



DEFENSE ACQUISITIONS

DOD's Use of Other Transactions for Prototype Projects Has Increased

Accessible Version

November 2019

Why GAO Did This Study

In 2015, Congress granted DOD permanent authority to use agreements known as other transactions to acquire prototype projects that, among other things, demonstrate whether technologies and products can be adapted for DOD's use. This contracting approach can help DOD attract companies that do not typically do business with DOD—such as commercial science and technology firms. This is because other transactions are not subject to certain federal contract laws and requirements.

GAO was asked to review DOD's use of other transactions for prototype projects. For the purposes of this report, GAO refers to these instruments as prototype other transactions. This report examines, among other issues, (1) DOD's use of prototype other transactions for fiscal years 2016 through 2018 and (2) the extent to which agreements officers followed established review processes before awarding selected transactions.

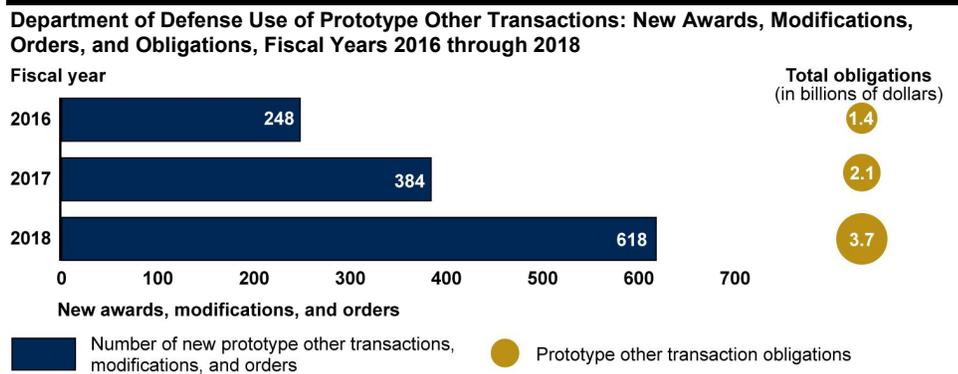
GAO analyzed Federal Procurement Data System-Next Generation data and examined relevant documents from a non-generalizable sample of 11 prototype other transactions. These transactions represented various dollar values from the four DOD components that had the highest obligations through prototype other transactions in fiscal year 2018. GAO also examined DOD and component policies and interviewed DOD officials.

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What GAO Found

The Department of Defense (DOD) significantly increased its use of agreements known as other transactions for prototype projects from fiscal years 2016 through 2018 (see figure).



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-84

DOD data shows that companies that typically did not do business with DOD participated to a significant extent on 88 percent of the transactions awarded during this time. The Army awarded the most transactions; some of which were on the behalf of other DOD components that wanted to leverage transactions the Army previously awarded to meet their own components' needs.

In nine of the 11 prototype other transactions GAO reviewed, DOD contracting officials, known as agreements officers, followed their components' established review policies before awarding the transactions. Agreements officers did not obtain higher level reviews on the two remaining transactions. In both cases, agency officials reviewed the transactions after GAO brought these situations to their attention and found no issues with the awarded transactions.

- A Defense Advanced Research Projects Agency agreements officer did not have a higher level review of a \$7.8 million transaction before it was awarded, as required.
- An Army Contracting Command-New Jersey Center Director served as the agreements officer on a \$10 million transaction. The Director, who would typically review transactions of this value, had his Branch Chief review this transaction prior to award.

The Defense Advanced Research Projects Agency also plans to complete an internal file review of awarded transactions to check compliance with its review policy in fiscal year 2020 and take corrective actions, if necessary. The Army Contracting Command-New Jersey plans to clarify who should review transactions in such situations. GAO is not making recommendations based on the stated intent of senior contracting officials to address these issues.

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Abbreviations

DOD	Department of Defense
FAR	Federal Acquisition Regulation
FPDS-NG	Federal Procurement Data System-Next Generation

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November 22, 2019

Congressional Committees

Department of Defense's (DOD) investments in research and development have helped commercial companies pioneer innovative technologies that, in turn, have supported U.S. technological superiority on the battlefield and spurred the development of new commercial products. For example, the Army funded research that led to the development of powerful, lightweight lithium batteries for use in a variety of military products, such as night vision equipment.¹ Today, lithium batteries are widely used in consumer electronics products and electric vehicles.

DOD's influence on the type of technologies developed by U.S. companies has diminished over the past several decades as companies significantly increased the amount of their own funds they invested in research and development relative to the amount of DOD funding they received. DOD continues to be interested in adapting the technology developed by commercial companies, such as those related to cyber, space, artificial intelligence, and unmanned vehicles, to upgrade or develop new weapon systems. However, as we have previously reported, concerns about intellectual property, the length of time it takes DOD to award a contract, and the need to establish a government-unique cost accounting system make DOD an unattractive customer for some companies.²

Congress gave DOD the authority to use agreements known as other transactions, which allows DOD to attract companies or other entities that have not done business with DOD. These could include, for example, commercial science and technology companies and non-profit research

¹RAND Corporation, *Soldier-Portable Battery Supply: Foreign Dependence and Policy Options* (2014).

²GAO, *Military Acquisitions: DOD Is Taking Steps to Address Challenges Faced by Certain Companies*, [GAO-17-644](#) (Washington, D.C.: July 20, 2017).

institutions, which we refer to as non-traditional companies in this report.³ While DOD can use other transactions for research, prototyping, and production purposes, this report is focused only on other transactions used to support prototyping efforts, which, among other things, demonstrate whether technologies and products developed by companies can be adapted for DOD's use. We refer to these other transactions as prototype other transactions and the DOD officials who award these transactions are known as agreements officers. With a few exceptions, Congress requires that non-traditional companies participate to a significant extent on prototype other transactions.

Other transactions enable DOD and companies to negotiate terms and conditions specific to a project without requiring them to comply with most federal regulations that apply to government procurement contracts. This flexibility can also help DOD address non-traditional companies' concerns about establishing a government-unique cost accounting system or intellectual property rights, among other concerns.⁴ We and others have previously reported, however, that the use of other transactions carries the risk of reduced accountability and transparency, in part because such transactions are exempt from the Federal Acquisition Regulation (FAR) and related controls and oversight mechanisms that apply to government procurement contracts.⁵

The conference report that accompanied the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and the Continuing Appropriations Act, 2019 included a provision for GAO to review DOD's use of other transactions for prototype projects.⁶ This report examines (1) the extent to which DOD used prototype other

³For purposes of other transactions and procurements, a non-traditional defense contractor is an entity that has not performed on any DOD contract or subcontract that is subject to full coverage under the cost accounting standards for at least one year before DOD's solicitation for the procurement or other transaction. 10 U.S.C. § 2302(9).

⁴[GAO-17-644](#).

⁵GAO, *Defense Acquisitions: DOD Has Implemented Section 845 Recommendations but Reporting Can be Enhanced*, [GAO-03-150](#) (Washington, D.C.: Oct. 9, 2002); *Department of Homeland Security: Improvements Could Further Enhance Ability to Acquire Innovative Technologies Using Other Transaction Authority*, [GAO-08-1088](#) (Washington, D.C.: Sept. 23, 2008); and National Aeronautics and Space Administration's Office of Inspector General, *NASA's Use of Space Act Agreements*, IG-14-020 (Washington, D.C.: June 5, 2014).

⁶H.R. Conf. Rep. No. 115-952, at 153-4 (2018).

transactions for fiscal years 2016 through 2018; (2) how DOD agreements officers determine non-traditional company status and participation in prototype other transactions; and (3) the extent to which agreements officers followed their contracting offices' established review processes before awarding prototype other transactions.

To determine the extent to which DOD used prototype other transactions, we analyzed data from the Federal Procurement Data System-Next Generation (FPDS-NG) from fiscal years 2016 through 2018, the most recent complete year of data when we began our review.⁷ Our analysis assessed the number of other transactions awarded, the number of modifications and orders related to these other transactions, and the number of modifications and orders made during this period on other transactions awarded prior to fiscal year 2016, as well as the amount of funds obligated by these actions.⁸ Unless otherwise stated, for the purposes of this report, we use the term "actions" to refer to modifications and orders that result in a change in obligations. We also examined DOD's guides and memorandums that specify reporting requirements for other transactions. In addition, we interviewed officials from the Defense Pricing and Contracting office, which, among other things, is responsible for overseeing and implementing initiatives related to DOD-wide pricing policies and strategies supporting the procurement of major defense system programs, as well as DOD policies related to FPDS-NG.

We assessed the reliability of FPDS-NG data by electronically testing for missing data, outliers, and inconsistent coding. At the time of our review FPDS-NG did not distinguish prototype transactions from production transactions and procurements for experimental purposes, the latter of which allows DOD to buy chemical, telecommunications, aeronautical, and other types of supplies and designs that DOD considers necessary for test purposes when developing defense supplies. By reviewing information about the types of other transactions from DOD components that were responsible for 85 percent of other transaction obligations and 71 percent of the number of these transactions, we were able to determine the type of other transactions awarded by these components.

⁷FPDS-NG is a web-based tool for agencies to report contract actions. It also includes a module for reporting other transactions pursuant to Section 874 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009.

⁸A modification is any written change in the terms of a contract or other transaction and can include purely administrative changes. An order can be for supplies or services placed against an established agreement or contract.

Based on these steps, we identified eight other transactions out of 244 that were incorrectly identified as prototype other transactions. Four were awards for the production of products, while the other four were procurements for experimental purposes. After excluding these eight other transactions from our analysis, we determined that the FPDS-NG data were sufficiently reliable for discussing DOD's use of prototype other transactions.

To determine how DOD agreements officers assessed non-traditional company status and participation in prototype other transactions, we reviewed relevant statutes and DOD policy related to the award of prototype other transactions, including sections 2302 and 2371b of title 10, U.S. Code, and DOD's January 2017 and November 2018 Other Transactions Guides. We then selected a non-generalizable sample of 11 prototype other transactions that were awarded in fiscal year 2018, and reviewed documentation about the methods used by DOD agreements officers to determine whether a company was a non-traditional defense company and whether the non-traditional company was participating to a significant extent, as appropriate, on these other transactions. We selected these 11 prototype other transactions from four DOD components—the Army, Air Force, Defense Advanced Research Projects Agency, and Washington Headquarters Services—that had obligated the most funds on prototype other transactions in fiscal year 2018. We selected four prototype other transactions from the Army, one from Air Force, four from Defense Advanced Research Projects Agency, and two from Washington Headquarters Services to represent a range of dollar values and a mix of different recipients such as non-traditional companies, traditional defense contractors, and a consortium, which in general is a group of companies that work together to achieve a common objective.

To determine the extent to which agreements officers followed their contracting offices' established review processes before awarding a prototype other transaction, we reviewed policies from DOD and the four components listed above. We compared the processes used to review and approve the 11 prototype other transactions we selected to the applicable policies. Specifically, we used Air Force Research Laboratory and Army Contracting Command-New Jersey policies when reviewing Air Force and Army prototype other transactions in our sample, respectively. We used Defense Advanced Research Projects Agency and Washington Headquarters Services policies when reviewing prototype other transactions from those DOD components. We reviewed selected documentation about the prototype other transactions in our sample, such

as those related to management and legal reviews, acquisition planning, and non-competitive awards. We also interviewed agreements officers and senior contracting officials from these organizations to obtain additional insights regarding the review process.

We conducted this performance audit from January 2019 to November 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

Congress provided DOD the authority to use other transactions in the late 1980s and has expanded the authority over time.

- In 1989, Congress provided the Defense Advanced Research Projects Agency the authority to temporarily use other transactions for research projects.⁹ These transactions were intended to spur research and development that would benefit both commercial companies and the government. In 1991, Congress allowed the military departments to use the authority as well and made the authority permanent.¹⁰
- In 1993, Congress provided the Defense Advanced Research Projects Agency the authority to award other transactions for prototype projects.¹¹ Congress expanded the authority to the military departments and other defense agencies in 1996.¹²

⁹National Defense Authorization Act for Fiscal Years 1990 and 1991, Pub. L. No. 101-189, § 251 (1989).

¹⁰National Defense Authorization Act for Fiscal Years 1992 and 1993, Pub. L. No. 102-190, § 826 (1991).

¹¹National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-357, § 845 (1993).

¹²National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, § 804 (1996).

- In 2001, Congress allowed DOD to provide for follow-on production in prototype other transactions. Further, DOD could award follow-on production other transactions, without using competitive procedures, to the participants of a successfully completed, competitively awarded prototype project, provided several conditions were met.¹³ Congress codified DOD's other transaction authority for prototype and follow-on production other transactions at section 2371b of title 10, U.S. Code, in 2015.¹⁴

Congress did not define a prototype project in statute. DOD's November 2018 Other Transactions Guide, however, defined a prototype project as addressing a proof of concept, model, novel application of commercial technologies for defense purposes, or a process including a business process, among other types. Under section 2371b, DOD can use other transactions for prototype projects that are directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by DOD, or to improve those in use by the armed forces.

In addition, Congress has required DOD to meet at least one of the following four conditions to use a prototype other transaction:

1. There is at least one non-traditional defense contractor or non-profit research institution participating to a significant extent in the prototype project.
2. All significant non-government participants in the transaction are small businesses or non-traditional defense contractors.
3. At least one-third of the total cost of the prototype project is to be paid out of funds provided by sources other than the federal government.
4. The senior procurement executive determines in writing that exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a contract, or would provide an opportunity to expand the defense supply base in a manner that would not be practical or feasible under a contract.

¹³National Defense Authorization Act for Fiscal Year 2002, Pub. L. No. 107-107, § 822 (2001).

¹⁴National Defense Authorization Act for Fiscal Year 2016, Pub. L. No. 114-92, § 815 (2015).

Section 2371b of title 10, U.S. Code, does not limit DOD to awarding prototype other transactions to non-traditional companies. DOD could award traditional defense contractors a prototype other transaction under the first, third, and fourth conditions listed above. It could also award prototype other transactions to consortiums, which may be comprised of non-traditional companies, traditional defense contractors, and others such as non-profit research institutions. These consortiums may be administratively managed by a single firm. Consortium management firms in general provide administrative support to consortium members, such as distributing requests for proposals, holding proposal writing workshops, negotiating the general terms and conditions of prototype projects with consortium members, and making payments to consortium members. For example, Advanced Technology International, a consortium management firm, reported that it represented 298 members in the Countering Weapons of Mass Destruction consortium as of September 2019, according to its website. The website also states that 87 percent of the consortium's members were non-traditional companies.

Contracting offices generally designate a subset of their contracting officers to award other transactions, including prototype other transactions. In this capacity, these individuals are referred to as agreements officers. According to senior contracting officials at offices we included in this review, agreements officers are typically more experienced contracting officers that have demonstrated the ability to exercise business acumen and judgement in a less structured contracting environment and have a strong working knowledge of intellectual property. All of the contracting offices we included in this review required agreements officers to complete training courses offered by their office or the Defense Acquisition University related to the award of other transactions.

The Director, Defense Procurement and Acquisition Policy, issued an Other Transaction Guide for Prototype Projects in January 2017 that included general information about planning, evaluating, and awarding prototype other transactions.¹⁵ The Office of the Under Secretary of Defense for Acquisition and Sustainment issued updated guidance in November 2018 that covered all types of other transactions, including

¹⁵Defense Pricing/Defense Procurement and Acquisition Policy was renamed to Defense Pricing and Contracting in 2018. See Under Secretary of Defense (Acquisition and Sustainment), *Organizational Name Change to Defense Pricing and Contracting* (Sept. 11, 2018).

case studies and lessons learned to help agreements officers when awarding other transactions. For example, the November 2018 guide states the following:

- An agreements officer should consider whether a company is supplying a new key technology, providing a material increase in the performance of a product, or making some other contribution when determining if a non-traditional company or non-profit research institution will be participating to a significant extent.
- DOD components should not establish predetermined percentages of total costs or labor hours to determine significant participation. As such, agreements officers can use their own discretion when using cost and labor hour information to determine if a non-traditional company is playing a significant role on a prototype other transaction.
- The Competition in Contracting Act does not apply to other transactions, but competition and fairness are still important considerations and agencies may determine how competition will be structured.¹⁶
- Other transactions may take longer to award than FAR-based contracts due to factors such as drafting and negotiating all the terms and conditions in an other transaction.
- Fiscal law requirements are applicable to other transactions and the decision to use an other transaction does not expand or restrict available appropriations. Therefore, multiple funding types, including research, development, test, and evaluation; procurement; and operations and maintenance appropriations may be appropriate depending on the intent and stage of the prototype.
- Modifications of ongoing transaction projects are fairly common and other transactions should address how changes will be handled.

DOD's Use of Prototype Other Transactions Increased from Fiscal Years 2016 through 2018

DOD significantly increased its use of prototype other transactions from fiscal years 2016 through 2018, both in terms of the number of prototype other transactions awarded and the amount obligated on prototype other

¹⁶The Competition in Contracting Act of 1984, applicable to procurement contracts, requires agencies to obtain full and open competition through the use of competitive procedures in their procurement activities unless otherwise authorized by law.

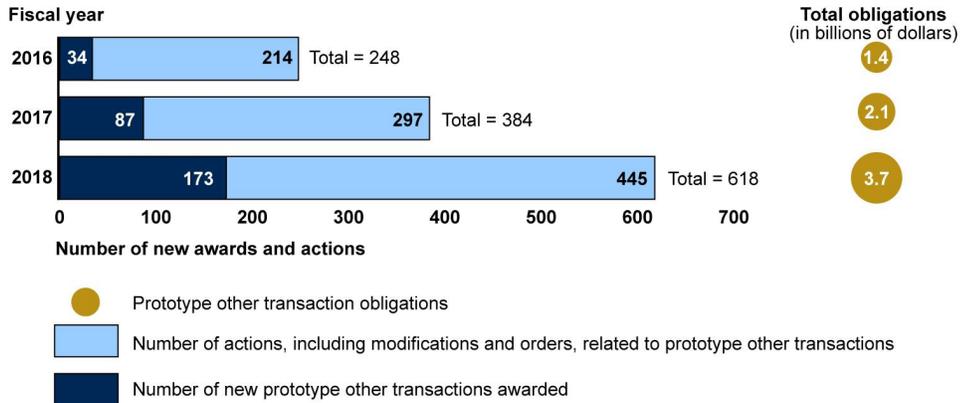
transactions. Most prototype other transactions involved at least one non-traditional company that was participating to a significant extent. About 71 percent of the obligations were awarded to three consortiums and two traditional defense contractors. DOD is currently preparing a report to Congress on its use of the other transaction authority and working to address certain limitations in its data collection efforts, including improving data related to consortiums.

DOD's Use of Prototype Other Transactions Grew Significantly from Fiscal Years 2016 through 2018

FPDS-NG data showed that DOD obligated a total of \$7.2 billion on prototype other transactions from fiscal years 2016 through 2018. The total number of new prototype other transactions increased five-fold from 34 to 173 during this time frame. According to a Defense Pricing and Contracting official, DOD is encouraging the use of these transactions as a way to acquire innovative technology from non-traditional companies that it could not typically access. There were also modifications and orders related to these prototype other transactions and those awarded in prior years that resulted in a change in obligations, such as providing funding to members of consortiums to carry out new projects. As discussed in more detail later in the report, FPDS-NG did not identify the number of projects carried out by consortiums. Overall, obligations made on prototype other transactions nearly tripled from \$1.4 billion to \$3.7 billion (see fig. 1).¹⁷

¹⁷From a broader perspective, the amount DOD obligated on new prototype other transactions and actions made to these or prototype other transactions awarded in previous years represented about 1 percent or less of DOD's total obligations for contracts and other transactions in each year from fiscal years 2016 through 2018.

Figure 1: Department of Defense Use of Prototype Other Transactions: New Awards, Actions, and Obligations, Fiscal Years 2016 through 2018



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-84

Note: The number of and obligations through prototype other transactions include new awards from fiscal years 2016 through 2018, and actions, including modifications and orders, related to prototype other transactions awarded in these and prior fiscal years that resulted in a change in obligations. We excluded modifications that did not change the amount obligated on prototype other transactions, such as those related to administrative changes.

The Army, Defense Advanced Research Projects Agency, and the Air Force accounted for 97 percent of all new awards and actions that resulted in a change in obligations from fiscal years 2016 through 2018. They also accounted for 97 percent of the total amount obligated on these new awards and actions (see table 1). Appendix I shows more detailed information.

Table 1: Department of Defense (DOD) Component Use of Prototype Other Transactions: New Awards, Actions, and Obligations, Fiscal Years 2016 through 2018

DOD component	Number of new awards and actions	Percentage of total new awards and actions	Obligations (in millions of dollars)	Percentage of total obligations
Army	863	69	5,261.5	73
Defense Advanced Research Projects Agency	245	20	972.4	13
Air Force	99	8	829.1	11
Washington Headquarters Services	8	<1	43.6	1
Navy	21	2	29.7	< 1
Other DOD components	14	1	89.6	1
Total	1,250	100	7,225.9	100

Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-84

Note: The number of and obligations through prototype other transactions include new awards from fiscal years 2016 through 2018, and actions, including modifications and orders, related to prototype

other transactions awarded in these and prior fiscal years that resulted in a change in obligations. We excluded modifications that did not change the amount obligated on prototype other transactions, such as those related to administrative changes.

The Army was responsible for over two-thirds of the new awards and actions made from fiscal years 2016 through 2018—valued at nearly \$5.3 billion—but some of these were awarded on behalf of other DOD components, such as the Air Force, Navy, and Defense Innovation Unit.¹⁸ Officials from the Air Force Research Laboratory and Navy’s Office of Naval Research told us that they relied on the Army to award prototype other transactions on their behalf because, in some cases, the Army had previously awarded a transaction, such as to a consortium, which they could leverage to meet their own components’ needs. The Army awarded prototype other transactions on behalf of the Defense Innovation Unit, as it did not have the authority to award prototype other transactions, until November 2018.¹⁹

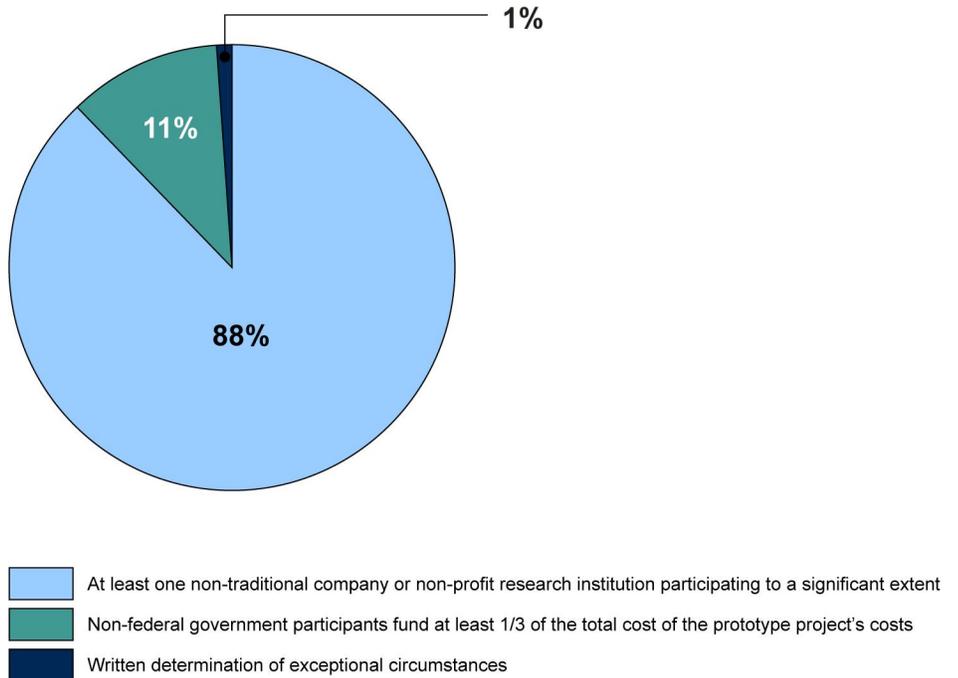
Majority of Awards Cited That at Least One Non-Traditional Company or Non-Profit Research Institution Was Participating to a Significant Extent

DOD reported that at least one non-traditional company or non-profit research institution participated to a significant extent—one of four statutory conditions that Congress established for the appropriate use of a prototype other transaction—in 88 percent of the 1,250 new awards and actions made from fiscal years 2016 through 2018 (see fig. 2).

¹⁸The Defense Innovation Unit was established in 2015 and originally known as Defense Innovation Unit Experimental. Its mission at that time was to focus on reinvigorating DOD outreach to commercial innovators. The Deputy Secretary of Defense renamed the office to Defense Innovation Unit in 2018. It now focuses on delivering commercial technologies to the warfighter and stimulating new, non-traditional entrants to the national security innovation base.

¹⁹Department of Defense, Under Secretary of Defense for Acquisition and Sustainment, *Authority for Use of Other Transactions for Prototype Projects Under 10, United States Code, 2371b* (Nov. 20, 2018).

Figure 2: Statutory Condition Identified for Use of Department of Defense Prototype Other Transactions, Fiscal Years 2016 through 2018



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-84

Notes: The Federal Procurement Data System-Next Generation (FPDS-NG) allows users to identify when a prototype meets three of the four possible conditions identified in 10 U.S.C. 2371b as appropriate use of another transaction. Those three conditions are identified in the figure. The data system does not allow users to identify when a prototype other transaction was awarded under the condition where all significant non-government participants are non-traditional defense contractors or small businesses, so this condition is not identified in the figure. As such, all new prototype other transactions awarded from fiscal years 2016 through 2018 and actions, including modifications and orders, related to prototype other transactions awarded in these and prior fiscal years are accounted for in FPDS-NG in one of the three conditions listed in the figure. The percentages in the figure are based on the total number of new prototype other transactions awarded from fiscal years 2016 through 2018, and actions related to prototype other transactions awarded in these and prior fiscal years that resulted in a change in obligations. We excluded modifications that did not change the amount obligated on prototype other transactions, such as those related to administrative changes.

Majority of Dollars Were Obligated to Consortiums and Traditional Defense Contractors

We found that from fiscal years 2016 through 2018, the top five recipients by obligations were either consortiums or traditional defense contractors. Awards to these five recipients accounted for \$5.1 billion or 71 percent of the obligations on new awards and actions during this time frame (see table 2).

Table 2: Top Recipients for Department of Defense Prototype Other Transaction Obligations for Fiscal Years 2016 through 2018

Recipients	Type of recipient	Obligations (in millions of dollars)	Percentage of obligations
Advanced Technology International	Consortium ^a	3,524.4	49
Consortium Management Group, Inc.	Consortium ^a	566.2	8
Lockheed Martin Corporation	Traditional defense contractor	380.8	5
National Center for Manufacturing Sciences, Inc.	Consortium ^a	376.9	5
Aerojet Rocketdyne of DE, Inc.	Traditional defense contractor	297.3	4
258 other recipients	Non-traditional companies, traditional defense contractors, consortiums, and other entities	2,080.4	29
Total	-	7,225.9	100

Source: GAO analysis of Federal Procurement Data System-Next Generation (FPDS-NG) data. | GAO-20-84

Note: The obligations through prototype other transactions include new awards from fiscal years 2016 through 2018, and actions, including modifications and orders, related to prototype other transactions awarded in these and prior fiscal years. Numbers may not sum due to rounding.

^aFPDS-NG provides information, such as the total award value of a base transaction awarded to a consortium management firm, which is identified as the recipient in this table. The consortiums the firms manage can include members that are non-traditional companies, traditional defense contractors, and others such as non-profit research institutions. FPDS-NG did not show which consortium members carried out the projects.

Three of the top five recipients were consortium management firms—Advanced Technology International, Consortium Management Group, and National Center for Manufacturing Sciences. In general, a consortium management firm does not complete the prototype, but rather helps manage consortium members.

The other two companies among the top five were traditional defense contractors—Lockheed Martin and Aerojet Rocketdyne. As stated earlier, according to statute, traditional defense contractors can be awarded prototype other transactions under three possible conditions: by partnering with at least one non-traditional defense contractor or non-profit research institution participating to a significant extent, paying at least one-third of the total project cost, or having the government agency's senior procurement executive determine in writing that exceptional circumstances justify the use of a prototype other transaction. Paying one-third of the project's costs is an example of cost-sharing. For the eight new prototype other transactions these two companies were awarded from fiscal years 2016 through 2018, four involved non-traditional companies or non-profit research institutions that participated to a significant extent and the remaining four involved cost-sharing arrangements.

In the one prototype other transaction awarded to Lockheed Martin that we reviewed, the Army entered into the transaction, currently valued at \$17.5 million, to prototype two removable sensors for unmanned aircraft. According to the Army agreements officer, Lockheed Martin was awarded an other transaction instead of a FAR-based contract because Lockheed Martin needed to collaborate with four other companies that were awarded prototype other transactions. The Army agreements officer told us he concluded that it would have been difficult for all the contractors to collaborate if some were operating under prototype other transactions and Lockheed Martin was subject to the requirements of a FAR-based contract. Since Lockheed Martin did not have a non-traditional company participating to a significant extent on the prototype other transaction it was awarded, the company was required to pay at least one-third of the cost of the project to comply with statutory requirements. Lockheed Martin used a combination of in-kind contributions, such as test articles, and independent research and development funds for its share of total project costs.

DOD Is Preparing a Report on Its Use of the Other Transaction Authority and Addressing Certain Data Limitations

In response to congressional direction, DOD expects to submit a report in November 2019 on its use of the prototype other transaction authority in fiscal year 2018.²⁰ This report will include, among other elements, data on new prototype other transactions awarded in fiscal year 2018; actions made in fiscal year 2018 on these prototype other transactions and ones awarded in prior fiscal years; detailed information on the DOD organizations using the authority; the purpose and status of projects; and

²⁰According to DOD officials, DOD's forthcoming report will address two congressional reporting requirements: (1) Section 873 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and (2) H.R. Conf. Rep. No. 115-952, the conference report that accompanied the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and the Continuing Appropriations Act, 2019. Collectively, these two congressional reporting requirements required DOD to collect data and report on its use of prototype other transactions to Congress, including highlights about successes and challenges in using the other transaction authority and appropriation types used to fund the other transactions. In our sample, 10 of 11 prototype other transactions were initially funded using research, development, test, and evaluation funds. The one remaining transaction was awarded to a consortium and establishes terms and conditions for projects, but does not fund them. Funding will be determined as projects are awarded under this transaction.

those prototype other transactions that led to a follow-on production other transaction. This report, which was originally due to be delivered in December 2018 was delayed, according to DOD, as FPDS-NG was not configured to capture all the data needed to prepare the report. DOD's Defense Pricing and Contracting is collecting the required data directly from DOD components.

DOD and military component officials whom we interviewed acknowledged limitations in the FPDS-NG data on prototype other transactions. DOD officials stated they have addressed some of these limitations and officials are discussing how to improve the information collected in the future. For example, as noted above, we found four other transaction awards for the production of products and four procurements for experimental purposes identified as prototype other transactions in FPDS-NG.²¹ According to Defense Pricing and Contracting officials, until June 2019, DOD did not have the ability to differentiate between prototype and production other transactions in FPDS-NG; therefore, both prototype and production other transactions were reported as prototype other transactions. The General Services Administration—the organization that is responsible for managing and updating FPDS-NG—added an option in FPDS-NG that would allow users to identify other transactions as either for a prototype or production, as appropriate, beginning in June 2019. DOD officials stated that they are discussing the best approach for consistently identifying procurements for experimental purposes in FPDS-NG. This could include adding an option to FPDS-NG for users to identify these procurements or including unique letters in the award number.

DOD officials are also working to address FPDS-NG data limitations related to consortiums that reduce DOD's management insight on the use and award of prototype other transactions. Army contracting officials noted that FPDS-NG tracks information about the base prototype other transaction that is awarded to a consortium, but does not track data about each project conducted through the consortium, such as whether a non-traditional company is participating on each project. The Army Deputy Assistant Secretary for Procurement issued a policy, effective October 1, 2019, that changes how the Army reports other transactions into FPDS-

²¹Procurements for experimental purposes allow DOD to buy chemical, telecommunications, aeronautical, and other types of supplies and designs that DOD considers necessary for experimental or test purposes when developing defense supplies. 10 U.S.C. § 2373.

NG to improve data on projects conducted by consortium members. The policy, however, does not discuss how it will track non-traditional company participation. Further, FPDS-NG does not track the extent of competition among consortium members. DOD officials stated that, while FPDS-NG data shows DOD competitively awarded 48 percent of all prototype other transaction obligations for fiscal years 2016 through 2018, they believed this figure understates the degree of competition actually achieved. These issues are illustrated in the following examples.

- FPDS-NG shows that Advanced Technology International was awarded a prototype other transaction in fiscal year 2018 with a ceiling of \$10 billion for the Countering Weapons of Mass Destruction Consortium. FPDS-NG also shows that, as of March 2019, the Army had obligated \$116 million as modifications under the base transaction, and, according to the Army Contracting Command-New Jersey agreements officer, were for consortium members to carry out various prototype projects. FPDS-NG did not identify the number of projects that are being carried out by the consortium or which consortium members were participating on the projects. The Army Contracting Command-New Jersey agreements officer that awarded this prototype other transaction, however, maintained her own records to help her manage and oversee the consortium's efforts. According to this agreements officer, as of March 2019, all 44 projects carried out by consortium members involved non-traditional companies—37 prototype projects were carried out by non-traditional companies that served as prime contractors and seven prototype projects were carried out by traditional defense contractors with subcontractors that were non-traditional companies that participated to a significant extent.
- FPDS-NG shows that the base contract, as well as all the modifications, for a different prototype other transaction the Army Contracting Command-New Jersey awarded to Advanced Technology International was non-competitively awarded. These modifications accounted for 69 percent or \$2.6 billion of the non-competitive obligations DOD made through new awards and actions from fiscal years 2016 through 2018. However, according to command contracting officials, during this time frame, all the obligations on modifications were associated with projects that were competitively awarded among consortium members. DOD senior contracting officials stated that FPDS-NG tracks only whether the base transaction was competitively awarded and that modifications made to transactions awarded to consortiums automatically retain the same competitive or non-competitive designation as the base contract.

DOD Agreements Officers Used Multiple Methods to Evaluate Non-Traditional Company Status and Participation

Agreements officers used multiple methods to determine whether and to what extent non-traditional companies were participating on the prototype other transactions we reviewed. We found that agreements officers first determined whether a company was traditional or non-traditional by reviewing government databases and consulting with subject matter experts, among other approaches; and then determined the extent to which a non-traditional company was expected to participate on a prototype other transaction.

Agreements Officers Used Various Methods to Determine Whether a Company Was a Non-Traditional Company

In accordance with DOD's November 2018 Other Transactions Guide, agreements officers determined whether non-traditional companies participated on nine of the 11 transactions in our non-generalizable sample that met this statutory condition. For the other two transactions, one involved a cost sharing arrangement between the Army and a traditional defense company; therefore, the agreements officer did not have to make this determination. The other instance involved the award of an other transaction to a consortium. In this instance, the consortium and agreements officer set out to negotiate general terms and conditions that would flow down to subsequent prototype projects carried out by consortium members. The agreements officer plans to make the determination about whether a non-traditional company is participating or meeting another statutory condition on a case-by-case basis for each subsequent prototype project that is funded.

Agreements officers typically used more than one method to determine if a company was a non-traditional company for the nine transactions in our sample. For example, agreements officers considered, in varying combinations, a contractor's assertion, data from government information

systems, subject matter expert input, or market research when making the determination (see table 3).²²

Table 3: Methods Agreements Officers Used to Evaluate Non-Traditional Company Status in Prototype Other Transactions GAO Reviewed

Prototype description	Contractor's assertion	Government information systems ^a	Subject matter expert input	Market research
Air Force: Improved engine manufacturing processes	method not used	method used	method used	method used
Army: Artificial intelligence-based war-gaming capability	method used	method used	method not used	method used
Army: Capability to transform legacy hardware systems into a software-based environment	method used	method used	method not used	method not used
Defense Advanced Research Projects Agency: Cloud-based analytics platform for analyzing geospatial data	method used	method used	method used	method not used
Defense Advanced Research Projects Agency: Microchip emulation and validation capability	method not used	method used	method used	method used
Defense Advanced Research Projects Agency: Systems engineering toolset to design cyber resiliency for military systems	method not used	method used	method used	method used
Defense Advanced Research Projects Agency: Space-based adaptor and power port for a satellite maintenance vehicle	method not used	method used	method not used	method not used
Washington Headquarters Services^b: Large unmanned surface vehicle capable of autonomous and manned operations	method used	method used	method used	method used
Washington Headquarters Services^b: Large unmanned surface vehicle capable of autonomous and manned operations	method used	method used	method used	method used

Legend: ✓ indicates a method used by the agreements officer and — indicates a method that was not used.

Source: GAO analysis of Department of Defense (DOD) documents and interviews. | GAO-20-84

^aFor nine selected prototype other transactions we reviewed, agreements officers used information from four government information systems: (1) the System For Award Management, which is a

²²Agreements officers from our sample mentioned four government information systems they used to determine whether a company was a non-traditional company: (1) the System For Award Management, which is a database that current and potential government vendors are required to register with in order to be awarded contracts by the government; (2) FPDS-NG, which is a web-based tool for agencies to report contract actions and other transactions; (3) Contract Business Analysis Repository, which is a DOD system that captures contract-related information from the Defense Contract Management Agency about companies; and (4) the Electronic Document Access system, which is a DOD system that provides electronic access to records of contracts and contract modifications.

database that current and potential government vendors are required to register with in order to be awarded contracts by the government; (2) the Federal Procurement Data System-Next Generation, which is a web-based tool for agencies to report contract actions and other transactions; (3) Contract Business Analysis Repository, which is a DOD system that captures contract-related information from the Defense Contract Management Agency about companies; and (4) the Electronic Document Access system, which is a DOD system that provides electronic access to records of contracts and contract modifications.

^bWashington Headquarters Services awarded two separate prototype other transactions for the same program.

As reflected in table 3, in none of the cases we reviewed did an agreements officer rely solely on the contractor's assertion that a company was a non-traditional company. The following two examples illustrate the type of actions agreements officers took to determine that a contractor was a non-traditional company:

- In a \$19.3 million prototype other transaction awarded by Washington Headquarters Services for a large autonomous ship, the prime contractor stated that it and a subcontractor were non-traditional companies. This was because neither had performed work on a DOD contract or subcontract that was subject to full cost accounting standards in the preceding year, which is one of the statutory criteria to be considered a non-traditional company. To confirm that the prime contractor and the subcontractor were non-traditional companies, the agreements officer checked the System for Award Management, leveraged market research, and relied on input from technical officials from the Navy's Surface Warfare Directorate and Unmanned Maritime Systems Program Office with industry knowledge about contractors.
- In a \$10 million Army prototype other transaction for an artificial intelligence war-gaming capability, the contractor that was to perform all the work stated that it met the statutory definition of a non-traditional company. To verify its status, the agreements officer determined that the contractor did not have a record in the System for Award Management, which would ordinarily be required if the company had previously done business with the federal government. The agreements officer also conducted market research to verify that the company was not a DOD subcontractor that was subject to cost accounting standards in the preceding year.

Agreements Officers Then Used Various Methods to Determine Whether the Non-Traditional Company Was Participating to a Significant Extent

After determining whether a company was a non-traditional company, agreements officers then used various methods to determine whether one

or more non-traditional companies would play a significant role on the nine prototype other transactions before they were awarded.²³ These methods included assessing whether the contractor was performing all the work on the prototype, evaluating whether the services or technologies provided by the non-traditional companies were critical, using input from subject matter experts, or considering the percentage of total costs or labor hours performed by the contractor (see table 4).

Table 4: Rationale Used by Agreements Officers to Determine Non-Traditional Company’s Significant Participation in Prototype Other Transactions GAO Reviewed

Prototype description	Award value (in millions of dollars for all options)	Percentage of award value received by non-traditional company	Role of non-traditional company	Agreements officer’s rationale for non-traditional company’s significant participation
Air Force: Improved engine manufacturing processes	1.2	100	Prime contractor	Sole contractor providing prototype.
Army: Artificial intelligence-based war-gaming capability	10.0	100	Prime contractor	Sole contractor providing prototype.
Army: Capability to transform legacy hardware systems into a software-based environment	4.6	100	Prime contractor	Sole contractor providing prototype.
Defense Advanced Research Projects Agency: Cloud-based analytics platform for analyzing geospatial data	7.5	96	Prime contractor	Company is providing a critical technology—the data platform.
Defense Advanced Research Projects Agency: Microchip emulation and validation capability	6.1	87	Prime contractor	Company is providing a critical technology—the hardware assurance technology to validate microchip designs. Agreements officer also evaluated cost and labor hours, and received subject matter input.

²³For the other two transactions, one involved a cost sharing arrangement with a traditional defense company; therefore, the agreements officer did not have to make this determination. The other involved the award of an other transaction to a consortium. The agreements officer plans to make the determination about whether a non-traditional company is participating to a significant extent on a case-by-case basis for each subsequent prototype project that is funded.

Prototype description	Award value (in millions of dollars for all options)	Percentage of award value received by non-traditional company	Role of non-traditional company	Agreements officer's rationale for non-traditional company's significant participation
Defense Advanced Research Projects Agency: Systems engineering toolset to design cyber resiliency for military systems	11.5	25	Subcontractor	Company is providing a critical service—a unique dataset to test the prototype, which was confirmed by a subject matter expert.
Defense Advanced Research Projects Agency: Space-based adaptor and power port for a satellite maintenance vehicle	7.8	16	Subcontractor	Company is providing critical services—testing equipment, engineering unit, and flight unit materials. Agreements officer also evaluated company's proposed cost and labor hours.
Washington Headquarters Services^a: Large unmanned surface vehicle capable of autonomous and manned operations	19.3	>75	Both prime and subcontractor	Prime contractor and subcontractor are providing critical technologies and services—integrating autonomy sensors and providing the vessel, crew, and logistics support. Agreements officer also evaluated cost and labor hours, and received subject matter input.
Washington Headquarters Services^a: Large unmanned surface vehicle capable of autonomous and manned operations	21.8	<25	Subcontractor	Company is providing critical services—vessel, crew, and logistics support. Agreements officer also evaluated cost and labor hours, and received subject matter input.

Source: GAO analysis of Department of Defense documents and interviews. | GAO-20-84

^aWashington Headquarters Services awarded two separate prototype other transactions for the same program.

As shown in table 4, the proportion of award values received by non-traditional companies on the prototype other transactions, which ranged from 16 to 100 percent, did not always indicate the significance of the non-traditional companies' contributions. Consistent with DOD guidance, agreements officers took various factors into account when determining whether a non-traditional company is participating to a significant extent.

- In the transaction in which the non-traditional company was expected to receive about 16 percent of the total award value, the agreements officer considered the engineering work performed by a non-traditional company—which was a subcontractor on the effort—to be critical to developing the data port for a robotic satellite servicing vehicle.
- In another example, the agreements officer and Navy subject matter experts determined a non-traditional company that would receive less than 25 percent of a transaction's overall award value was participating to

a significant extent since it was providing the vessel and crew necessary to execute testing of the large autonomous ship that was being prototyped.

DOD Agreements Officers Generally Followed Established Review Processes for Awarding Selected Prototype Other Transactions

Agreements officers followed their commands' established review processes, which involved higher level reviews by senior officials and legal reviews, in nine of the 11 transactions in our sample. Agreements officers did not obtain higher level reviews in the two remaining transactions, but senior contracting officials plan to take action to address the issues we identified. Award times for these transactions ranged from 45 to 370 days.

DOD Contracting Offices Established Processes for Reviewing Prototype Other Transactions

Each of the DOD contracting offices we assessed established policies for reviewing prototype other transactions before award, though the processes differed. For example, the contracting offices we evaluated generally required other transactions to be reviewed by an official at least one level above the agreements officer and to be subject to a legal review. Some contracting offices required additional reviews at higher dollar thresholds. In addition, the officials responsible for reviewing transactions within a contracting office sometimes differed based on the expected dollar value of the transaction. For example, at the Army Contracting Command-New Jersey, the Branch Chief can review only transactions valued at less than \$10 million. Transactions exceeding that amount would be reviewed by a higher ranking official, such as the Center Director.

According to senior contracting officials, the review process is intended to ensure that prototype other transactions meet the statutory requirements for use of the authority before award. The review process also facilitates component efforts to obtain the "best deal" for the government based on decisions by the agreements officers, senior contracting and program officials, and legal advisors about factors such as whether to compete the transaction and whether to obtain technical data rights for the prototype.

Table 5 provides more specific information on the review process required by the Air Force Research Laboratory, Army Contracting Command-New Jersey, Defense Advanced Research Projects Agency, and Washington Headquarters Services.

Table 5: Review Policies for Prototype Other Transactions at Selected Department of Defense Contracting Offices Reviewed by GAO

Review policy
<ul style="list-style-type: none"> • Air Force Research Laboratory: Requires the level of oversight for proposed prototype other transactions be determined when developing the acquisition strategy. The level of oversight will vary depending on the anticipated dollar value and risk associated with the prototype other transaction.
<ul style="list-style-type: none"> • Air Force Research Laboratory: Requires a documented legal review of all prototype other transactions regardless of the dollar value.
<ul style="list-style-type: none"> • Army Contracting Command-New Jersey: Requires at least one senior contracting official to review prototype other transactions valued at \$250,000 and above. Transactions valued at \$50 million and above also require a review by a board of at least five officials from various internal organizations.
<ul style="list-style-type: none"> • Army Contracting Command-New Jersey: Requires a documented legal review of all prototype other transactions regardless of the dollar value.
<ul style="list-style-type: none"> • Defense Advanced Research Projects Agency: From October 1, 2017, to July 17, 2018, a contracting official one level above the agreements officer was required to review all prototype other transactions before they were awarded.
<ul style="list-style-type: none"> • Defense Advanced Research Projects Agency: New policy was issued on July 18, 2018, that now requires a contracting official one level above the agreements officer to review prototype other transactions valued at \$5 million or greater. No review is required for transactions under \$5 million.
<ul style="list-style-type: none"> • Defense Advanced Research Projects Agency: Agreements officers must consult with the Contract Management Office Deputy Director about their negotiation strategy before negotiations begin and any issues that arise during negotiations.
<ul style="list-style-type: none"> • Defense Advanced Research Projects Agency: Legal counsel should also be consulted as needed during negotiations.
<ul style="list-style-type: none"> • Washington Headquarters Services: Requires a senior contracting official to review all prototype other transactions regardless of the dollar value to ensure the appropriate terms and conditions were negotiated and that the other transactions were ready for the next level of review by a Contract Review Board.
<ul style="list-style-type: none"> • Washington Headquarters Services: Requires a Contract Review Board to review all prototype other transaction regardless of the dollar value. The board consists of six officials, including four senior-level contracting officials, legal counsel, and a policy officer.

Source: GAO analysis of Department of Defense documents and interviews. | GAO-20-84

Agreements Officers Documented Various Decisions Prior to Awarding Prototype Other Transactions

Agreements officers in our review documented aspects of their decision making prior to awarding a transaction. For example, agreements officers generally documented the condition under section 2371b of title 10, U.S. Code, that was met to use a prototype other transaction, and some documented the negotiation process with the commercial companies regarding terms and conditions of the transactions. We also found that the Air Force Research Laboratory, Defense Advanced Research Projects Agency, and Washington Headquarters Services required agreements officers to document acquisition planning for prototype projects to some extent. Senior contracting officials from these organizations stated that acquisition planning helps programs manage risks and provides direction to agreements officers who are new to

awarding other transactions. For an Air Force other transaction we reviewed, documentation included the purpose and objectives for the prototyping project, the anticipated cost and type of funding needed for the project, and the transaction award schedule. We found the Army agreements officer who awarded the prototype other transaction to the Countering Weapons of Mass Destruction Consortium developed an acquisition planning document, even though policy did not require her to do so. The agreements officer said she did this because the transaction had a \$10 billion ceiling and she considered this a best practice. Legal counsel, several senior level contracting officials, and program officials reviewed the acquisition planning document before the agreements officer awarded the transaction.

Defense Advanced Research Projects Agency also required agreements officers to document the reason for non-competitive awards in a memorandum. We previously reported that competition promotes the efficient use of taxpayer resources and establishes accountability for results by helping to drive down prices and motivate better contractor performance.²⁴ We found that an Air Force Research Laboratory agreements officer also documented the reasons why a \$1.2 million prototype other transaction to develop a manufacturing process to reduce a missile engine's production costs was awarded non-competitively, even though policy did not require such documentation. The agreements officer said the reason for the non-competitive award was that a non-traditional company is the manufacturer of the engine and has the experience to create cost-saving innovations to its manufacturing process. The agreements officer stated legal counsel reviewed this documentation prior to awarding the other transaction and that management was aware of the non-competitive status of this transaction during acquisition planning.

Contracting officials from the Army Contracting Command-New Jersey stated that, consistent with statute, they did not require acquisition planning or non-competitive award documentation because they wanted to maintain few requirements to award prototype other transactions.

²⁴GAO, *Contracting Data Analysis: Assessment of Government-wide Trends*, [GAO-17-244SP](#) (Washington, D.C.: Mar. 9, 2017).

Award Times Varied Significantly for the Prototype Other Transactions We Reviewed

While senior contracting officials told us that they were able to streamline the review process for other transactions compared to the actions typically required before awarding other procurement contracts, they cautioned that the time needed to award a prototype other transaction can vary significantly. We found that, for the 11 prototype other transactions we reviewed, award times—which we defined as the time a contracting office released a solicitation until the time the government awarded the other transaction—ranged from 45 to 370 days. By way of reference, we recently reported that the time from solicitation issuance until the time the government awarded 129 weapon systems-related procurement contracts ranged from less than a month to over 4 years, with a median of about 9 months.²⁵

For the 11 prototype other transactions we reviewed, contracting officials noted that the times varied due to factors such as prior knowledge about the contractor and the complexity of the prototype project.

- An Air Force prototype other transaction for improving missile engine manufacturing processes was awarded in 45 days because the agreements officer said she had extensive knowledge about the capabilities of the contractor prior to awarding this transaction and was, therefore, able to plan for and develop other transaction documentation early. The agreements officer told us that she had knowledge of this company because it had previously been a subcontractor on a technology demonstration.
- Conversely, the Army took 370 days to award a prototype other transaction because the government needed time to assess what contracting instrument to use to ensure multiple contractors collaborated to build an autonomous airborne network of sensors. According to the agreements officer, the government needed time to research the effects of several possible teaming arrangements, including creating a new consortium, using an existing consortium, awarding a FAR-based contract, placing all of the contractors on a single other transaction, or awarding individual other transactions to each contractor.

²⁵GAO, *Defense Contracts: DOD Should Develop a Strategy for Assessing Contract Award Time Frames*, [GAO-18-467](#) (Washington, D.C.: July 16, 2018).

Agreements Officers Generally Followed Management Review Processes Prior to the Award of the Prototype Other Transactions GAO Reviewed

In nine of the 11 prototype other transactions we reviewed, agreements officers followed their contracting offices' policies to have prototype other transactions reviewed before awarding the other transactions.

- In a \$4.6 million Army prototype other transaction to develop a capability to modernize legacy hardware systems, the appropriate senior-level contracting official reviewed the transaction, such as by checking terms and conditions and ensuring that the contract file was complete. Legal counsel also reviewed the transaction prior to award, as required.
- In a \$6.1 million Defense Advanced Research Projects Agency prototype other transaction, the agreements officer consulted the Deputy Director about this transaction before negotiations and a contracting official one level above the agreements officer reviewed the transaction, as the agency's policy required. The agreements officer also consulted legal counsel, an optional policy action, to draft and negotiate a clause that would waive specific topics of the commercial rights license that did not apply to the government. The agreements officer stated that by working with legal counsel to develop a clause, he was able to meet the program's objective to prototype a capability to emulate and validate microchip designs and accommodate the contractor's desire to use its commercial license.

For the remaining two prototype other transactions, we found, and contracting officials agreed, that agreements officers did not meet policy requirements for obtaining higher level review before award.

- In the first case, a Defense Advanced Research Projects Agency agreements officer did not have a higher level official review a \$7.8 million prototype other transaction before it was awarded. Agency policy required the agreements officer to consult with the Deputy Director of the Contract Management Office about the negotiation strategy and discuss any issues that arose during negotiations. In addition, policy required the agreements officer to have a contracting official one level above the agreements officer review the prototype other transaction before award,

regardless of dollar value.²⁶ The agreements officer told us that he did not consult with the Deputy Director or obtain the required review because he thought the terms and conditions were straightforward and the dollar value was too low to require a review by an official above him.

Senior-level Defense Advanced Research Projects Agency contracting officials told us they were not aware that this prototype other transaction was awarded without the required consultation and review until we brought this to their attention. According to these officials, internal controls were in place that should have prevented the award of prototype other transactions without the required consultation and review—such as making current policy documents readily accessible to agreements officers, communicating policy changes to agreements officers, and using a data system to track the development of other transactions prior to award. These officials stated that they plan to check compliance with the required pre-award consultation and review during their next internal file review of awarded other transactions that will be completed in fiscal year 2020. If they find instances of noncompliance, officials stated that the agency will take corrective actions, such as providing additional training for agreements officers. They also stated that they subsequently reviewed the \$7.8 million prototype other transaction and determined that no changes needed to be made to the other transaction in this instance.

- In the second case, the Army Contracting Command-New Jersey agreements officer—who was also the Center Director—had his Branch Chief review a \$10 million prototype other transaction prior to award. Command policy, however, generally requires the Center Director to review prototype other transactions valued at or greater than \$10 million. The Center Director stated that he did not serve as the reviewer on this transaction because he would have been reviewing his own work.

Army Contracting Command-New Jersey officials stated that the management review should have been conducted by another Center Director or a higher contracting official, but noted that this was an atypical situation not addressed in the command's policies. As such, Army Contracting Command-New Jersey officials plan to revise their management review policy by fall 2019 to address who should be

²⁶The Defense Advanced Research Projects Agency updated its other transaction policy in July 2018 policy. It now requires an official one level above the agreements officer to review prototype other transactions valued at \$5 million or greater.

responsible for conducting a higher level management review when someone who is designated to conduct the management review serves as the agreements officer for the transaction. The officials stated that they reexamined the prototype other transaction and found that there were no issues with the terms and conditions and, therefore, no changes needed to be made to the transaction.

Based on the stated intent of Defense Advanced Research Projects Agency and Army Contracting Command-New Jersey contracting officials to address issues we identified in our review, we are not making recommendations at this time but will monitor their actions to address the issues.

Agency Comments

We provided a draft of this product to DOD for comment. DOD provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees and the Secretary of Defense; the Acting Principal Director of Defense Pricing and Contracting; the Secretaries of the Air Force and Army; and the Directors of the Defense Advanced Research Projects Agency and the Washington Headquarters Services. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-4841 or dinapolit@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.



Timothy J. DiNapoli
Director, Contracting and National Security Acquisitions

List of Committees

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

The Honorable Richard Shelby
Chairman
The Honorable Richard J. Durbin
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

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

The Honorable Pete Visclosky
Chairman
The Honorable Ken Calvert
Ranking Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

Appendix I: Department of Defense (DOD) Use of Prototype Other Transactions by Command

Table 6: Department of Defense (DOD) Command Use of Prototype Other Transactions: New Awards, Actions, and Obligations, Fiscal Years 2016 through 2018

DOD component	Command	Number of new awards and actions	Percentage of total new awards and actions	Obligations (in millions of dollars)	Percentage of total obligations
Army	Army Materiel Command	830	66	5,189.7	72
Army	Army Medical Command	33	3	71.8	1
Air Force	Air Force Materiel Command	69	6	81.2	1
Air Force	Air Force Space Command	30	2	747.9	10
Defense Advanced Research Projects Agency	Not applicable	245	20	972.4	13
Washington Headquarters Services	Not applicable	8	<1	43.6	<1
Navy	Naval Sea Systems Command	2	<1	0.1	<1
Navy	Office of Naval Research	8	<1	22.9	<1
Navy	Space and Naval Warfare Systems Command	4	<1	5.3	<1
Navy	U.S. Marine Corps	7	<1	1.3	<1
Defense Threat Reduction Agency	Not applicable	9	<1	63.6	<1
U.S. Special Operations Command	Not applicable	3	<1	1.6	<1
U.S. Transportation Command	Not applicable	2	<1	24.5	<1
Total		1,250	100	7,225.9	100

Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-84

Note: The number of and obligations through prototype other transactions include new awards from fiscal years 2016 through 2018, and actions, including modifications and orders, related to prototype other transactions awarded in these and prior fiscal years that resulted in a change in obligations. We excluded modifications that did not change the amount obligated on the prototype other transactions, such as those related to administrative changes.

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

Timothy J. DiNapoli, (202) 512-4841 or dinapolit@gao.gov

Staff Acknowledgments

In addition to the contact named above, Cheryl Andrew, Assistant Director; Carmen Yeung, Analyst-in-Charge; Pete Anderson; Lorraine Ettaro; Kurt Gurka; Daniel Glickstein; Julia Kennon; Roxanna Sun; and Leanne Violette made key contributions to this report.

Appendix III: Accessible Data

Data Tables

Accessible Data for Department of Defense Use of Prototype Other Transactions: New Awards, Modifications, Orders, and Obligations, Fiscal Years 2016 through 2018

Fiscal year	Total	Obligations
2016	248	1.4
2017	297	2.1
2018	618	3.7

Accessible Data for Figure 1: Department of Defense Use of Prototype Other Transactions: New Awards, Actions, and Obligations, Fiscal Years 2016 through 2018

Fiscal year	Modifications	Awarded	Total	Obligations
2016	214	34	248	1.4
2017	297	87	297	2.1
2018	445	173	618	3.7

Accessible Data for Figure 2: Statutory Condition Identified for Use of Department of Defense Prototype Other Transactions, Fiscal Years 2016 through 2018

Category	Percentage
At least one non-traditional company or non-profit research institution participating to a significant extent	88
Non-federal government participants fund at least 1/3 of the total cost of the prototype project's costs	11
Written determination of exceptional circumstances	1

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