

# GAO Highlights

Highlights of [GAO-19-586](#), a report to the Committee on Armed Services, U.S. Senate

## Why GAO Did This Study

The Department of Defense spends tens of billions of dollars annually to sustain military assets including aircraft, ships, and missiles. In support of this effort, DLA strives to maintain a competitive supplier base through reverse engineering—the process of examining an item, such as a spare part, with the intent of replicating its design. Contractors consider intellectual property, such as their technical data and patented material, essential to their success. DLA also takes steps to safeguard contractors’ intellectual property during reverse engineering.

The Senate Armed Services Committee report accompanying a bill for the fiscal year 2018 National Defense Authorization Act included a provision for GAO to review DLA’s reverse engineering efforts, including the protection of small businesses’ intellectual property. This report describes (1) DLA’s reverse engineering programs and the extent to which small businesses participated in these programs from fiscal years 2015 through 2018; and (2) how DLA safeguards certain intellectual property within its reverse engineering efforts.

GAO analyzed data from three DLA commands—Aviation, Land and Maritime, and Troop Support, those that conduct reverse engineering—from fiscal years 2015 through 2018. GAO reviewed a nongeneralizable sample of 19 reverse engineering projects involving 13 parts, selected to include a variety of characteristics, such as the size of the contractors involved. GAO reviewed DLA’s guidance and interviewed DLA officials and representatives from small businesses about safeguarding intellectual property as part of reverse engineering.

View [GAO-19-586](#). For more information, contact Marie A. Mak at (202) 512-4841 or [makm@gao.gov](mailto:makm@gao.gov).

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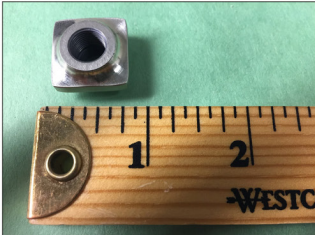
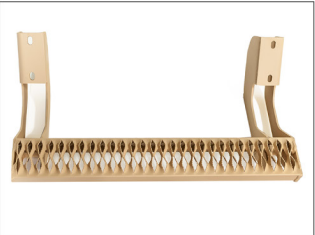

## DEFENSE LOGISTICS AGENCY

### Small Businesses Participate in Reverse Engineering of Spare Parts

#### What GAO Found

The Defense Logistics Agency (DLA) is responsible for providing logistics support to the warfighter, including spare parts for military assets. From fiscal years 2015 through 2018, DLA initiated over 1,600 reverse engineering projects for spare parts at three of its commands—Aviation, Land and Maritime, and Troop Support. DLA uses reverse engineering to identify potential new sources for spare parts that are available from only one source and to achieve savings. DLA funded about 1,000 of the reverse engineering projects, while contractors funded the remaining 600 projects. Nearly two-thirds of all reverse engineering projects involved parts in five categories, with examples of the three largest categories illustrated in the figure.

#### Examples of Reverse Engineered Parts

Hardware and abrasives Plain cap nut	Vehicular equipment components Tailgate step	Electrical and electronic equipment components Electrical contact brush holder assembly
		

Source: Defense Logistics Agency (DLA) Land and Maritime (center image); DLA Aviation (all other images). | GAO-19-586

GAO found that the majority of contractors conducting reverse engineering for DLA were small businesses. Specifically, DLA identified 124 contractors that conducted reverse engineering projects from fiscal year 2015 through 2018, 103 of which GAO determined were small businesses. According to small business representatives and DLA officials, reverse engineering is beneficial for small businesses and can help provide opportunities for additional business with DLA.

GAO found that the three DLA commands had processes to safeguard certain intellectual property in their reverse engineering efforts. Specifically:

- Officials from all three commands stated they do not release drawings with limited data rights to contractors interested in reverse engineering parts.
- Aviation and Land and Maritime officials stated that they check for patent markings on parts to ensure patented parts are not reverse engineered. Troop Support officials stated they do not check for patent marks because the parts they supply are often too old to have valid patents.

The small businesses GAO met with did not identify concerns with how DLA handles intellectual property. Further, DLA officials stated that they had not received any complaints from small businesses about their intellectual property being used inappropriately.