

September 25, 2024

The Honorable Lloyd J. Austin III
Secretary of Defense
U.S. Department of Defense
1000 Defense Pentagon
Washington, DC 20301-1000

Dear Secretary Austin,

I am writing to express my concern and seek answers regarding military contractors' imposition of restrictions on operating and maintaining military equipment and the extent to which this degrades military readiness.

The Department of Defense (DoD) pays hundreds of billions of dollars annually to contractors to produce weapons systems and other equipment for use by the U.S. military. Still, these contracts are often subject to contractor-imposed restrictions on how these items can be repaired, leaving servicemembers unable to conduct necessary maintenance.¹ Two of the most common contractual restrictions are those that void an equipment's warranty if servicemembers attempt to repair equipment themselves, and agreements in which contractors retain the intellectual property (IP) rights to operations, maintenance, integration, and training (OMIT) data of the weapons and equipment they sell to the U.S. military.

These IP-based restrictions hamper DoD's ability to "write training manuals, [or] modify or repair a system" independently of the company.² For equipment subject to these restrictions, repairs often take months, and servicemembers, who want to "ensure that their gear is ready to meet mission requirements," are unable to repair the systems they operate and rely on.³ The U.S. Government Accountability Office (GAO) has reported that "[s]ecuring intellectual property rights is important for [DoD's] ability to maintain its weapons systems. Rather than relying on contractors, purchasing intellectual property rights gives DoD more options for keeping its aircraft, ships, submarines, and missiles running smoothly."⁴ Because restrictions on DoD's ability

¹ U.S. Department of Defense, "DoD Releases Report on Defense Spending by State in Fiscal Year 2022," press release, September 26, 2023, <https://www.defense.gov/News/Releases/Release/Article/3538311/dod-releases-report-on-defense-spending-by-state-in-fiscal-year-2022/>.

² National Defense, "Intellectual Property Fights Par for the Course in F-35 Program," Sandra Erwin, September 8, 2016, <https://www.nationaldefensemagazine.org/articles/2016/9/8/intellectual-property-fights-par-for-the-course-in-f-35-program>.

³ New York Times, Opinion, "Here's One Reason the U.S. Military Can't Fix Its Own Equipment," Elle Ekman, November 20, 2019, <https://www.nytimes.com/2019/11/20/opinion/military-right-to-repair.html>.

⁴ U.S. Government Accountability Office, "Protecting Intellectual Property," issue summary, <https://www.gao.gov/protecting-intellectual-property>.

to repair its own equipment result in knowledge and capacity gaps for servicemembers, high sustainment costs, and risk to military readiness, I urge DoD to prioritize resolving this problem.

DoD Contractors Denial of Servicemembers’ “Right-to-Repair” Essential Weapons and Equipment Imposes Substantial Costs and Degrades Readiness

For years, GAO has documented DoD’s failure to secure intellectual property rights for the F-35 aircraft that would support future sustainment of the program. In fact, GAO found that DoD officials “did not have an understanding of the technical data rights DoD owned, what technical data rights it might still need, or how much it would cost to acquire those data rights to support the future sustainment of F-35 aircraft.”⁵ According to GAO, of the F-35’s \$2 trillion price tag, DoD estimates more than \$1.5 trillion will go to repair costs.⁶ Air Force Secretary Frank Kendall explained that he had to ask “who’s running [the F-35] program: the government or Lockheed Martin?”⁷ He explained that the DoD has tried to gain control of the program after they realized they did not have any IP rights to the aircraft but is “still fighting that problem today.”⁸ Even before equipment is acquired, services have to fight a similar battle to get basic IP rights.

Similarly, the Navy struggled to gain control of IP rights with the F/A-18E/F Super Hornet program.⁹ While Congress allocated funds for 20 aircraft, Boeing placed a giant price tag on IP rights, and eventually, the Navy was only able to obtain 17 aircraft with the necessary IP package to sustain the aircraft themselves.¹⁰

There are numerous additional examples of the risks of repair restrictions imposed by military contractors, including:

- Marines stationed in Japan were forced to “pack[] up and ship[] back [engines] to contractors in the [U.S.] for repairs,” not because they lacked the capabilities to repair the equipment on site, but because “that’s what the contract” required.¹¹ The Marines had the tools to fix the problems, but were forced to wait for months for the contractor to complete the process, and “Marines lost the opportunity to practice the skills they might need one

⁵ Government Accountability Office, “DOD Should Take Additional Actions to Improve How It Approaches Intellectual Property,” GAO-22-104752, November 30, 2021, pp. 12-13, <https://www.gao.gov/assets/gao-22-104752.pdf>.

⁶ U.S. Government Accountability Office, “F-35 Sustainment: Costs Continue to Rise While Planned Use and Availability Have Decreased,” fast facts, April 15, 2024, <https://www.gao.gov/products/gao-24-106703>.

⁷ U.S. House Armed Services Committee, “Full Committee Hearing: Department of the Air Force Fiscal Year 2025 Budget Request,” hearing, April 17, 2024, 1:41:55, <https://armedservices.house.gov/hearings/full-committee-hearing-department-air-force-fiscal-year-2025-budget-request>.

⁸ U.S. House Armed Services Committee, “Full Committee Hearing: Department of the Air Force Fiscal Year 2025 Budget Request,” hearing, April 17, 2024, 1:41:55, <https://armedservices.house.gov/hearings/full-committee-hearing-department-air-force-fiscal-year-2025-budget-request>.

⁹ U.S. Naval Institute News, “Navy Buys 17 Super Hornets in \$1.1B Deal, Last Planned Contract Secures Technical Data Packages,” Mallory Shelbourne, March 22, 2024, <https://news.usni.org/2024/03/22/navy-makes-last-planned-super-hornet-buy-secures-technical-data-packages>.

¹⁰ *Id.*

¹¹ New York Times, Opinion, “Here’s One Reason the U.S. Military Can’t Fix Its Own Equipment,” Elle Ekman, November 20, 2019, <https://www.nytimes.com/2019/11/20/opinion/military-right-to-repair.html>.

day on the battlefield, where contractor support is inordinately expensive, unreliable or nonexistent.”¹²

- General Dynamics and Lockheed Martin restricted Navy sailors aboard a Littoral Combat Ship (LCS) at sea from conducting certain repairs because the companies considered certain data and equipment “proprietary.”¹³ The U.S. military had to fly the contractors’ personnel to the ship and arrange for servicemembers to spend time escorting contractors while on board, “adding millions in travel costs and often delaying missions.”¹⁴ A Navy spokesman could not publicly disclose the total cost “due to proprietary reasons.”¹⁵
- A mechanic located in Korea for an exercise “was prohibited from conducting maintenance on a generator because the warranty would be voided, leaving the unit with the choice of voiding a warranty or losing the equipment that supported their training.”¹⁶
- Defense contractor Oshkosh prohibits DoD maintainers from repairing the Medium Tactical Vehicle Replacement medium truck and the Joint Light Tactical Vehicle by contractually retaining “total control over warranty repairs.”¹⁷ At the same time, the company also has the exclusive ability to delegate repair work to third-party contractors if it chooses.¹⁸
- A soldier in the U.S. Army described how contractors exclusively perform repairs even for essential off-the-shelf equipment not acquired through major contracts.¹⁹ For example, Explosive Ordnance Disposal units that utilize robots to conduct missions safely used to be able to service their robots themselves. Now servicemembers have to call the manufacturer and wait for the manufacturer to come fix their robots’ problems. In one case, contractors who had been called to repair a soldier’s equipment used the opportunity to attempt to upsell servicemembers on upgrades and additional services.²⁰

The GAO found that DoD could save billions of dollars by tackling repair restrictions, such as insufficient intellectual property rights.²¹ For example, Navy officials reported that “they did not

¹² New York Times, Opinion, “Here’s One Reason the U.S. Military Can’t Fix Its Own Equipment,” Elle Ekman, November 20, 2019, <https://www.nytimes.com/2019/11/20/opinion/military-right-to-repair.html>.

¹³ ProPublica, “The Inside Story of How the Navy Spent Billions on the ‘Little Crappy Ship,’” Joaquin Sapien, September 7, 2023, <https://www.propublica.org/article/how-navy-spent-billions-littoral-combat-ship>.

¹⁴ *Id.*

¹⁵ ProPublica, “The Inside Story of How the Navy Spent Billions on the ‘Little Crappy Ship,’” Joaquin Sapien, September 7, 2023, <https://www.propublica.org/article/how-navy-spent-billions-littoral-combat-ship>.

¹⁶ Regulations.gov, Comment Submitted by Major Lucas Kunce and Captain Elle Ekman, Posted by the Federal Trade Commission, September 16, 2019, p. 6, <https://www.regulations.gov/document/FTC-2019-0013-0074>.

¹⁷ Popular Mechanics, “The U.S. Military has a ‘Right to Repair’ Problem,” Kyle Mizokami, February 11, 2020, <https://www.popularmechanics.com/military/weapons/a30859791/us-military-right-to-repair/>.

¹⁸ *Id.*

¹⁹ Interview notes [on file with the Office of U.S. Senator Elizabeth Warren]

²⁰ Interview notes [on file with the Office of U.S. Senator Elizabeth Warren]; U.S. Army, “Repair team keeps robots on the road,” Pamela Proper, October 5, 2011, https://www.army.mil/article/66634/repair_team_keeps_robots_on_the_road.

²¹ Government Accountability Office, “DOD Should Take Additional Actions to Improve How It Approaches Intellectual Property,” report, November 30, 2021, p. 13, <https://www.gao.gov/assets/gao-22-104752.pdf>.

have a clear understanding of all the IP needed until ship systems broke and Navy maintainers could not repair the systems with the IP available to them.”²² At that point, it is often “too late to implement strategies or agreements with manufacturers to get the IP needed to fully sustain the ship systems at an affordable price.”²³

DoD Must Resolve Military Right to Repair Issues

DoD must resolve military right-to-repair issues to ensure servicemembers are able to handle the equipment in their charge, to reduce sustainment costs to the taxpayer, and to support military readiness. I urge DoD to prioritize solving this urgent problem.

The Department can do this by increasing access to and ownership of intellectual property rights of the equipment it owns, an area in which it has made some progress through the establishment of the Intellectual Property Protection Team to secure military technology.²⁴ The 2018 National Defense Authorization Act required DoD to consult intellectual property experts regarding “how to apply laws and regulations to acquisition strategy” to encourage consideration of intellectual property rights at the very beginning of the acquisition process.²⁵ As Air Force Secretary Frank Kendal acknowledged, the challenge that comes with not controlling IP rights is “one of the lessons [the Air Force has] learned very painfully over [its] history in acquisition.”²⁶ The Air Force has made plans to purchase the IP rights of its weapons programs in an effort to “control both upgrades and maintenance [and] have a lot more flexibility.”²⁷

To follow through on this effort, the Department should:

- Identify and include in its acquisition strategies cost-saving proposals that would reduce operating and sustainment costs;
- Develop a continuous strategy to treat weapon systems as continuing evolutions of capability across lifetimes, rather than assuming discrete “acquisition” and “sustainment” phases;
- Consider, as part of mandatory sustainment reviews, repair costs attributable to the Department not owning intellectual property rights associated with weapon systems; and
- Accept only contractor bids that provide the Department with access, on fair and reasonable terms, to all necessary repair materials, including parts, tools, and information.

²² *Id.*

²³ *Id.*

²⁴ Military.com, “Pentagon to Debut Intellectual Property Protection Team,” Oriana Pawlyk, August 26, 2019, <https://www.military.com/daily-news/2019/08/26/pentagon-debut-intellectual-property-protection-team.html>.

²⁵ *Id.*

²⁶ Inside Defense, “Lessons learned from F-35: Air Force will now purchase IP rights of its weapon systems,” Vanessa Montalbano, April 22, 2024, <https://insidedefense.com/daily-news/lessons-learned-f-35-air-force-will-now-purchase-ip-rights-its-weapon-systems>.

²⁷ Inside Defense, “Lessons learned from F-35: Air Force will now purchase IP rights of its weapon systems,” Vanessa Montalbano, April 22, 2024, <https://insidedefense.com/daily-news/lessons-learned-f-35-air-force-will-now-purchase-ip-rights-its-weapon-systems>.

The Senate’s fiscal year 2025 National Defense Authorization Act (FY25 NDAA) includes a provision to help DoD in its effort to acquire repair materials.²⁸ The Senate bill would require DoD to only make deals with contractors that commit to providing fair and reasonable access to all the repair materials. These materials include parts, tools, and information that would better enable servicemembers to diagnose, maintain, or repair DoD’s equipment themselves or with the aid of a third party. This bipartisan NDAA language²⁹ helps increase DoD flexibility, readiness, and resiliency. The House’s FY25 NDAA also includes a Sense of Congress that “it is integral that the military be able to fix its own equipment, and that efforts deliberately designed to prevent the military end user from fixing equipment in the field harm our nation’s military readiness.”³⁰

To better understand how DoD is working to address repair restrictions, I request answers to the following questions by October 11, 2024:

1. Is the Department aware of instances in which servicemembers were unable to repair DoD-owned equipment because of repair restrictions in contractor agreements, including warranty issues, intellectual property rights ownership issues, or other issues? Please describe these instances and how the Department became aware of them.
2. In each instance identified in response to Question 1, what was the effect of the servicemember’s inability to repair the equipment on the servicemember’s knowledge and skills, on the program or mission’s budget, and on mission readiness?
3. How does DoD plan to solve the problems created by repair restrictions in agreements with contractors?
4. What are DoD’s options under the Bayh-Dole Act of 1980 to take ownership of patents with applications that are subject to repair restrictions and therefore are difficult for servicemembers to make use of? What are DoD’s intentions of using this authority?
5. What other authorities does DoD have to take full ownership of intellectual property rights and technical data of DoD-owned equipment that is subject to repair restrictions? How does DoD intend on using this/these authority/authorities?
6. Is DoD planning to identify and include in its acquisition strategies cost-saving proposals that would reduce operating and sustainment costs? If so, please describe these efforts.
7. Is DoD developing a continuous strategy to treat weapon systems as continuing evolutions of capability across lifetimes, rather than assuming discrete “acquisition” and “sustainment” phases? If so, please describe these efforts.

²⁸ National Defense Authorization Act for Fiscal Year 2025, S. 4638, <https://www.congress.gov/bill/118th-congress/senate-bill/4638?s=3&r=1>.

²⁹ National Defense Authorization Act for Fiscal Year 2025, S. Report, p. 714, https://www.armed-services.senate.gov/imo/media/doc/fy25_ndaa_committee_report.pdf.

³⁰ Public Interest Research Group, “Right to Repair hits the battlefield,” Isaac Bowers, July 15, 2024, <https://pirg.org/updates/right-to-repair-hits-the-battlefield/>.

8. Will DoD consider, as part of mandatory sustainment reviews, repair costs attributable to the Department not owning intellectual property rights associated with weapon systems?
9. Will DoD modify contracting guidance so the agency will only accept contractor bids that provide the Department with access, on fair and reasonable terms, to all necessary repair materials, including parts, tools, and information?

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Warren", written over a horizontal line.

Elizabeth Warren
United States Senator