
Office of Inspector General

Audit Report

DOT AND FAA LACK ADEQUATE CONTROLS OVER THEIR USE AND MANAGEMENT OF OTHER TRANSACTION AGREEMENTS

Office of the Senior Procurement Executive
Federal Aviation Administration
Pipeline and Hazardous Materials Safety Administration

Report Number: ZA2017098

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Memorandum

U.S. Department of
Transportation

Office of Inspector General

Subject: **ACTION:** DOT and FAA Lack Adequate Controls Over Their Use and Management of Other Transaction Agreements
Department of Transportation
Report No. ZA2017098

Date: September 11, 2017

From: Mary Kay Langan-Feirson
Assistant Inspector General for Acquisition and Procurement Audits

Reply to Attn. of: JA-60

To: DOT Senior Procurement Executive
Federal Aviation Administrator
Pipeline and Hazardous Materials Safety Administrator

Congress has granted the authority to enter into Other Transaction Agreements (OTA) to several of DOT's Operating Administrations.¹ An OTA is a special type of instrument that gives agencies greater flexibility to achieve mission goals, because OTAs are generally exempt from Federal laws and regulations governing acquisitions and financial assistance.² OTAs also are generally not required to have the management controls of contracts, grants, and cooperative agreements;³ thus, they can pose greater cost and performance risks than these standard types of Federal awards.⁴ The objective of this self-initiated audit was to evaluate DOT's (1) use of OTAs and (2) management of the agreements. We focused our work primarily on the Federal Aviation Administration (FAA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) since those are the only two

¹ These include the Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), Maritime Administration (MARAD), National Highway Traffic Safety Administration (NHTSA), Office of the Assistant Secretary for Research (OST-R), and Pipeline and Hazardous Materials Safety Administration (PHMSA).

² *Use of "Other Transaction" Agreements Limited and Mostly for Research and Development Activities*, Government Accountability Office (GAO), GAO-16-209, January 2016, p. 1; L. Elaine Halchin, *Other Transaction (OT) Authority*, Congressional Research Service (2011), p. 1.

³ The Federal Grant and Cooperative Agreement Act, 31 U.S.C. §§ 6301–6308, distinguishes between grants and cooperative agreements based on whether substantial involvement is expected between the executive agency and the recipient when carrying out the activity; grants are used when substantial involvement is not expected, and cooperative agreements are used when it is. We use the term grants for both grants and cooperative agreements in this report.

⁴ We have received several hotline complaints alleging serious problems related to the FAA's management of research and developmental funds, some of which included use of OTAs.

DOT agencies actively using their OTA authority. The OTAs that we identified at DOT account for more than \$1.4 billion in Federal awards.⁵

We conducted our work in accordance with generally accepted Government auditing standards. To conduct the audit, we interviewed program, acquisition, and legal officials from DOT Operating Administrations with OTA authority to assess whether they used that authority, and if so, for what purposes. FAA was unable to provide us with a comprehensive list of the OTAs it has issued, which limited our ability to address all OTA use at the Agency. To assess Operating Administrations' controls over their OTAs, we selected a statistical sample of 63 agreements from the universe of 767 OTAs we identified and reviewed the OTA files for compliance with relevant policies and procedures. Our sample design allowed us to project the noncompliance rate for several attributes. We also conducted site visits to an airport and a research facility that have OTAs with FAA. See exhibit A for more information on our scope and methodology.

RESULTS IN BRIEF

Of the two DOT Operating Administrations that use OTA authority,⁶ FAA employs OTAs much more than PHMSA and for a wider range of activities with significant monetary impact. However, because the agreements are managed by a number of offices and inventoried via several different methods, FAA is unable to track all of them. We compiled a list of 694 OTAs that was more than 5 times larger than the list initially provided by the Agency. Between fiscal years 2010 and 2014, FAA accounted for about 97 percent of the \$1.45 billion maximum value of the Department's active OTAs that we were able to identify.⁷ As a result, it is difficult for FAA officials to provide effective oversight and inform stakeholders about the extent of its agreements, which is critical given the flexibilities afforded OTAs and the magnitude of OTA funding at the Agency. FAA policies are also ambiguous on when it is proper to use an OTA instead of a contract or grant as discussed further below. In contrast, PHMSA uses OTAs for one program and has more rigorous controls over OTA usage.

DOT and FAA⁸ lack clear, comprehensive policies to adequately manage their OTAs. DOT's guidance for these agreements is located within a financial assistance manual that is primarily designed for grants and cooperative agreements

⁵ The maximum potential value of FAA's OTAs we were able to identify is \$1.4 billion; at PHMSA, it is \$45 million.

⁶ Eight DOT Operating Administrations have authority to use OTAs. For a list and description of DOT's various statutory OTA authorities, please see exhibit B.

⁷ We measured the value of the Department's OTAs based on their maximum potential values, that is, the ceiling amount that agencies could spend on the agreements as awarded or modified.

⁸ As discussed in greater detail below, DOT and FAA have both issued policies for OTAs. According to FAA officials, the acquisition reforms that exempt the Agency from DOT acquisition policies extend to its use of OTAs. Consequently, when discussing OTA-related policies in this report we refer to FAA and DOT as separate organizations, even though FAA is an agency within DOT.

and, prior to December 2016, had not been updated for more than 7 years. Moreover, the manual does not indicate which, if any, of its other financial assistance policies—such as procedures for risk-based monitoring of recipients—also apply to OTAs. FAA’s authority is broader, with its various policies requiring fewer controls, none of which specify when to use an OTA rather than an instrument with more rigorous controls. Unclear policies and a lack of controls, such as procedures to encourage competition, for OTAs—combined with FAA’s inconsistent tracking and oversight—have led to funding and program vulnerabilities. For example, FAA uses OTAs to fund millions of dollars in NextGen⁹ research and demonstration activities but lacks controls to address potential conflicts of interest under OTAs, although it applies such controls when awarding and managing NextGen-related contracts. FAA is also using OTAs to fund tower construction projects totaling \$161 million. However, the Agency often funds similar services through grants, which have stronger controls, such as limits on advance payments. Due diligence with respect to cost/benefit analyses and cost sharing is similarly lacking in FAA’s management of one of its largest OTAs, to conduct collaborative NextGen research with the aviation industry—which has grown from a \$2 million earmark to an OTA with a maximum value of \$88 million. FAA also has not provided information on OTAs to the Government website established to provide transparency for all Federal awards. Unlike FAA, PHMSA generally follows DOT policy on OTAs and has its own supplemental policies. While we found fewer problems with PHMSA’s management of OTAs, we did identify some issues with incomplete documentation stemming from insufficient pre-award analysis.

We are making recommendations to improve use and management of OTAs at DOT, FAA, and PHMSA.

BACKGROUND

FAA and PHMSA both received their OTA authority from Congress in 1996. Similar to other Federal agencies with such authority,¹⁰ PHMSA’s OTAs are for a specific purpose: to further pipeline safety, including development, improvement, and promotion of one-call damage prevention programs, research, risk assessment, and mapping.¹¹ FAA’s authority is broad, allowing OTAs “as may be necessary to

⁹ The Next Generation Air Transportation System (NextGen) is a long-term initiative to transform the current radar-based air transportation system into one that uses satellite navigation, automated aircraft position reporting, and digital communications.

¹⁰ Traditionally, Federal agencies with OTA authority have used the agreements for research and development projects, particularly when they are working with so-called “nontraditional contractors”—entities that would otherwise hesitate to do business with the Federal Government due to the complexity of the laws and regulations covering contracts and grants. See *Use of “Other Transaction” Agreements* (GAO-16-209). Examples of provisions often cited as barriers for firms seeking to do business with the Government include standard requirements governing cost accounting standards or intellectual property rights. See Halchin, *Other Transaction (OT) Authority*.

¹¹ 49 U.S.C. § 60117(k).

carry out the functions of the Administrator and the Administration...on such terms and conditions as the Administrator may consider appropriate.”¹² A variety of departmental and Operating Administration policies and procedures address OTA usage (see table 1).

Table 1. Select OTA Policies and Procedures

Operating Administration/Office	Topics Addressed
Office of the Senior Procurement Executive	
Financial Assistance Guidance Manual (FAGM)	Overarching departmental OTA policy
Financial Assistance Policy Letters	Reporting under the Federal Funding Accountability and Transparency Act (FFATA)
Federal Aviation Administration	
Acquisition Management System (AMS)	Policy and guidance for all aspects of life-cycle acquisition management—general and OTA specific
Financial Manual (FFM), volume 4, chapter 6, “Reimbursable Agreements”	Policies and procedures for entering into and executing reimbursable agreements (RA), including OTA RAs
Standard Operating Procedure, “Creating, Executing, and Implementing Reimbursable Agreements”	Procedures for entering into and executing RAs, including OTA RAs
Pipeline and Hazardous Materials Safety Administration	
PHMSA “Flash” documents	Policy and guidance for assistance agreements; used for OTAs Specific OTA requirements, for example, justification for the use of an OTA

Source: OIG analysis

FREQUENCY AND PURPOSE OF OTA USAGE DIFFER AMONG DOT AGENCIES, WITH FAA THE PREDOMINANT USER

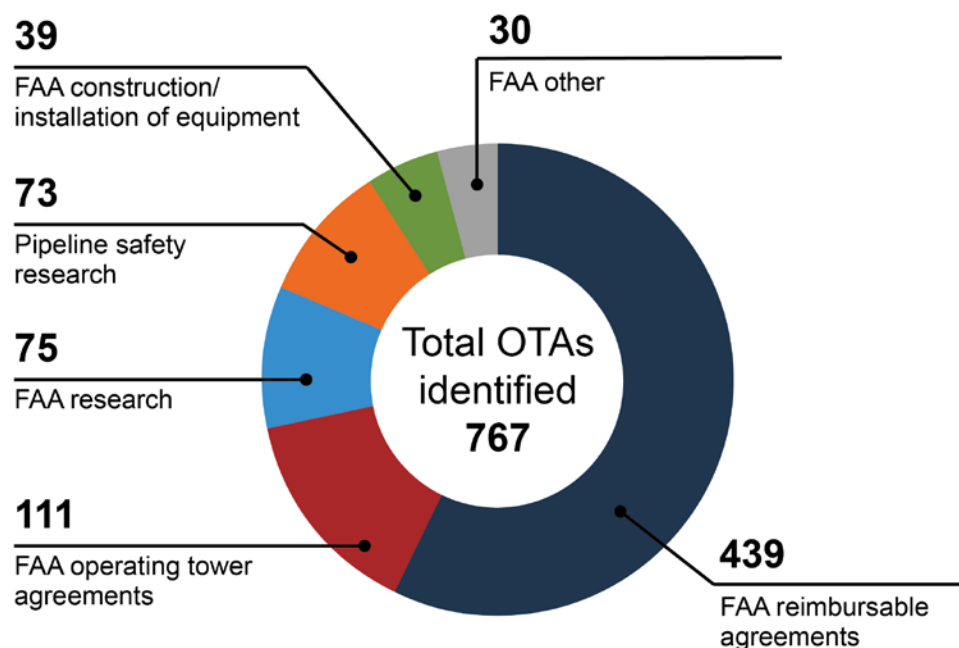
Only two of the eight Operating Administrations with OTA authority—FAA and PHMSA—actively use OTAs. These two agencies differ significantly in their use of the agreements. FAA uses OTAs far more often than PHMSA does and for a variety of purposes; PHMSA uses them only for research and development. Notably, FAA officials do not have a way to identify all the OTAs the Agency issues. This situation makes it difficult for officials to provide effective oversight, which is critical given that the standard terms and conditions applicable to Federal grants and contracts generally do not apply to OTAs.

¹² 49 U.S.C. § 106(l)(6).

FAA Uses OTAs for Diverse Activities but Is Unable To Account for All of Its Agreements

OTA usage varies significantly between FAA and PHMSA, the two Operating Administrations exercising this authority. FAA uses OTAs to accomplish a diverse set of activities, mainly with other Federal, State, and local government agencies,¹³ and is by far the greater user of OTAs in terms of quantity and dollar value (see figures 1 and 2). Specifically, FAA accounted for 90 percent of active OTAs at DOT between fiscal years 2010 and 2014, which also represented about 97 percent of the \$1.45 billion maximum potential value of the Department's agreements that we were able to identify. However, FAA's agreements are managed by different offices, and the Agency is unable to keep track of all of them. FAA policies are also ambiguous about when to use OTAs instead of contracts or grants, which we elaborate on below. In contrast, PHMSA uses OTAs to engage with the private sector under one program, manages them through one office, and was able to provide us with a complete list of its agreements.

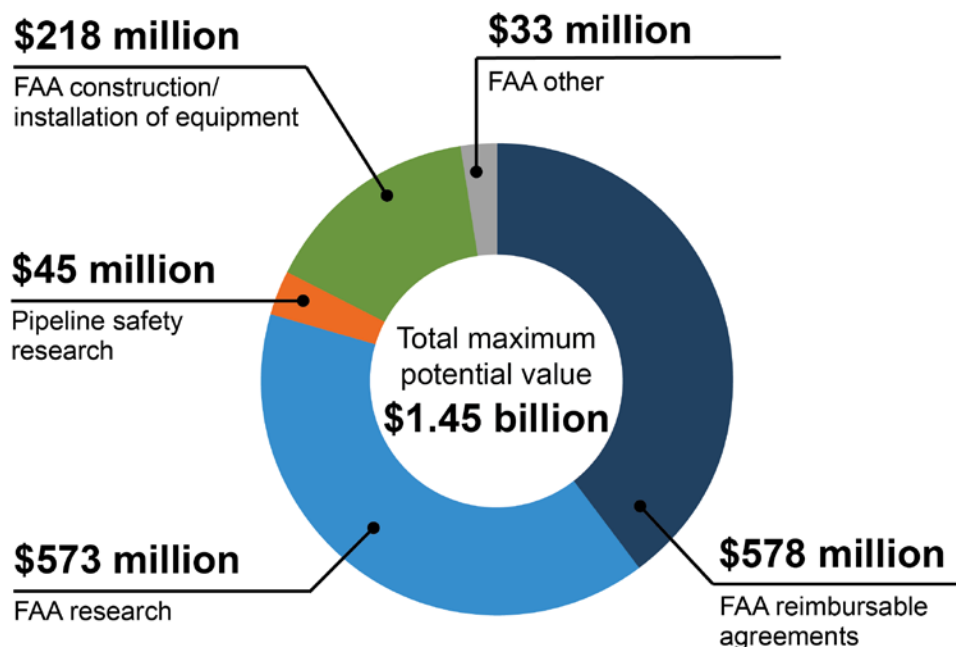
Figure 1. Number and Type of FAA and PHMSA OTAs Active FY 2010–2014



Source: OIG analysis of available FAA and PHMSA data.

¹³ Specifically, based on our sample results, we estimate that 85 percent of FAA's OTAs are with other government agencies. Our 85-percent estimate has a precision of ± 3 percentage points at the 90-percent confidence level.

Figure 2. Type and Maximum Potential Value of FAA and PHMSA OTAs, FY 2010–2014



Note: FAA tower operating agreement OTAs have no dollar value and are not represented in the figure.

Source: OIG analysis of available FAA and PHMSA data.

FAA uses OTAs for research and development, i.e., in the manner they are used by other Federal agencies. But FAA also uses the agreements for several other activities (see figures 1 and 2) and was unable to provide us with a complete list of its OTAs. The Agency initially provided us with a list of 120 OTAs managed by 2 offices, but after extensive discussions with FAA staff from a variety of offices, we compiled a list of 694 OTAs—more than 5 times larger than the list FAA first provided.

Although OTAs are used by many organizational units within FAA, the Agency does not have policies and procedures for tracking these agreements. OTAs are currently inventoried via several unconnected systems or processes, depending upon the office of issuance. Some of these include the following:

- PRISM, FAA’s procurement management system, which uses procurement instrument identifier (PIID) numbers.
- FAA’s Reimbursable Tool Kit, which uses reimbursable agreement numbers.
- Program office records for OTAs without identification numbers.

As a result, FAA cannot account for all of the OTAs it issues. This creates a risk that the Agency will be unable to assess the extent of its agreements or provide

this information to critical stakeholders such as the Office of Management and Budget (OMB) or Congress.

PHMSA Uses OTAs for One Program and Can Account for Its Agreements

PHMSA has authority to use OTAs for a range of purposes related to pipeline safety.¹⁴ Thus far, however, it has used them only to conduct shared-cost research and development focused on bringing new pipeline safety technologies to market, such as improved methods for testing the integrity of aging pipelines. PHMSA tracks all of its OTA awards in a single database and has a single contracting officer who is responsible for signing OTAs.

UNCLEAR POLICIES AND INADEQUATE MANAGEMENT OF OTAs, PARTICULARLY AT FAA, PUT FEDERAL FUNDS AND PROGRAMS AT RISK

DOT and FAA lack clear, comprehensive policies to manage their OTAs. Although the Department has developed guidance governing the use of these agreements, it is located within a financial assistance manual that is primarily designed for grants, does not refer to all Operating Administrations with OTA authority, and has not been finalized, even after updates last year. FAA's policies lack important controls, and are more ambiguous and less transparent than the Department's, which has contributed to oversight deficiencies in several instances, lack of required documentation, and program risks. PHMSA follows DOT policy on OTAs and has adopted its own policies to supplement the Department's. While we found fewer problems with PHMSA's management of OTAs, we did identify incomplete documentation stemming from insufficient pre-award analysis.

DOT and FAA Lack Comprehensive Policies for OTA Management

Most of DOT's requirements for OTA usage are included in the Office of the Senior Procurement Executive's (OSPE) Financial Assistance Guidance Manual (FAGM). PHMSA applies these departmental policies to manage its OTAs, while FAA uses its own policies.

The FAGM requires DOT Operating Administrations to establish their own procedures for managing OTAs that include specific requirements, such as requiring legal reviews and the designation of officials authorized to award OTAs. In accordance with the FAGM, PHMSA has established specific policies governing its OTA authority.¹⁵ FAA also has policies governing its OTA

¹⁴ 49 U.S.C. § 60117(k).

¹⁵ For example, PHMSA Flash 007-2011, "Policies for Grants, Cooperative Agreements, and OTA's [sic]" and Flash 003-2011, "Other Transaction Agreement (OTA) Determination and Findings."

requirements, but they vary depending on the type of agreement. For example, some FAA OTAs follow the Agency's Acquisition Management System (AMS), while others, such as reimbursable agreements, follow a combination of program-specific procedures and certain AMS provisions.

However, the FAGM coverage specific to OTAs is limited to fewer than 2 of the manual's 91 pages. The FAGM in effect during the period we reviewed was issued in 2009, and the vast majority of the manual is dedicated to grants and cooperative agreements. In addition, the FAGM does not indicate which, if any, of its other policies apply to OTAs, noting only that OTAs "are not required to use most financial assistance provisions or Federal Acquisition Regulation clauses."¹⁶

Until the end of last year, DOT's guidance had not been updated for more than 7 years, and the new guidance is not yet finalized. In February 2016, OSPE sent a draft of a revised FAGM to the Operating Administrations for comment and, in December 2016, issued an update to the FAGM described as "interim guidance," which retained the substance of existing departmental OTA policy. In January 2017, OSPE informed us that it is planning to revise the FAGM or replace it with a policy document that will set overall requirements for financial assistance and leave details on implementation to the Operating Administrations. According to OSPE, departmental policy on OTAs either will be included in this new document or issued as a separate policy. OSPE said that it may not issue revised guidance on OTAs until next year. Therefore, we are unable to report on whether the new guidance will include some of the positive internal controls in existing departmental OTA policy¹⁷ that we highlight in this report.

FAA's OTA policy does not require the same controls that are found in DOT's FAGM or FAA's AMS contract guidance (see table 2).

¹⁶ *Financial Assistance Guidance Manual* (2009), p. 79.

¹⁷ DOT Office of the Senior Procurement Executive, *Financial Assistance Guidance Manual (Interim Guidance Issued December 2016)*, pp. 11–12. The interim guidance contains positive internal controls for OTAs, including requirements that Operating Administrations justify the selection of an OTA, justify when competition is not the basis for selecting an OTA for award, and consult with legal counsel.

Table 2. FAA, PHMSA and DOT Requirements for Processing OTAs and Contracts

	DOT OTA	PHMSA OTA	FAA OTA	FAA Contract	DOT Contract
Source of requirements	OSPE guidance	OSPE, PHMSA guidance	Multiple sources	AMS	Federal Acquisition Regulation
Competition	Required unless otherwise justified	Required unless otherwise justified	Not required	Required unless otherwise justified	Required unless otherwise justified
Justification for choosing OTA vs. contract	Yes	Yes	No	N/A	N/A
Public announcement of opportunity or award	Yes	Yes	No	Yes	Yes
Reported on USAspending.gov	Yes	Yes	No	Yes	Yes

Source: OIG analysis

For example, FAA’s OTA policy does not express a preference for competition or require justification for an OTA single-source award, as DOT’s OTA policy does. It is not clear why certain controls, such as encouraging competition, that are contained in DOT’s OTA policy or FAA’s policy for contracts cannot also be applied to FAA’s OTAs. Some types of OTAs, such as Tower Operating Agreements (TOA-OTA)¹⁸ and reimbursable agreements, are single source by nature, but many OTAs could benefit from competition. Without regular use of competitive source-selection procedures, or justification when such procedures are not used, FAA cannot be certain it is getting fair and reasonable prices on projects that use OTAs.

FAA Policy Is Ambiguous About When To Use OTAs

FAA’s policies do not require a justification for using an OTA instead of another instrument such as a contract or grant. This is contrary to DOT and PHMSA policy, which require the preparation of a determination and finding document that states why an OTA is more appropriate. According to FAA’s AMS, an OTA is appropriate where “FAA’s purpose is to obtain a direct benefit that advances the agency’s mission while also providing assistance to the general public.”¹⁹ FAA’s

¹⁸ A Tower Operating Agreement (TOA-OTA) is a form of OTA that FAA uses as part of its Federal Contract Tower program, under which FAA provides subsidized contract air traffic controllers to staff low-activity airports. TOA-OTAs delineate the airport owners’ responsibilities for maintaining and operating air traffic control towers; in return, FAA provides and pays for the contract controllers.

¹⁹ AMS T3.8.1 A.1.b.4(a).

training materials state that an OTA can be used when the majority of the benefit flows to the awardee and there is a public benefit—i.e., the same conditions that apply when a grant is used—but do not clarify which factors would influence choosing an OTA over a grant. The ambiguity in FAA’s guidance allows OTAs to be used when other instruments with more rigorous controls—such as contracts or grants—might be more appropriate. Many of the OTAs we reviewed were for products or services that can be and often are obtained under contracts or grants. Moreover, the Agency seldom documents the reason for choosing an OTA over a contract or grant, and the reasons FAA gave were sometimes unpersuasive. For example, FAA officials told us they used OTAs with State and local governments to fund the construction of airport towers because the Federal funds available for construction were less than the full cost to build the tower. Nevertheless, FAA has funded the construction of a number of small airport towers through Airport Improvement Program grants.

Without a clear policy for choosing between an OTA, contract, or grant, FAA cannot ensure that its agreements are subject to the most appropriate and rigorous controls—increasing the likelihood that FAA and taxpayer dollars will be placed at higher risk. Grants and contracts contain requirements for the awardee to report instances of fraud, return unused funds at closeout, and provide for periodic audits, such as Single Audits of grant recipients.²⁰ FAA generally does not include these controls in its OTAs, even when it makes sense to do so. For example, an OTA recipient asked FAA whether it should include the award in its Single Audit, although that was not a requirement of the agreement. An FAA attorney, in a memorandum to the OTA’s contracting officer, noted, “The financial assistance being provided to [the awardee] through this OTA is, for all intents and purposes, the same as a grant. And the amount of the assistance [\$5.3 million] is 10 times the amount that triggers a Single Audit for a traditional grant.” An FAA official explained that OTAs are supposed to be “the instrument of last resort,” turned to only after other vehicles, such as contracts or grants, have been considered. However, FAA policy and training materials do not mention this limitation.

FAA Policies for Publicly Announcing OTA Opportunities and Reporting Spending on OTAs Do Not Foster Transparency

Agencies can provide transparency regarding their OTAs to interested parties and the general public in a variety of ways. Traditional methods—also used with Federal contracts and grants—include publicly announcing award opportunities and reporting agency spending on awards. FAA, DOT, and PHMSA have different policies for their OTAs in both of these areas. DOT’s and PHMSA’s policies

²⁰ All non-Federal entities that expend \$500,000 (\$750,000 for auditee fiscal years beginning on or after December 26, 2014) or more of Federal grant funds in a year are required to obtain an annual audit in accordance with the Single Audit Act of 1984 (amended 1996). A Single Audit is intended to provide a cost-effective, one-time method for ensuring that these funds are expended properly, in lieu of multiple audits of individual programs.

provide for greater transparency than FAA's policies, which do not require or foster transparency.

While AMS requires FAA to announce competitive opportunities and its intent to make single-source awards for contracts, it has no such requirements for OTAs.²¹ This is the case even when the agreements have a wide-ranging public impact, such as OTAs for research with industry on technologies for the NAS. In contrast, PHMSA's process for awarding OTAs begins with a public call for white papers on pipeline safety research topics. PHMSA then identifies the most promising research ideas, requests formal proposals for those that merit additional consideration, and makes a final selection of projects to fund.

FAA also has a less transparent approach to publicly reporting its OTA spending when compared to DOT and PHMSA. The Federal Funding Accountability and Transparency Act (FFATA)²² requires agencies to report all Federal awards of \$25,000 or more on the USAspending.gov website. Departmental policy also requires Operating Administrations to report OTAs on USAspending.gov.²³ However, we were unable to find information on that website for 2 of 6 of PHMSA's OTAs and 16 of 19 of FAA's OTAs within our random sample. Based on these results, we estimate that 33 percent of PHMSA's OTAs and 69 percent of FAA's OTAs were not reported to USAspending.gov.²⁴ This corresponds to a projected \$15.1 million in unreported PHMSA OTA awards and \$678.4 million in unreported FAA OTA awards.²⁵

PHMSA officials stated that the failure to report the two OTAs in our sample was an oversight and subsequently notified us that they have been reported to USAspending.gov.²⁶ In contrast, FAA did not report almost all of the OTAs we reviewed because officials do not believe the Agency is required to do so. According to a senior FAA legal official, the Agency interprets the FFATA to require spending to be reported only for procurement contracts or financial assistance awards; consequently, reporting information on OTAs could be

²¹ See AMS T3.8.1 A.1.c(2).

²² The Federal Funding Accountability and Transparency Act, Pub. L 109-282, as amended, requires agencies to publish information on every Federal award of \$25,000 or more to covered entities—such as State and local governments, businesses, and nonprofits—to a publicly available website.

²³ DOT Office of the Senior Procurement Executive, *Financial Assistance Policy Letter No. FAPL-2015-01*, March 19, 2015, appendix, p. 1 (replacing FAPL-2008-01, which had the same requirement to report OTAs).

²⁴ Our 33-percent estimate has a 100-percent confidence lower limit of 3 percent and a 90-percent upper limit of 68 percent. Our 69-percent estimate has 90-percent confidence limits ranging from 53 percent to 85 percent. In evaluating the completeness of FAA reporting on USAspending.gov, we excluded from our total above the 38 OTAs in our sample that did not involve any net spending on the Agency's part, such as reimbursable agreements and OTAs without any dollar value.

²⁵ Our \$15.1 million projection has a 100-percent lower confidence limit of \$369,000 and a 90-percent upper confidence limit of \$30.7 million. Our \$678.4 million projection has 90-percent confidence limits ranging from \$585.3 million to \$771.4 million.

²⁶ We verified that award information on the two PHMSA OTAs now appears on USAspending.gov; however, we did not review the accuracy of the information.

misleading because these agreements are not contracts or financial assistance awards, and some OTA awards do not involve the expenditure of Federal funds. In addition, the same FAA official stated that the Department-wide requirement to report OTA spending does not apply to FAA, a point that OSPE disputes. While we agree that FAA does not need to report OTAs that lack Federal funds, the FFATA appears to express Congress's intent that all Federal award expenditures, meaning all agreements expending Federal funds—including OTAs—should be reported on USAspending.gov.²⁷ FAA's failure to report OTA awards reduces the visibility of a significant expenditure of Federal funds to Congress, the public, and Agency stakeholders.

FAA and PHMSA's OTAs Lack Important Documentation

FAA and PHMSA's OTA files do not consistently contain certain documentation required to ensure compliance with departmental and Operating Administration policies and procedures.²⁸ In addition, neither agency could provide required documentation indicating that only properly authorized officials have signed OTAs. Our review of a random sample of 63 OTAs (57 at FAA and 6 at PHMSA) identified deficiencies with inadequate documentation, price reasonableness analyses, unauthorized officials signing OTAs, and potential for conflicts of interest.

FAA's OTA Files Contain Inadequate Documentation

FAA did not maintain award and administration files for 11 of 57 OTAs in our sample; based on these results, we estimate that FAA did not maintain award and administration files for 20 percent of all of its OTAs.²⁹ For example, files were not maintained for any of the 6 Tower Operating Agreement OTAs (TOA-OTAs) in our sample because FAA does not maintain files for any of its 111 TOA-OTAs. Federal regulations require FAA to maintain records that support the basis for the Agency's decisions; protect the Government's legal, financial, and other rights; and allow for proper scrutiny of agency decisions by Congress and other stakeholders.³⁰ FAA was able to recreate files to a limited extent with email and other documentation for 2 of the 11 OTAs. Moreover, FAA's OTA files did not always contain the documents AMS requires for OTAs, such as legal reviews and business cases for the agreements.³¹ In addition, documents found in FAA's OTA files sometimes lack critical supporting details. For example, some FAA

²⁷ According to the committee report accompanying the Act, "the definition of [Federal award] is intentionally broad so as to capture as much Federal funding as possible. The inclusion of various types of financial arrangements is not in any way intended to limit the types of transactions that should be recorded on the Web site. The purpose of this legislation is to provide the public with a broad and highly detailed view of Federal funding, and the definition of what constitutes a Federal award is to be interpreted equally broadly." S. Rep. 109-329 (2006), p. 6.

²⁸ See exhibit C for a list of the documents we looked for in each agency's OTA files.

²⁹ This estimate has a precision of ± 3 percentage points at the 90-percent confidence level.

³⁰ 36 CFR § 1222.22.

³¹ AMS T3.8.1 A.1.c; AMS T3.8.1 A.1.h.

Independent Government Cost Estimates (IGCE) do not include required explanations for the quantity of labor hours and rates used,³² which can undermine the Agency's ability to negotiate reasonable prices with awardees. In contrast, the PHMSA OTA files in our sample contained most of the required documentation.

OTA files at FAA are missing several important documents due to a lack of clarity in Agency policy. In FAA's case, while AMS specifies the documentation that is mandatory for OTAs, it is less clear about the mandatory nature of other basic documentation referenced throughout AMS. A senior legal official at FAA told us that aside from those sections that deal specifically with OTAs, most AMS provisions do not apply to these agreements but did not offer more specific information. However, FAA's standard file checklist, titled "Contract/OTA Organization File Checklist," includes documentation listed throughout AMS, such as IGCEs and records of accepting deliverables, without specifying when documentation is required for contracts as opposed to OTAs.

PHMSA's OTA Files Lack Price Reasonableness Analyses

While the PHMSA files we sampled had most of the required documentation, none contained the analysis of price reasonableness the Agency requires,³³ even though one OTA tripled in cost, to \$4.5 million, from the initial award. PHMSA has a policy that defines which documents should be in its OTA files, including an analysis for price reasonableness.³⁴ Three of the six PHMSA OTAs in our sample that were missing the analysis had been signed prior to the issuance of this guidance. The other three files were missing the analysis because, according to PHMSA acquisition staff, PHMSA estimated the total amount it planned to provide for all awards made in response to each request for research proposals. As a result, PHMSA did not assess in advance whether the award value of individual OTAs was reasonable.

Without proper supporting documentation, FAA and PHMSA are unable to provide evidence that they made informed business decisions in the award and management of their OTAs. Both agencies informed us that they plan to revise their policies to clarify which records should be in OTA files.

Unauthorized Officials Signed OTAs

About half of the FAA OTAs that we reviewed lacked support showing they were approved by authorized officials. FAA's AMS states that only properly authorized officials, acting within the scope of their delegated authority, may enter into agreements and obligate funds on behalf of the Government. A delegation of

³² AMS T3.2.3 A.2.m, last sentence.

³³ PHMSA Flash 005-2011, "Other Transaction Agreement (OTA) Agreement Analysis Document."

³⁴ PHMSA Flash 002-2011, "File Documentation Checklists."

authority must be in writing and explicitly state the authority it conveys.³⁵ However, 28 of 57 of the FAA OTAs we reviewed—with a maximum potential value of \$300 million—did not have documentation to show they had been signed by properly authorized officials. Specifically, their warrants did not demonstrate they had authorization to award the agreements, or FAA could not provide copies or descriptions of the warrants or signed copies of the OTAs.³⁶ Most officials were identified in the signed OTAs as contracting officers, but several were not. In some cases, the OTAs were also reimbursable agreements,³⁷ although the signer’s warrant did not specify authority to enter into a reimbursable agreement. Based on our findings, we estimate that 57 percent of FAA’s OTAs lack the support that demonstrates they were signed by officials with the proper authority to do so.³⁸

FAA’s AMS does not clearly distinguish between OTAs, reimbursable agreements, and interagency agreements, which could lead to confusion about the warrant authority a contracting officer needs to sign a particular agreement. Also, FAA lacks a comprehensive list of officials warranted to use OTAs to obligate the United States. According to FAA, warrants previously used much broader language that captured the authority to sign multiple types of agreements, including OTAs. However, when most of the OTAs we reviewed were signed, the versions of AMS in effect required warrants to specify the types of agreements they covered. FAA officials informed us that the Agency would reissue all of its warrants to achieve consistent descriptions for each warrant-holder’s authority. Awards signed by officials who are not properly authorized could result in unauthorized commitments that must be subsequently ratified.³⁹

The six PHMSA agreements in our sample were signed by the same contracting officer who awards all of the Agency’s OTAs and, according to PHMSA, his warrant includes the authority to award OTAs because it authorizes him to award “all procurement actions.” However, his warrant does not specifically authorize him to award OTAs. PHMSA plans to amend the contracting officer’s warrant to specifically include this authority.

FAA Does Not Consistently Examine Its OTAs for Potential Conflicts of Interest

While all of the PHMSA OTA files in our sample contained conflict-of-interest certifications signed by members of the OTA source-selection teams, most of the FAA OTA files in our sample did not. This is because FAA does not require members of OTA source-selection teams to sign conflict-of-interest certifications,

³⁵ AMS T3.1.4 A.6.a; AMS T3.1.4 A.1.b.

³⁶ Signed agreements could not be found for 3 of the 57 FAA OTAs in our sample.

³⁷ Reimbursable agreements are used when FAA provides services, supplies, or facilities to another Federal agency or non-Federal entity on a reimbursable basis, AMS T3.8.1 A.5.b(1).

³⁸ This estimate has 90-percent confidence limits ranging from 50 to 64 percent.

³⁹ AMS T3.1.4 A.6.a(2), AMS T3.1.4 A.6.b.

although it does have this requirement for contracts.⁴⁰ Also, the Procurement Integrity Act⁴¹—a law that prohibits Federal employees who are involved in the source selection, award, or management of contracts from receiving compensation from the contractors involved—does not apply to OTAs, even though these agreements can involve circumstances similar to those prohibited under the act. For example, during our review, we became aware of a senior manager at FAA who, in June 2013, noncompetitively awarded an OTA to a firm to assess whether its own satellite-based technology could be used by the Agency to improve ground-based air traffic control capabilities. The OTA had a period of performance that extended to October 2014, and in September 2014, the manager left FAA to work for the same firm. Had this been a contract, the Procurement Integrity Act would not have been triggered because the OTA had a value of \$9.996 million—\$4,000, or less than 0.1 percent, below the \$10 million threshold at which the act’s 1-year ban on compensation begins.⁴² Nevertheless, this example illustrates the potential for procurement-integrity type issues and conflicts of interest that can arise under OTA agreements and shows that FAA lacks the same controls on these agreements that it affirmatively applies when it awards and manages contracts.

In addition, FAA does not consistently check for organizational conflicts of interest (OCI) on OTAs, which could provide awardees with an unfair advantage on later procurements or result in the Government getting biased advice.⁴³ Careful analysis of OCIs is critical, because FAA uses OTAs for testing and demonstrating emerging NextGen capabilities with several firms that design and sell air traffic control systems, including systems ultimately purchased by FAA. In addition, some firms that participate in OTAs involving early-stage research of technologies and concepts also provide FAA with systems engineering and investment analysis services. Performed later in the acquisition lifecycle, the analysis is used to select the best option for full-scale development. FAA has recognized in the past that this situation can lead to OCIs.⁴⁴ According to FAA officials, it is in the Agency’s best interests to be involved with industry in the development of new aviation technologies, even if some bias is inherent in these agreements. However, there is

⁴⁰ AMS T3.1.5 A.1.c.

⁴¹ The Procurement Integrity Act, 41 U.S.C. §§ 2101–2107, prohibits a Federal official from receiving compensation from a contractor for a period of 1 year after his or her involvement in the selection, award, or administration of a contract in excess of \$10 million with that contractor, § 2104(a). FAA is subject to the act with certain exceptions to account for definitions specific to FAA procurement, 49 U.S.C. § 40110(d)(3).

⁴² For the act to apply in this situation, it would also have to be established that the official was a “program manager” within the meaning of 41 U.S.C. § 2104(a)(2), which we did not evaluate.

⁴³ AMS defines an organizational conflict of interest as a situation arising when, “because of existing or planned activities, an offeror or contractor is unable or potentially unable to render impartial assistance to the agency, or has an unfair competitive advantage, or the offeror or contractor’s objectivity is or might be impaired;” AMS T3.1.7 A.1.a.

⁴⁴ FAA’s *Contracting Practices Are Insufficient To Effectively Manage Its Systems Engineering 2020 Contracts* (OIG Report No. ZA-2012-082), March 28, 2012, p. 28 (agency comments to draft report). OIG reports are available on our website: www.oig.dot.gov.

no reason the Agency should not consider risks of OCIs and develop plans for mitigating them in its OTAs as it does with its contracts.

FAA's Weak Management of OTAs Puts Federal Funds and Programs at Risk

FAA's varied use and inadequate management of these agreements creates distinct risks for different OTA uses. We identified instances of ineffective management of OTAs used to support contract air traffic control towers, fund tower construction projects, and conduct collaborative NextGen research with the aviation industry. These problems have led to financial, safety, and programmatic risks on FAA-funded programs.

FAA's Limited Oversight of Tower Construction OTAs Puts Federal Funds at Risk

FAA has awarded OTAs to 18 State and local government airport owners to construct air traffic control towers with funds totaling \$161 million from congressional earmarks, the American Recovery and Reinvestment Act of 2009, and other sources. Payments made under these OTAs were not based on recipients' immediate financial needs, although Federal grant and contract regulations mandate that payment methods minimize the time between awardee expenditures and Federal reimbursement. FAA's limited oversight of these OTAs has created opportunities for waste of Federal funds. Specifically:

- FAA paid recipients in advance and did not base payments on immediate financial need. As a result, recipients earned more than \$372,000 in interest on Federal funds that could have been put to better use,⁴⁵ such as to pay down Government debt or to support more pressing program needs. FAA also paid more than was necessary to complete the projects; in total, the Agency overpaid recipients by \$386,000, of which \$367,000 has been returned.
- FAA has been inconsistent about requiring recipients to place funds in interest-bearing accounts⁴⁶ and return interest earned to the Treasury, as required by Federal grant regulations.⁴⁷ According to FAA, its broad authority to enter into OTAs on terms and conditions of its choosing does not require it to include these provisions in the agreements.
- FAA did not regularly track the funds it provided for its tower construction OTAs and was unable to tell us what funds OTA recipients had on hand, what they had spent, what remained, and what had been returned to the Agency for

⁴⁵ Of these funds, recipients returned \$351,000 to FAA and, according to FAA, spent \$21,000 on project-related costs.

⁴⁶ Of the 18 tower construction OTAs, 14 were silent on the matter, 3 allowed funds to be placed in an interest-bearing or non-interest-bearing account and allowed any earnings to be used on the project, and 1 required a non-interest-bearing account.

⁴⁷ 2 CFR § 200.305(b).

6 of the 18 projects. In responding to our request for this information, FAA realized that it had closed an OTA—and sent the file to a Federal records center, where it was ultimately destroyed—although the recipient had never returned a \$19,000 overpayment. We consider overpayments that FAA does not recover as questioned costs and improper payments. As a result of this audit, FAA requested information on unused funds and interest earned on tower construction projects from OTA recipients, but it did not provide us with complete information for all recipients. This suggests that the Agency may be able to locate and recover additional overpayments through continued discussions with recipients who have not yet provided information to FAA.

While OTAs are not subject to grant or contract requirements—such as rules concerning timing of payments, treatment of interest, and return of excess funds—these requirements illustrate the types of internal controls that could be applied to OTAs should FAA management decide to do so. In addition, inconsistent application of the requirements that do apply to OTAs puts Federal funds at risk of waste.

FAA Oversight of Contract Tower OTAs Is Inadequate

FAA's minimal oversight also extends to the OTAs it uses to place contract air traffic controllers at non-federally owned airports, and in some cases has allowed unsafe conditions prohibited by those agreements to occur. FAA uses these agreements, known as Tower Operating Agreements (TOA-OTA), to provide subsidized contract air traffic controller services to low-activity airports under the Federal Contract Tower (FCT) program. TOA-OTAs delineate the airport sponsors' responsibilities for maintaining and operating air traffic control towers in return for FAA providing the contract controllers.

However, FAA does not have an adequate plan to ensure that the airport sponsors maintain their towers in compliance with local building, fire, safety, environmental, and security codes and regulations, as required under the TOA-OTA. The Agency inspected towers until June 2015, but since then it has relied on the contract controllers to use a form to report facility problems. FAA has been slow to address reports of unsanitary conditions at sponsor-owned towers—including rodent and wasp infestations (see figure 3), water damage to walls and ceilings, and a lack of potable water—that in some cases persisted for months or longer.

Figure 3. Wasp Infestation Inside Airport Tower



A January 2011 inspection of the Jackson-McKellar Airport tower found that wasps were causing a distraction and creating a potential health hazard. Source: FAA

Such potentially unsafe conditions likely violate the terms of the TOA-OTA and could affect the ability of contract controllers to manage air traffic safely. Recently, an FAA property management official told us the Agency is working on a plan to inspect the towers and address infrastructure and other safety problems.

FAA also did not require 37 of 148 airport sponsors (25 percent) to sign agreements before it provided controllers to operate the towers, which reduced the Agency's ability to require airport sponsors to keep the towers in a state of good repair. FAA officials did not explain why signed agreements had not been required previously, but informed us that they plan to have all airport sponsors sign TOA-OTAs as a condition of receiving controller services.

Even though FAA pays for most or all of the cost to provide contract controllers, the Agency also pays rent under lease agreements to 23 of the 148 airport sponsors (16 percent) covered by TOA-OTAs. This amounts to almost \$800,000 per year; in fact, from 1982, when the FCT program began, until 2016, FAA spent \$8.8 million on these leases. FAA could not explain why it pays rent for some towers and not others, but the Agency now agrees that the leases should be terminated because they are not required. We calculate that terminating the leases will save FAA \$2.2 million through 2026.

FAA's Management of One of Its Largest OTAs Is Ineffective

One of FAA's largest OTAs is an agreement with Embry Riddle Aeronautical University (ERAU) to conduct collaborative NextGen research with members of

the aviation industry and operate the NextGen Florida Test Bed (FTB). Working with an industry consortium, FTB demonstrates new technologies and tests how NAS systems can be integrated. Our review identified significant concerns about FAA's management of this OTA.

First, FAA's analysis in support of expanding the FTB has been limited. The Agency's funding of the FTB has grown from a \$2 million congressional earmark to develop a "NextGen integrated airport" at Daytona Beach International Airport—funded through the OTA awarded to ERAU in 2008—into an OTA with a potential maximum value of \$88 million. After FAA awarded the OTA, the Agency conducted an analysis comparing the costs and benefits of building a test facility at four sites in Florida, including the Daytona airport (the site FAA selected for what became the FTB). However, the analysis did not explain why FAA limited the comparison to a single State and excluded other FAA test facilities. In addition, in 2010, FAA increased the maximum value of the OTA from \$10 million to its current \$88 million ceiling without conducting market research to determine if continued use of the FTB was needed and whether the research could be done elsewhere for a lower price. FAA officials, whose research funds the FTB, told us that the continued investment was warranted because FAA had already paid for infrastructure there and other facilities do not have the FTB's unique capabilities for rapid prototyping.

In addition, while space is shared with industry, the costs of providing the space are not. The FTB is designed to be used for both collaborative Government/industry-sponsored research and independent industry research, with a 5,000-square-foot demonstration suite and 5,000-square-foot integration suite functioning as industry-only workspace. Nevertheless, FAA pays the total rent for both spaces, including the industry workspace. NextGen officials told us that it would be impractical to develop a method for dividing up the cost to rent industry workspace among its users. During our review, FAA did not provide any evidence that industry partners were using the facility for research other than that sponsored by FAA. Rather, Agency officials told us that as FAA increased funding of research at the FTB, independent industry-sponsored research essentially ceased.

FAA's own use of the facility is limited, but the way that FAA calculates utilization at the FTB makes it impossible to precisely determine how intensely the Test Bed is being used—and thus whether the Agency is getting an appropriate return on its investment. FAA considers the facility fully "used" even if one staff member works on only one project, using one system. While we question the reasonableness of considering a 10,000-square-foot facility with 26 systems to be

fully used if only 1 person is working in it, FAA's own methodology indicates that no one is using the facility for about one-third of all business hours.⁴⁸

FAA officials told us that measuring the FTB's utilization based solely on onsite usage does not provide a complete picture of usage because FTB systems can be accessed remotely via a virtual private network (VPN). According to those officials, many organizations use the VPN to deploy and support integration testing, and many users do not reside near the facility, so travel costs would be prohibitive if all work had to be performed onsite. However, FAA officials also told us they do not track remote access to FTB systems, so we were unable to consider the impact of remote usage on how efficiently the FTB facility is used. While the ability to work remotely can reduce travel costs, it can also reduce the size of facility needed. Acquiring and maintaining facilities based on needed capacity could realize significant savings for FAA.⁴⁹

By failing to track who uses the FTB systems, FAA and ERAU may not be in compliance with the Department's cybersecurity policy. DOT policy requires the Department to ensure that audit logs of its information systems, including those used by contractors or other organizations on behalf of DOT, are captured, maintained, and analyzed.⁵⁰ While FAA's OTA procedures⁵¹ do not address this requirement, Agency officials told us that they are implementing logging and reporting capabilities that will track VPN utilization.

Finally, FAA does not have a policy for determining an appropriate level of cost sharing by industry on FAA-sponsored research activities at the FTB and does not adequately monitor the level of industry cost sharing. Cost sharing between Government and industry is a typical feature of research OTAs, because the benefits accrue to both parties: Government advances the state of research, and industry gains data and intellectual property with commercial potential.⁵² NextGen program officials said they required industry cost share on two research tasks performed at FTB and that industry partners contributed their own resources to other research tasks. However, they did not provide us with evidence for industry's contributions to the other 27 tasks that were active or completed before December 2015 or to show how cost sharing on those 2 research tasks could be verified.

⁴⁸ Using an 8-hour (one staff member) base and daily total hours by task for all staff, FAA provided figures showing a facility utilization rate of approximately 66 percent between January 1, 2014, and October 1, 2015, in an analysis for OMB.

⁴⁹ For example, DOT Order 4330.3, "Office Space Design Standard Policy," § 8 states that employees who regularly spend 4 days or fewer in the office every 2 weeks should not be assigned permanent workspace.

⁵⁰ DOT Order 1351.37, "Departmental Cybersecurity Policy," § 37.5.28.19.

⁵¹ AMS T3.8.1 D.4, article 24.

⁵² White House Office of Science and Technology Policy, *Innovative Contracting Case Studies* (2014).

In our view, the obstacles FAA faces in addressing cost-sharing issues can be addressed. For example, an FAA official told us that quantifying industry contributions in detail would require companies to supply their labor rates, which they consider trade secrets. The official also said that the intellectual property provided by the firms represents a form of in-kind contribution that is similarly difficult to quantify. However, FAA has provided independent Government verification of cost sharing on other OTAs that allowed for industry contributions on a cash or in-kind basis.⁵³ AMS also allows a contracting officer to request labor rates from contractors for proposal analysis.⁵⁴ In addition, NextGen officials provided information to us showing that two firms contributed intellectual property as a cost share. Consequently, it is not clear why FAA would be unable to establish specific levels of industry cost share on FTB research involving in-kind contributions, including intellectual property. Without processes for evaluating cost-share requirements or verifying the value of proposed industry contributions, FAA cannot know how great of a benefit—in the form of Government-subsidized research—it is providing the companies using the FTB and what that represents in terms of costs and benefits to taxpayers.

We also observed practices indicating that FAA lacks sufficient procurement integrity controls over the task award process for its OTA with ERAU. For example, an FAA program manager disclosed source-selection sensitive information—the Agency’s estimated budget for a research task—to ERAU staff before FAA had awarded the task, in violation of AMS policy.⁵⁵ Disclosure of the budget prior to award can undermine the Government’s position for negotiating a fair price and result in a task costing more than it should. In addition, FAA does not maintain documentation approving the addition of subcontractors to conduct FTB tasks, although the terms of the OTA with ERAU require this approval. Retaining this documentation preserves the conditions of approval and the reasons for selection, and allows the Agency to determine whether potential organizational conflicts of interest need to be mitigated or addressed.

FAA plans to formulate a business case for awarding a follow-on OTA with ERAU; however, the current plan is to award it noncompetitively. Absent any correction of the management problems identified above, FAA remains at risk of wasting funds, paying more than it needs to for services or research, and not gathering the information it needs to prevent conflicts of interest.

⁵³ The OTAs allowed companies to provide in-kind contributions of labor, facilities, and equipment, but did not allow for the contribution of previous research and development investments as a cost share.

⁵⁴ AMS T3.2.3 A.1.a(2)(b).

⁵⁵ AMS 3.1.6.

CONCLUSION

OTAs can provide important flexibilities for agencies when the requirements of a particular project cannot be easily met through traditional procurement instruments or financial assistance procedures. However, OTAs also pose performance and financial risks because they are not subject to the same controls as contracts and grants. While the Department has developed some policies and procedures to manage its OTAs, it lacks clear, comprehensive guidance that addresses the wide range of possible uses of these agreements—and their pitfalls. As FAA obligates the bulk of DOT's OTA dollars and uses OTAs for actions that could be performed under contracts or grants—but without the controls of those instruments—it is critical that FAA address the policy and management weaknesses identified in this report. If DOT and FAA do not clarify their policies and strengthen their oversight over OTAs, they will remain at risk of wasting funds or not meeting program goals.

RECOMMENDATIONS

We recommend that the Federal Aviation Administrator:

1. Develop and implement policies and procedures, including a standard identification method, for tracking other transaction agreements (OTA).
2. Develop and implement criteria that:
 - a. Describe when an OTA should be used rather than a contract or grant;
 - b. Require awarding officials to document their rationale for using OTAs rather than contracts or grants.
3. Develop and implement policies and procedures to state when Acquisition Management System guidance, FAA financial assistance policies, and other requirements and guidance—such as requirements for Independent Government Cost Estimates, including OTAs in Single Audits, and conflicts of interest analysis—apply to OTAs.
4. Develop and implement policies to report OTA awards that involve Federal funds to USASpending.gov.
5. Establish documentation requirements for all types of OTAs, and develop and implement policies and procedures for maintaining complete files for the agreements, including evidence of legal reviews.

6. Develop and implement policies and procedures to ensure that OTAs are awarded and administered by properly authorized (warranted) officials, including:
 - a. Creating and regularly maintaining a comprehensive list of awarding officials, the various types of agreements (e.g., contract, grant, OTA, reimbursable agreement, interagency agreement) they are authorized to sign, dollar limits (if any), and the dates the authority began and ended when applicable;
 - b. Clarifying the Acquisition Management System to specify when it is appropriate to use an OTA that is also an interagency agreement or reimbursable agreement, and to specify what warrant authorities are required for officials signing these agreements.
7. Assess whether OTAs signed by individuals without proper authorization represent unauthorized commitments, and take appropriate corrective actions.
8. Develop and implement policies and procedures to standardize and enforce provisions of Tower Operating Agreement OTAs as a condition of providing air traffic control services, including:
 - a. A procedure to provide for periodic inspections of the tower environment to detect problems that have an impact on FAA contract controllers and respond to them;
 - b. Requiring all airport sponsors to sign Tower Operating Agreements.
9. Renegotiate tower leases requiring rent payments to airport sponsors to secure no-cost leases. Implementation of this recommendation could put \$2.2 million in Federal funds to better use.
10. Recover the \$19,000 overpayment to an OTA tower construction recipient, determine whether FAA overpaid other recipients on its tower construction agreements, and recover any overpayments and interest not applied to the construction projects.
11. Develop and implement policies and procedures for tower construction OTAs that at a minimum address aligning payments to actual needs and disposing of leftover funds and interest earned on advanced funds.
12. Develop a business case for the award of a new OTA, or an extension of the current OTA, to conduct research at and manage the Florida Test Bed that includes the potential for competition and a cost-benefit analysis that examines

facility utilization (whether onsite or via remote access) and potential for cost sharing.

13. Follow DOT's cybersecurity policy, and track access and usage of OTA-covered information systems, including those at the Florida Test Bed.

We recommend that DOT's Senior Procurement Executive:

14. Update the Financial Assistance Guidance Manual and other policies to reflect current authorities and oversight needs for OTAs, and clarify which provisions of the manual and other policies apply to these agreements.
15. Resolve, with the assistance of legal counsel, whether FAA is required to follow the Department's Financial Assistance Guidance Manual and other policies for OTAs.

We recommend that the Pipeline and Hazardous Materials Safety Administrator:

16. Revise and implement policies and procedures for conducting pre-award reviews that assess the price reasonableness of each OTA.
17. Designate in writing which officials are authorized to award OTAs.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided OST, FAA, and PHMSA with our draft report on July 5, 2017, and received a joint response from the Department on behalf of FAA and PHMSA on August 14, 2017, which is included as an appendix to this report. The Department concurred with all 17 recommendations as written, and FAA concurred with our conclusions that \$2.2 million could be put to better use and that there was at least \$19,000 in questioned costs. OST, FAA, and PHMSA also provided target action dates for all recommendations. For recommendation 17, PHMSA informed us that it has reissued all of its contracting officer warrants and provided us with a copy of a signed contracting officer's warrant that includes authorization to award OTAs. PHMSA's actions address our recommendation, and we consider the recommendation closed. PHMSA also provided information concerning recommendation 16 and requested we close the recommendation. However, we require additional information before we can do so. Accordingly, we consider recommendations 1–8 and 10–16 resolved but open pending completion of planned actions.

For recommendation 9, rather than negotiate no-cost leases, FAA has determined that the FCT leases are no longer required because the TOA-OTAs with airport sponsors address the provision of space for air traffic control. As an alternative to our recommended action, FAA stated that it will send notices of termination for the FCT leases by September 30, 2017, and terminate all leases effective September 30, 2019. However, FAA also stated that “leases that have currently expired and entered holdover, a grace period, and/or will expire between September 30, 2017 and September 30, 2019, will remain in effect until September 30, 2019.”

While we agree that FAA’s plan to terminate the leases rather than negotiate no-cost leases meets the intent of our recommendation, its proposed time to implement this recommendation is excessive. In particular, FAA is proposing to continue to pay rent under leases that in some cases will have expired years before 2019; consequently, it will forgo the opportunity to save a significant portion of the \$2.2 million we identified as funds that could be put to better use—an amount with which FAA concurs. FAA’s extended timeline also contravenes its own Real Estate Guidance, which specifies that such “holdover” periods should not exceed 6 months.⁵⁶ Finally, the date when FAA plans to end rent payments has slipped throughout the course of the audit. After we brought this issue to the Agency’s attention in May 2016, FAA told us it planned to stop paying on the leases by October 2017. In January of this year, we were told FAA had moved the date to September 2018, and in the formal response to this report, FAA says it now plans to stop paying on the leases in October 2019. Given the importance of maximizing scarce Federal dollars, we consider this recommendation open and unresolved and request that the Agency reconsider its target action date for eliminating the unnecessary rent payments.

For recommendation 16, PHMSA provided us with a revised policy dated July 12, 2017, requiring its contracting officers to prepare an OTA agreement analysis that includes an analysis of price reasonableness for each OTA awarded, and requested we close the recommendation. PHMSA’s action addresses the portion of our recommendation to revise its policies but does not demonstrate that PHMSA has implemented this policy into its process for awarding OTAs. We recognize PHMSA’s progress in addressing this recommendation, and we consider the recommendation resolved but open pending our receipt of evidence that PHMSA has implemented the policy.

⁵⁶ FAA Real Estate Guidance 2.2.4.1.

ACTIONS REQUIRED

We consider recommendation 17 closed. We consider recommendations 1–8 and 10–16 resolved but open pending completion of planned actions and, in the case of recommendation 16, PHMSA’s demonstration to us that it is now conducting price reasonableness analyses for individual OTAs prior to award. We consider recommendation 9 open and unresolved and, in accordance with DOT Order 8000.1C, we request that FAA reconsider its proposed target action date and provide us with a revised response within 30 days of the date of this report.

We appreciate the courtesies and cooperation of OST, FAA, and PHMSA representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5225 or Ken Prather, Program Director, at (202) 366-1820.

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cc: The Secretary
DOT Audit Liaison, M-1
FAA Audit Liaison, AAE-100
PHMSA Audit Liaison, PH-3

EXHIBIT A. SCOPE AND METHODOLOGY

We conducted our work from June 2015 through June 2017 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 subject to one limitation, discussed below.

To evaluate the Department's use and management of OTAs, we researched the United States Code to identify which DOT Operating Administrations had OTA authority. We then requested data from and interviewed program, acquisition, and legal officials from DOT Operating Administrations with OTA authority to assess whether they used that authority, and if so, for what purposes. We discussed their roles in the award, management, and oversight of these agreements. We also reviewed departmental and Operating Administration policies and guidance discussing uses of OTAs.

PHMSA provided us with a single list that included all OTAs active between fiscal years 2010 and 2014. We confirmed with PHMSA that its list was complete, and we verified the data it provided by comparing entries on the list with information in MIS, the system PHMSA uses to track its OTAs. FAA also provided a list, but it was an incomplete record of its OTAs active between fiscal years 2010 and 2014. After we received FAA's list, we found more OTAs through Internet searches and requests to Agency staff. As a result, we are unable to say with reasonable assurance that all of FAA's OTAs within the scope of our audit have been identified. However, the OTAs identified and related data are sufficiently reliable to assess FAA's use and management of those agreements. The lack of a complete list of FAA's OTAs limited our ability to address all OTA use at the Agency; other reportable conditions might have come to our attention if all of FAA's agreements had been available for our review.

We selected a statistical sample of DOT OTAs and conducted a procurement file review of our sample to determine whether or not basic procurement practices—such as legal reviews, justifications, acquisition planning, and Independent Government Cost Estimates—were performed and documented. We generated our sample from a universe of 767 DOT OTAs with a maximum potential value of \$1.45 billion that were active from fiscal year 2010 to 2014 and that we identified based on information provided by FAA and PHMSA. We stratified this universe into nine strata based on Operating Administration, type of agreement, and dollar value. We computed stratum sample sizes approximately in proportion to the number of agreements in each stratum. We selected a sample of 68 agreements as

Exhibit A. Scope and Methodology

follows: A probability proportional to size with replacement sample from four strata, a simple random sample from three strata that had \$0 or \$1 as their maximum potential value, and a census from two high-dollar value strata: one agreement from a \$150 million stratum and one from a \$100 million stratum. A “with replacement sampling methodology” means once an agreement is selected, it is replaced back into the universe and thereby eligible for selection again. In our sample, three agreements were selected twice and 1 agreement was selected 3 times due to our “with replacement sampling methodology,” which reduced the actual total sample size from 68 to 63, or 8.2 percent of 767 agreements in the universe. Our sample had a maximum potential value of \$797 million, or 55 percent of the universe’s maximum potential value of \$1.45 billion. Our sample design allowed us to estimate different attributes with a precision not exceeding ± 16 percent at the 90-percent confidence level.

We conducted site visits to the NextGen Florida Test Bed located at Embry Riddle Aeronautical University, Daytona Beach, FL; FAA Air Traffic Organization offices in Renton, WA; and the Frederick Municipal Airport in Frederick, MD. We selected the Florida Test Bed and FAA offices in Renton for site visits because they were related to two of the highest-dollar value OTAs in our sample, and we selected Frederick Municipal Airport to learn more about FAA’s use of OTAs to construct airport towers and based on its proximity to Washington, DC.

EXHIBIT B. OTHER TRANSACTION AUTHORITIES GRANTED TO THE DEPARTMENT OF TRANSPORTATION

Mode(s) Impacted	Location	Year Enacted	Purpose
FAA	49 USC 106(l)(6)	1996	To carry out the functions of the Administrator and FAA.
	49 USC 44721	2000	To publish aeronautical charts and related products and services.
FHWA	23 USC 114 note (Pub. L. 109-59, title I, §1502)	2005	To conduct research and development to improve highway safety, quality, and speed of highway construction.
FRA	49 USC 26101	2005	High-speed rail corridor planning and acquisition of rolling stock, track, and signal equipment.
	49 USC 26102	2005	Improvement, adaptation, and integration of proven technologies in high-speed rail service.
FTA	49 USC 5312	1998	For research, development, and demonstration projects and evaluation of technology to improve public transportation.
	49 USC 5314	2012	To provide technical assistance and standards development to improve public transportation and administration of Federal public transportation grants.
	49 USC 5324	2012	To fund capital projects and eligible operating costs under the Public Transportation Emergency Relief Program.
MARAD	46 USC 50307	2012	For environmental research and development of emerging technologies and practices related to the marine transportation system.
	46 USC 57533	2008	To purchase, charter, or operate vessels and related real or personal property.
NHTSA	23 USC 403	2012	To conduct highway safety research and development.
OST-R	49 USC 330	2015	To carry out joint transportation research and technology efforts.
	49 USC 6304	2012	For data management, access, and exchange activities by the National Transportation Library.
PHMSA	49 USC 60117	1996	Pipeline safety activities.

Note: This chart does not include repealed or expired authorities. Source: www.uscode.house.gov.

EXHIBIT C. DOCUMENTATION EXAMINED DURING OTA FILE REVIEW

All DOT OTA Files Reviewed for the Following:

- Justification
- Legal Review
- Procurement Request
- Conflicts-of-Interest Certification (except FAA Reimbursable Agreements)
- Contracting Officer's Warrant
- Independent Government Cost Estimate
- Statement of Work
- Contracting/Agreement Officer's Representative Designation Letter

FAA Files Also Reviewed for the Following:

- Procurement Planning Documentation
- Acceptance Letter
- Overhead Waivers (Reimbursable Agreements only)

PHMSA Files Also Reviewed for the Following:

- Agreement Analysis Document
- Deliverable Tracking Report

EXHIBIT D. MAJOR CONTRIBUTORS TO THIS REPORT

<u>Name</u>	<u>Title</u>
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for Administration

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Washington, DC 20590

AUG 11 2017

Subject: INFORMATION: Management Response to
Office of the Inspector General (OIG) Draft
Report on DOT's and FAA's Use and Management
of Other Transaction Agreements

From: Bryan Slater
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To: Mary Kay Langan-Feirson
Assistant Inspector General for Acquisition
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The Department of Transportation (DOT) is firmly committed to implementing actions to improve the management and strengthen the internal controls of Other Transaction Agreements (OTA). As the OIG noted in its draft report, the Department issued interim guidance in December 2016, that contained "positive internal controls for OTAs, including requirements that OAs justify the selection of an OTA, justify when competition is not the basis for selecting an OTA for award, and consult with legal counsel for such transactions." The Department is standardizing the definition of OTAs to ensure consistency across its Operating Administrations. In addition, the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Aviation Administration (FAA) have completed several actions to further enhance the management of OTAs to include the following:

- In July 2017, PHMSA revised and implemented a policy requiring contracting officers provide justification for selecting an OTA in lieu of a contract, grant or cooperative agreement and requiring an OTA agreement analysis document for each OTA awarded.
- In January 2017, FAA revised the Acquisition Management System to clarify the various authorities for Contracting Officer warrants, the process for obtaining and maintaining a warrant, and roles and responsibilities for recording and tracking warrant authorities. This was supported by a complete rescission and reissuance of all FAA contracting officer warrants in March 2017, allowing FAA to confirm delegated authorities and reaffirm its warrant records.
- In October 2016, with an upgrade to PRISM, FAA's procurement management system, FAA modified one of the system flex fields to allow for the designation of an award as an OTA. In conjunction with the Unique Procurement Instrument Identifier, FAA can

effectively and efficiently identify and report all FAA awarded OTAs. FAA also provided mandatory training on the new process and field capabilities to its contracting officers.

Upon review of the draft report, we concur with all the recommendations as written. We plan to implement each recommendation by the following dates:

RECOMMENDATION	TARGET ACTION DATE
16	July 18, 2017 (completed)
1	September 30, 2017
8 and 17	October 1, 2017
7	October 30, 2017
2, 3, 4, 5, 6;10 and 11	January 31, 2018
12	July 30, 2018
13	August 31, 2018
15	February 28, 2018
9 and 14	September 30, 2019

Regarding recommendation 9, effective September 30, 2019, FAA will terminate all lease agreements with Federal Contract Towers. FAA will send Notices of termination by September 30, 2017. Leases that have currently expired and entered holdover, a grace period, and/or will expire between September 30, 2017 and September 30, 2019 will remain in effect until September 30, 2019. No cost lease agreements are not required. The Contract Tower Agreement between the FAA and the Airport Sponsor addresses the provision of space for the management of Air Traffic Control. FAA agrees with the OIG's conclusion that \$2.2 million in funds could be put to better use with this action.

The FAA shares OIG's concern regarding potential overpayment to OTA recipients and is committed to ensuring Federal funds are appropriately administered and used in support of the agency's mission. In response to recommendation 10, FAA has initiated a review of all construction OTAs to ensure funding was appropriately managed and not erroneously paid to recipients. Where overpayment is identified, to include the \$19,000 cited by OIG, FAA will initiate action to recover funding in full.

Regarding recommendation 16, as discussed above, on July 12, 2017, PHMSA revised and implemented a policy requiring contracting officers provide justifications for selecting an OTA in lieu of a contract, grant or cooperative agreement and requiring an OTA agreement analysis document for each OTA awarded. On July 18, 2017, PHMSA provided OIG with documentation supporting the corrective actions taken and requested that OIG close the recommendation.

We appreciate the opportunity to respond to the OIG draft report. Please contact Gregory Cate, Deputy Director, Office of the Senior Procurement Executive, at (202) 366-8176 with any questions.