

**Testimony of
Patricia Gilbert
Executive Vice President
National Air Traffic Controllers Association**

**Before the
Transportation, Housing and Urban Development
Subcommittee**

**Of the
House Appropriations Committee**

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**Maintaining a Safe & Viable Aviation System:
Priorities from Aviation Stakeholders**



Introduction

Thank you for the opportunity to testify before you today. My name is Patricia Gilbert, and I am the Executive Vice President of the National Air Traffic Controllers Association (NATCA). Before beginning my term of office, I worked for 20 years as an air traffic controller in Houston ARTCC. I have served NATCA as a Quality-Through-Partnership (QTP) facilitator in 1992 and for three terms as Houston Center's Facility Representative. I also served on NATCA's National Legislative Committee (NLC) first as the Southwest region representative from 2001- 2005 and then as chair of the committee from 2005 until 2009.

The National Air Traffic Controllers Association (NATCA) is the exclusive representative of over 15,000 air traffic controllers serving the Federal Aviation Administration (FAA), the Department of Defense and the private sector. In addition, NATCA represents approximately 1,200 FAA engineers, 600 traffic management coordinators, 500 aircraft certification professionals, agency operational support staff, regional personnel from FAA's logistics, budget, finance and computer specialist divisions, and agency occupational health specialists, nurses and medical program specialists. NATCA's mission is to preserve, promote and improve the safety of air travel within the United States, and to serve as an advocate for air traffic controllers and other aviation safety professionals.

NATCA has a long history of supporting new aviation technology, modernizing and enhancing our nation's air traffic control system, and working to ensure that we are prepared to meet the growing demand for aviation services. So that everyone continues to have access to a safe and efficient National Airspace System (NAS), NATCA is an active member of the Radio Technical Commission for Aeronautics (RTCA) and a participant in the workgroup that made the recommendations that will be explored today. We fully support the RTCA's recommendations and applaud its policy of collaboration. We also recognize that the technological, procedural, and implementation details remain at the discretion of the FAA.

Executive Summary: NATCA's Budget Priorities

Air Traffic Organization Operations Budget: The National Air Traffic Controllers Association (NATCA) supports full funding of the Air Traffic Organization (ATO). This division of the Federal Aviation Administration (FAA) is responsible for maintaining the day-to-day safety of the National Airspace System (NAS) through the air traffic control system. The hard work and professionalism of the air traffic controller workforce has enabled the United States to maintain the safest airspace system in the world. NATCA cautions against short-sightedness in the funding of the ATO. Instead we must plan for the future personnel needs of the NAS in the same way as we plan for its technological needs. We should plan for the future recovery and the increased capacity that will be created by NextGen rather than scale down air traffic controller staffing because of the recent downturn in air traffic.

Facilities: NATCA would like to thank the Subcommittee for providing the funding of facility repairs in last year's economic recovery bill. With so much attention focused on the development of NextGen, we were pleased to see that the health and well-being of the employees of the FAA were not neglected by Congress.

The FAA has been engaging in the realignment and consolidation of facilities and services throughout the country without the input or involvement of air traffic controllers, pilots, airport managers and other vital aviation stakeholders. NATCA is pleased, however, to see a recent shift by the FAA away from the ad-hoc, unilateral approach to altering ATC facilities in services by vowing to develop a more comprehensive and inclusive plan. NATCA continues to caution the FAA that it must collaborate with

NATCA to ensure that changes are made only in cases where the benefits outweigh the risks and that the risks are properly mitigated.

NextGen: NATCA is supportive of the modernization of the NAS, although we are still concerned by the undefined nature of NextGen's components and goals. NATCA wants to emphasize the importance of pre-decisional collaboration. Such cooperation has historically helped projects deliver superior products on-time and on-budget.

Modernization: NATCA's priorities for modernization include the successful and effective completion of the En Route Automation Modernization (ERAM) project, as well as the deployment of a unified terminal automation system, the expansion of surface surveillance to all towered airports, and a more robust communications system to alleviate frequency congestion. We support full funding of these initiatives and look forward to meaningful pre-decisional collaboration with the FAA to achieve the best results.

I – ATO Operations Budget

NATCA supports the Obama Administration's budget request for FY 2011 to fund Air Traffic Organization (ATO) operations, responsible for maintaining the day-to-day safety of the NAS. The hard work and professionalism of the air traffic controller workforce has enabled the U.S. to maintain the safest airspace system in the world.

Controller Staffing Needs

In its ATO operations budget proposal, the FAA states that it identified trends that "allowed us to adjust the staffing number downwards." It is important to point out that these trends rely primarily on a downturn in traffic as a result of the faltering economy and that adjusting staffing downward for this reason is dangerously shortsighted. As the economy inevitably recovers, so too will the aviation industry. The FAA is actively preparing for this in other aspects of their budget and planning. NextGen, for example, is being designed in an attempt to improve the capacity of the NAS that will only be necessary once the aviation industry recovers. We applaud the FAA for its forward thinking on NextGen, but we caution the Subcommittee to regard human factors with the same mindset. Because it can take up to three years for a new hire to become a certified professional controller, it is impossible for the workforce size to be adjusted quickly when the industry rebounds without preparing in advance.

The downward adjustment of the staffing number also indicates the FAA has not learned from its earlier mistakes. After President Reagan fired the PATCO strikers, the FAA had a major staffing crisis that necessitated the rapid hiring of a large number of new air traffic controllers. Rather than continue hiring in an even flow after this surge, the FAA dramatically cut off hiring in the late 1990s. During the past few years, the FAA has seen an unprecedentedly-high level of attrition as those who were hired in the wake of the PATCO strike reached retirement age. The Bush FAA exacerbated this problem by imposing punitive work and pay rules on the controller workforce that convinced many to retire as soon as they became eligible, resulting in an attrition rate that far exceeded what could have been predicted based on eligibility rates alone.

Administrator Babbitt has done an excellent job overseeing the hiring of a large number of new trainees to fill the vacancies created during the imposed work rules. But the budget submission indicates that the FAA is prepared to allow history to repeat itself. The FAA has just completed another massive hiring wave and is poised to dramatically cut off hiring. Unless the FAA continues to hire in an even flow, we will see another wave of retirement eligibility and another staffing crisis twenty years in the future.

The Effect of the NATCA Arbitration Award

The budget submission emphasizes the immediate budgetary effect of the NATCA arbitration award. As it describes, “At the direction of the White House, DOT Secretary LaHood implemented a binding arbitration process between the FAA and NATCA to resolve multiple outstanding issues. The panel has completed its work and has provided a final settlement for the NATCA controllers’ contract. As part of the agreement, FAA will increase the pay scales for air traffic controllers over a 3-year period. These increases are binding on the agency and are not subject to adjustment.”¹ The award does represent non-discretionary spending by the FAA above what was spent last year. It must be understood, however, that the financial cost of this arbitration award does not represent expenses above a valid baseline. Instead they represent a gradual return to normalcy after what the neutral arbitrators described as “economic take-backs, in the name of fiscal prudence, that constituted unprecedented draconian reductions in compensation, bordering on the unconscionable.”²

The reversal of these take-backs has enabled the FAA to begin to recover from the staffing crisis. In FY 2008, during the imposed work rules, the FAA lost 1369 controllers – 3.75 per day – to attrition. This far exceeded historical patterns and FAA predictions, even given the increase in retirement eligibility. In FY 2009, as it became clear that NATCA would be returning to the bargaining table, the attrition rate decreased by 58% down to 1.6 per day for a total of 575 for the fiscal year.³ By re-establishing the career ladder and removing the artificially low salary cap, controllers no longer had a strong incentive to flee the FAA workforce. By restoring the starting salary for new hires, the air traffic control profession became more attractive for qualified applicants. It is important that this Subcommittee recognize precisely what was “bought” by the cost of the arbitration award: stability in the air traffic controller workforce and dignity for the profession.

The new contract contained more than just changes to the compensation packages for air traffic controllers and its fiscal impact must be understood on those other dimensions as well. For example, contract also includes provisions that require collaboration between the FAA and NATCA on NextGen, controller fatigue, and other issues that are critical to the future safe and efficient operation of the NAS. The record has shown that projects in which the FAA has collaborated with NATCA are more likely to have been on-time and on-budget than those which they conducted unilaterally.

II - Facilities and Equipment

Smart Spending on Modernization

NATCA enthusiastically supports investment in the future of the NAS technological infrastructure, but we also recognize the FAA’s mixed history with modernization projects and urge the agency to learn from past mistakes.

As this Subcommittee is aware, the FAA has a history of cost overruns and implementation delays for many of its major modernization programs. Some examples include:

- **Wide Area Augmentation System (WAAS)**: Delayed 13 years and \$1.52 billion over budget.
- **Standard Terminal Automation Replacement System (STARS)**: Delayed 3 years, \$500 million over-budget, and had its deployment reduced by over 70 percent.
- **Airport Surveillance Radar (ASR-11)**: Delayed 8 years and \$173 over-budget.

¹ FY 2011 President’s Budget Submission, Federal Aviation Administration, Pg 47.

² In the Matter of the Mediation to Finality between Federal Aviation Administration and National Air Traffic Controllers Association. July 6, 2009. Before the Panel: Jane Garvey, Chairman, Richard Bloch, Esq. Dana Edward Eischen, Esq.

³ Based on payroll data provided by the FAA to NATCA.

- **Local Area Augmentation System (LAAS)**: Delayed by 6 years and \$166 million over-budget.
- **Airport Movement Area Safety System (AMASS)**: Delayed 5 years and \$92 million over-budget.⁴

If the FAA is to be a good steward of taxpayer money, it must take steps to ensure that these programs remain on-time and on-budget. In order to accomplish this, the FAA must work collaboratively with NATCA as the representative of the agency’s frontline workforce in every stage of these modernization projects, from inception to implementation, enabling the team to identify and rectify problems and glitches during the development states. Such involvement will help the FAA to avoid costly and time-consuming overhauls during the implementation stages and ensure that the final products are functional, usable, and useful.

In a 2004 study, the GAO listed a failure to involve stakeholders as one of challenges that “have made it more difficult for FAA to meet the systems’ cost, schedule, or performance estimates.”⁵ They cited the example of the Standard Terminal Automation Replacement System (STARS), a project wherein the FAA’s failure to include stakeholders resulted in the creation of a product with critical flaws, creating a need to make major modifications during the late stages of the project, resulting in major delays and cost overruns. The GAO said,

“During the design and development phase of the Standard Terminal Automation Replacement System, which is designed to replace air traffic controller workstations with new color displays, FAA did not involve users such as air traffic controllers and maintenance technicians in human factor evaluations, which examine how humans interact with machines, because the aggressive development schedule limited the amount of time available to involve them. Consequently, FAA and the contractor later had to restructure the contract to address the controllers’ and technicians’ concerns, such as the inconsistency of visual warning alarms and color codes, which contributed to the system being delayed by 3 years and a cost increase of \$500 million.”⁶

It is critical that the FAA learn from past mistakes so that they can avoid the delays and cost overruns that have been endemic to past FAA modernization efforts.

NextGen Plans and Priorities

It is abundantly clear that NextGen, the FAA’s comprehensive modernization plan for the NAS, is the FAA’s number-one budget priority for the coming year. There are 19 separate line items which explicitly mention NextGen and many others which support NextGen initiatives indirectly. These items account for more than \$1.1 billion of the FAA’s budget, and the budget request for NextGen represents an increase more than 30% over last year⁷. NATCA applauds the FAA’s willingness to undertake such a comprehensive modernization project, but we remain concerned over the ill-defined goals and projects of NextGen. NextGen remains a catch-all phrase for the FAA’s modernization priorities, encompassing everything from airspace redesign to satellite-based surveillance, from facility closures to shifting responsibilities for air traffic controllers and pilots. Many of the concepts and projects included under the NextGen umbrella appear to be sound, but the Subcommittee should be cautious of looking at NextGen as a single project for approval. Instead, NextGen should be regarded as *many* separate though interconnected projects, each one demanding separate scrutiny.

⁴ Government Accountability Office, Report to the Chairman, Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives, “FAA Needs to Ensure Better Coordination When Approving Air Traffic Control Systems” GAO-05-11. November, 2004.

⁵ Ibid.

⁶ Ibid.

⁷ Office Of Management And Budget, Department of Transportation Budget Highlights.

The 2009 Air Traffic Controller collective bargaining agreement established a joint NextGen workgroup with members from both the union and the agency. Secretary LaHood and Administrator Babbitt made it their priority to begin this collaborative process, and the workgroup has already made progress. NATCA looks forward to continued collaboration with the FAA through all phases of each of NextGen initiatives.

NextGen's biggest challenge is not the viability of any given project or idea; rather it is in building confidence among those in the aviation industry. The implementation of NextGen will require a major investment, not only from the federal government but from every company and every individual who utilizes the NAS. The industry has a long memory, and the agency's recent track record has not always been good. American Airlines, for example, was forced to waste expenses associated with equipping their fleet with Controller Pilot Data Link Communication (CPDLC), a program that was later abandoned by the FAA.

One critical way of developing the necessary level of confidence is by establishing a stable, long-term funding stream. By showing the industry that the federal government is truly committed to this investment, industry will be more likely to view it as a sound investment for their own companies. In Europe, for example, SESAR has a funding stream that is guaranteed through 2025 through an agreement of individual states. While there are indications that NextGen is a better, more comprehensive product than SESAR, the European funding stream gives a sense of stability to the project that NextGen currently lacks.

Technological Priorities

En Route Automation Modernization (ERAM): The FAA is undertaking what may be considered the largest, most comprehensive technological update in the history of the FAA. ERAM (line item 2A01) is designed to replace HOST, the technological backbone of en route air traffic control. HOST is a mainframe computer processor which provides data to display at en route air traffic control positions. ERAM would replace the HOST mainframe with a network of PC processors designed to synthesize data from both radar and satellite sources.

While NATCA recognizes the need to replace HOST, confidence is low in ERAM. There are several critical problems that remain unfixed and a high number of workarounds to deal with less critical glitches. These issues represent a significant threat to the safety of the NAS, and we believe that live testing should be halted until the known issues are addressed. The FAA has been pushing forward with live testing in an effort to adhere to a timeline for implementation. NATCA appreciates the importance of remaining on-time and on-budget, but such factors must always be secondary to maintaining the safety of the system.

ERAM should be regarded as an example of what happens without collaboration. The project began during the previous Administration with no input from users with front-line knowledge of the system. As a result, it is significantly behind schedule, likely to be over-budget, and still contains several critical flaws and many minor glitches. To the credit of Administrator Babbitt, we have seen the FAA reach out for collaboration during this late stage of the process, and NATCA is working together with the FAA to find solutions to ERAM's outstanding problems.

Questions remain about the FAA's ability to operate within the President's proposed budget. The FAA's ability to remain within the budget proposal depends on its ability to complete installation at a majority of Air Route Traffic Control Centers (ARTCC) before the end of the current fiscal year. Given the current status of ERAM, that may be overly ambitious. The majority of costs during FY 2011 will come from emergency builds and work-arounds that will be developed as we discover glitches during implementation.

One Terminal Automation System for the NAS: The FAA has made an attempt several times in the past to develop a single terminal automation system that would serve every facility in the NAS. The acronym in STARS even reflects this goal: Standard Terminal Automation Radar System. Yet this standardization still does not exist. Instead, a variety of different radar systems are utilized at terminal facilities, each with its own capabilities and displays. This makes training more difficult and it makes maintenance more difficult. Furthermore, it makes modernization both more complicated and more expensive as changes must either be compatible across all systems or replace existing systems. Unifying terminal automation would be an excellent investment.

NATCA cautions using consolidation as a way of cutting corners in equipping smaller terminal facilities. There is concern that one or more of the systems currently in use – including ARTS-IIIE – is incompatible with ADS-B. It is NATCA’s understanding that the FAA may be considering consolidation of ARTS-IIIE facilities simply to avoid equipping these facilities with the new software. This is not a good idea.

Decisions on consolidations must be made only after full consideration of the effects of the changes is made and it is determined that the operational benefits outweigh the risks. Moving air traffic control operations out of small local airports and consolidating them with larger operations necessarily results in a reduction of service to those smaller airports, which will always take a lower priority than commercial traffic at large facilities. As the NextGen plan for increased capacity depends on better utilization of current runway space, disincentivizing the use of small facilities by decreasing service will prove counter-productive even if consolidation reduces costs in the short term.

NATCA also warns against the development and deployment of yet another terminal automation platform via the Terminal Automation Modernization Replacement – Phase 3 (TAMR-3). The industry has two companies that manufacture ARTS and STARS, both of which have offered replacement plans for the ARTS-IIIE platforms and to put terminal automation on one platform. Estimates for yet another new system have been mentioned as costing between \$2B to \$4B, with minimal system improvements, while the two replacement plans involving ARTS and STARS are both under \$500M.

Expanding Surface Surveillance: NATCA is concerned about the dramatic funding cut to the Airport Surface Detection Equipment – Model X (ASDE-X) funding that is proposed in the Presidential Budget. ASDE-X and other forms of surface radar have proven to be very effective at improving runway safety, which has continually been identified by the NTSB as one of their “most wanted” aviation safety improvements. Surface surveillance is necessary at every towered airport, yet ASDE-X has been commissioned at only 22 airports and thirteen others are in various stages of implementation. Based on the budget request of \$4.2 million, the FAA has no plan to expand ASDE-X further. NATCA would like to see the expansion of surface surveillance radar and hopes to have the opportunity to work with the FAA to make this safety initiative a reality. The FAA currently has a prototype plan with four separate Low Cost Ground Surveillance (LCGS) systems being demonstrated. NATCA believes these LCGS systems may provide an option to achieve ground surveillance at all towered airports.

Facility Closures and Consolidations

NATCA has concerns over the four budget line items that address facility closures, consolidations, and airspace realignment. These line items represent the potential for significant changes in where and how air traffic control functions are conducted. As with all major changes, the success of these projects depends on collaboration.

NATCA is not opposed to all realignment efforts. The Union collaborated with the FAA on some of the most successful realignment initiatives of the past, including the creation of consolidated Terminal Radar Approach Control (TRACON) facilities in Northern California, Southern California, and the DC metropolitan area. Most recently, in fact, NATCA worked collaboratively to transfer the local radar at Rome, New York to Syracuse, New York. However, NATCA believes that these changes must not be made blindly. Changes must be made only when the identified benefits outweigh the risks and every effort has been made to minimize and mitigate those risks. This can only be accomplished through true collaboration – from inception through implementation – between the FAA and NATCA.

NATCA is pleased to see that the FAA is developing a “long-term facilities master plan for ATCT and TRACON infrastructure replacement and improvements” (line item 2B06). As recently as July 20, 2009 in a meeting to discuss the realignment of Palm Beach TRACON, the FAA claimed that there was no national plan and that realignment decisions were made independently on a case-by-case basis. The NAS is a complex matrix of operations and facilities and it is critically important that any changes in facilities or assignment of airspaces be considered not in a vacuum but as part of an interconnected system. Furthermore, we believe that all realignment decisions that were made outside of this master plan and without collaborative involvement of the air traffic controller workforce be re-evaluated in this context before they be allowed to proceed. We have outstanding concerns that planned changes may have unintended consequences to both safety and service to the affected areas.

The FAA’s stated objective for developing a facilities plan for NextGen involves moving air traffic control services away from the geographic area of the air traffic itself. In its description of Budget item 1A15, the DOT states that requirements for facilities, “Do not require proximity of air navigation services being provided to the air traffic being managed.” While it is true that new technologies may make it possible to perform air traffic control functions remotely, this does not mean that it is advisable to do so. The FAA must take into account the benefits of the current configuration of local facilities as well as the risks associated with consolidation and remote location.

For example, when air traffic control facilities are located near the areas being served, air traffic controllers are likely to have knowledge of local terrain and landmarks that have proven vital in emergency situations. In July of last year, controller Steve Franzen made a potentially life-saving assist by helping a GA pilot land on a road west of the Las Vegas airport after his engine cut out. Franzen lived locally and biked in the desert area where the plane landed and his local knowledge was a vital factor in the save. The FAA reported, “Being familiar with the roads, he described landmarks that kept the pilot situated.” When ATC facilities are moved to remote locations, this local knowledge is lost.

Also troubling is the reference to eliminating redundancy in line item 2E06 – Facility Decommissioning. In business, redundancy is considered a waste of money and therefore its reduction or elimination is considered a positive step toward greater efficiency and profit. This is not the case when it comes to safety. The safety of the flying public depends on the reliability of the air traffic control system, and this reliability is in turn dependent on redundancy. Sufficient redundancy acts a failsafe to ensure that, if something goes wrong, there is a back-up system in place.

Lastly we remain cautious of any realignment plan that is undertaken solely as a means of cutting corners on technological equipage for NextGen. Consolidation to avoid upgrading the technology at small- and medium-sized airports is in direct opposition to the FAA’s plans for encouraging greater utilization of the NAS airport infrastructure. Rather than encouraging greater use of lower-density airports, these realignments will have the effect of decreasing the quality of air traffic control services to these smaller airports, essentially disinsensitizing their use.