Statement of John S. Carr
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Before the
Committee on Commerce, Science, and Transportation
Subcommittee on Aviation
United States Senate
November 17, 2005

"AVIATION SAFETY"

Good morning Chairman Burns, Senator Rockefeller, and members of the Aviation Subcommittee.

I am John Carr**,** President of the National Air Traffic Controllers Association the exclusive representative of over 14,000 air traffic controllers serving the FAA, Department of Defense and private sector. In addition, NATCA represents approximately 1,200 FAA engineers, over 600 traffic management coordinators, 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 members have a sacred trust: to ensure the smooth and efficient performance of the vast network that makes up America's National Airspace System.

On their behalf, I am pleased and grateful to have this opportunity today to discuss aviation safety and the looming threat of runway incursions.

Runway Incursions:

Fifteen years ago the National Transportation Safety Board adopted its initial "Most Wanted" List of Transportation Safety Improvements. The list specifies the "critical changes needed to reduce transportation accidents and save lives." Stopping runway incursions has been a continuing priority on the list. Unfortunately, the NTSB currently

rates the FAA with an "Unacceptable Response" when it comes to runway incursions in its most recent release.

For several years now, America's air traffic controllers, and indeed many other aviation professionals, have become increasingly concerned with a growing threat to air safety in this country. Consider the symptoms: Since October of last year, there have been 16 separate runway incursion incidents at Boston's Logan airport alone. In the past 6 months we have seen a rash of incidents, including a number of terrifying near misses at JFK Airport in New York, Newark International Airport, Tampa International Airport, and other major airports.

America's air traffic controllers see these not as isolated incidents, but as serious symptoms of fundamental problems that are threatening aircraft and passenger safety. And they must be addressed.

NATCA's fundamental concerns are as follows:

- The FAA has failed to move quickly enough or decisively enough to install the most modern equipment at all our nation's airports;
- The FAA is facing a staffing shortage that is forcing fewer and fewer controllers to guide more and more planes–both in the air and on the ground–creating a greatly reduced margin for error.
- The FAA terminated its long standing collaborative partnership with air traffic controllers.

AMASS and ASDE-X:

The current technology in use at many of America's airports suffers from serious deficiencies. This includes the most recently deployed technology, the Airport Movement Area Safety System (AMASS), a ground movement safety system.

The FAA deployed AMASS between 2001 and 2003 to 34 different airports. The system has several shortcomings, the most serious of which is the fact that AMASS has to be

placed in a “limited mode” during periods of precipitation, meaning the safety alerting function is disabled. Therefore, during the worst possible weather conditions - snow, rain, fog - the very times a safety alerting system is needed most, this critical safety layer is missing from our airports.

The problems associated with AMASS are not just theoretical, they are all too real, posing serious threats to our busiest airports. Recently at Newark airport a commercial plane was landing on a runway traveling at around 120 miles per hour. At the same time, a smaller jet crossed the very same runway; the two planes missed each other by just 300 feet. Taped communications from the FAA obtained by local news station WABC have revealed how AMASS failed to alert the control tower of the impending collision.

In July at JFK a Boeing 767 mistook its instructions from the control tower and crossed the runway into the path of a cargo plane that was taking off. Luckily, the cargo plane was able to pull up just in time to clear the jet by a mere 75 feet. In this case, AMASS failed to alert because it had been switched off: it was raining and the system had been disabled.

A month earlier at Boston Logan’s airport, the system also failed – it did not alert controllers to the fact that two commercial jets were heading toward each other. As Mark Rosenker, Acting NTSB Chair recently told a WABC reporter, the planes were "Seconds and hundreds of feet" from a catastrophic collision.

In order to address the troubling gap in our technological capabilities, NATCA has spent the last several years advocating vigorously for the rapid deployment of the Airport Surface Detection Equipment-Model X (ASDE-X) system. The ASDE-X program was originally scheduled to include 25 airports with a completion date of 2007, but due to policy shifts and budget cuts in FY2004 and FY2005, as well as an increase in the number of airports (30+) slated to receive ASDE-X, only 15 facilities will have received ASDE-X by 2007. The Agency is now estimating that the project will be completed by FY2011.

This past Tuesday, at the NTSB "Most Wanted" hearing, NTSB Board Member Debbie Hersman addressed the impact delayed deployment has on runway incursion: "It is a concern when the FAA pushes the schedule back. The FAA is not addressing our concerns."

The critical nature of the situation and the desperate need for this technology was highlighted in the NTSB's Safety Recommendation A-00-66, published in July 2000, which asks the FAA to "require, at all airports with scheduled passenger service, a ground movement safety system that will prevent runway incursions." In stark contrast to this NTSB recommendation, many airports in the country currently are not equipped by the FAA with any type of a ground movement safety system and most are not scheduled to receive any ground safety technology.

In September 2005, the FAA's Joint Resource Council (JRC) met to determine a new ASDE-X Rebaseline Request. The recommendation to the FAA Administrator was to reduce the number of facilities receiving ASDE-X and to terminate the deployment of ASDE-X at 15 of the original 25 facilities scheduled to receive the system.

The FAA's new plan is to take these 15 systems and upgrade facilities presently equipped with AMASS (Airport Movement Area Safety System)/ASDE-3 systems to a new ASDE-3X system. As a result of this decision we are seeing increases in the estimated cost of the program, as well as a prolonged deployment schedule from 2007 to 2011.

The primary safety concern with this policy decision is that it leaves fifteen airports originally scheduled to receive an ASDE-X system without any ground radar surveillance system. The JRC's decision clearly cuts against the NTSB recommendation of, "continuing to install ASDE-X at airports that currently have no ground movement safety systems before revisiting all existing AMASS sites to upgrade them to ASDE-X standard appears to be a reasonable method of maximizing coverage."

Likewise there is no guarantee that adding ASDE-X safety logic to an existing ASDE-3 system will work as envisioned. Louisville Standiford Tower tested the ASDE-3X system during the past year without success, and the FAA has terminated testing at the facility at this time, reverting back to the original AMASS system.

The JRC noted that due to a $31.1 million budget reduction between 2001 and 2005, along with increased costs and additional software development needed to upgrade AMASS, the new ASDE-3X project will not be completed until 2011. While NATCA agrees there is a need to upgrade the ASDE-3/AMASS system, we believe it should not come at the ultimate expense of the previously scheduled ASDE-X airports.

Additionally, the NTSB Recommendation states that the "new ground system should provide a direct warning capability to flight crews." ASDE-X has the capability to provide these direct warnings.

In addition to radar, ASDE-X uses a multilateration system which serves as an enhancement to the surface radar by using the aircraft's own electronic signature to confirm radar targets. This system has many advantages over radar alone, as it can plot an aircraft's position more precisely than radar and it is not subject to the interference caused by precipitation. This allows the ASDE-X system to continue to operate during periods of adverse weather conditions.

Controller Staffing:

Runway incursions do not only occur because of the shortcomings of equipment or technological failures. America's aviation system depends on the skill, dedication and hard work of the men and women of America's air traffic control. As a result, a vital component of ensuring safety – and in this case avoiding runway incursions – is ensuring appropriate staffing of air traffic controllers to maintain the safety of the system.

In an environment of record levels of air traffic, simple common sense dictates that the effect of fewer air traffic controllers guiding more planes will result in increasing stress on the system. Unfortunately this is not just a theoretic principle but a pressing reality: As we meet, there is a developing crisis in understaffed air traffic control facilities throughout the United States, and direct lines can be drawn between shortages of air traffic controllers at certain facilities and some of the recent runway incursions we have been witnessing.

Following the 1981 strike in the United States, a new wave of air traffic controllers was hired. These men and women are now approaching retirement – a fact that anyone with a calendar can anticipate. But the FAA has dragged its feet on hiring adequate replacements. Today, there are 1,000 fewer controllers than there were two years ago. The FAA hired only 13 new controllers in all of FY2004 and saw another net loss off controllers in FY2005. The Agency has stated that it plans on hiring 12,500 controllers, but that will take a decade, meaning that even in the best case scenario, the system will be left woefully understaffed for the foreseeable future. Additionally, the historical pass-fail rate of trainees in the system is about 40 percent. Even if the FAA were able to double its current rate of training success, it would not have enough qualified controllers to address the impending retirement tsunami.

It is critical to note that this staffing shortage has been looming and was publicly forecast for years before the FAA took action. The GAO concluded in its June 2002 report, "Air Traffic Control: FAA Needs to Better Prepare for Impending Wave of Controller Attrition," that the FAA had not done enough to plan for the impending staffing crisis and needed to do so as soon as possible. The report stated, (the) "FAA has not developed such a comprehensive workforce strategy to address all of the challenges it faces in responding to its impending needs for thousands of new air traffic controllers, thus increasing the risk that FAA will not have enough qualified controllers when necessary to meet air traffic demands." GAO concluded that it "believes that sound workforce planning demands that FAA develop a strategic vision that includes a workable, long-term plan to meet staffing needs." But the FAA failed to listen: it took another two years before the FAA admitted

the problem, publishing their own report stating the same conclusions as the GAO, and even longer for the agency to take action.

The result is that in facility after facility, at airport after airport, staffing has been cut to dangerously low levels, putting an increasing strain on the diminishing number of air traffic controllers, and we believe, exacerbating a portion of the recent runway incursions we have witnessed.

A number of recent examples from the nation's busiest airports make the link between staffing and runway incursions quite clear.

We believe that an important reason for the incursions at Boston's Logan Airport is the FAA's failure to adequately staff the facility. The FAA has authorized 38 certified professional controllers to staff the facility at Boston Logan Air Traffic Control Tower. However, current levels fall far short with only 31 certified professional controllers and 2 trainees on board and with the potential loss of 20% due to retirements in 2006.

In Los Angeles a similar problem exists. On a clear August afternoon in 2004 an Asiana airliner was landing when the pilot saw the Southwest jet swing onto the same runway. He broke off his landing and pulled up, coming within about 200 feet of the other jet. The National Transportation Safety Board's investigation was quite clear about the cause of the incident: short staffing at the facility and an over-worked controller being asked to handle too much. Staffing at the facility was at about half of its capacity when the near-catastrophe occurred. Unfortunately, that chronic understaffing continues at that facility.

Just last month, the FAA's western pacific regional counsel denied two employees from giving depositions in court citing "The Airport Traffic Control Tower at Los Angeles is severely understaffed."

FAA Terminates Collaborative Partnership with Controllers:

ASDE-X technology is a good example of what happens when the FAA includes air traffic controller input early on and throughout the approval process. The GAO cited the success of this past practice of FAA collaboration with controllers in a November 2004 report: (the) "FAA faced fewer schedule and cost problems in approving ASDE-X for use in the national airspace system. This was, in part, because FAA included stakeholders early and throughout the approval process. The ASDE-X program office brought in stakeholders, including maintenance technicians and air traffic controllers, during the concept of the operations phase and continued to involve them during the requirements setting, design and development, and test and evaluation."

"By obtaining the input of controllers and technicians at the beginning of the approval process, FAA was able to ensure that ASDE-X requirements were set at appropriate levels and not over specified or underspecified."

Unfortunately, and contrary to the GAO's analysis, on July 29, 2005, the FAA unilaterally ended all collaboration between the Agency and air traffic controllers by terminating the liaison partnership between air traffic controllers and the FAA.

This deliberate policy shift away from controller input stands in sharp contrast to the FAA's own report on Investment Analysis (August 15, 2000) on ASDE-X. The report stated that having a cooperative work environment with controllers was critical to the Runway Incursion Reduction Program.

Mismanagement of ATC Modernization:

Air traffic is forecast to triple in the next 15 years, add in an expected increase in regional jet and very light jet operations at small and midsized airports, and it becomes apparent that now is the time to start the installation of ASDE-X equipment. Not just at the nation's largest airports but at the airports no longer scheduled to receive ASDE-X as

well, such as Oakland, Sacramento, San Antonio, Tampa, and Columbus. Unfortunately, the FAA has consistently mismanaged ATC modernization programs. . One need only look at the STARS program as an example.

Originally STARS (Standard Terminal Automation Replacement System), was to be deployed to 172 facilities by 2005, but the FAA revised its numbers and by the end of 2004, they reduced the number of facilities scheduled to receive STARS to forty-seven. Last October the Department of Transportation Inspector General reported that STARS had a cost growth of 80% at almost $1.7 billion and a final implementation of 2012. A similar pattern of delay, reduction of deployment, and cost overruns has also occurred with the deployment of ASR-11 (Airport Surveillance Radar Model-11).

ASR-11 was scheduled to replace aging analog radars at 111 facilities. However the FAA's Joint Resource Council recently reduced the number of ASR-11 deployments to 66 FAA sites plus 3 Department of Defense sites and one HAATS funded site.

The original deployment plan for the ASR-11 radar system included a scheduled completion date of the end of 2005 at an initial cost of $743.3 million. As of June 2005 the current schedule of deployment has been extended to 2013 while the current cost is around $916 million. The FAA has also decreased the original number of ASR-11 sites from 111 to 66, while the cost ($696.50 M) is virtually unchanged from the original estimate there has been more than a 40% reduction in planned radar sites. According to the JRC, the increased cost is mostly due to budget deferrals, update requirements, safety enhancements to equipment, along with cost estimating and risk.

The ASDE-X program is now marching down the familiar road the FAA has taken in previous modernization programs. Chronic mismanagement has prevented both the timely deployment of ~~this~~ essential equipment as well as severely reduced the number of airports originally scheduled to receive these modernization tools. NATCA considers ASDE-X to be an excellent tool that can aid pilot and controllers in the prevention of runway incursions. We believe this equipment will take us well into the 21st century,

helping maintain the United States air traffic control system as the safest in the world. We also believe the FAA should reflect the same high level of concern for preventing runway incursions as the NTSB. Therefore we can only consider the FAA's $20 million reduced budget request for fiscal 2006 ASDE-X funding to reflect an almost callous disregard for improving the safety of the United States air traffic control system.

NECESSARY STEPS

The National Air Traffic Controllers Association urges consideration of the following:

- Deploy for safety: Considering the recent increases in the number of runway incursions around the country, why is the FAA only installing critical ground radar equipment at 16 airports despite its earlier commitments to install the equipment in more than twice as many places?
    - NATCA does not believe the country should have a two-tiered system of safety where some airports deserve safe runways while others don't. Furthermore, NATCA believes that the current FAA timeline of six years to install this technology is too long and calls on the Agency to expedite the timeline. This system could go a long way toward reducing runway incursions and making our airports safer.

- Staffing for safety: Chronic understaffing at our nation's air traffic control facilities is another key contributing factor to the other cause of runway incursions. The FAA is not adequately staffing air traffic facilities across the country, even as air traffic increases to record levels. There are 1,000 fewer controllers today than there were two years ago. The FAA is losing more controllers than it is hiring and training, putting the Agency in a continuing net-loss staffing situation. The Agency must adequately staff the air traffic control system.

- Collaboration for safety: Why is the FAA refusing to discuss critical safety issues in contract negotiations with controllers? Though air traffic controllers know the aviation system best, FAA management just recently refused to discuss a range of critical safety issues during contract negotiations.

Mr. Chairman, we look forward to working with you and this Subcommittee to ensure that our air traffic control system remains the safest, most efficient system in the world.