office's goal is to complete these updates and create the new manual by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p><i>Defense Infrastructure: DOD Should Improve Reporting and Communication on Its Corrosion Prevention and Control Activities.</i> GAO-13-270. Washington, D.C.: May 31, 2013.: Ensure that records reflect complete, timely, and accurate data of projects' return-on-investment estimates. <i>(DOD partially concurred)</i></p>	<p>Taken action: The Corrosion Office has an internal spreadsheet that is, according to Corrosion Office officials, the single, authoritative source for all project-related information, including revised reporting deadlines for final and follow-on reports. Further, officials explained that this information is provided to the military department Corrosion Executives and project managers during yearly interim progress reviews. We have closed this recommendation as implemented.</p>
<p><i>Defense Management: The Department of Defense's Annual Corrosion Budget Report Does Not Include Some Required Information.</i> GAO-12-823R. Washington, D.C.: Sept. 10, 2012.: Include in the annual corrosion budget report to Congress: A more detailed explanation of the development of DOD's funding requirements. <i>(DOD did not concur)</i></p>	<p>Do not plan to take action: DOD continues to non-concur with this recommendation. In written comments to our report, DOD stated that the budget report as submitted provides Congress with all of the information it needs to exercise its oversight responsibilities. The Corrosion Office has had the same description on the development of DOD's funding requirements in its annual corrosion budget reports to Congress throughout fiscal years 2013 through 2020. According to Corrosion Office officials, the description of DOD's funding requirements in these budget reports is the minimum amount of funding necessary to meet the Corrosion Office's requirements. Corrosion Office officials stated that if additional funds are made available, increased investments can be made to increase readiness and reduce costs related to corrosion. We have closed this recommendation as not implemented.</p>
<p><i>Defense Management: The Department of Defense's Annual Corrosion Budget Report Does Not Include Some Required Information.</i> GAO-12-823R. Washington, D.C.: Sept. 10, 2012.: Include in the annual corrosion budget report to Congress: A comparison between the funds requested in DOD's budget, the funding requirements for the fiscal year covered by the report, and those for the preceding fiscal year. <i>(DOD did not concur)</i></p>	<p>Do not plan to take action: DOD continues to non-concur with this recommendation. The Corrosion Office has not included the funds requested in the budget compared to the funding requirements for the fiscal year covered by the report and the preceding fiscal year beginning with its fiscal year 2013 report. In written comments to our report, DOD stated that the funds requested in the budget are equal to the corrosion program's funding requirement considering the department's overall needs. We have closed this recommendation as not implemented.</p>
<p><i>Defense Management: The Department of Defense's Annual Corrosion Budget Report Does Not Include Some Required Information.</i> GAO-12-823R. Washington, D.C.: Sept. 10, 2012.: Include in the annual corrosion budget report to Congress: An explanation of DOD's return-on-investment methodology and analysis, for both projected and validated return on investment. <i>(DOD did not concur)</i></p>	<p>Taken action: Starting with the fiscal year 2015 annual corrosion budget report to Congress, the Corrosion office has included an explanation of why and, to a degree, how DOD calculates its return-on-investment reassessments. We have closed this recommendation as implemented.</p>

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GAO recommendations	DOD actions^a
<p>Defense Management: The Department of Defense's Fiscal Year 2012 Corrosion Prevention and Control Budget Request. GAO-11-490R. Washington, D.C.: Apr. 13, 2011.: Include all required elements in DOD's future corrosion reports. (<i>DOD concurred</i>)</p>	<p>Do not plan to take action: Although DOD concurred with this recommendation, the Corrosion Office's annual corrosion budget reports to Congress from fiscal years 2012 through 2020 have not included, for the current and previous fiscal years, the amount of funds requested in the budget compared to the funding requirements for each project or activity supporting the long-term corrosion strategy. According to Corrosion Office officials, the aggregate budget request and actual budgeted amounts address this required reporting element. Further, Corrosion Office officials stated that the budget request reflects the minimum amount of funding necessary to meet the Corrosion Office's requirements. If additional funds are made available, increased investments to increase readiness and reduce costs related to corrosion can be made. We have closed this recommendation as not implemented.</p>
<p>Defense Management: DOD Needs to Monitor and Assess Corrective Actions Resulting from Its Corrosion Study of the F-35 Joint Strike Fighter. GAO-11-171R. Washington, D.C.: Dec. 16, 2010.: Document program-specific recommendations and a corrective-actions process resulting from the corrosion study with regard to the F-35 and F-22. (<i>DOD concurred</i>)</p>	<p>Taken action: In January 2012 and January 2013, DOD identified six program-specific recommendations from its corrosion study to improve F-35 and F-22 corrosion prevention and control. At those times, the F-35 and F-22 program offices implemented or planned to implement corrective actions in response to these recommendations and were responsible for regularly monitoring and assessing the effectiveness of their corrective actions. In addition, Corrosion Office officials, along with the Navy and Air Force Corrosion Executives, planned to review the corrosion-related documentation that DOD's acquisition policies require major weapon system programs (such as the F-22 and F-35) to submit at established points in the acquisition lifecycle, and to obtain information during sustainment and other program reviews. We have closed this recommendation as implemented.</p>
<p>Defense Management: DOD Needs to Monitor and Assess Corrective Actions Resulting from Its Corrosion Study of the F-35 Joint Strike Fighter. GAO-11-171R. Washington, D.C.: Dec. 16, 2010.: Document program-specific recommendations from the corrosion study with regard to five other weapon systems and establish a process for monitoring and assessing the effectiveness of the Corrosion Prevention and Control programs for these systems. (<i>DOD partially concurred</i>)</p>	<p>Plan to take action: DOD partially concurred with this recommendation at the time of our report but has since decided to take action to implement it. As of September 2015, DOD had not documented program-specific recommendations from the corrosion study for the other weapon systems identified in its report. According to Corrosion Office officials, they interacted with two of five weapon-systems programs on corrosion-related matters. One of these weapon-system programs was eventually canceled. However, DOD updated its <i>Corrosion Prevention and Control Planning Guidebook for Military Systems and Equipment</i> in 2014 and, according to officials, is planning to further update DOD Instruction 5000.67 (<i>Prevention and Mitigation of Corrosion on DOD Military Equipment and Infrastructure</i>). Also, according to Corrosion Office officials, procedures for evaluating acquisition programs will be included in the new DOD manual on corrosion. The Corrosion Office's goal is to complete this instruction update and create the new manual by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>

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GAO recommendations	DOD actions^a
<p>Document Air Force- and Navy-specific recommendations and establish a process for monitoring and assessing the effectiveness of these services' corrective actions. <i>(DOD concurred)</i></p>	<p>Plan to take action: As of September 2015, DOD had not documented Air Force- and Navy-specific recommendations flowing from the corrosion study. However, DOD updated its <i>Corrosion Prevention and Control Planning Guidebook for Military Systems and Equipment</i> in 2014 and, according to officials, is planning to update DOD Instruction 5000.67 (<i>Prevention and Mitigation of Corrosion on DOD Military Equipment and Infrastructure</i>) or other appropriate guidance related to the process or procedures for monitoring and assessing the effectiveness of Corrosion Prevention Control planning for weapon systems, particularly related to how the military services will accomplish this within their increased weapon system oversight role. In addition, this information will be addressed in the new DOD manual on corrosion. The Corrosion Office's goal is to complete this instruction update and create the new manual by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p>Defense Management: DOD Needs to Monitor and Assess Corrective Actions Resulting from Its Corrosion Study of the F-35 Joint Strike Fighter. GAO-11-171R. Washington, D.C.: Dec. 16, 2010.: Document DOD-wide recommendations and the corrective-action process resulting from the corrosion study, and implement any needed policy changes for new systems. <i>(DOD concurred)</i></p>	<p>Taken action: DOD updated DOD Instruction 5000.02 (<i>Operation of the Defense Acquisition System</i>) and the <i>Defense Acquisition Guidebook</i>, made available an industry corrosion prevention and control planning standard, completed or updated several military standards, and participated in systems engineering plan reviews. We have closed this recommendation as implemented.</p>
<p>Defense Management: DOD Has a Rigorous Process to Select Corrosion Prevention Projects, but Would Benefit from Clearer Guidance and Validation of Returns on Investment. GAO-11-84. Washington, D.C.: Dec. 8, 2010.: Update applicable guidance, such as DOD Instruction 5000.67 or the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i>, to further define the Corrosion Executives' responsibilities, to include oversight and project proposal review. <i>(DOD did not concur)</i></p>	<p>Plan to take action: DOD did not concur with this recommendation at the time of our report but has since decided to take action to implement it. Corrosion Office officials agree that Corrosion Executives' responsibilities in the Corrosion Prevention Project selection process have to be further defined. They plan to clearly document the selection procedures and participation of the Corrosion Executive in an update to DOD Instruction 5000.67 (<i>Prevention and Mitigation of Corrosion on DOD Military Equipment and Infrastructure</i>) and in the new DOD manual on corrosion. The Corrosion Office's goal is to complete this instruction update and create the new manual by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p>Defense Management: DOD Has a Rigorous Process to Select Corrosion Prevention Projects, but Would Benefit from Clearer Guidance and Validation of Returns on Investment. GAO-11-84. Washington, D.C.: Dec. 8, 2010.: Modify the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> to clearly specify and communicate the criteria used by the selection panel to evaluate and fund projects. <i>(DOD did not concur)</i></p>	<p>Taken action: In the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> (dated September 2015), the Corrosion Office included most of the evaluation criteria this GAO report had identified in the Project Selection and Management Appendix. We have closed this recommendation as implemented.</p>

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GAO recommendations	DOD actions^a
<p>Defense Management: High-Level Leadership Commitment and Actions Are Needed to Address Corrosion Issues. GAO-07-618. Washington, D.C.: Apr. 30, 2007.: To support the fiscal year 2009 budget request, develop an action plan for information on the Army ground vehicles and Navy ships in DOD's cost impact study. It should include information on corrosion cost areas having the highest priority and a strategy for reducing these costs. DOD should develop comparable action plans for the information to be derived from cost information completed in the future. <i>(DOD partially concurred)</i></p>	<p>Taken action: When DOD organizations propose projects for Corrosion Office funding, their project proposal submissions are to note whether the project is related to the cost-of-corrosion reports (which are issued by a DOD contractor on a recurring basis). In addition, the Corrosion Office considers whether proposed projects will address cost issues identified in the cost-of-corrosion reports when making funding decisions. We have closed this recommendation as implemented.</p>
<p>Defense Management: High-Level Leadership Commitment and Actions Are Needed to Address Corrosion Issues. GAO-07-618. Washington, D.C.: Apr. 30, 2007.: Require the military services to provide comprehensive data about their annual corrosion funding requirements before these requests are sent to Congress. <i>(DOD partially concurred)</i></p>	<p>Taken action: DOD updated DOD Instruction 5000.67 (<i>Prevention and Mitigation of Corrosion on DOD Military Equipment and Infrastructure</i>) to require the military departments to submit information on the proposed corrosion programs and corrosion-related research, development, test, and evaluation funding levels to the Corrosion Office during the annual internal DOD budget process. We have closed this recommendation as implemented.</p>
<p>Defense Management: Opportunities Exist to Improve Implementation of DOD's Long-Term Corrosion Strategy. GAO-04-640. Washington, D.C.: June 23, 2004.: Complete the corrosion baseline study before 2011 so that resource priorities and performance measures are available to monitor progress in reducing corrosion's impacts on equipment and infrastructure. <i>(DOD concurred)</i></p>	<p>Taken action: Since 2006 a DOD contractor has been issuing recurring cost-of-corrosion reports that, among other items, identify corrosion costs of DOD aviation, missile, ground, vessel, and other equipment assets. We have closed this recommendation as implemented.</p>
<p>Defense Management: Opportunities Exist to Improve Implementation of DOD's Long-Term Corrosion Strategy. GAO-04-640. Washington, D.C.: June 23, 2004.: Establish a funding mechanism to implement the corrosion strategy's long-term focus. <i>(DOD concurred)</i></p>	<p>Taken action: Starting in fiscal year 2006, the Corrosion Office has been submitting its annual funding requests through the planning, programming and budgeting, and execution process. These funding requests are identified in a separate Office of the Secretary of Defense Program Element. We have closed this recommendation as implemented.</p>
<p>Defense Management: Opportunities Exist to Improve Implementation of DOD's Long-Term Corrosion Strategy. GAO-04-640. Washington, D.C.: June 23, 2004.: As part of the fiscal year 2006 congressional budget submission, identify (1) the long-term funding and personnel resources needed to implement the strategy and (2) the status of the fiscal year 2005 corrosion-reduction projects and (3) a baseline study. <i>(DOD concurred)</i></p>	<p>Taken action: As part of the fiscal year 2006 budget submission, DOD submitted a report identifying the long-term funding and personnel resources needed to implement the strategy. A list of candidate corrosion reduction projects was included, as was the status of the baseline study. We have closed this recommendation as implemented.</p>

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GAO recommendations	DOD actions ^a
<p>Defense Management: Opportunities to Reduce Corrosion Costs and Increase Readiness. GAO-03-753. Washington, D.C.: July 7, 2003.: Develop and include in the DOD strategic plan: Standardized methodologies for collecting and analyzing corrosion cost, readiness, and safety data. <i>(DOD concurred)</i></p>	<p>Taken action: In collaboration with DOD's Corrosion Prevention and Control Integrated Product Team, a DOD contractor has developed two of the three recommended standardized methodologies. Specifically, there are standardized methodologies for collecting, analyzing, and regularly reporting on corrosion cost and readiness data. Although these standardized methodologies are not included in the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> (dated September 2015), the plan notes that a working integrated product team is responsible for these methodologies. A DOD contractor produced a safety study on the effect of corrosion on Department of the Army and Department of the Navy aviation mishaps in 2015. However, according to Corrosion Office officials, no funding has been available to develop a standardized methodology for collecting and analyzing safety data. We have closed this recommendation as implemented.</p>
<p>Defense Management: Opportunities to Reduce Corrosion Costs and Increase Readiness. GAO-03-753. Washington, D.C.: July 7, 2003.: Develop and include in the DOD strategic plan: Clearly defined goals, outcome-oriented objectives, and performance measures including expected return on investment and realized net savings of prevention projects. <i>(DOD concurred)</i></p>	<p>Plan to take action: Corrosion Office officials stated that they plan to include goals, objectives, and performance measures in the update to the <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i>. The Corrosion Office's goal is to complete this plan update by the end of calendar year 2020. We will monitor the extent to which DOD implements this recommendation.</p>
<p>Defense Management: Opportunities to Reduce Corrosion Costs and Increase Readiness. GAO-03-753. Washington, D.C.: July 7, 2003.: Develop and include in the DOD strategic plan: Resources needed to accomplish goals and objectives. <i>(DOD concurred)</i></p>	<p>Taken action: Beginning with fiscal year 2009, DOD was statutorily required to provide an annual corrosion funding report to Congress with the defense budget materials that included, among other items, funding requirements for the long-term corrosion strategy. The Corrosion Office has regularly submitted funding requests and other details in reports to Congress. This resource information is not included in the current <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> (dated September 2015). We have closed this recommendation as implemented.</p>
<p>Defense Management: Opportunities to Reduce Corrosion Costs and Increase Readiness. GAO-03-753. Washington, D.C.: July 7, 2003.: Develop and include in the DOD strategic plan: Mechanisms to coordinate and oversee corrosion projects in an inter-service and service-wide context. <i>(DOD concurred)</i></p>	<p>Taken action: The Corrosion Office has included two appendixes describing specific processes regarding corrosion science and technology development efforts and projects in the current <i>DOD Corrosion Prevention and Mitigation Strategic Plan</i> (dated September 2015). We have closed this recommendation as implemented.</p>

Source: GAO. | GAO-19-513

^a "Plan to take action" is a future action the Corrosion Office intends to take to address the intent of GAO's recommendation. "Taken action" is an improvement the Corrosion Office had made to address the intent of GAO's recommendation. "Do not plan to take action" indicates that the Corrosion Office does not intend to take action to address the intent of GAO's recommendation.

Appendix II: GAO Contact and Acknowledgments

GAO Contact

Diana Maurer, (202) 512-9627 or maurerd@gao.gov

Staff Acknowledgments

In addition to the contact named above, Marilyn Wasleski (Assistant Director), Dawn Godfrey, Shvetal Khanna, Amie Lesser, Edward Malone, Nathan J. Napolitano, Carter Stevens, and Cheryl Weissman made key contributions to this report.

Appendix III: Accessible Data

Data Table

Accessible Data for Prior GAO Report Recommendations to Corrosion Office and Department of Defense (DOD) Actions, as of March 2019

Recommendation	Recommendation total
Taken action	18
Plan to take action	12
Do not plan to take action	5

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