The F-35 Joint Strike Fighter program appears to be in a state of suspended development, with little progress made in 2021 toward improving its lackluster performance. The latest report by the Pentagon’s Director, Operational Test & Evaluation (DOT&E) reveals stagnation and even backsliding in some fleet reliability measures.

And that’s just the public DOT&E report.

In an unprecedented move, DOT&E is concealing many of the key details of the F-35’s poor performance. For the first time ever, the testing office created a non-public “controlled unclassified information” version of its report, and although there is much overlap between the two versions, the meaningful details about the ever-troubled program are only included in the non-public one.

One thing to note about so-called controlled unclassified information: It is not classified. The label is a tool that some in the federal government misuse to conceal information that could be embarrassing to them, but because the information does not damage national security, they can’t hide it under a classification label. The Project On Government Oversight obtained a copy of the non-public report, and what it clearly shows is that the F-35 program has made few fixes to many of the reliability and performance problems that have prevented the aircraft from meeting the needs of the services. This is informa-
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The public must have in order to pressure policymakers to correct the problems that, if uncorrected, could harm U.S. service members and the U.S. national defense mission.

Despite more than 20 years and approximately $62.5 billion spent so far on research and development alone, program officials still haven’t been able to deliver an aircraft that can fly as often as needed or to demonstrate its ability to perform in combat, which places military personnel in jeopardy. Most of the important details can only be found in the non-public version of the report, but some key findings are available in the public version:

- The F-35’s availability rates “plateaued” over most of 2021 and then declined in the final months of the year.
- Program leaders abandoned the efforts to complete the troubled Autonomic Logistics Information System (ALIS) and instead decided to build a new network called Operational Data Integrated Network (ODIN). The new system, meant to anticipate maintenance problems and track parts and repair processes, runs faster and is more deployable than ALIS but is already behind schedule and has some of the same cyber vulnerabilities.
- The Joint Simulation Environment, meant to be a high-fidelity and fully validated and verified simulator to test the F-35’s high-end capabilities, is now more than four years behind schedule. A full-production decision can’t be made until the planned 64 tests in the simulation can be completed.
- The F-35 program’s modernization effort, an effort to complete the delivery of capabilities that should have been included under the original development contract, is behind schedule and has done little to reduce the high number of unresolved design flaws.

The Department of Defense awarded Lockheed Martin with the coveted Joint Strike Fighter development contract on October 26, 2001. The high expectations for an affordable futuristic fighter jet quickly crashed against reality. Despite the fact that development costs have more than doubled and delays have set the F-35 back by nearly a decade, the program has yet to deliver a fully developed aircraft.

PART 1
Underwhelming Fleet Performance

While the F-35 program experienced a few marginal improvements in some reliability categories, the overall trend shows that the fleet’s performance remains below the Defense Department’s standards and is even getting worse in some categories.

According to the non-public version of the testing report, F-35 aircraft availability rates “plateaued” in 2021 and then declined starting in June. The services set an availability rate goal of 65%. For an aircraft fleet, 65% is a low bar since 75% to 80% is the accepted standard for other programs. The fleet-wide average availability rate for the F-35 was 61%. The services calculate an aircraft fleet’s availability rate as the percentage of aircraft that are mission capable and in the possession of its operating squadron, not in depot-level maintenance.

The testing office made no mention at all about the program’s mission...
capable rates or the even more relevant performance metric for a multirole aircraft like the F-35, full mission capable rates. The mission capable rate is calculated by each military unit and is the percentage of aircraft ready to perform at least one of its assigned missions. An aircraft just able to take off is counted as being mission capable whether it can perform any of its actual combat roles or not. The services prefer to cite this measurement over full mission capable rates because the former is a much lower standard and easier to meet. A fully mission capable aircraft is one that is able to perform all of its assigned missions.

That information is vital to determine how effective the program truly is. Luckily, other federal agencies provided some of that information. The Government Accountability Office included them in a July 2021 report. The GAO found that the entire F-35 fleet averaged a full mission capable rate of 39% in 2020, which was an improvement from the 32% the year before. The Air Force’s F-35A variant performed the best with a fleet average of 54% that year, a rate of performance that is still far below the 80% mission capable rate needed for an effective aircraft fleet (and even significantly below the program’s low 65% availability standard). The Marine Corps’ fleet of short takeoff and landing F-35Bs and the Navy’s fleet of F-35Cs, which are tailored for use on aircraft carriers, lag far behind. The F-35B fleet’s full mission capable rate got worse between 2019 and 2020, dropping from 23% to 15%. The F-35C fleet showed some improvement during that period, but that is not saying much. That fleet’s rate went from 6.4% to 6.8%.

The Congressional Budget Office also provided useful information the testing office omitted from its unclassified reports this year. In January 2022, it released a report specifically about availability rates of aircraft in the Air Force and the Navy. The report concluded that the aircraft fleets of the Air Force, Navy, and Marine Corps (part of the Department of the Navy), declined across the board but that “the decline was more marked” in the Navy.

Amazingly, the Congressional Budget Office reported that the Air Force’s own system for tracking availability figures, the Reliability and Maintainability Information System or REMIS, “does not accurately track availability or flying hours” for the conventional take off variant F-35A. The office went on to report that the data for the Marine Corps’ F-35B and the Navy’s F-35C “did not match other reports of the availability of those aircraft.” For these reasons, the Congressional Budget Office simply excluded the F-35 program, currently the highest profile aircraft program, from its analysis.

The non-public DOT&E report explains that the F-35 fleet’s availability rates increased temporarily because program officials surged spare parts to some units, and because the newest aircraft delivered from the factory had the effect of reducing the percentage of aircraft being pulled from service to send to the maintenance depots for modifications or major repairs. What that means is the F-35 did not suddenly become a more reliable aircraft in 2021. It means that it takes extraordinary effort to keep the fleet operating even close to the required levels and suggests that those availability rates are not sustainable long-term.

The availability of spare parts has long been a serious issue with the F-35 program, resulting in aircraft sitting idle on tarmacs as maintenance crews waited for spares to be delivered and driving down readiness rates. DOT&E reports that it continued to be a problem in 2021 because the systemic issues have not been addressed. According to the non-public report, the “lack of spares inventory, and limited component-level depot repair capacity, contribute to the shortfalls in spares supply.” First, the services are buying new F-35s so fast that the manufacturers of replacement parts can’t keep up with demand. Second, the entire F-35 enterprise relies on a complicated global spares pool scheme that makes F-35 operators around the world, including the United States, compete against each other for replacement parts.

The competition for replacement engines is perhaps the program’s most acute challenge today. According to DOT&E, by the end of the week of September 27, 2021, 52 F-35s sat idle because they didn’t have functioning engines. The problem is particularly prevalent in the Air Force since “almost all aircraft requiring an engine are F-35A variants.”

Program leaders also expected the Pratt & Whitney F135 engine used in the F-35 to be more reliable than they have proven to be. Service officials based plans on the promised performance rather than on the demonstrated performance and so underestimated the maintenance depot capacity they were going to need to repair broken engines. The unanticipated volume of work has overwhelmed the maintenance crews, and the backlog has grounded much of the fleet, including many aircraft being used in operational units. “Although the program and the Services manage engine spares by pri-
A fighter jet program that can’t get off the ground is of limited value.

is obviously true in times of war, but it’s also equally true during peacetime. Pilots need to be able to fly the aircraft they would take into combat to get enough flight hours to develop and increase their skills. Without enough flight hours, a pilot’s skills degrade. As one former fighter pilot wrote, when a pilot doesn’t get enough experience in the air, “the likelihood they will be effective or even survive in combat drops precipitously.”

reporting that there is no aspect of the F-35 program protected against a cyberattack.

The F-35 actually has plenty of company in this regard. In the cover letter accompanying the annual report, Operational Test & Evaluation Director Nikolas Guertin said that less than 10% of the 81 weapon programs evaluated in 2021 were sufficiently hardened against a cyberattack. “[Test & Evaluation] continued to show that DOD networks and systems supporting critical missions are not secure,” he wrote. “Improving DOD’s cybersecurity posture will require network defenders, system users, and mission commanders to be equipped with innovative tools and training to successfully detect and rapidly respond to nation-state cyber-attacks.”

F-35 boosters worked diligently to reassure Congress and the American people that the program’s all-encompassing maintenance and logistics network, the Autonomic Logistics Information System (ALIS) would work as advertised and transform the way the services would perform maintenance. The $16.7 billion ALIS network was supposed to be able to use the aircraft’s embedded diagnostics functions to detect and even anticipate maintenance problems. When the system identified a problem, the replacement parts needed would automatically be ordered and then tracked through the supply chain. Once the parts arrived, ALIS would then guide maintenance crews through the steps to correct the problem. Lockheed Martin says ALIS “turns data from many sources into actionable information, enabling pilots, maintainers and military leaders to make proactive decisions to keep jets flying.”

At least that was what ALIS was supposed to do.

What it really did was create more work for pilots and maintenance crews. ALIS consistently reported breakdowns that weren’t, prompting maintainers to spend time investigating alerts that didn’t exist. The reporting system often produced bad data that required administrators to spend time on tedious workarounds.

Lockheed Martin not only designed and built ALIS, but also controlled and

oritizing combat-coded units over test and training units,” the report said, “the shortage of spare engines has adversely affected deployed combat units as well.”

It’s not just how frequently the F-35 breaks down that impacts the overall fleet performance but also how long it takes to fix the problems. Maintenance crews found that on average it takes more than twice as long as the program’s contract specifications to complete needed repairs. The F-35’s engine assembly, canopy, and stealth coating are a few of the components listed as the top drivers of the longer-than-planned repairs.

The world recently saw evidence of how fragile the F-35’s stealth coating is and the challenges of maintaining it properly. Photos released by the Pentagon’s own in-house multimedia outlet, Defense Visual Information Distribution Service, show some of the F-35Cs aboard the USS Carl Vinson covered in what appears to be rust while on deployment in the Pacific.

A fighter jet program that can’t get off the ground is of limited value. This
operated it under a concept known as Total System Performance Responsibility. From the very beginning of the F-35 program, the government surrendered a great deal of control of the largest weapon program in history because officials believed that the contractor could more efficiently provide support. The company retained the data rights and intellectual property necessary to effectively sustain the F-35 program throughout its lifespan. The government could not competitively bid the lucrative sustainment contracts because no other firm could access the data they would need to do the job. The services have no choice but to rely on Lockheed Martin as a result.

The problems with ALIS became so acute that Pentagon leaders decided in 2020 to scrap the entire project and replace it with a new cloud-based system called the Operational Data Integrated Network, or ODIN.

At this point in the whole F-35 saga, it’s doubtful anyone would be surprised to know that after Lockheed Martin failed to deliver effective maintenance and logistics with ALIS, the company is now being paid again to build ODIN. Program officials had little choice but to award the contract to Lockheed because the company controls the data necessary for the job. And true to form, the project is already behind schedule. At the time of the ODIN announcement, Pentagon officials claimed the new system would be fielded by 2022. ODIN development has “stagnated” due to funding constraints and the need to husband ALIS along as an interim solution through the transition. DOT&E reports that questions remain about ODIN’s ability to withstand cyberattacks despite the recognized need for all new information systems to be developed with cybersecurity as a fundamental design feature.

DOT&E does offer some good news about ODIN. The Base Kit, the hardware that is set up wherever the F-35 operates, runs faster and is much smaller than the equivalent ALIS standard operating unit. The ALIS version weighed 891 pounds. The ODIN Base Kit weighs approximately 202 pounds, which does make the system more deployable. Beyond that, little information about the effectiveness of ODIN has been reported to date.

Unless or until Lockheed Martin and the F-35 Joint Program Office can produce a working support network, the F-35 will not be an effective aircraft program. Joint Program Office officials claim the F-35 can operate for 30 days without connecting to ALIS. It must be noted that DOT&E does not report that claim as an objective fact. Testing office officials have said for years that F-35 program leaders need to ensure the aircraft can operate independently of ALIS — and now ODIN — in the event the system is compromised or unavailable and called for the program officials to conduct tests to prove it. DOT&E reports that the “ALIS Contingency Operations Plan” test was to happen in late 2021 or early 2022. If such a test happened, the results have not been made public, even in the non-public version of the most recent report.

For now, the biggest flaw of the F-35 program may not be a vulnerability to an enemy weapon, but the program’s own information architecture.

PART 3
Unfinished Testing Simulator
The major reason the F-35 program remained stagnant in 2021 is that the designers and programmers of a key simulation facility were unable to complete their work. The program office needs a specialized simulation facility to fully test the F-35’s ability to fight and survive in the heavily defended airspace a sophisticated adversary like Russia or China would create. The original designers of the F-35 had just such an extreme scenario in mind when they drafted the initial requirement documents, and it is the ability to persevere in this type of extreme scenario for which the American people are paying the premium price of the F-35 program.

For the past seven years, a team led by the Navy has labored to build the facility, called the Joint Simulation Environment (JSE), at Maryland’s Naval Air Station Patuxent River. DOT&E reports that the facility is now more than six years behind schedule and that “significant” work remains before F-35 testing can be completed.

The F-35’s Initial Operational Test & Evaluation master plan calls for 64 test scenarios to be “flown” by pilots in the simulator. The tests include 11 defensive counter air missions to test the F-35’s ability to defeat enemy aircraft attacking friendly forces or facilities, 22 cruise missile defense
missions, and 31 missions testing the F-35’s capabilities to penetrate enemy airspace to shoot down enemy aircraft, destroy ground targets, and defeat air defense assets.

Engineers finished building the Joint Simulation Environment facility years ago. The long delays now are because designers haven’t been able to complete the simulation software. The remaining operational tests require the simulation to accurately reproduce the real-world performance of all the F-35’s mission systems and how they respond when they detect signals from the myriad potential simulated radar systems, aircraft, and anything else the real F-35s would encounter on a mission. DOT&E once described the Joint Simulation Environment as “the only venue available, other than actual combat against near-peer adversaries, to adequately evaluate the F-35 due to inherent limitations associated with open-air testing.”

The simulation software programmers have so far not been able to finish their work. Pentagon leaders cannot even provide an estimated completion date as they’ve done in the past. DOT&E can only report that “significant work remains to complete the necessary verification and validation process, which compares JSE component and system-level performance to F-35 flight test data to accredit the JSE for operational test trials.”

The Joint Simulation Environment has fallen so far behind schedule that program leaders brought in outside experts to review the project. Teams from Johns Hopkins Applied Physics Laboratory, Carnegie Mellon University Software Engineering Institute, and the Georgia Tech Research Institute evaluated the facility. The teams completed their work in May 2021 and concluded that the simulator effort needed more funding and personnel “along with strong support from all stakeholders to support [Initial Operational Test & Evaluation] requirements” to finish the needed work.

The simulated tests will only effectively show how well the F-35 will work in combat if the realism of the simulations is properly validated. Designers validate the simulator by taking data gathered during real F-35 flights over test ranges. Each test aircraft is equipped with instruments that register how the onboard mission systems react when triggered by a radar signal or other threat. Software engineers must program the simulations to accurately reflect how the F-35’s mission systems react to the real stimulus.

The Joint Simulation Environment is important even beyond the program’s operational testing phase. Last year’s testing report says the facility “will be an invaluable resource” for both high-end training and tactics development.

Sources involved in the process tell POGO that they doubt the Joint Simulation Environment will ever work the way the program’s leaders promised. If the facility can’t work properly, the formal operational testing plan will either have to be amended or cut off prematurely. Per federal law, a major defense acquisition program cannot legally enter into full-rate production without completing its initial operational test and evaluation plan. The testing director has the authority to scrap the approved testing plan and declare that his office has enough data to make an assessment of the program’s combat effectiveness, which would clear the path for a final production decision. If Guertin were to do that in this case without the simulated tests, the first time the F-35’s full capabilities would be tested could potentially occur over the skies of an enemy’s capital.

PART 4
Uncompleted Development Masquerading as Modernization
If and when the F-35 program does clear all the hurdles to move into the production stage, the F-35 will still require extensive development to finish all the work that should have been completed long before making it to that point. “Significant operational deficiencies (classified) were identified by the operational test units and field units in CY2020 [calendar year 2020] that required software modifications,” the non-public report stated. As a result, the program “continues to field immature, deficient, and insufficiently tested mission systems software to fielded units without adequate operational testing.”

Because the Joint Program Office and Lockheed Martin were unable to meet all the requirements for a fully functional aircraft within the time and budget of the first, second, or third program baselines, officials decided to simply rename the remaining work. The ongoing “modernization” effort is, in reality, an F-35 initial development do-over.

The F-35 program still has 845 unresolved deficiencies – with six still classified as serious design flaws.
Engineers have their work cut out for them. DOT&E reports that the F-35 program still has 845 unresolved deficiencies with six still classified as Category I, or design flaws so serious that it “may cause death, severe injury, or severe occupational illness; may cause loss or major damage to a weapon system; critically restricts the combat readiness capabilities of the using organization; or result in a production line stoppage.”

The 845 reported design flaws in this year’s report seem like a slight improvement over the 871 identified in last year’s report. But without knowing what the design flaws were or how they were resolved, it is difficult to gauge if real progress was made. Program officials hold Deficiency Review Board meetings where the members will determine what, if any, steps will be taken to correct design flaws. The minutes of one such meeting held in 2018 showed that the board downgraded a Category I deficiency to a Category II with “no plan to correct.”

Neither the program office nor Lockheed Martin appear to be making the most of their second chance. “The program has not sufficiently funded the developmental test (DT) teams to adequately test, analyze data, or perform comprehensive regression testing to assure that unintentional deficiencies are not embedded in the software prior to delivery,” DOT&E reports.

Program leaders promised to deliver regular design updates in six-month increments when they announced the “modernization,” or Continuous Capability and Development Delivery (C2D2), plan. That scheme quickly fell apart as designers and the testing teams could not keep up with such an aggressive schedule. DOT&E now reports that the program leaders have given up on the six-month updates plan and are now operating on a one-year timeline for updates.

Along with the delays come extra costs. Program officials initially said it would cost $10.8 billion to complete the additional development work plus an additional $5.4 billion to upgrade F-35s purchased in the years before engineers completed their design work. The Government Accountability Office reported in March 2021 that costs for the new development work have risen to $14 billion, meaning that when the costs of retrofitting the fleet are added in, the “modernization” effort will cost nearly $20 billion — a third as much as has been spent so far on development alone.

PART 5
Undue Secrecy

While the program’s lack of progress that was revealed in DOT&E’s non-public testing report was bad enough, controversy surrounded the DOT&E itself because what is supposed to be an independent testing office caved to pressure from the service regarding publicly releasable information.

Federal law mandates the testing office write an annual report about the weapon programs on its oversight list. The law states that if the testing office submits a classified report to Congress, they must submit an unclassified version as well. DOT&E produced three versions of the 2021 report: a classified version, a publicly released unclassified version, and a newer third version stamped Controlled Unclassified Information. This last version contained the information previously included in earlier unclassified publicly released reports. Although the publicly available version of this year’s report provided an overall assessment of the F-35 program, the authors stripped it of many figures and details that gave a full picture of how the program performed in 2021.

The difference in the level of detail in each report is obvious even in just the section heading for the F-35. And it doesn’t get better from there. For instance, the public version states that the program identified deficiencies requiring “software modifications and additional time and resources.” The non-public version states that the program had deficiencies in “weapons, fusion, communication and navigation, cybersecurity, and target processes” requiring software modifications and additional time and resources.

The DOT&E’s reports in earlier years were full of charts with data about the fleet’s readiness rates and maintenance data. The public version of this year’s report contained only two charts, while the non-public version had eight. One of the tables omitted from the publicly released version detailed the fleet’s availability rates at each F-35 base. The tables DOT&E did include in the public version of the report were also of less value because they were presented with vague labels and without detailed explanations. The public version included a chart titled “F-35 Reliability Metrics.”

The chart includes several acronyms such as “MFHBCF” but does not include a key to explain what the acronym means. Someone trying to make sense of it would have to look to another source to find that it stands for “Mean Flight Hours Between Critical Failures.” The entry for that column in the public version of the chart provides the contract standard the fleet is supposed to achieve but
doesn’t provide the actual observed performance. Instead, it only includes arrows showing the up or down trend for each of the three F-35 variants and a “yes” or “no” indicating whether that part of the overall fleet is meeting the standard.

The non-public version of the report broke out the reliability data into six separate charts. Those charts helpfully spelled out the acronyms and provided actual data rather than opaque trend arrows. It’s only in these charts that the reader learns that, for example, the Air Force’s F-35A fleet is not only missing its goal of 20 hours standard for Mean Flight Hours Between Critical Failures but also that the demonstrated performance is only 11.2 hours. Where the public version only showed that the fleet’s trend in this measure is worsening, the more detailed chart shows that the time between critical failures shortened, dropping from 16.8 hours in 2020.

Although Raymond O’Toole, who was the acting testing director when the reports were released, defended the creation of a non-public version of the unclassified report by saying “I thought it very important to provide Congress and the Secretary the test evaluation details that shouldn’t wind up in our adversaries’ hands, hence the new CUI version of the annual report,” this is disingenuous at best.

Operational testing, when done properly, will find design flaws — like poor engine reliability and the fact that the F-35A’s gun doesn’t work properly — so they can be fixed before an enemy can take advantage of them.

Certainly there is information that must be classified, such as data about the F-35’s radar cross section, specific software deficiencies, and any number of other deficiencies that could be exploited. But the details DOT&E stripped from this year’s public version of its report are not the sort that would provide a potential adversary a technological advantage. Instead, it is the kind of information that, although embarrassing to the Pentagon and its contractors, the public should know in order to pressure F-35 stakeholders to take the steps necessary to correct the problems. It’s the information all public DOT&E reports have provided until now.

“The office was set up to be independent of the services,” said Tom Christie, DOT&E during George W. Bush’s first term. “The testing director has the authority to ignore the service’s directives because he answers directly to Congress.”

Members of Congress have expressed their concern about the excessive secrecy surrounding the testing results through multiple letters sent to Pentagon leaders. Congress needs to keep up the pressure to protect the testing office’s independence by making sure no future unclassified reports are stamped with any kind of phony information designation.

Certainly there is information that must be classified. But the details DOT&E stripped from this year’s public version of its report are not the sort that would provide an adversary a technological advantage.

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**PART 6 Conclusion**

More than twenty years into the F-35’s development, the aircraft remains in every practical and legal sense nothing more than a very expensive prototype. The simple fact that the contractors and the program office haven’t been able to deliver an aircraft whose effectiveness has been proven through a full operational testing program suggests the original Joint Strike Fighter concept was flawed and beyond any practical technological reality. With little progress and significant regression in 2021, it seems that the F-35 program will remain in its current stagnant state for the foreseeable future.

Congress held firm during the fiscal year 2022 budget debates by refusing to authorize additional new F-35s beyond the Pentagon’s request. This was the first time since F-35 low-rate initial production began in 2007 that Congress didn’t increase the yearly buy. It appears that the official patience with what has been the slowly unfolding disaster that is the F-35 program is beginning to wane. Congress should continue to hold firm by limiting further F-35 purchases until program officials can complete a design that can be proven effective and suitable for service through the operational test process.

This piece was first published in March 2022. The original and its sources can be found at pogo.org/f-35-stagnated/

**ABOUT THE AUTHOR:** Dan Grazier is the Senior Defense Policy Fellow at the Center for Defense Information at POGO.
Reform – or Repeat?

Congress Fills New Pentagon Reform Panel with Revolving Door Regulars

BY JULIA GLEDHILL

The membership list of the Pentagon’s latest acquisition and budgeting reform panel reads like a who’s who of the defense industry. Of the 14 seats on the Commission on Planning, Programming, Budgeting, and Execution Reform, 11 are occupied by individuals with defense sector ties. There is only one seat left to fill.

Congress established the “independent commission” to examine and reform the Pentagon’s acquisition and budgeting processes. While the commission is new — a product of annual defense legislation for fiscal year 2022 — the Pentagon’s centralized planning, programming, budgeting, and execution process is over 60 years old. With major weapon programs taking an entire generation to reach maturity, it is obvious the process is broken. Changes need to be made, but not just in a way that benefits defense contractors.

Planning, programming, budgeting, and execution in the services can be painfully slow. It takes at least two years to get funding for a new program. In some cases, technologies are already obsolete by the time they’re cleared to even begin the formal development stage. The commission is tasked with reviewing the whole process and proposing reforms, with the goal of expediting resource allocation and maximizing the Pentagon’s bang-for-buck ratio. This is a tall order, given that the Pentagon notoriously overspends and underdelivers (if not outright fails to deliver) on many of its major acquisition programs.

Speedier acquisition and budgeting processes could improve the Pentagon’s ability to respond to future threats in a timely manner. However, it would also present irresistible money-grabbing opportunities to the defense industry’s revolving door regulars: folks who bounce between high-profile jobs on Capitol Hill, in the Pentagon, and within top military contractors’ executive ranks and boards.

Herein lies the problem with the individuals appointed to the reform commission so far. Most of them have charted a direct path through the revolving door. The members are selected by the Secretary of Defense and members of Congress.

Defense Secretary Lloyd Austin appointed Peter Levine. Levine is currently a senior research fellow at the Institute for Defense Analyses, a group that only works for the U.S. government. Formerly, he served as deputy chief management officer and acting under secretary of defense for personnel and readiness at the Pentagon. Levine also spent time on Capitol Hill, having worked on the Senate Armed Services Committee in several different capacities, including as staff director.
Lisa Disbrow is the Defense Secretary’s other pick. She is on the board of directors of Mercury Systems, a defense electronics manufacturer that depends heavily on U.S. and international defense contracts. She is also a former Pentagon official, having served as under secretary of the Air Force.

Arun Seraphin was chosen by Senate Majority Leader Chuck Schumer (D-NY). Seraphin is a former Capitol Hill staffer and current deputy director of the National Defense Industrial Association’s Emerging Technologies Institute, which provides research and analysis that informs technology development for the defense industrial base.

Eric Fanning, appointed by House Armed Services Committee Chairman Adam Smith (D-WA), served as secretary of the Army under President Barack Obama. Soon after his departure from the Pentagon in 2017, he joined the Aerospace Industries Association as its president and chief executive officer. The association is the “leading advocacy organization for the aerospace and defense industry” with nearly 350 member organizations, nine of which were top 10 recipients of Pentagon contract funds in fiscal year 2019. There are also several association members with facilities in Washington state, including Boeing, Honeywell Aerospace, Electroimpact, and Hexcel. Fanning will maintain his post at the association while advising the Pentagon on how to improve (read: accelerate) its planning and budgeting process, exactly what every defense contractor desires.

House Armed Services Committee Ranking Member Mike Rogers (R-AL) tapped Raj Shah to serve on the commission. Shah ran the Pentagon’s Defense Innovation Unit when it was still in its experimental phase. Now permanent, the unit is the Pentagon’s Silicon Valley outpost, an in-house advisory group that “contracts with commercial companies to solve national security problems.” Shah currently serves as a managing partner at Shield Capital, an investment firm that focuses on dual-use technology for both commercial and defense purposes.

Senate Armed Services Committee Chairman Jack Reed (D-RI) selected Robert Hale. Hale is a former under secretary of defense and current senior advisor at Booz Allen Hamilton, a consulting firm that received over $2.3 billion in contracts from the Pentagon in fiscal year 2020 alone.

Senate Armed Services Committee Ranking Member Jim Inhofe (R-OK) chose Ellen Lord, a regular revolver. She was president and CEO of Textron Systems until 2017, when she left to become the Pentagon’s under secretary of defense for acquisition and sustainment. Lord worked at the Pentagon for over three years, leaving in early 2021. She lost no time leveraging her Pentagon experience for the big bucks, joining four defense companies in various capacities in the six months that followed her departure from government. One of those companies, SAIC, received nearly $2.4 billion from the Pentagon in fiscal year 2020. Another, AAR Corp., received nearly $300 million in that same year. Oklahoma is home to several AAR Corp. facilities.

Jamie Morin was selected for the panel by House Appropriations Committee Chairwoman Rosa DeLauro (D-CT). He currently serves as an executive at Aerospace Corporation, a defense contractor. Morin previously served as the Pentagon’s chief of Cost Assessment and Program Evaluation.

House Appropriations Committee Ranking Member Kay Granger (R-TX) named David Norquist. Formerly the deputy secretary of defense, Norquist lobbies for military contractors on Capitol Hill in his capacity as a senior advisor at Covington & Burling, a DC-based law firm with aerospace and defense industry practices. He also serves on the SAIC Strategic Advisory Board. It bears repeating that the company received over $2 billion from the Pentagon in fiscal year 2020, making it a top 20 recipient of Pentagon contract funding that year.

Jennifer Santos was picked by Senate Appropriations Committee Chairman Patrick Leahy (D-VT). Santos works at Charles Stark Draper Laboratory, a research organization and top 100 defense contractor that received over $464 million from the Pentagon in fiscal year 2020. However, her roots are also at the Pentagon. Before joining Draper, she served as the deputy assistant secretary of defense for industrial policy as well as a research and development investment executive for the assistant secretary of the Navy.

Senate Appropriations Committee Ranking Member Richard Shelby (R-AL) selected Steve Cortese, a former
staff director of the committee who has worked for defense contractors Lockheed Martin, DRS Technologies (now Leonardo DRS), and ATK — the last of which defense giant Northrop Grumman acquired in 2017. In January, Lockheed Martin announced that it's manufacturing the LMXT strategic tanker aircraft in Alabama.

All 11 of the appointees mentioned so far have ties to the Pentagon or the defense industry. The following individuals may be the only exceptions on the commission so far.

Speaker of the House Nancy Pelosi (D-CA) chose former Representative Susan Davis (D-CA) to serve on the panel. Now retired, Davis spent much of her congressional career on the House Armed Services Committee — the congressional committee responsible for drafting annual defense legislation.

House Minority Leader Kevin McCarthy (R-CA) picked Jonathan Burks, a vice president at Walmart. Burks spent much of his career on Capitol Hill, working as national security advisor to then-Speaker of the House Paul Ryan (R-WI). Before that, Burks was a policy advisor to then-Senate Majority Leader Mitch McConnell (R-KY).

It’s not yet clear whether all the appointees have accepted their positions, but the real issue at hand is lack of imagination on the part of lawmakers. The Commission on Planning, Programming, Budgeting, and Execution Reform would only be helpful to the Pentagon if its membership possessed diverse viewpoints. After all, Congress assigned a huge task to the commission: to “make policy and legislative recommendations to improve such [planning] process and practices in order to field the operational capabilities necessary to outpace near-peer competitors.” In other words, propose reforms to help the Pentagon navigate great power competition with agility and precision.

Lawmakers know how difficult the commission’s mandate is, which is why they codified certain requirements for members of the commission. All members must be civilians not employed by the federal government, who are “recognized experts” with relevant professional experience in at least one of the following: matters relating to the planning, programming, budgeting, and execution process at the Pentagon; innovative budgeting methods of the private sector; iterative design and the acquisition process; or budget or program execution data analysis. Clearly, there is no requirement for commission members to have work experience at the Pentagon or in the defense industry. Yet, almost every individual nominated to the commission landed high-paying jobs in the defense industry they had previously engaged with while in their public service roles; returning to the Pentagon presents clear conflicts of interest.

Further, Congress is actually violating its own mandate for diversity of opinion in advisory committees. According to the Federal Advisory Committee Act, any legislation establishing an advisory committee shall require the committee’s membership to be “fairly balanced in terms of the points of view represented.” The omission of such a provision in the annual defense legislation for fiscal year 2022, which established the commission, was probably a mistake. But surely lawmakers could have named a few budgeting experts to serve on the commission from academia, non-defense industries within the private sector, and from civil society. There are certainly plenty of budgeting wonks at research and policy organizations in DC and other areas of the country.

In a room full of people with glaring conflicts of interest, it is impossible to meaningfully reform an acquisition and budgeting system in a way that benefits the troops and American taxpayers.

diversity of thought and background, which is severely lacking among the 13 members currently selected.

With only one open spot on the commission left, the American people can expect that any recommendations the commission produces will amount to little more than an industry wish list.

This piece was first published in March 2022. The original and its sources can be found at pogo.org/reform-or-repeat-revolving-door/.

ABOUT THE AUTHOR: Julia Gledhill is an Analyst for the Center for Defense Information.
A new report from the Pentagon’s watchdog has shown that, yet again, the Pentagon is paying too much for spare parts. The Department of Defense inspector general found that one supplier, TransDigm, received at least $20.8 million in excess profit on 105 spare parts over two and a half years. In one instance, auditors found that TransDigm’s profit level was as high as 3,850.6%.

Before this new report, TransDigm had become notorious for its practice of acquiring companies that have sole-source contracts with the government and then dramatically hiking up the price for spare parts. A 2018 Air Force review found that one of TransDigm’s subsidiaries “took advantage of its superior position” and refused to provide its justification for a $747 unit price increase for a part needed to support U.S. operations in Iraq and Afghanistan.

In the sole-source environment, there’s no competition, so the department’s contracting officers can’t compare prices to assess what is fair and reasonable. “When sole-source spare parts are sold, contracting officers must successfully negotiate a reasonable price with the one source,” the Pentagon watchdog wrote. “If the contracting officers are unable to negotiate a reasonable price, they will have to award the contract at whatever price the contractor is willing to accept in order to meet mission requirements or risk weapon systems sitting idle from a lack of spare parts.”

**A Troubling Threshold Impedes Fair Prices**

The lack of competition isn’t the only reason the government struggles to challenge price hikes. The government also has problems accessing contractor prices when contract awards slide under certain thresholds. At the time of TransDigm’s reviewed deals, companies were required to provide certified cost or pricing data only when the transaction exceeded the Truth in Negotiations Act’s then-threshold of $750,000. For the period reviewed, the inspector general found that TransDigm’s deals fell under that threshold 95% of the time, making it nearly impossible for agency officials to ensure the prices the company offered were fair and reasonable.

This problem is exacerbated because companies may refuse or delay providing information requested by a government contracting officer. The new inspector general report notes that when contracting officers did request uncertified cost or pricing data — a low bar given that a company can provide nearly any data it wants — TransDigm often refused. Nothing in their contracts required such disclosures. The inspector general concluded that no contract provisions contain “a specific element that requires or compels contractors to provide cost or pricing data to the contracting officer before contract award if the contract value is below the [Truth in Negotiations Act] threshold.” Essentially, government officials are forced to accept what is offered or waste time finding price lists or catalogs or doing market research.

The worst part about this latest report is that this is all legal. “The report makes clear that there was no wrongdoing by TransDigm, its businesses, or by the DOD,” the company said in a press release. The company also questioned the validity of the watchdog’s calculations of excess profit, arguing that the report did not include all of the costs to the company.

In this case, the best the Pentagon can do to get its money back is ask for a voluntary refund, which may happen. A 2019 inspector general report found TransDigm had made $16 million in excess profits, and following pressure...
from the House Oversight and Reform Committee, the company agreed to return the money. This latest report was a follow-up to that investigation, and it came at the request of both the House Oversight and Reform Committee and Senator Charles Grassley (R-IA). In a joint press release, Representatives Carolyn Maloney (D-NY), Stephen Lynch (D-MA), Ro Khanna (D-CA), and Jackie Speier (D-CA) all called for TransDigm to refund the overcharges.

Recovering those funds is an important first start, but a whack-a-mole approach won’t address systemic policy failures. “Without the necessary legislative changes, the [Department of Defense] will continue to be unable to perform adequate price reasonableness determinations,” the inspector general wrote.

TransDigm isn’t the only company these changes would affect. The recent inspector general report details other companies that refused to turn over cost or pricing data for sole-source spare parts dating back to 1998.

Hearing about the long history of this problem, one might think that Congress would step in and help its co-equal branch of government. But instead, it recently made the system even more opaque. In the fiscal year 2018 National Defense Authorization Act, Congress increased the Truth in Negotiations Act threshold to $2 million. It did so despite the findings of the Pentagon’s acquisition shop, which in 2015 analyzed proposals to increase the threshold and judged them “unlikely to provide cost savings.” The cost risks, however, continue to be clear.

The 2021 report is vague on what specific legislative changes should be implemented, though it notes that the 2019 recommendation for the department to look at current acquisition laws and recommend changes “to ensure that contracting officers obtain uncertified cost data when requested” remains open.

We’re happy to be more specific. As we wrote in 2019, Congress must change the laws to empower the department to be a smarter buyer. This would include two key steps:

- Directing that the Federal Acquisition Regulation be amended to require contractors to provide certified cost or pricing data to contracting officers before receiving a sole-source contract of more than $500,000.
- Requiring the Department of Defense to track which companies refuse or delay providing pricing information. This should include requiring contracting officers to report contractors’ refusal to turn over cost and pricing information to the Federal Awardee Performance and Integrity Information System (FAPIIS) and the Contractor Performance Assessment Reporting System (CPARS).

The department took initial steps to track this information internally with a 2019 memorandum, but the Government Accountability Office raised concerns last year that this reporting would be incomplete without tracking companies that delay providing the information. The department was supposed to provide its initial report to Congress at the end of 2021.

INDUSTRY WRITTEN LAWS GUARANTEE MORE WASTE

While many seek to demonize TransDigm, it’s far from the only Pentagon contractor that could be faulted for excessive profiteering. As we testified to the Senate Budget Committee last year, previous inspector general reports have found that the department’s top three contractors — Lockheed Martin, Boeing, and Raytheon — have all received excess amounts for spare parts.

In many of those instances, the department’s efforts to assess whether a price is fair and reasonable are stymied by yet another acquisition law loophole, the definition of “commercial items.”

When contracting for commercial items, such as those available for public purchase, the government generally accepts the offered price. By presuming that market forces have ensured that a price is fair and reasonable, it can avoid a lengthy review process. The problem is that the government’s definition of “commercial”— largely written by industry lobbyists — expands beyond items available to the public. It also applies to items that are similar (“of a type”) or “offered” for sale.Ironically, due to this loophole, the laws regulating the purchase of commercial items often bar the government from...
requiring cost or pricing data even in instances when the government is the only customer.

Both Democratic and Republican administrations have asked Congress to strengthen the laws to prevent so-called commercial item overcharges. Since 2012 POGO has supported and called on Congress to adopt the department’s request to reform the definition. We also support Congress adopting a subsequent 2020 proposal to give the department more flexibility to determine whether something is truly commercial. As the Trump administration noted in that proposal, “generally once a conversion to a commercial product or commercial service is made, it is common for prices to increase and subsequent contracting officers find it difficult to obtain data necessary to determine price reasonableness and negotiate fair and reasonable prices on behalf of the taxpayer.” While it is not the primary focus of the inspector general’s newest report, other watchdog reports have shown why these reforms are overdue.

As valuable as this latest report is, POGO would be remiss if we didn’t note our continued disappointment in the inspector general redacting so much of the publicly available report. A lot of the power of independent watchdogs comes from their shouting their findings of waste, fraud, and abuse. Hiding details like prices for these parts undermines its mission to help the public understand the true scale of the problem.

Nearly $21 million in excess company profits may not sound like a lot in the context of $768 billion defense budget, but those overcharges add up to a lot of waste and undermine the readiness of our forces as maintaining our existing weapon systems becomes increasingly costly. As former Pentagon whistleblower and POGO founder Ernie Fitzgerald pointed out, most of us don’t know what a bomber or fighter should cost, but added together we can see the boondoggle of “over-priced spare parts flying in close formation.” Curtailing this waste will need more agency foot stomping and less congressional foot dragging for overdue systemic reforms.

This piece was first published in January 2022. The original and its sources can be found at pogo.org/broken-system/

ABOUT THE AUTHOR: Mandy Smithberger is former Director of the Center for Defense Information at POGO.
Ukraine’s Lessons (So Far)

BY MARK THOMPSON

Here’s a preview of what you’ll get if you subscribe to our weekly newsletter, The Bunker. This newsletter was first published March 2.

IMPOTENCE ON PARADE
A sidelined Pentagon ponders

The Russian invasion of Ukraine is a tragedy for the Ukrainian people, and for those of us who support them. It marks the biggest global shock since 9/11. But unlike those terror attacks, it wasn’t carried out by a handful of zealous nomads. Instead, it has been launched by Vladimir Putin, the Russian leader astride the world’s largest nuclear stockpile. It’s a stark reminder of the limits of military power—especially U.S. military might, the world’s most powerful. The U.S. will sit this war out, President Biden said in his first State of the Union address March 1. “The Ukrainians are fighting back with pure courage,” he added. “But the next few days, weeks and months will be hard on them.”

It’s frustrating to see Ukraine ground like so much wheat between Putin’s troops and the West’s static military forces arrayed along NATO’s eastern front. U.S. troops and aircraft rushed to the Ukrainian border to bolster NATO allies including Estonia (NATO member since 2004), Germany (1955), Poland (1999), and Romania (2004). But they then merely watched as Russian artillery, tanks and aircraft pounded targets across Ukraine (a NATO “Enhanced Opportunities Partner” for the past 20 months.) “It’s an interesting time to be watching this and ‘watching’ is a word that bothers me,” said Phil Breedlove, a retired Air Force general who served as NATO’s Supreme Allied Commander from 2013 to 2016. “Ukraine is fighting for freedom, and the West is ‘watching.’”

NATO has refused to come to Ukraine’s aid, beyond supplying Kyiv with additional weapons, for fear of triggering a wider war. There’s fear, given Putin’s mindset, that it could turn nuclear overnight. The West has ruled out creating a no-fly zone over Ukraine to keep Russian aircraft from bombing the civilians below (although the FAA has barred U.S. carriers [PDF] from Ukrainian skies to protect the rest of us). There is one bright, shining line: Biden and other 29 NATO leaders have made it clear that they would go to war if Putin attacks any of them. Prussian general Carl von Clausewitz described war as “a continuation of politics by other means.” But in the case of Ukraine, a subordinate Clausewitz might be labeled “hanging a country out to dry.”

The West saw this coming for months, but preferred not to upset Russia by supplying Ukraine with the arms needed to give Kyiv a fighting chance. That, and the fumbled U.S. pullout from Afghanistan, convinced Putin to launch his war of choice. Now that he has done that, the U.S. and its allies have chosen not to intervene for fear of an atomic blowup. Ironically, Ukraine gave up its nuclear weapons a generation ago in exchange for assurances, backed by the U.S. and Britain, that Russia would leave it alone. Now Russia has chosen to ignore its pledge. And it is NATO that is leaving Ukraine alone. We are watching a country fall through the crack of realpolitik.

Putin’s Ukrainian misadventure leaves us with several grim lessons.

…

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ABOUT THE AUTHOR: The Bunker is a precision-guided e-newsletter by Pulitzer prize-winning National Security Analyst Mark Thompson for the Center for Defense Information at POGO.
The Project On Government Oversight (POGO) is a nonpartisan independent watchdog that investigates and exposes waste, corruption, abuse of power, and when the government fails to serve the public or silences those who report wrongdoing. We champion reforms to achieve a more effective, ethical, and accountable federal government that safeguards constitutional principles.

INSIDE

1
DAN GRAZIER
F-35 PROGRAM STAGNATED IN 2021 BUT DOD TESTING OFFICE HIDING FULL EXTENT OF PROBLEM

9
JULIA GLEDHILL
REFORM – OR REPEAT? Congress Fills New Pentagon Reform Panel with Revolving Door Regulars

12
MANDY SMITHBERGER
SPARE PARTS CONTRACTOR PROFITS FROM BROKEN SYSTEM

15
MARK THOMPSON
THE BUNKER: Ukraine’s Lessons (So Far)