



United States Government Accountability Office
Washington, DC 20548

August 24, 2012

The Honorable John D. Rockefeller IV
Chairman
The Honorable Kay Bailey Hutchison
Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable John L. Mica
Chairman
The Honorable Nick J. Rahall, II
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

Subject: Review of FAA's Collegiate Training Initiative as Mandated in the FAA Modernization and Reform Act of 2012

Section 603 of the FAA Modernization and Reform Act of 2012¹ required us to review, within 180 days of the enactment of the act,² the effect of providing a specified alternative to the current air traffic controller training approach. Currently, one path toward becoming an air traffic controller is by attending a college or university that offers aviation degrees and partners with FAA in the agency's Air Traffic Collegiate Training Initiative (CTI).³ The current training for CTI program graduates, who have completed the basic air traffic curriculum at their college or university, continues with initial specialization courses at the FAA Academy (Academy), and subsequent air traffic training at their assigned duty station. The proposed alternative training for those graduates keeps basic air traffic curriculum the same, but would shift instruction of initial specialization courses from the Academy to the 36 CTI schools. It would also include a new air traffic controller orientation session at the Academy, followed by on-the-job training at the assigned duty station. The mandate requires us to analyze (1) the cost effectiveness of the alternative training approach and (2) the effect that the alternative training approach would have on the overall quality of the training received by graduates of CTI programs.

On July 20, 2012, we briefed your offices on our approach and preliminary findings on air traffic controllers' training costs and the effects of the suggested alternative on the skills and abilities trainees possess as they begin work at an air traffic control facility. This letter summarizes the

¹Pub. L. No. 112-95, § 603, 126 Stat. 112 (2012).

²The act was enacted on February 14, 2012. One hundred eighty days after that date is August 12, 2012.

³The CTI program is a partnership with 36 approved colleges and universities that offer aviation degrees.

preliminary findings that we shared with you at the July 20, 2012, briefings. To identify cost information, we conducted interviews with FAA officials involved in the agency’s training, human resources, and finance offices, and with the Academy. We obtained FAA cost data on Academy trainees, estimated on a per-trainee basis. Based on our conversation with FAA officials about how the data are maintained, we determined that the data were sufficiently reliable for our purposes. To understand the potential effect that the alternative training approach may have on the skills and abilities that trainees possess as they begin work at an air traffic control facility, we reviewed FAA documents and reports on its air traffic controller workforce, conducted a literature search and reviewed relevant reports on air traffic controller training, and conducted interviews with FAA officials and air traffic control industry groups.⁴ We conducted this performance audit from June 2012 to July 2012 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.

Summary

The cost effectiveness of the alternative training approach depends on several cost elements that are currently unknown, such as the up-front costs to develop the new controller training curriculum for CTI schools and the duration of the new orientation session at the Academy. However, some direct cost savings to FAA are possible and may be realized under the alternative training approach. These savings include avoiding the cost of pay (salary and per diem) for Academy trainees and not incurring the cost of providing Academy courses for each assigned air traffic control specialization. Table 1 lists FAA’s possible cost savings per trainee for current Academy training for each of the three air traffic controller specializations.

Table 1: Current Duration and FAA Costs for Air Traffic Controller Specializations

Specialization	Duration (course days)	Cost per trainee
En route facility	63	\$28,578
Terminal tower	37	\$17,241
Terminal TRACON ^a	31	\$13,213

Source: GAO analysis of FAA data.

^a A TRACON is a Terminal Radar Approach Control Facility.

However, any cost savings could be offset by a number of additional costs that FAA could incur related to the alternative training approach; because some of these costs are unknown at this time, it is unclear whether the alternative approach would be more cost effective. These additional costs would depend primarily on how FAA implements the new training. For example, there would be some amount of up-front costs to develop a new controller training curriculum, including standardization and determining CTI school capacity for classroom instruction and simulations. Also unknown are recurring costs for any additional evaluations FAA would have to undertake to check the accreditation status of CTI schools and to assess graduates’ proficiency in the initial specialization coursework. The cost of the mandate’s proposed new orientation at the Academy for graduates of CTI schools is also unknown. Another factor that is not known is the extent to which additional course work at the CTI schools will increase students’ costs for their training, and whether any such increases in costs will influence students’ decisions about how or whether they choose to pursue air traffic controller training.

⁴Air Traffic Control Association, the MITRE Corporation, and National Air Traffic Controllers Association.

We were not able to determine the potential effect of the alternative air traffic controller training approach on controller trainees because the concept would need further development before comparisons can be made about performance outcomes for such trainees under the current approach and the alternative approach. At the present time, there is no direct evidence that shows the effect of such a difference in training approaches, and our search of the literature did not uncover any similar studies from which to draw. FAA has begun data analysis on the success of graduates of individual CTI schools—from facility training through certification as a full performance air traffic controller—but FAA’s analysis does not include information on performance outcomes from the alternative training approach because it is yet to be implemented. Information from CTI colleges and universities may provide additional insight on the viability of the alternative training approach. Furthermore, FAA has recently begun a “proof of concept” study to determine how to expand its partnerships with CTI schools by requiring additional specialized training at these schools and then allowing graduates to bypass the Academy to go straight into on-the-job training at an air traffic facility. We agreed to separately provide your office with a summary of this proof of concept.

At our July 20, 2012, briefings with your offices, we proposed to continue this work to obtain the perspectives of various stakeholders, including representatives from CTI schools, managers of FAA's air traffic control facilities, additional air traffic control industry groups, and representatives of private organizations that train air traffic controllers. As part of this effort, we may explore effects that the alternative approach may have on student costs at CTI schools, including the extent to which these costs may be paid by various federal grant and loan programs, and whether any additional costs may influence whether students choose to train at CTI schools or directly at the Academy as general public hires. Your offices agreed that we should conduct further analysis and proposed that we issue a final report by mid-February 2013, if not sooner. Your offices also agreed that our July 20, 2012 briefings met the mandate’s requirement for GAO to report by August 12, 2012, with the understanding that a final report on these issues is forthcoming.

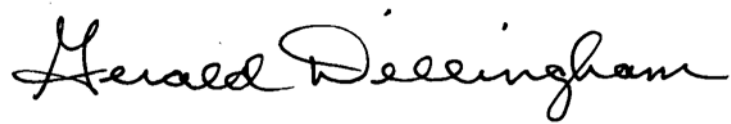
Agency comments

We provided a draft of this letter to FAA for its review and comment, and the agency had no comments.

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We look forward to working with you and your offices on the next phase of this work. Should you or your staff have questions about this letter, please contact me at (202) 512-2834 or dillinghamg@gao.gov. Contact points for our Offices of Congressional Relations and Public

Affairs may be found on the last page of this letter. Key contributors to this letter included Andrew Von Ah (Assistant Director), Amy Abramowitz, Owen Bruce, Brian Chung, Dave Hooper, Delwen Jones, Bonnie Leer, Connor Lieb, and SaraAnn Moessbauer.

A handwritten signature in black ink that reads "Gerald Dillingham". The signature is written in a cursive style with a large, prominent initial "G".

Gerald L. Dillingham, Ph.D.
Director, Physical Infrastructure Issues

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