

**Testimony of Lynn Dugle
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**Before the
Senate Committee on Homeland Security and Governmental Affairs,
Subcommittee on Financial and Contracting Oversight**

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Good afternoon, Chairman McCaskill, Ranking Member Johnson, and committee members.

I am Lynn Dugle, President of Intelligence, Information and Services (IIS) for Raytheon Company. The business I lead is the prime contractor for ATCOTS, the Air Traffic Control Optimum Training Solution program. Thank you for the opportunity to address the subcommittee on Raytheon's management of the program, our ongoing efforts to reduce costs, and new training innovations we are bringing to the program.

Before I do so, let me provide some relevant context on Raytheon. My own IIS business is one of the world's leading providers of mission-critical training solutions. In fact, Raytheon trains more than two million people a year whose missions include national defense, U.S intelligence operations, cyber security and, of course, national air space management.

Our training solutions also extend to critical needs in the commercial sector. As an example, Raytheon provides one of the world's largest automobile manufacturers with transformational training to ensure vehicle safety and highly cost-effective repair and maintenance operations. This particular customer recently renewed our contract, and has been able to achieve savings of more than 50 percent while also increasing the training population by 50 percent.

I would also like to point out Raytheon's position as one of the world's largest providers of air traffic management systems. Our systems control more than two thirds of the world's airspace, and our company is an active participant in the FAA's NextGEN initiative. We believe that our world-class mission critical training capabilities, scale and transformational approaches, program knowledge, and familiarity with air traffic management have been important factors in our ability to contribute to the ATCOTS program.

Since this hearing is intended to address the Department of Transportation's Inspector General's (DOT IG) most recent report on the ATCOTS program, let me say that Raytheon agrees with the general conclusion of the report that progress has been made in improving the program and that more work remains. Raytheon and the FAA have built a partnership that has worked at addressing the Agency's dynamic and unprecedented training needs over the past six years. During the last year, we have accelerated progress in making improvements to the program, and I strongly believe that we now have a solid foundation for further gains. I can assure you that Raytheon remains completely committed to the program and is uniquely positioned to provide cost-efficient and effective training of the controllers who operate the safest, largest, and most complex air traffic management system in the world.

Let me now share our thoughts on three topics the committee requested Raytheon cover:

Management of the Contract:

As the IG report states, the management of this contract was challenged from the start by unexpected increases in cost and scope that were identified after the contract began. This included a hiring surge that resulted in a 40 percent increase in the number of trainees (from 4,000 to 5,600) during the first year of the contract. Raytheon identified the cost of moving the larger number of students through the system in our formal cost and performance reviews and

went through the normal change proposal process. All of our work was agreed to by the FAA, including revised performance measures.

In addition, there were also higher costs associated with previously unidentified FAA training requirements for nearly 700 of these trainees; meeting Air Traffic Control system modernization needs; and implementing new tower simulation training.

Raytheon responded to these challenges and trained 20 percent more individuals during the first four years of the contract than originally anticipated in the program budget. The company also lowered the cost per student at the Academy by six percent; decreased the controller training failure rate by twelve percent; shortened class durations at the Academy by 10 percent; and achieved 23 percent more efficient use of costly tower simulators. In addition, we received instructor approval ratings of 99.6 percent from the FAA during the last grading period. Raytheon has met and continues to meet the training performance requirements and goals identified by the FAA.

Our progress goes beyond the metrics and includes the lessons that both the FAA and Raytheon have learned from this experience. These have led to changes in personnel at both organizations, and much stronger collaboration on methodology, budgets, trade-off decisions, and performance. This was critical to making the adjustments needed to comply with sequestration and last year's government shutdown.

Cost Reduction in the First Option Period:

As the committee knows, during the contract's first four years, total ATCOTS program spending exceeded the budget by 20 percent and the FAA decided to initiate the first contract option a year early to continue the program's funding.

Raytheon and the FAA are working to maximize the training that can be accomplished within the allocated budget. Let me cover some of the changes we have made. For the first time, FAA field managers are involved in deciding local training priorities, which will lead to more efficient and effective training across the system. Their involvement has been enabled by a new planning and execution tool developed and implemented by Raytheon at our own expense. In collaboration with the FAA, we have also implemented new workforce practices and scheduling efficiencies at the Academy that are expected to reduce the remainder of FY14 costs by five percent. Further, we reduced our program management office by 20 percent after working together with the FAA to streamline contractual reporting requirements. This reduction should lead to \$2 million in annual savings.

New Training Innovations:

As the IG report suggests, training transformations that could have had a material effect on either cost or certification times have not yet been achieved during the first four years of the contract. I agree with that conclusion. Some of the reasons for the lack of progress have been the team's focus on meeting the more immediate mission training needs; addressing expanded training requirements; and finding near-term cost efficiencies. That said, Raytheon has provided numerous proposals and white papers outlining potential areas for important innovations. Through our Six Sigma process we have found ways to lean out the process and achieve better utilization and productivity. With support and approval from the FAA, we could implement innovations that would allow us to deliver higher quality training at a lower cost.

The biggest opportunity now before us is the **ATCOTS Curriculum Architecture Project**, which was started in August, 2013. Raytheon, working in collaboration with the FAA and the National Air Traffic Controllers Association (NATCA), created a blueprint for the

systematic modernization and transformation of the ATC training program. This strategic approach identifies the best training methodology (instructor-led, web-based, simulation, etc.) to use for specific training requirements, and how to best sequence training to avoid duplication while enhancing knowledge acquisition. This approach is practiced by the leading training organizations in the world, and based on our own experience with both commercial and government customers, could result in savings of up to 50 percent. While significant up-front effort is involved, the architecture project could be a game-changer leading to transformational air traffic controller training.

Other innovations we have presented to the FAA include Virtual Classroom Training (VCT), Remote Simulation, and the development of a remote Air Traffic Basics Course. VCT would allow a single instructor to deliver training to multiple classrooms at once. The same concept can be applied to high-cost simulators, saving on travel time and delivery service costs. However, these strategies conflict with various contractual requirements for the instructors to be physically located at each field facility. The FAA is considering the request and the associated modifications, along with Raytheon's plan to ensure instructors will have the proper knowledge and experience for quality instruction.

The implementation of a remote Air Traffic Basics course also has promise. Instead of attending this five week course at the Academy, a new hire would learn the fundamentals, such as aircraft identification and runway numbering, and complete this computer-based training prior to arriving at the Academy, thereby reducing student and instructor costs.

I would like to conclude by emphasizing that significant progress has been made over the past year in this complex, challenging, and critically important program. Raytheon and the FAA have established a solid foundation for further performance gains and cost reduction. In the ten

months since I have assumed responsibility for the program, it has become very clear to me that Raytheon has the program knowledge, transformational training capabilities, scale, and the larger air traffic management domain experience to continue to meet the dynamic needs of the FAA while helping to implement beneficial changes. We pride ourselves in being a leader in providing affordable and effective mission critical training and we believe we have already accomplished much on the ATCOTS program.

Thank you for the opportunity to speak with you today and I look forward to responding to any questions you may have.
