

A photograph of a tall, white, octagonal air traffic control tower with a glass-enclosed top section and several antennas. The tower is set against a blue sky with light clouds. In the foreground, there are several dark green evergreen trees and a field of dry, golden-brown grass. In the background, there are rolling hills and mountains under a clear sky.

Solving the Federal Contract Tower Staffing Crisis: A Proactive Approach

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**Prepared by the U.S. Contract Tower Association,
an affiliated organization of the
American Association of Airport Executives**

INTRODUCTION

The National Airspace System (NAS) is facing an air traffic controller staffing crisis that is an aftershock of the Professional Air Traffic Controllers Organization (PATCO) strike nearly three decades ago. The focus nationally has been the turnover rate among the Federal Aviation Administration's (FAA) Air Traffic Control Specialists (ATCS) and the impact that it is currently having, and will continue to have, for the next 10 years, on FAA's ability to fulfill its mission "to provide a safe, efficient, responsive air traffic system that serves the nation and supports the global aviation community." However, FAA's staffing problems are having a ripple effect on the rest of the industry, including FAA's Federal Contract Tower (FCT) Program, as FAA attempts to hire thousands of air traffic controllers. FCTs are an integral and important part of the NAS, accounting for more than 40 percent of the air traffic facilities and 25 percent of the air traffic control tower (ATCT) operations. FCTs, which are outsourced FAA towers, are also at risk of not being able to fulfill the mission. FAA is hiring experienced FCT employees faster than they can be replaced, and FCT contractors are restricted in whom they can hire. FCT contractors are currently unable to train employees without a Control Tower Operator (CTO) certificate. This limits their ability to effectively address critical staffing shortages. A solution or solutions must be identified and action taken soon before the impact on the FCT Program causes a degradation of service and, more importantly, safety in the NAS.

The U.S. Contract Tower Association, an affiliated organization of the American Association of Airport Executives, is pleased to provide the following background and recommendations for consideration by the FAA.

BACKGROUND

On August 5, 1981, President Ronald Reagan fired 10,000+ air traffic controllers, approximately 75 percent of FAA's air traffic controller workforce, for striking against the federal government. To keep the skies safe, FAA put supervisors back to work controlling aircraft, brought in military controllers to augment staffing and closed down many low-activity towers to free up staffing for busier facilities. In all, FAA was able to maintain about 80 percent of system capacity with considerably fewer air traffic controllers. It took FAA about 10 years to recover from the loss.

The FCT Program was created as a result of FAA's staffing crisis created by the controller strike in 1981. Contract towers have been around since the 1960s as Non-Federal Contract Towers (NFCT) when service providers contracted directly with the local airport owner/operator. In 1982, FAA recognized the impact that closing towers at many small airports had on the local economies and the safety at those airports. The first five FCTs were opened as part of an innovative pilot program. Contracts were managed at the FAA Regional Office level until 1994. Building on the success and proven value of the FCT Program, in 1994 FAA nationalized the program by contracting out all 163 FAA Level I VFR towers. Fourteen years later, the FCT Program has grown to 240 VFR towers with an additional 25 towers at non-towered airports to be added to the program over the next few years. FCTs save FAA millions of dollars annually, contribute positively to the economy in hundreds of local communities and have immeasurably improved safety at the airports they serve. Today's FCTs include busy and complex facilities. Based on traffic count, nine FCTs are in the top 100 towers in the country; two FCTs (Gateway Tower in Mesa, Arizona, and Chandler Tower in Chandler, Arizona) are in the top 50. Only six of FAA's 74 remaining VFR towers are busier than the busiest FCT.

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The air traffic control profession consists of a very small yet highly specialized workforce. The United States has more air traffic controllers than the rest of the world combined. In the U.S., FAA employs about 15,000 ATCS. The U.S. military has approximately 6,000 ATCS and there are about 1,500 contract ATCS. That is a combined total of approximately 22,500 air traffic controllers serving a country of over 300 million people.

New controllers, referred to as developmentals, must be trained on basic air traffic control (ATC) knowledge, rules and procedures, and then at their first facility on the specifics of that facility. It can take between one and three years for a developmental to become a fully rated, certified professional controller (CPC). When a CPC transfers to a new facility, they must also be trained and certified at the new facility (regardless of the extent of their experience). However, a CPC in-training takes considerably less time to certify at a facility than a developmental. Controller disciplines are divided into two categories, radar and tower. Radar controllers outnumber tower controllers about two to one.

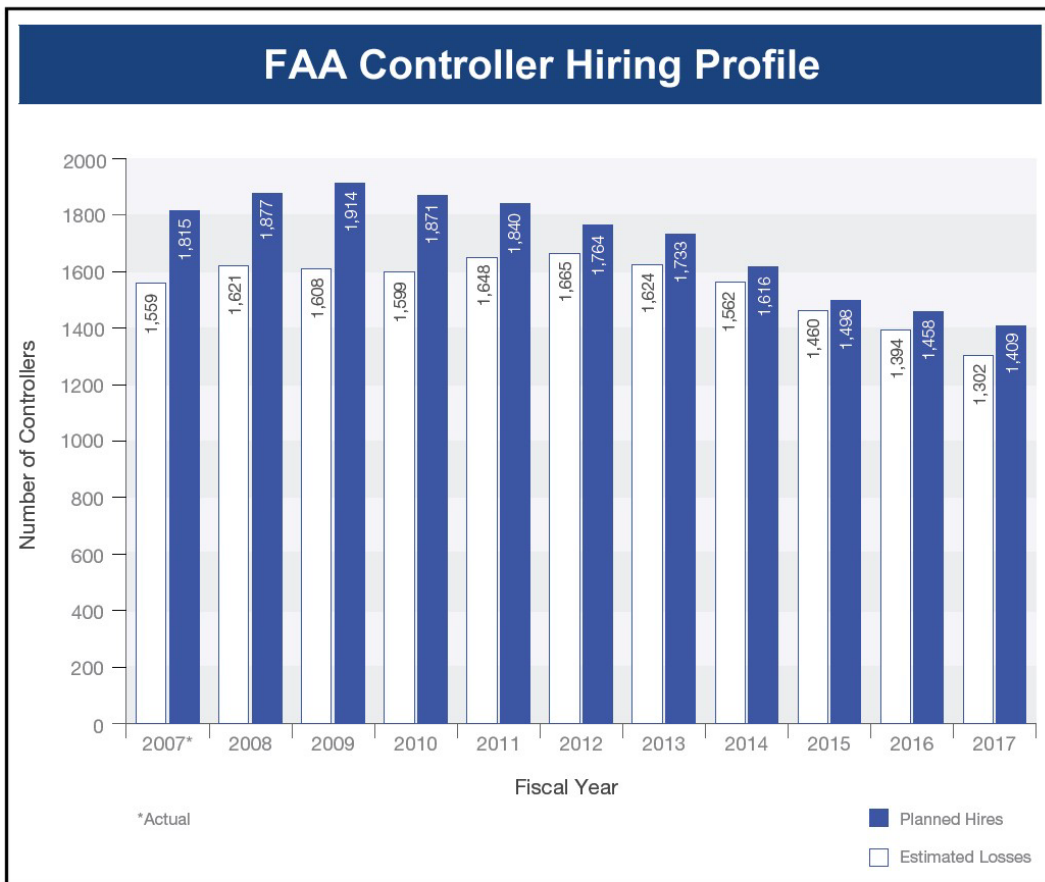
Initial certification training of air traffic controllers in the U.S. is primarily accomplished by FAA and the military. There are 23 colleges and universities that have partnerships with FAA under the Air Traffic Collegiate Training Initiative (AT-CTI) which offer basic courses in ATC. The Community College of Beaver County and Middle Georgia College both have CTO programs as part of their AT-CTI programs. They are the only non-government agencies in the U.S. that are training tower controllers from “off the street.”

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There are five basic employers of air traffic controllers in the U.S.: FAA; Department of Defense (DOD) – civilian; military (active duty, National Guard and Reserves); FCT contractors, and NFCT employers. Excluding the military, the hierarchy of pay and benefits from highest to lowest is FAA, DOD, FCT and NFCT.

PROBLEM

Twenty-seven years after the 1981 controllers strike, FAA is facing a retirement swell from the controllers hired post-1981. To deal with the pending staffing crisis, FAA has begun hiring in mass. According to an article entitled, “*Controller Hiring on Track*” posted on FAA’s Air Traffic Organization (ATO) website on June 12, 2008, FAA hired more than 1,800 controllers in 2007, and anticipates exceeding its projections with 2,000 new hires in 2008. The chart below shows FAA’s projected hires and losses through 2017.



Source: The Federal Aviation Administration's 10-Year Strategy for the Air Traffic Control Workforce

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FCT STAFFING LOSSES – FAA is the preferred air traffic control employer due to federal pay, retirement and benefits standards. In order to decrease training times and attrition related to training, FAA is hiring significant numbers of experienced DOD, military and contract ATCS. One-third of FAA’s new hires in recent years have come from the military and contract controller ranks. This has had a ripple effect on contract tower staffing. Below is a table that categorizes the employee losses in 2007 for the three main FCT contractors:

2007 FCT Staff Losses		
CATEGORY	LOSSES	percent
DOD	16	5.5
FAA	127	43.9
FIRED	7	2.4
MEDICAL/DEATH	21	7.3
OVERSEAS ATC	8	2.8
RETIRED	22	7.6
TRAINING FAILURE	35	12.1
OTHER	53	18.3
TOTAL	289	

The most significant category of losses was to FAA (**43.9 percent**). Most of these losses occurred with less than 30 days notice, and many of them with two weeks notice or less. Further complicating the situation, a large percentage of losses occurred back to back in the last quarter of the federal fiscal year. FCTs are FAA towers. FAA has contracted with the FCT contractors to staff them and run their day-to-day operations. FCT contractors, like FAA, invest extensive amounts of time and money to recruit and train new-hire controllers. Short notice FAA hiring of FCT controllers without coordination with the contractor is unacceptable, and is akin to “robbing Peter to pay Paul.” Without change soon, a breakdown of the FCT Program will occur, causing problems for the entire NAS.

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FCT STAFFING GAINS — In stark contrast, the FCT contractors, who are competitors, put the needs of the FCT Program and the NAS ahead of their individual interests. FCT contractors extend professional courtesy among themselves when considering each other's employees for open positions, coordinating the departure dates to ensure overall continuity, efficiency and safety of the system. Similar coordination between FAA and the FCT contractors must be established.

The table below categorizes the employee gains in 2007 for the three main FCT contractors:

2007 FCT Staff Gains		
CATEGORY	GAINS	percent
DOD OTHER	11	3.4
DOD RETIRED	1	0.3
FAA OTHER	15	4.6
FAA RETIRED	67	20.5
MILITARY OTHER	143	43.7
MILITARY RETIRED	39	11.9
OVERSEAS ATC	6	1.8
OTHER	45	13.8
TOTAL	327*	

* Difference between gains and losses is attributable to addition of new towers to the program.

The most significant categories of new hires were from the DOD and military, which, combined, accounted for **61.1 percent** of FCT new hires. This signals a significant change in the experience/background of FCT controllers. The military's downsizing over the past 20 years has resulted in fewer military controllers available to staff towers. The experience of today's military controllers is less applicable to working in a civil VFR tower than in the past. Most of the military ATCS currently separating from the military have earned their CTO certification working

helicopters in a war zone; not mixing helicopters with fixed-wing aircraft, jets with propeller driven aircraft, and civilians with commercial pilots.

Post-1981, when the FCT Program began, there was an abundance of available former PATCO ATCS, most of whom had many years of civil VFR tower experience. During that time, it was relatively easy to find highly trained and experienced controllers to fill vacancies. Training was relatively easy since the majority of new hires were very experienced and only needed training on the local area and procedures.

HIRING RESTRICTION – Since the FCT Program’s inception, FCT contractors have hired only controllers with a CTO certificate (CPCs). The FCT Program was not designed for FCTs to be staffed to train developmental controllers. They are staffed to train experienced controllers for facility ratings. Now that the majority of new hires are former military and DOD controllers with little or no experience relevant to working in a civil VFR tower, training has taken on a whole new dimension. More instruction on the basics is required; training times have increased, and the number of training failures is on the rise. The time required for this training is placing a tremendous amount of stress on FCT ATCS who are doing more with less.

While there is not a lack of applicants for FCT positions, the number of controllers with civilian VFR tower experience who are in the market for a job has diminished tremendously. Nearly three decades after the strike, ex-PATCO controllers who went to work in FCTs are retiring, and those who have not worked ATC since 1981 have been out of the job too long. Military controllers do not have the experience that they used to have. Applicants under age 31 are

using FCTs as a stepping stone to FAA. Retiring FAA employees are not coming over to FCTs for work as anticipated; they only accounted for 20.5 percent of the new hires in 2007.

Staff turnover increases overtime costs while the facility is short-staffed and new hire employees are being trained. Excessive overtime and constant training puts stress on individual employees as well as the entire facility. The lack of qualified applicants to fill FCT vacancies and the high turnover of FCT controllers are compelling reasons for FAA to once again seek an innovative solution as they did in 1982. Although the original concept has worked for 26 years, the FCT Program is in desperate need of change if it is to survive.

THE SOLUTION

The FCT Program represents all of the best characteristics of any government/industry partnership. Operating in an era of decreasing fiscal resources, the FCT Program provides:

- Enhanced safety in the NAS

- A considerable cost savings for the government – conservatively over \$100M annually

- A service that contributes significantly to local economies (and would likely not be otherwise available)

- A critical component to small airports – either with or without scheduled commercial airline service

In order to ensure the FCT Program's long-term viability and excellent safety record, the current staffing situation must be addressed immediately. The solutions require the same level of

innovation and cooperation between FAA and industry that has made the program such a resounding success for the past 26 years.

COORDINATED RECRUITING — Effective communication lines and procedures must be established between FAA and the FCT contractors regarding FAA's hiring of FCT controllers; similar to what exists between the contractors themselves. When FAA transfers a controller between two of its facilities, the transfer is coordinated to avoid staffing issues at either location. In the past two years, a number of contract towers have lost multiple controllers to FAA in rapid succession, creating critical staffing situations that added stress on the remaining staff and unnecessarily increased safety risks. Simple coordination between FAA and contractors could have ensured that the staffing needs of both were met while ensuring the safety and integrity of the NAS.

FCTs are FAA towers where the staffing and day-to-day operations have been outsourced. The hiring of FCT ATCS by FAA should be handled similar to the internal transfer of an FAA ATCS; the coordination should be seamless. It is short-sighted not to place the priority on continuity for the affected facilities. The contractors have tried without success on numerous occasions to establish the necessary communication lines with FAA to ensure that this happens. Air traffic controllers are a national resource that needs to be managed carefully for the good of the nation. Intervention to require coordination between FAA and FCT contractors regarding recruitment of ATCS (FAA and FCT) needs to come from the top of the ATO leadership.

FCT CONTROLLER DEVELOPMENT PROGRAM — The need for developing controllers in FCTs must be addressed. The high turnover of FCT controllers is being exacerbated by a

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dynamic shift in the experience levels of new hire controllers. There is no longer an abundance of VFR tower controllers with civilian experience who are seeking employment at FCTs. A controller development solution must be identified and implemented immediately.

Recent ideas regarding air traffic control training in FCTs have centered on the concept of operating a CTO school and performing on-the-job training (OJT) in select FCTs. That concept stalled out due to complications related to insurance coverage, conflict of interest and security. FAA must address these issues and take action now to protect the FCT Program and, ultimately, the NAS.

The prudent approach would be a simple one that allows timely implementation of an FCT Controller Development Program with a reasonable assurance of success. Success would be a factor of (1) the percentage of candidates who successfully complete the program, and (2) the long-term retention rates of successful candidates balanced against the cost of the program. Candidate success can be reasonably ensured by using candidates with the greatest likelihood of successfully completing the program. Retention rates can be improved by partnering with FAA regarding the recruitment and hiring of program participants, and by obtaining a commitment from the candidate regarding retention. In order to expedite implementation, the program must, to the extent possible, operate within the framework of the current FCT Program, requiring only minor adjustments initially.

REGULATORY REQUIREMENTS — Federal Aviation Regulation (FAR) 65.39, *Practical Experience Requirements: Facility Rating*, regulates the experience requirements for air traffic controllers applying for a facility rating. The applicable excerpt from this paragraph states:

“Each applicant for a facility rating at any air traffic control tower must have satisfactorily served—

(a) As an air traffic control tower operator at that control tower without a facility rating for at least 6 months; or

(b) As an air traffic control tower operator with a facility rating at a different control tower for at least 6 months before the date he applies for the rating.”

Initial facility ratings require that the ATCS have worked at that control tower at least six months without a facility rating. Subsequent facility ratings at other facilities either require the initial six months of experience without a facility rating or six months of experience with a facility rating at a different control tower.

HIRING FOR SUCCESS — While there is a lack of available, qualified controllers to work in FCTs, there is also a large resource of individuals with an ATC aptitude who do not have a CTO, or have a CTO without the requisite six months of practical experience with a facility rating. These individuals come in two categories:

1. FAA and military ATCS with radar-only experience, and
2. AT-CTI graduates who have passed the CTO written exam (some of whom have earned their initial facility rating but do not meet the practical experience requirements for their subsequent CTO).

Hiring from these groups would keep the candidate success rate high. As a side note, initial talks with a number of CTI universities have yielded interest in establishing a program that

would allow pilots to be trained on the knowledge requirements to prepare them for the CTO exam.

In accordance with FAR 65.39, these new employees would need to work as air traffic control tower operators for six months before they could earn their facility rating, and then another six months with a facility rating before they could apply for a subsequent rating. This is where the FCT Program would need to adjust to the current challenges facing the program. The FCT Program's success is in large part the result of the ability of contractors to staff towers efficiently with experienced controllers who only require facility specific training. This allows FAA to realize significant savings. In order to adapt to the longer training times required by less experienced new hire controllers, training facilities would need to be designated.

TRAINING FACILITIES — Training facilities ideally would have moderate traffic density and complexity. They would need to be staffed with additional on-the-job training instructors (OJTI) to support the training of developmental controllers. Each training facility would be allowed to take on developmental controllers. Once the developmentals earn a facility rating and meet their practical experience requirements, they would be transferred to another facility with a vacancy. New developmentals would be hired to fill the vacated positions, and the process would begin all over again.

The current FCT contract prescribes a minimum staffing of four personnel per tower, including the manager. In 2004, the FCT contractors' staffing plans for each tower were proposed based on the conditions that existed at that time. They were based on factors such as hours of operation, traffic density, type and complexity, etc. The additional requirement for training

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facilities would necessitate a modification to the current contract, designating particular facilities as training facilities and authorizing the additional staff. The upcoming Screening Information Request would also have to address the addition of training facilities.

UNCOMPLICATED APPROACH — To overcome some of the obstacles to implementation, developmental controllers would need to be hired as FCT employees. As employees, there would not be any question about whether they are covered by FAA's and the contractor's insurance. There also would not be any questions about conflict of interest because the contractors would not be using FAA labor hours and resources to make money from students. Additionally, developmental controllers hired as part of the FCT Controller Development Program would have to complete the same background security checks as any other FCT employee, eliminating any security concerns.

THE INVESTMENT — A pilot program could be established for \$1.5 million to \$2 million. Developmental controllers would be required to sign an agreement to work for the contractor for a minimum of two years after completing the FCT Controller Development Program. The agreement would have to be supported by procedures adopted by FAA Human Resources to not hire a controller in the FCT Controller Development Program until his/her FCT obligation is complete, ensuring a good return on investment for time, energy and resources expended by FAA and the contractors.

Simply put, the FCT Controller Development Program would require designating training facilities. Each training facility would be carefully selected using criteria such as traffic density and complexity, seasonal traffic fluctuations, tower equipment configuration and available

space. Each training facility would receive additional staffing of OJTIs to support a prolonged OJT program. Developmental controllers would be hired from a group identified as having demonstrated ATC aptitude and skills. Developmental controllers would be expected to transfer to fill vacancies where needed after completing approximately six months of training and six months of practical experience. New developmentals would be hired, completing the cycle. FAA would not hire ATCS in the FCT Controller Development Program until their obligation to the program is complete; protecting FAA's investment. Eventually, FAA would be able to hire FCT ATCS after completion of the program and their obligation, providing FAA with proven, experienced controllers.

CONCLUSION

The FCT Program was born out of the post-PATCO strike era when FAA turned to industry for help to meet the great need for air traffic control services that resulted from the strike. The FCT Program's success for the past 26 years has been the result of an excellent partnership between FAA and private industry. FCTs have become an integral part of the NAS, accounting for more than 40 percent of the air traffic facilities and 25 percent of ATCT operations.

The NAS is again facing an air traffic controller staffing crisis that is an aftershock of the PATCO strike. The industry-wide shortage of air traffic controllers is projected to last for the next 10 years. The FCT Program is being threatened by a lack of available, qualified controllers to staff the 240 FCTs. FAA is hiring experienced FCT ATCS faster than they can be replaced, and the ability of FCT contractors to address the problem is constrained by the framework of the original design of the FCT Program that keeps them from hiring employees without a CTO.

Formal communication procedures must be established immediately between FAA and the FCT contractors regarding FAA's hiring of FCT controllers. Priority must be placed on continuity of the system. It is imperative that direction from the top of the ATO ranks mandate the establishment of these lines of communication.

Unprecedented employee turnover rates, reduced controller experience levels, and the dynamic shift in required training in FCTs are all placing tremendous stress on the entire FCT Program. FCT contractors must be allowed to tap into the large resource of individuals with an ATC aptitude who do not have a CTO, or who have a CTO without the requisite six months of practical experience with a facility rating. As part of an FCT Controller Development Program, FCT training facilities with extra OJTIs and developmental controllers must be designated to allow FCT contractors to adapt to this changing environment and mitigate the risks to the entire system. A pilot program could be established for a relatively small investment by FAA.

Time is of the essence.

Short term – coordination lines need to be established to ensure continuity of facilities during cross recruitment between FAA and FCT contractors.

Long term – an FCT Controller Development Program must be established. FAA's Contract Tower and Weather Program Office must, as soon as practicable, host a summit for the FCT contractors and FAA leadership (those able to effect changes in FAA hiring practices) to discuss these and other ideas for dealing with the FCT staffing crisis.