Testimony of

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Reauthorization of the FAA: Perspectives of Aviation Stakeholders

Introduction

The National Air Traffic Controllers Association (NATCA) is the exclusive representative of more than 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.

Why Passage of FAA Reauthorization Is Urgently Needed: NATCA's Perspective

The air traffic controllers and aviation safety professionals that NATCA represents are highly trained and highly skilled; they deserve to have the most advanced technology to enable them to more effectively direct aircraft, contributing to a safer and more efficient National Airspace System (NAS) . NATCA has been a vocal supporter of FAA Reauthorization and continues to urge swift passage of the legislation to facilitate safe and effective modernization of the NAS while maintaining, up keeping and improving vital human and physical infrastructure.

The current economic downturn and the subsequent decrease in flight volume present not only a challenge, but also an opportunity to improve the NAS so that air traffic controllers will be better able to handle the inevitable resurgence of our aviation industry when the economy fully rebounds.

NATCA remains completely committed to the safety and efficiency of the NAS and recognizes technology has the potential to improve safety, expand capacity, and increase efficiency. Therefore, we support the FAA's willingness to undertake the large-scale and long-term research, development and modernization project called the Next Generation Air Transportation System (NextGen). Yet the complexity and the risk of this program should not be underestimated. The GAO has stated that NextGen is a "high-risk effort"[1] because of its cost and complexity, making it imperative that the FAA proceed in a manner that maximizes the chances of success.

NATCA believes that the ultimate success of NextGen is dependent upon collaboration between the Union and the FAA. Currently, the FAA is prohibiting any meaningful level of collaboration with NATCA, allowing key NextGen modernization projects, airspace redesign and changes to air traffic control procedures to move forward despite serious outstanding flaws and unmitigated safety risks. The Department of Transportation Inspector General and the Government Accountability Office have both testified before Congress that stakeholder involvement prevents cost overruns and prevents project delays.

The Agency is also moving forward on ad hoc air traffic control facility and service realignment efforts without a comprehensive review procedure to determine whether the realignment provides an operational benefit to users, increases safety and efficiency, and/or saves the taxpayer money. FAA

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[1] US House of Representatives Committee on Transportation and Infrastructure summary of subject matter for members of the Aviation Subcommittee from Aviation Subcommittee staff on *Air Traffic Control Modernization and Next Generation Air Transportation System: Near Term Achievable Goals* March 16, 2009

Reauthorization is needed to provide that review procedure and compel the Agency to subject all current realignment efforts to this needed layer of oversight, accountability and transparency. Just as with technological development, realignment efforts completed in a collaborative environment will ensure benefits are realized rather than squandered.

A restoration of what was once a great collaborative relationship is only possible with the existence of a collective bargaining agreement (CBA) and a fair process for negotiating future CBAs and other labor agreements. Air traffic controllers have been working under FAA-imposed work and pay rules for nearly 1,000 days. Two weeks ago, the Obama Administration announced that it was appointing former FAA Administrator Jane Garvey to lead a team of three to mediate the contract dispute between NATCA and the FAA. With this bold step, President Obama and Secretary LaHood are fulfilling a commitment to the safety and modernization of the air traffic control system and to the dedicated men and women safety professionals who run the system each day.

As the President and the Secretary have repeatedly made clear, a resolution to the dispute is critical to stabilizing the controller workforce, restoring a collaborative working relationship between controllers and the FAA, and successfully implementing the Next Generation Air Transportation System needed to spur economic development and increase the safety, efficiency and effectiveness of air travel.

As the President also made clear, the current process that was used by the FAA to unfairly impose its will on the controller workforce in 2006 is terribly flawed, but this process can be improved by an FAA Reauthorization bill. We supported this Committee's language last Congress in S. 1300 that provided a fix to the process by addressing the FAA Personnel Management System. Section 313 would restore fairness to the collective bargaining process and ensures that the Agency can never again unilaterally impose a work or pay rules upon its workforce.

NATCA's Recommendations for FAA Reauthorization

1. **Contract Dispute Resolution:** NATCA supports the inclusion of language similar to Section 313 of S. 1300, the Aviation Investment and Modernization Act of 2007, which sought to prevent future disputes between the Agency and its employees. The bill amended Title 49 to allow for, in the event of a bargaining impasse, the proposals to go through mediation and ultimately, binding arbitration. Implementation of such a process would ensure that Congress will never again find itself in the middle of a contract dispute between the FAA and NATCA.

2. **Realignment of Facilities and Services:** NATCA supports the inclusion of language in FAA Reauthorization that would ensure that all FAA realignment initiatives are considered in a collaborative environment and provide a specific operational benefit. NATCA supports the establishment of a workgroup of stakeholders to review all realignment proposals prior to the FAA beginning the realignment process, which we believe must include representatives of all of the affected bargaining units. Additionally, NATCA recommends that realignment be clearly defined as to prevent ambiguity and to provide clarity and uniformity to the process.

3. **Staffing:** NATCA fully supports and endorses an air traffic controller staffing provision within the FAA Reauthorization bill authorizing a third-party to conduct scientific study of the system's air traffic controller staffing need. This language would allow the FAA, Congress, and NATCA to objectively and accurately assess the current risk to the NAS and set benchmarks for resolving the staffing crisis. Just last month, a Department of Transportation Inspector General report stated that the FAA has not yet validated its staffing ranges and therefore cannot ensure it

truly represents the workforce needs. The report also said that the "FAA faces an increasing risk of not having enough fully certified controllers in its workforce,"[2] further making the case that such a study is necessary.

4. **Modernization:** NATCA supports appropriate funding levels in the FAA Reauthorization bill to modernize the air traffic control system. The NextGen modernization project's initial plan lacked clearly-defined goals, leadership, and had begun without including stakeholders in the process. The problems associated with ERAM and airspace redesign, which are outlined later in NATCA's testimony, are demonstrative of projects that have run into problems at least partly because NATCA was not meaningfully involved. NextGen's success is highly dependent upon a cooperative environment for the development and implementation of new and pre-existing technology.

5. **Maintenance of Air Traffic Control (ATC) Infrastructure:** NATCA supports adequate funding for the maintenance of our ATC infrastructure. It is imperative that the funding of NextGen does not come at the expense of the NowGen. During the previous Administration, the FAA allowed existing facilities to fall into disrepair while focusing all its energy and budget on NextGen projects. While NATCA supports the modernization of the NAS, we also insist upon the proper maintenance of the system. FAA facilities and ATC infrastructure must be maintained in a manner that ensures the safety and security of FAA personnel and allows aviation safety professionals the tools they need to do their jobs to the high standard of excellence we expect and depend on.

Realignment of Facilities and Services

Realignment – the consolidation, deconsolidation or reorganization of FAA facilities and services – must be implemented only when such changes enhance operational services, provide continued or improved safety, support and facilitate modernization of the NAS, is cost-effective, and the concerns raised by stakeholders are addressed and mitigated. During the past 20 years, the FAA has completed several realignments, including Southern and Northern California, and Potomac in the Washington, D.C. area. NATCA worked cooperatively and collaboratively with the FAA on these efforts because air traffic controllers and other vital stakeholders were included in the planning to help ensure the maintenance of safe and efficient operations, and to express their concerns about controller staffing levels, equipment, training, and redundancy.

During the previous Administration, the FAA began to separate radar and tower air traffic services at several airports across the country without seeking input from stakeholders. The FAA continued to move forward on these initiatives despite serious outstanding concerns over the effect such changes would have on safety and doubts over the operational benefit. Of particular concern in these cases was the staffing shortage, loss of staffing flexibility, barriers to coordination, and the deterioration of controllers' knowledge of operations.

In Colorado, for example, the FAA transferred the radar functions from the Pueblo International Airport to the Denver TRACON in September of 2008, despite a significant shortage of certified controllers in Denver to absorb the new workload. The increase in workload led to a decrease in ATC services for users in the Denver airspace, leading a manager at the Denver En Route Center to advise his employees

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[2] FAA Document, "Controller Staffing at Key California Air Traffic Control Facilities," April 23, 2009, Report Number: AV-2009-047.

in February "that the volume issues created by eight different routes flowing into their airspace routinely creates situations that put their controllers at risk, and they are unable to provide the level of service our customers deserve."[3]

A similar situation has arisen at the Southern California TRACON (SCT), which has seen overtime increase by a staggering 400 percent since the radar services for Palm Springs International Airport were transferred nearly two years ago. According to an April 23, 2009 report by the DOT Inspector General, SCT is not only the busiest TRACON in the world, handling over 2.2 million operations last year, but one of the most critically understaffed. The report states that SCT "has experienced a sharp decline in CPCs over the last five years…" and "…expects to have over 100 controllers in training later this year – which is more than 40 percent of its workforce and could overwhelm SCT's training capacity." NATCA does not believe that these are ideal conditions for absorbing additional radar responsibilities.[4]

At Orlando International Airport (MCO) the split has left the tower with significant levels of inexperience; more than fifty percent of MCO tower controllers have five years of experience or less. When the facility was combined this percentage was reduced to 35 percent, which, while still very high, was less dangerous.

For Miami and Philadelphia, also targeted by the FAA for tower/TRACON separation, NATCA offered an alternative configuration that enabled the facility to simultaneously maintain the advantages of a combined facility while reducing training time. After congressional and public pressure forced the FAA to review this alternative configuration, the FAA ultimately agreed that the proposed configuration would resolve the issues at hand without creating additional safety risks. This sudden course correction revealed the need for a thorough and open selection and review process for FAA facility realignment initiatives.

The FAA conducted a study at Memphis International Airport (MEM) which found that a stand-alone TRACON at MEM would need to be staffed with 43 certified professional controllers (CPCs) while the tower would require 37. A split facility would therefore require a total of 80 CPCs.[5] However the combined facility currently employs only 47 CPCs[6], less than 60 percent of what is necessary to operate a split facility. Unfortunately, the FAA is rushing ahead to complete its split of MEM on June 7, 2009, instead of postponing the move until Congress has completed its work on FAA Reauthorization. In general, split facilities require additional staffing, as there is a reduction in flexibility when the workforce is split.

Additionally, controllers at combined tower/TRACON facilities must learn all aspects of operations required for safe and efficient arrivals and departures. Controllers therefore understand how their actions at one position effect the operations of adjacent positions, enabling them to optimize their performance for both safety and efficiency. When facilities are split this knowledge is lost. Not only will new trainees be denied the opportunity to train on all aspects of the operation, they will not even have the opportunity to observe operations at other sectors.

The FAA has an obligation to involve Members of Congress, the public, airport operators, pilots,

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[3] FAA Memorandum, "Denver Traffic," February 19, 2009.
[4] FAA Document, "Controller Staffing at Key California Air Traffic Control Facilities," April 23, 2009, Report Number: AV-2009-047.
[5] FAA Document "Needs Comparison for 4 Splits: MTP Comparison for the 4 Splits."
[6] Based on Payroll data provided to NATCA from the FAA. This data is current as of the end of FY 2008.

controllers, and other stakeholders in the decision-making, planning, and implementation process of any agency effort that could affect the safety and efficiency of the airspace. Regrettably, the agency has chosen to exclude stakeholders from the process, ignore their concerns, and inform the public only after its decision has been made. This go-it-alone method allows the FAA to remain ignorant of authentic and substantial inadequacies in its planning and has led to the unnecessary and regrettable ATC service denigration in Southern California, Colorado and Orlando.

NATCA supports the inclusion of comprehensive language in FAA Reauthorization to ensure that all FAA realignment initiatives are considered in a collaborative environment and provide a specific operational benefit. We support the establishment of a workgroup of stakeholders to review all realignment proposals prior to the FAA beginning the realignment process, with representatives of all of the affected bargaining units included. In addition, to prevent ambiguity and confusion, realignment must be clearly defined.

Staffing
The State of the Air Traffic Controller Workforce

NATCA and the FAA began contract negotiations in July 2005 over a successor agreement to the 2003 extension to the parties' 1998 collective bargaining agreement. The FAA unilaterally declared an impasse after only nine months of negotiations (in 1989, 1993, and 1998 the parties reached an agreement after an average of 24 months of negotiation). In September of 2006, the FAA did declare an impasse, as NATCA predicted, and unilaterally imposed work and pay rules (IWRs) on the air traffic controller workforce. This action not only violated the FAA's legal obligation to bargain in good faith, but it also violated fundamental principals of fairness. This action, in effect, stripped this union of its collective bargaining rights.

The effects of the imposed work rules have been devastating, not only to the working lives of controllers, but to the safety and integrity of the National Airspace System. Prior to the imposed work rules, NATCA officials warned that imposing work rules would result in a mass exodus of controllers from the FAA workforce and would result in dangerously low staffing levels. NATCA's predictions have proven accurate.

In the two fiscal years following the imposed work rules, 3,356 air traffic controllers left the controller workforce through attrition. Less than two percent had reached the mandatory retirement age of 56. Ninety-eight percent left before mandatory retirement.[7]

The FAA now insists that this exodus had been long anticipated and that it was the result of nothing more than an increase in retirement eligibility. This, however, is not the case. In FY2008 there were 947 retirements and 442 resignations, removals and deaths. Three months prior to the implementation of the IWRs, the FAA predicted there would be 645 retirements and 84 resignations removals and deaths in FY2008,[8] approximately half of the actual attrition level.

In its April 23, 2009 report, the IG stated that "the retirement wave hit record numbers in 2007 and 2008 and is projected to increase through at least 2012…FAA faces an increasing risk of not having enough fully certified controllers in its workforce – with 27 percent of the workforce now in training

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[7] Based on payroll data provided to NATCA from the FAA.
[8] Based on the "A Plan for the Future 2006-2015: The Federal Aviation Administration's 10-Year Strategy for the Air Traffic Control Workforce" June 2006.

compared to 15 percent in 2004."[9]

As NATCA has previously testified, the gap between the FAA's prediction and the actual attrition can be attributed directly to the IWRs and the adverse work environment that those rules created. These rules removed career advancement opportunities, established new pay bands that decreased controller wages by an average of 30 percent, reduced the availability and duration of rest periods, instituted unpopular changes to the annual leave policy, and created an adverse work environment without a viable process to appeal or address managerial abuses of authority.

As a result of the new pay bands, veteran controllers who are eligible to retire have already worked their three highest salary years which will determine their pensions. Combined with the deterioration of working conditions and a more acute fear of errors due to increased workload, all incentives for experienced controllers to stay on board until their mandatory retirement age have been removed.

On the other end of the spectrum, new hires are experiencing the stress and challenge of air traffic control, coupled with poor treatment from management and B-Scale wages, and are choosing to leave the FAA in favor of careers in the private sector.

One former controller summed up the sentiments of many in his resignation letter to the FAA:

> Under the FAA's new imposed work rules I cannot justify staying with the Agency… I do not feel I can continue to work in an environment that is so vindictive, or for an employer who is more worried about the bottom line rather than safety. I cannot justify staying when I can return to a company that knows how and makes it a point to take care of its employees. My take home pay will go up, my quality of life will improve and my workload will decrease.[10]

Fatigue

The staffing shortage has created an environment conducive to high levels of fatigue among air traffic controllers, as controllers are required to work excessive amounts of overtime and work on short-staffed shifts.

At Orlando International Tower and TRACON, for example, controllers were required to work an average of 558 hours of overtime per pay period in CY2008. If divided evenly among the fully certified controllers, each controller would have to work more than 14 additional hours per pay period[11] -- cutting available rest and recovery time almost in half. In its April 23, 2009 report on staffing and training issues at key FAA facilities in California, the DOT Inspector General found that overtime hours at LAX Tower, Southern California TRACON and Northern California TRACON significantly increased over the past two years, by 868, 400 and 120 percent, respectively.[12]

While moderate amounts of overtime can be absorbed into the system without noticeable effects on performance, excessive overtime introduces fatigue into the system. In order to absorb the fatigue-

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[9] FAA Document, "Controller Staffing at Key California Air Traffic Control Facilities," April 23, 2009, Report Number: AV-2009-047.
[10] Employee resigned from Albuquerque ARTCC, in October 2006.
[11] According to NATCA records, there were 38 certified professional controllers (CPCs) at MCO.
[12] FAA Document, "Controller Staffing at Key California Air Traffic Control Facilities," April 23, 2009, Report Number: AV-2009-047.

inducing effects of overtime, an individual controller must have sufficient time for recovery following a long week, while the workforce must be made up of non-fatigued controllers who can provide support during the shifts themselves. With the staffing shortage such as it is, this is impossible. In addition, excessive overtime negatively affects controllers' quality of life and interferes with home life issues, such as childcare, lowering the morale of the workforce.

The alternative to excessive overtime is to work each shift without proper staffing levels. A short-staffed shift often means controllers are afforded fewer opportunities for rest and recovery during the shift itself, being required to work longer on position and given shorter rest periods. Although the FAA had, until recently, limited time-on-position to two hours based on Civil Aeronautics Medical Institute (CAMI) data, this limitation was removed when the imposed work rules were instituted and is currently ignored throughout the system. At Atlanta Tower (ATL), controllers report that they are given exactly 20 minutes of break time, regardless of the length of time on position or the intensity of the traffic they work.

Not only are controllers working longer on position, but the workload during that time has increased as well. On a short-handed shift, managers reduce the number of radar assistants (RAs), increasing the workload for the controller working radar. A controller working without an assistant is responsible not only for communication with aircraft, but also for coordination with other controller positions and facilities, as well as updating flight progress information. Additionally, managers may be forced to combine positions, creating greater complexity by requiring each controller to monitor greater numbers of confliction points and an increased volume of aircraft. One recent internal FAA document reported that as many as 56.3 percent of errors in Eastern En Route facilities occur when there are combined sectors, combined Radar/RA positions, or both.[13]

Inexperience and the Training Backlog

Rather than taking meaningful steps to stem the flow of experienced personnel, the FAA simply began a massive hiring effort. As a result, trainees now make up an extremely high percentage of the workforce. As of the end of FY2008, trainees (excluding CPC-ITS, previously certified controllers training on a new area or facility) accounted for nearly a quarter of the controller workforce (22 percent). This exceeds what the Inspector General of the Department of Transportation recently reported experts to consider the safe upper limit for the system.[14] In many facilities the situation is even worse, with 48 facilities exceeding 35 percent trainees.

Staffing shortages and high trainee ratios have a direct effect on the efficiency of training itself. With so many trainees, and a small and shrinking number of Certified Professional Controllers (CPCs), there are a limited number of controllers capable of providing training, creating a backlog of trainees. At Miami Center (ZMA), for example, trainees have had to wait up to sixteen months from their start date to receive on the job training[15] due to the facility's staffing shortage.

For the first time since the 1980s, trainees are being put directly into some of the most demanding and difficult terminal facilities after completing their classroom training at Oklahoma City. These facilities include Atlanta Hartsfield Jackson Tower (ATL), Atlanta TRACON (A80), Charlotte Tower (CLT),

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[13] Weekly En Route (FY 08) Report May 30, 2008 Eastern Facilities, Federal Aviation Administration.
[14] Statement made by Calvin L. Scovel II, Inspector General, US Department of Transportation before the Senate Committee on Appropriations Subcommittee on Transportation, Housing and Urban Development and Related Agencies. April 17, 2008. "Key Safety and Modernization Challenges Facing the Federal Aviation Administration."
[15] Interview with facility representative from ZMA.

New York TRACON (N90), Dallas-Fort Worth Tower (DFW), San Francisco Tower (SFO), Southern California TRACON (SCT), and Northern California TRACON (NCT). These higher level facilities did not have training curricula designed to teach new hires aircraft types, airline identification and other basic fundamental air traffic control knowledge and skills. In the past, terminal trainees were placed in a lower-level tower to receive initial certification and would transfer to a higher-level facility as their careers and skills advanced. The imposed work rules, however, removed financial incentives for experienced controllers to transfer to more difficult facilities because many would actually take a pay cut with such a transfer. Because retirement eligible controllers are leaving in record numbers, staffing has become critical at these terminal facilities, forcing the Agency to hire trainees with no previous air traffic control experience.

Even as these trainees certify, the air traffic control system is still left staffed by individuals with little to no experience. These new hires are the future of air traffic control and have tremendous potential, but they are denied the opportunity to learn from experienced controllers and are forced to shoulder too much of the air traffic control burden at this early stage of their careers.

Since the implementation of the imposed work rules, the FAA lost more than 46,000 years of air traffic control experience through retirements alone.[16] Nearly one third (27 percent) of air traffic controllers in the FAA have less than five years experience, and 40 air traffic control facilities have more than half of its workforce composed of individuals with less than five years experience.

Establishing Scientific Staffing Standards

In 1998, the FAA and NATCA agreed upon the optimal number of controllers for each facility based on a scientific study that factored in time-and-motion studies, sector complexity and workload, number of operations on the 90th percentile day, and relevant non-operational activities (i.e. training, annual/sick leave). Although the current number of operations is similar to that of 1998,[17] the FAA has abandoned these standards in favor of staffing ranges concocted to conceal the severity of the controller staffing shortage.

As part of its 2007 Controller Workforce Plan, the FAA established staffing ranges for each air traffic control facility, which it modified slightly in 2008. Rather than basing its staffing goals on an accurate and precise scientific assessment of each facility's requirements for safe operation, the FAA has designed these ranges in order to deliberately mislead stakeholders about the staffing crisis currently facing the air traffic control system in this country. They were also designed in order to meet specific budget goals, with regional directors identifying the number of air traffic control positions it could fund at each facility and remain within its fixed budgets.[18] NATCA has reason to believe that the FAA's official staffing ranges were engineered by the Air Traffic Organization (ATO) Finance office, rather than the ATO Safety Office based on a memo written by the workforce staffing manager, Jodi McCarthy[19].

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[16] Calculation assumes 25 years experience for every retiree. Twenty-five years of services is the minimum for retirement eligibility for most air traffic controllers.

[17] According to the FAA's OPSNET database there were 45,394,027 instrument operations in FY2007 compared to 48,985,472 in FY1998 (93%).

[18] Letter from FAA Regional Administrator Christopher R. Blum, Central Region, to Congressman Dennis Moore. February 22, 2006.

[19] Untitled memo from Jodi S. McCarthy, ATO-T Finance, Manager, Workforce Staffing. Received February 28, 2007 on the topic of the Staffing ranges featured in the 2007 Controller Workforce Plan.

FAA attempts to justify this budget-based staffing standard by presenting a pseudo-scientific justification for its staffing numbers in its controller workforce plan. The FAA's reasoning is based on an average of the following:

1. Scientific Data – The FAA does not specify which study this refers to, who conducted it, or whether the study was conducted by an unbiased third party. It has thus far refused to provide NATCA with the details of the study parameters or the results.

2. Current Staffing at Peer Facilities – As the entire system is suffering the same staffing shortage, peer facilities will be equally understaffed. Therefore using these as a basis of comparison yields an anticipated deflated standard.

3. Past Staffing Lows – The FAA misleadingly refers to this comparison as the past year of "highest productivity." However, it goes on to define productivity as the highest number of operations per controller – or the year when the fewest controllers were relied upon to control the largest amount of traffic – without taking into account error rates, delays, or effect on the workforce.

4. Managers' Advice – The FAA misleadingly refers to this as "service unit input." This input did not include input from NATCA and came entirely from within FAA management ranks, who are under pressure to conceal the extent of the staffing shortage and assure Congress and the flying public that all is under control. Therefore this too is likely to yield a dangerously low and inaccurate estimate of needed staffing.

In the summer of 2008 the FAA acted in a way that corroborated NATCA's claims of the invalidity of these staffing ranges by offering significant relocation incentives to controllers to transfer to many facilities throughout the country. These incentives included increases to base pay, bonuses, and relocation payments, and allowed controllers to remain above the new pay bands, contrary to transfer procedure outlined in the imposed work rules. Yet, in every case where such incentives were offered, current controller staffing is *within* or in some cases even *above* the FAA staffing ranges (See Table 1). If FAA's staffing ranges were accepted as valid it would appear as if the Agency is offering lucrative incentives to transfer controllers to well-staffed, even overstaffed, facilities. The truth, however, is that the facilities are indeed severely understaffed.

NATCA fully supports and endorses the language in the FAA Reauthorization Act of 2009 that authorizes a scientific study of the system's air traffic controller staffing to be conducted by an objective third party. This language allows the FAA, Congress and NATCA to truly assess the current risk to the NAS and set benchmarks for resolving the staffing crisis.

Table 1

Facilities with Transfer Incentives Summer 2008[20]				
Facility Name	FAC ID	Total On Board Staffing[21]	FAA Staffing Range[22]	1998 Authorized
Atlanta TRACON	A80	93	86-105	104
Atlanta ATCT	ATL	50	42-52	55
Chicago TRACON	C90	99	82-100	101
Charlotte ATCT	CLT	79	68-84	74
Cincinnati ATCT	CVG	78	59-73	86
Detroit TRACON	D21	48	47-57	71
Spokane ATCT	GEG	30	23-28	32
Greenbay ATCT	GRB	25	20-24	22
Greer ATCT	GSP	21	16-20	18
Houston TRACON	I90	77	69-85	76
Indianapolis ATCT	IND	43	42-52	56
Los Angeles ATCT	LAX	46	39-47	47
Milwaukee ATCT	MKE	48	38-46	51
New York TRACON	N90	223	176-215	270
O'Hare ATCT	ORD	69	56-68	71
Norfolk ATCT	ORF	42	34-42	UNK
Potomac TRACON	PCT	168	151-185	211
Raleigh ATCT	RDU	44	38-46	48
Roanoke ATCT	ROA	26	20-24	30
South Bend IND	SBN	24	20-24	24
Southern California TRACON	SCT	221	194-237	261
Syracuse ATCT	SYR	22	20-24	30
Tampa ATCT	TPA	70	55-67	67

Within FAA ranges	
Above FAA ranges	

Modernization

NATCA supports the modernization of the NAS, and supports adequate funding in an FAA Reauthorization bill to accelerate the implementation of NextGen. Our support of NextGen is not without conditions, however. Thus far, NATCA, like much of the industry community, has been disappointed by the FAA's lack of clear direction for NextGen plans as well as the FAA's continued exclusion of stakeholders from the planning and implementation of new technologies.

As NATCA's Director of Safety and Technology, Dale Wright, described in greater detail in his March 25, 2009 testimony before this subcommittee, there are several outstanding shortcomings with the FAA's methodology and plans that must be addressed at this early stage of the process.

1. **The FAA must collaborate meaningfully with stakeholders** − The inclusion of NATCA is critical to the success of NextGen and all projects relating to modernization, technology and procedures. The Government Accountability Office and the Inspector General of the Transportation Department have both testified before Congress that controller involvement prevents cost overruns and implementation delays. NATCA must be included in all stages, from inception to implementation.
2. **NowGen must not be neglected as we prepare for NextGen** − The current air traffic control

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[20] Transfer incentives identified on the FAA career opportunities website http://jobs.faa.gov/.

[21] Staffing based on payroll information provided to NATCA by the FAA. Total on-board staffing includes both CPCs and Trainees.

[22] Federal Aviation Administration "A Plan for the Future: The Federal Aviation Administration's 10-year Strategy for the Air Traffic Control Workforce 2008-2017"

system has fallen into disrepair. Both the human infrastructure (including staffing levels of air traffic controllers, inspectors, engineers, and other aviation safety professionals) and physical infrastructure (such as poorly-maintained and deteriorating air traffic control facilities) need attention in the near term.

3. **Human factors must be addressed** – Several of NextGen's proposals raise serious concerns regarding human factors, including the increased complexity and safety risk inherent in a best equipped, best-served policy. These issues must be addressed during the development stages in order to avoid delays, cost overruns, and safety failures.

4. **Safety requires redundancy** – NATCA is concerned that the system being proposed by the FAA, which is centralized and lacking a viable backup, is unacceptably vulnerable to attack or natural disaster. Human intervention must not be the first and only layer of redundancy. The FAA must build redundancy into the system in order to ensure that safety is not compromised in the event of an attack, natural disaster, or technological failure.

NextGen will only be successful if it is done with complete participation and agreement from government, labor and industry groups from development through implementation. By collaborating meaningfully with NATCA from the early stages of the project through implementation, the FAA will be able to identify and address potential issues early on in the process, thereby saving time, money, resources and, most importantly, avoiding unnecessary safety risks. Currently, NATCA has been able to identify several serious concerns with the FAA's NextGen initiatives; many of the plans ignore serious human factors implications while others eliminate redundancy necessary for safety. We believe that if given the opportunity to collaborate meaningfully, NATCA would be able to assist the FAA in addressing these and other issues and mitigating the risks associated with them.

During the late 1990s and into the early part of this decade, NATCA had representatives on over 70 national modernization and procedure development task forces.[23] Working collaboratively through these task forces, we were able to complete more than 7,100 projects to install and integrate new facilities, systems and equipment into the NAS. In addition, more than 10,000 hardware and software upgrades were completed.

Under the Bush Administration, the FAA routinely avoided collaboration with NATCA on key issues and initiatives related to modernization and ultimately terminated the successful Controller Liaison Program, under which controllers provided crucial insight and guidance for the development and implementation of some of the most effective technological and procedural advancements, including: Advanced Technologies and Oceanic Procedures (ATOP), Display System Replacement (DSR), User Request Evaluation Tool (URET), Voice Switching, Control System (VSCS), Reduced Vertical Separation Minimum (DRVSM) and Standard Terminal Automation Replacement System (STARS).

NATCA believes that the success of NextGen is dependent upon this level of NATCA involvement. It is our hope once NATCA and the FAA are able reach a mutually acceptable collective bargaining agreement we can again return to an era of cooperation and collaboration that will best serve the needs of the NAS and the flying public.

Status of Near-Term NextGen Collaboration Efforts: ERAM

One of the earliest NextGen projects to be deployed will be the switch from the Host computer system (Host), which currently serves as the technological backbone of en route air traffic control, to En Route

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[23] National Air Traffic Controllers Association, 2002 Air Traffic Modernization Tools.

Automation Modernization (ERAM). Host, which was originally deployed in the 1980s, is the mainframe computer processor which provides data to display terminals at en route air traffic control positions. It is expected to become unsustainable within the next two years, as the availability of new technology has made replacement parts for older computers harder to find. It is also incapable of handling the satellite-based ADS-B system around which NextGen has been developed. In contrast, ERAM is designed to process data from both radar and satellite sources. Rather than rely on a single processor, ERAM will be a network of computers in which the old Host display terminals will be replaced by individual PC processors. Once it is properly implemented, this distributive processing will allow the system to handle a significantly larger volume of data and provide a more seamless backup system than the one currently in place.

While NATCA supports ERAM as a good concept and necessary for the future of air traffic control, confidence is low in the product in its current state. ERAM testing has yielded more than 40,000 problem reports, over 100 of which are considered to be Initial Operating Capability (IOC) critical, meaning they must be resolved prior to deploying the system for use with live traffic. Earlier this year, officials on the ERAM team disclosed that ERAM had yet to remain stable and functional for a full twenty-four hours of continuous operational testing, and when it was field tested earlier this month, the test failed miserably. Additionally, air traffic controllers have come across significant problems with the human interface of ERAM as they found the new formats cumbersome, confusing, and difficult to navigate.

NATCA is very concerned about the risk to the NAS if ERAM is implemented before these problems are comprehensively addressed. Short-term, piecemeal fixes or workarounds are unacceptable. ERAM must be deployed only when the technology is stable and fully functional because failure of ERAM, particularly during peak traffic hours, would create extreme confusion and put the safety of the flying public at risk.

This February, the FAA approached NATCA with an invitation seeking our collaboration in the implementation phase of ERAM. At that time, we enthusiastically embraced the opportunity to substantively contribute to finding solutions cooperatively with the FAA. NATCA responded swiftly by submitting comprehensive proposals regarding the terms of our collaboration to the Agency within nine days of receiving the full ERAM briefing from them. Since then, we have engaged in a constructive negotiations process with the Agency a number of times. Additional negotiations sessions over ERAM are scheduled for May and June. NATCA is committed to continuing to work with the Agency to reach an agreement over ERAM.

NATCA is also looking forward to a change in the Agency's stance on collaborating with our organization. As with all NextGen and modernization efforts, we believe that our expertise would serve the Agency and the flying public well. We remain committed to continuing the effort to reach an agreement with the Agency over the deployment of ERAM.

Airspace Redesign to Alleviate Congestion

In the 1990s, the FAA collaborated with NATCA to address the issue of airspace congestion. Working together, the group identified chokepoints, analyzed weaknesses in the system, and developed a multilateral and comprehensive approach to improving the system. However, during the Bush Administration the FAA abandoned this collaborative approach and instead chose to unilaterally implement piecemeal changes to air traffic control functions and procedures. Recent events pertaining

to airspace redesign for the New York, New Jersey and Philadelphia areas have also shown that the FAA still does not intend to include NATCA in this project, despite significant problems with the roll-out of the redesign's first phase.

Last year, the FAA implemented Phase I of the NY-NJ-PHL airspace redesign effort, which included new dispersal headings for Philadelphia International Airport (PHL) departures that were implemented without input from system users including air traffic controllers. As a result, the new procedures were plagued by serious inadequacies, including a lack of published procedures, incomplete testing, insufficient training for both controllers and pilots, and frequent miscommunication between controllers and pilots.

Now the FAA is ready to begin implementation of Phase II, which will involve the terminalization of airspace currently controlled by Boston Air Route Traffic Control Center (ARTCC) and New York ARTCC. This shift is highly complex and will require changes not only to procedures but also to technology, personnel, facilities and training. Yet it appears that the FAA has not learned its lesson from Phase I and, despite outreach attempts from NATCA, the FAA has refused to collaborate with the frontline controller workforce.

History has shown us that successful modernization efforts require the input and involvement of all stakeholders, and airspace redesign is no exception. NATCA believes that without the collaboration of the air traffic controller workforce in developing and implementing the airspace redesign, the FAA's plans will be expensive, unsafe, inefficient, and unlikely to significantly improve the capacity of the New York area airspace.

This is a belief not limited to air traffic controllers or unions. Jim May, President and CEO of the Air Transport Association (ATA) spoke about the importance of "controller acceptance of implementation and new procedures" at a hearing before the House Transportation and Infrastructure Subcommittee on Aviation. Of airspace redesign, specifically, he said, "you've got to bring Pat [Forrey, President of NATCA] and his guys into the process…We can't do New York without his folks."[24]

With NATCA's help, the FAA may be able to avoid the shortcomings that were present during Phase I of airspace redesign and, by so doing, may be able to transition more smoothly to the new procedures and reduce the risk to the flying public during the transition.

Maintenance of Air Traffic Control Infrastructure

While NATCA supports the upgrade of air traffic control technology, it is imperative that the funding of NextGen not come at the expense of NowGen. During the previous Administration, FAA facilities were allowed to fall into disrepair while the FAA pursued its ill-defined and still-unrealized modernization goals.

According to a recent report by the Department of Transportation Inspector General, 59 percent of FAA facilities are beyond their 30-year design life. All En Route Centers are over 40 years old and falling into disrepair. Certain terminal facilities are also falling into unacceptable levels of disrepair – putting the health and safety of FAA employees at risk. For example, inspectors have confirmed the presence at Detroit Metropolitan Airport Tower and TRACON of stachybotrys, a toxic form of mold believed to be

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[24] Jim May, President and CEO, Air Transport Association. Testimony before House Transportation and Infrastructure Committee, Subcommittee on Aviation. March 18, 2008 hearing on "ATC Modernization and NextGen: Near-Term Achievable Goals."

a contributory factor in health problems experienced by controllers at the facility (including cases of occupational asthma as well as seven cancer diagnoses during the past six years.)

This level of deterioration is unacceptable. The FAA must repair and maintain existing air traffic control facilities in a manner that ensures the safety and security of FAA personnel and allows aviation safety professionals the tools they need to do their jobs to the high standard of excellence we expect and depend on.

Conclusion

NATCA urges swift passage of an FAA Reauthorization bill in order to ensure the short and long-term health, growth, safety and efficiency of the National Airspace System.

In NextGen, the FAA has undertaken a large-scale and long-term research and development project to overhaul the technological infrastructure of the air traffic control system. This ambitious undertaking has serious implications for the future of the National Airspace System and should therefore include the meaningful participation of all NAS stakeholders, most notably NATCA. Collaboration with NATCA by the FAA is predicated on the resolution of our current contract dispute as well as a fix to the collective bargaining process to ensure fairness in future negotiations.

NATCA supports the FAA's modernization efforts and is eager to be a part of the team developing and planning the technology that will bring us into the next generation of air traffic control. We look forward to working with the FAA to help them address the serious outstanding issues including human factors, equipage and redundancy concerns. It is essential for us to be included as partners in this ongoing modernization effort.