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# *Office of Inspector General*

# *Audit Report*

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## **FAA NEEDS TO IMPROVE ATCOTS CONTRACT MANAGEMENT TO ACHIEVE ITS AIR TRAFFIC CONTROLLER TRAINING GOALS**

*Federal Aviation Administration*

*Report Number: ZA-2014-018*  
*Date Issued: December 18, 2013*





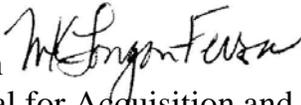
# Memorandum

U.S. Department of  
Transportation

Office of the Secretary  
of Transportation  
Office of Inspector General

Subject: **ACTION:** FAA Needs To Improve ATCOTS  
Contract Management To Achieve Its Air Traffic  
Controller Training Goals  
Federal Aviation Administration  
Report No. ZA-2014-018

Date: December 18, 2013

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

Reply to JA-60  
Attn. of:

To: FAA Administrator

The Federal Aviation Administration (FAA) plans to hire over 11,700 air traffic controllers through fiscal year 2021 to replace the large number of air traffic controllers that were hired after the 1981 strike and are now eligible to retire. In September 2008, FAA awarded Raytheon the \$859-million Air Traffic Control Optimum Training Solution (ATCOTS) contract intended to provide up to 10 years of controller training support and to assist in modernizing the Agency's controller training program. Key ATCOTS contract goals include reducing total training costs, reducing training time, and developing training innovations that can be adapted to new technologies—particularly those related to the Next Generation Air Transportation System (NextGen).

In September 2010, we reported on FAA's weak acquisition practices and lack of effective contract oversight for the ATCOTS contract.<sup>1</sup> In its first 2 years, the ATCOTS contract exceeded negotiated contract values by \$46 million, and the program did not achieve desired training goals.

The Chairman of the Subcommittee on Financial and Contracting Oversight, Senate Committee on Homeland Security and Governmental Affairs, requested that we conduct a follow-up review of FAA's ATCOTS contract to determine the Agency's progress in addressing our prior recommendations as well as report on

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<sup>1</sup> FAA's Air Traffic Controller Optimum Training Solution Program: Sound Contract Management Practices Are Needed To Achieve Program Outcomes (OIG Report Number AV-2010-126), Sept. 30, 2010. OIG reports are available on our Web site: [www.oig.dot.gov](http://www.oig.dot.gov).

new issues. Consistent with the Chairman's request, our audit objectives were to determine whether FAA (1) has implemented changes to improve program and contract oversight, (2) can achieve ATCOTS training goals under the current contract, and (3) has established effective performance measures to support ATCOTS training goals.

We conducted this review in accordance with generally accepted Government auditing standards. To conduct our work we interviewed FAA officials, FAA's ATCOTS program and contracting officials, field facility and training managers, FAA Academy managers, and the contractor for the ATCOTS contract. We also reviewed the ATCOTS contract files, invoices, workforce plans, and award and incentive fee documentation. See exhibit A for more details on our scope and methodology.

## **RESULTS IN BRIEF**

FAA has taken actions to address 8 of 9 recommendations from our prior ATCOTS audit. Since our last audit FAA has also taken some steps to better assess training needs, such as implementing use of an Annual Work Plan (AWP) and enhanced program management tools to better prioritize where training is needed. FAA also consolidated training operations under the Office of the Vice President of Safety and Technical Training in order to bring increased management attention to the training program. However, our current review has found that weaknesses in program and contract management still persist. For example, FAA did not address our September 2010 recommendation to assess its training needs before extending the ATCOTS contract. After 4 consecutive years of cost overruns, totaling about \$89 million, FAA exhausted the contract's 5-year base funding 1 year earlier than planned. To continue training support when the base period funding ran out, FAA chose to exercise the contract's first 3-year option period 1 year ahead of time—without first clearly defining its training requirements or developing criteria for determining whether to exercise the contract options. FAA has also not fully identified its total training costs. For example, the contractor reduced its staffing by 44 percent to prevent further cost overruns on the ATCOTS contract; however, this required FAA's air traffic controllers to perform more internal training—a cost FAA has not quantified. Finally, FAA has not made sufficient improvements to its oversight controls or contract administration. For example, ATCOTS contracting staff experienced frequent turnover, yet FAA did not maintain a complete contract file, which prevents newer staff from readily accessing and understanding the contract's history.

FAA has not been able to achieve half of its training goals under the current ATCOTS contract. Specifically, FAA has not met its goal to reduce controller training times, and the ATCOTS program has not produced sufficient training innovations. Between fiscal years 2009 and 2012, the time to certify controllers increased by an average of 41 percent—taking 9 months longer on average to certify each controller. While the contractor proposed ideas for training innovation, FAA has not provided sufficient funds to implement them because the Agency obligates less than 2 percent of the ATCOTS base contract value for training innovations. Without innovations to create a more flexible training system, the arrival of future NextGen technologies may create significant training backlogs, especially at larger facilities. Finally, it is unclear whether FAA has met its goal to reduce training costs because the Agency has not measured its progress toward this goal.

FAA's ATCOTS performance measures—which are criteria the contractor must meet to earn award fees—have not been effective at motivating the contractor to meet contract goals. In addition, ATCOTS includes an incentive fee, which has not been effective to motivate the contractor to manage costs. Our review identified weaknesses in both the ATCOTS award and incentive fee structures for the base contract period of performance and the award fee structure for the first option year. Over the life of the contract, FAA has paid the contractor over \$17 million in award fees for performance measures that do not motivate the contractor to achieve FAA's key training goals. FAA has also paid \$14 million in incentive fees that were ineffective at reducing contract spending.

We are making a series of recommendations for improving FAA's oversight of the ATCOTS contract.

## **BACKGROUND**

The ATCOTS contract is a hybrid contract, including cost-plus-incentive-fee (CPIF), cost-plus-award-fee (CPAF), and firm-fixed-price components. The ATCOTS contract is also performance-based and consists of a 5-year base period, worth \$437 million, and two option periods (a 3-year period and a 2-year period), worth \$422 million.

Under the terms of the contract, the contractor (Raytheon) provides classroom and simulator instruction, course and curriculum development, and administrative and program support services at the FAA Academy and air traffic facilities nationwide, primarily for new controllers. The contractor must also train Certified Professional Controllers in Training (CPC-IT)-controllers who are already certified but require site-specific training when they transfer to different facilities or move to different areas within a facility. In addition, the contractor provides proficiency and

specialized training to Certified Professional Controllers (CPC). FAA retains control for the overall training program as well as for recruiting and hiring controller candidates and conducting on-the-job training (OJT)<sup>2</sup> at air traffic facilities.

Air traffic controller training begins with the recruitment of a new hire and continues through three phases: Academy Training, Field Training, and OJT. New hires attend the FAA Academy where students gain foundational air traffic controller knowledge. After graduating from the FAA Academy, new hires proceed to their assigned facilities for Field Training, which involves classroom and lab instruction, and OJT, from which point they are referred to as a “developmental.” Developmental controllers begin facility training in the classroom, where they learn facility-specific rules and procedures. Often, these rules and procedures are practiced in simulation. After classroom and simulation training are complete, developmental controllers begin OJT, which is conducted by CPCs who observe and instruct developmental controllers one-on-one while working the control position. Developmentals must pass certification skill checks on each operational position of their assigned area to reach CPC status.

On September 30, 2010, we issued our first audit report on FAA’s ATCOTS contract and training program. We reported that, in its first 2 years, the ATCOTS contract exceeded negotiated contract values by \$46 million, and the program did not achieve desired training goals. We made 9 recommendations to improve contract oversight. In the current review we focused on actions FAA has taken since our September 2010 report.

## **FAA HAS NOT IMPLEMENTED SUFFICIENT CHANGES TO IMPROVE PROGRAM AND CONTRACT OVERSIGHT**

FAA has addressed 8 of the 9 recommendations from our prior ATCOTS audit and has recently taken additional steps to improve oversight of the contract. Despite these improvements, our current review continued to find weaknesses in program and contract oversight. Specifically, FAA did not address our September 2010 recommendation to assess its training needs before extending the ATCOTS contract. FAA also has not fully quantified its total training costs, clearly defined its training needs, or determined how much training will be delivered by either the contractor or by FAA. Finally, FAA has not made sufficient improvements to its oversight controls and contract administration since our last review.

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<sup>2</sup> OJT is training that occurs when a developmental is directing live traffic in the National Airspace System (NAS).

## FAA Did Not Address Our Recommendation To Assess Its Training Needs Before Extending the ATCOTS Contract

FAA has addressed 8 of 9 recommendations from our prior ATCOTS audit and has also taken some steps to better assess training needs, such as implementing enhanced program management tools to better prioritize where training is needed. However, FAA did not address our prior recommendation to assess whether the ATCOTS contract would meet its long-term needs before the end of the contract base period in 2013. Specifically, we previously recommended that FAA determine (1) if the existing contract mechanism could be effectively modified to achieve ATCOTS program goals within the original contract estimate of \$859 million or (2) update the cost estimates and requirements for its training needs and develop criteria for determining whether the Agency should exercise options in the contract. FAA has taken some steps to better assess its training needs, such as re-instituting use of an AWP. However, this plan does not include all training that the contractor is required to deliver. Due to the lack of clearly defined requirements, the ATCOTS program experienced 4 consecutive years of cost overruns, totaling about \$89 million. To compensate for annual funding shortages, FAA reallocated funding from future contract years to meet the current year's rising costs. As a result, FAA prematurely exhausted the contract's 5-year base funding in only 4 years (see figure 1) without conducting the analysis we recommended in our prior report.

**Figure 1. ATCOTS Program Exhausted Its 5-Year Base Contract Funding in 4 Years**



Source: OIG analysis of FAA contract data

To continue training support when the base period funding ran out, FAA chose to exercise and begin the contract's first 3-year option period 1 year ahead of time, which reduces the contract's total period of performance by 1 year. According to FAA's Vice President for Safety and Technical Training, exercising the first option would allow FAA to redefine contract terms, return to an acceptable expenditure level, and change the cost incentives. FAA's Acting Administrator also stated that exercising the first contract option would allow for uninterrupted training services. Federal acquisition policies do not forbid early exercise of an option; however, FAA made this decision without updating cost estimates and training requirements or developing adequate criteria for determining whether the Agency should exercise the contract options.

### **FAA Does Not Know Its Total Training Costs**

FAA has not fully quantified its total training costs and thus could not determine whether exercising the first contract option would meet long-term training goals more effectively than other alternatives—such as rebaselining or recompeting the contract. Two factors currently impede FAA's ability to accurately estimate its training costs. First, FAA has not clearly defined its training requirements. Second, FAA has not determined how much training will be delivered by either the contractor or by FAA's Certified Professional Controllers, known as CPCs. It will be difficult for FAA to effectively manage its training costs without an accurate cost estimate, clearly defined requirements, or a specific plan that clarifies who will deliver those requirements.

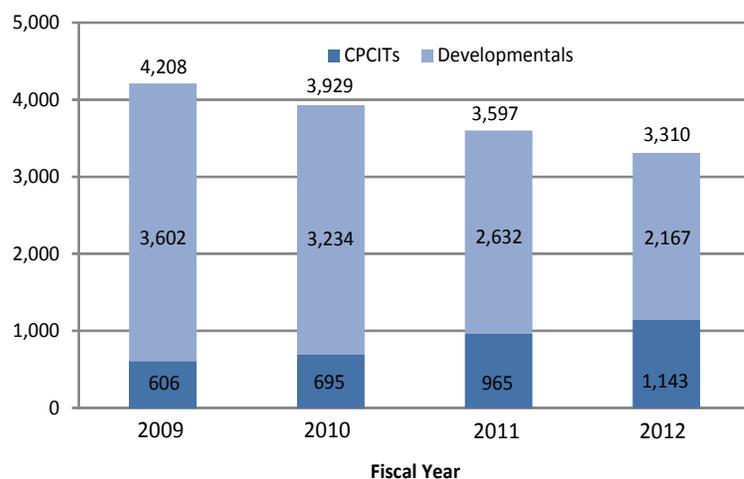
### *FAA Has Not Clearly Defined Its Training Requirements*

In September 2010, we reported that the ATCOTS program's cost overruns occurred largely because FAA greatly underestimated its training needs. At the time, we reported that FAA's AWP—a tool for identifying and reporting training needs to the contractor—did not adequately capture FAA's training requirements. For example, FAA did not include training for its Certified Professional Controllers in Training, referred to as CPC-ITs, in its original training estimate. Since that review, FAA instituted additional controls to capture training requirements and costs. For example, FAA increased its use of the AWP and created a tool to better verify training hours being incurred at field locations.

While FAA has made some improvements to the AWP, it still does not capture all of the Agency's training requirements. For example, the AWP now defines the number and types of students, student training levels, training locations, and the dates by which students must be trained. However, the AWP does not sufficiently capture the different training needs of developmental controllers and CPC-ITs. CPC-ITs generally do not need foundational courses or as much simulator time as developmental controllers because CPC-ITs have already been certified at a

previous facility. Even though the total number of controllers-in-training<sup>3</sup> has generally declined in recent years (see figure 2), the proportion of developmental controllers to CPC-ITs has changed dramatically. Between 2009 and 2012, the number of developmental controllers decreased by 40 percent—from 3,602 to 2,167. During the same period, the number of CPC-ITs almost doubled—from 606 to 1,143. Given this trend, it is possible that the number of instructor hours used to train CPC-ITs has increased while the amount of more intense training needed by developmental controllers has decreased. However, the AWP does not capture this level of detail, so the Agency has not determined how this changing trend in experience level impacts its overall training requirements.

**Figure 2. Total Numbers of Developmental Controllers and CPC-ITs by Fiscal Year**



Source: FAA

Further, the AWP does not capture proficiency training requirements for both new and existing systems used by air traffic controllers<sup>4</sup>—even though this type of training is within the scope of the contract. Without clearly defined training requirements that include all of FAA’s training needs, FAA cannot reasonably estimate its training costs or effectively manage them.

<sup>3</sup> The number of controllers-in-training includes developmental controllers that are not yet certified and CPC-ITs.

<sup>4</sup> These systems include En Route Automation Modernization (ERAM), Standard Terminal Automation Replacement System (STARS), and Automatic Dependent Surveillance-Broadcast (ADS-B).

*FAA Has Significantly Reduced Contractor Staffing but Has Not Accounted for the Costs of Using CPCs To Perform Training.*

To limit future cost overruns on the ATCOTS contract, FAA directed the contractor to significantly reduce contractor training staff. Between September 2008 and August 2012, the contractor reduced its staffing numbers by about 44 percent—from 1,312 to 738 employees. To compensate for this reduction, FAA is planning to increase the amount of internal training performed by its CPCs. While FAA collects data on the amount of OJT conducted internally by CPCs (for which FAA is responsible), it does not track or keep records showing other internal training costs, such as hours that CPCs spend teaching classroom and simulator training.

As a result, FAA cannot determine how much it spends on internal training or assess whether there might be a more cost-efficient way to provide training to its air traffic controllers. FAA acknowledged that the contractor can provide training at a lower cost than FAA's CPCs, as CPCs are paid higher salaries than contractor staff. Training managers at FAA facilities also stated that CPCs may need to accrue overtime hours to provide training while maintaining operations.

Moreover, FAA has not collected data on whether facilities have the capacity to provide internal training, especially at high-traffic facilities. According to the ATCOTS program office, CPCs will be able to perform the needed internal training because decreases in both hiring and retirement rates have reduced the Agency's overall training needs. However, the program office could not provide data to support this assertion. According to our interviews with FAA facility managers, fewer than half of the 13 air traffic facilities we contacted are capable of providing internal training, given current staffing levels and workload demands.

**FAA Has Not Made Sufficient Improvements to Its Oversight Controls or Contract Administration**

In September 2010, we reported that FAA did not have effective oversight controls in place to monitor contractor services. Specifically, FAA did not have controls in place to ensure it received services as billed by the contractor, such as requiring documentation for costs claimed. During the first year of the contract, the ATCOTS program office authorized payment for 11 contractor invoices totaling \$45 million, without the FAA Academy verifying whether the services billed were actually provided. Since our prior review, FAA has made some improvements to its oversight controls and contract administration. This is a step in the right direction. For example, FAA reorganized and consolidated training operations under the Office of the Vice President of Safety and Technical Training, which is intended to bring increased management attention to the

training program. FAA also implemented a program management tool to better prioritize where training is needed.

In addition, an FAA program representative stated that the Agency has implemented the following improvements in contract management:

- Implemented monthly Performance and Cost Boards to monitor unplanned events and better measure contractor performance; and
- Required the contractor to revise its Work Breakdown Structure (WBS)<sup>5</sup> to provide more detail about the costs associated with the work performed and improved the invoice review process; and
- Required that the contractor reorganize its field management structure to better align terminal and en route services to reduce inefficiency.

Despite these actions, some weaknesses we reported in 2010 continue to exist. For example, FAA still does not hold oversight staff accountable for conducting required semiannual evaluations of the quality of services provided by contractor personnel. As we reported in September 2010, the lack of evaluations prevents the program office from identifying problems with contractor performance and taking appropriate corrective actions. In September 2010, we also reported that FAA did not have qualified acquisition personnel to administer the ATCOTS contract. In our current review, we determined that FAA has completely re-staffed its program office and contract management office with new employees, including the program manager, contracting officer (CO), and contracting officer representatives (COR).<sup>6</sup> However, at the time of our review, the contract identified two contracting officers: one supervisory CO with an appropriate certification and warrant and another CO that handled day-to-day contract administration but who did not have the certification required by AMS to administer the \$859-million contract.<sup>7</sup> The CO performing day-to-day administration of the contract was in the process of completing certification training. However, allowing COs to manage contracts above their certification level puts the Government at risk that COs lack the expertise required to manage larger and potentially more complex contracts. In August 2012, the CO obtained the required level III certification and an unlimited warrant in September 2012—more than a year and a half after becoming the CO for ATCOTS.

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<sup>5</sup> A WBS is the hierarchically structured grouping of project elements that organizes and defines the total scope of the project. Each descending level is an increasingly detailed definition of a project component.

<sup>6</sup> The COR was formerly known as the Contracting Officer's Technical representative (COTR).

<sup>7</sup> According to FAA's Acquisition Management System, a CO must apply for, acquire, and maintain certification at the appropriate level for the work performed.

In February 2013, only 6 months after the CO obtained the required certification, FAA assigned a new CO to the ATCOTS contract—the sixth CO since the contract was awarded. FAA has also experienced high turnover with other critical program staff; for example, the ATCOTS program has had four program managers and eight CORs over the life of the contract.<sup>8</sup> For programs with high turnover, a complete contract file is especially important to maintain institutional knowledge. However, FAA has not adequately maintained its contract files, which exist in two separate locations—one physical file and one virtual file—and do not contain a complete history of all contract actions required by FAA’s Acquisition Management System (AMS).<sup>9</sup> For example, the CO had to request official contract documentation directly from the contractor because FAA’s contracting staff did not maintain those documents in the ATCOTS contract files. Incomplete contract files prevent newer staff from readily accessing and understanding the contract’s complete history.

Finally, communication between FAA Headquarters and the field facilities has not been effective. In many cases, the training managers and oversight staff in the field did not know who managed the ATCOTS program and were not always provided with detailed guidance. For example, we asked managers at 13 facilities how they were notified of the significant reduction in contractor staffing that occurred in July 2012. Managers at six facilities told us that the ATCOTS program office communicated the staffing reductions through teleconference, four facilities were notified by their service area representatives, and two were notified by the contractor.<sup>10</sup>

## **FAA HAS NOT BEEN ABLE TO ACHIEVE ALL OF ITS KEY TRAINING GOALS UNDER THE ATCOTS CONTRACT**

The ATCOTS contract outlines six key training goals: (1) improve quality and consistency of training, (2) reduce training costs, (3) reduce training time, (4) leverage best practices and innovation to provide comprehensive training, (5) develop flexible training that can be adapted to meet changing requirements, and (6) develop flexible training that can be adapted around candidate competencies. We focused our review on three of the ATCOTS goals: reducing training costs, reducing training time, and developing innovation to provide comprehensive

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<sup>8</sup> In addition, until we brought it to FAA’s attention, the contract was not modified to identify changes in key positions such as the CO and COR. It is important to update these key positions to ensure that the contractor is aware of those representing the agency.

<sup>9</sup> According to AMS, documentation in the files should provide a sufficiently complete history of the transaction and (1) provide a complete background as a basis for informed decisions at each stage in the acquisition process, (2) support actions taken, (3) provide information for reviews and investigations, and (4) furnish essential facts in the event of litigation or congressional inquiries.

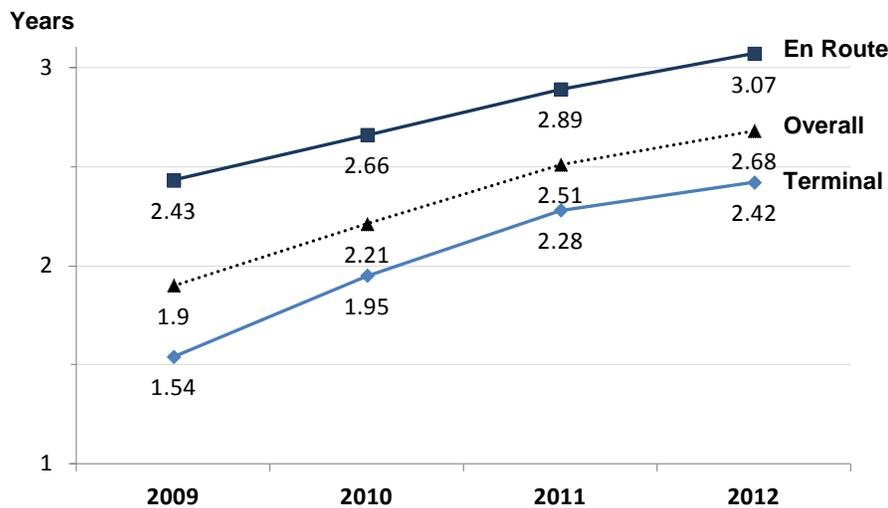
<sup>10</sup> One facility did not have Raytheon support.

training. We found that FAA has not been able to achieve the goals to reduce training time or leverage innovation to provide comprehensive training, and it has not assessed whether it has reduced training costs.

### FAA Has Not Accomplished Its Goal To Reduce Training Time

A primary goal of the ATCOTS contract is to reduce the time it takes for a developmental to become a CPC. Between fiscal years 2009 and 2012, the time to certify controllers increased by an overall average of 41 percent—taking 9 months longer on average to certify each controller. Time to certify increased the most at terminal facilities with an average increase of 57 percent, or almost 11 months longer on average to certify controllers. Figure 3 shows the increase in average training times between fiscal years 2009 and 2012.

**Figure 3. Average Time To Certify Controllers Between Fiscal Years 2009 and 2012**



Source: FAA training data

Air traffic and training managers have attributed the increased training times to several factors, such as airspace redesign, new technology training, increased proficiency training and refresher training for CPCs in response to changes in regulations, and decreased contractor support resources.

FAA facility managers we spoke to at 9 of 13 facilities warned that contractor staffing reductions will result in increased internal training taught by CPCs, increased overtime, and training delays. Contractor reductions have prompted some facilities, such as Las Vegas Tower, to plan to reduce simulator training, which facility training managers stated may further increase controller training times. Simulators help train not only developmental controllers but also the entire

controller workforce—especially on new major systems or new procedures. However, simulators rely heavily on contractors to build simulation scenarios, and eight of the facility managers we spoke to reported that they did not have enough FAA staff to support simulator training on their own.

### **FAA Has Not Accomplished Its Goal To Achieve Training Innovations**

Since our last review, the ATCOTS contract has not resulted in significant training innovations. The ATCOTS contract's performance work statement specifies that a key goal of the contract is to develop new training technologies and procedures to meet the changing environment in which controllers operate. Training innovations were also intended to further other key training goals, such as reducing time to train and reducing training costs. While the contractor has proposed ideas for training innovation, FAA has not provided sufficient funds to implement them, as the Agency has budgeted less than 2 percent (\$16.7 million) of the ATCOTS base contract value (\$859 million) for training innovations.

The lack of training innovations is significant because the contractor's cost proposal—which was nearly \$358 million lower than FAA's independent Government cost estimate—was based on the assumption that it could reduce training hours by 30 percent and, therefore, reduce costs. Innovating training can help achieve such cost efficiencies. However, the contractor stated that FAA has rejected the majority of the 11 proposals it has submitted for training innovations. FAA officials told us that the contractor's process improvement and training innovation proposals have been technically deficient and costly. Without training innovations to create a more flexible training system, the arrival of future NextGen technologies may create significant training backlogs, especially at larger facilities.

### **FAA Has Not Assessed Whether It Has Reduced Training Costs**

It is unclear whether FAA has met its goal to reduce air traffic controller training costs because the Agency has not tracked its progress toward this goal. Specifically, FAA does not collect data on the total costs of the training program, including all internal training conducted by CPCs, so it is unclear whether the Agency has reduced total training costs. However, the program's funding challenges—including 4 consecutive years of cost overruns, FAA's decision to exercise the first contract option early, and the major reductions in contractor staffing—demonstrate that the training program has cost FAA significantly more than estimated at contract award.

## **FAA'S PERFORMANCE MEASURES AND FEE STRUCTURE HAVE NOT BEEN EFFECTIVE**

FAA's ATCOTS performance measures—which are criteria the contractor must meet to earn award fees—have not been effective at motivating the contractor to achieve desired outcomes. In addition, ATCOTS includes an incentive fee, which has not been effective to motivate the contractor to manage costs. Our review identified weaknesses in both the ATCOTS award and incentive fee structures for the base contract period of performance and the award fee structure for the first option year. As a result, FAA has paid the contractor over \$17 million in award fees for performance measures that do not motivate the contractor to achieve FAA's key training goals. FAA has also paid \$14 million in incentive fees that were ineffective at reducing contract spending.

### *Base Contract Period of Performance (Contract Years 1 Through 4)*

The ATCOTS contract allows the contractor to earn both incentive fees and award fees for containing costs, a practice that is not consistent with FAA's AMS guidance. The AMS states that care needs to be exercised on multiple-incentive arrangements—such as ATCOTS' CPIF/CPAF type—to ensure that combinations of cost control incentive fees and award fees do not result in contractors making trade-off decisions inconsistent with FAA objectives and performance priorities. In addition, FAA's Award Fee Contracting Guidance states that no performance element should be incentivized more than once. For example, if a separate cost incentive is used in a contract, then cost should not be incentivized in the award fee. Despite this guidance, FAA offers the contractor both incentive fees and award fees for containing costs—neither of which were effective at controlling ATCOTS' contract costs during the base contract period of performance.

The incentive fees were not effective at controlling costs because FAA did not establish accurate cost targets. FAA's AMS states that an incentive fee should be used when a reasonable and attainable cost target can be established that is likely to motivate the contractor to manage effectively. However, because FAA was unable to clearly define its training requirements, it could not establish accurate cost targets for the incentive fee. Additionally, FAA did not establish or revise cost targets until near the end of the year—too late to prevent cost overruns for the year in question. Ultimately, FAA paid the contractor a total of \$19 million in cost incentives—which include about \$14 million in incentive fees and \$5 million in cost-related award fees—despite \$89 million in cost overruns.

We also identified weaknesses in FAA's use of award fees. During the base period, FAA paid the contractor 93 percent (\$17.3 million) of the available award fees for meeting performance measures that did not motivate the contractor to

achieve FAA's training goals. For example, FAA paid the contractor a portion of the award fee for meeting a performance measure related to staffing efficiency, which called for the contractor to stay within a set range of staffing hours. However, the contractor stated that it was not motivated to optimize staffing or lower staffing costs because any efforts to reduce staffing below the set range of hours would have lowered its award fee in this category.

The performance measures for the award fees also did not link to FAA's key goals to reduce the time to train controllers or develop training innovations. According to the CO, it is difficult to include award fee criteria on training innovations when the contractor has not proposed new innovations. The CO stated that FAA could add award fee criteria for training innovations when the contractor submitted additional proposals. However, in order to adequately motivate the contractor to develop training innovation proposals, award fee criteria should be in place before the performance period begins.

### *First Option Year*

In the first year of the option period, beginning September 2012, FAA introduced a new award fee structure for containing costs, but it lacked performance measures to motivate the contractor to reduce training time and develop training innovations. FAA's new award fee structure specifies that FAA will not pay the contractor any award fees (1) if contract costs exceed the contract cost target or (2) if the contractor does not deliver sufficient training. For the first award fee evaluation period under this new fee structure, the cost of work performed stayed within budget. However, in April 2012 FAA had asked the contractor to reduce staffing for the remainder of the year to stay within the contract ceiling amount. As a result, contractor staffing levels decreased by about 30 percent. According to FAA's award fee evaluation, the contractor did not receive any award fees during the first option period because it did not deliver sufficient services to FAA facilities according to requirements in the AWP. Therefore, while the contractor controlled costs, it appears this came at the cost of losing adequate training support.

Our review demonstrates that FAA's incentive and award fees have not been effective at controlling costs or motivating performance over the life of the ATCOTS contract. FAA's incentive and award fee measures either have not been effective or have incentivized the contractor to perform in a manner that does not achieve contract goals. As a result, we estimate that over \$14.1 million of funds could be put to better use if FAA eliminates the cost incentive fees and uses a cost-

plus-award-fee contract with improved performance measures that relate to the ATCOTS training goals.<sup>11</sup>

Despite the shortcomings with ATCOTS performance and the cost overruns, FAA has yet to perform an integrated baseline review (IBR) of the ATCOTS program. An IBR can help agencies pinpoint problems and make decisions on the amount of services required and the associated funds needed to obtain them. Specifically, an IBR examines whether (1) all program requirements have been addressed, (2) all risks have been identified and appropriate mitigation plans are in place, (3) and planned resources are sufficient to complete the work. Without an IBR, it will be difficult for FAA to determine whether it can achieve its air traffic controller training goals under the current ATCOTS contract.

## **CONCLUSION**

A sufficient and adequately trained air traffic controller workforce is critical to maintaining the safety of the traveling public and air commerce. However, under the ATCOTS contract, FAA has not achieved key air traffic controller training goals. FAA has made some improvements to its administration of the contract, such as implementing a program management tool to better prioritize where training is needed. However, unless FAA improves program and contract management, clearly defines its training requirements, develops training innovations, modifies its fee structure to better motivate the contractor to meet or exceed desired outcomes, and reviews the ATCOTS program's baseline, the Agency will miss opportunities to achieve program goals, incentivize performance, and save taxpayer dollars. Specifically, we estimate that over \$14.1 million of funds could be put to better use if FAA modifies its fee structure as recommended. Without an effectively managed contract to support its controller training requirements, FAA runs the risk of not maintaining a sufficient cadre of certified controllers to meet the future demands of the NAS.

## **RECOMMENDATIONS**

We recommend that FAA's Vice President for Safety and Technical Training, Air Traffic Organization:

1. Create a training plan that clearly defines all air traffic controller training requirements, including proficiency training and training for new systems. The plan should also specify the training requirements to be performed by

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<sup>11</sup> The \$14.1 million in funds put to better use includes \$6.7 million in incentive fees and \$7.4 million in award fees for years 2 and 3 of the first option period.

FAA certified professional controllers and those to be performed by the contractor.

2. Implement a procedure to identify costs related to internal training performed by FAA controllers, such as a timekeeping code to record hours that controllers spend teaching classroom and simulator training, including any overtime hours accrued for training.
3. Develop a plan to assess internal resources and verify that controllers will be available to teach training at each facility.
4. Update cost estimates, and determine whether (a) training requirements can be met within the current contract value of \$859 million, (b) the acquisition should be rebaselined and/or recompeted, or (c) the remaining contract options should be exercised.
5. Implement procedures to hold FAA oversight staff accountable for overseeing contractor performance at the facilities, including completing required semi-annual performance evaluations.
6. Develop a process to ensure the contract files are maintained as required by FAA's Acquisition Management System.
7. Determine whether training innovations should be funded under the ATCOTS contract or competed under a separate contract, and modify the ATCOTS contract to reflect this determination.
8. Determine whether FAA should eliminate the cost incentive fee and modify the contract to a cost-plus-award-fee type.
9. Modify the award fees to (a) develop performance measures that motivate contractors to achieve program goals and (b) ensure that fees are paid only for performance that links to key training goals and does not conflict with other contract objectives.
10. Perform an integrated baseline review to (a) identify the training requirements that should be included in the budget baseline; (b) identify the risks for maintaining the budget and plans for adequately mitigating those risks; and (c) determine whether resources are sufficient for completing the work.

## **AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**

We provided FAA with our draft report on September 5, 2013, and received its response on November 27, 2013, which is included as an appendix to this report. In its response, FAA concurred with 9 of our 10 recommendations and partially concurred with 1.

For recommendations, 1, 5, and 7, FAA concurred and has taken or proposed planned actions that address the intent of our recommendations. Accordingly, we consider these recommendations resolved but open pending verification that corrective actions are complete. However, we request that FAA submit planned completion dates for recommendations 5 and 7.

For recommendations 2, 3, 4, 6, 8, 9 and 10, FAA either concurred or partially concurred. However, we are requesting additional information before we can determine if FAA's planned actions address the intent of our recommendations. We also request that FAA submit planned completion dates for these recommendations. Specifically:

For recommendation 2, FAA concurred and stated that its Reports, Analysis, and Distribution (RAD) system<sup>12</sup> has captured internal training costs since 2005. However, during our discussions with FAA field training managers, we found that field facilities did not include the time that controllers spend conducting formal classroom training or simulator training. In addition, FAA only has job codes for recording OJT hours and costs<sup>13</sup> and does not have codes for recording time spent on ATCOTS-related training activities, such as conducting classroom or simulator training. Moreover, FAA lacks procedures to instruct controllers on which codes to use to account for ATCOTS-related training. Accordingly, we are requesting that FAA clarify whether it plans to establish job codes and accounts to capture the time controllers spend providing classroom, simulator, and other ATCOTS-related training—and procedures to instruct controllers on which codes to use to account for ATCOTS-related training. We also request that FAA submit a planned timeframe to complete these actions. Until we receive this information, we consider recommendation 2 open and unresolved.

For recommendation 3, FAA concurred and stated that it already has a plan to assess internal resources, citing its Controller Workforce Plan and FAA Order JO 3120.4N. However, it is unclear whether these are sufficient to assess internal

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<sup>12</sup> RADS is a web-based application developed solely to provide reports for the data contained in FAA source systems, such as its Cost Accounting System Reports and Labor Distribution Reports.

<sup>13</sup> OJT is not included as a requirement of the ATCOTS contract. OJT involves managing live air traffic and begins after ATCOTS-related classroom and simulator training is completed.

resources, as well as ensure that controllers will be available to teach training. During the course of our review, training officials at some FAA facilities stated that they lacked available or qualified resources to conduct this training. Accordingly, we request that FAA clarify how the Agency will (a) identify qualified controllers available to teach training at each facility and (b) identify facilities that lack internal resources capable of performing ATCOTS-related training. We also request that FAA submit a planned timeframe to complete these actions. Until we receive this information, we consider recommendation 3 open and unresolved.

For recommendation 4, FAA concurred and stated that it is taking actions to remain within the \$859 million contract value, such as submitting discrete training demands to the contractor. While these actions may be effective to manage contract costs in the short term, FAA stated in its response that it plans to award a new contract to replace ATCOTS as early as fall 2014. To plan for this future award, it would be prudent for FAA to identify its annual training requirements—including requirements for its next controller training contract—to ensure that it has sufficient contractor and internal resources to meet its controller training needs. Accordingly, we request that FAA provide additional information on whether it plans to identify its annual training requirements, including requirements for its next controller training contract. We also request that FAA submit a planned timeframe to complete this action. Until we receive this information, we consider recommendation 4 open and unresolved.

For recommendation 6, FAA concurred and stated that it has compiled a complete ATCOTS contract file. However, FAA did not clarify the process it will use to ensure that the contract file will be maintained going forward, as we had recommended. Until we receive this information, we consider recommendation 6 open and unresolved. We also request that FAA submit a planned timeframe to complete this action.

For recommendation 8, FAA concurred but determined that the ATCOTS contract should remain an incentive fee-based contract. According to FAA, the incentive fee provisions of the contract are the best means to encourage the contractor to reduce costs. Therefore, FAA did not agree with our estimate that over \$14.1 million in funds could be put to better use if FAA eliminates the cost incentive fees and uses a cost-plus-award-fee contract with improved performance measures that relate to the ATCOTS training goals. However, as we stated in our report, FAA's incentive fees have been ineffective because the Agency continually increased cost targets as requirements grew. As a result, FAA paid \$14 million in incentive fees to the contractor despite 4 consecutive years of cost overruns, totaling about \$89 million. Moreover, we determined that FAA offered cost incentive fees as well as cost-related award fees, which is contrary to FAA

guidance. If FAA decides to retain the incentive fee portion of the contract, we request that FAA clarify how it will ensure the incentive fees and cost-related awards fees will not conflict. We also request that FAA submit a planned timeframe to complete this action. Until we receive this information, we consider recommendation 8 open and unresolved.

For recommendation 9, FAA concurred and stated that its award fee for period 8 performance measures were sufficient to close our recommendations. However, FAA did not provide sufficient information to demonstrate that these actions address our recommendation. As we reported, FAA performance measures for the first year of the option period did not motivate the contractor to achieve two key goals: reduce training time and develop training innovations. FAA also stated in its response that it provided us with its draft performance measures for award fee period 8 for our approval. Although we conducted a limited review of these new performance measures to determine whether they link to contract goals, we did not approve them because it would be inappropriate for us to do so. We request that FAA provide additional information on whether it intends to develop performance measures to address these two goals and provide a timeframe for completing these measures. Until we receive this information, we consider recommendation 9 open and unresolved.

For recommendation 10, FAA partially concurred, stating that the Program Office does not believe that there are any benefits from undertaking an integrated baseline review (IBR) at this time. However, an IBR involves a comprehensive review of training requirements and the establishment of a baseline—both of which will be essential for FAA to avoid repeating the problems with ATCOTS when it awards its next controller training contract. If FAA takes actions to address recommendations 1 and 4, it will help the Agency to develop a baseline more effectively. Accordingly, we request that FAA reconsider performing a baseline review, which should be completed before the Agency solicits proposals for a new training contract and provide information on how it will address our recommendation. We also request that FAA submit a planned timeframe to complete these actions. Until we receive this information, we consider recommendation 10 open and unresolved.

## **ACTIONS REQUIRED**

FAA's planned actions for recommendations 1, 5, and 7 are responsive, and we consider them resolved but open pending completion of the planned actions. We consider recommendations 2, 3, 4, 6, 8, 9 and 10 open and unresolved. In accordance with Department of Transportation Order 8000.1C, we request that FAA provide additional information regarding its planned actions for those

recommendations as described above. We also request that FAA submit planned completion dates for recommendations 2, 3, 4, 5, 6, 7, 8, 9 and 10.

We appreciate the courtesies and cooperation of FAA representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5225; or Terry Letko, Program Director, at (202) 366-1478.

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cc: DOT Audit Liaison (M-1)  
FAA Audit Liaison (AAE-100)

## **EXHIBIT A. SCOPE AND METHODOLOGY**

We conducted our work from February 2012 through September 2013 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.

To conduct our work, we interviewed officials from Raytheon's ATCOTS program office, FAA's ATCOTS program office and contracting office, and other FAA Headquarters offices—including Labor Analysis, Technical Training and Safety, Project Planning and Contract Group, and Curriculum and Technology Group. We also interviewed FAA training managers, contracting officer's representatives, facility staff, Raytheon staff, National Air Traffic Controllers Association officials, and Professional Association of Aeronautical Center Employees representatives at the FAA Training Academy in Oklahoma City, OK, and at 13 of the 315 air traffic facilities nationwide. For this follow-up audit, we covered locations visited during our prior ATCOTS audit. Exhibit B lists all organizations we contacted during this audit. We also reviewed the ATCOTS contract files, which at the time of our review had 85 contract modifications, related documentation, and FAA's AMS.

To determine whether FAA has implemented changes to improve program and contract oversight, we assessed FAA's internal controls for the program, including determining whether FAA adequately addressed the problems and recommendations identified in our September 2010 report and evaluating FAA's oversight of contractor performance. We also assessed FAA's invoice review process using of the 94 total invoices: (1) the 10 highest dollar value invoices not already reviewed in the previous ATCOTS audit to test invoice processing and adequate support for contractor expenses, and (2) 62 invoices from contract years 2, 3, and 4 because they were complete enough to test payment timeliness according to the Prompt Payment Act.

To determine whether FAA can achieve ATCOTS training goals under the current contract, we evaluated FAA's process for identifying training requirements and contract costs. We analyzed training and staffing data provided by FAA. We also assessed the effect of cost overruns and contractor staffing reductions on FAA's ability to meet its training goals.

To determine whether FAA has established effective cost incentives and award fees to support ATCOTS training goals, we reviewed the target costs, performance

### **Exhibit A. Scope and Methodology**

measures, and fees paid for all seven performance periods since the award of the ATCOTS contract.

We discussed issues relevant to this audit at a December 2012 exit conference with senior FAA officials.

**EXHIBIT B. ACTIVITIES VISITED OR CONTACTED***FAA Facilities*

FAA Headquarters

FAA Training Academy at the Mike Monroney Aeronautical Center

Atlanta Air Route Traffic Control Center

Atlanta Air Traffic Control Tower

Atlanta Terminal Radar Approach Control Center

Jacksonville Air Route Traffic Control Center

Las Vegas Air Traffic Control Tower

Las Vegas Terminal Radar Approach Control Center

North Las Vegas Air Traffic Control Tower

Oakland Air Route Traffic Control Center

Oakland Air Traffic Control Tower

Oakland District Office/Training Facility

Potomac Terminal Radar Approach Control Center

Seattle Air Route Traffic Control Center

Washington Air Route Traffic Control Center

Western Service Center

*Other Organizations*

Best Value Technologies, Inc.

Office of the Secretary of Transportation

Raytheon Technical Services Company, LLC

## EXHIBIT C. MAJOR CONTRIBUTORS TO THIS REPORT

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## APPENDIX. AGENCY COMMENTS



# Federal Aviation Administration

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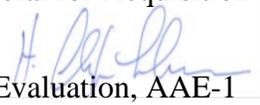


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## Memorandum

Date: November 27, 2013

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

From: H. Clayton Foushee, Director, Office of Audit and Evaluation, AAE-1 

Subject: Federal Aviation Administration's (FAA) Response to Office of Inspector General (OIG) Draft Report: ATCOTS Contract Management to Achieve its Air Traffic Controller Training Goals

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The FAA continues to improve the Air Traffic Controller Optimum Training Solutions (ATCOTS) contract management, oversight, and maintenance of costs under the current contract structure. Some of these improvements are: 1) contained cost during contract year six to within the baseline award value; 2) implemented an award fee structure that motivates the contractor to control costs; 3) implemented a new process for defining monthly requirements; 4) realigned the Terminal and En route domains to better align services; 5) designated two Quality Reliability Officers (QRO's) that are assigned to support the program by conducting quality audits of services being provided by the contractor, setting up quality standards and ensuring compliance with FAA policies and standards; 6) and, improved communications with the field and contractor to identify training requirements, schedules and resources. These improvements have been instrumental in improving the oversight of the ATCOTS program. The FAA is continuing to explore all available options to improve air traffic controller training, and our goal is to award a new contract to replace ATCOTS as early as fall 2014.

While the FAA understands the source of OIG statistics on increased time to certification, the FAA believes that a differing methodology based upon actual time spent in training is a more valuable metric as it applies to the evaluation of training performance, as opposed to using training duration. Training programs and segments of training offered to meet the requirements established for a certification can have durations that vary significantly based on the employee's entry level education, employee's aviation experience, facility traffic complexity, and facility training opportunities. Training duration can be affected by many factors unrelated to the performance of the technical training system including the ATCOTS contract.

## RECOMMENDATIONS AND RESPONSES

**Recommendation 1:** Create a training plan that clearly defines all air traffic controller training requirements, including proficiency training and training for new systems. The plan should also specify the training requirements to be performed by FAA certified professional controllers and those to be performed by the contractor.

**FAA Response:** Concur. The FAA ATCOTS Program Office, in collaboration with Raytheon, has developed, completed and rolled out a new training planning tool in August 2013 where ATCOTS services have been deployed in the field. This training planning tool integrates the Rolling Wave Planning Book and the Training Staffing Support Plan (TSSP) incorporates training schedules, and identifies resources by category for budget planning to support training requirements in the field.

The planning tool features a one month look-back (status), current month activities, and a two month look ahead and is updated on a monthly basis. The planning tool identifies developmental, proficiency, certification and recurrent training, and the resources required to perform these activities. Last month, the tool was briefed to the field facilities and requirements are currently being collected for the first three months (Sep, Oct, Nov) for Performance Year 6 (PY6) which began on September 9, 2013.

In addition, the Program Office is currently examining how to augment/update the planning tool to capture training requirements to be performed by FAA certified professional controllers at all facilities. The FAA will provide a progress update of this effort by August 31, 2014.

**Recommendation 2:** Implement a procedure to identify costs related to internal training performed by FAA controllers, such as a timekeeping code to record hours that controllers spend teaching classroom and simulator training, including any overtime hours accrued for training.

**FAA Response:** Concur. The Report Analysis and Distribution (RAD) system currently captures this data. The RAD system is located on an internal FAA website and allows reports to be generated on controller hours spent performing various functions. Labor Distribution Reporting (LDR) codes were established in 2005 and are in place. We are able to identify cost for controller hours spent teaching classroom, conducting simulation training as well as overtime. Based upon these actions, the FAA is requesting closure of this recommendation.

**Recommendation 3:** Develop a plan to assess internal resources and verify that controllers will be available to teach training at each facility.

**FAA Response:** Concur. The FAA's Controller Workforce Plan identifies the staffing ranges at each facility and what can be supported. FAA Order JO 3120.4N, Air Traffic Technical Training, effective September 30, 2013, Chapter 2, Roles and Responsibilities, specifies that a facility Air Traffic Manager must, as part of routine duties to administer the training program, ensure that resource requirements are submitted to the appropriate Service Center. The Service Centers will then submit resource requirements to the appropriate Service Unit. In compliance with the references listed, the FAA believes that a plan to assess internal resources is currently in

## APPENDIX. AGENCY COMMENTS

place and satisfies the intent of this recommendation. Accordingly, the FAA requests closure of this recommendation.

**Recommendation 4:** Update costs estimates, and determine whether (a) training requirements can be met within the current contract value of \$859 million, (b) the acquisition should be re-baselined and/or re-competed, or (c) the remaining contract options should be exercised.

**FAA Response:** Concur. The FAA updates the cost estimates on an annual basis. According to the ATCOTS Contract, Section H.43, the FAA issues an anticipated schedule of training services required for twelve (12) months. This annual work plan is used for planning purposes only and defines the number and types of students, location of training, and when students need to be trained. Updates are provided on a monthly basis. Over the last year, the FAA has communicated to the service provider discrete field training demands requiring the use of supplemental staffing services and fosters the in-house development of best practices for training quality and consistency. This information is aligned with the invoices submitted by the service provider. In September 2012, the FAA exercised the first option period as the best available path forward to allow for uninterrupted training services to the Academy and field facilities. In support of exercising the first option period, the FAA has committed to enforcing the pre-negotiated contract award values to remain within the \$859 million. Compliance is achieved by the verification and validation of invoices received by the service provider along with the reviews and comments to the Contract Data Requirement List (CDRL 007) and the TSSP, which are submitted to the service provider on a monthly basis. Before the last option period is exercised, the FAA is required to verify the continued need for the training services, ensure sufficient funds are available, and evaluate if the contractor's performance was satisfactory. The FAA will continue to assess needs centered on air traffic controllers and determine the best acquisition vehicle to fulfill the need. The FAA believes it has met the intent of this recommendation and request it be closed.

**Recommendation 5:** Implement procedures to hold FAA oversight staff accountable for overseeing contractor performance at the facilities, including completing required semi-annual performance evaluations.

**FAA Response:** Concur. According to the ATCOTS contract (Section E.2), all deliverables under this contract are subject to review and inspection by the Contracting Officer (CO) or his/her designee. Effective May 2012, the FAA adopted the Federal Acquisition Institute's concept of recognizing various levels of contract complexity and announced changes to the Contracting Officer's Representative (COR) certification program to match varying levels of complexity. The roles and responsibilities of the COR are outlined in the designation letter issued by the CO. The letter, signed by both the CO and COR, acknowledges the COR's acceptance of the responsibility to act as the CO's authorized representative in administering a contract and includes the COR's responsibility to complete semi-annual evaluations. Prior to designation, each COR is required to schedule and attend training (initial and continuous learning), prepare certification application prior to being nominated, and ensure that training and associated documentation is current and accurate in the FAA's COR database. Subsequently, the Program Office (specifically the COR's direct supervisor) nominates the COR and provides documentation of the CORs certification before the designation letter is issued. Each COR has the responsibility for the technical monitoring of the service provider's

performance and assessing, recording, and reporting compliance with the terms and conditions of the contract.

In July 2012, the Program Office implemented an ATCOTS online tool, which enables a COR to verify and validate hours performed by the service provider. The hours are directly extracted from the invoice received from the service provider on a bi-weekly basis, and the CORs are expected to validate the service provider's information. This validation is also accomplished during the required semi-annual performance evaluations.

Additionally, the CO also designates two Quality Reliability Officers (QROs). The QROs provide surveillance to the overall training requirements under the contract and have the authority to verify that the contractor's quality plan complies with contract requirements. In July 2012, the FAA Program Manager released a Quality Assurance Surveillance Plan. This plan provides the FAA Integrated Product Team (e.g., CO, COR, QRO,) guidelines to monitor required performance standards and expected outcomes for the service provider. Based upon these actions, the FAA requests this recommendation to be closed.

**Recommendation 6:** Develop a process to ensure the contract files are maintained as required by FAA's Acquisition Management System.

**FAA Response:** Concur. Prior to January 2012, the files containing all contractual documents were maintained in hard copy form in binders within locked file cabinets. After January 2012, the FAA Contracts organization began to maintain the ATCOTS contract file online using the Knowledge Sharing Network (KSN). The Contracts organization has compiled a complete contract file, which is currently maintained on the ATCOTS KSN. The documents include, but are not limited to: a copy of the living contract; contract modifications; incoming and outgoing correspondence; tracking log of all outgoing correspondence; CDRLs submitted by the contractor; invoices; COR designation letters; and other contractual documents. Based on these actions, the FAA requests that this recommendation be closed.

**Recommendation 7:** Determine whether training innovations should be funded under the ATCOTS contract or competed under a separate contract, and modify the ATCOTS contract to reflect this determination.

**FAA Response:** Concur. The FAA maintains the option and evaluates the ATCOTS contract and other contract options prior to funding training development initiatives.

The ATCOTS contract is a performance-based service acquisition contract that includes incentive and award fee provisions. This strategy was geared toward adopting the best commercial practices, gaining greater access to technological innovations, and maximizing competition to achieve greater savings and efficiencies for all air traffic training programs.

According to the terms and conditions of the current ATCOTS contract, the contractor must identify potential enhancements to training processes and submit Process Improvement Change Proposals (PICPs) (CDRL 006). The PICP must include the contractor's proposed process improvements, transition approaches, performance metrics, and the resulting contractor implementation plan. Any adopted PICP must outline an orderly transition to ensure the

## APPENDIX. AGENCY COMMENTS

continuity of training operations while implementing the proposed change. The implementation plan schedule must include the timeframe for all tasks and activities required to implement the proposed training enhancement. Any proposed costs, non-recurring or recurring, associated with the proposed change are expected to be presented in the Work Breakdown Structure format and included in the PICP. This includes any proposed cost savings that results from the change. Cost savings should be applied against contract line item number (CLIN) X001 to reflect a reduction of staffing resources initially accounted for in the target price. As the years of operations continue, efficiencies in training service delivery should be realized along with greater cost savings. Therefore, based upon the current terms and conditions of the ATCOTS contract, no modification to the existing contract is required and therefore FAA request closure for this recommendation.

**Recommendation 8:** Determine whether FAA should eliminate the cost incentive fee and modify the contract to a cost-plus-award-fee type.

**FAA Response:** Concur. The FAA reviewed this contract and determined that the ATCOTS contract should remain an incentive fee-based contract. As stated in FAA's response to recommendation 7 above, this strategy was geared towards adopting the best commercial practices, while gaining greater access to technological innovations and maximizing competition to achieve greater savings and efficiencies to the overall air traffic training programs.

The OIG's recommended contract type, cost-plus-award-fee, provides for a full award with no penalties.

The current contract calls for a cap on awards and does not allow the service provider to maximize the incentive fee unless the acceptable performance levels and associated performance measures are also maintained. The service provider is not eligible for any increases in incentive fee if the contractor does not receive at least a "Satisfactory" rating in all award fee determinations made during the individual CLIN performance period. Having made this determination, the FAA requests that this recommendation be closed.

**Recommendation 9:** Modify the award fees to (a) develop performance measures that motivate contractors to achieve program goals and (b) ensure that fees are paid only for performance that links to key training goals and does not conflict with other contract objectives.

**FAA Response:** Concur. Initial award fees were established at contract award in September 2008. In July 2012, draft performance metrics for award fee period 8 were provided to the DOT OIG for review prior to submission to the service provider. Consistent with contract objectives, period 8 performance metrics were crafted to motivate the service provider to improve quality and consistency of training delivery, reduce the time to train, and leverage best practices and innovation within the yearly target cost. Accordingly, the FAA requests that this recommendation be closed.

**Recommendation 10:** Perform an integrated baseline review to (a) identify the training requirements that should be included in the budget baseline; (b) identify the risks for maintaining the budget and plans for adequately mitigating those risks; and (c) determine whether resources are sufficient for completing the work.

**FAA Response:** Concur In Part. The FAA's Program Office is currently conducting informal reviews of the program and has implemented corrective actions through programmatic changes and contract modifications, which have better aligned contractor services with fundamental FAA needs. Since the start of these reviews, the FAA has implemented changes, which have resulted in increased program effectiveness and has reduced contract costs to within the budget baselines. Based upon these reviews, the Program Office does not believe that there are any benefits to be gained from undertaking an integrated baseline review at this time. The FAA believes that it has satisfied the intent of the OIG's recommendation and requests the closure of this recommendation.

**Additional Actions Required:** In addition, please indicate whether you agree that \$14.1 million in funds can be put to better use by eliminating the use of incentive fees and improving the award fees for the remainder of the contract.

**FAA Response:** The FAA does not agree that the funds could be put to better use elsewhere. Under the terms of the contract, the FAA and Raytheon will have to negotiate any change in the contract fee structure and come to a bilateral decision. The incentive fee provisions of the contract are the best means to encourage the contractor to reduce costs.